



**DAN JOHNSON**  
DIRECTOR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DEVELOPMENT SERVICES BUILDING

150 BEAVERCREEK ROAD OREGON CITY, OR 97045

Board of County Commissioners  
Clackamas County

Members of the Board:

Approval of a Contract with Granite Construction Company, for the Sunnyside Road Paving Project. Total Contract Value \$5,566,566.00. Funding through HB2017 Funds and System Development Charges (SDC). County General Funds are not involved.

<b>Purpose/Outcome</b>	This contract will resurface 2.1 miles of road. This contract will resurface a portion of SE Sunnyside Road between SE 122nd Avenue and SE162nd Avenue asphalt.
<b>Dollar Amount and Fiscal Impact</b>	\$5,566,566.00
<b>Funding Source</b>	HB 2017 and System Development Charges (SDC)
<b>Duration</b>	Contract Execution through December 31, 2022.
<b>Previous Board Action/Review</b>	6/28/22: Discussion item at issues
<b>Strategic Plan Alignment</b>	This project will provide strong infrastructure and ensure safe communities by maintaining the County's existing road infrastructure.
<b>Counsel Review</b>	Counsel Date: June 13, 2022 Counsel Initials: AN
<b>Procurement Review</b>	Was this project processed through Procurement? Yes.
<b>Contact Person</b>	Jon Sparks, Engineering Technician IV 503-964-4522
<b>Contract No.</b>	6563

**Background:**

This contract consists of 3 separate projects; Sunnyside Road resurfacing from 122<sup>nd</sup> Ave to 132<sup>nd</sup> Ave, Sunnyside Road resurfacing from 132<sup>nd</sup> Ave to 162<sup>nd</sup> Ave, and the Sunnyside Road eastbound Turn Lane extension at 169<sup>th</sup> Ave. These projects were combined into one so that the travelling public is not inconvenienced for multiple consecutive years and for economic savings. The 122<sup>nd</sup> Ave to 132<sup>nd</sup> Ave and the 132<sup>nd</sup> Ave to 162<sup>nd</sup> Ave projects combined consists of resurfacing approximately 2.1 miles of road with asphalt on SE Sunnyside Road using HB2017 funds. The turn lane project will reconstruct the center lane/median and extend the left turn pocket by approximately 210' on Sunnyside Road located west of SE 169<sup>th</sup> Avenue using SDC funds.

**Procurement Process:**

This project was advertised in accordance with ORS and LCRB Rules on April 12, 2022. Bids were publicly opened on May 10, 2022. The County received two (2) bids: Granite Construction Company, \$5,566,566.00 and Brix Paving, \$6,407,322.50. After review of the bids, Granite Construction Company was determined to be the lowest responsive bidder.

**Recommendation:**

Staff respectfully recommends that the Board approve and sign this public improvements contract with Granite Construction Company, for the Sunnyside Road Area Paving Project.

Sincerely,

*Jon Sparks*

Jon Sparks Project Manager

Placed on the BCC Agenda \_\_\_\_\_ by Procurement



**CLACKAMAS COUNTY**  
**PUBLIC IMPROVEMENT CONTRACT**  
Contract #6563

This Public Improvement Contract (the "Contract"), is made by and between the Clackamas County, a political subdivision of the State of Oregon, hereinafter called "Owner," and **Granite Construction Company**, hereinafter called the "Contractor" (collectively the "Parties"), shall become effective on the date this Contract has been signed by all the Parties and all County approvals have been obtained, whichever is later.

**Project Name: # 2022-32 Sunnyside Road Area Paving Project**

**1. Contract Price, Contract Documents and Work.**

The Contractor, in consideration of the sum of **Five Million Five Hundred Sixty-Six Thousand Five Hundred Sixty-Six Dollars (\$5,566,566.00)** (the "Contract Price"), to be paid to the Contractor by Owner in the manner and at the time hereinafter provided, and subject to the terms and conditions provided for in the Instructions to Bidders and other Contract Documents (as defined in the project specifications) referenced within the Instructions to Bidders), all of which are incorporated herein by reference, hereby agrees to perform all Work described and reasonably inferred from the Contract Documents. The Contract Price is the amount contemplated by the Base Bid, as indicated in the accepted Bid.

Also, the following documents are incorporated by reference in this Contract and made a part hereof:

- Notice of Contract Opportunity
- Supplemental Instructions to Bidders
- Bid Form
- Performance Bond and Payment Bond
- Payroll and Certified Statement Form
- Addenda 1, 2, 3
- Instructions to Bidders
- Bid Bond
- Public Improvement Contract Form
- Prevailing Wage Rates
- Plans, Specifications and Drawings

The Plans, Specifications and Drawings expressly incorporated by reference into this Contract includes, but is not limited to, the Special Provisions for Sunnyside Rd Paving Project- 122<sup>nd</sup> Ave to 162<sup>nd</sup> Ave (the "Specifications"), together with the provisions of the Oregon Standard Specifications for Construction (2021) referenced therein.

The Contractor shall comply with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract and failure to comply is a material breach that entitles County to exercise any rights and remedies available under this Contract including, but not limited to, termination for default

**2. Representatives.**

Contractor has named Paul Harding as its Authorized Representative to act on its behalf. Owner designates, or shall designate, its Authorized Representative as indicted below (check one):

Unless otherwise specified in the Contract Documents, the Owner designates Vince Hall as its Authorized Representative in the administration of this Contract. The above-named individual shall be the initial point of contact for matters related to Contract performance, payment, authorization, and to carry out the responsibilities of the Owner.

Name of Owner's Authorized Representative shall be submitted by Owner in a separate writing.

### 3. Key Persons.

The Contractor's personnel identified below shall be considered Key Persons and shall not be replaced during the project without the written permission of Owner, which shall not be unreasonably withheld. If the Contractor intends to substitute personnel, a request must be given to Owner at least 30 days prior to the intended time of substitution. When replacements have been approved by Owner, the Contractor shall provide a transition period of at least 10 working days during which the original and replacement personnel shall be working on the project concurrently. Once a replacement for any of these staff members is authorized, further replacement shall not occur without the written permission of Owner. The Contractor's project staff shall consist of the following personnel:

**Project Executive:** Paul Harding shall be the Contractor's project executive, and will provide oversight and guidance throughout the project term.

**Project Manager:** Erik Green shall be the Contractor's project manager and will participate in all meetings throughout the project term.

**Job Superintendent:** Rob Grundy shall be the Contractor's on-site job superintendent throughout the project term.

**Project Engineer:** Mady Coe shall be the Contractor's project engineer, providing assistance to the project manager, and subcontractor and supplier coordination throughout the project term.

### 4. Contract Dates.

COMMENCEMENT DATE: Upon Issuance of Notice to Proceed ("NTP")

SUBSTANTIAL COMPLETION DATE: August 31, 2022

FINAL COMPLETION DATE: December 31, 2022

Time is of the essence for this Contract. It is imperative that the Work in this Contract reach Substantial Completion and Final Completion by the above specified dates.

### 5. Insurance Certificates and Required Performance and Payment Bonds.

5.1 In accordance with Section 00170.70 of the Specifications, Contractor shall furnish proof of the required insurance naming Clackamas County as an additional insured. Insurance certificates may be returned with the signed Contract or may be emailed to [Procurement@clackamas.us](mailto:Procurement@clackamas.us).

5.2 Primary Coverage: Insurance carried by Contractor under the Contract shall be the primary coverage. The coverages indicated are minimums unless otherwise specified in the Contract Documents.

5.2.1 Workers' Compensation: All employers, including Contractor, that employ subject workers who work under the Contract in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. This shall include Employer's Liability Insurance with coverage limits of not less than the minimum amount required by statute for each accident. Contractors who perform the Work without the assistance or labor of any employee need not obtain such coverage if the Contractor certifies so in writing. Contractor shall ensure that each of its Subcontractors complies with these requirements. The Contractor shall require proof of such Workers' Compensation coverage by receiving and keeping on file a certificate of insurance from each Subcontractor or anyone else directly employed by either the Contractor or its Subcontractors.

5.3 Builder's Risk Insurance: During the term of the Contract, for new construction the Contractor shall obtain and keep in effect Builder's Risk insurance on an all risk forms, including earthquake and flood, for an amount equal to the full amount of the Contract, plus any changes in values due to modifications, Change Orders and loss of materials added. Such Builder's Risk shall include, in addition to earthquake and flood, theft, vandalism, mischief, collapse, transit, debris removal, and architect's fees "soft costs" associated with delay of Project due to insured peril. Any deductible shall not exceed \$50,000 for each loss, except the earthquake and flood deductible which shall not exceed 2 percent of each loss or \$50,000, whichever is greater. The deductible shall be paid by Contractor. The policy will include as loss payees Owner, the Contractor and its Subcontractors as their interests may appear.

5.4 Builder's Risk Installation Floater: For Work other than new construction, Contractor shall obtain and keep in effect during the term of the Contract, a Builder's Risk Installation Floater for coverage of the Contractor's labor, materials and equipment to be used for completion of the Work performed under the Contract. The minimum amount of coverage to be carried shall be equal to the full amount of the Contract. The policy will include as loss payees Owner, the Contractor and its Subcontractors as their interests may appear. Owner may waive this requirement at its sole and absolute discretion.

5.4.1 Such insurance shall be maintained until Owner has occupied the facility.

5.4.2 A loss insured under the Builder's Risk insurance shall be adjusted by the Owner and made payable to the Owner as loss payee. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner. The Owner shall have power to adjust and settle a loss with insurers.

5.5 "Tail" Coverage: If any of the required liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of the Contract for a duration of 36 months or the maximum time period available in the marketplace if less than 36 months. Contractor shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for 36 months following Final Completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of the Contract. Owner's receipt of the policy endorsement evidencing such coverage shall be a condition precedent to Owner's obligation to make final payment and to Owner's final acceptance of Work or services and related warranty (if any).

5.6 Notice of Cancellation or Change: If the Contractor receives a non-renewal or cancellation notice from an insurance carrier affording coverage required herein, or receives notice that coverage no longer complies with the insurance requirements herein, Contractor agrees to notify Owner by fax within five (5) business days with a copy of the non-renewal or cancellation notice, or written specifics as to which coverage is no longer in compliance. When notified by Owner, the Contractor agrees to stop Work pursuant to the Contract at Contractor's expense, unless all required insurance remain in effect. Any failure to comply with the reporting provisions of this insurance, except for the potential exhaustion of aggregate limits, shall not affect the coverages provided to the Owner and its institutions, divisions, officers, and employees.

Owner shall have the right, but not the obligation, of prohibiting Contractor from entering the Project Site until a new certificate(s) of insurance is provided to Owner evidencing the replacement coverage. The Contractor agrees that Owner reserves the right to withhold payment to Contractor until evidence of reinstated or replacement coverage is provided to Owner.

5.7 Before execution of the Contract, the Contractor shall file with the Construction Contractors Board, and maintain in full force and effect, the separate public works bond required by Oregon Revised Statutes, Chapter 279C.830 and 279C.836, unless otherwise exempt under those provisions. The Contractor shall also include in every subcontract a provision requiring the Subcontractor to have a public works bond filed with the Construction Contractors Board before starting Work, unless otherwise exempt, and shall verify that the Subcontractor has filed a public works bond before permitting any Subcontractor to start Work.

5.8 When the Contract Price is \$50,000 or more, the Contractor shall furnish and maintain in effect at all times during the Contract Period a performance bond in a sum equal to the Contract Price and a separate payment bond also in a sum equal to the Contract Price. Contractor shall furnish such bonds even if the Contract Price is less than the above thresholds if otherwise required by the Contract Documents.

5.9 Bond forms furnished by the Owner and notarized by Contractor's surety company authorized to do business in Oregon are the only acceptable forms of performance and payment security, unless otherwise specified in the Contract Documents.

## **6. Responsibility for Damages/Indemnity.**

6.1 Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay that may be caused by, or result from, the carrying out of the Work to be done under the Contract, or from any act, omission or neglect of the Contractor, its Subcontractors, employees, guests, visitors, invitees and agents.

6.2 To the fullest extent permitted by law, Contractor shall indemnify, defend (with counsel approved by Owner) and hold harmless the Owner and its elected officials, officers, directors, agents, and employees (collectively "Indemnitees") from and against all liabilities, damages, losses, claims, expenses, demands and actions of any nature whatsoever which arise out of, result from or are related to: (a) any damage, injury, loss, expense, inconvenience or delay described in this Section 6.1; (b) any accident or occurrence which happens or is alleged to have happened in or about the Project Site or any place where the Work is being performed, or in the vicinity of either, at any time prior to the time the Work is fully completed in all respects; (c) any failure of the Contractor to observe or perform any duty or obligation under the Contract Documents which is to be observed or performed by the Contractor, or any breach of any agreement, representation or warranty of the Contractor contained in the Contract Documents or in any subcontract; (d) the negligent acts or omissions of the Contractor, a Subcontractor or anyone directly or indirectly employed by them or any one of them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder (except to the extent otherwise void under ORS 30.140); and (e) any lien filed upon the Project or bond claim in connection with the Work. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 6.2.

6.3 In claims against any person or entity indemnified under Section 6.2 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 6.2 shall not be limited on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

## **7. Tax Compliance.**

Contractor must, throughout the duration of this Contract and any extensions, comply with all tax laws of this state and all applicable tax laws of any political subdivision of this state. Any violation of this section shall constitute a material breach of this Contract. Further, any violation of Contractor's warranty in this Contract

that Contractor has complied with the tax laws of this state and the applicable tax laws of any political subdivision of this state also shall constitute a material breach of this Contract. Any violation shall entitle County to terminate this Contract, to pursue and recover any and all damages that arise from the breach and the termination of this Contract, and to pursue any or all of the remedies available under this Contract, at law, or in equity, including but not limited to: (A) Termination of this Contract, in whole or in part; (B) Exercise of the right of setoff, and withholding of amounts otherwise due and owing to Contractor, in an amount equal to County's setoff right, without penalty; and (C) Initiation of an action or proceeding for damages, specific performance, declaratory or injunctive relief. County shall be entitled to recover any and all damages suffered as the result of Contractor's breach of this Contract, including but not limited to direct, indirect, incidental and consequential damages, costs of cure, and costs incurred in securing replacement performance. These remedies are cumulative to the extent the remedies are not inconsistent, and County may pursue any remedy or remedies singly, collectively, successively, or in any order whatsoever.

The Contractor represents and warrants that, for a period of no fewer than six calendar years preceding the effective date of this Contract, has faithfully complied with: (A) All tax laws of this state, including but not limited to ORS 305.620 and ORS chapters 316, 317, and 318; (B) Any tax provisions imposed by a political subdivision of this state that applied to Contractor, to Contractor's property, operations, receipts, or income, or to Contractor's performance of or compensation for any work performed by Contractor; (C) Any tax provisions imposed by a political subdivision of this state that applied to Contractor, or to goods, services, or property, whether tangible or intangible, provided by Contractor; and (D) Any rules, regulations, charter provisions, or ordinances that implemented or enforced any of the foregoing tax laws or provisions.

#### **8. Confidential Information.**

Contractor acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Contract, be exposed to or acquire information that is confidential to Owner. Any and all information of any form obtained by Contractor or its employees or agents in the performance of this Contract shall be deemed confidential information of Owner ("Confidential Information"). Contractor agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Contractor uses in maintaining the confidentiality of its own confidential information, and not to copy, reproduce, sell, assign, license, market, transfer or otherwise dispose of, give, or disclose Confidential Information to third parties or use Confidential Information for any purpose unless specifically authorized in writing under this Contract.

#### **9. Counterparts.**

This Contract may be executed in several counterparts, all of which when taken together shall constitute an agreement binding on all Parties, notwithstanding that all Parties are not signatories to the same counterpart. Each copy of the Contract so executed shall constitute an original.

#### **10. Integration.**

All provisions of state law required to be part of this Contract, whether listed in the General or Special Conditions or otherwise, are hereby integrated and adopted herein. Contractor acknowledges the obligations thereunder and that failure to comply with such terms is a material breach of this Contract.

The Contract Documents constitute the entire agreement between the parties. There are no other understandings, agreements or representations, oral or written, not specified herein regarding this Contract. Contractor, by the signature below of its authorized representative, hereby acknowledges that it has read this Contract, understands it, and agrees to be bound by its terms and conditions.

#### **11. Liquidated Damages**

The Contractor acknowledges that the Owner will sustain damages as a result of the Contractor's failure to substantially complete the Project in accordance with the Contract Documents. These damages may include,

but are not limited to delays in completion, use of the Project, and costs associated with Contract administration and use of temporary facilities.

11.1 Liquidated Damages shall be as follows if the actual Substantial Completion exceeds the required date of Substantial Completion:

11.1.1. \$ 1,000.00 per Calendar day past the Substantial Completion date as identified in section 00180.85 (b) and 00180.85 (c).

**12. Compliance with Applicable Law.** Contractor shall comply with all federal, state, county, and local laws, ordinances, and regulations applicable to the Work to be done under this Contract including, but not limited to, compliance with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract and failure to comply is a material breach that entitles County to exercise any rights and remedies available under this Contract including, but not limited to, termination for default.

**13. Responsibility for Taxes.** Contractor is solely responsible for payment of any federal, state, or local taxes required as a result of the Contract or the Work including, but not limited, to payment of the corporate activity tax imposed under enrolled HB 3427 (2019 Oregon regular legislative session). Contractor may not include its federal, state, or local tax obligations as part of the cost to perform the Work.

**Signature page to follow.**

**In witness whereof,** Clackamas County executes this Contract and the Contractor does execute the same as of the day and year first above written.

Contractor DATA:

**Granite Construction Company**  
**16821 SE McGillivray Blvd, Suite 210B**  
**Vancouver, WA 98683**

Contractor CCB # 101195 Expiration Date: 7/19/2022

Oregon Business Registry # 011445-26 Entity Type: FBC

State of Formation: California

*Payment information will be reported to the IRS under the name and taxpayer ID# provided by the Contractor. Information must be provided prior to contract approval. Information not matching IRS records could subject Contractor to 28 percent backup withholding.*

Granite Construction Company

Clackamas County



06/09/2022

Authorized Signature

Date

Chair

Date

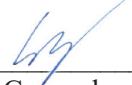
Kenneth B. Olson, Senior Vice President

Name / Title Printed

Recording Secretary



APPROVED AS TO FORM



06/13/2022

County Counsel

Date





**CLACKAMAS COUNTY  
PUBLIC IMPROVEMENT CONTRACT OPPORTUNITY**

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CLACKAMAS COUNTY  
NOTICE OF PUBLIC IMPROVEMENT CONTRACT OPPORTUNITY

INVITATION TO BID #2022-32  
Sunnyside Road Area Paving Project  
April 12, 2022

Clackamas County ("County") through its Board of County Commissioners is accepting sealed bids for the **Sunnyside Road Area Paving Project** until **May 5, 2022, 2:00 PM**, Pacific Time, ("Bid Closing") at the following location:

**DELIVER BIDS TO:** Clackamas County Procurement Division via email to [procurement@clackamas.us](mailto:procurement@clackamas.us).

Bidding Documents can be downloaded from the state of Oregon procurement website ("OregonBuys") at the following address: <https://oregonbuys.gov/bs0/view/login/login.xhtml>, Document No.S-C01010-000002789.

Prospective Bidders will need to sign in to download the information and that information will be accumulated for a Plan Holder's List. Prospective Bidders are responsible for obtaining any Addenda from Website listed above.

Engineers Estimate: \$4,700,000.00

Contact Information

Procurement Process and Technical Questions: Tralee Whitley at [TWhitley@clackamas.us](mailto:TWhitley@clackamas.us)

Bids will be opened and publicly read aloud at the above Delivery address after the Bid Closing. Bid results will also be posted to the OregonBuys listing shortly after the opening.

To be eligible for award under this Invitation to Bid, bidders (prime contractors) must submit a prequalification application (either ODOT or County) to the County at least two business days prior to the Bid Closing. County will reject bids from bidders who are not prequalified for the class of work indicated prior to the Bid Closing. **Bidders must be prequalified in Asphalt Concrete Paving (ACP), Temporary Traffic Control (TTC), and Pavement Markings (PAVE).**

State Prevailing Wage

Prevailing Wage Rates requirements apply to this Project because the maximum compensation for all Owner-contracted Work is more than \$50,000. Contractor and all subcontractors shall comply with the provisions of ORS 279C.800 through 279C.870, relative to Prevailing Wage Rates. The Bureau of Labor and Industries (BOLI) wage rates and requirements set forth in the following BOLI booklet (and any listed amendments to that booklet), which are incorporated herein by reference, apply to the Work authorized under this Agreement:

PREVAILING WAGE RATES for Public Works Contracts in Oregon, January 1, 2022, which can be downloaded at the following web address: [http://www.oregon.gov/boli/WHD/PWR/Pages/pwr\\_state.aspx](http://www.oregon.gov/boli/WHD/PWR/Pages/pwr_state.aspx)  
The Work will take place in Clackamas County, Oregon.

Clackamas County encourages bids from Minority, Women, and Emerging Small Businesses.



## CLACKAMAS COUNTY PUBLIC IMPROVEMENT CONTRACT

### INSTRUCTIONS TO BIDDERS

Clackamas County Local Contract Review Board Rules (“LCRB Rules”) govern this procurement process. LCRB Rules may be found at: <http://www.clackamas.us/code/documents/appendixc.pdf>. The Instructions to Bidders is applicable to the procurement process for Clackamas County, or any component unit thereof identified on the Notice of Public Improvement Contract Opportunity, herein after referred to as the “Owner.”

#### **Article 1. Scope of Work**

The work contemplated under this contract with the Owner, includes all labor, materials, transportation, equipment and services necessary for, and reasonably incidental to, the completion of all construction work in connection with the project described in the Project Manual which includes, but is not necessarily limited to, the Notice of Public Improvement Contract Opportunity, Instructions to Bidders, Supplemental Instructions to Bidders, Bid Form, Bid Bond, Public Improvement Contract Form, Performance Bond, Payment Bond, and Plans, Specifications and Drawings.

#### **Article 2. Examination of Site and Conditions**

Before making a Bid, the Bidder shall examine the site of the work and ascertain all the physical conditions in relation thereto. The Bidder shall also make a careful examination of the Project Manual including the plans, specifications, and drawings and other contract documents, and shall be fully informed as to the quality and quantity of materials and the sources of supply of the materials. Failure to take these steps will not release the successful Bidder from entering into the contract nor excuse the Bidder from performing the work in strict accordance with the terms of the contract at the price established by the Bid.

The Owner will not be responsible for any loss or for any unanticipated costs, which may be suffered by the successful Bidder, as a result of such

Bidder's failure to be fully informed in advance with regard to all conditions pertaining to the work and the character of the work required, including site conditions. No statement made by an elected official, officer, agent, or employee of the Owner in relation to the physical or other conditions pertaining to the site of the work will be binding on the Owner, unless covered by the Project Manual or an Addendum.

#### **Article 3. Interpretation of Project Manual and Approval of Materials Equal to Those Provided in the Specifications**

If any Bidder contemplating submitting a Bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications or forms of contract documents, or detects discrepancies or omissions, such Bidder may submit to the Architect (read "Engineer" throughout in lieu of Architect as appropriate) a written request for an interpretation thereof at least ten (10) calendar days prior to the date set for the Bid Closing.

When a prospective Bidder seeks approval of a particular manufacturer's material, process or item of equal value, utility or merit other than that designated by the Architect in the Project Manual, the Bidder may submit to the Architect a written request for approval of such substitute at least ten (10) calendar days prior to the date set for the Bid Closing. The prospective Bidder submitting the request will be responsible for its prompt delivery.

Requests of approval for a substitution from that specified shall be accompanied by samples, records of performance, certified copies of tests by impartial and recognized laboratories, and such other information as the Architect may request.

To establish a basis of quality, certain processes, types of machinery and equipment or kinds of materials may be specified in the Project Manual either by description of process or by designating a

manufacturer by name and referring to a brand or product designation or by specifying a kind of material. Whenever a process is designated or a manufacturer's name, brand or item designation is given, or whenever a process or material covered by patent is designated or described, it shall be understood that the words "or approved equal" follow such name, designation or description, whether in fact they do so or not.

Any interpretation of the Project Manual or approval of manufacturer's material will be made only by an Addendum duly issued. All Addenda will be posted to the OregonBuys listing and will become a part of the Project Manual. The Owner will not be responsible for any other explanation or interpretation of the Project Manual nor for any other approval of a particular manufacturer's process or item for any Bidder.

When the Architect approves a substitution by Addendum, it is with the understanding that the Contractor guarantees the substituted article or material to be equal or better than the one specified.

#### **Article 4. Security to Be Furnished by Each Bidder**

Each Bid must be accompanied by either 1) a cashier's check or a certified check drawn on a bank authorized to do business in the State of Oregon, or 2) a Bid bond described hereinafter, executed in favor of the Owner, for an amount equal to ten percent (10%) of the total amount Bid as a guarantee that, if awarded the contract, the Bidder will execute the contract and provide a performance bond and payment bond as required. The successful Bidder's check or Bid bond will be retained until the Bidder has entered into a contract satisfactory to Owner and furnished a one hundred percent (100%) performance bond and one hundred percent (100%) payment bond. The Owner reserves the right to hold the Bid security as described in Article 10 hereof. Should the successful Bidder fail to execute and deliver the contract as provided for in Article 12 hereof, including a satisfactory performance bond and payment bond within twenty (20) calendar days after the Bid has been accepted by the Owner, then the contract award made to such Bidder may be considered canceled and the Bid security may be

forfeited as liquidated damages at the option of the Owner. The date of the acceptance of the Bid and the award of the contract as contemplated by the Project Manual shall mean the date of acceptance specified in the Notice of Intent to Award.

#### **Article 5. Execution of Bid Bond**

Should the Bidder elect to utilize a Bid bond as described in Article 4 in order to satisfy the Bid security requirements, such form must be completed in the following manner:

- A. Bid bonds must be executed on the County forms, which will be provided to all prospective Bidders by the Owner.
- B. The Bid bond shall be executed on behalf of a bonding company licensed to do business in the State of Oregon.
- C. In the case of a sole individual, the bond need only be executed as principal by the sole individual. In the case of a partnership, the bond must be executed by at least one of the partners. In the case of a corporation, the bond must be executed by stating the official name of the corporation under which is placed the signature of an officer authorized to sign on behalf of the corporation followed by such person's official capacity, such as president, etc. The corporation seal should then be affixed to the bond.
- D. The name of the surety must be stated in the execution over the signature of its duly authorized attorney-in-fact and accompanied by the seal of the surety corporation.

#### **Article 6. Execution of the Bid Form**

Each Bid shall be made in accordance with: (i) the sample Bid Form accompanying these instructions; (ii) the appropriate signatures for a sole individual, partnership, corporation or limited liability corporation shall be added as noted in Article 5C above; (iii) numbers pertaining to base Bids shall be stated both in writing and in figures; and (iv) the Bidder's address shall be typed or printed.

The Bid Form relates to Bids on a specific Project

Manual. Only the amounts and information asked for on the Bid Form furnished will be considered as the Bid. Each Bidder shall Bid upon the work exactly as specified and provided in the Bid Form. The Bidder shall include in the Bid a sum to cover the cost of all items contemplated by the Contract. The Bidder shall Bid upon all alternates that may be indicated on the Bid Form. When Bidding on an alternate for which there is no charge, the Bidder shall write the words "No Charge" in the space provided on the Bid Form. If one or more alternates are shown on the Bid Form, the Bidder shall indicate whether each is "add" or "deduct."

#### **Article 7. Prohibition of Alterations to Bid**

Bids that are incomplete, or contain ambiguities or have differing conditions required by the Bidder, including requested changes or exceptions to the Public Improvement Contract form or other portions of the Project Manual, may be rejected in Owner's sole and absolute discretion.

#### **Article 8. Submission of Bid**

Each Bid shall be sealed in an envelope, properly addressed to the Owner, showing on the outside of the envelope the name of the Bidder and the name of the project. Bids will be received at the time and place stated in the Notice of Public Improvement Contract Opportunity.

#### **Article 9. Bid Closing and Opening of Bids**

All Bids must be received by the Owner at the place and time set for the Bid Closing. Any Bids received after the scheduled Bid Closing time for receipt of Bids will be rejected.

At the time of opening and reading of Bids, each Bid received will be publicly opened and read aloud, irrespective of any irregularities or informalities in such Bids.

Generally, Bid results will be posted to the Procurement Website within a couple hours of the opening.

#### **Article 10. Acceptance or Rejection of Bids by Owner**

Unless all Bids are rejected, the Owner will award a contract based on the lowest responsive Bid from a responsible Bidder. If that Bidder does not execute the contract, it will be awarded to the next lowest responsible Bidder or Bidders in succession.

The Owner reserves the right to reject all Bids and to waive minor informalities. The procedures for contract awards shall be in compliance with the provisions of the LCRB Rules in effect at that time.

The Owner reserves the right to hold the Bid and Bid security of the three lowest Bidders for a period of thirty (30) calendar days from and after the time of Bid opening pending award of the contract. Following award of the contract the Bid security of the three lowest Bidders may be held twenty (20) calendar days pending execution of the contract. All other Bids will be rejected and Bid security will be returned.

In determining the lowest Bidder, the Owner reserves the right to take into consideration any or all authorized base Bids as well as alternates or combinations indicated in the Bid Form.

If no Bid has been accepted within thirty (30) calendar days after the opening of the Bids, each of the three lowest Bidders may withdraw the Bid submitted and request the return of the Bid security.

#### **Article 11. Withdrawal of Bid**

At any time prior to the Bid Closing, a Bidder may withdraw its Bid. This will not preclude the submission of another Bid by such Bidder prior to the time set for the Bid Closing.

After the time set for the Bid Closing, no Bidder will be permitted to withdraw its Bid within the time frames specified in Article 10 for award and execution, except as provided for in that Article.

#### **Article 12. Execution of Contract, Performance Bond and Payment Bond**

The Owner will provide the successful Bidder with contract forms within seven (7) calendar days after

the completion of the award protest period. The Bidder is required to execute the contract forms as provided, including a performance bond and a payment bond from a surety company licensed to do surety business in the State of Oregon, within seven (7) calendar days after receipt of the contract forms. The contract forms shall be delivered to the Owner in the number called for and to the location as instructed by the Owner.

### **Article 13. Recyclable Products**

Contractors will use recyclable products to the maximum extent economically feasible in the performance of the Contract.

### **Article 14. Clarification or Protest of the Solicitation Document or Specifications**

Any request for clarification or protest of the solicitation document or specifications must be submitted in the manner provided for in the applicable section of the LCRB Rules to the Procurement Representative referenced in the Notice of Public Improvement Contract Opportunity.

A protest of the Solicitation Document must be received within seven (7) business days of the issuance of the Bid or within three (3) business days of issuance of an addendum.

Requests for clarification may be submitted no less than five (5) business days prior to the Bid Closing Date.

### **Article 15. Protest of Intent to Award**

Owner will name the apparent successful Bidder in a "Notice of Intent to Award" letter. Identification of the apparent successful Bidder is procedural only and creates no right in the named Bidder to the award of the contract. Competing Bidders will be notified by publication of the Notice of Intent to Award on the Clackamas County Procurement Website of the selection of the apparent successful Bidder(s) and Bidders shall be given seven (7) calendar days from the date on the "Notice of Intent to Award" letter to review the file at the Procurement Division office and file a written protest of award, pursuant to C-

049-0450. Any award protest must be in writing and must be delivered by hand delivery or mail to the Procurement Division Director at: Procurement Division, 2051 Kaen Road, Oregon City, OR 97045.

### **Article 16. Disclosure of First-Tier Subcontractors**

Within two (2) working hours after the Bid Closing, all Bidders shall submit to the County a disclosure form identifying any first-tier subcontractors (those entities that would be contracting directly with the prime contractor) that will be furnishing labor and materials on the contract, if awarded, whose subcontract value would be equal to or greater than: (a) Five percent (5%) of the total contract price, but at least \$15,000; or (b) \$350,000, regardless of the percentage of the total contract price.

Disclosures may be submitted with the Bid or may be hand delivered to the Bid Closing address or emailed to [procurement@clackamas.us](mailto:procurement@clackamas.us).



**CLACKAMAS COUNTY  
PUBLIC IMPROVEMENT CONTRACT**

**SUPPLEMENTAL INSTRUCTIONS TO BIDDERS**

**Project Name: # 2022-32 Sunnyside Road Area Paving Project**

**The following modify the Clackamas County “Instructions to Bidders” for this Project. Where a portion of the Instructions to Bidders has been modified by these Supplemental Instructions to Bidders, the unaltered portions shall remain in effect.**

- 1.** To be eligible for award under this Invitation to Bid, bidders (prime contractors) must submit a prequalification application (either ODOT or County) to the County at least two business days prior to the Bid Closing. County will reject bids from bidders who are not prequalified for the class of work indicated prior to the Bid Closing. **Bidders must be prequalified in Asphalt Concrete Paving & Oiling (ACP), Temporary Traffic Control (TTC), and Pavement Markings (PAVE).**
- 2. Email of Bids -** The County is requiring all bids for this project be electronically submitted. Complete Bids (including all attachments) must be received by the closing time and date 2:00 p.m. Pacific Time, May 5, 2022. The Bid must be emailed to the following address: [Procurement@clackamas.us](mailto:Procurement@clackamas.us). **The email subject line must read “Bid for #2022-32 Sunnyside Road Area Paving Project.”** Upon receiving of the bid, the County will send bidders an email confirmation acknowledging receipt. Bids delayed or lost by email system filtering or failures may be considered at Clackamas County’s sole and absolute discretion.  
Bids will be publicly read aloud via the computer application, Zoom. Bidders will be allowed to video conference or listen by phone to the bid results. The projects Zoom meeting can be accessed via the information below:

**ZOOM LINK**

Join Zoom Meeting

<https://clackamascounty.zoom.us/j/84327974794>

Meeting ID: 843 2797 4794

One tap mobile

+14086380968,,84327974794# US (San Jose) 16699006833,,84327974794# US  
(San Jose)

Dial by your location

+1 408 638 0968 US (San Jose)  
+1 669 900 6833 US (San Jose)  
+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)  
+1 646 876 9923 US (New York)  
+1 301 715 8592 US (Washington DC)  
+1 312 626 6799 US (Chicago)

Meeting ID: 843 2797 4794

Find your local number: <https://clackamascounty.zoom.us/j/kconiAGY4l>

**\*\*The Apparent Low bid results will be posted to the projects OregonBuys listing as soon as possible following the bid opening.**

- 3. Good Faith Effort:** Clackamas County encourages participation in contracts by Historically Underrepresented Businesses. “Historically Underrepresented Businesses” are State of Oregon-certified and self-identified minority, women and emerging small business as well as firms that are certified federally or by another state or entity with substantially similar requirements as the State of Oregon.

Bidders must perform Good Faith Effort (defined below) and submit **Form 1 and Form 2** for the Bidders Bid to be considered responsive. **Form 1 and Form 2** must be submitted within **two (2) hours** after the Closing Date and Time. Form 1 and Form 2 may be submitted by hand delivery to the location the Bid was due or may email the completed Forms to [Procurement@clackamas.us](mailto:Procurement@clackamas.us). “Good Faith Effort” is a requirement of a prime contractor to reach out to at least three Historically Underrepresented Business Subcontractors for each division of work that will be subcontracted out and to complete the required forms. If fewer than three Historically Underrepresented Business Subcontractors are reasonably available for a particular division of work, the Bidder must specifically note the reason for there being fewer than three contacts. The outreach should be performed with sufficient time to give the subcontractors at least 5 calendar days to respond to the opportunity. Form 3, which documents the actual amount of subcontractors on the project, must be submitted with the project final pay application. Compliance with the Good Faith Effort and submission of Forms 1, 2 and 3 is a contractual requirement for final payment.

The sufficiency of the documentation or the performance of Good Faith Effort shall be in the sole and absolute determination of Clackamas County. Only those Bidders that Clackamas County has determined have not sufficiently performed Good Faith Effort shall have protest rights of the determination for such Bidder. No Bidder shall have protest rights of the sufficiency of any other Bidder completing Good Faith Effort.



**CLACKAMAS COUNTY  
GOOD FAITH EFFORT  
SUBCONTRACTOR AND SELF-PERFORMED WORK LIST  
(FORM 1)**

Prime Contractor Name: Granite Construction Company

Total Contract Amount: 5,566,566.<sup>00</sup>

Project Name: # 2022-32 Sunnyside Road Area Paving Project

PRIME SELF-PERFORMING: Identify below ALL GFE Divisions of Work (DOW) to be self-performed. Good Faith Efforts are otherwise required.	
DOW BIDDER WILL SELF-PERFORM (GFE not required)	
Milling Support	Erosion Control
Paving	
Concrete Work	
Signage	

PRIME CONTRACTOR SHALL DISCLOSE AND LIST ALL SUBCONTRACTORS, including those Minority-owned, Woman-owned, and Emerging Small Businesses ("M/W/ESB") that you intend to use on the project. Hand delivery to Procurement, 2051 Kaen Road, Oregon City, OR 97045 or email to [procurement@clackamas.us](mailto:procurement@clackamas.us) within 2 hours of the BID/Quote Closing Date/Time

LIST ALL SUBCONTRACTORS BELOW Use <u>correct legal name</u> of Subcontractor (No Assumed Business Names)	Division of Work (Painting, electrical, landscaping, etc.) List ALL DOW performed by Subcontractors	DOLLAR AMOUNT OF SUBCONTRACT	If Certified or self-reporting MBE/WBE/ESB Subcontractor		
			MBE	WBE	ESB
Name ANOCESON Erosion Control Inc. Address P.O. Box 205 Junction City, OR City/St/Zip 97448 Phone# 541-998-2062 OCCB# 86486	Landscaping	7,100. <sup>00</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Name D&H Flagging, Inc. Address 1621 SE Pardee St. City/St/Zip Portland, OR 97202 Phone# 503-232-2488 OCCB# 216371	Project Traffic Control	\$300,000. <sup>00</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Name Brothers Concrete Cutting, Inc. Address 1721 Fessenden St. SE City/St/Zip Albany, OR 97322 Phone# 541-928-2502 OCCB# 48661	Asphalt & Concrete Sawcutting	\$35,000. <sup>00</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name Specialized Pavement Marking Address 11095 SW Industrial Way City/St/Zip Tualatin, OR 97062 Phone# 530-885-0420 OCCB# 238621	Pavement Marking	\$140,980. <sup>40</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**GFE SUBCONTRACTOR AND SELF-PERFORMED WORK LIST (FORM 1) cont'd**

Granite Construction

Prime Contractor Name: Company

Total Contract Amount: 5,566,566.00

Project Name: # 2022-32 Sunnyside Road Area Paving Project

<p align="center"><b>LIST ALL SUBCONTRACTORS BELOW</b> Use <u>correct legal name</u> of Subcontractor (No Assumed Business Names)</p>	<p align="center"><b>Division of Work</b> (Painting, electrical, landscaping, etc.) List <b>ALL</b> DOW performed by Subcontractors</p>	<p align="center"><b>DOLLAR AMOUNT OF SUBCONTRACT</b></p>	<p align="center">If Certified or self-reporting MBE/WBE/ESB Subcontractor</p>		
			<p align="center">Check box <input checked="" type="checkbox"/></p>	<p align="center">MBE</p>	<p align="center">WBE</p>
<p>Name <u>TFT CONSTRUCTION, INC.</u> Address <u>53990 WEST LAKE ROAD</u> City/St/Zip <u>SCAPPOOSE, OR 97056</u> Phone# <u>503-843-7979</u> OCCB# <u>104648</u></p>	<p align="center"><u>Cold Milling</u> <u>Pavement</u> <u>Removal</u></p>	<p align="center"><u>\$ 268,393.50</u></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Name Address City/St/Zip Phone# OCCB#</p>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Name Address City/St/Zip Phone# OCCB#</p>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Name Address City/St/Zip Phone# OCCB#</p>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Name Address City/St/Zip Phone# OCCB#</p>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Name Address City/St/Zip Phone# OCCB#</p>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Name Address City/St/Zip Phone# OCCB#</p>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**CLACKAMAS COUNTY  
GOOD FAITH EFFORT  
M/W/ESB CONTACT / BIDS RECEIVED LOG  
(FORM 2)**

Prime Contractor: Granite Construction Company  
Project: # 2022-32 Sunnyside Road Area Paving Project

Prime Contractor must contact or endeavor to contact at least 3 M/W/ESB Subcontractors for each Division of Work. Prime Contractor shall record its contacts with M/W/ESB Subcontractors through use of this log (or equivalent) entering all required information. All columns shall be completed where applicable. Additional forms may be copied if needed.

NAME OF M/W/ESB SUBCONTRACTOR	Divisions of Work (Painting, electrical, landscaping, etc.)	Date Solicitation Letter / Fax Sent	PHONE CONTACT		BID ACTIVITY Check Yes or No			REJECTED BIDS (If bid received & not used)		Notes
			Date of Call	Person Receiving Call	Will Bid	Bid Received	Bid Used	Bid Amount	Reason Not Used (Price, Scope or Other. If Other, explain in Notes>>)	
See Attached					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			

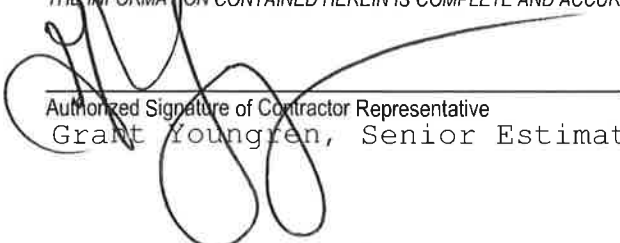
**CLACKAMAS COUNTY  
GOOD FAITH EFFORT  
PROJECT COMPLETION REPORT  
(FORM 3)**

Prime Contractor Name: Granite Construction  
 Total Contract Amount: 5,566,566.00  
 Project Name: # 2022-32 Sunnyside Road Area Paving Project

Complete this form and submit with your request for final payment upon the project completion. Please list all subcontractors used for the project. Use additional sheets as necessary.

<b>LIST ALL SUBCONTRACTORS BELOW</b> Use <u>correct legal name</u> of Subcontractor (No Assumed Business Names)	<b>Division of Work</b> (Painting, electrical, landscaping, etc.) List <b>ALL</b> DOW performed by Subcontractors	<b>FINAL DOLLAR AMOUNT OF SUBCONTRACT</b>	If Certified or self-reported MBE/WBE/ESB Subcontractor  Check box <input checked="" type="checkbox"/>		
			MBE	WBE	ESB
Name Address City/St/Zip Phone# OCCB#			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name Address City/St/Zip Phone# OCCB#			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name Address City/St/Zip Phone# OCCB#			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name Address City/St/Zip Phone# OCCB#			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name Address City/St/Zip Phone# OCCB#			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name Address City/St/Zip Phone# OCCB#			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BY SIGNING BELOW, I HEREBY CERTIFY THAT THE ABOVE LISTED FIRMS HAVE BEEN UTILIZED BY OUR COMPANY IN THE AMOUNTS REPRESENTED ABOVE AND THAT THE INFORMATION CONTAINED HEREIN IS COMPLETE AND ACCURATE.

  
 Authorized Signature of Contractor Representative  
 Grant Youngren, Senior Estimator

5/10/2022  
 Date



CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

BID BOND

Project Name: # 2022-32 Sunnyside Road Area Paving Project

We, Granite Construction Company, as "Principal,"
(Name of Principal)

and Travelers Casualty and Surety Company of America, an Connecticut Corporation,
(Name of Surety)

authorized to transact Surety business in Oregon, as "Surety," hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns to pay unto Clackamas County ("Obligee") the sum of (\$10% of Bid Amount)

Ten Percent (10%) of Bid Amount dollars.

WHEREAS, the condition of the obligation of this bond is that Principal has submitted its proposal or bid to an agency of the Obligee in response to Obligee's procurement document (No. ) for the project identified above which proposal or bid is made a part of this bond by reference, and Principal is required to furnish bid security in an amount equal to ten (10%) percent of the total amount of the bid pursuant to the procurement document.

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, we have caused this instrument to be executed and sealed by our duly authorized legal representatives this 28th day of April, 2022.

Principal: Granite Construction Company

Surety: Travelers Casualty and Surety Company of America

By: [Signature]
Signature

By: [Signature]
By: Attorney-In-Fact

Grant Youngren, Senior Estimator
Official Capacity

Isabel Barron
Name

Attest: [Signature] /Kenneth B. Olson
Corporation\*Secretary
\*Assistant

1 Tower Square
Address

Hartford CT 06183
City State Zip

(860) 277-8170
Phone Fax



A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

## ACKNOWLEDGMENT

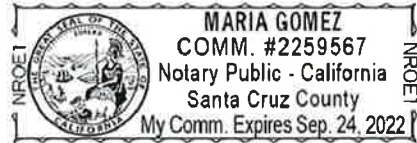
State of California  
County of Santa Cruz)

On April 28, 2022 before me, Maria Gomez, Notary Public  
(insert name and title of the officer)

personally appeared Isabel Barron,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.



Signature *Maria Gomez*  
Maria Gomez, Notary Public

(Seal)



**Travelers Casualty and Surety Company of America  
Travelers Casualty and Surety Company  
St. Paul Fire and Marine Insurance Company**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Isabel Barron** of **WATSONVILLE**, **California**, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **21st** day of **April**, 2021.



State of Connecticut

City of Hartford ss.

By:   
Robert L. Raney, Senior Vice President

On this the **21st** day of **April**, 2021, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, 2026



  
Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **April 28**, 2022



  
Kevin E. Hughes, Assistant Secretary



**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.  
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.**



CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

BID FORM

PROJECT: # 2022-32 Sunnyside Road Area Paving Project
BID CLOSING: May 5, 2022, 2:00 PM, Pacific Time
BID OPENING: May 5, 2022, 2:05 PM, Pacific Time

FROM: Granite Construction Company
Bidder's Name (must be full legal name, not ABN/DBA)

TO: Clackamas County
Procurement Division - procurement@clackamas.us

1. Bidder is (check one of the following and insert information requested):

- a. An individual; or
b. A partnership registered under the laws of the State of
c. A corporation organized under the laws of the State of California; or
d. A limited liability corporation organized under the laws of the State of

and authorized to do business in the State of Oregon hereby proposes to furnish all material and labor and perform all work hereinafter indicated for the above project in strict accordance with the Contract Documents for the Basic Bid as follows:

Five Million Five Hundred Sixty Six Thousand Five Hundred Sixty Six Dollars (\$ 5,566,566.00)

and the Undersigned agrees to be bound by the following documents:

- Notice of Public Improvement Contract Opportunity
• Instructions to Bidders
• Bid Bond
• Public Improvement Contract Form
• Prevailing Wage Rates
• Plans, Specifications and Drawings
• Supplemental Instructions to Bidders
• Bid Form
• Performance Bond and Payment Bond
• Payroll and Certified Statement Form

• ADDENDA numbered 1 through 3, inclusive (fill in blanks)

2. The Undersigned proposes to add to or deduct from the Base Bid indicated above the items of work relating to the following Alternate(s) as designated in the Specifications: N/A

3. The Undersigned proposes to add to or deduct from the Base Bid indicated above the items or work relating to the following Unit Price(s) as designated in the Specifications, for which any adjustments in the Contract amount will be made in accordance with the project specifications: Provide the attached Bid Schedules with Bid.



4. The work shall be completed within the time stipulated and specified in 00180.50(h) of the Special Provisions for **Sunnyside Rd Paving Project-122<sup>nd</sup> Ave to 162<sup>nd</sup> Ave**

5. Accompanying herewith is Bid Security which is equal to ten percent (10%) of the total amount of the Basic Bid, plus the total sum of Alternatives (if any).

6. The Undersigned agrees, if awarded the Contract, to execute and deliver to Clackamas County, within twenty (20) calendar days after receiving the Contract forms, a Contract Form, and a satisfactory Performance Bond and Payment Bond each in an amount equal to one hundred percent (100%) of the Contract sum, using forms provided by the Owner. The surety requested to issue the Performance Bond and Payment Bond will be:

Travelers Casualty and Surety Company of America  
(name of surety company - not insurance agency)

The Undersigned hereby authorizes said surety company to disclose any information to the Owner concerning the Undersigned's ability to supply a Performance Bond and Payment Bond each in the amount of the Contract.

7. The Undersigned further agrees that the Bid Security accompanying the Bid is left in escrow with Clackamas County; that the amount thereof is the measure of liquidated damages which the Owner will sustain by the failure of the Undersigned to execute and deliver the above-named Contract Form, Performance Bond and Payment Bond, each as published, and that if the Undersigned defaults in either executing the Contract Form or providing the Performance Bond and Payment Bond within twenty (20) calendar days after receiving the Contract forms, then the Bid Security shall become the property of the Owner at the Owner's option; but if the Bid is not accepted within thirty (30) calendar days of the time set for the opening of the Bids, or if the Undersigned executes and timely delivers said Contract Form, Performance Bond and Payment Bond, the Bid Security shall be returned.

8. The Undersigned certifies that: (i) This Bid has been arrived at independently and is being submitted without collusion with and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit independent bidding or competition; and (ii) the contents of the Bid have not been communicated by the Undersigned or its employees or agents to any person not an employee or agent of the Undersigned or its surety on any Bond furnished with the Bid and will not be communicated to such person prior to the official opening of the Bid.

9. The undersigned  **HAS**,  **HAS NOT** (check one) paid unemployment or income taxes in Oregon within the past 12 months and  **DOES**,  **DOES NOT** (check one) a business address in Oregon. The undersigned acknowledges that, if the selected bidder, that the undersigned will have to pay all applicable taxes and register to do business in the State of Oregon before executing the Contract Form.

10. The Undersigned agrees, if awarded a contract, to comply with the provisions of ORS 279C.800 through 279C.870 pertaining to the payment of the prevailing rates of wage.

11. Contractor's CCB registration number is 101195. As a condition to submitting a bid, a Contractor must be registered with the Oregon Construction Contractors Board in accordance with ORS 701.035 to 701.055, and disclose the registration number. Failure to register and disclose the number will make the bid unresponsive and it will be rejected, unless contrary to federal law.

12. The successful Bidder hereby certifies that all subcontractors who will perform construction work as described in ORS 701.005(2) were registered with the Construction Contractors Board in accordance with ORS 701.035 to 701.055 at the time the subcontractor(s) made a bid to work under the contract.

13. The successful Bidder hereby certifies that, in compliance with the Worker's Compensation Law of the State of Oregon, its Worker's Compensation Insurance provider is See Attached, Policy No. \_\_\_\_\_, and that Contractor shall submit Certificates of Insurance as required.

14. Contractor's Key Individuals for this project (supply information as applicable):

Project Executive:	<u>Paul Harding</u>	Cell Phone:	<u>360-606-1335</u>
Project Manager:	<u>Eric Green</u>	Cell Phone:	<u>360-322-0405</u>
Job Superintendent:	<u>Rob Conway</u>	Cell Phone:	<u>360-815-7525</u>
Project Engineer:	<u>Mady Coe</u>	Cell Phone:	<u>360-529-6178</u>

15. The Undersigned certifies that it has not discriminated against minority, women, or emerging small businesses in obtaining any subcontracts for this project.

16. The Undersigned certifies that it has a drug testing program in accordance with ORS 279C.505.

**REMINDER:** Bidder must submit the below First-Tier Subcontractor Disclosure Form.

By signature below, Contractor agrees to be bound by this Bid.

NAME OF FIRM Granite Construction Company

ADDRESS 16821 SE McGillivray Blvd., Suite 210B  
Vancouver, WA 98683

TELEPHONE NO 360-831-5529

EMAIL bid.vancouver@gcinc.com

SIGNATURE 1) NA  
Sole Individual

or 2) NA  
Partner

or 3)   
Authorized Officer or Employee of Corporation  
Grant Youngren, senior Estimator

\*\*\*\*\* **END OF BID** \*\*\*\*\*

**SUNNYSIDE PAVING PROJECT**

**Bid 2022-32**

**Addendum #3**

Bidder: Granite Construction Company

<i>Worksite #1 - Sunnyside Road Paving Project - 122nd to 132nd</i>				<i>Spring 2022</i>		<i>Plan Sheets G-01 to TS-04</i>		<i>page 1 of 6</i>	
<b>Item #</b>	<b>Spec #</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Amount</b>			
<b>TEMPORARY FEATURES AND APPURTENANCES FOR PAVING PACKAGE</b>									
101	00197	EXTRA WORK DONE ON FORCE ACCOUNT BASIS	LS	1	\$18,000.00	\$18,000.00			
102	00210	MOBILIZATION	LS	1	\$205,000.00	\$205,000.00			
103	00221	TEMPORARY WORK ZONE TRAFFIC CONTROL, COMPLETE	LS	1	\$175,000.00	\$175,000.00			
104	00222	TEMPORARY PROJECT INFORMATION SIGNS	SQFT	30	\$35.00	\$1,050.00			
105	00222	PORTABLE CHANGEABLE MESSAGE SIGNS	EACH	5	\$3,500.00	\$17,500.00			
106	00225	TEMPORARY STRIPING	FOOT	15,000	\$1.90	\$28,500.00			
107	00225	TEMPORARY PAVEMENT LEGENDS	EACH	51	\$60.00	\$3,060.00			
108	00225	TEMPORARY PAVEMENT BARS	SQFT	5,200	\$1.50	\$7,800.00			
109	00280	EROSION CONTROL PLAN	LS	1	\$10,000.00	\$10,000.00			
110	00290	POLLUTION CONTROL PLAN	LS	1	\$500.00	\$500.00			
<i>TEMPORARY FEATURES AND APPURTENANCES-SUBTOTAL</i>						\$466,410.00			
<b>ROADWORK</b>									
111	00310	ASPHALT PAVEMENT SAW CUTTING	FOOT	1,500	\$2.00	\$3,000.00			
112	00331	12 INCH SUBGRADE STABILIZATION	SQYD	180	\$80.00	\$14,400.00			
<i>ROADWORK-SUBTOTAL</i>						\$17,400.00			
<b>DRAINAGE AND SEWERS</b>									
113	00490	REPLACE OR INSTALL MONUMENT BOXES	EACH	3	\$700.00	\$2,100.00			
114	00490	MINOR ADJUSTMENT OF MANHOLES: STA 23+89 RT 8'	EACH	1	\$1,500.00	\$1,500.00			
<i>DRAINAGE AND SEWERS - SUBTOTAL</i>						\$3,600.00			
<b>BASES</b>									
115	00620	COLD PLANE PAVEMENT REMOVAL, 1 INCHES DEEP	SQYD	5,800	\$4.75	\$27,550.00			
116	00620	COLD PLANE PAVEMENT REMOVAL, 4 INCHES DEEP	SQYD	36,600	\$4.75	\$173,850.00			
<i>BASE - SUBTOTAL</i>						\$201,400.00			

**SUNNYSIDE PAVING PROJECT**

**Bid 2022-32**

**Addendum #3**

Bidder: Granite Construction Company

<i>Worksite #1 - Sunnyside Road Paving Project - 122nd to 132nd</i>				<i>Spring 2022</i>		<i>Plan Sheets G-01 to TS-04</i>		<i>page 2 of 6</i>	
<b>Item #</b>	<b>Spec #</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Amount</b>			

<b>WEARING SURFACES</b>							
117	00745	LEVEL 3, 1/2 INCH ACP	TON	9,000	\$125.00	\$1,125,000.00	
118	00748	18.5 INCHES ASPHALT CONCRETE PAVEMENT REPAIR	SQYD	200	\$245.00	\$49,000.00	
119	00749	EXTRA FOR SPOT GRIND AND INLAYS	SQYD	5,800	\$0.40	\$2,320.00	
<b>WEARING SURFACES - SUBTOTAL</b>						\$1,176,320.00	
<b>PERMANENT TRAFFIC CONTROL AND GUIDANCE DEVICES</b>							
120	00855	MONO-DIRECTIONAL WHITE TYPE IAR MARKERS, RECESSED	EACH	291	\$10.00	\$2,910.00	
121	00855	BI-DIRECTIONAL YELLOW TYPE IAR MARKERS, RECESSED	EACH	142	\$10.00	\$1,420.00	
122	00866	HI-BUILD PAINT, 25 MIL, SPRAYED, SURFACE	FOOT	27,100	\$0.20	\$5,420.00	
123	00866	DRIBBLE LINE, SPRAYED, SURFACE	FOOT	17,700	\$0.10	\$1,770.00	
124	00867	PAVEMENT LEGEND, TYPE B: ARROWS	EACH	25	\$275.00	\$6,875.00	
125	00867	PAVEMENT LEGEND, TYPE B-HS: ARROWS	EACH	3	\$275.00	\$825.00	
126	00867	PAVEMENT LEGEND, TYPE B-HS: BICYCLE LANE STENCIL	EACH	15	\$275.00	\$4,125.00	
127	00867	PAVEMENT LEGEND, TYPE B: LANE EXTENSION	SQFT	196	\$14.00	\$2,744.00	
128	00867	PAVEMENT BAR, TYPE B	SQFT	62	\$9.00	\$558.00	
129	00867	PAVEMENT BAR, TYPE B-HS	SQFT	2,650	\$9.00	\$23,850.00	
<b>PERMANENT TRAFFIC CONTROL AND GUIDANCE DEVICES-SUBTOTAL</b>						\$50,497.00	
<b>WORKSITE #1 - SUNNYSIDE ROAD PAVING PROJECT - 122ND TO 132ND - SUBTOTAL</b>						\$1,915,627.00	

**SUNNYSIDE PAVING PROJECT**

**Bid 2022-32**

**Addendum #3**

Bidder: Granite Construction Company

<i>Worksite #1 - Sunnyside Road Paving Project - 132nd to 162nd</i>			<i>Spring 2022</i>		<i>Plan Sheets G-01 to TS-04</i>		<i>page 3 of 6</i>
<b>Item #</b>	<b>Spec #</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Amount</b>	
<b>TEMPORARY FEATURES AND APPURTENANCES FOR PAVING PACKAGE</b>							
201	00197	EXTRA WORK DONE ON FORCE ACCOUNT BASIS	LS	1	\$32,000.00	\$32,000.00	
202	00210	MOBILIZATION	LS	1	\$336,976.50	\$336,976.50	

203	00221	TEMPORARY WORK ZONE TRAFFIC CONTROL, COMPLETE	LS	1	\$295,000.00	\$295,000.00
204	00222	TEMPORARY PROJECT INFORMATION SIGNS	SQFT	90	\$35.00	\$3,150.00
205	00222	PORTABLE CHANGEABLE MESSAGE SIGNS	EACH	11	\$3,500.00	\$38,500.00
206	00225	TEMPORARY STRIPING	FOOT	27,000	\$1.00	\$27,000.00
207	00225	TEMPORARY PAVEMENT LEGENDS	EACH	91	\$60.00	\$5,460.00
208	00225	TEMPORARY PAVEMENT BARS	SQFT	9,320	\$1.50	\$13,980.00
209	00280	EROSION CONTROL PLAN	LS	1	\$25,000.00	\$25,000.00
210	00290	POLLUTION CONTROL PLAN	LS	1	\$500.00	\$500.00
<b>TEMPORARY FEATURES AND APPURTENANCES-SUBTOTAL</b>						<b>\$777,566.50</b>
<b>ROADWORK</b>						
211	00305	CONSTRUCTION SURVEY WORK	LS	1	\$22,000.00	\$22,000.00
212	00310	REMOVAL OF SURFACINGS	SQYD	10	\$50.00	\$500.00
213	00310	ASPHALT PAVEMENT SAW CUTTING	FOOT	22,400	\$2.00	\$44,800.00
214	00331	12 INCH SUBGRADE STABILIZATION	SQYD	320	\$60.00	\$19,200.00
<b>ROADWORK-SUBTOTAL</b>						<b>\$86,500.00</b>
<b>DRAINAGE AND SEWERS</b>						
215	00490	REPLACE OR INSTALL MONUMENT BOXES	EACH	3	\$800.00	\$2,400.00
216	00490	MINOR ADJUSTMENT OF MANHOLES: STA 52+36 LT 24'	EACH	1	\$1,500.00	\$1,500.00
217	00490	MINOR ADJUSTMENT OF MANHOLES: STA 52+55 RT 30'	EACH	1	\$1,500.00	\$1,500.00
218	00490	MINOR ADJUSTMENT OF MANHOLES: STA 53+30 LT 22'	EACH	1	\$1,500.00	\$1,500.00
219	00490	MINOR ADJUSTMENT OF MANHOLES: STA 53+68 LT 14'	EACH	1	\$1,500.00	\$1,500.00
220	00490	MAJOR ADJUSTMENT OF MANHOLES: STA 52+47 LT 4'	EACH	1	\$3,000.00	\$3,000.00
<b>DRAINAGE AND SEWERS - SUBTOTAL</b>						<b>\$11,400.00</b>

**SUNNYSIDE PAVING PROJECT**

**Bid 2022-32**

**Addendum #3**

Bidder:

Worksite #1 - Sunnyside Road Paving Project - 132nd to 162nd			Spring 2022		Plan Sheets G-01 to TS-04	page 4 of 6
Item #	Spec #	Item Description	Unit	Quantity	Unit Price	Amount
<b>BASES</b>						
221	00620	COLD PLANE PAVEMENT REMOVAL, 1 INCHES DEEP	SQYD	10,210	\$4.75	\$48,497.50
222	00620	COLD PLANE PAVEMENT REMOVAL, 4 INCHES DEEP	SQYD	64,500	\$4.75	\$306,375.00
<b>BASE - SUBTOTAL</b>						<b>\$354,872.50</b>
<b>WEARING SURFACES</b>						

223	00745	LEVEL 3, 1/2 INCH ACP	TON	16,000	\$125.00	\$2,000,000.00
224	00748	18.5 INCHES ASPHALT CONCRETE PAVEMENT REPAIR	SQYD	300	\$200.00	\$60,000.00
225	00749	EXTRA FOR SPOT GRIND AND INLAYS	SQYD	10,210	\$0.40	\$4,084.00
226	00759	CONCRETE ISLANDS	SQFT	80	\$75.00	\$6,000.00
<b>WEARING SURFACES - SUBTOTAL</b>						<b>\$2,070,084.00</b>
<b>PERMANENT TRAFFIC CONTROL AND GUIDANCE DEVICES</b>						
227	00855	MONO-DIRECTIONAL WHITE TYPE IAR MARKERS, RECESSED	EACH	512	\$10.00	\$5,120.00
228	00855	BI-DIRECTIONAL YELLOW TYPE IAR MARKERS, RECESSED	EACH	250	\$10.00	\$2,500.00
229	00866	HI-BUILD PAINT, 25 MIL, SPRAYED, SURFACE	FOOT	47,900	\$0.20	\$9,580.00
230	00866	DRIBBLE LINE, SPRAYED, SURFACE	FOOT	31,300	\$0.10	\$3,130.00
231	00867	PAVEMENT LEGEND, TYPE B: ARROWS	EACH	43	\$275.00	\$11,825.00
232	00867	PAVEMENT LEGEND, TYPE B-HS: BICYCLE LANE STENCIL	EACH	26	\$275.00	\$7,150.00
233	00867	PAVEMENT BAR, TYPE B	SQFT	109	\$9.00	\$981.00
234	00867	PAVEMENT BAR, TYPE B-HS	SQFT	4,660	\$9.00	\$41,940.00
<b>PERMANENT TRAFFIC CONTROL AND GUIDANCE DEVICES-SUBTOTAL</b>						<b>\$82,226.00</b>
<b>PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS</b>						
235	00990	TRAFFIC SIGNAL SYSTEMS LOOPS MODIFICATION, 142ND AVE/ SUNNYSIDE RD	LS	1	\$10,000.00	\$10,000.00
236	00990	TRAFFIC SIGNAL SYSTEMS LOOPS MODIFICATION, 152ND AVE/ SUNNYSIDE RD	LS	1	\$10,000.00	\$10,000.00
237	00990	TRAFFIC SIGNAL SYSTEMS LOOPS MODIFICATION, 162ND AVE/ SUNNYSIDE RD	LS	1	\$10,000.00	\$10,000.00
<b>PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS-SUBTOTAL</b>						<b>\$30,000.00</b>
<b>WORKSITE #1 - SUNNYSIDE ROAD PAVING PROJECT - 132ND TO 162ND - SUBTOTAL</b>						<b>\$3,412,649.00</b>

**SUNNYSIDE PAVING PROJECT**

**Bid 2022-32**

**Addendum #3**

Bidder: Granite Construction Company

<b>Worksite #2 - SE Sunnyside Road / SE 169th Ave Left Turn Lane Extension</b>			<b>Spring 2022</b>		<b>Plan Sheets C1.0 to C-4.0</b>		<b>page 5 of 6</b>
Item #	Spec #	Item Description	Unit	Quantity	Unit Price	Amount	
301	00197	EXTRA WORK DONE ON FORCE ACCOUNT BASIS	LS	1	\$10,000.00	\$10,000.00	
302	00221	TEMPORARY WORK ZONE TRAFFIC CONTROL, COMPLETE	LS	1	\$20,000.00	\$20,000.00	
303	00222	TEMPORARY PROJECT INFORMATION SIGNS	SQFT	30	\$35.00	\$1,050.00	
304	00222	PORTABLE CHANGEABLE MESSAGE SIGNS	EACH	2	\$3,500.00	\$7,000.00	
305	00280	EROSION CONTROL PLAN	LS	1	\$1,500.00	\$1,500.00	
306	00290	POLLUTION CONTROL PLAN	LS	1	\$500.00	\$500.00	
<b>TEMPORARY FEATURES AND APPURTENANCES-SUBTOTAL</b>						<b>\$40,050.00</b>	
<b>ROADWORK</b>							

307	00305	CONSTRUCTION SURVEY WORK	LS	1	\$5,000.00	\$5,000.00
308	00310	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	\$4,500.00	\$4,500.00
309	00310	ASPHALT PAVEMENT SAW CUTTING	FOOT	2,200	\$2.00	\$4,400.00
310	00330	GENERAL EXCAVATION (ENGINEER'S ESTIMATE: 230 CUYD)	LS	1	\$50,000.00	\$50,000.00
311	00331	12 INCH SUBGRADE STABILIZATION	SQYD	100	\$60.00	\$6,000.00
312	00350	SUBGRADE REINFORCEMENT GEOGRID	SQYD	370	\$2.00	\$740.00
<b>ROADWORK-SUBTOTAL</b>						\$70,640.00
<b>DRAINAGE AND SEWERS</b>						
313	00470	CATCH BASIN AND PIPE RECONNECTION	EACH	1	\$6,500.00	\$6,500.00
<b>DRAINAGE AND SEWERS - SUBTOTAL</b>						\$6,500.00
<b>BASES</b>						
314	00620	COLD PLANE PAVEMENT REMOVAL, 3 INCHES DEEP	SQYD	280	\$4.75	\$1,330.00
315	00641	AGGREGATE BASE	TON	480	\$35.00	\$16,800.00
<b>BASE - SUBTOTAL</b>						\$18,130.00
<b>WEARING SURFACES</b>						
316	00744	LEVEL 3, 1/2 INCH ACP	TON	235	\$125.00	\$29,375.00
317	00759	CONCRETE CURB, STANDARD CURB	FOOT	40	\$110.00	\$4,400.00
318	00759	CONCRETE ISLANDS	SQFT	700	\$85.00	\$59,500.00
<b>WEARING SURFACES - SUBTOTAL</b>						\$93,275.00

**SUNNYSIDE PAVING PROJECT**

**Bid 2022-32**

**Addendum #3**

Bidder:

Item #	Spec #	Item Description	Unit	Quantity	Unit Price	Amount
<b>Worksite #2 - SE Sunnyside Road / SE 169th Ave Left Turn Lane Extension</b>		Spring 2022		Plan Sheets C1.0 to C-4.0		page 6 of 6
<b>PERMANENT TRAFFIC CONTROL AND GUIDANCE DEVICES</b>						
319	00866	HI-BUILD PAINT, 25 MIL, SPRAYED, SURFACE	FOOT	1,850	\$0.20	\$370.00
320	00867	PAVEMENT LEGEND, TYPE B: ARROWS	EACH	3	\$275.00	\$825.00
<b>PERMANENT TRAFFIC CONTROL-SUBTOTAL</b>						\$1,195.00
<b>RIGHT OF WAY DEVELOPMENT AND CONTROL</b>						
321	01040	TOPSOIL (ENGINEER'S ESTIMATE: 10 CUYD)	LS	1	\$1,000.00	\$1,000.00
322	01040	BARK MULCH (ENGINEER'S ESTIMATE: 10 CUYD)	LS	1	\$1,500.00	\$1,500.00
<b>RIGHT OF WAY DEVELOPMENT AND CONTROL-SUBTOTAL</b>						\$2,500.00
<b>WATER SUPPLY SYSTEMS</b>						
323	01210	IRRIGATION SYSTEM ADJUSTMENTS	LS	1	\$6,000.00	\$6,000.00

WATER SUPPLY SYSTEMS-SUBTOTAL	\$6,000.00
WORKSITE #2 - SE SUNNYSIDE ROAD / SE 169TH AVE LEFT TURN LANE EXTENSION	\$238,290.00

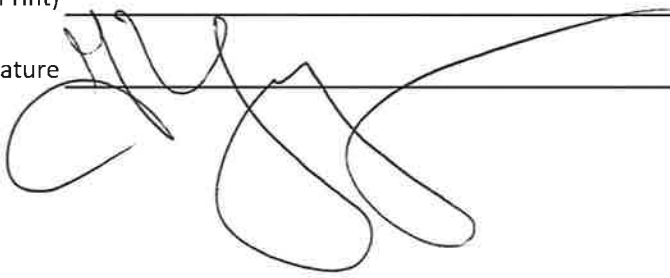
**SUNNYSIDE ROAD PAVING PROJECT TOTALS**

WORKSITE #1 - SUNNYSIDE ROAD PAVING PROJECT - 122ND TO 132ND	Plan Sheets G-01 to TS-04	\$1,915,627.00
WORKSITE #1 - SUNNYSIDE ROAD PAVING PROJECT - 132ND TO 162ND	Plan Sheets G-01 to TS-04	\$3,412,649.00
WORKSITE #2 - 169TH AVE @ SUNNYSIDE ROAD	Plan Sheets C1.0 to C4.0	\$238,290.00
<b>SUNNYSIDE ROAD PAVING PROJECT TOTAL</b>		<b>\$5,566,566.00</b>

Total Price \_\_\_\_\_ Five Million Five Hundred Sixty Six Thousand Five Hundred Sixty Six Dollars and  
 \_\_\_\_\_ Zero Cents

Name of Firm Granite Construction Company \_\_\_\_\_

Name (Print) Grant Youngren \_\_\_\_\_

Signature  \_\_\_\_\_ Date 5/10/2022



**FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM  
PROJECT: #2022-32**

**BID OPENING: May 5, 2022, 2:00 PM, Pacific Time**

**Failure to submit this Form by the disclosure deadline will result in a nonresponsive bid.**

**INSTRUCTIONS:**

This First-Tier Subcontractor Disclosure Form ("Form") must be submitted and received at the location specified in the Notice of Public Improvement Contract Opportunity on the advertised Bid Closing, and within two working hours after the advertised Bid Closing Time.

The Form may be mailed, hand-delivered or emailed to: Procurement@clackamas.us. It is the responsibility of Bidders to submit this Form and any additional sheets with the Project name clearly marked on the envelope or the subject line of the email.

Subcontractor lists may be submitted with the bid in the same envelope or email at the Bid Closing date and time. Subcontractor lists **MUST** be submitted within **two (2) hours** of the Bid Closing date and time.

List below the name of each subcontractor that will be furnishing labor, or labor and materials, for which disclosure is required, the category of work that the subcontractor will be performing, and the dollar value of the subcontract. Enter "**NONE**" if the value of the project bid is less than \$100,000 or there are no subcontractors that need to be disclosed. **ATTACH ADDITIONAL SHEETS IF NECESSARY.**

	SUBCONTRACTOR NAME	DOLLAR VALUE	CATEGORY OF WORK
1.	TFT Construction, Inc.	\$268,393. <sup>50</sup>	Milling / Cold Patch
2.	D&H Flagging, Inc.	\$300,000. <sup>00</sup>	Project Traffic Control
3.	Specialized Pavement Marking	\$140,980. <sup>40</sup>	Pavement Marking
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____

The above listed first-tier subcontractor(s) are providing labor, or labor and material, with a Dollar Value equal to or greater than:

- a) 5% of the total Contract Price, but at least \$15,000. If the Dollar Value is less than \$15,000 do not list the subcontractor above; or
- b) \$350,000 regardless of the percentage of the total Contract Price.

Firm Name: Granite Construction Company

Bidder Signature:  Phone # 360-831-5529  
Grant Youngren, Senior Estimator



CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT
PERFORMANCE BOND

Bond No.: Travelers:107611575, Federal: K41542445, CNA: 30144341
Solicitation: #2022-32
Project Name: Sunnyside Road Area Paving Project

Table with 3 columns: Surety Name, Surety #, Bond Amount No. 1, Bond Amount No. 2, Total Penal Sum of Bond. Values include \$5,566,566.00.

We, Granite Construction Company as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves...

WHEREAS, the Principal has entered into a contract with Clackamas County, along with the plans, specifications, terms and conditions of which are contained in the above-referenced Solicitation; and

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Performance Bond by reference...

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and all authorized modifications of the Contract...

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal herein shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract...

all respects perform said contract according to law, then this obligation is to be void; otherwise, it shall remain in full force and effect for so long as any term of the Contract remains in effect.

Nonpayment of the bond premium will not invalidate this bond nor shall Clackamas County, be obligated for the payment of any premiums.

This bond is given and received under authority of Oregon Revised Statutes Chapter 279C and the Clackamas County Local Contractor Review Board Rules, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES.

Dated this 9th day of June, 2022.



PRINCIPAL: Granite Construction Company

By: [Signature]

Signature

Kenneth B. Olson, Senior Vice President

Official Capacity

Attest: See Attached Certificate of Secretary

Corporation Secretary

SURETY: Travelers Casualty and Surety Company of America\*  
[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:  
[Power-of-Attorney must accompany each bond]

Isabel Barron, Attorney In Fact

Name

[Signature]

Signature

1 Tower Square

Address

Hartford, CT 06183\*\*

City State Zip

860-277-8170

Phone Fax

\*Federal Insurance Company  
The Continental Insurance Company  
Jointly and Severally Liable  
\*\*Whitehouse Station, NJ, Chicago, IL,  
respectively



A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

## ACKNOWLEDGMENT

State of California  
County of Santa Cruz )

On June 9, 2022 before me, Mariella Rubio, Notary Public  
(insert name and title of the officer)

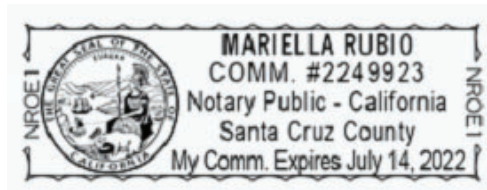
personally appeared Isabel Barron,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature   
Mariella Rubio, Notary Public

(Seal)





CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

PAYMENT BOND

Bond No.: Travelers:107611575, Federal: K41542445, CNA: 30144341
Solicitation: #2022-32
Project Name: Sunnyside Road Area Paving Project

Table with 2 columns: Surety Name and Bond Amount. Rows include Travelers Casualty and Surety Company of America\* (Surety #1), (Surety #2)\*, and Total Penal Sum of Bond.

We, Granite Construction Company, as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto Clackamas County, the sum of (Total Penal Sum of Bond) (\$5,566,566.00) Five Million Five Hundred Sixty Six Thousand Five Hundred Sixty Six 00/100 Dollars (Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety); and

WHEREAS, the Principal has entered into a contract with Clackamas County, along with the plans, specifications, terms and conditions of which are contained in above-referenced Solicitation; and

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Payment Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and schedule of contract prices which are set forth in the Contract and any attachments, and all authorized modifications of the Contract which increase the amount of the work, or the cost of the Contract, or constitute authorized extensions of time for performance of the Contract, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things by it undertaken to be performed under said Contract and any duly authorized modifications that are made, upon the terms set forth therein, and within the time prescribed therein, or as extended therein as provided in the Contract, with or without notice to the Sureties, and shall defend, indemnify, and save harmless Clackamas County and its elected officials, officers, employees and agents, against any claim for direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by the Contractor or its subcontractors, and shall promptly pay all persons supplying labor, materials or both to the Principal or its subcontractors for prosecution of the work provided in the Contract; and shall promptly pay all contributions due the State Industrial Accident Fund and the State Unemployment Compensation Fund from the Principal or its subcontractors in connection with the performance of the Contract; and shall pay over to the Oregon Department of Revenue all sums required to be deducted and retained from the wages of employees of the Principal and its subcontractors pursuant to ORS 316.167, and

shall permit no lien nor claim to be filed or prosecuted against Clackamas County on account of any labor or materials furnished; and shall do all things required of the Principal by the laws of this State, then this obligation shall be void; otherwise, it shall remain in full force and effect for so long as any term of the Contract remains in effect.

Nonpayment of the bond premium will not invalidate this bond nor shall Clackamas County be obligated for the payment of any premiums.

This bond is given and received under authority of Oregon Revised Statutes Chapter 279C and the Clackamas County Local Contractor Review Board Rules, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES:

Dated this 9th day of June, 2022.



PRINCIPAL: Granite Construction Company

By: [Signature]

Signature

Kenneth B. Olson, Senior Vice President

Official Capacity

Attest: See Attached Certificate of Secretary  
Corporation Secretary

SURETY: Travelers Casualty and Surety Company of America\*  
[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:  
[Power-of-Attorney must accompany each bond]

Isabel Barron, Attorney In Fact

[Signature] Name

Signature

1 Tower Square

Address

Hartford, CT 06183\*\*

City State Zip

860-277-8170

Phone Fax

\*Federal Insurance Company  
The Continental Insurance Company  
Jointly and Severally Liable  
\*\*Whitehouse Station, NJ, Chicago, IL,  
respectively



A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

## ACKNOWLEDGMENT

State of California  
County of Santa Cruz )

On June 9, 2022 before me, Mariella Rubio, Notary Public  
(insert name and title of the officer)

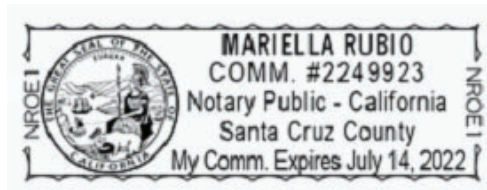
personally appeared Isabel Barron,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature   
Mariella Rubio, Notary Public

(Seal)





**Travelers Casualty and Surety Company of America  
Travelers Casualty and Surety Company  
St. Paul Fire and Marine Insurance Company**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Isabel Barron** of **WATSONVILLE**, **California**, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **21st** day of **April**, **2021**.



State of Connecticut

City of Hartford ss.

By:   
Robert L. Raney, Senior Vice President

On this the **21st** day of **April**, **2021**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, **2026**



Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **9th** day of **June**, **2022**



Kevin E. Hughes, Assistant Secretary

**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.  
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.**



Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company

Westchester Fire Insurance Company | ACE American Insurance Company

Know All by These Presents, that FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY corporations of the Commonwealth of Pennsylvania, do each hereby constitute and appoint Isabel Barron, Jigisha Desai, John D. Gilliland, Maria Gomez, Roberto J. Rivera-Rodriguez, Mariela Rubio, Ashley Stinson and Tobi Stonich Telesco of Watsonville, California

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business on behalf of GRANITE CONSTRUCTION INCORPORATED and all Subsidiaries alone or in joint venture as principal, in connection with bids, proposals or contracts to or with the United States of America, any State or political subdivision thereof or any person, firm or corporation. And the execution of such bond or obligation by such Attorney-in-Fact in the Company's name and on its behalf as surety thereon or otherwise, under its corporate seal, in pursuance of the authority hereby conferred shall, upon delivery thereof, be valid and binding upon the Company.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY have each executed and attested these presents and affixed their corporate seals on this 10th day of December, 2020.

Dawn M. Chloros

Dawn M. Chloros, Assistant Secretary

Stephen M. Haney

Stephen M. Haney, Vice President



STATE OF NEW JERSEY
County of Hunterdon SS.

On this 10th day of December, 2020 before me, a Notary Public of New Jersey, personally came Dawn M. Chloros and Stephen M. Haney, to me known to be Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY, the companies which executed the foregoing Power of Attorney, and the said Dawn M. Chloros and Stephen M. Haney, being by me duly sworn, severally and each for herself and himself did depose and say that they are Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY and know the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of said Companies; and that their signatures as such officers were duly affixed and subscribed by like authority.

Notarial Seal



KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2316685
Commission Expires July 16, 2024

[Signature]
Notary Public

CERTIFICATION

Resolutions adopted by the Boards of Directors of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY on August 30, 2016; WESTCHESTER FIRE INSURANCE COMPANY on December 11, 2006; and ACE AMERICAN INSURANCE COMPANY on March 20, 2009:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into in the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
(2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such person's written appointment as such attorney-in-fact.
(3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
(4) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing to any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
(5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested."

I, Dawn M. Chloros, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY (the "Companies") do hereby certify that

- (i) the foregoing Resolutions adopted by the Board of Directors of the Companies are true, correct and in full force and effect,
(ii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Whitehouse Station, NJ, this June 9, 2022



Dawn M. Chloros

Dawn M. Chloros, Assistant Secretary

IN THE EVENT YOU WISH TO VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT:
Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com

**POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT**

**Know All Men By These Presents**, That The Continental Insurance Company, a Pennsylvania insurance company, is a duly organized and existing insurance company having its principal office in the City of Chicago, and State of Illinois, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

**John D Gilliland, Jigisha Desai, Ashley Stinson, Tobi Stonich Telesco, Isabel Barron, Roberto J Rivera-Rodriguez, Maria Gomez, Mariela Rubio, Individually**

of Watsonville, CA, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

**- In Unlimited Amounts -**

and to bind them thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the insurance company and all the acts of said Attorney, pursuant to the authority hereby given is hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions, printed on the reverse hereof, duly adopted, as indicated, by the Board of Directors of the insurance company.

**In Witness Whereof**, The Continental Insurance Company has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 22nd day of June, 2021.



The Continental Insurance Company

*Paul T. Bruflat*  
\_\_\_\_\_  
Paul T. Bruflat Vice President

State of South Dakota, County of Minnehaha, ss:

On this 22nd day of June, 2021, before me personally came Paul T. Bruflat to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of The Continental Insurance Company, a Pennsylvania insurance company, described in and which executed the above instrument; that he knows the seal of said insurance company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said insurance company and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance company.



My Commission Expires March 2, 2026

*M. Bent*  
\_\_\_\_\_  
M. Bent Notary Public

**CERTIFICATE**

I, D. Johnson, Assistant Secretary of The Continental Insurance Company, a Pennsylvania insurance company, do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolution of the Board of Directors of the insurance company printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance company this June 9, 2022



The Continental Insurance Company

*D. Johnson*  
\_\_\_\_\_  
D. Johnson Assistant Secretary

Form F6850-4/2012

## Authorizing By-Laws and Resolutions

ADOPTED BY THE BOARD OF DIRECTORS OF THE CONTINENTAL INSURANCE COMPANY:

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the Board of Directors of the Company at a meeting held on May 10, 1995.

“RESOLVED: That any Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Group Vice President to the Secretary of the Company prior to such execution becoming effective.

This Power of Attorney is signed by Paul T. Brufat, Vice President, who has been authorized pursuant to the above resolution to execution power of attorneys on behalf of The Continental Insurance Company.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25<sup>th</sup> day of April, 2012.

“Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the “Authorized Officers”) to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, “Electronic Signatures”), Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company.”

# GRANITE CONSTRUCTION COMPANY

## CERTIFICATE OF SECRETARY

---

I, M. Craig Hall, Secretary of GRANITE CONSTRUCTION COMPANY, a California corporation (the “Company”), do hereby certify that the following is a true and correct copy of resolutions duly adopted March 30, 2022 by a Unanimous Written Consent of the Board of Directors in accordance with the provisions of Article III, Section 9 of the Bylaws of the Company; that the Directors acting were duly and regularly elected; and that the resolutions adopted have not been repealed and are still in full force and effect:

### AUTHORIZATION TO EXECUTE DOCUMENTS AND AGREEMENTS

**RESOLVED**, that the below listed officers are authorized to execute and deliver on behalf of the Company all documents, agreements and undertakings required in connection with construction contract formation and operations of the Company:

Kyle T. Larkin	President & Chief Executive Officer
Elizabeth L. Curtis	Executive Vice President, Chief Financial Officer & Assistant Secretary
James A. Radich	Executive Vice President, Chief Operating Officer & Assistant Secretary
Brian R. Dowd	Senior Vice President, Group Manager & Assistant Secretary
Timothy W. Gruber	Senior Vice President, Human Resources & Assistant Secretary
M. Craig Hall	Senior Vice President, General Counsel, Corporate Compliance Officer & Secretary
Kenneth B. Olson	Senior Vice President of Corporate Finance, Treasurer, Assistant Financial Officer & Assistant Secretary
James D. Richards	Senior Vice President, Group Manager & Assistant Secretary
Michael G. Tatusko	Senior Vice President, Group Manager & Assistant Secretary
Michael W. Barker	Vice President, Investor Relations
James D. Nickerson	Vice President & Assistant Secretary
Nicholas B. Blackburn	Vice President, Tax & Assistant Secretary
Staci M. Woolsey	Chief Accounting Officer & Assistant Secretary

**RESOLVED FURTHER**, that the authority provided for herein shall be in accordance with applicable policies, procedures and limits of authority previously approved and the Granite Construction Incorporated Delegation of Authority and Policy then in effect.

**AUTHORIZATION TO ATTEST DOCUMENTS AND AGREEMENTS**

**RESOLVED**, that the below listed officers are authorized to attest documents, agreements and undertakings required in connection with construction contract formation and operations of the Company:

Kyle T. Larkin	President & Chief Executive Officer
Elizabeth L. Curtis	Executive Vice President, Chief Financial Officer & Assistant Secretary
James A. Radich	Executive Vice President, Chief Operating Officer & Assistant Secretary
Brian R. Dowd	Senior Vice President, Group Manager & Assistant Secretary
Timothy W. Gruber	Senior Vice President, Human Resources & Assistant Secretary
M. Craig Hall	Senior Vice President, General Counsel, Corporate Compliance Officer & Secretary
Kenneth B. Olson	Senior Vice President of Corporate Finance, Treasurer, Assistant Financial Officer & Assistant Secretary
James D. Richards	Senior Vice President, Group Manager & Assistant Secretary
Michael G. Tatusko	Senior Vice President, Group Manager & Assistant Secretary
Michael W. Barker	Vice President, Investor Relations
James D. Nickerson	Vice President & Assistant Secretary
Nicholas B. Blackburn	Vice President, Tax & Assistant Secretary
Staci M. Woolsey	Chief Accounting Officer & Assistant Secretary
Jordy L. Murray	Deputy General Counsel & Assistant Secretary
Kenneth M. Smith	Group Counsel & Assistant Secretary
Jason M. Jasper	Group Counsel & Assistant Secretary
Clinton R. Clark	Assistant Secretary
Todd N. Burford	Assistant Secretary

Dated: April 1, 2022

  
\_\_\_\_\_  
M. Craig Hall



CLACKAMAS COUNTY  
PUBLIC IMPROVEMENT CONTRACT  
PROJECT INFORMATION, PLANS, SPECIFICATIONS AND DRAWINGS

**PROJECT: #2022-32 Sunnyside Road Area Paving Project**

**Project Background:**

The Sunnyside Road Paving Project is an asphalt paving contract. This contract will resurface 2.1 miles of road. This contract will resurface a portion of SE Sunnyside Road between SE 122nd Avenue and SE 162nd Avenue asphalt. This project will also extend a center turn lane on SE Sunnyside Road west of SE 169th Avenue. This Portion of SE Sunnyside Road has an average daily traffic of 36,000 vehicles per day and is classified as an urban major arterial.

This contract will include, but not be limited to: placing approximately, 25,000 tons of asphalt; grinding about 100,000 square yards of asphalt; placing pavement markings and striping; modifying traffic signal system loops; installing, maintaining, and removing temporary work zone traffic control measures; and performing additional incidental work as called for by the specifications and plans.

**Engineers Estimate:** \$4,700,000.00

**Key Dates:**

All Basic Bid Work may begin as soon as the Notice to Proceed (“NTP”) is issued

Substantial Completion: August 31, 2022

Final Completion: December 31, 2022

Time is of the essence for this Project. Note the Liquidated Damages requirements as described in the project Specifications.

**The Scope further includes the following Plans, Specifications and Drawings:**

SPECIAL PROVISIONS FOR SUNNYSIDE RD PAVING PROJECT-122<sup>nd</sup> AVE TO 162<sup>nd</sup> AVE,  
dated MAY 2022

SUNNYSIDE RD PAVING PROJECT-122<sup>ND</sup> AVE TO 162<sup>ND</sup> AVE Drawing Set, Sheets No. G-01,G-02, C-01 through C-15, ST-01 through ST-12, TS-01 through TS-04, RD300, RD302, RD335, RD336, RD338, RD356, RD360, RD601, RD706, RD1010, TM500-TM503, TM515, TM517, TM530, TM531, TM539, TM560, TM561, TM800, TM810, TM820-TM822, TM840-TM844, TM851-TM853 (67 pages)

SE SUNNYSIDE ROAD/ SE 169<sup>TH</sup> AVE LEFT TURN LANE EXTENSION Drawing Set, Sheets No. C1.0-C4.0 (4 pages)

**SPECIAL PROVISIONS**  
**FOR**  
**SUNNYSIDE RD PAVING PROJECT - 122<sup>ND</sup> AVE TO 162<sup>ND</sup> AVE**

**CLACKAMAS COUNTY DEPARTMENT OF  
TRANSPORTATION AND DEVELOPMENT**

**CLACKAMAS COUNTY, OREGON**



Asphalt Paving & Oiling, Electrical, Temporary Traffic Control and Pavement Markings

March 2022

**CLACKAMAS COUNTY DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT**


**SPECIAL PROVISIONS**

**FOR**

**SUNNYSIDE RD PAVNG PROJECT - 122<sup>ND</sup> AVE TO 162 AVE  
CIP #22342/22343**

**CLACKAMAS COUNTY, OREGON**

**PROFESSIONAL OF RECORD CERTIFICATION(s):**

<p>Seal w/signature</p>  <p>RENEWS</p>	<p>I certify the Special Provisions Sections listed below are applicable to the design for the subject project for roadway improvements. Modified Special Provisions were prepared by me or under my supervision.</p> <p>Section 00210, 00220, 00221, 00222, 00223, 00225, 00226, 00228, 00280, 00290, 00305, 00310, 00331, 00340, 00440, 00490, 00620, 00641, 00730, 00745, 00748, 00749, 00850, 00855, 00866, 00867, 02010, 02020, 02030, 02040, 02070, 02080, 02440, 02450, 02510</p>
<p>Date Signed: <u>02-15-2022</u></p>	



**CLACKAMAS COUNTY DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT**


**SPECIAL PROVISIONS**

**FOR**

**SUNNYSIDE RD PAVNG PROJECT - 122<sup>ND</sup> AVE TO 162<sup>ND</sup> AVE  
CIP #22342/22343**

**CLACKAMAS COUNTY, OREGON**

**PROFESSIONAL OF RECORD CERTIFICATION(s):**

<p>Seal w/signature</p>  <p>Digitally signed by Brian K Copeland Date: 2022.02.10 11:43:19 -08'00'</p>	<p>I certify the Special Provisions Sections listed below are applicable to the design for the subject project for traffic improvements. Modified Special Provisions were prepared by me or under my supervision.</p> <p>Section 00950, 00960, 00990</p>
<p>Date Signed: <u>2/11/2022</u></p>	

FINAL ELECTRONIC DOCUMENT AVAILABLE UPON REQUEST

## **SPECIAL PROVISIONS**

### **WORK TO BE DONE**

#### **SUNNYSIDE RD PAVING PROJECT - 122<sup>ND</sup> AVE TO 162<sup>ND</sup> AVE, CLACKAMAS COUNTY, OREGON**

The Sunnyside Rd Paving Project - 122<sup>nd</sup> Ave to 162<sup>nd</sup> Ave is an asphalt paving contract. This contract will resurface about 2.1 miles of road. This contract will resurface a portion of SE Sunnyside Road between 122<sup>nd</sup> Avenue and 162<sup>nd</sup> Avenue with asphalt. This portion of SE Sunnyside Road has an average daily traffic of 36,000 vehicles per day and is classified as an urban major arterial.

This contract will include, but not be limited to: placing approximately, 25,000 tons of asphalt; grinding about 100,000 square yards of asphalt; placing pavement markings and striping; modifying traffic signal system loops; installing, maintaining, and removing temporary work zone traffic control measures; and performing additional incidental work as called for by the specifications and plans. The project estimate for this contract is \$4,600,000.

### **APPLICABLE SPECIFICATIONS**

The Specification that is applicable to the Work on this Project is the 2021 edition of the "Oregon Standard Specifications for Construction" produced by the Oregon Department of Transportation and the Oregon Chapter or the APWA.

All number references in these Special Provisions shall be understood to refer to the Sections and subsections of the Standard Specifications and Supplemental Specifications bearing like numbers and to Sections and subsections contained in these Special Provisions in their entirety.

### **CLASS OF PROJECT**

This is a Clackamas County Project and it is not federally funded.

### **CLASS OF WORK**

Asphalt Concrete Paving and Oiling (ACP)  
Electrical  
Temporary Traffic Control (TTC)  
Pavement Markings (PAVE)

## Section 00110 – Organization, Conventions, Abbreviations and Definitions

Comply with Section 00110 of the Standard Specifications modified as follows:

### **00110.05(d) References to Laws, Acts, Regulations, Rules, Ordinances, Statutes, Orders, and Permits**

Add the following to the first bullet (Statutes and Rules):

- Clackamas County's Local Contract Review Board (LCRB) Rules are accessible online on the County's website  
<https://dochub.clackamas.us/documents/drupal/ef976bc9-14f4-495b-9bd8-c69ee7334685>.

**00110.05(e) Reference to Websites** - Add the following bullet list to the end of this subsection:

- American Traffic Safety Services Association (ATSSA)  
www.atssa.com
- BidExpress  
www.bidx.com
- EquipmentWatch  
www.equipmentwatch.com
- ODOT Construction Section  
www.oregon.gov/odot/construction/pages/index.aspx
- ODOT Construction Section - Qualified Products List (QPL)  
www.oregon.gov/ODOT/Construction/Pages/Qualified-Products.aspx
- ODOT Construction Surveying Manual for Contractors  
www.oregon.gov/ODOT/ETA/Documents\_Geometronics/Construction-Survey-Manual-Contractors.pdf
- ODOT Electronic Bidding Information Distribution System (eBids)  
(Also referred to as ODOT eBids website)  
ecm.odot.state.or.us/cf/EBIDS/
- ODOT Estimating  
www.oregon.gov/ODOT/Business/Pages/Steel.aspx
- Oregon Legislative Counsel  
www.oregonlegislature.gov/lc

- ODOT Procurement Office - Conflict of Interest Guidelines and Disclosure Forms  
[www.oregon.gov/ODOT/Business/Procurement/Pages/PSK.aspx](http://www.oregon.gov/ODOT/Business/Procurement/Pages/PSK.aspx)
- ODOT Procurement Office - Construction Contracts Unit Notice of Intent  
[www.oregon.gov/ODOT/Business/Procurement/Pages/NOI.aspx](http://www.oregon.gov/ODOT/Business/Procurement/Pages/NOI.aspx)
- ODOT Procurement Office - Construction Contracts Unit prequalification forms  
[www.oregon.gov/odot/business/procurement/pages/bid\\_award.aspx](http://www.oregon.gov/odot/business/procurement/pages/bid_award.aspx)
- Oregon Secretary of State: State Archives  
[sos.oregon.gov/archives/Pages/default.aspx](http://sos.oregon.gov/archives/Pages/default.aspx)
- ODOT Traffic Control Plans Unit  
[www.oregon.gov/ODOT/Engineering/Pages/Work-Zone.aspx](http://www.oregon.gov/ODOT/Engineering/Pages/Work-Zone.aspx)
- ODOT Traffic Standards  
[www.oregon.gov/ODOT/Engineering/Pages/Signals.aspx](http://www.oregon.gov/ODOT/Engineering/Pages/Signals.aspx)

#### **00110.10 Abbreviations**

Add the following:

- CCDA - Clackamas County Development Agency
- DTD - Clackamas County Department of Transportation and Development
- LCRB - Local Contract Review Board
- ODFW - Oregon Department of Fish and Wildlife
- UNS - Utility Notification System
- WES - Water Environment Services of Clackamas County

#### **00110.20 Definitions**-Add the following to this subsection:

**Agreement Form** – The written agreement between the Owner and Contractor covering the work to be performed under the contract.

**Amendment** – A contract modification for Additional Work, Changed Work, Extra Work, Field Directives, or other changes. An Amendment changes the contract value, scope, and/or time. Amendments require formal approval by the Board of County Commissioners, pursuant to LCRB Rule Division C-049-160, prior to approval of such work.

**Approved Equal** - Materials or services proposed by the contractor and approved by the County as equal substitutes for those materials or services specified.

**Award** – Same as “Notice to Intent to Award”.

**BCC** – The Clackamas County Board of County Commissioners

**Bid** - A written offer by a bidder on forms furnished by the County to do work stated in the bid documents at the prices quote. "Bid" is synonymous with "proposal" in these bid documents.

**Bid Closing** - The date and time for Bid Closing is the same as the date and time for Bid Opening.

**Bid Documents**- The following documents together comprise the Bid Documents:

- Invitation to Bid, Instructions to Bidders, Bid Form, Bid Proposal, Schedule of Prices, Bid
- Bond, Performance Bond
- Certificate of Insurance, Prevailing Wage Rates
- The "Oregon Standard Specifications for Construction" by ODOT and APWA, 2021 edition.
- Plans and drawings
- Other bid documents included or referenced in the bid documents
- Addenda, if any
- The Agreement Form and Special Provisions

**Bonds** -The bond or surety bond is a written document given by the surety and principal to the obligee to guarantee a specific obligation.

**Change Order** - A price agreement for Extra Work, Changed Work, field directives or other changes. A Change Order does not change the contract value, scope, or time until it is incorporated into an Amendment. Change Orders will be agreed upon, in writing, by the County Project Manager and the Contractor's designated representative.

**Contract** - The written contract agreement, including amendments, signed by the Contractor and Clackamas County, which describes the work to be done, the contract amount, and defines the relationships and obligations of the Contractor and the County.

**Contract Documents** - The Invitation to Bid, the Instructions to Bidders, the accepted Bid Proposal and Schedule of Prices, the Subcontractor List, the Bid Bond, the Performance and Payment Bond, the Certificate of Insurance, the Prevailing Wage Rates, the Standard Specifications and Special Provisions, Amendments, the Plans and Drawings, the Agreement, as well as all documents incorporated by reference therein, and any and all addenda prepared by or at the direction of and adopted by the County and further identified by the signature of the parties and all modifications thereof incorporated in the documents before their execution.

**County** - The term "County" shall mean Clackamas County, including the Board of County Commissioners, employees and agents of the County authorized to administer the conditions of these contract documents.

**Department** – A subdivision of the Agency.

**Engineer** - The County's Project Manager either acting directly or through an authorized representative(s). When referring to approval of extra work or other Contract modifications, "Engineer" also refers to the County's legal authority according to the LCRB rules.

**Invitation to Bid** - The public announcement (Notice to Contractors) inviting bids for work to be performed or materials to be furnished.

**Legal Holiday** - As defined in ORS 279C.540.

**Lump Sum** - A method of payment providing for one all-inclusive cost for the work or for a particular portion of the work.

**Notice of Intent to Award** - A written notice from the County notifying bidders that the County intends to award to the responsible bidder submitting lowest responsive bid.

**ODOT Procurement Office** – Clackamas County Procurement Division.

**Owner** – Synonymous with Agency.

**Plan Holder's List** – A list of contractor's names, contact names, phone and fax numbers that the County's Purchasing Department creates during bidding of the Project.

**Project Manager** – The Owner's representative who directly supervises the engineering and administration of the contract.

**Shop Drawings** – Synonymous with Working Drawings.

**Solicitation Document** – Synonymous with Bid Documents.

**Standard Drawings** – The Agency-prepared detailed drawings for Work or methods of construction that normally do not change from project to project. The Standard Drawings include the ODOT Standard Drawings.

**Standard Specifications** - "Oregon Standard Specifications for Construction", current edition, published by the Oregon Department of Transportation and as amended by **the Agency**.

**State** - Where the term "State" or "State of Oregon" or "ODOT" appears in the contract documents it shall mean "Clackamas County", "State of Oregon", or "ODOT" as applicable because of context.

**Work Day** - Any and every calendar day from January 1 to December 31 of every year, excluding Saturdays, Sundays and Legal Holidays.

Add the following to the end of this subsection:

See Clackamas County General Conditions for Public Improvement Contracts for additional definitions.

## **END OF SECTION**

### **Section 00120 – Bidding Requirements and Procedures**

Comply with Section 00120 of the Standard Specifications modified as follows:

**00120.00 Prequalification of Bidders** - Replace with the following:

**00120.00 Prequalification of Bidders** - See Clackamas County Public Improvement Contract: Instructions to Bidders.

**00120.01 General Bidding Requirements** – Replace with the following:

**00120.01 General Bidding Requirements** – See Clackamas County Public Improvement Contract: Instructions to Bidders.

**00120.05 Request for Plans, Special Provisions, and Bid Booklets:** – Replace with the following:

**00120.05 Request for Plans, Special Provisions, and Bid Booklets:** – Bid documents may be obtained from the Clackamas County Procurement Division as indicated in Notice of Public Improvement Contract Opportunity.

Copies of the 2021 Oregon Standard Specifications for Construction and Supplements might be found on the Oregon Department of Transportation website at:

[http://www.oregon.gov/ODOT/Business/Pages/Standard\\_Specifications.aspx](http://www.oregon.gov/ODOT/Business/Pages/Standard_Specifications.aspx)

**00120.10 Bid Booklet** - In the paragraph that begins "The Bid Section includes all pages after...", add the following bullet to the bullet list:

Certificate of nondiscrimination regarding ORS 279A.110 and certificate regarding policy and practice against sexual harassment, sexual assault and discrimination against employees who are members of a protected class as required by ORS 279A.112 (House Bill 3060, 2017)

**00120.15 Examination of Work Site and Solicitation Documents; Consideration of Conditions to be Encountered** – Delete the third paragraph.

**00120.30 Changes to Plans, Specifications, or Quantities before Opening of Bids -**  
Replace with the following:

**00120.30 Changes to Plans, Specifications, or Quantities before Opening of Bids -**  
See Clackamas County Public Improvement Contract: Instructions to Bidders.

**00120.40 Preparation of Bids –** Replace with the following:

**00120.40 Preparation of Bids –** See Clackamas County Public Improvement Contract:  
Instructions to Bidders.

**00120.45 Submittal of Bids -** Replace with the following:

**00120.45 Submittal of Bids -** See Clackamas County Public Improvement Contract:  
Instructions to Bidders.

**00120.50 Submitting Bids for More than One Contract –** Delete this subsection.

**00120.60 Revision or Withdrawal of Bids -** Replace with the following:

**00120.60 Revision or Withdrawal of Bids -** See Clackamas County Public Improvement  
Contract: Instructions to Bidders.

**00120.68 Mistakes in Bids –** Replace with the following:

**00120.68 Mistakes in Bids –** See Clackamas County Public Improvement Contract:  
Instructions to Bidders.

**00120.70 Rejection of Nonresponsive Bids –** Replace with the following:

**00120.70 Rejection of Nonresponsive Bids –** See Clackamas County Public  
Improvement Contract: Instructions to Bidders.

**00120.95 Opportunity for Cooperative Arrangement –** Delete this subsection.

## **END OF SECTION**

### **Section 00130 – Award and Execution of Contract**

Comply with Section 00130 of the Standard Specifications modified as follows:

**00130.00 Consideration of Bids -** Delete third paragraph.

**00130.10 Award of Contract -** Replace with the following:

**00130.10 Award of Contract -** See Clackamas County Public Improvement Contract:  
Instructions to Bidders.



**00130.15 Right to Protest Award** – Replace with the following:

**00130.15 Right to Protest Award** – See Clackamas County Public Improvement Contract: Instructions to Bidders.

**00130.30 Contract Booklet** – Add the following:

Other documents are part of the contract documents by reference. These include, but are not limited to:

- The "Oregon Standard Specifications for Construction", 2021 Edition, as published by the Oregon Department of Transportation (ODOT).
- "Oregon Standard Drawings" latest edition, as published by ODOT.
- Clackamas County Service District No. 1 "Surface Water Standard Specifications", latest edition.

**00130.40 Contract Submittals** - Replace with the following:

**00130.40 Contract Submittals** - See Clackamas County Public Improvement Contract: Instructions to Bidders.

**00130.70 Release of Bid Guaranties** – Replace with the following:

**00130.70 Release of Bid Guaranties** – See Clackamas County Public Improvement Contract: Instructions to Bidders.

**00130.80 Project Site Restriction-** Replace the paragraph that begins "Until the Agency sends...", with the following paragraph:

Until the Agency sends the Contractor written Notice to Proceed with the Work, and the Contractor has filed the public works bonds required in 00170.20, the Contractor shall not go onto the Project Site on which the Work is to be done, nor move Materials, Equipment or workers onto the Project Site.

## **END OF SECTION**

### **Section 00140 – Scope of Work**

Comply with Section 00140 of the Standard Specifications supplemented modified as follows:

**00140.30 Agency-Required Changes in the Work** – Replace the last paragraph with the following:

Upon receipt of an Engineer's written order modifying the Work, the Contractor shall perform the Work as modified via Change Order, which may be subject to approval as an Amendment.

If an Amendment incorporating changes to the Work increases the Contract amount, the Contractor shall notify its Surety of the increase and shall provide the Agency with a copy of any resulting modification to bond documents. The Contractor's performance of Work pursuant to Amendments shall neither invalidate the Contract nor release the Surety. Payment for changes in the Work shall be made in accordance with 00195.20. Contract Time adjustments shall be made in accordance with 00180.80.

**00140.31 "As Built" Records** - Add the following:

Maintain a current and accurate record of the work completed during the course of this contract. This may be in the form of "as-built" drawings kept by accurately marking a designated set of the contract plans with the specified information as the Work proceeds. Accurate, complete and current "as-built" drawings are a specified requirement for full partial payment of the work completed. At project completion and as a condition of final payment, the Contractor shall deliver to the Project Manager a complete and legible set of "as-built" drawings.

The "as-built" drawings must show the information listed below. Where the term "locate" or "location" is used, it shall mean record of position with respect to both the construction vertical datum and either construction horizontal datum or a nearby permanent improvement.

- 1) Record location of underground services and utilities as installed.
- 2) Record location of existing underground utilities and services that are to remain and that are encountered during the course of the work.
- 3) Record changes in dimension, location, grade or detail to that shown on the plans.
- 4) Record changes made by change order.
- 5) Record details not in the original plans.
- 6) Provide fully completed shop drawings reflecting all revisions.

**END OF SECTION**

**Section 00150 – Control of Work**

Comply with Section 00150 of the Standard Specifications modified as follows:

**00150.00 Authority of the Engineer** – Replace the first sentence with the following:

Except as indicated elsewhere in the Contract (e.g. Amendment approval by the BCC), the Engineer has full authority over the Work and its suspension.

**00150.05 Cooperative Arrangements** – Delete this subsection.

## **00150.10 Coordination of Contract Documents**

**(a) Order of Precedence** – Replace with the following:

The Engineer will resolve any discrepancies between these documents in the following order of precedence:

- Approved Amendments;
- Approved Change Orders
- Bid Schedule with Schedule of Prices;
- Permits from governmental agencies
- Special Provisions;
- Agency-prepared drawings specifically applicable to the Project and bearing the Project title;
- Reviewed and accepted, stamped Working Drawings;
- Agreement Form;
- Standard Drawings;
- Approved Unstamped Working Drawings;
- Standard Specifications;
- All other Contract Documents not listed above.

Notes on a drawing shall take precedence over drawing details.

Dimensions shown on the drawings, or that can be computed, shall take precedence over scaled dimensions.

**00150.15(a) General** – Delete this subsection.

**00150.15(b) Agency Responsibilities** - Replace this subsection, except for the subsection number and title, with the following:

The Engineer will:

Provide copies of plans and specifications.  
Perform measurements and calculations for pay quantities.  
Perform "inal "as const"ucted" measurements.

**00150.15(c) Contractor Responsibilities** - Replace this subsection, except for the subsection number and title, with the following:

The Contractor shall be responsible to furnish all field controls for setting principal lines, grades, and measurements as needed to construct the Work as indicated in the Contract Documents.

**00150.50 Cooperation with Utilities:** Add the following to the end of Paragraph (a):

There may be other utility servers who are not specifically listed in these Special Provisions or on the Plans that may be adjusting or inspecting their facilities within the project limits.

**00150.50(c) Contractor Responsibilities** – Add the following to the bulleted list:

- Follow applicable rules adopted by the Oregon Utility Notification Center;
- Contact Utility owners during Bid preparation and after Contract is awarded to verify all Utilities involvement on the Project Site;
- Hold a utility scheduling meeting and monthly utility coordination meetings (see also 00180.42);
- Coordinate Project construction with Utilities' planned adjustments, take all precautions necessary to prevent disruption of Utility service, and perform its Work in the manner that results in the least inconvenience to the Utility owners;
- Include all Utility adjustment work, whether to be performed by the Contractor or the Utilities, on the Contractor's Project Work schedule submitted under 00180.41;
- Protect from damage or disturbance any Utility that remains within the area in which Work is being performed. Maintain and re-establish utility location marks according to OAR 952-001-0090(2)(a). Coordinate re-establishment of the location marks with the associated Utility;
- Not disturb an existing Utility if it requires an unanticipated adjustment, but shall protect the Utility from damage or disturbance and promptly notify the Engineer;
- Determine the exact location before excavating within the reasonable accuracy zone according to OAR 952-001-0090(2)(c);
- Backfill any exposed utilities as recommended and approved by the Utility representative. Obtain utility locate warning tape from the Utility and replace damaged or removed warning tape. Utility locate warning tape may not be present at all existing utilities;
- Stake, place warning tape, and maintain no work limits around critical Utility facilities as shown or directed by the Engineer and the Utility;
- In addition to the notification required in OAR 952-001-0090(5), notify the Engineer and the Utility as soon as the Contractor discovers any previously unknown Utility conflicts or issues. Contrary to the OAR, stop excavating until directed by the Engineer and allow the Utility a minimum of two weeks to relocate or resolve the previously unknown utility issues;
- Report to the Engineer any Utility owner who fails to cooperate or fails to follow the planned Utility adjustment.

Subject to the Engineer's approval, the Contractor may adjust the Utilities by asking the Utility owners to move, remove, or alter their facilities in ways other than as shown on the Plans or in the Special Provisions. The Contractor shall conduct all negotiations, make all arrangements, and assume all costs that arise from such changes.

The existing underground utilities shown on the Plans have been determined by as-built records and field surveys, but are not guaranteed to be complete or accurate. The Contractor shall be responsible for contacting the individual utility companies to mark locations, and arranging with them for any relocation work that should be required.

The Contractor shall make excavations and borings ahead of the work where necessary to determine the exact location of underground pipes or other features, which might interfere with construction. The Contractor shall support and protect pipes or other services where they cross the trench and shall be responsible for all damages incidental in interruptions of service that may be caused by Contractor operations. Where a new utility line crosses an existing pipeline or other conduit, the trench backfill shall be well compacted in a manner that provides for the required backfill and compaction standards while protecting the utility in question.

**00150.50 Cooperation with Utilities** - Add the following subsection:

**(f) Utility Information:** The following organizations have utilities within the limits of the Project. Utility work is not anticipated beyond the adjustment work shown in the plans. Notify each utility, in writing, 14 Calendar Days before proposed pavement preservation work and coordinate adjustment work as necessary.

Utility	Contact 'erson's Name and Phone Number
1. Portland General Electric	Ron Snodgrass Ron.Snodgrass@pgn.com 503-908-4394
2. Lumen	Christopher Stuck Christopher.Stuck@lumen.com 918-547-0050
3. Comcast	Robert Baley Robert_Baley@comcast.com 503-348-5610
4. MCI	Robert Newbre Robert.Newbre@one_verizon.com 503-341-0826
5. Williams NW Pipeline	Vince Rodriguez Vince.Rodriguez@williams.com 541-255-8086
6. Ziplly Fiber	John Bielec John.Bielec@ziplly.com 503-367-5106
7. Water Environmental Services (WES)	Nick Degliantoni NDegliantoni@clackamas.us 971-804-1304
8. Northwest Natural Gas (NWN)	Jeremy Lorence Jeremy.Lorence@nwnatural.com 503-781-4467

9. Sunrise Water Authority

Chris Kwiatkowski  
Ckwiatkowski@sunrisewater.com  
971-205-1052

10. Williams NW Pipeline

Vince Rodriguez  
Vince.Rodriguez@williams.com  
541-255-8086

Williams NW Pipeline operates a high pressure gas pipeline within the Project limits and may require an on-site safety watcher, at no cost to the Contractor.

When operating Equipment directly above the high pressure gas pipeline, the Contractor shall keep Equipment on the paved surfaces only.

In the immediate area of the high pressure gas lines, when moving any Equipment, excavating, driving piles, pounding guardrail posts, boring, or other road construction activities, the Contractor shall increase the tolerance zone from 24 inches, as defined in OAR 952-001-010, to 10 feet. Exceptions require written approval from the Gas Utility. The Contractor shall provide the Engineer a copy of the written approval of the exception before beginning Work.

In the event of an emergency, and in addition to the calls required by the Utilities notification system, the Contractor shall call:

- Williams Pipeline 1-801-584-948.

**00150.70 Detrimental Operations** – Add the following:

Portions of this project will be constructed in close proximity to existing private improvements. All private improvements disturbed by the Contractor's operations shall be repaired or replaced to equal or better condition at the Contractor's expense. The Engineer may withhold from future payments to the Contractor, an amount equal to the costs reasonably estimated by the Engineer to repair or replace, as the case may be, those private improvements disturbed by the Contractor's operations. Engineer shall release the retained amount once Engineer has determined that the Contractor has completed the repair consistent with the requirements of this provision. In addition, prior to construction, the Contractor shall provide to the Engineer video showing private property, which may be disturbed during construction.

**END OF SECTION**

**Section 00160 – Source of Materials**

Comply with Section 00160 of the Standard Specifications modified as follows:

**00160.20(a) Buy America** – Delete this section and replace with the following: Federal highway funds are NOT involved on this Project.

**END OF SECTION**

**Section 00165 – Quality of Materials**

Comply with Section 00165 of the Standard Specifications modified as follows:

**00165.04 Costs of Testing** – Replace this section with the following sentence: All testing required to be performed by the Contractor will be at the Contractor's expense.

**00165.10(a) Field-Tested Materials** – Add the following sentence: The County follows the most current version of the MFTP on its projects:

**00165.10(b) Nonfield-Tested Materials** - Add the following sentence:

The County follows the most current version of the NTMAG on its projects.

**END OF SECTION**

**Section 00170 – Legal Relations and Responsibilities**

Comply with Section 00170 of the Standard Specifications modified as follows:

**00170.02 Permits, Licenses, and Taxes** – Add the following:

The Contractor shall obtain and pay for a City of Happy Valley Right of Way Permit when any portion of City Streets are occupied, including installing traffic control measures, placing advance traffic control devices, traffic detours, road closures, and pavement work.

The Contractor shall obtain and pay for a City of Happy Valley Noise Variance Permit for night work per Section 00290.32.

The Contractor shall obtain and pay for a Clackamas County Road Closure Request for Temporary Road Closures when minor local streets are closed.

Add the following subsection:

**00170.67 Fees** - The fee required by ORS 279C.825(1) will be paid by the Agency to the Commissioner of the Oregon Bureau of Labor and Industries under the administrative rules of the Commissioner.

**00170.70 Insurance** - Replace with the following:

**00170.70 Insurance** - See Clackamas County Public Improvement Contract.

**00170.70(c) Additional Insured** - Add the following paragraph and bullets to the end of this subsection:

Add the following as Additional Insureds under the Contract:

Clackamas County and its officers, agents, and employees  
Clackamas County Board of Commissioners  
Murraysmith, Inc.  
City of Happy Valley, Oregon and its officers, agents, and employees

**00170.72 Indemnity/Hold Harmless** – Replace with the following:

**00170.72 Indemnity/Hold Harmless** – See Clackamas County Public Improvement Contract.

Extend indemnity and hold harmless to the Agency and the following:

- Clackamas County and its officers, agents, and employees
- Clackamas County Board of Commissioners
- Murraysmith, Inc.
- City of Happy Valley, Oregon and its officers, agents, and employees

**00170.79 Third Party Beneficiary** – Replace the text of this section with the following:

- Third-party beneficiaries to the Contract include the Oregon Department of Transportation and its officers, agents, and employees.

## END OF SECTION

### Section 00180 – Prosecution and Progress

Comply with Section 00180 of the Standard Specifications modified as follows:

**00180.21(a) Subcontracting** - Add the following to the end of this subsection:

All contracts with subcontractors or suppliers shall have provisions making the contract assignable to the County, at the option of the County, if the Contractor terminates, goes out of business, declares bankruptcy, or otherwise is unable to perform provided that the County gives the subcontractor notice of assignment within fourteen (14) days of learning of the inability of the Contractor to perform.

The Engineer may revoke consent to subcontract. If the Engineer revokes consent to subcontract, the subcontractor shall be immediately removed from the Project Site.

**00180.40 Limitation of Operations** - Add the following to subsection (a):

The Contractor must provide, at a minimum, a 48-hour notice to the Clackamas County Project Manager in order to perform any work on Saturdays.

**00180.40(b) On-Site Work** – Add the following bulleted item:

- Conduct a Traffic Control Meeting per Section 00225.07;



Add the following paragraph to the end of the subsection:

The Contractor shall not begin On-Site Work before June 20, 2022, unless approved by the Engineer.

Add the following subsection:

**00180.40(c) Specific Limitations** - Limitations of operations specified in these Special Provisions include, but are not limited to, the following:

<b>Limitations</b>	<b>Subsection</b>
Cooperation with Utilities .....	00150.50
On-Site Work .....	00180.40(b)
Contract Completion Time .....	00180.50(h)
Traffic Lane Restrictions .....	00220.40(e)
Noise Control .....	00290.32
Maintenance Under Traffic .....	00620.43
Opening Sections to Traffic .....	00745.51

Be aware of and subject to schedule limitations in the Standard Specifications that are not listed in this Subsection.

**00180.41 Project Work Schedules** – Add the following:

A Type B schedule as detailed in the Supplemental Specifications is required on this Contract. In addition, a three-week look ahead schedule shall be prepared by the Contractor on a weekly basis and submitted to the Engineer. It shall include all construction activities planned for the following three-week period. The three-week look ahead schedule can be hand-written and shall be in a format agreed upon by the Contractor and the Engineer.

**The Contractor shall notify the County 2 weeks before the first substantial work activity commences on the project site. Portable Changeable Message Signs shall be in place 2 weeks before the first substantial work activity commences on the project site.**

**00180.42 Preconstruction Conference** - Add the following:

Before beginning On-Site Work and before meeting with the Engineer for the preconstruction conference, hold a group utilities scheduling meeting with representatives from the utility companies involved with this project. Incorporate the utilities time needs into the Contractor's schedule submitted prior to the preconstruction conference.

Submit the following during the preconstruction conference unless otherwise directed:

- The names, addresses, and telephone numbers of two or more persons employed by the Contractor who can be reached day or night to handle emergency matters.

- Subcontractor's list including contact list for each subcontractor with phone numbers and addresses and work to be performed.
- List of personnel authorized to sign change orders and receive progress payment warrants.
- Video recording of private properties affected by construction per 00150.70. A representative of each subcontractor shall be required to attend the pre-construction conference.

**00180.43 Commencement and Performance of Work** - Add the following bullet items:

- Conduct the work at all times in a manner and sequence that will insure minimal interference with traffic. The Contractor shall not begin work that will interfere with work already started. If it is in the County's best interest to do so, the County may require the Contractor to finish a portion or unit of the project on which work is in progress or to finish a construction operation before work is started on an additional portion or unit of the project.
- **The Contractor shall notify the County 2 weeks before the first substantial work activity commences on the project site.**
- **Portable Changeable Message Signs shall be in place 2 weeks before the first substantial work activity commences on the project site.**
- Conduct the work at all times in a manner and sequence that will insure minimal interference with traffic. The Contractor shall not begin work that will interfere with work already started. If it is in the County's best interest to do so, the County may require the Contractor to finish a portion or unit of the project on which work is in progress or to finish a construction operation before work is started on an additional portion or unit of the project.
- The Contractor will be notified in writing of the specified date to commence work and will not begin work until receipt of this Notice to Proceed. Upon the commencement of grinding, tilling, grading or paving operations on any one respective work site, all necessary work including paving of driveways and road approaches shall be vigorously pursued to reach substantial completion within a 14 calendar day duration. **If at any time a work site is left prior to substantial completion (completed paving of driveways, road approaches, etc.) without written consent from the owner's project manager, this will be considered abandonment by the Contractor.** Failure to meet these time constraints or abandonment shall subject the contractor to the full amount of Liquidated Damages as detailed in Section 00180.50 of these Special Provisions.
- At the time Substantial Completion is reached, the Contractor shall submit a Notice of Substantial Completion.

Add the following subsection:

**00180.50(h) Contract Time** - Complete all Work to be done under the Contract not later than August 31, 2022.

**00180.70 Suspension of Work** - Add the following to the first bullet item:

If the Inspector has reason to believe that any safety provisions are not being adhered to, the Inspector will immediately notify the Contractor's site foreman and/or the appropriate person and the County Project Manager. The purpose of this discussion is to determine the validity of the alleged violation. This will also allow the Contractor a reasonable amount of time to correct or improve any of the provisions for the safety on this project. If the County Project Manager finds the problem still unresolved or uncorrected, they will notify the Contractor's Project Manager and the County's Risk Management Safety Analyst. If the County's Risk Management Safety Analyst finds that the job site contains any unresolved safety issues they will take appropriate action up to and including suspension of the Contractor's operations on all or part of the Work.

**00180.85(b) Liquidated Damages** - Add the following paragraphs:

The liquidated damages for failure to complete the Work on time required by 00180.50(h) will be \$1,000 per Calendar Day \*.

\* Calendar Day amounts are applicable when the Contract time is expressed on the Calendar Day or fixed date basis.

Add the following subsection:

**00180.85(c) Lane Closures and Road Closures** - Lane closures and road closures beyond the limits specified will inconvenience the traveling public and will be a cost to the Agency.

**(1) Lane Closures** - It is impractical to determine the actual damages the Agency will sustain in the event traffic lanes are closed beyond the limits listed in 00220.40(e). Therefore, the Contractor shall pay to the Agency, not as a penalty, but as liquidated damages, \$500 per 15 minutes, or for a portion of 15 minutes, per lane, for any lane closure beyond the limits listed in 00220.40(e). In addition to the liquidated damages, all added cost for traffic control measures, including flagging, required to maintain the lane closures beyond the allowed time limits, will be at no additional cost to the Agency. The required traffic control measures will be as determined by the Engineer.

The Engineer will determine when it is safe to reopen lanes to traffic. Assessment of liquidated damages will stop when all lanes have been safely reopened. Any liquidated damages assessed under these provisions will be in addition to those listed in 00180.85(b).

**00180.85(e) Traffic Delays Beyond 20 Minutes** - Stopping or holding vehicles beyond the limits specified will inconvenience the traveling public and will be a cost to the Agency.

It is impractical to determine the actual damages the Agency will sustain in the event traffic is stopped or held longer than the 20-minute limit listed in 00220.02. Therefore, the Contractor shall pay to the Agency, not as a penalty, but as liquidated damages, \$500 per 20 minutes, or for a portion of 20 minutes, for stopping or holding traffic longer than

20 minutes. In addition to the liquidated damages, any added cost for traffic control measures, including flagging, required to stop or hold traffic beyond the 20-minute time limit, will be at no additional cost to the Agency. The required traffic control measures will be as determined by the Engineer.

Assessment of liquidated damages will stop when the Engineer determines that traffic is no longer stopped or held beyond the 20-minute limit. Any liquidated damages assessed under these provisions will be in addition to those listed in 00180.85(b).

**00180.90(a) Termination for Default** - In the paragraph that begins "Termination of the Contract for default...", add the following bullet to the end of the bullet list:

- Has liquidated and delinquent debt owed to the State or any department or Agency of the County,

## END OF SECTION

### Section 00190 – Measurement of Pay Quantities

Comply with Section 00190 of the Standard Specifications modified as follows:

**00190.20(g) Agency-Provided Weigh Technician:** Replace subsection (g) with the following:

The Contractor must provide a weigh technician. The Agency will not provide one for the Contractor.

## END OF SECTION

### Section 00195 – Payment

Comply with Section 00195 of the Standard Specifications modified as follows:

**00195.10 Payment for Changes in Material Costs** - Delete and replace with the following:

No asphalt cement cost adjustment shall be used on this project.

**00195.12 Steel Material Price Escalation/De-Escalation Clause** – Add the following sentence:

No steel material price escalation/de-escalations shall be used on this project. There is no option for Contractor participation.

**00195.20(b) Significant Changed Work** - Replace the paragraph that begins "Any such adjustments..." with the following paragraph:

Any adjustments may be less than, but will not be more than the amount justified by the Engineer on the basis of the established procedures set out in Section 00197 for determining rates. This does not limit the application of Section 00199.

Significant is defined as:

- a) An increase or decrease of more than 25 percent of the total cost of the Work calculated from the original proposal quantities and the unit contract prices; or,
- b) An increase or decrease of more than 25 percent in the quantity of any one major contract item.

For condition b) above, a major item is defined as any item that amounts to 10 percent or more of the original total contract price.

**00195.50 Progress Payments and Retained Amounts** - Modify as follows:

**00195.50(a) Progress Payments** - Modify as follows:

**(1) Progress Estimates** - Replace the first sentence with the following:

At a regular period each month to be determined at the Preconstruction Conference, the Contractor will make an estimate of the amount and value of pay item work completed and in place. This estimate will be submitted to the Project Manager for review and approval.

**(2) Value of Material on Hand** - Replace with the following:

**(2) Value of Material on Hand** - The Contractor will make an estimate of the amount and value of acceptable material to be incorporated in the completed work which has been delivered and stored as given in 00195.60(a) for review and approval.

**(4) Limitations on Value of Work Accomplished** - In the first sentence, change "Engineer's estimate" to "Contractor's reviewed estimate".

**00195.50 (b) Retainage** - Replace the first paragraph with the following:

The amount to be retained from progress payments will be 5.0% of the value of payments made, and will be retained in one of the forms specified in Subsection (c) below. The County will withhold Retainage from all force account and change order work.

**00195.50(c) Forms of Retainage** – Replace the first paragraph with the following:

Forms of acceptable retainage are set forth below in Subsections (1) through (3). "Cash, Alternate A" or "Cash, Alternate B" (Retainage Surety Bond) are the Agency-preferred forms of retainage. Unless the Contractor notifies the County otherwise in writing, the County will automatically hold retainage per paragraph (2) "Cash, Alternate B (No Interest Earned)". If the Agency incurs additional costs as a result of the Contractor's election to use "Bonds and Securities", the Agency may recover such costs from the Contractor by a reduction of the final payment.

Replace paragraph (2) with the following:

**(2) Cash, Alternate B (No Interest Earned)** – Retainage will be deducted from progress payments and held by the Agency until final payment is made in accordance with 00195.90, unless otherwise specified in the Contract.

**00195.50(d) Release of Retainage** – Replace with the following:

**(d) Release of Retainage** - As the Work progresses, release of the amounts to be retained under (b) of this Subsection will only be considered for Pay Items that have been satisfactorily completed. For purposes of this Subsection, a Pay Item will be considered satisfactorily completed only if all of the Work for the Pay Item is complete and all contractual requirements pertaining to the Pay Item and Work have been satisfied. Work not included in a Pay Item, or which constitutes part of an uncompleted Pay Item, will not be regarded as satisfactorily completed Work for the purposes of this Subsection.

When the Work is 50% completed and upon written application of the Contractor and written approval of the Surety, the Engineer or Project Manager may reduce or eliminate retainage on remaining progress payments if the Work is progressing satisfactorily.

A determination of satisfactory completion of Pay Items or Work or release of retainage shall not be construed as acceptance or approval of the Work and shall not relieve the Contractor of responsibility for defective Materials or workmanship or for latent defects and warranty obligations.

#### **END OF SECTION**

#### **Section 00196 – Payment for Extra Work**

Comply with Section 00196 of the Standard Specifications modified as follows:

**00196.91 Extra Work Allowance** – Add the following section:

The Bid schedule of prices contains a bid item for a pre-determined amount of Engineer ordered extra work. All Bidders shall reflect this same amount in their total Bid. No Bidder shall presume in the preparation of the bid or in the course of contract work that there will be a certain payment under that item or a certain order for extra work.

#### **END OF SECTION**

#### **Section 00197 – Payment for Force Account Work**

Comply with Section 00197 of the Standard Specifications.

#### **END OF SECTION**

## Section 00199 – Disagreements, Protests and Claims

Comply with Section 00199 of the Standard Specifications supplemented and/or modified as follows:

### **00199.40 Claim Decision; Review; Exhaustion of Administrative Remedies** - Replace the entire section with the following:

The Contractor must properly submit a claim as detailed in 00199.30.

**(a) Engineer Claim Review** - The Engineer or Project Manager will, as soon as practicable, consider and investigate a Contractor's properly submitted claim for additional compensation, Contract Time, or for a combination of additional compensation and Contract Time. Once the Engineer or Project Manager determines the Agency is in receipt of a properly submitted claim, the Engineer or Project Manager will arrange a meeting, within 28 Calendar Days, or as otherwise agreed by the parties, with the Contractor in order to present the claim for formal review and discussion. A person authorized by the Contractor to execute Change Orders on behalf of the Contractor must be present and attend all claim meetings.

If the Engineer or Project Manager determines that the Contractor must furnish additional information, records, or documentation to allow proper evaluation of the claim, the Engineer will schedule a second meeting, to be held within 14 calendar days, or as otherwise agreed by the parties, at which the Contractor shall present the requested information, records and documentation.

The Engineer or Project Manager will advise the Contractor of the decision to accept or reject the claim. If the Engineer or Project Manager finds the claim has merit, an equitable adjustment will be offered. If the Engineer or Project Manager finds the claim has no merit, no offer of adjustment will be made and the claim will be denied. The County intends to resolve claims at the lowest possible level.

If, at any step in the claim decision or review process, the Contractor fails to promptly submit requested information or documentation that the Agency deems necessary to analyze the claim, the Contractor is deemed to have waived its right to further review, and the claim will not be considered properly filed and preserved.

If the Engineer or Project Manager has denied a claim, in full or in part, for Contract Time only according to 00180.80, or has denied a claim, in full or in part, for correction of final compensation according to 00195.95, those disputed claims may then be resolved, in full or in part, at either of the two progressive steps of claim review procedure as specified in this Subsection. For all claims, all of the actions and review under each step of the review process shall occur before the review can be advanced to the next higher step.

**(b) Director Claim Review** - Upon request by the Contractor, the Department Director will review the Engineer or Project Manager's decision on the claim and advise the Contractor of the decision in writing. If the Director finds the claim has merit, and equitable adjustment will be offered. If the Director finds the claim has no merit, no offer of adjustment will be made and the claim will be denied.

Once the Engineer determines the Agency is in receipt of a properly submitted claim, the Engineer will arrange a meeting, within 21 Calendar Days or as otherwise agreed by the parties, with the Contractor in order to present the claim for formal review and discussion.

If the Engineer determines that the Contractor must furnish additional information, records or documentation to allow proper evaluation of the claim, the Engineer will schedule a second meeting, to be held within 14 Calendar Days or as otherwise agreed by the parties, at which the Contractor shall present the requested information, records and documentation.

The Director shall evaluate the claim based on the information provided by the Contractor to the Engineer or Project Manager. However, if the Department Director (or designee) determines that the Contractor must furnish additional information, records or documentation to allow proper evaluation of the claim, the Department Director (or designee) will schedule a meeting, to be held within 14 Calendar Days, or as otherwise agreed by the parties, at which the Contractor shall present the requested information, records and documentation.

The claim is subject to records review, if not all of the records requested by the Department Director (or designee) were furnished. If applicable, advancement of the claim is subject to the provisions regarding waiver and dismissal of the claim or portions of the claim.

The decision of the Department Director shall be the final decision of the Agency.

**(c) Commencement of Litigation** - If the Contractor does not accept the Director's decision, then the Contractor shall commence any suit or action to collect or enforce any claim filed in accordance with 00199.30 within a period of one (1) year following the mailing of the decision or within one (1) year following the date of "Second Notification", whichever is later. If said suit or action is not commenced in said one (1) year period, the Contractor expressly waives any **and** all claims for additional compensation and any and all causes of suit or action for the enforcement thereof that he might have had.

The Contractor must follow each step in order, and exhaust all available administrative remedies before resorting to litigation. Litigation of a claim that cannot be resolved through the process described above shall be initiated by filing a complaint in the Clackamas County Circuit Court for the State of Oregon.

In any litigation, the entire text of any order or permit issued by the County or any other governmental or regulatory authority, as well as any documents referenced or incorporated therein by reference, shall be admissible for purposes of Contract interpretation.

The Contract shall not be construed against either party regardless of which party drafted it. Other than as modified by the Contract, the applicable rules of contract construction and evidence shall apply. This Contract shall be governed by and construed according to the laws of the State of Oregon without regard to principles of conflict of laws.

The Contractor shall comply with 00170.00.



**00199.50 Mediation** - Delete the entire section.

**00199.60 Review of Determination Regarding Records** - Delete the entire section.

## **END OF SECTION**

### **SECTION 00210 - MOBILIZATION**

Comply with Section 00210 of the Standard Specifications.

## **END OF SECTION**

### **SECTION 00220 - ACCOMMODATIONS FOR PUBLIC TRAFFIC**

Comply with Section 00220 of the Standard Specifications modified as follows:

**00220.02(a) General Requirements** - Add the following bullet to the end of the bullet list:

- When performing trench excavation or other excavation across or adjacent to a Traffic Lane on a roadway having a pre-construction posted speed greater than 35 mph, backfill the excavation, install surfacing, and open the roadway to traffic by the end of each work shift. Install a "BUMP" (W8-1-48) sign approximately 100 feet before the backfilled area and a "ROUGH ROAD" (W8-8-48) sign approximately 500 feet ahead of the "BUMP" sign. If this requirement is not met, maintain all necessary lane or shoulder closures and provide additional TCM, including flagging, at no additional cost to the Agency. Do not use temporary steel plating to reopen the roadway.
- When paving operations create an abrupt edge, protect traffic by installing a "DO NOT PASS" (R4-1) sign before the Work Area at sign spacing "A" from the TCD Spacing Table shown on the Standard Drawings. Alternate "ABRUPT EDGE" (CW21-7) signs with appropriate (CW21-8 rider and "DO NOT PASS" (R4-1) signs at 500 foot spacings. Install a "BUMP" (W8-1) sign 100 feet prior to the transverse paving edge.
- Allow unrestricted vehicle and pedestrian access to all properties outside the allowable working hours.
- Open all lanes and adjacent asphalt surfaces (including shoulders and bike lanes) on all streets outside of allowable working or lane restriction hours with temporary or permanent pavement surfacing.
- Provide and maintain access to garbage containers and garbage pick-up, mail and other regularly scheduled deliveries. Coordinate with school districts and with public

transit to minimize impacts and delays for any school and public bus routes. Coordinate Work with delivery schedules for business with driveway access along SE Sunnyside Road.

- Notify all emergency services of all changes to the traffic control prior to completing the change. Notify the Police and Fire of all lane closures.
- When paving operation Work requires signal shutoffs, do not shutoff the signal at the adjacent intersection upstream or downstream of the Work.

Add the following subsections:

**00220.03 (c) Work Zone Notifications** - The County will provide an electronic door-hanger template for the Contractor to add schedule information. The Contractor shall provide and deliver door-hanger notifications to properties surrounding the street to be paved. The County will provide a map showing the specific properties where door hangers are to be hung. Door-hangers shall be marked with the dates and times that the street and/or its traffic would be significantly affected. Door-hangers shall be delivered 72 hours before traffic would be significantly impacted on that street. In the event of a significant schedule change, door-hangers shall be redelivered with the revised work dates/times 24 hours before significant street impacts. Work may be suspended if timely notification has not been provided.

**00220.03 (d) Traffic Signals –**

Provide a minimum 48-business hours notification before any signal shutoff. Contact Rich Gandy, Clackamas County Lead Signal Electrician at 503-758-2065 and [rgandy@clackamas.us](mailto:rgandy@clackamas.us).

Provide a minimum two-week notification before any temporary traffic control requiring signal operational changes. Contact Carl Olson, Clackamas County Traffic Engineer at 503-742-4684 and [colson@clackamas.us](mailto:colson@clackamas.us).

Existing vehicle detection shall be operational to the fullest extent possible at all times during construction. Vehicle detection downtime is limited to maximum 48 hours at a time unless otherwise approved. Contact Carl Olson, Clackamas County Traffic Engineer at 503-742-4684 and [colson@clackamas.us](mailto:colson@clackamas.us) a minimum of two-weeks prior to any traffic signal impacts requiring vehicle detection downtime.

Provide minimum two weeks notification before any disruption to any existing fiber optic communications systems. Contact Carl Olson, Clackamas County Traffic Engineer at 503-742-4684 and [colson@clackamas.us](mailto:colson@clackamas.us) for disruptions to the existing Clackamas County network. Contact Duke Dexter, Clackamas Broadband Exchange at 503-722-6663 and [ddexter@clackamas.us](mailto:ddexter@clackamas.us) for disruptions to the existing Clackamas Broadband Exchange (CBX) network. Fiber optic systems downtime is limited to a maximum of 8 hours unless otherwise approved.

Provide minimum two weeks notification before any disruption to any pan-tilt-zoom camera and associated equipment. Contact Carl Olson, Clackamas County Traffic Engineer at 503-742-4684 and [colson@clackamas.us](mailto:colson@clackamas.us), and Rich Gandy, [rgandy@clackamas.us](mailto:rgandy@clackamas.us), at least two weeks prior to starting any work that impacts existing pan-tilt-zoom cameras and associated equipment.

Provide minimum two weeks notification before any disruption to any existing roadway illumination systems. Contact Wendi Coryell at Clackamas County, 503-742-4657 and

[wendicor@clackamas.us](mailto:wendicor@clackamas.us) prior to starting any work impacting existing roadway illumination systems.

**00220.40(e)(1) Closed Lanes** - Replace this subsection, except for the subsection number and title, with the following:

Traffic Lanes may be closed when allowed, shown, or directed during the following periods of time except as specified in 00220.40(e)(2):

**Single Lane Closures** – One Traffic Lane on SE Sunnyside Road (one outside lane or inside lane in each westbound and eastbound direction) may be closed during the following times:

- Nightly, Monday night through Friday morning, between 9:00 p.m and 5:00 a.m.

One Traffic Lane may be closed on all other adjacent Roadways within the Project Site not listed above, when allowed, shown, or directed during the following periods of time except as specified in 00220.40(e)(2):

- Nightly, Monday night through Friday morning, between 9:00 p.m. and 5:00 a.m.

Add the following subsection:

**00220.40(f) Limited Duration Road Closure** - Unsignalized side streets may be closed to traffic during the periods of time noted in 00220.40(e)(1), as long as a detour plan has been approved by the Engineer and/or the City of Happy Valley. When a neighborhood has only one street outlet, maintain two-way traffic at all times.

**00220.60(a)(1) Contractor Responsibility** - Add the following bulleted items to the end of this subsection:

- Keep surfaces being used by bicycles and pedestrians free of all dirt, mud, gravel and other harmful materials. Surfaces include bike paths, bike lanes, roadway shoulders or the outside 4 feet of the roadway.
- Vacuum sweep loose aggregate, soil and other materials on the roadway out of the travel ways at the end of each day. Swept materials shall be removed by broom, or other means to prevent pollution of the storm sewer system or receiving streams.

## END OF SECTION

### SECTION 00221 - COMMON PROVISIONS FOR WORK ZONE TRAFFIC CONTROL

Comply with Section 00221 of the Standard Specifications modified as follows:

**00221.03 Traffic Safety and Operations** - Replace the bullet that begins “When paving operations create...” with the following bullet:

- When paving operations create an abrupt or sloped edge drop off greater than 1 inch, protect traffic by installing signing according to the "2 Lane, 2 Way Roadway Overlay Area" detail shown on the Standard Drawings. Protect longitudinal and transverse Pavement joints by placing and maintaining an asphalt concrete wedge according to 00221.07(c)(1).
- All work zones exceeding 500 feet in length shall require the use of a pilot car. During pilot car operations, install a 15-inch by 24-inch "WAIT FOR PILOT CAR: (CR4-20) sign at each driveway approach within the limits of the pilot car operation.

**00221.06 Traffic Control Plan** – Replace the first paragraph with the following:

The Contractor is required to submit a site-specific traffic control plan prepared by a TCP company, with additional detail meeting the project requirements for review 5 Calendar Days before the preconstruction Conference.

**00221.07(c)(1) Paving** - Replace this subsection, except subsection number and title, with the following:

When the longitudinal joint is greater than 1 inch in height, install additional TCD according to 00221.03. Complete the placing of ACP and construction of paving joints according to 00745.47, and 00745.48, as applicable.

**00221.90(b) Temporary Protection and Direction of Traffic** - Delete the bullet that begins "Moving temporary barrier to and from Contractor's stockpile areas".

Replace the bullet that begins "When the Schedule of Items does not include ..." with the following bullet:

- Preparing and signing the daily "Traffic Control Inspection Report", when a TCS is not included in the Schedule of Items or when a TCS is not onsite for a work shift.

## END OF SECTION

## SECTION 00222 – TEMPORARY TRAFFIC CONTROL SIGNS

Comply with Section 00222 of the Standard Specifications modified as follows:

**00222.40(e) Temporary Sign Placement** - Add the following to the end of the bullet list:

- Install "ROAD WORK AHEAD" (W20-1-48) signs with a 36 by 24-inch "FINES DOUBLE" (R2-6aP) rider on SE Sunnyside Road, according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans except do not install the "FINES DOUBLE" rider on concrete barrier mounted signs.

- Install beyond each end of the Project, facing outgoing traffic, an "END ROAD WORK" (CG20-2A-24) sign a distance of  $(A \div 2)$  according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans.
- Install two sign flag boards, as shown on the Standard Drawings, above the following detour and road closed advance warning signs, where applicable:
  - "DETOUR AHEAD", "DETOUR XXX FT", "DETOUR XX MILE" (W20-2) signs.
  - "ROAD CLOSED AHEAD", "ROAD CLOSED XXXX FT", "ROAD CLOSED X/X MILE" (W20-3) signs.
- Install a "PAVING SIGN" on a single wood post. Place this Project Information Sign according to sign spacing "A" from the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Supplemental Drawings, in advance of the "ROAD WORK AHEAD" sign at each end of the Project on SE Sunnyside Road and each signalized intersection, facing incoming traffic. See project plans for sign size and legend.
- Install an 18 by 24-inch "NO PARKING" (R8-3a) sign in every block where on-street parking is prohibited, facing incoming traffic.
- When paving operations create an abrupt or sloped edge drop off greater than 1 inch, protect traffic by installing signing according to the "2 Lane, 2 Way Roadway Overlay Area Signing" detail shown on the Standard Drawings.
- All work zones exceeding 500 feet in length shall require the use of a pilot car. During pilot car operations, install a 15-inch by 24-inch "WAIT FOR PILOT CAR: (CR4-20) sign at each driveway approach within the limits of the pilot car operation.
- Install an 18 by 24-inch "NO PARKING" (R8-3a) sign in every block where on-street parking is prohibited, facing incoming traffic.
- When construction requires bicycles to use the Traffic Lanes, install a "Bicycle ON ROADWAY" (CW11-1) symbol sign on 1/2 mile spacing through the affected area. Keep the signs in place until completion of the Shoulder or bikeway final surface.

**00222.90 Payment** - Add the following pay items:

(e) Temporary Project Information Signs..... Square Feet

Add the following after the sentence that begins "In item (d)";

Item (e) includes temporary project information signs shown in the plans.

**END OF SECTION**

## **SECTION 00223 - WORK ZONE TRAFFIC CONTROL LABOR AND VEHICLES**

Comply with Section 00223 of the Standard Specifications.

### **END OF SECTION**

## **SECTION 00224 - TEMPORARY TRAFFIC CHANNELIZING DEVICES**

Comply with Section 00224 of the Standard Specifications modified as follows:

**00224.46 Pavement Edge Delineation** - Replace the paragraph that begins "Place tubular or conical markers..." with the following paragraph:

Place tubular or conical markers to delineate the edge of Pavement immediately after construction Work or paving operations create an abrupt or sloped edge drop-off greater than 1 inch in height along the right hand or left hand Shoulder.

### **END OF SECTION**

## **SECTION 00225 - TEMPORARY PAVEMENT MARKINGS**

Comply with Section 00225 of the Standard Specifications modified as follows:

**00225.40 Temporary Pavement Markers** - Replace the paragraph that begins "Unless otherwise shown..." and the three bullets with the following paragraphs and bullets:

Install temporary flexible overlay pavement markers for temporary centerline marking as follows:

- Place and maintain one temporary flexible overlay pavement marker on 40 foot spacing in tangent and curve sections except as below.
- Place and maintain one temporary flexible overlay pavement marker on 20 foot spacing in curved alignment sections identified by a speed rider displaying less than the posted speed and channelization areas.

Establish alignment for placing the temporary flexible overlay pavement markers as follows:

- Control markers at:
  - 200 foot intervals on tangents
  - 50 foot intervals on curves
  - 40 foot intervals on curves with speed rider

- Use string line or other appropriate means to maintain proper alignment of the markers. Adjust placement to avoid straddling a longitudinal joint, while maintaining a suitable alignment of markers.
- Remove and replace misaligned markers at no additional cost to the Agency.

**00225.42 Temporary Pavement Markings** - Replace the sentence that begins “Temporary pavement markings may be placed...” with the following sentence:

Temporary pavement markings shall be placed using paint as follows:

**00225.42(a) Base Courses** - Replace the sentence that begins “On Pavement base Courses...” with the following sentence:

On Pavement base Courses, use paint for temporary striping lines.

**00225.42(b) Wearing Course** - Replace the sentence that begins “For skip line or solid line markings...” with the following sentence:

For skip line or solid line markings on the Pavement wearing Course, use paint as follows:

- Use paint for all temporary striping lines.

## END OF SECTION

## SECTION 00226 - TEMPORARY ROADSIDE BARRIERS AND IMPACT ATTENUATORS

Comply with Section 00226 of the Standard Specifications.

## END OF SECTION

## SECTION 00228 - TEMPORARY PEDESTRIAN AND BICYCLIST ROUTING

Comply with Section 00228 of the Standard Specifications modified as follows:

**00228.00 Scope** - Replace this subsection, except subsection number and title, with the following:

In addition to the requirements of Section 00221, this Work consists of furnishing, installing, operating, maintaining, inspecting, and removing temporary devices for accommodating pedestrians and bicyclists through a work zone.

**00228.13 Temporary Curb Ramps** - Add the following sentence to the end of this subsection:

Furnish truncated dome detectable warning surface for temporary curb ramps from the QPL according to 00759.12.

**00228.43 Temporary Curb Ramps** - Add the following paragraph to the end of this subsection:

Install a minimum 2 foot wide truncated dome detectable warning surface on temporary curb ramps at pedestrian street crossings. Omit truncated dome detectable warning surfaces on temporary curb ramps that are not at a pedestrian street crossing.

**00228.80(a) Length Basis** - Replace this subsection, except subsection number and title, with the following:

Pedestrian channelizing devices and bicycle channelizing devices will be measured on the length basis upon delivery to the Project. The quantities will be limited to those in the approved TCP.

**00228.90 Payment** - Add the following paragraph after the paragraph that begins "In item (c), the type...":

Item (c) includes furnishing and installing truncated dome detectable warning surfaces.

## END OF SECTION

### SECTION 00280 - EROSION AND SEDIMENT CONTROL

Comply with Section 00280 of the Standard Specifications modified as follows:

**00280.00 Scope** - Add the following paragraph to the end of this subsection:

The Agency's NPDES 1200-CA Permit is applicable to the Project.

**00280.03 Standards** - Replace this subsection, except for the subsection number and title, with the following:

When designing, applying, installing, maintaining, inspecting, and removing erosion and sediment control devices, use the version in effect on the date the Project is advertised, of the Clackamas Water Environment Services *Erosion Prevention and Sediment Control Planning and Design Manual*.

**00280.06 Erosion and Sediment Control Manager** - Delete this subsection.

**00280.62 Inspection and Monitoring** - Replace this subsection, except for the subsection number and title, with the following:

Inspect the Project Site and all ESC devices for potential erosion or sediment movement on a weekly basis and when 1/2 inch or more of rainfall occurs within a 24-hour period, including weekends and holidays.



If a significant noncompliance or serious water quality issue occurs that could endanger health or the environment, verbally report it to the Engineer within 24 hours.

**00280.80 Measurement** - Add the following paragraph to the end of this subsection:

**(e) Incidental** – No measurement will be made and all Work shall be considered incidental to the Work. When unit based bid items are included in the bid item schedule, only those items listed will be measured and all other Work required to comply with this section and applicable permits shall be considered incidental.

**00280.90 Payment** - Replace this section with the following:

The accepted quantities of Work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

<b>Pay Item</b>	<b>Measurement</b>
(a) ___Erosion Control Plan.....	Lump Sum

Item (a) includes:

- furnishing, installing, maintaining and removing all erosion and sediment control measures, materials, devices, stabilization and all equipment, labor, materials and incidentals necessary to complete the Work
- developing, revising, and documenting the ESCP
- mobilization
- monitoring activities to maintain effective functioning
- furnishing, stockpiling, protecting, restocking, and removing emergency Materials
- preparing Project for a period of extended non-activity
- inspecting, maintaining, and removing erosion control devices
- restoring, mulching, tacking, and seeding all disturbed ground, Work, and storage areas not otherwise covered

Only items listed in the bid schedule will be measured separately. All other work required to comply with this section and applicable permits will be considered incidental to the work and no additional payment will be made.

**END OF SECTION**

**SECTION 00290 - ENVIRONMENTAL PROTECTION**

Comply with Section 00290 of the Standard Specifications modified as follows:

**00290.32 Noise Control** - Add the following paragraph to the end of this subsection:

The Contractor's attention is directed to the noise control regulations of the City of Happy Valley (Title 8 of the City Code). Comply with the applicable noise control requirements for project Work.

Contractor shall obtain and pay for a noise variance from the City of Happy Valley for nighttime work.

Provide 14 calendar days of notice to the City of Happy Valley and the Engineer prior to starting nighttime work.

## **END OF SECTION**

### **SECTION 00305 - CONSTRUCTION SURVEY WORK**

Comply with Section 00305 of the Standard Specifications modified as follows:

**00305.00 Scope** – Add the following to the end of this subsection:

The Contractor shall reestablish the existing vertical profile of roadways around major adjustment of manhole areas, as shown and specified on the project Plans. The Contractor shall provide existing grade staking for roadways to complete the major manhole adjustment Work, as shown on the project Plans.

The Agency will not establish control stations, perform measurements and calculations for pay quantities, or perform final "as constructed" measurements, contrary to Section 1.5 of the above referenced manual. The Contractor's surveyor will be responsible to complete this work if deemed necessary by the Contractor.

Make all supporting computations and field notes required for control of the work and as necessary to establish the exact position, orientation, and elevation of the work from control stations, including furnishing and setting construction stakes and marks, reference marks, and additional control stations.

The Engineer will not be responsible for any data translations. An electronic copy of the LIDAR base drawing, in autocad.dwg format is available to the Contractor's surveyor upon request. The electronic drawings shall be used by the Contractor's surveyor as a reference, and it shall be the responsibility of the Contractor to confirm that all data contained within the electronic drawings is consistent with the contract documents.

## **END OF SECTION**

### **SECTION 00310 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

Comply with Section 00310 of the Standard Specifications modified as follows:

**00310.01 Areas of Work** - Replace this subsection with the following:

Perform removal Work as shown on the plans or as directed by the Engineer.

**00310.90 Payment** - Add the following to the end of this subsection:

No separate or additional payment will be made for removal or disposal Work included in Section 00330 according to 00310.02.

**00310.92 Separate Item Basis** – Supplement this subsection with the following

Replace the paragraph that begins “Item (d) includes” with the following:

Item (d) includes the removal of existing concrete traffic separators and concrete curbs.

Supplement the paragraph that begins “Item (g) includes” with the following:

Saw cutting completed as necessary to phase the work within the pavement rehabilitation limits shown on the plans shall be considered incidental and will not be paid separately.

**END SECTION**

### **SECTION 00331 - SUBGRADE STABILIZATION**

Comply with Section 00331 of the Standard Specifications.

**END SECTION**

### **SECTION 00340 - WATERING**

Comply with Section 00340 of the Standard Specifications.

**END SECTION**

### **SECTION 00440 - COMMERCIAL GRADE CONCRETE**

Comply with Section 00440 of the Standard Specifications modified as follows:

**00440.13 Field-Mixed Concrete** - Replace the subsection, except for subsection number and title, with the following:

CGC Work items listed in 00440.14(a) may be field-mixed conventionally, or by volumetric/mobile mixers conforming to ASTM C685. When approved, concrete sidewalks, concrete curb ramps, concrete driveways, and other flat concrete surfaces may be field-mixed using volumetric/mobile mixers conforming to ASTM C685, request approval prior to placement. For all other CGC applications, submit written request to the Engineer for approval to use volumetric/mobile mixers conforming to ASTM C685 at least 21 Days prior to placement.

Pre-packaged dry blended concrete from the QPL may be used for Work items listed in 00440.14(a).

## **END SECTION**

### **SECTION 00490 - WORK ON EXISTING SEWERS AND STRUCTURES**

Comply with Section 00490 of the Standard Specifications modified as follows:

**00490.01 Descriptive Terms** – Supplement the definition of adjust with the following:

Adjusting structures (manhole rims, valves, boxes, and catch basins) shall also include hand removal of existing asphalt pavement around the structure as required to overlay or inlay the proposed pavement section. Adjusting inlets shall also include additional work associated with maintaining or revising the finish grade surrounding the catch basins to maintain or provide positive drainage.

**00490.48 Adjusting Boxes, Cleanout Lids and Similar Structures** – Add the following to the end of this subsection:

A pre-construction monument survey was performed by the Engineer's surveyor prior to construction. Multiple survey monuments may be present throughout the project areas, located outside monument boxes. The Contractor shall protect all monuments from damage to the maximum extent feasible and install new boxes, where shown in the Plans. Including installing new monument boxes over existing monument pins located within the roadway that do not have an existing box. The Contractor shall be responsible for installing monument boxes at the exact horizontal location of any monument that has been disturbed. The Engineer's surveyor will reset the vertical location of monuments that are disturbed after construction. Coordination with the Engineer's surveyor and protection of existing monuments shall be incidental to other work under this project.

The Contractor may encounter cases where a utility facility (such as a valve box) has been adjusted by the utility owner and cold mix has been placed around the facility. The Contractor shall remove and dispose of this cold mix, replace it with asphalt concrete pavement, and hand-compact it in advance of the pavement Work. This Work is considered incidental to the box adjustment item on the bid schedule.

Water and gas valve access lids shall only be adjusted by raising the top section of the existing valve can.

**00490.90 Payment:** Add the following:

Add the following pay items to the pay item list:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(j) Replace or Install Monument Boxes.....	Each
(k) Adjusting Water Valve and Gas Valve Boxes.....	Each

Add the following to the end of this subsection:

Item (j) includes removing existing monument boxes and furnishing and installing a new monument box in the same location as the existing box or furnishing and installing a new monument box over an existing monument to complete the work as approved by the Engineer. Coordination with the Engineer’s surveyor and protection of existing monuments shall be incidental to other bid items and will not be paid separately under this bid item.

Item (k) includes removal of existing cold mix around boxes when present, and replacement with asphalt concrete pavement as required.

**END SECTION**

**SECTION 00620 - COLD PLANE PAVEMENT REMOVAL**

Comply with Section 00620 of the Standard Specifications, modified as follows:

**00620.40(e) Warning Signs** - Replace this subsection, except for the subsection number and title, with the following:

Provide warning signs as required where abrupt or sloped drop-offs occur at the edge of the existing or new surface according to Sections 00221 and 00222.

**00620.43 Maintenance Under Traffic** - Replace this subsection, except for the subsection number and title, with the following:

Traffic is not allowed on the cold planed surface. Before opening the area to traffic, pave the surface according to 00745.51.

Before beginning paving operations, make repairs to the existing pavement surface as directed according to 00748, 00749, and 00331.

**END SECTION**

## SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS

Comply with Section 00641 of the Standard Specifications.

### END SECTION

## SECTION 00730 - EMULSIFIED ASPHALT TACK COAT

Comply with Section 00730 of the Standard Specifications modified as follows:

**00730.11 Emulsified Asphalt** - In the paragraph that begins "Obtain samples according to AASHTO T 40..." replace the words "AASHTO T 40" with the words "AASHTO R 66".

**00730.22 Asphalt Distributor** – Add the following to the end of this subsection:

Apply emulsified asphalt material to vertical surfaces (curb faces, catch basin faces, butt joints, etc.). Avoid excess tack coat overspray being applied to vertical surfaces. Shields protecting vertical faces shall be provided and used during tacking operations. All overspray shall be promptly removed.

**00730.44 Applying Tack Coat** – Replace the sentence beginning with "Apply the emulsified asphalt..." with the following sentence:

Apply the emulsified asphalt to the prepared surface at a rate between 0.08 and 0.20 gallons per square yard as directed and with the emulsified asphalt temperature between 140 °F and 185 °F as recommend by the manufacture. Additional application of tack may be required, as directed by the Inspector, to obtain the necessary residual asphalt.

**00730.90 Payment** - Replace this subsection, except for the subsection number and title, with the following:

No separate or additional payment will be made for Emulsified Asphalt tack coat.

### END SECTION

## SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE

Comply with Section 00745 of the Standard Specifications modified as follows:

**00745.46(b) Depositing** - Replace the paragraph that begins "Deposit ACP from..." with the following paragraph:

Deposit ACP from the hauling vehicles so segregation is prevented. Do not deliver the ACP directly into the paving machine for wearing Courses where the continuous length of the

Panel is greater than 500 feet. Deliver the ACP to the paving machine by either a windrow pick-up machine or an end-dump transfer machine.

**00745.47(b) Drop-Offs** - Replace the bullet that begins "Provide warning signs and markings..." with the following bullet:

Provide warning signs and markings according to Sections 00221, 00222, 00224 and 00225 where abrupt or sloped edge drop-offs greater than 1 inch in height occur.

Add the following subsection:

**00745.51 Opening Sections to Traffic** - Schedule Work so that, during the same shift, the surfaces being paved are paved full width and length through the top Base Course before opening to traffic. Traffic will be allowed on the top Base Course up to five Calendar Days.

Before beginning Base Course paving operations, make repairs to the existing surface as directed according to 00748, 00749, and 00331.

**00745.76 Sand Seal** - Add the following subsection:

All joints between asphalt concrete pavement, Portland Cement Concrete, old surfaces, curbs, gutters, inlet structures, manholes, etc. shall be sealed by an application of CSS-1 emulsified asphalt followed immediately by a cover coat of clean sand. Width of joint seal coat shall be no less than four inches and no more than six inches.

**00745.77 Cleanup** - Clean and remove all excess asphalt, debris and tack from all facilities including but not limited to manhole covers, valve boxes, catch basins, concrete gutter and curb faces.

Keep a sweeper on site at all times to sweep areas at the end of each work shift, as needed and as directed.

**00745.80 Measurement** - Add the following paragraph to the beginning of this subsection:

The quantities of ACP shown in the Contract Schedule of Items were computed on the basis of Aggregates having a specific gravity of 2.80.

Replace the paragraph that begins "The quantities of ACP..." with the following paragraph:

The quantities of ACP will be measured on the weight basis. No separate measurement will be made for asphalt cement used in the mixture. No deduction will be made for lime or any other additive used in the mixture.

**00745.90 Payment** - Replace the paragraph that begins "No separate or additional..." with the following paragraph:

No separate or additional payment will be made for:

- asphalt cement, mineral filler, lime, and anti-stripping or other additives contained in the mixture
- tack coat
- cleaning existing pavement surfaces in preparation for applying the tack

- power sweeping existing surfaces
- sand sealing joints
- QC Testing
- temporary asphalt concrete pavement placed to open the roadway to traffic
- sawing, cleaning, and filling joints on bridge deck overlays

**00745.95 Price Adjustments** - Replace this subsection with the following:

There will be no ACP Price Adjustments for this project.

Asphalt concrete placed in overlay that does not comply with the compaction requirements herein shall be removed and replaced at the discretion of the Engineer.

**END SECTION**

**SECTION 00748 - ASPHALT CONCRETE PAVEMENT REPAIR**

Comply with Section 00748 of the Standard Specifications.

**END SECTION**

**SECTION 00749 - MISCELLANEOUS ASPHALT CONCRETE STRUCTURES**

Comply with Section 00749 of the Standard Specifications modified as follows:

Add the following subsection:

**00749.03 Definitions:**

**Spot Grind and Inlay Areas** - Spot grind and inlay areas are pavement areas that require localized cold plan pavement removal and ACP inlay to address existing pavement deficiencies following initial mainline cold plane pavement removal and sweeping operations. The Engineer shall determine the location of spot grind and inlay areas.

**00749.91 Method “A” – Weight and Extras Basis** – Add the following pay items to the pay item list:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(j) Extra for Spot Grind and Inlays.....	Square Yard

Add the following to the end of this subsection:

Item (j) includes spot grind and inlay areas as directed by the Engineer. This Work shall be performed after initial mainline cold plane pavement removal and sweeping operations. Areas



will be based on a typical grinder width (7-foot minimum pay limit width). Asphalt concrete pavement and cold plane pavement removal will be measured and paid for separately.

## END SECTION

### SECTION 00850 - COMMON PROVISIONS FOR PAVEMENT MARKINGS

Comply with Section 00850 of the Standard Specifications, modified as follows:

Add the following subsection:

**00850.12 Reflective Elements** – Swarco 3130 blend or approved equal from the ODOT QPL shall be used with Hi-Build Paint.

## END SECTION

### SECTION 00855 - PAVEMENT MARKERS

Comply with Section 00855 of the Standard Specifications.

## END SECTION

### SECTION 00866 - LONGITUDINAL PAVEMENT MARKINGS - HIGH PERFORMANCE

Comply with Section 00866 of the Standard Specifications, modified as follows.

**00866.44 Alignment Layout** – Add the following subsection:

**00866.44 Alignment Layout** - Place control points for lines every 50 feet on tangent and every 25 feet on a curve. Using these control points, layout a continuous narrow guideline for each line, along one edge of, or uniformly offset from the intended permanent line location. Do not proceed with installation until the dribble line until guidelines are approved by the Engineer.

Dribble lines shall consist of marking the pavement with spots of paint no more than 2 inches in width and not more than 5 feet apart using a striping machine. Dribble lines shall be on a straight line between control points on tangent alignment and on a true arc control points on a curved alignment. Paint for dribble lines shall be the same color as the traffic stripe that will be placed. Do not proceed with installation of pavement markings until dribble lines are approved by the Engineer.

**00866.80 Measurement** – Add the following to the end of this subsection:

The quantities of dribble line will be measured on the length basis. Measurement will be the actual dribble line. Gaps between dribble marks will be measured.

**00866.90 Payment** - Replace this subsection, except for the subsection number and title, with the following:

The accepted quantities of work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

**Pay Item Unit of Measurement**

**Method 2 (Sprayed)**

- (a) Hi-Build Paint, 25 Mil, Sprayed, \_\_\_\_\_ Foot
- (b) Dribble Line, Sprayed, \_\_\_\_\_ Foot

The word “Surface” or “Grooved” will be inserted in the blank.

Payment will be payment in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

Payment for work under this Section will be limited to 75 percent of the amount due until the Agency has received the signed Warranty.

**END SECTION**

**SECTION 00867 - TRANSVERSE PAVEMENT MARKINGS - LEGENDS AND BARS**

Comply with Section 00867 of the Standard Specifications modified as follows:

**00867.90 Payment:** Add the following:

Add the following pay items to the pay item list:

<b>Pay Item</b>	<b>Unit of Measurement</b>
-----------------	----------------------------

- |   |      |
|---|------|
| (t) Payment Legend, Type B: Lane Extension..... | Each |
|---|------|

Add the following to the end of this subsection:

Item (t) includes the 8-inch wide by 2-foot long white dotted marking used to form the dotted line.

**END SECTION**

## SECTION 00950 - REMOVAL OF ELECTRICAL SYSTEMS

Comply with Section 00950 of the Standard Specifications modified as follows:

**00950.02 Definitions** - Delete this subsection.

### END SECTION

## SECTION 00960 - COMMON PROVISIONS FOR ELECTRICAL SYSTEMS

Comply with Section 00960 of the Standard Specifications modified as follows:

**00960.02 Equipment List and Drawing Submittals** – Replace this subsection with the following subsection:

**00960.02 Equipment List and Drawing Submittals** – Within 30 Calendar Days after execution of the Contract, submit electronic PDF copies of the Blue Sheets (see 00160.00 and 001607.07) and the Green Sheets (see 00160.00 and 00160.07) according to 00150.37 for all materials the Contractor proposes to install. Refer to 00990 for exemptions to the Blue Sheets and Green Sheets on Clackamas County operated traffic signals.

Within 14 Calendar Days after receipt of submittals, the Engineer will review the submittals and designate them in writing as “review” or “reviewed with comments”. Then within the follow 7 Calendar Days after the Engineer review, Clackamas County Traffic Staff will review the submittals and designate them in writing “approved”, “approved as noted”, or “revise and resubmit”. Do not proceed with the Work before receiving written approval of the submittals from the Engineer or Clackamas County.

**00960.10 Materials** – Add the following to the end of this subsection:

Use only Schedule 80 PVC conduits and fittings for all underground conduits.

**00960.30 Licensed Electricians** - Replace the paragraph that begins "According to the Oregon Administrative Rule ..." with the following paragraph:

According to the Oregon Administrative Rule 918-282-0120(1), no person or entity shall allow any individual to perform electrical work for which the individual is not properly registered or licensed. Every person who installs electrical systems on the Project shall submit a copy of their electrical license or apprentice registration to the Engineer prior to performing any Work. They must be licensed as an S or a J under Oregon Administrative Rule 918-282.

**00960.43 Foundations** – Add the following to the end of this subsection.

Separate the aluminum from the concrete with one layer of 30 pound nonperforated, asphalt-saturated felt. Neatly trim the felt pad to the size and shape of the base contact surface.

**00960.46 Service Cabinet and Electrical Energy** - Replace this subsection, except for the subsection number and title, with the following:

Install service cabinet and associated equipment, then arrange for the Utility providing power to have the service cabinet inspected and make the electrical hook-up prior to field testing. Field test according to 00990.70(g) for traffic signals, or according to 00970.70 for illumination.

**END SECTION**

**SECTION 00990 - TRAFFIC SIGNALS**

Comply with Section 00990 of the Standard Specifications modified as follows:

Add the following subsection:

**00990.10 Materials** - Furnish Materials meeting the following requirements:

Backer Rod ..... 02440.14

Furnish the following Materials from the QPL:

Hot-Melt Loop Sealant

Add the following subsection:

**00990.41 Inductive Loop Detectors:**

**(a) General** - Do not begin saw cutting until the loop layout has been inspected by the Engineer.

Do not place wire in saw cuts until the cuts have been inspected by the Engineer.

**(b) Saw Cut and Wire Installation** - Saw cut in a manner that is the most practicable, direct line between loops and junction boxes.

Immediately after saw cutting and before the cuttings dry, thoroughly flush each cut with a high-pressure water stream. Before the cuts dry, blow cuts free of water, debris, rock, and grit with compressed air. Slots may also be cleaned by means of a high-pressure water injection/vacuum extraction system. Remove rocks or other material that may be wedged in the cut. Remove and dispose of all cuttings according to 00290.20.

Dry cuts before placing wire.

After the saw cut is cleaned of debris, place the loop wire by pushing it into the slot with a blunt nonmetallic object. Use care to avoid damaging the insulation.

**(c) Sealant** - Install the sealant in slots according to the manufacturer's instructions. Furnish a copy of the manufacturer's specifications including application procedures. The Engineer may order a test run of any application method or material before filling saw cuts.

In order to prevent heat damage to the insulation, do not allow the temperature of the sealant to exceed 410 °F during application. Install hot-melt sealants in layers to prevent damage to wire insulation. Allow each layer to cool before the next layer is installed. Do not use water to accelerate cooling.

Sealants that crack or pull away from the saw cuts after curing will be rejected.

**(d) Resistance and Continuity Testing** - The resistance to ground of the loop and loop feeder combinations, shall be 500 MΩ or greater when checked at the following conditions:

- Before splicing and sealing - continuity test
- Before splicing after sealing - resistance test
- After splicing and sealing - resistance test

Furnish a report of the resistance and continuity results for each loop at each testing condition.

Add the following subsection:

**00990.42(b) Loop Feeder Cables** – When terminating loop feeder cable inside the controller cabinet, do not remove the outside jacket and shield more than 6 inches from the end of the cable. Crimp lugs used for loop wire field terminals may be insulated or non-insulated. Terminate loop feeder shield drain wire to the cabinet input panel grounding bus nearest the feeder wire termination point.

**00990.90 Payment** - Delete Pay Item (c) from the pay item list.

Delete the paragraph that begins “Item (c) includes furnishing and installing...”

Replace the paragraph that begins “In Items (a), (b), (c), (d), (f) ...” with the following paragraph:

In Items (a), (b), (d), (f) and (g), the intersection location will be inserted in the blank.

Replace the paragraph that begins “Item (b) includes furnishing and replacing...” with the following paragraph:

Item (b) includes furnishing and replacing or installing items for an existing traffic signal installation and the detection system.

**END SECTION**

## **SECTION 2010 - PORTLAND CEMENT**

Comply with Section 02010 of the Standard Specifications.

**END SECTION**

**SECTION 02020 - WATER**

Comply with Section 02020 of the Standard Specifications.

**END SECTION**

**SECTION 02030 – SUPPLEMENTARY CEMENTITIOUS MATERIALS**

Comply with Section 02030, of the Standard Specifications modified as follows:

**02030.00 Scope** - Replace this subsection, except for the subsection number and title, with the following:

This Section includes the requirements for fly ash, natural pozzolans, silica fume, ground granulated blast furnace slag and high reactivity pozzolans used in portland cement concrete.

**02030.10 Fly Ash** - Replace this subsection, except for the subsection number and title, with the following:

Furnish Class C and Class F fly ash from the QPL and conforming to AASHTO M 295 (ASTM C618).

Add the following subsection:

**02030.15 Natural Pozzolans** - Furnish Class N natural pozzolans from the QPL and conforming to AASHTO M 295 (ASTM C618).

**02030.50 Metakaolin** - Replace this subsection with the following:

**02030.50 High Reactivity Pozzolans** - Furnish high-reactivity pozzolans from the QPL and conforming to AASHTO M 321.

**END SECTION**

**SECTION 02040 - CHEMICAL ADMIXTURES**

Comply with Section 02040 of the Standard Specifications.

**END SECTION**

**SECTION 02050 - CURING MATERIALS**

Comply with Section 02050 of the Standard Specifications modified as follows:

**02050.10 Liquid Compounds** - Replace the paragraph that begins "Furnish liquid membrane-forming curing..." with the following paragraph:

Furnish liquid membrane-forming curing compounds from the QPL and meeting the requirements of ASTM C309. Before use, submit a one quart sample from each lot for testing. Samples will be tested according to ODOT TM 721. Samples are not required for curing compounds used on Commercial Grade Concrete.

**END SECTION**

**SECTION 02070 - BONDING AGENTS**

Comply with Section 02070 of the Standard Specifications.

**END SECTION**

**SECTION 02080 - GROUT**

Comply with Section 02080 of the Standard Specifications.

**END SECTION**

**SECTION 02440 - JOINTING MATERIALS**

Comply with Section 02440 of the Standard Specifications.

**END SECTION**

**SECTION 02450 - MANHOLE AND INLET MATERIALS**

Comply with Section 02440 of the Standard Specifications.

**END SECTION**

**SECTION 02510 - REINFORCEMENT**

Comply with Section 02510 of the Standard Specifications.

**END SECTION**



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# CLACKAMAS COUNTY DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

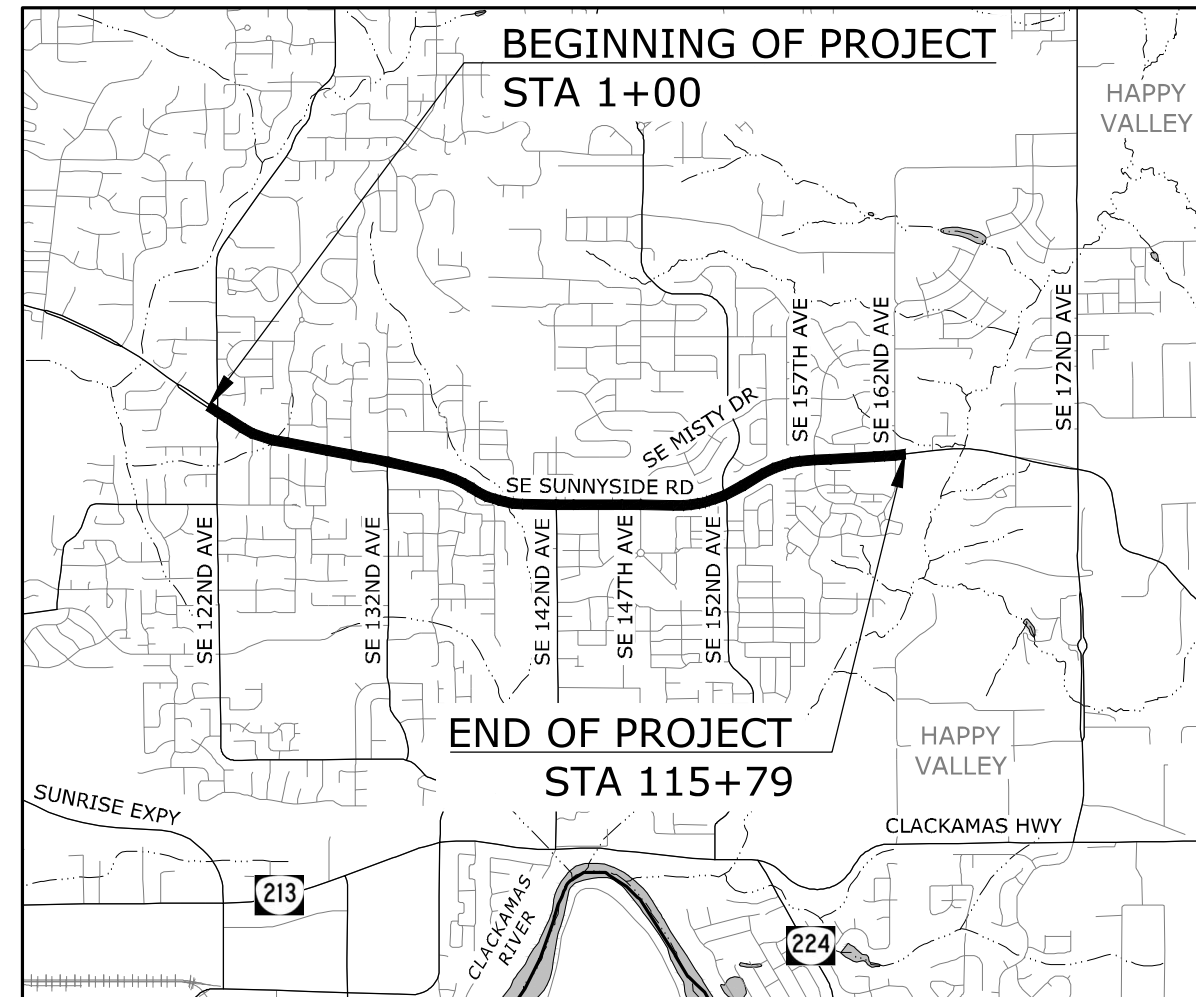
PLANS FOR PROPOSED PROJECT  
ASPHALT CONCRETE PAVING, GRINDING, AND PAVEMENT MARKINGS

## SUNNYSIDE RD PAVING PROJECT - 122ND AVE TO 162ND AVE 2022 PAVEMENT PRESERVATION MARCH 2022



INDEX OF SHEETS	
G-01	COVER SHEET
G-02	GENERAL NOTES AND LEGEND
C-01 TO C-02	TYPICAL SECTIONS
C-03 TO C-04	PAVING DETAILS
C-05 TO C-15	PAVING PLANS AND NOTES
ST-01 TO ST-11	STRIPING LAYOUT
ST-12	STRIPING DETAILS
TS-01	TRAFFIC COUNT LOOP LEGEND
TS-02 TO TS-03	TRAFFIC COUNT LOOP PLAN
TS-04	TRAFFIC COUNT LOOP DETAILS

CLACKAMAS COUNTY OREGON

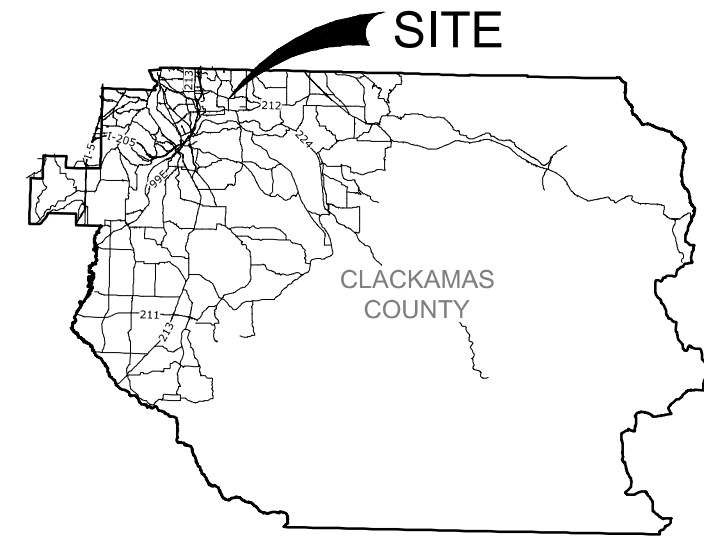


**VICINITY MAP**  
NOT TO SCALE

T. 2S, R. 2E SEC. 01, 02, 03 &  
T. 2S, R. 3E SEC. 06

**ATTENTION !**

OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0100. YOU MAY OBTAIN COPIES OF THE RULES FROM THE CENTER OR ANSWERS TO QUESTIONS ABOUT THE RULES BY CALLING (503) 232-1987.



COVER SHEET

SUNNYSIDE RD PAVING PROJECT -  
122ND AVE TO 162ND AVE

DATE: MARCH 2022 PROJECT NO.: 22342/22343

CLACKAMAS COUNTY

DEPT. OF TRANSPORTATION  
AND DEVELOPMENT  
150 BEAVERCREEK ROAD  
OREGON CITY, OR 97045



DAN JOHNSON DIRECTOR

DESIGNED BY:  
MME

DRAFTED BY:  
DKH

CHECKED BY:  
AHG

REVISIONS

NO. DATE:

Sheet No.

G-01

\\ad.msa-ep.com\portland\pdx\_projects\2113099 - clackamas county dtd - 2022 paving packages\CAD\Sheets\clackamas county project no. 22342 & 22343 - sunnyside road package\2113099-0302-OR-G.dwg G-02 2/15/2022 3:14 PM MARAM,LEJECH,23.0s (LMS Tech)

**GENERAL NOTES:**

1. INSTALL SIXTEEN PROJECT SIGNS PRIOR TO COMMENCING WITH WORK. MOUNT SIGN TO SINGLE WOOD SUPPORT. INSTALL NEAR THE INTERSECTION OF SE 122ND AVENUE AND SE 162ND AVENUE AND AT EACH SIGNALIZED INTERSECTION. COORDINATE FINAL LOCATION WITH INSPECTOR. SEE PROJECT SIGN DETAIL, THIS SHEET.
2. FOLLOWING COLD PLANING AND SWEEPING OPERATIONS, THE ENGINEER MAY DIRECT ADDITIONAL PAVEMENT RESTORATIONS AS NECESSARY TO ADDRESS EXISTING PAVEMENT DEFICIENCIES. WORK MAY INCLUDE ADDITIONAL SPOT GRIND (LOCALIZED COLD PLANE PAVEMENT REMOVAL AREAS) AND INLAY DEPTH, ASPHALT CONCRETE PAVEMENT REPAIR, AND SUBGRADE STABILIZATION. CONTRACTOR SHALL SHOW APPROPRIATE TIME AND RESOURCES IN THE PROJECT SCHEDULE TO COMPLETE THIS WORK.

**VERTICAL DATUM AND BASIS OF BEARINGS:**

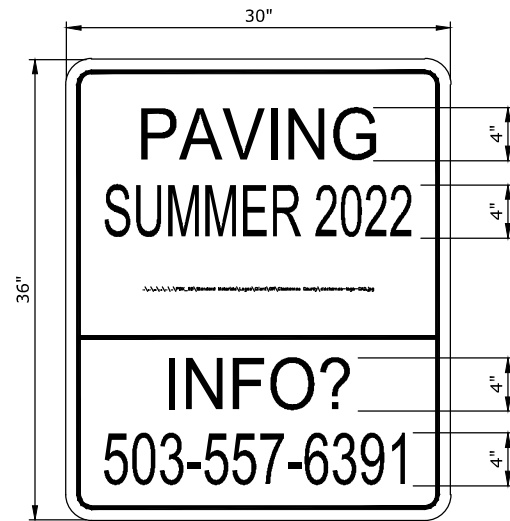
1. ALL PLAN INFORMATION IS BASED ON MOBILE LIDAR SCAN DATA AND THIS APPROXIMATE.

VERTICAL DATUM: NAVD 88  
 GEODETIC DATUM: NORTH AMERICAN DATUM OF 1983 (2011) EPOC 2010  
 SYSTEM: OREGON COORDINATE REFERENCE SYSTEM (OCRS)  
 ZONE: PORTLAND  
 PROJECTION: LAMBERT CONFORMAL CONIC PROJECTION

LATITUDE OF GRID ORIGIN: 45°30'00" N  
 LONGITUDE OF GRID ORIGIN: 122°45'00" W  
 FALSE NORTHING: 50,000.00 m  
 FALSE EASTING: 100,000.00 m (32808.40 INTERNATIONAL FOOT)

**RIGHT-OF-WAY REPRESENTATION:**

1. ALL LINE-WORK SHOWN RELATING PROPERTY BOUNDARY TO SCAN DATA IS FOR GRAPHICAL REPRESENTATION ONLY. ANY APPARENT DISCREPANCIES BETWEEN SAID DATA WILL REQUIRE FIELD VERIFICATION THROUGH A PROPER RIGHT-OF-WAY RESOLUTION.



**PAVING SIGN**

**SIGN NOTES:**

1. SIGNS TO BE ORANGE BACKGROUND WITH BLACK LETTERING AND BORDERS.
2. TEXT FONT TO BE FHWA C.
3. COUNTY LOGO TO COMPLY WITH SPECIFICATIONS IN THE COUNTY BRAND GUIDE: [HTTP://WEB1.CLACKAMAS.US/PGA/LOGO.HTML#GUIDE](http://web1.clackamas.us/pga/logo.html#GUIDE).

**PROJECT SIGN DETAIL**  
 SCALE: NTS

**TRAFFIC CONTROL/PHASING NOTES:**

1. CONTRACTOR SHALL FOLLOW AN APPROVED PHASING PLAN THAT MEETS THE MINIMUM REQUIREMENTS AS SET FORTH IN THE CONTRACT DOCUMENTS. ANY PROPOSED PHASING THAT CONFLICTS WITH REQUIREMENTS NOTED IN THE CONTRACT DOCUMENTS, SHALL BE APPROVED IN WRITING BY THE COUNTY PRIOR TO BEGINNING WORK.

**ODOT STANDARD DRAWINGS  
 (EFFECTIVE DATE 12/1/2021-5/31/2022):**

- |             |         |         |
|-------------|---------|---------|
| • RD300     | • TM515 | • TM822 |
| • RD302     | • TM517 | • TM840 |
| • RD335     | • TM530 | • TM841 |
| • RD336     | • TM531 | • TM842 |
| • RD338     | • TM539 | • TM843 |
| • RD356     | • TM560 | • TM844 |
| • RD360     | • TM561 | • TM851 |
| • RD610     | • TM800 | • TM852 |
| • RD706     | • TM810 | • TM853 |
| • RD1010    | • TM820 |         |
| • TM500-503 | • TM821 |         |

**COUNTY STANDARD DRAWINGS:**

- M150



**NOTES:**

1. SIGN SHALL BE PLACED AT EACH DRIVEWAY APPROACH WHEN A PILOT CAR IS USED.
2. SIGN SHALL CONFORM TO ODOT DRAWING CR4-20 OR CR4-20A.

**PILOT CAR SIGN**

**ABBREVIATIONS**

AC	ASPHALTIC CONCRETE	ODOT	OREGON DEPARTMENT OF TRANSPORTATION
ACP	ASPHALTIC CONCRETE PAVEMENT	PC	POINT OF CURVE
ADJ	ADJACENT	PVMT	PAVEMENT
AGG	AGGREGATE	R/W	RIGHT-OF-WAY
AL	ALUMINUM	S/W	SIDEWALK
BTWN	BETWEEN	SHT	SHEET
C/L	CENTERLINE	SLP	SLOPE
CLACKCO	CLACKAMAS COUNTY	STA	STATION
CONC	CONCRETE	STD	STANDARD
CONST	CONSTRUCT	SY	SQUARE YARD
COOR'D	COORDINATED	THK	THICK/THICKNESS
DET	DETAIL	THRU	THROUGH
DWG	DRAWING	TYP	TYPICAL
DWY	DRIVEWAY	VAR	VARIES
EA	EACH	W/	WITH
EXIST	EXISTING	WES	WATER
FHWA	FEDERAL HIGHWAY ADMINISTRATION		ENVIRONMENTAL SERVICES
MON	MONUMENT		
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES		

**TOPOGRAPHIC LEGEND**

EXISTING PROPERTY ADDRESS	#####
EXISTING CENTERLINE	----
EXISTING PROPERTY LINE (BASED ON GIS)	----
EXISTING RIGHT-OF-WAY (BASED ON GIS)	----
EXISTING CURB	====
EXISTING SIDEWALK	====
EXISTING CONCRETE	====
EXISTING CONTOUR MINOR	- - - -
EXISTING CONTOUR MAJOR	— — — —
EXISTING MANHOLE	⊙ ⊙ ⊙
EXISTING CLEAN-OUT	○
EXISTING CATCH BASIN/FIELD INLET	⊞
EXISTING VALVE	⊗
EXISTING FIRE HYDRANT	⊙
EXISTING WATER METER	⊞
EXISTING SURVEY MONUMENT	△
EXISTING UTILITY POLE	⊙
EXISTING PAVEMENT CORE LOCATION	● C-X



**GENERAL NOTES AND LEGEND**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**

**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045

**DAN JOHNSON**  
 DIRECTOR

DESIGNED BY: **MME**  
 DRAFTED BY: **DKH**  
 CHECKED BY: **AHG**

**REVISIONS**

NO. DATE: \_\_\_\_\_  
 Sheet No. **G-02**

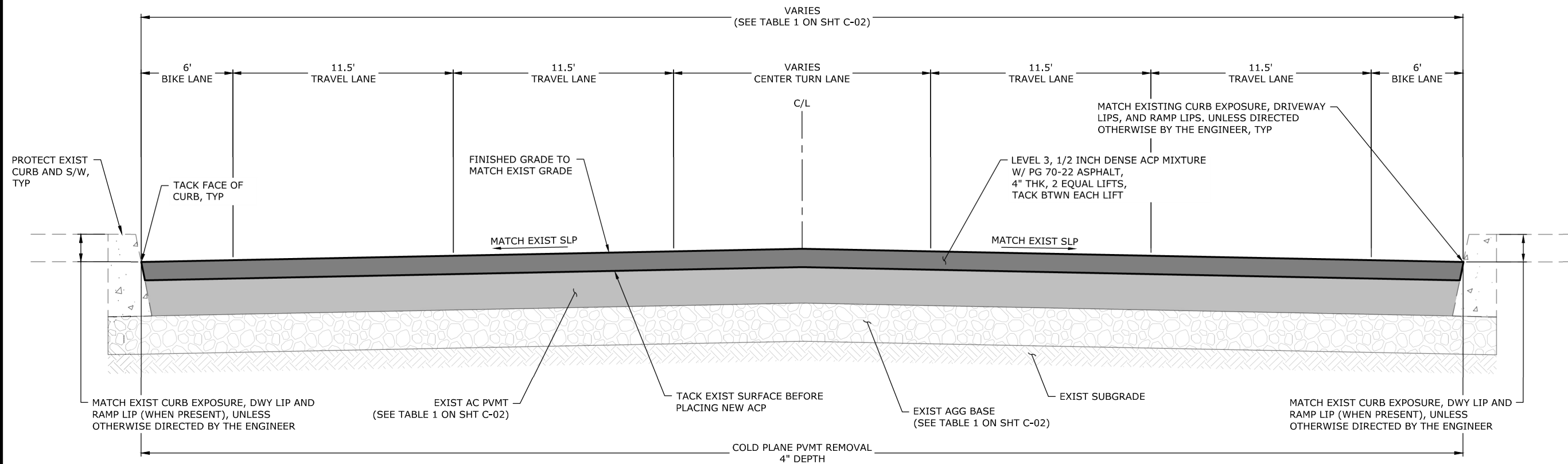


PROJECT NO.: 22342/22343  
 DATE: MARCH 2022

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**TYPICAL SECTION SHOWN**  
(SEE SHEET C-05 THROUGH C-15 FOR LOCATIONS OF VARIATIONS TO SECTION WIDTHS AND DIMENSIONS)



**4" GRIND AND INLAY TYPICAL SECTION**  
SCALE: NTS

**NOTES:**

1. TRAFFIC IS NOT ALLOWED ON THE COLD PLANED SURFACE. BEFORE OPENING THE AREA TO TRAFFIC, PAVE THE SURFACE ACCORDING TO 00745.51. MAXIMUM DURATION TRAFFIC IS ALLOWED TO DRIVE ON THE NEW ACP BASE LIFT IS 7-CALNDAR DAYS.
2. FIELD VERIFY PAVEMENT CONDITION WITH ENGINEER AFTER COLD PLANING. CONSTRUCT ADDITIONAL PAVEMENT RESTORATIONS AS DIRECTED PRIOR TO BASE LIFT PAVING. SEE GENERAL NOTE 2, SHEET G-02 FOR DETAILS.
3. PROTECT LONGITUDINAL AND TRANSVERSE JOINTS BY PLACING AND MAINTAINING AN ASPHALT CONCRETE WEDGE ACCORDING TO SEE 00225.02.



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TYPICAL SECTIONS

SUNNYSIDE RD PAVING PROJECT -  
122ND AVE TO 162ND AVE

PROJECT NO.: 22342/22343  
DATE: MARCH 2022

CLACKAMAS COUNTY  
DEPT. OF TRANSPORTATION  
AND DEVELOPMENT  
150 BEAVERCREEK ROAD  
OREGON CITY, OR 97045



DIRECTOR

DAN JOHNSON

DESIGNED BY:  
MME

DRAFTED BY:  
DKH

CHECKED BY:  
AHG

REVISIONS

NO. DATE:

Sheet No.

C-01

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TABLE 1

STREET NAME	PAVEMENT CORE NO.	STREET WIDTH	EXISTING ASPHALT DEPTH (AS CORED)	EXISTING AGGREGATE BASE DEPTH (AS CORED)	PAVEMENT CORE STATION
SE SUNNYSIDE RD	C-1	72' - 88'±	7.8	10.2	7+50
	C-2		8.5	11.5	9+50
	C-3		14.5	5.5	12+00
	C-4		7.8	12.2	15+00
	C-5		7.3	14.7	17+00
	C-6		20.0	10.0	20+35
	C-7		9.5	20.5	24+50
	C-8		7.5	12.5	27+50
	C-9		10.3	9.7	30+50
	C-10		8.0	12.0	35+65
	C-11		6.8	15.2	39+32
	C-12		10.0	20.0	42+10
	C-13		7.3	16.7	45+50
	C-14		7.3	12.7	48+71
	C-15		9.3	10.7	50+48
	C-16		6.8	NP	55+00
	C-17		7.5	4.5	57+00
	C-18		8.0	12.0	61+89
	C-19		12.5	NP	64+54
	C-20		7.8	16.2	67+50
	C-21		6.8	17.2	70+50
	C-22		13.8	10.2	74+50
	C-23		7.8	16.2	77+50
	C-24		6.5	13.5	80+00
	C-25		8.3	15.7	83+00
	C-26		9.0	14.0	88+50
	C-27		8.5	15.5	91+44
	C-28		7.8	12.2	94+50
	C-29		8.3	11.7	97+00
	C-30		7.3	NP	99+50
	C-31		7.8	24.2	105+13

NOTES:

1. TRAFFIC IS NOT ALLOWED ON THE COLD PLANED SURFACE. BEFORE OPENING THE AREA TO TRAFFIC, PAVE THE SURFACE ACCORDING TO 00745.51. MAXIMUM DURATION TRAFFIC IS ALLOWED TO DRIVE ON THE NEW ACP BASE LIFT IS 7-CALENDAR DAYS.
2. FIELD VERIFY PAVEMENT CONDITION WITH ENGINEER AFTER COLD PLANING. CONSTRUCT ADDITIONAL PAVEMENT RESTORATIONS AS DIRECTED PRIOR TO BASE LIFT PAVING. SEE GENERAL NOTE 2, SHEET G-02 FOR DETAILS.
3. PROTECT LONGITUDINAL AND TRANSVERSE JOINTS BY PLACING AND MAINTAINING AN ASPHALT CONCRETE WEDGE ACCORDING TO SEE 00225.02.



TYPICAL SECTIONS

SUNNYSIDE RD PAVING PROJECT -  
122ND AVE TO 162ND AVE

CLACKAMAS COUNTY  
DEPT. OF TRANSPORTATION  
AND DEVELOPMENT  
150 BEAVERCREEK ROAD  
OREGON CITY, OR 97045



DAN JOHNSON  
DIRECTOR

DESIGNED BY:  
MME

DRAFTED BY:  
DKH

CHECKED BY:  
AHG

REVISIONS

NO. DATE:

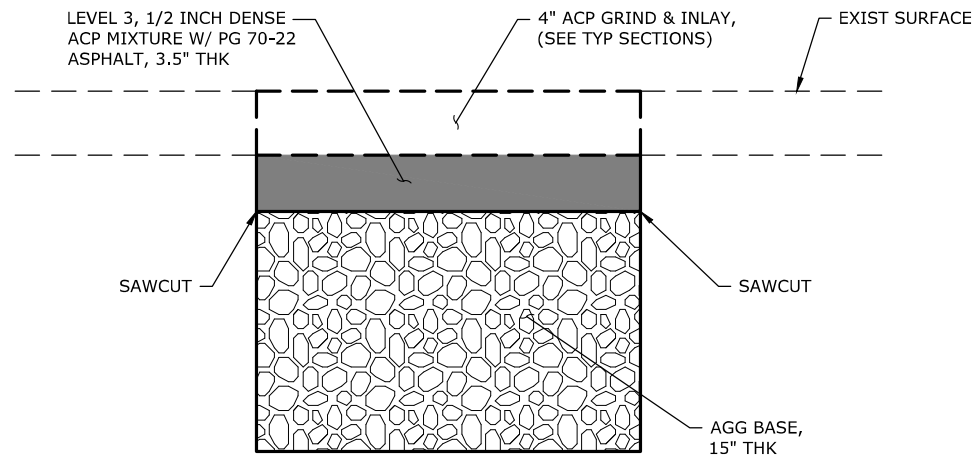
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C-02

**murraysmith**

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PROJECT NO.: 22342/22343  
DATE: MARCH 2022

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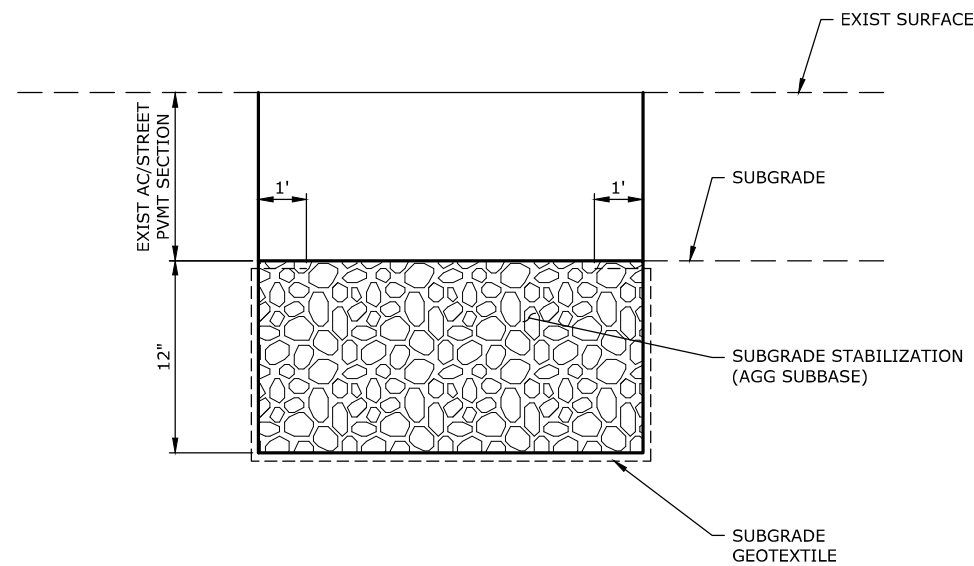


**NOTES:**

1. LOCATION AS DIRECTED BY THE ENGINEER.
2. TO BE USED WHEN GRIND AND INLAY WORK REVEAL ROADWAY STRUCTURAL FAILURES, OR AS DIRECTED BY THE ENGINEER.
3. LOCATIONS MAY REQUIRE SUBGRADE STABILIZATION IF SOFT AT DEPTH.

**18.5-INCH ASPHALT CONCRETE PAVEMENT REPAIR**

SCALE: NTS

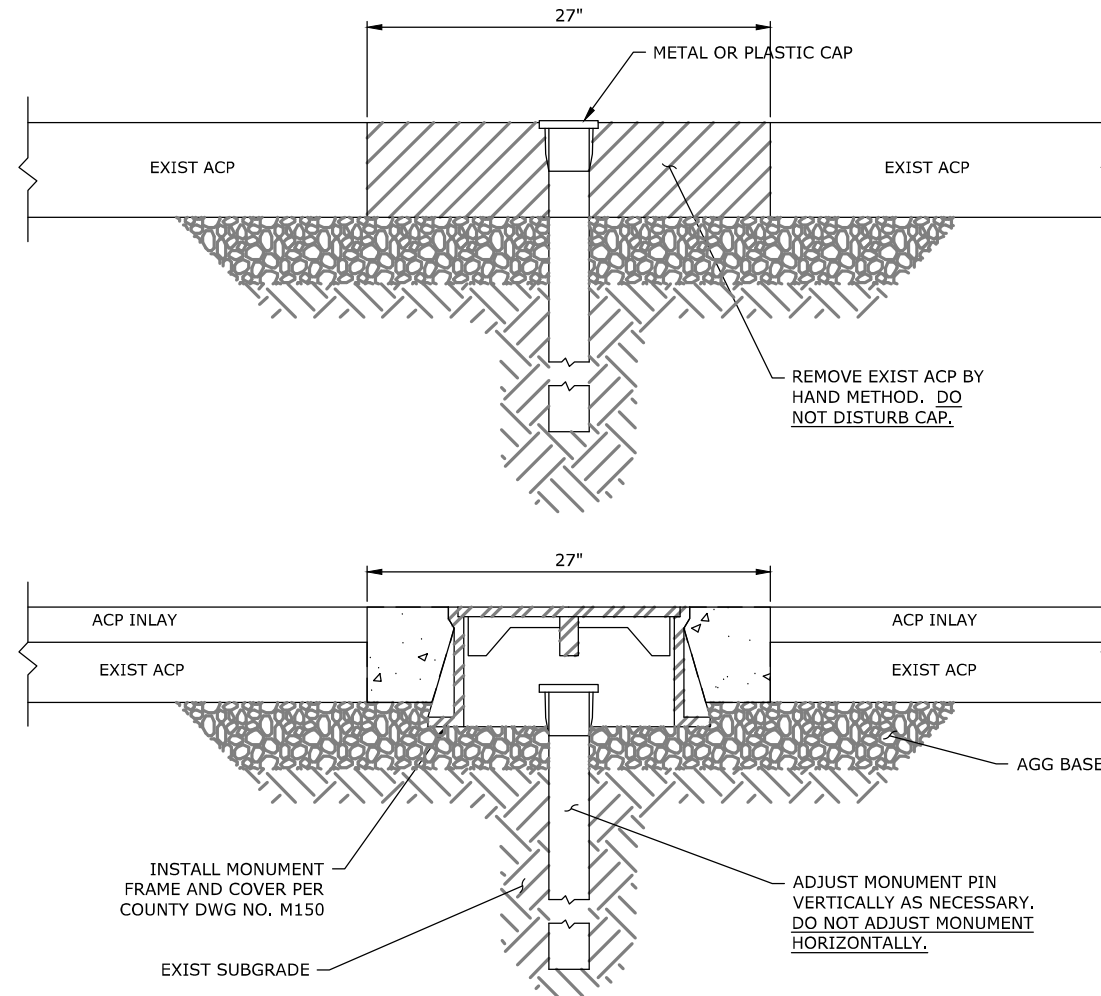


**NOTES:**

1. SUBGRADE STABILIZATION AREAS TO BE COMPLETED AS DIRECTED BY THE ENGINEER.
2. TO BE USED WHEN PREVIOUS PAVEMENT PRESERVATION WORK REVEALS POOR SUBGRADE CONDITIONS, OR AS DIRECTED BY THE ENGINEER.

**12-INCH SUBGRADE STABILIZATION**

SCALE: NTS



**MONUMENT BOX INSTALLATION**

SCALE: NTS



**PAVING DETAILS**

**SUNNYSIDE RD PAVING PROJECT -  
122ND AVE TO 162ND AVE**

PROJECT NO.: 22342/22343

DATE: MARCH 2022

**CLACKAMAS COUNTY**

DEPT. OF TRANSPORTATION  
AND DEVELOPMENT  
150 BEAVERCREEK ROAD  
OREGON CITY, OR 97045



DAN JOHNSON

DIRECTOR

DESIGNED BY:  
MME

DRAFTED BY:  
DKH

CHECKED BY:  
AHG

**REVISIONS**

NO. DATE:

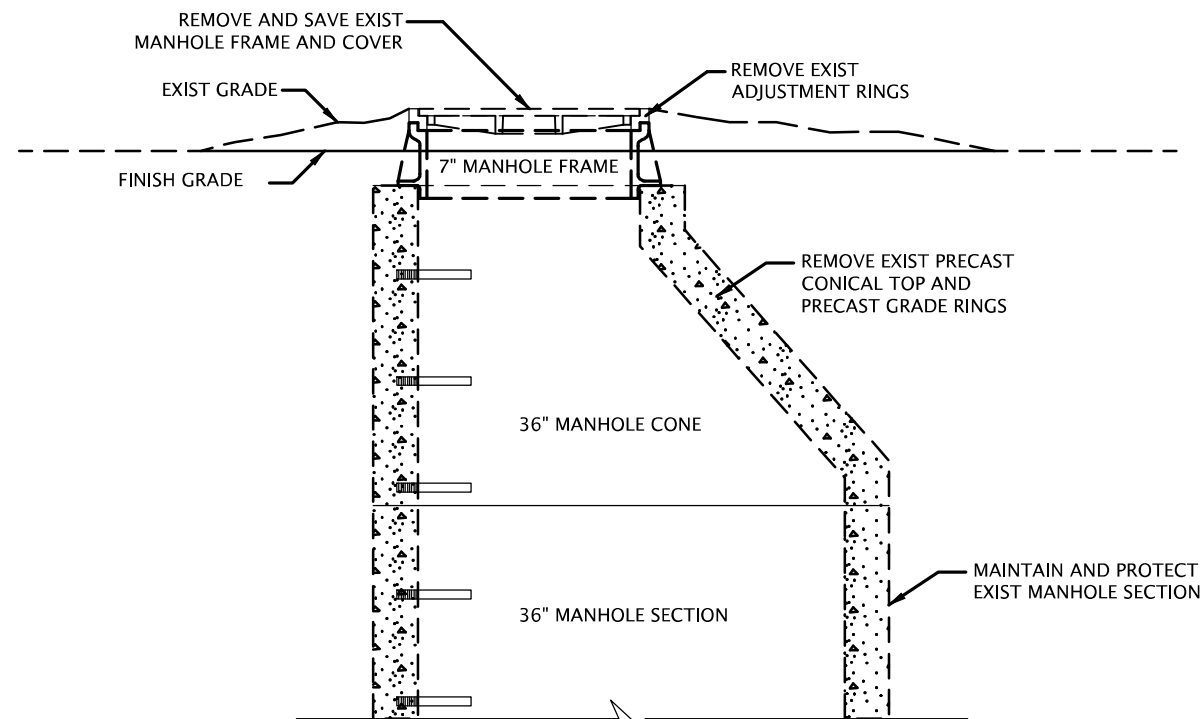
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C-03

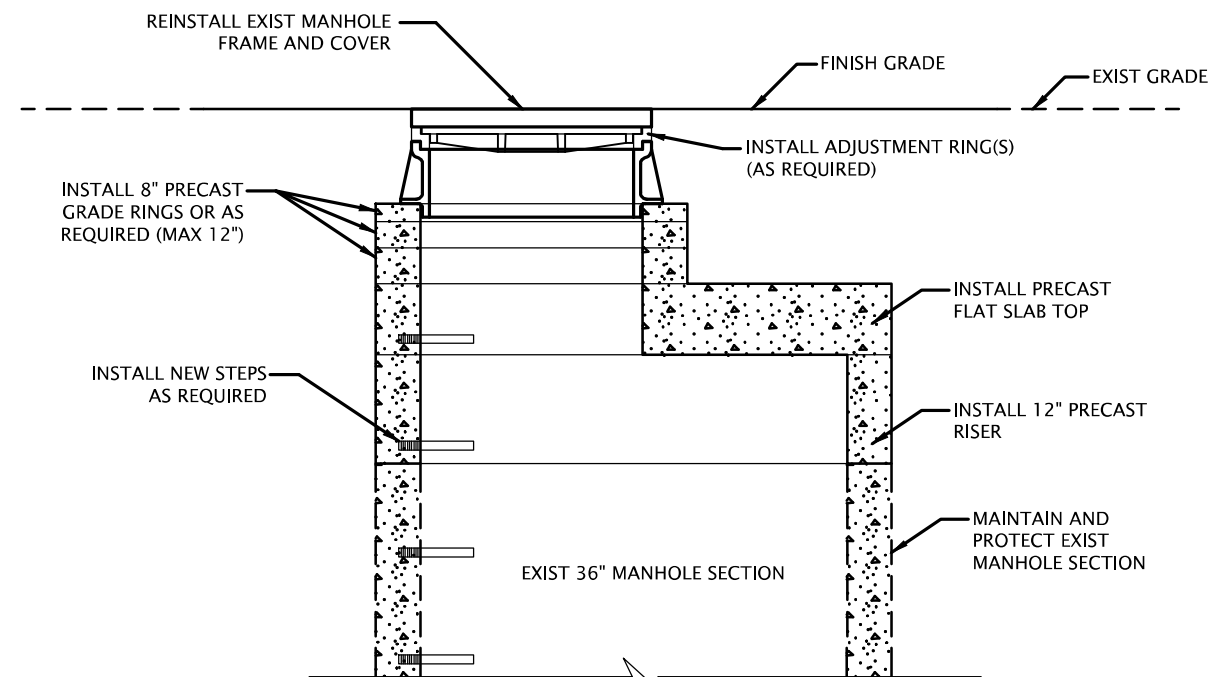
**murraysmith**

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**EXISTING MANHOLE WITH PRECAST CONICAL TOP**



**PROPOSED MANHOLE WITH PRECAST FLAT SLAB TOP**

**NOTES:**

1. FOR DETAILS NOT SHOWN, SEE ODOT STD DWG RD300, RD302, RD335, RD338 AND RD356.
2. FIELD VERIFY EXISTING MANHOLE SECTION AND EXISTING GROUND ELEVATIONS WITHIN THE PAVEMENT REPAIR AREA SHOWN ON SHEET C-09. INCLUDE IN THE FIELD VERIFICATION ELEVATIONS AT 2 FT, 5 FT AND 10 FT BEYOND THE PAVEMENT REPAIR AREA.

**MAJOR ADJUSTMENT OF MANHOLE - STA 52+47, 4' LT**

SCALE: NTS

4



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PAVING DETAILS

SUNNYSIDE RD PAVING PROJECT -  
 122ND AVE TO 162ND AVE

PROJECT NO.: 22342/22343  
 DATE: MARCH 2022

CLACKAMAS COUNTY  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045



DIRECTOR  
 DAN JOHNSON

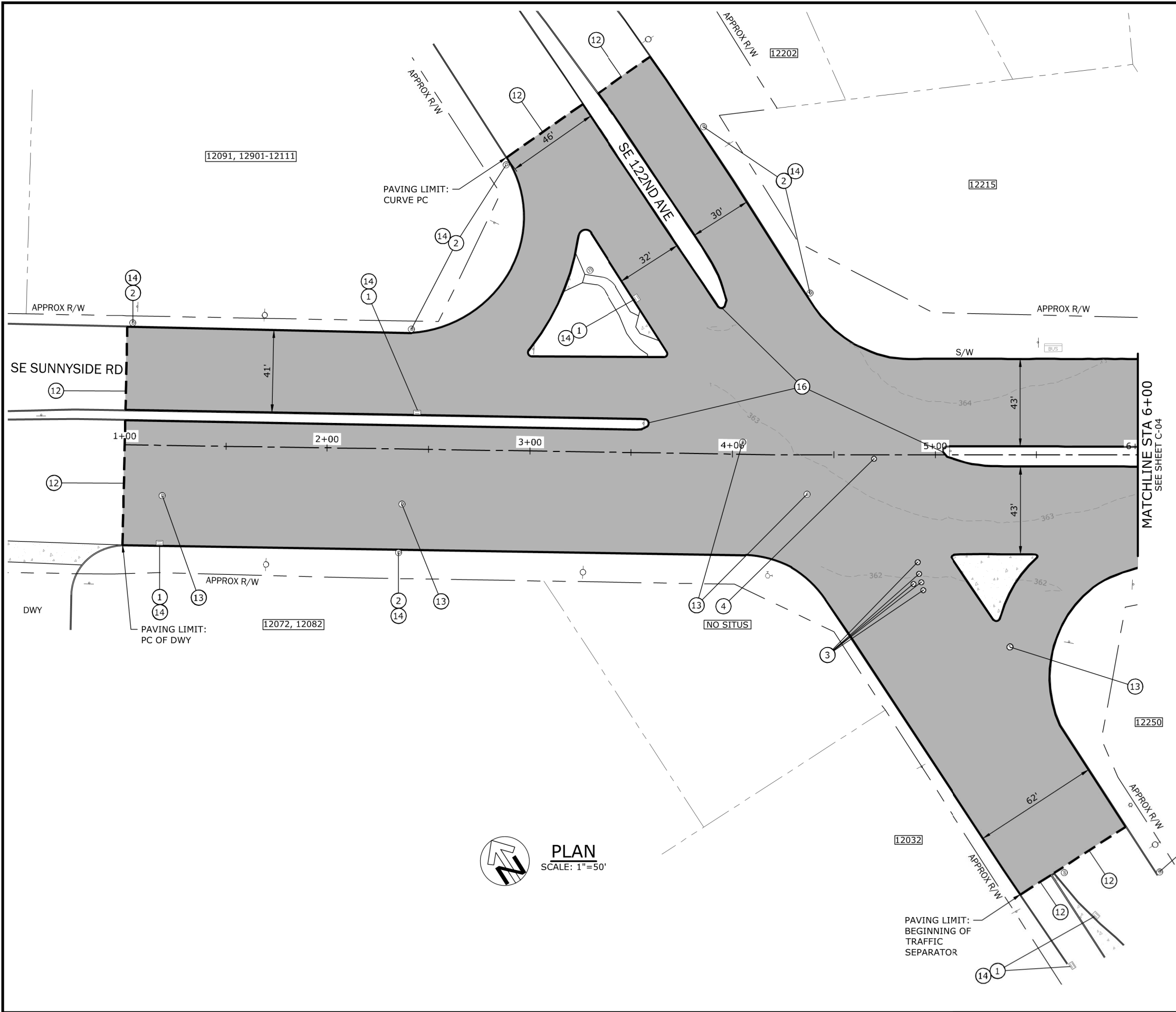
DESIGNED BY: MME  
 DRAFTED BY: DKH  
 CHECKED BY: AHG

REVISIONS

NO.	DATE:

Sheet No.  
**C-04**

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**CONSTRUCTION NOTES:**

1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.

**KEY NOTES:**

- 1 INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 2 INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 3 ADJUST EXIST WATER VALVE BOXES (COOR'D WITH UTILITY).
- 4 ADJUST EXIST GAS VALVE BOXES (COOR'D WITH UTILITY).
- 12 SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
- 13 MAINTAIN AND PROTECT EXIST MANHOLE.
- 14 MAINTAIN AND PROTECT EXIST CATCH BASIN.
- 16 PROTECT EXIST CURB NOSE REFLECTOR.

**LEGEND**

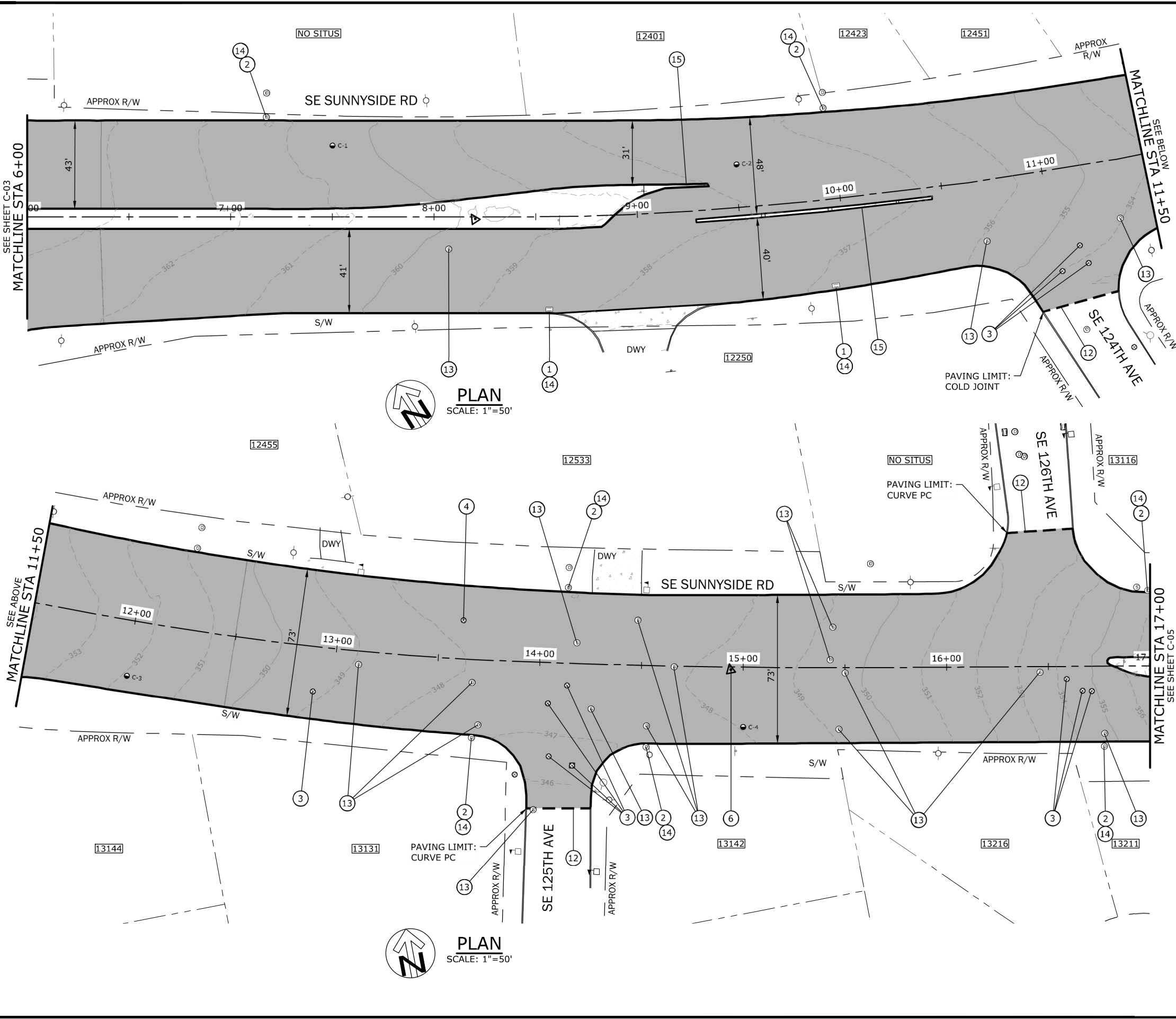
4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01



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 PORTLAND, OREGON 97204  
 P 503.225.9010

<b>REGISTERED PROFESSIONAL ENGINEER</b> 76447 DIGITALLY SIGNED Date: 2022.02.11 17:34:32-08'00' <b>OREGON</b> JUNE 2, 2011 ANDREW HENRY GIESY RENEWS 6-30-23	
<b>CONSTRUCTION NOTES:</b>	
<b>KEY NOTES:</b>	
<p>DESIGNED BY: MME</p> <p>DRAFTED BY: DKH</p> <p>CHECKED BY: AHG</p>	<p>PROJECT NO.: 22342/22343</p> <p>DATE: MARCH 2022</p> <p>PROJECT NO.: 22342/22343</p>
<b>CLACKAMAS COUNTY</b> DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	
<b>DAN JOHNSON</b> DIRECTOR	
<b>PAVING PLANS AND NOTES</b>	
<b>SUNNYSIDE RD PAVING PROJECT - 122ND AVE TO 162ND AVE</b>	
<p>NO. DATE:</p> <p>Sheet No.</p>	<p>REVISIONS</p> <p>C-05</p>

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**PLAN**  
SCALE: 1"=50'

**PLAN**  
SCALE: 1"=50'



**CONSTRUCTION NOTES:**

1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMP.

**KEY NOTES:**

- 1 INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 2 INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 3 ADJUST EXIST WATER VALVE BOXES (COOR'D WITH UTILITY).
- 4 ADJUST EXIST GAS VALVE BOXES (COOR'D WITH UTILITY).
- 6 INSTALL MON BOX, SEE DET 3 ON SHT C-03.
- 12 SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
- 13 MAINTAIN AND PROTECT EXIST MANHOLE.
- 14 MAINTAIN AND PROTECT EXIST CATCH BASIN.
- 15 MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.

**LEGEND**

4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01



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**PAVING PLANS AND NOTES**

**SUNNYSIDE RD PAVING PROJECT -  
122ND AVE TO 162ND AVE**

**CLACKAMAS COUNTY**

DEPT. OF TRANSPORTATION  
AND DEVELOPMENT  
150 BEAVERCREEK ROAD  
OREGON CITY, OR 97045



DIRECTOR  
DAN JOHNSON

DESIGNED BY:  
MME

DRAFTED BY:  
DKH

CHECKED BY:  
AHG

**REVISIONS**

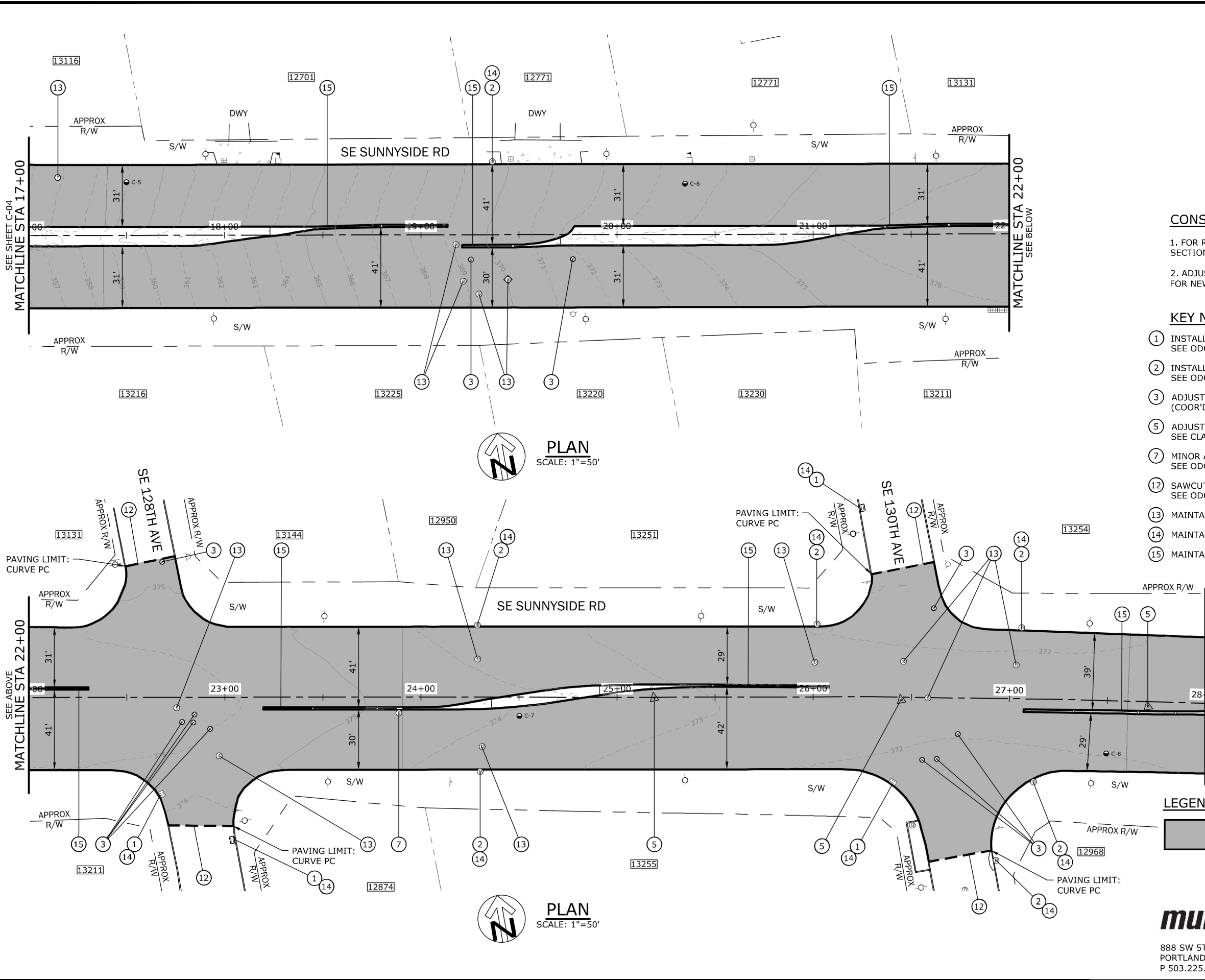
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Sheet No.  
**C-06**

PROJECT NO.: 22342/22343  
DATE: MARCH 2022



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**CONSTRUCTION NOTES:**

1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.

**KEY NOTES:**

- 1 INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 2 INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 3 ADJUST EXIST WATER VALVE BOXES (COORD WITH UTILITY).
- 5 ADJUST EXIST MON BOXES AND CONST CONC COLLAR, SEE CLACKCO DWG M-150.
- 7 MINOR ADJUSTMENT OF MANHOLE - METHOD 'C', SEE ODOT STD DWG RD360.
- 12 SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
- 13 MAINTAIN AND PROTECT EXIST MANHOLE.
- 14 MAINTAIN AND PROTECT EXIST CATCH BASIN.
- 15 MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.

**LEGEND**

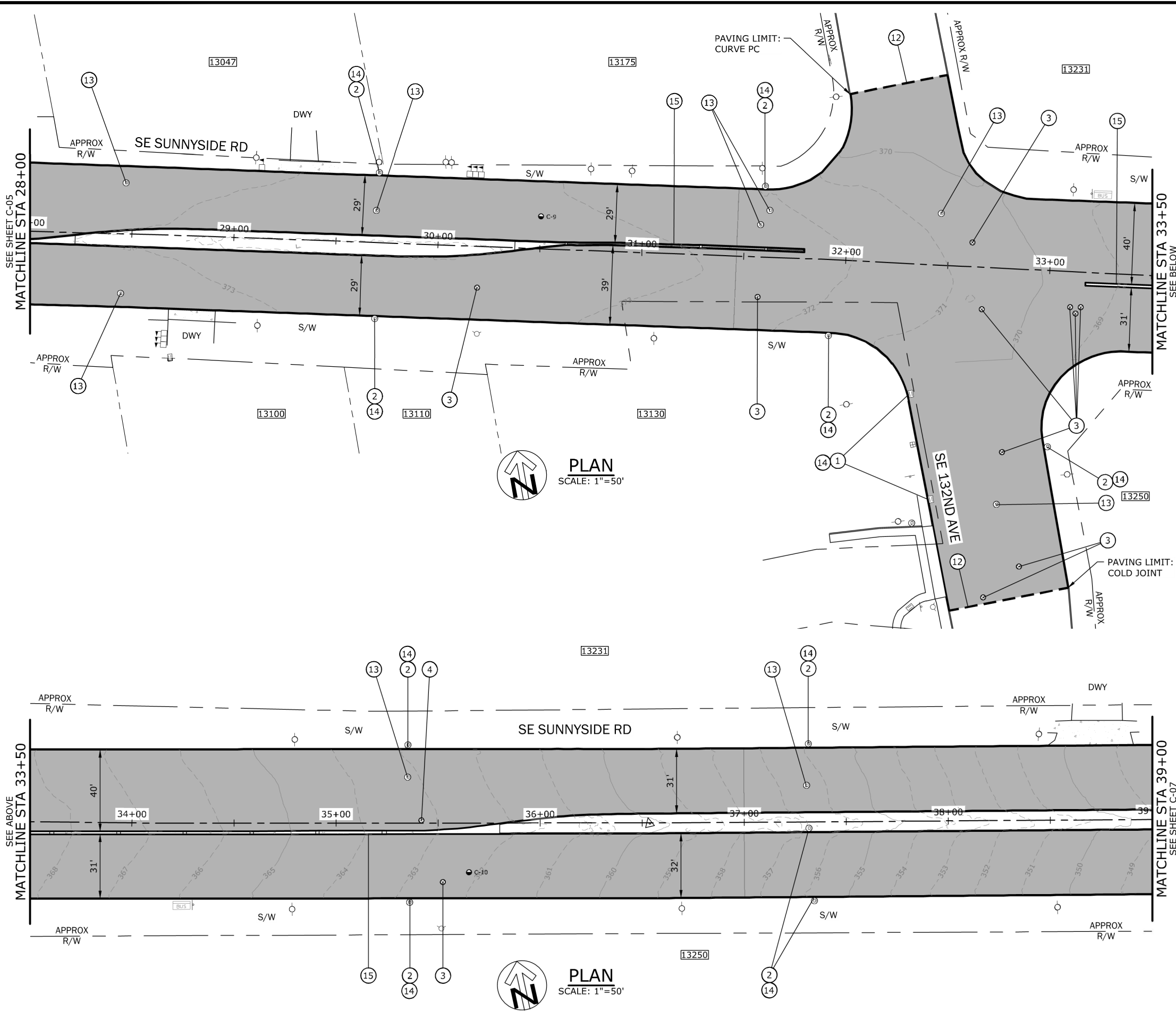
4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01



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 PORTLAND, OREGON 97204  
 P 503.225.9010

<b>REGISTERED PROFESSIONAL ENGINEER</b> 76447 DIGITALLY SIGNED Date: 2022.02.11 17:35:29-08'00' <b>OREGON</b> JUNE 2, 2011 <b>ANDREW HENRY GIESY</b> RENEWS 6-30-23	
<b>CONSTRUCTION NOTES:</b>	
<b>KEY NOTES:</b>	
<b>CLACKAMAS COUNTY</b> DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	
<b>DIRECTOR</b> DAN JOHNSON	
<b>PAVING PLANS AND NOTES</b> <b>SUNNYSIDE RD PAVING PROJECT - 122ND AVE TO 162ND AVE</b>	
PROJECT NO.: 22342/22343 DATE: MARCH 2022	
<b>DESIGNED BY:</b> MME	<b>DESIGNED BY:</b> MME
<b>DRAFTED BY:</b> DKH	<b>DRAFTED BY:</b> DKH
<b>CHECKED BY:</b> AHG	<b>CHECKED BY:</b> AHG
<b>REVISIONS</b>	
NO.	DATE:
<b>C-07</b>	

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**CONSTRUCTION NOTES:**

1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.

**KEY NOTES:**

- 1 INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 2 INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 3 ADJUST EXIST WATER VALVE BOXES (COOR'D WITH UTILITY).
- 4 ADJUST EXIST GAS VALVE BOXES (COOR'D WITH UTILITY).
- 12 SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
- 13 MAINTAIN AND PROTECT EXIST MANHOLE.
- 14 MAINTAIN AND PROTECT EXIST CATCH BASIN.
- 15 MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.

**LEGEND**

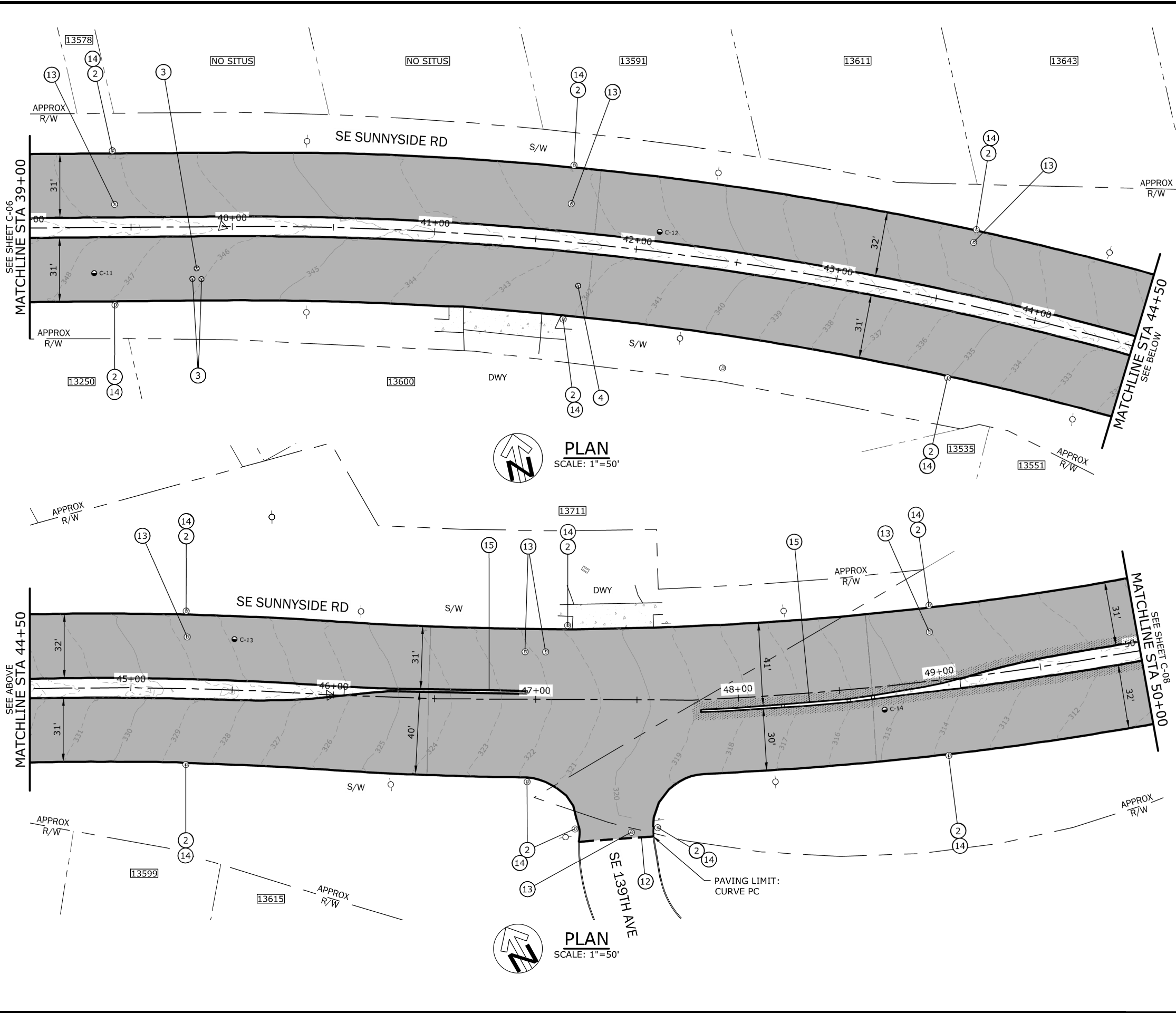
4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01



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 PORTLAND, OREGON 97204  
 P 503.225.9010

<b>REGISTERED PROFESSIONAL ENGINEER 76447</b>	
DIGITALLY SIGNED Date: 2022.02.11 17:36:39-08'00'	
<b>OREGON</b>	
JUNE 2, 2011	
ANDREW HENRY GIESY	
RENEWS 6-30-23	
<b>CONSTRUCTION NOTES:</b>	
1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.	
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.	
<b>KEY NOTES:</b>	
1 INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.	
2 INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.	
3 ADJUST EXIST WATER VALVE BOXES (COOR'D WITH UTILITY).	
4 ADJUST EXIST GAS VALVE BOXES (COOR'D WITH UTILITY).	
12 SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.	
13 MAINTAIN AND PROTECT EXIST MANHOLE.	
14 MAINTAIN AND PROTECT EXIST CATCH BASIN.	
15 MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.	
<b>LEGEND</b>	
4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01	
<b>murraysmith</b>	
888 SW 5TH AVENUE, SUITE 1170 PORTLAND, OREGON 97204 P 503.225.9010	
<b>PAVING PLANS AND NOTES</b>	
<b>SUNNYSIDE RD PAVING PROJECT - 122ND AVE TO 162ND AVE</b>	
DATE: MARCH 2022 PROJECT NO.: 22342/22343	
<b>CLACKAMAS COUNTY</b>	
DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	
DAN JOHNSON DIRECTOR	
<b>DESIGNED BY: MME</b>	
<b>DRAFTED BY: DKH</b>	
<b>CHECKED BY: AHG</b>	
<b>REVISIONS</b>	
NO.	DATE:
Sheet No. <b>C-08</b>	

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**PLAN**  
SCALE: 1"=50'

**PLAN**  
SCALE: 1"=50'



**CONSTRUCTION NOTES:**

1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMP.

**KEY NOTES:**

2. INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
3. ADJUST EXIST WATER VALVE BOXES (COOR'D WITH UTILITY).
4. ADJUST EXIST GAS VALVE BOXES (COOR'D WITH UTILITY).
12. SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
13. MAINTAIN AND PROTECT EXIST MANHOLE.
14. MAINTAIN AND PROTECT EXIST CATCH BASIN.
15. MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.

**LEGEND**

4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01



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**PAVING PLANS AND NOTES**

**SUNNYSIDE RD PAVING PROJECT -  
122ND AVE TO 162ND AVE**

**CLACKAMAS COUNTY**

DEPT. OF TRANSPORTATION  
AND DEVELOPMENT  
150 BEAVERCREEK ROAD  
OREGON CITY, OR 97045



DAN JOHNSON  
DIRECTOR

DESIGNED BY:  
MME

DRAFTED BY:  
DKH

CHECKED BY:  
AHG

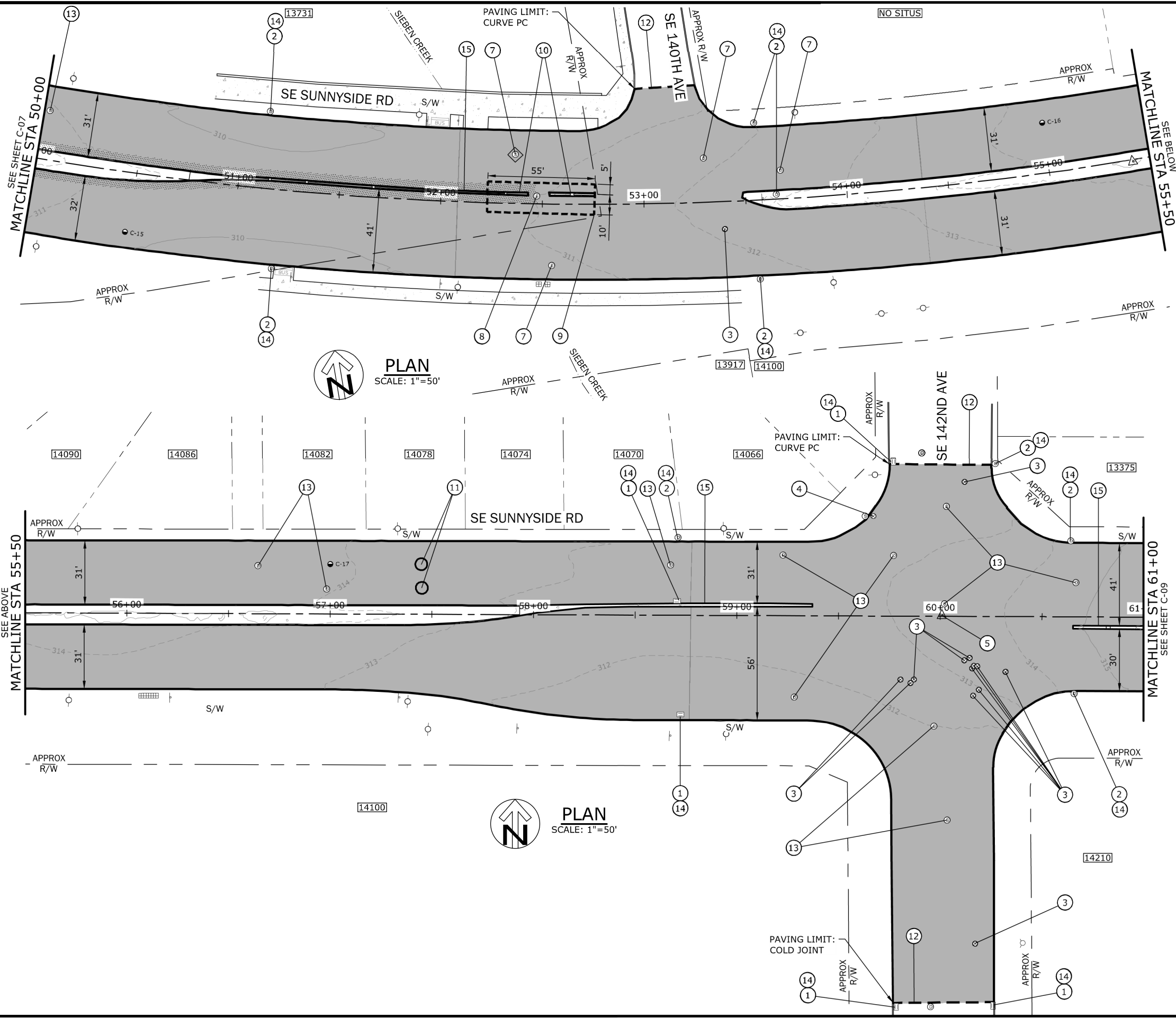
**REVISIONS**

NO.	DATE:

Sheet No.  
**C-09**

PROJECT NO.: 22342/22343  
DATE: MARCH 2022

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- CONSTRUCTION NOTES:**
- FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
  - ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.

- KEY NOTES:**
- INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.
  - INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
  - ADJUST EXIST WATER VALVE BOXES (COOR'D WITH UTILITY).
  - ADJUST EXIST GAS VALVE BOXES (COOR'D WITH UTILITY).
  - ADJUST EXIST MON BOXES AND CONST CONC COLLAR, SEE CLACKCO STD DWG M-150.
  - MINOR ADJUSTMENT OF MANHOLE - METHOD 'C', SEE ODOT STD DWG RD360.
  - MAJOR ADJUSTMENT OF MANHOLE, FOR DETAILS, SEE SHT C-04.
  - ASPHALT CONC PVMT REPAIR - 100 SY FOR DETAILS, SEE SHT C-03. -REPAIR ACP AROUND EXIST MANHOLE TO BE ADJUSTED.
  - REMOVE AND REINSTALL TRAFFIC SEPARATOR - TYPE B, SEE ODOT STD DWG RD706 - 40 LF
  - INSTALL TRAFFIC COUNT LOOPS, SEE SHT TS-01 THRU TS-04.
  - SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
  - MAINTAIN AND PROTECT EXIST MANHOLE.
  - MAINTAIN AND PROTECT EXIST CATCH BASIN.
  - MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.

**LEGEND**

4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01

**murraysmith**  
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 P 503.225.9010

**PAVING PLANS AND NOTES**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**

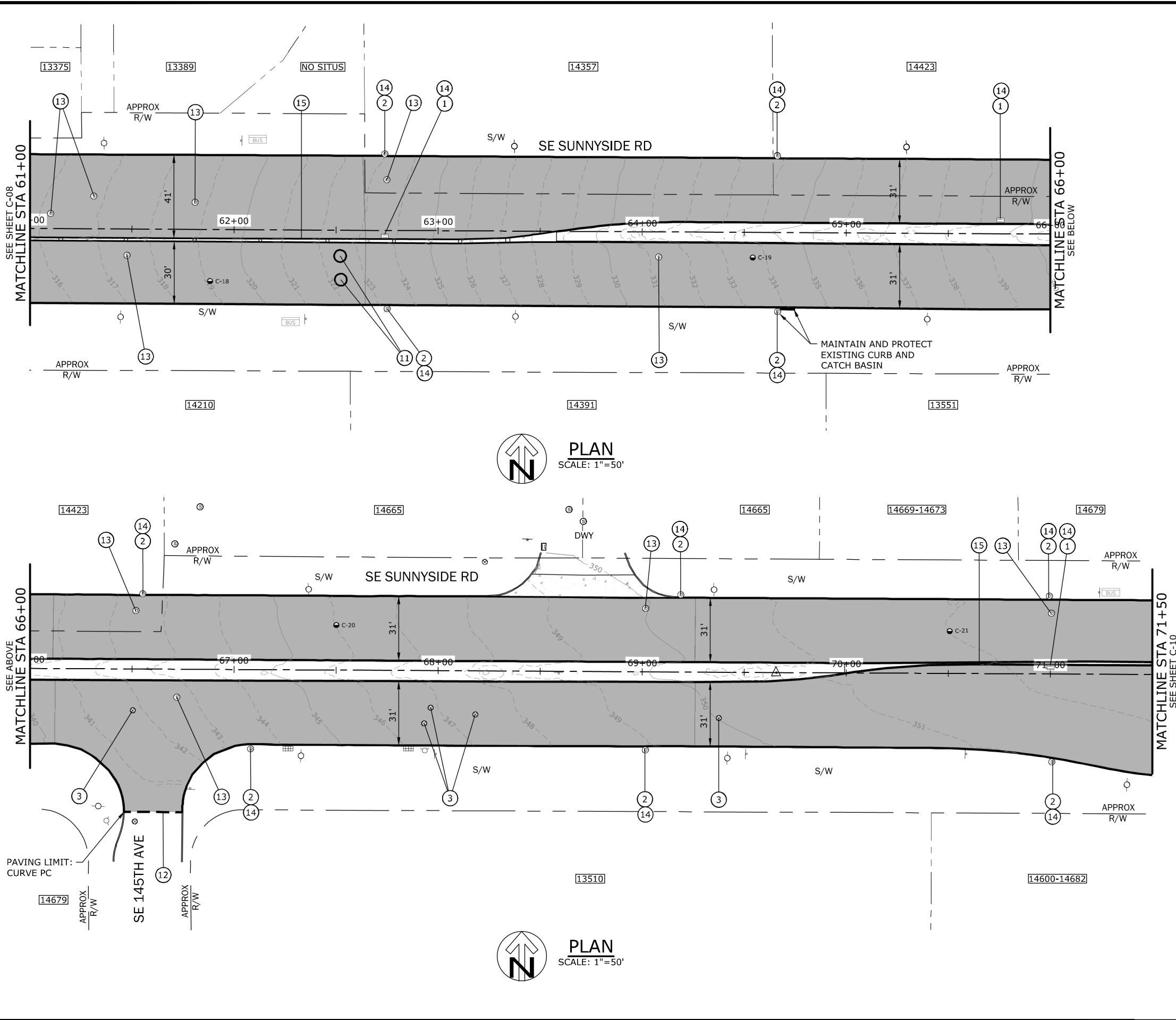
**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045

DESIGNED BY: MME  
 DRAFTED BY: DKH  
 CHECKED BY: AHG

NO.	DATE:	REVISIONS

DIRECTOR: DAN JOHNSON  
 PROJECT NO.: 22342/22343  
 DATE: MARCH 2022  
 Sheet No. **C-10**

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**CONSTRUCTION NOTES:**

1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.

**KEY NOTES:**

1. INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.
2. INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
3. ADJUST EXIST WATER VALVE BOXES (COORD WITH UTILITY).
11. INSTALL TRAFFIC COUNT LOOPS, SEE SHT TS-01 THRU TS-04.
12. SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
13. MAINTAIN AND PROTECT EXIST MANHOLE.
14. MAINTAIN AND PROTECT EXIST CATCH BASIN.
15. MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.

**LEGEND**

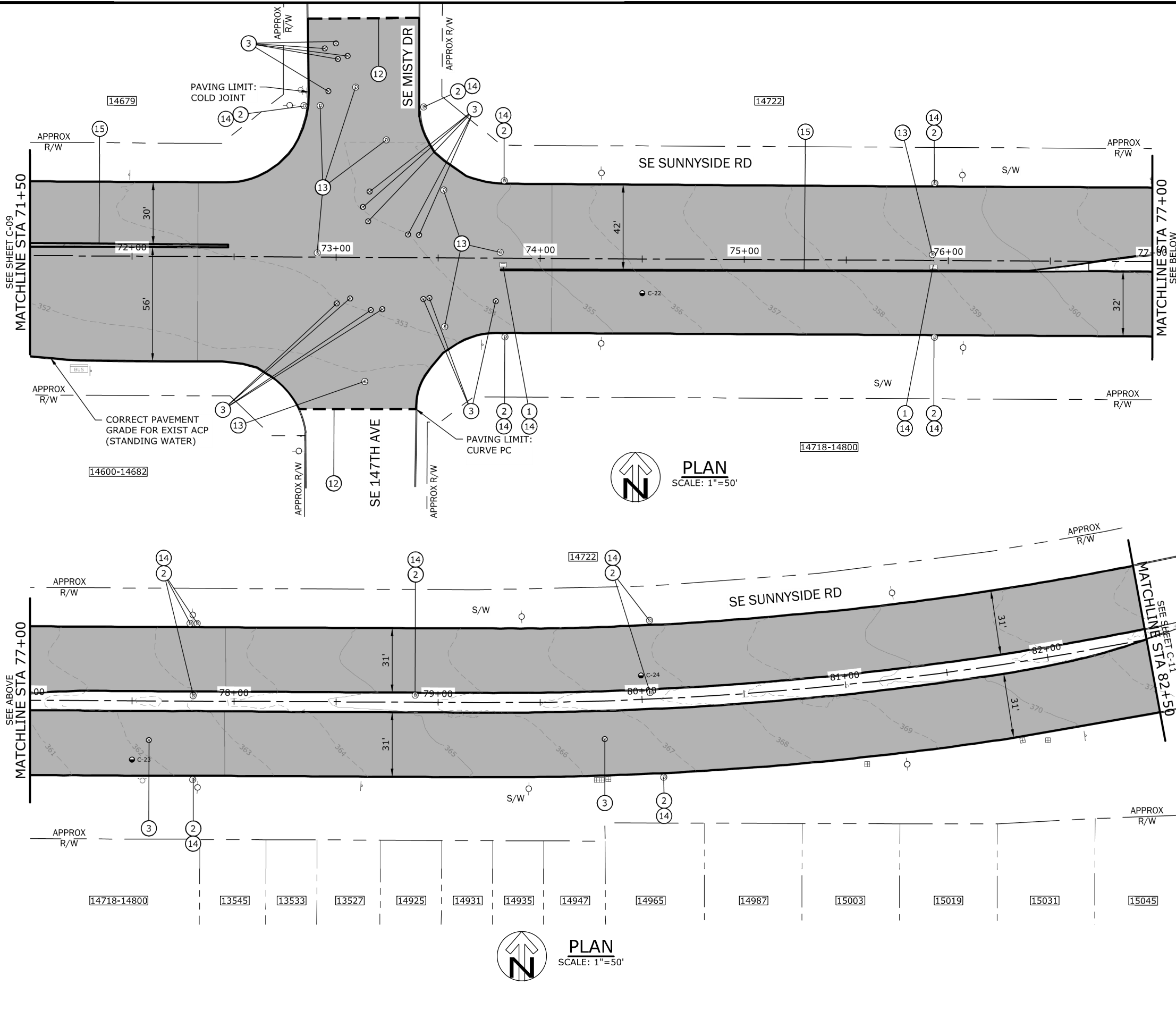
4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01



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<b>REGISTERED PROFESSIONAL ENGINEER 76447 OREGON JUNE 2, 2011 ANDREW HENRY GIESY RENEWS 6-30-23</b>	
DIGITALLY SIGNED Date: 2022.02.11 17:38:11-08'00'	
<b>CONSTRUCTION NOTES:</b>	
1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.	
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.	
<b>KEY NOTES:</b>	
1. INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.	
2. INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.	
3. ADJUST EXIST WATER VALVE BOXES (COORD WITH UTILITY).	
11. INSTALL TRAFFIC COUNT LOOPS, SEE SHT TS-01 THRU TS-04.	
12. SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.	
13. MAINTAIN AND PROTECT EXIST MANHOLE.	
14. MAINTAIN AND PROTECT EXIST CATCH BASIN.	
15. MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.	
<b>LEGEND</b>	
4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01	
<b>murraysmith</b>	
888 SW 5TH AVENUE, SUITE 1170 PORTLAND, OREGON 97204 P 503.225.9010	
<b>CLACKAMAS COUNTY</b> DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	
<b>DAN JOHNSON</b> DIRECTOR	
<b>PAVING PLANS AND NOTES</b> <b>SUNNYSIDE RD PAVING PROJECT - 122ND AVE TO 162ND AVE</b>	
PROJECT NO.: 22342/22343 DATE: MARCH 2022	
<b>REVISIONS</b>	
NO. DATE:	
DESIGNED BY: MME DRAFTED BY: DKH CHECKED BY: AHG	
Sheet No. <b>C-11</b>	

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**PLAN**  
 SCALE: 1"=50'


**PLAN**  
 SCALE: 1"=50'



**CONSTRUCTION NOTES:**

1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.

**KEY NOTES:**


- ① INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- ② INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- ③ ADJUST EXIST WATER VALVE BOXES (COORD WITH UTILITY).
- ⑫ SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
- ⑬ MAINTAIN AND PROTECT EXIST MANHOLE.
- ⑭ MAINTAIN AND PROTECT EXIST CATCH BASIN.
- ⑮ MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.

**LEGEND**

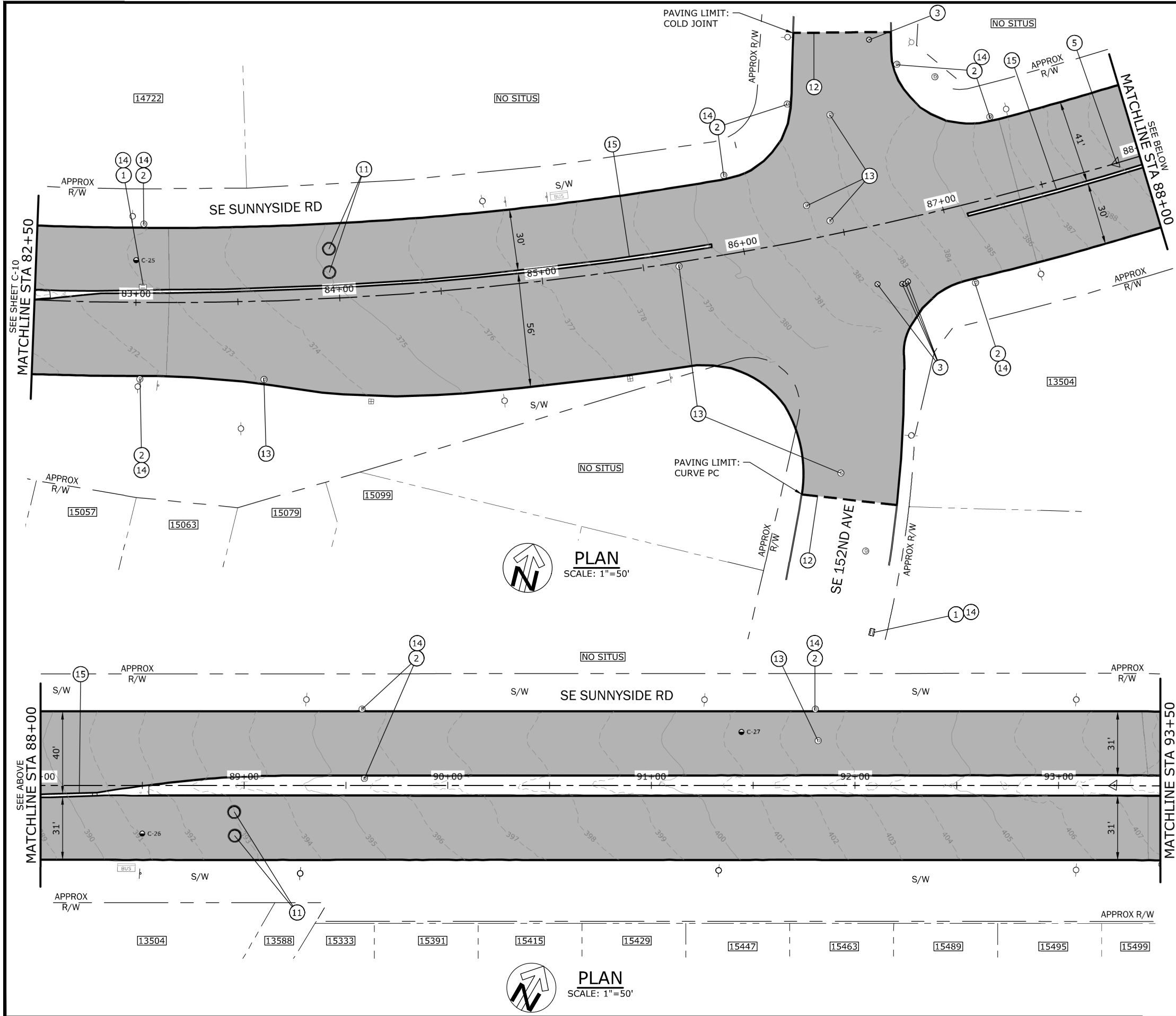

 4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01



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<b>PAVING PLANS AND NOTES</b>	
<b>SUNNYSIDE RD PAVING PROJECT - 122ND AVE TO 162ND AVE</b>	
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR DAN JOHNSON
	
DESIGNED BY: MME	PROJECT NO.: 22342/22343
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CHECKED BY: AHG	REVISIONS
NO. DATE:	SHEET NO. C-12

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**CONSTRUCTION NOTES:**

1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.

**KEY NOTES:**

- 1 INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 2 INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 3 ADJUST EXIST WATER VALVE BOXES (COORD WITH UTILITY).
- 5 ADJUST EXIST MON BOXES AND CONST CONC COLLAR, SEE CLACKCO DWG M-150.
- 11 INSTALL TRAFFIC COUNT LOOP, SEE SHT TS-01 THRU TS-04.
- 12 SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
- 13 MAINTAIN AND PROTECT EXIST MANHOLE.
- 14 MAINTAIN AND PROTECT EXIST CATCH BASIN.
- 15 MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.

**LEGEND**

4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01



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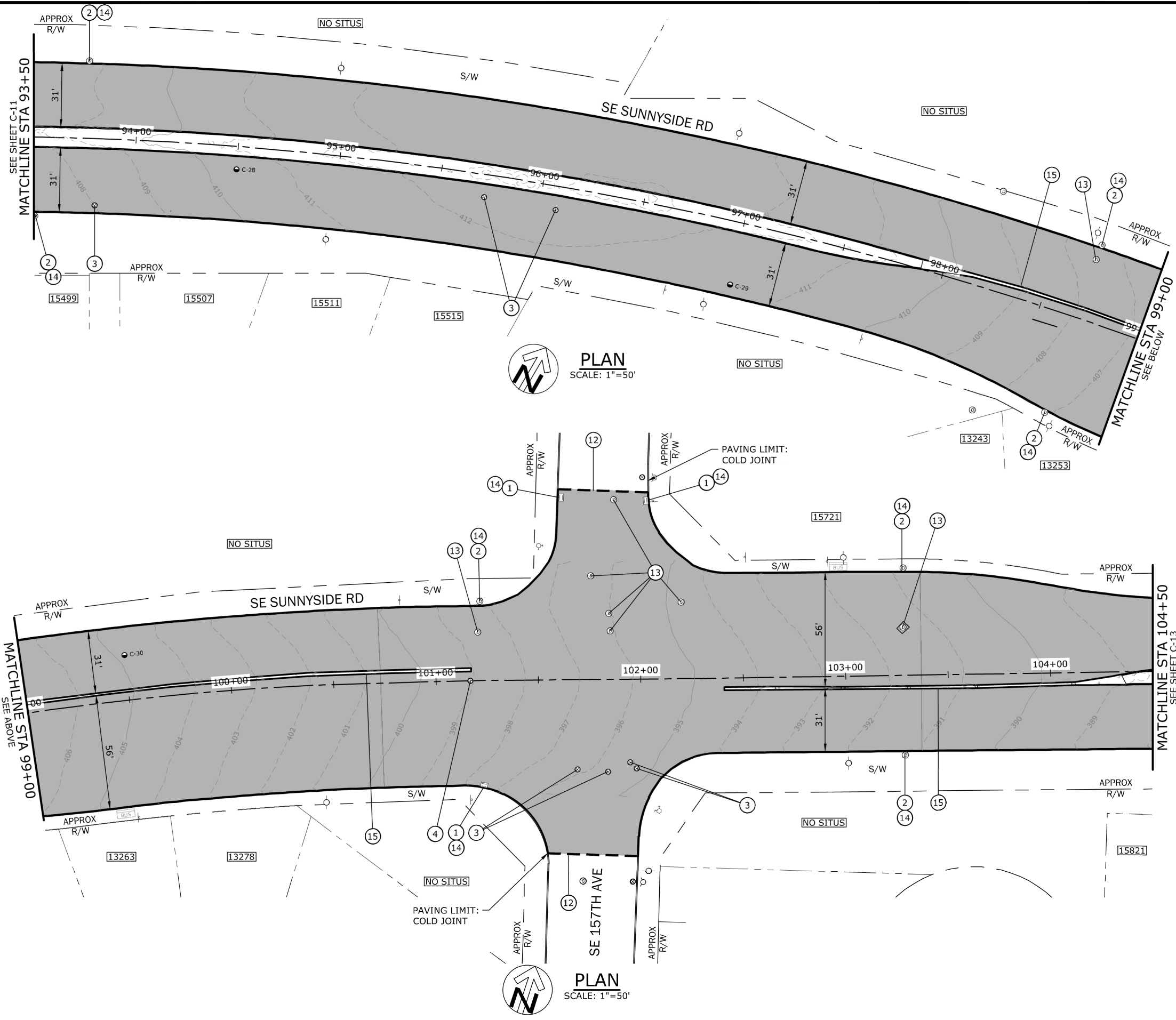
**PAVING PLANS AND NOTES**  
**SUNNYSIDE RD PAVING PROJECT - 122ND AVE TO 162ND AVE**  
 DATE: MARCH 2022 PROJECT NO.: 22342/22343

**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045  
**DAN JOHNSON** DIRECTOR

NO.	DATE	DESIGNED BY	DRAFTED BY	CHECKED BY
		MME	DKH	AHG
<b>REVISIONS</b>				

Sheet No. **C-13**

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**PLAN**  
 SCALE: 1"=50'


**PLAN**  
 SCALE: 1"=50'



**CONSTRUCTION NOTES:**

1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.

**KEY NOTES:**

- 1 INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 2 INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 3 ADJUST EXIST WATER VALVE BOXES (COOR'D WITH UTILITY).
- 4 ADJUST EXIST GAS VALVE BOXES (COOR'D WITH UTILITY).
- 12 SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
- 13 MAINTAIN AND PROTECT EXIST MANHOLE.
- 14 MAINTAIN AND PROTECT EXIST CATCH BASIN.
- 15 MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.

**LEGEND**


 4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01

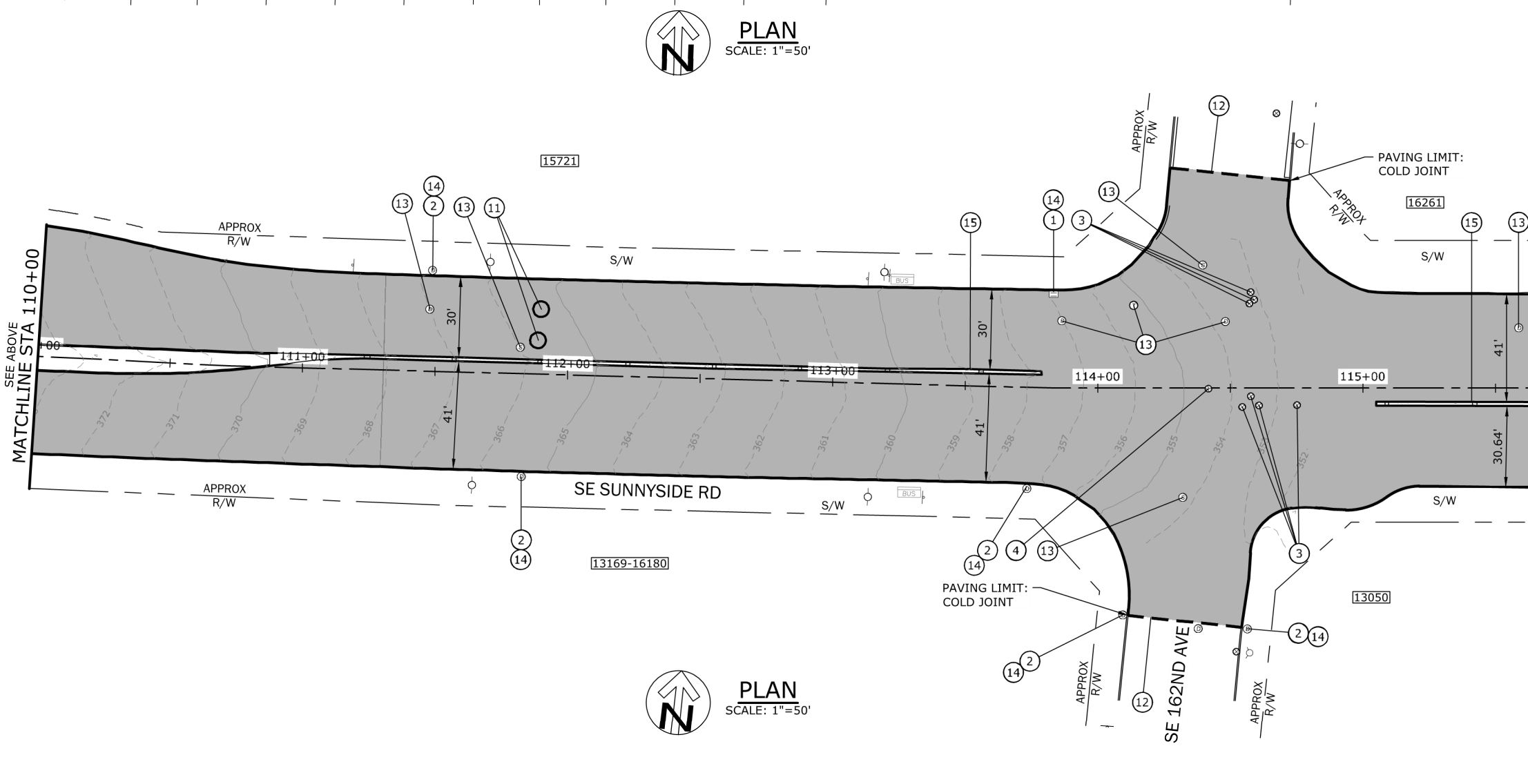
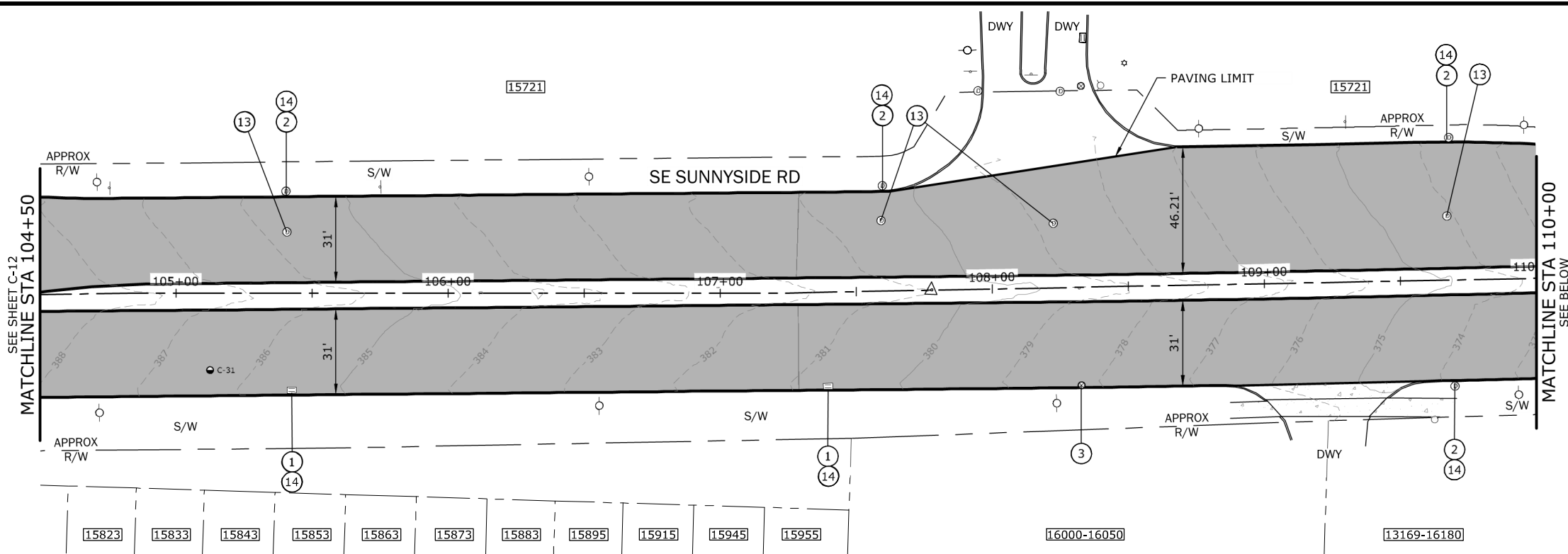


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<b>PAVING PLANS AND NOTES</b>	
<b>SUNNYSIDE RD PAVING PROJECT - 122ND AVE TO 162ND AVE</b>	
<b>CLACKAMAS COUNTY</b> DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR <b>DAN JOHNSON</b>
DESIGNED BY: <b>MME</b>	CHECKED BY: <b>AHG</b>
DRAFTED BY: <b>DKH</b>	NO. DATE:
<b>REVISIONS</b>	
Sheet No. <b>C-14</b>	
PROJECT NO.: 22342/22343 DATE: MARCH 2022	



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**CONSTRUCTION NOTES:**

1. FOR ROADWAY PAVING IMPROVEMENT, SEE TYPICAL SECTION SHEET C-01 TO C-02.
2. ADJUST GRADES AS NECESSARY AT INTERSECTIONS FOR NEW ADA RAMPS.

**KEY NOTES:**

- 1 INSTALL TYPE 3 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 2 INSTALL TYPE 10 INLET PROTECTION, SEE ODOT STD DWG RD1010.
- 3 ADJUST EXIST WATER VALVE BOXES (COORD WITH UTILITY).
- 11 INSTALL TRAFFIC COUNT LOOPS, SEE SHT TS-01 THRU TS-04.
- 12 SAWCUT AND SEAL EDGE, SEE ODOT STD DWG RD610.
- 13 MAINTAIN AND PROTECT EXIST MANHOLE.
- 14 MAINTAIN AND PROTECT EXIST CATCH BASIN.
- 15 MAINTAIN AND PROTECT EXIST TRAFFIC SEPARATOR.

**LEGEND**

4" GRIND AND INLAY, SEE TYPICAL SECTION, SHEET C-01



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**PAVING PLANS AND NOTES**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**  
 PROJECT NO.: 22342/22343  
 DATE: MARCH 2022

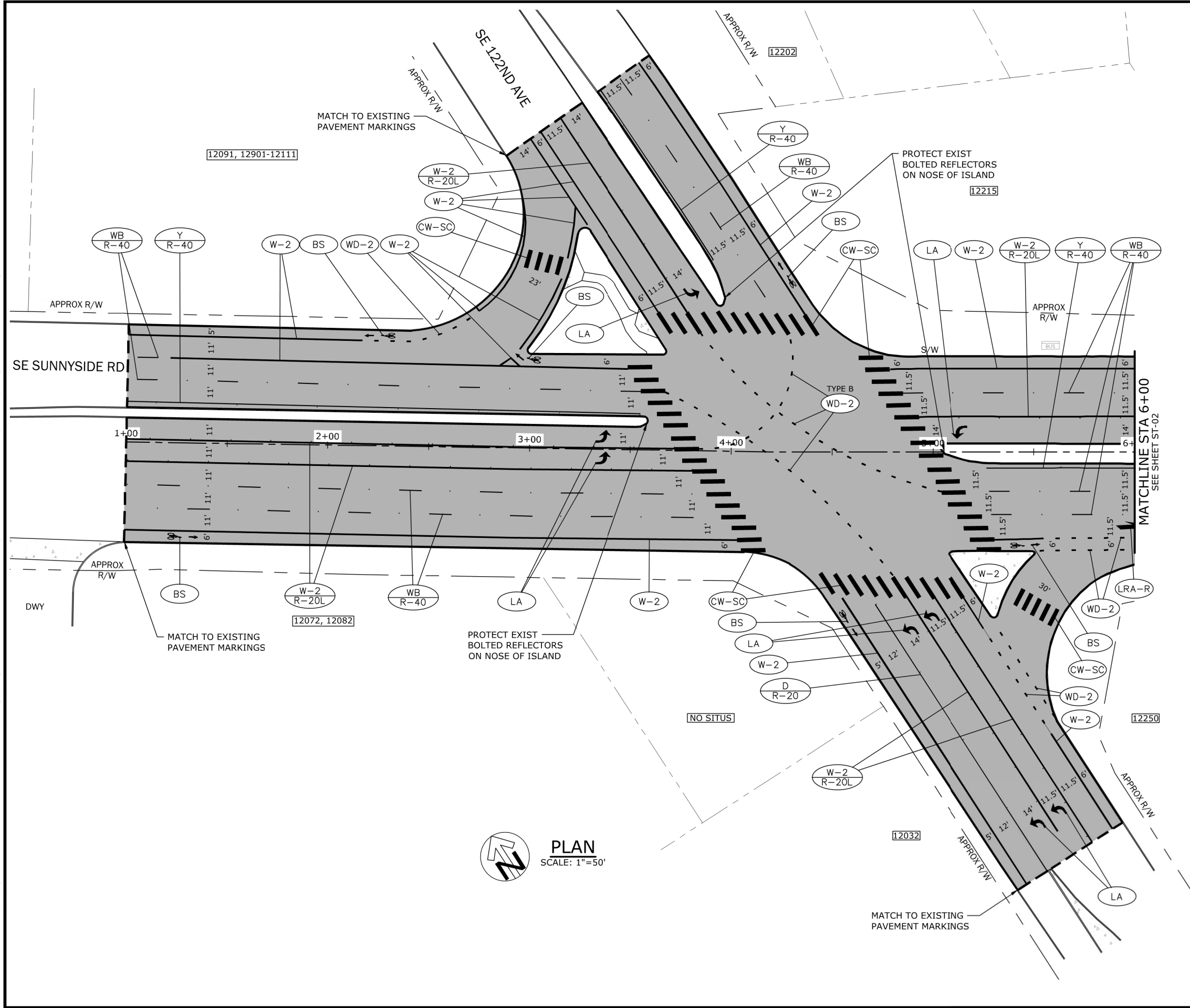
**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045  
**DAN JOHNSON**  
 DIRECTOR

NO.	DATE:	REVISIONS

DESIGNED BY: MME  
 DRAFTED BY: DKH  
 CHECKED BY: AHG

Sheet No. **C-15**

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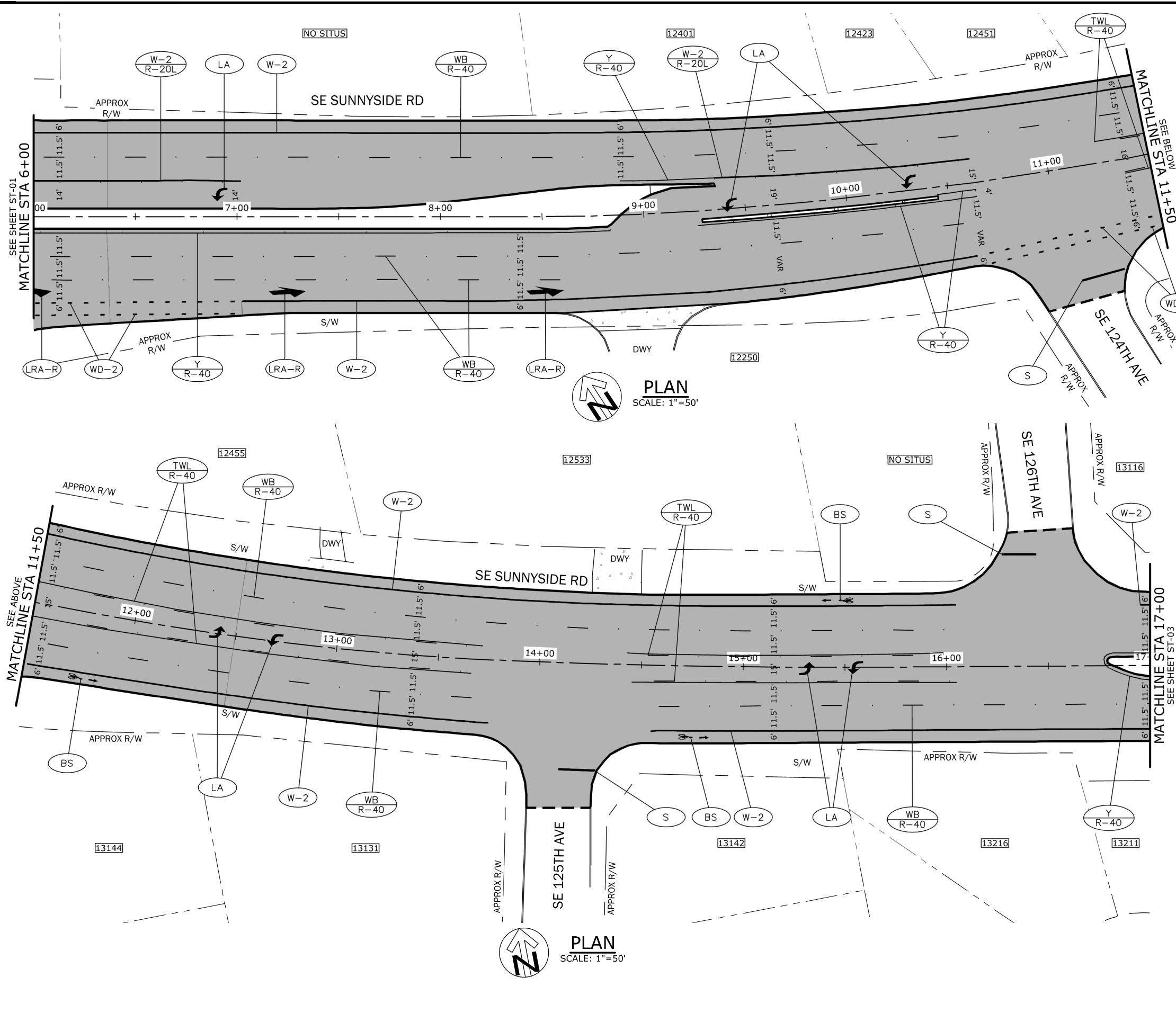


- PAVEMENT MARKING NOTES:**
1. INSTALL NEW PAVEMENT MARKINGS AS CALLED OUT WITH (X) AND (R) PER ODOT STD DRAWINGS AND DETAILS ON SHEET ST-12.
  2. SURVEY EXISTING PAVEMENT MARKINGS AND REPLACE MARKINGS IN EXISTING CONFIGURATION AFTER PAVING UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER. CONTRACTOR SHALL COORDINATE STRIPING LAYOUT WITH ENGINEER AND COUNTY PRIOR TO PLACEMENT.
  3. INSTALL ARROWS, LANE EXTENSIONS THROUGH INTERSECTIONS, AND STOP BARS AS TYPE-B. INSTALL STAGGERED CONTINENTAL CROSSWALK BARS, LANE REDUCTION ARROWS, AND BICYCLE LANE STENCIL AS TYPE B-HS.
  4. ALIGN CROSSWALK MARKINGS TO NEW ADA RAMP LOCATIONS.

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STRIPING LAYOUT	<b>SUNNYSIDE RD PAVING PROJECT - 122ND AVE TO 162ND AVE</b>
CLACKAMAS COUNTY DEPT. OF TRANSPORTATION AND DEVELOPMENT 150 BEAVERCREEK ROAD OREGON CITY, OR 97045	DIRECTOR <b>DAN JOHNSON</b>
DESIGNED BY: MME	PROJECT NO.: 22342/22343 DATE: MARCH 2022
DRAFTED BY: DKH	REVISIONS
CHECKED BY: AHG	NO. DATE:
SHEET NO.: ST-01	MATCHLINE STA 6+00 SEE SHEET ST-02

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**PLAN**  
SCALE: 1"=50'

**PLAN**  
SCALE: 1"=50'



**PAVEMENT MARKING NOTES:**

1. INSTALL NEW PAVEMENT MARKINGS AS CALLED OUT WITH (X) AND (Y) PER ODOT STD DRAWINGS AND DETAILS ON SHEET ST-12.
2. SURVEY EXISTING PAVEMENT MARKINGS AND REPLACE MARKINGS IN EXISTING CONFIGURATION AFTER PAVING UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER. CONTRACTOR SHALL COORDINATE STRIPING LAYOUT WITH ENGINEER AND COUNTY PRIOR TO PLACEMENT.
3. INSTALL ARROWS, LANE EXTENSIONS THROUGH INTERSECTIONS, AND STOP BARS AS TYPE-B. INSTALL STAGGERED CONTINENTAL CROSSWALK BARS, LANE REDUCTION ARROWS, AND BICYCLE LANE STENCIL AS TYPE B-HS.

**STRIPING LAYOUT**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**

**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045

DESIGNED BY: MME  
 DRAFTED BY: DKH  
 CHECKED BY: AHG

NO.	DATE:	REVISIONS

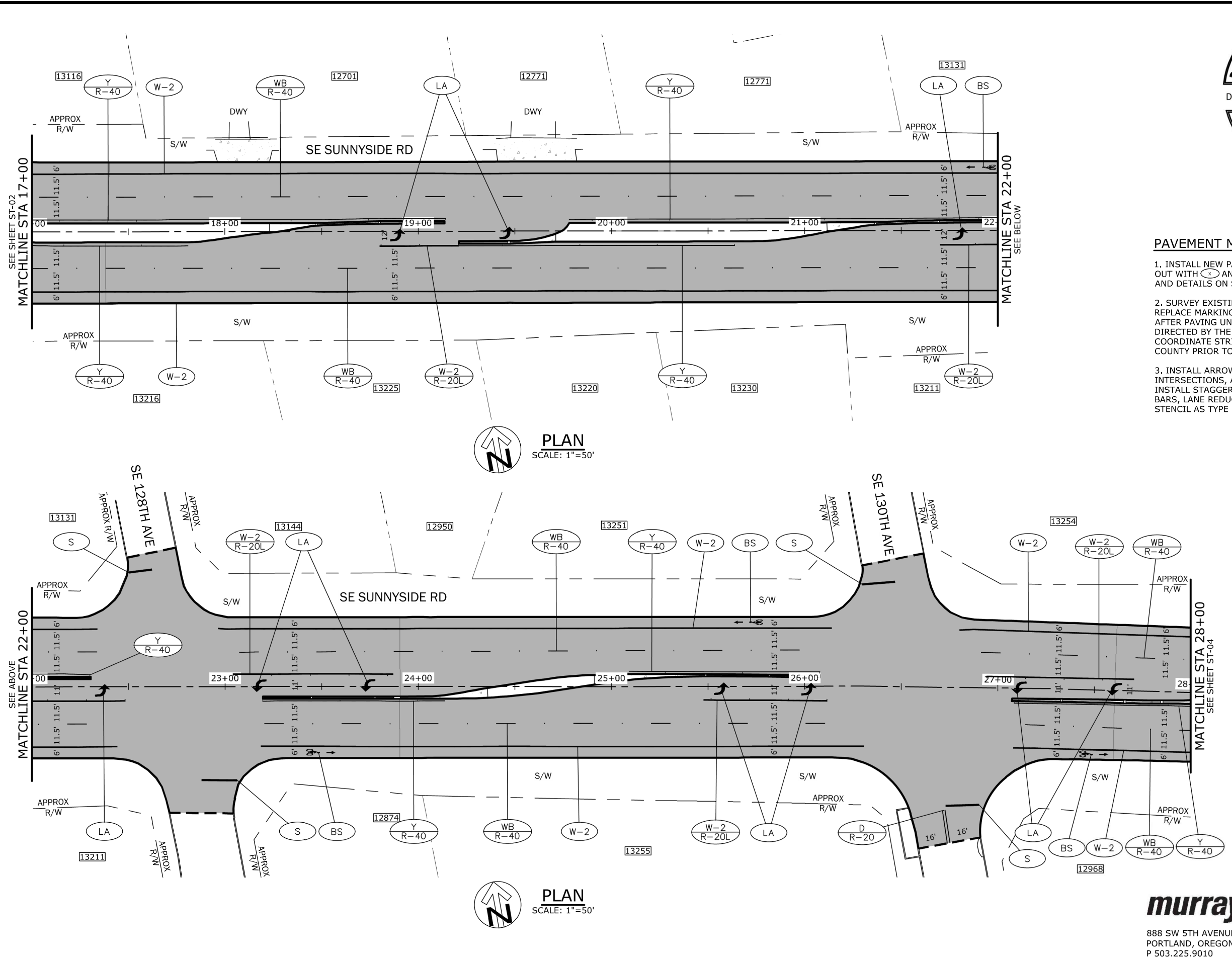
Sheet No. **ST-02**

DATE: MARCH 2022 PROJECT NO.: 22342/22343

DIRECTOR  
**DAN JOHNSON**



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- PAVEMENT MARKING NOTES:**
1. INSTALL NEW PAVEMENT MARKINGS AS CALLED OUT WITH (X) AND (B) PER ODOT STD DRAWINGS AND DETAILS ON SHEET ST-12.
  2. SURVEY EXISTING PAVEMENT MARKINGS AND REPLACE MARKINGS IN EXISTING CONFIGURATION AFTER PAVING UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER. CONTRACTOR SHALL COORDINATE STRIPING LAYOUT WITH ENGINEER AND COUNTY PRIOR TO PLACEMENT.
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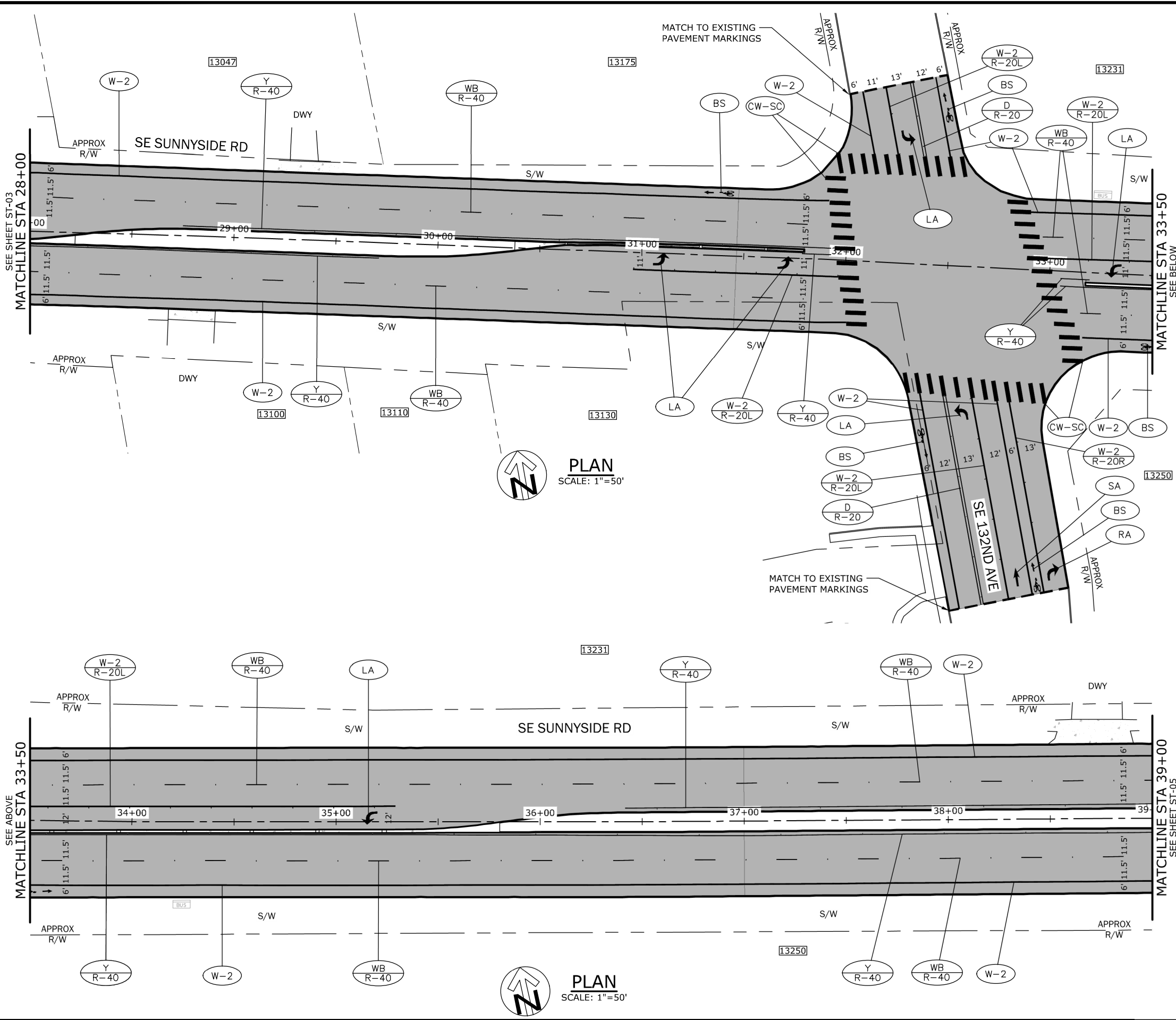
**STRIPING LAYOUT**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**  
 PROJECT NO.: 22342/22343  
 DATE: MARCH 2022

**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045  
**DAN JOHNSON**  
 DIRECTOR

DESIGNED BY:		DRAFTED BY:		CHECKED BY:	
MME		DKH		AHG	
REVISIONS					
NO.	DATE:				
Sheet No. <b>ST-03</b>					

**murraysmith**  
 888 SW 5TH AVENUE, SUITE 1170  
 PORTLAND, OREGON 97204  
 P 503.225.9010

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- PAVEMENT MARKING NOTES:**
1. INSTALL NEW PAVEMENT MARKINGS AS CALLED OUT WITH (x) AND (o) PER ODOT STD DRAWINGS AND DETAILS ON SHEET ST-12.
  2. SURVEY EXISTING PAVEMENT MARKINGS AND REPLACE MARKINGS IN EXISTING CONFIGURATION AFTER PAVING UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER. CONTRACTOR SHALL COORDINATE STRIPING LAYOUT WITH ENGINEER AND COUNTY PRIOR TO PLACEMENT.
  3. INSTALL ARROWS, LANE EXTENSIONS THROUGH INTERSECTIONS, AND STOP BARS AS TYPE-B. INSTALL STAGGERED CONTINENTAL CROSSWALK BARS, LANE REDUCTION ARROWS, AND BICYCLE LANE STENCIL AS TYPE B-HS.
  4. ALIGN CROSSWALK MARKINGS TO NEW ADA RAMP LOCATIONS.

**STRIPING LAYOUT**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**

**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045

DESIGNED BY: MME  
 DRAFTED BY: DKH  
 CHECKED BY: AHG

NO.	DATE:	REVISIONS

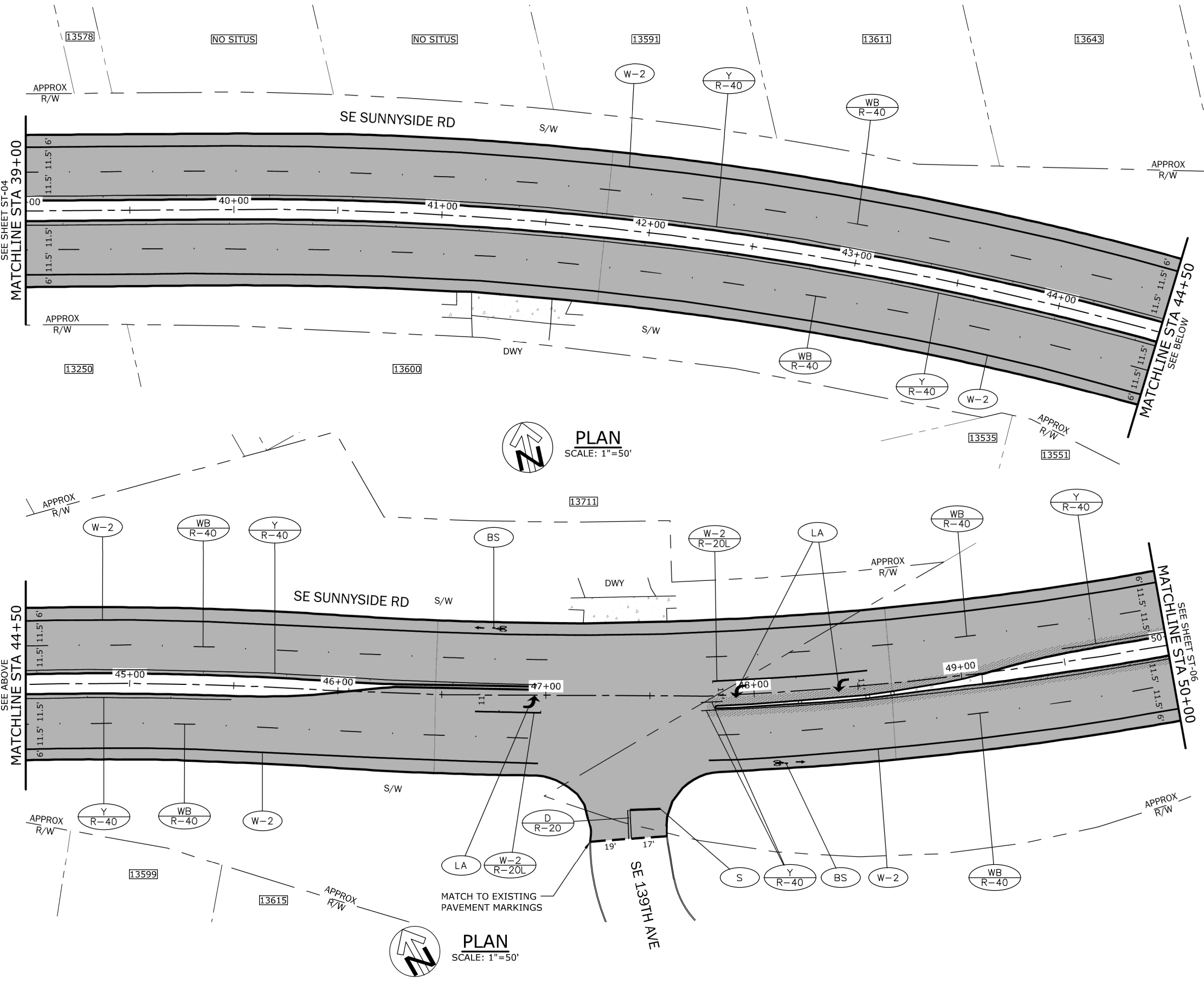


PROJECT NO.: 22342/22343  
 DATE: MARCH 2022

DIRECTOR  
 DAN JOHNSON

Sheet No. **ST-04**

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- PAVEMENT MARKING NOTES:**
1. INSTALL NEW PAVEMENT MARKINGS AS CALLED OUT WITH (X) AND (B) PER ODOT STD DRAWINGS AND DETAILS ON SHEET ST-12.
  2. SURVEY EXISTING PAVEMENT MARKINGS AND REPLACE MARKINGS IN EXISTING CONFIGURATION AFTER PAVING UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER. CONTRACTOR SHALL COORDINATE STRIPING LAYOUT WITH ENGINEER AND COUNTY PRIOR TO PLACEMENT.
  3. INSTALL ARROWS, LANE EXTENSIONS THROUGH INTERSECTIONS, AND STOP BARS AS TYPE-B. INSTALL STAGGERED CONTINENTAL CROSSWALK BARS, LANE REDUCTION ARROWS, AND BICYCLE LANE STENCIL AS TYPE B-HS.

**STRIPING LAYOUT**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**

**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045

DESIGNED BY: MME  
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 CHECKED BY: AHG

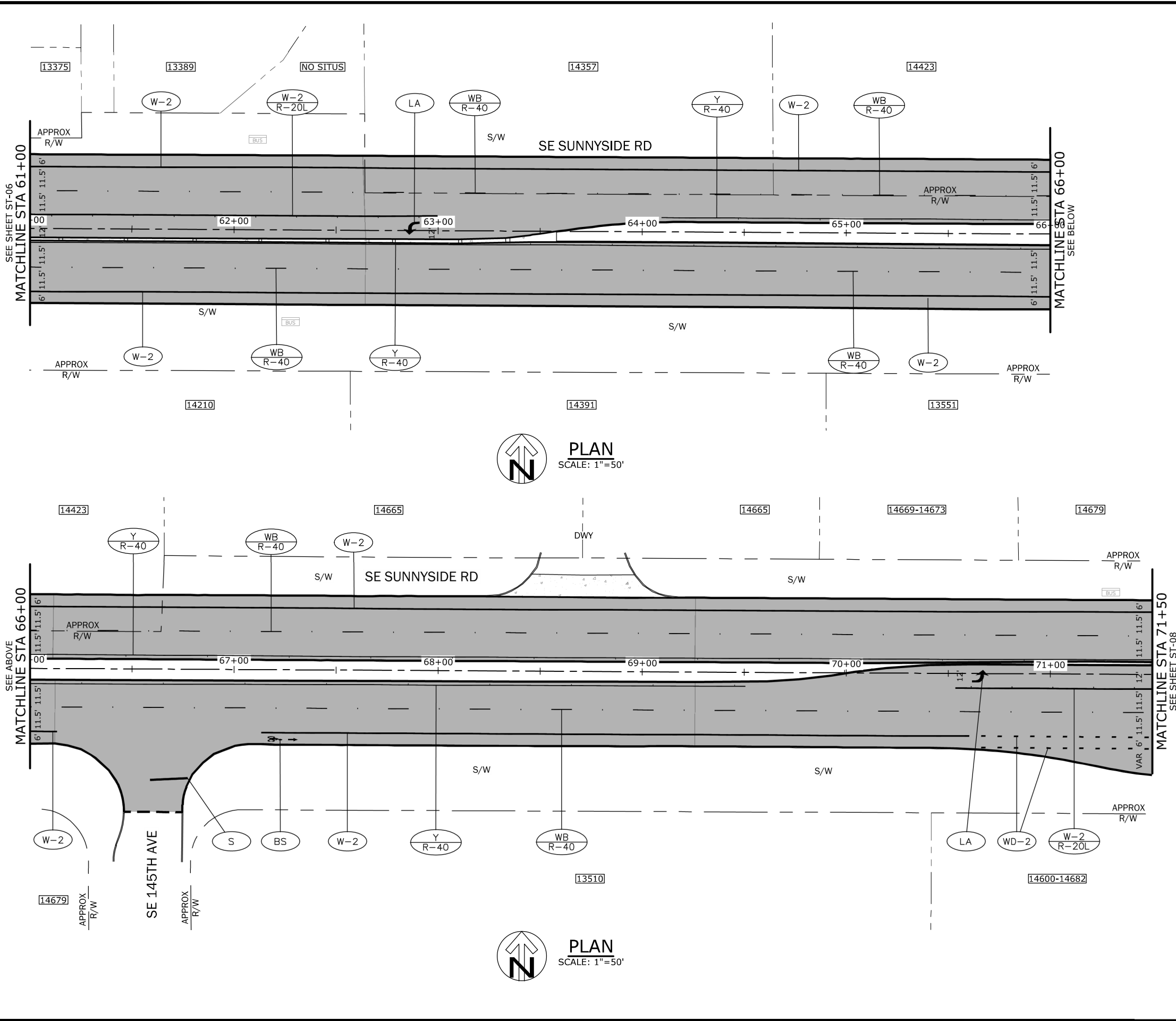
NO.	DATE:	REVISIONS

SHEET NO. **ST-05**  
 PROJECT NO.: 22342/22343  
 DATE: MARCH 2022  
 DIRECTOR: DAN JOHNSON





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- PAVEMENT MARKING NOTES:**
1. INSTALL NEW PAVEMENT MARKINGS AS CALLED OUT WITH (X) AND (B-X) PER ODOT STD DRAWINGS AND DETAILS ON SHEET ST-12.
  2. SURVEY EXISTING PAVEMENT MARKINGS AND REPLACE MARKINGS IN EXISTING CONFIGURATION AFTER PAVING UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER. CONTRACTOR SHALL COORDINATE STRIPING LAYOUT WITH ENGINEER AND COUNTY PRIOR TO PLACEMENT.
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  4. ALIGN CROSSWALK MARKINGS TO NEW ADA RAMP LOCATIONS.

888 SW 5TH AVENUE, SUITE 1170  
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 P 503.225.9010

**STRIPING LAYOUT**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**

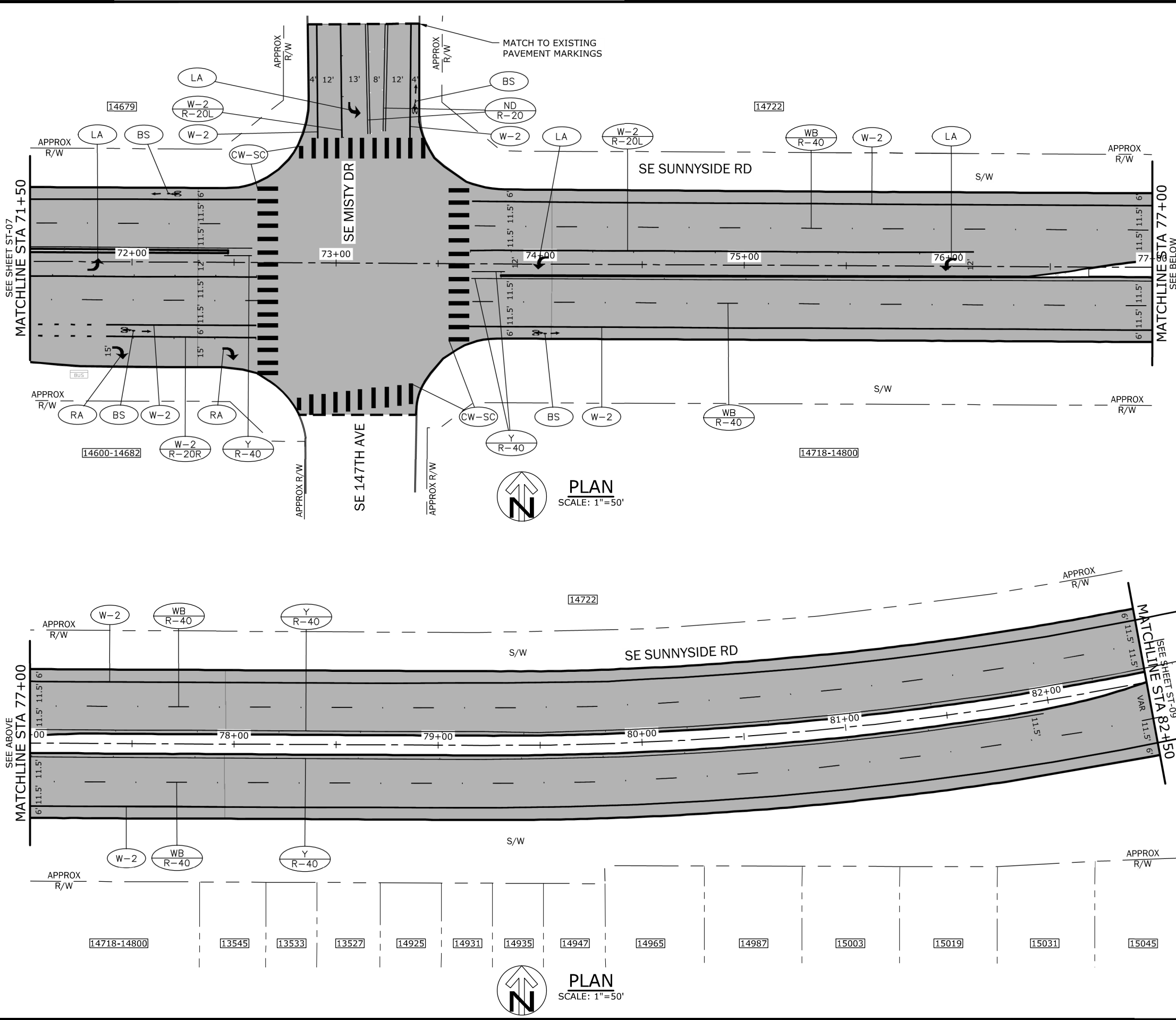
**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045

DESIGNED BY:	MME
DRAFTED BY:	DKH
CHECKED BY:	AHG
DIRECTOR:	DAN JOHNSON
NO. DATE:	
Sheet No.	ST-07

PROJECT NO.: 22342/22343  
 DATE: MARCH 2022



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**PAVEMENT MARKING NOTES:**

1. INSTALL NEW PAVEMENT MARKINGS AS CALLED OUT WITH (X) AND (X) PER ODOT STD DRAWINGS AND DETAILS ON SHEET ST-12.
2. SURVEY EXISTING PAVEMENT MARKINGS AND REPLACE MARKINGS IN EXISTING CONFIGURATION AFTER PAVING UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER. CONTRACTOR SHALL COORDINATE STRIPING LAYOUT WITH ENGINEER AND COUNTY PRIOR TO PLACEMENT.
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4. ALIGN CROSSWALK MARKINGS TO NEW ADA RAMP LOCATIONS.

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**STRIPING LAYOUT**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**  
 DATE: MARCH 2022 PROJECT NO.: 22342/22343

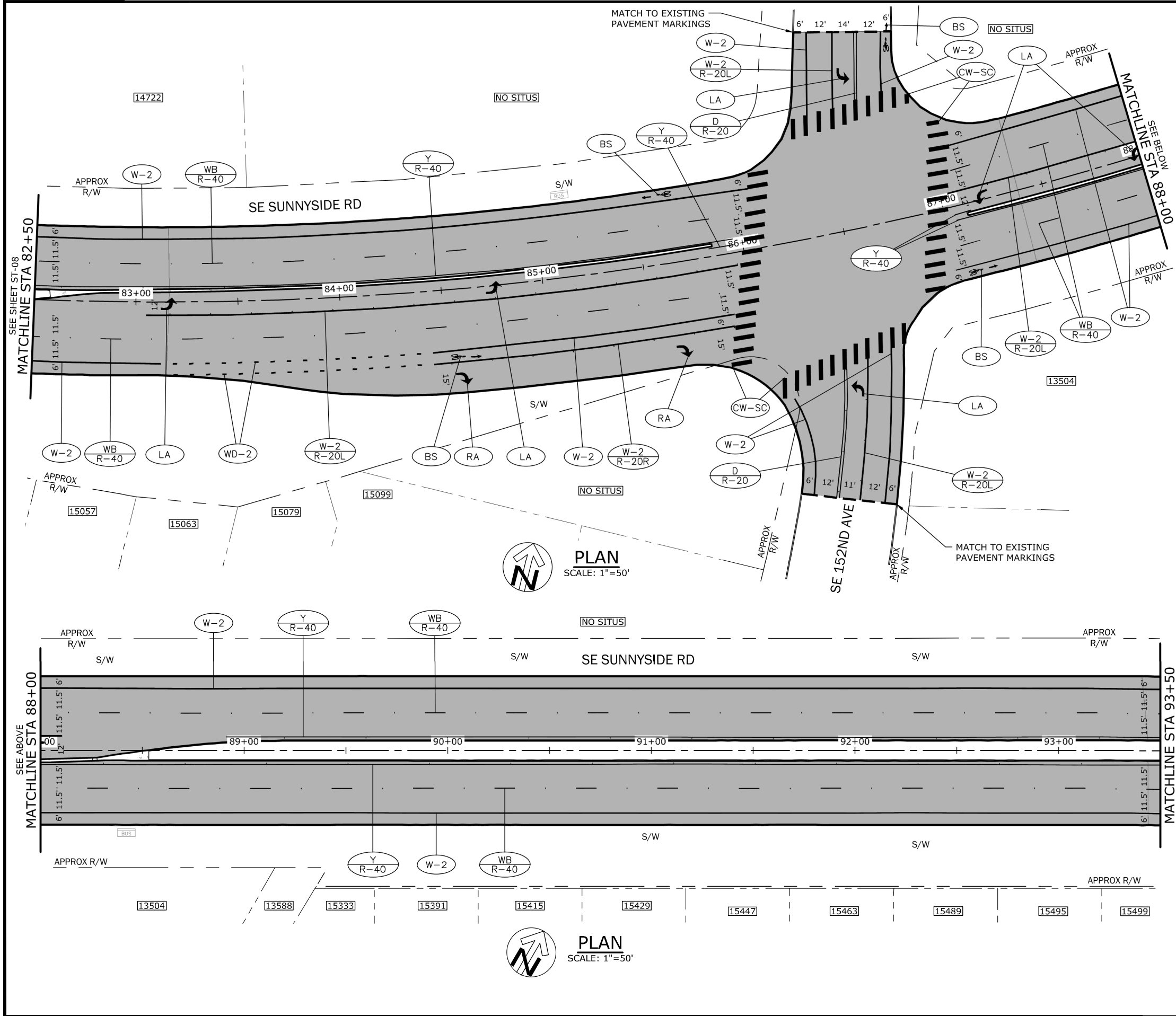
**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045  
**DAN JOHNSON**  
 DIRECTOR

NO.	DATE	REVISIONS

DESIGNED BY: MME  
 DRAFTED BY: DKH  
 CHECKED BY: AHG

SHEET No. **ST-08**

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**PAVEMENT MARKING NOTES:**

1. INSTALL NEW PAVEMENT MARKINGS AS CALLED OUT WITH (X) AND (X) PER ODOT STD DRAWINGS AND DETAILS ON SHEET ST-12.
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**STRIPING LAYOUT**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**  
 PROJECT NO.: 22342/22343  
 DATE: MARCH 2022

**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045  
**DAN JOHNSON**  
 DIRECTOR

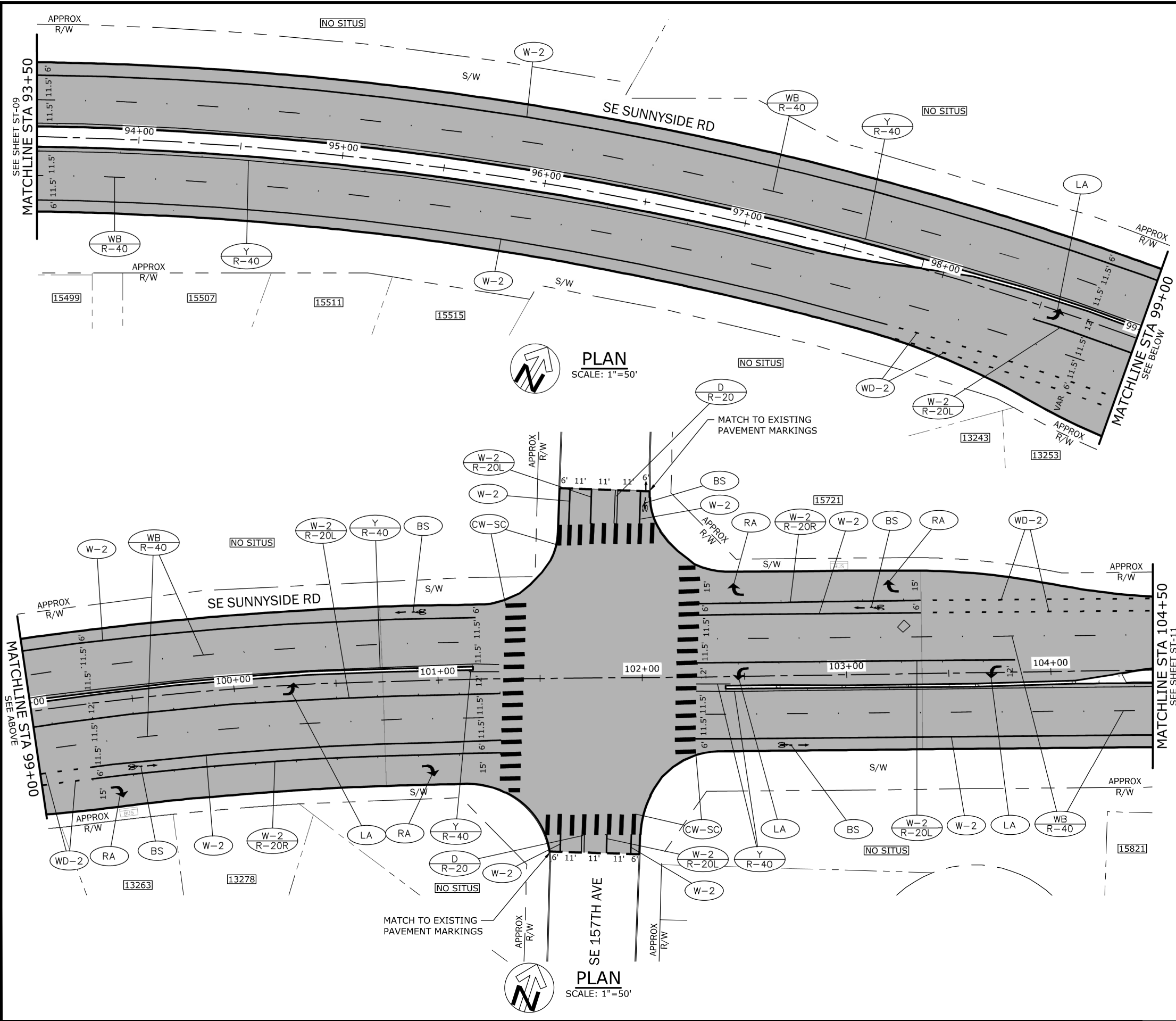
NO.	DATE:	REVISIONS

DESIGNED BY: MME  
 DRAFTED BY: DKH  
 CHECKED BY: AHG

SHEET NO. **ST-09**



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**PAVEMENT MARKING NOTES:**

1. INSTALL NEW PAVEMENT MARKINGS AS CALLED OUT WITH (X) AND (Y) PER ODOT STD DRAWINGS AND DETAILS ON SHEET ST-12.
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**STRIPING LAYOUT**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**  
 PROJECT NO.: 22342/22343  
 DATE: MARCH 2022

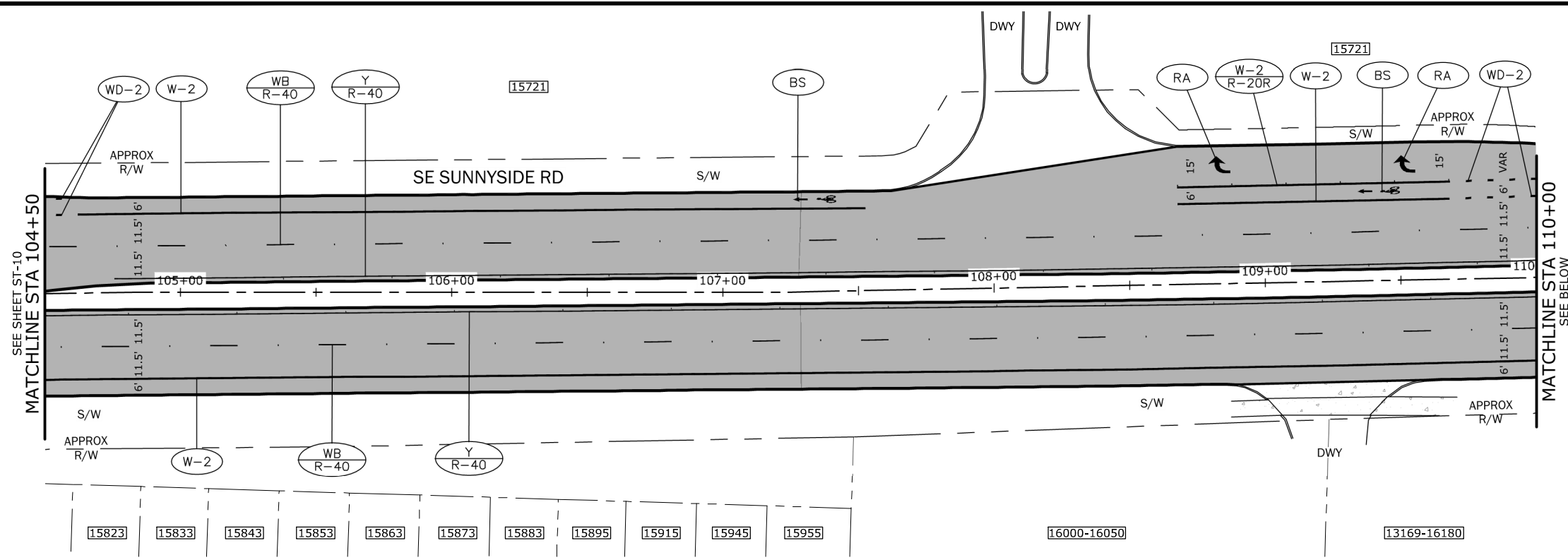
**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045  
**DAN JOHNSON**  
 DIRECTOR

NO.	DATE:	REVISIONS

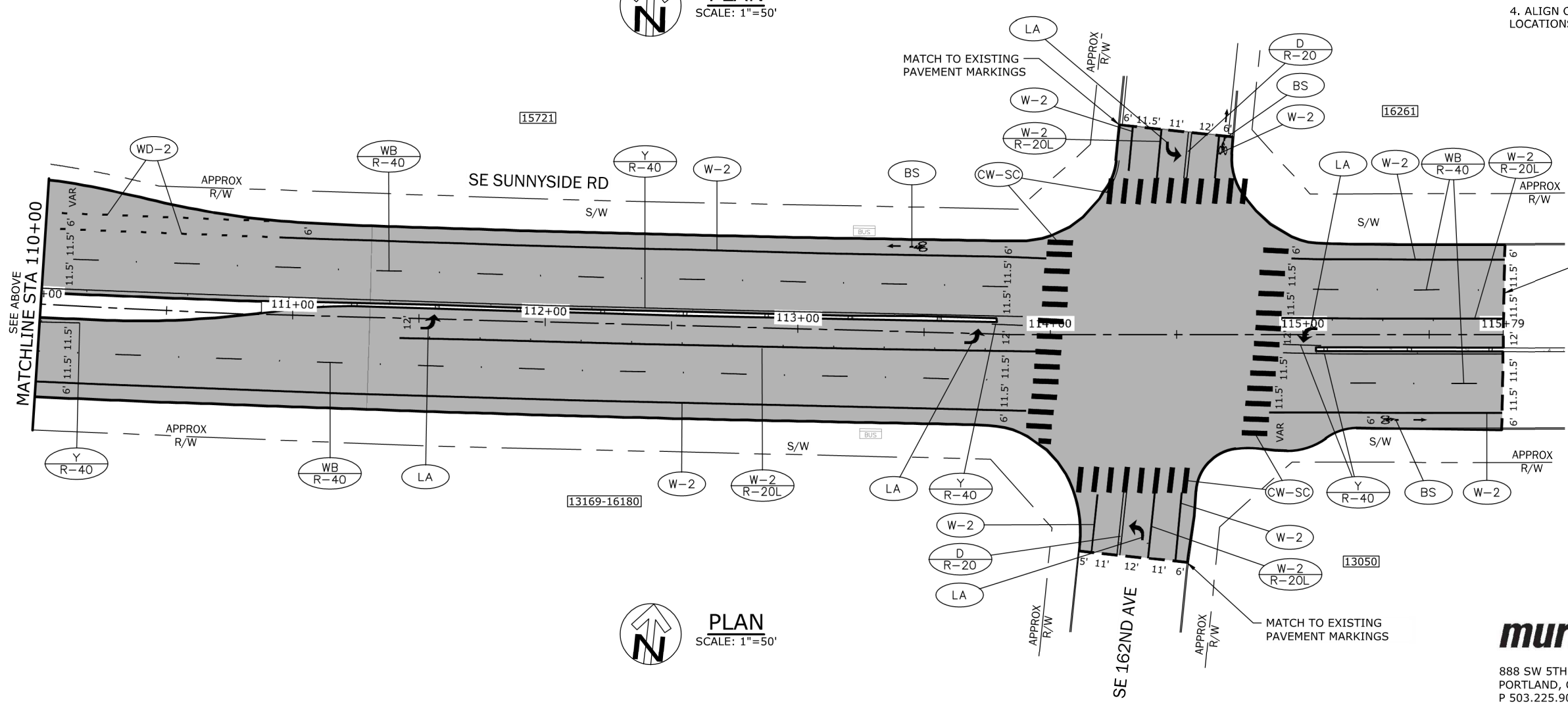
DESIGNED BY: MME  
 DRAFTED BY: DKH  
 CHECKED BY: AHG



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**PLAN**  
 SCALE: 1"=50'



**PLAN**  
 SCALE: 1"=50'



- PAVEMENT MARKING NOTES:**
1. INSTALL NEW PAVEMENT MARKINGS AS CALLED OUT WITH (X) AND (O) PER ODOT STD DRAWINGS AND DETAILS ON SHEET ST-12.
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**STRIPING LAYOUT**  
**SUNNYSIDE RD PAVING PROJECT -**  
**122ND AVE TO 162ND AVE**

**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045

DESIGNED BY: MME  
 DRAFTED BY: DKH  
 CHECKED BY: AHG

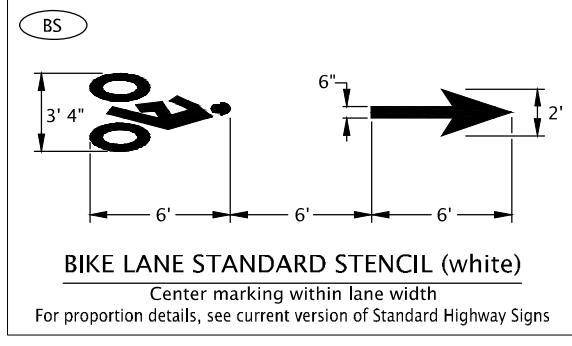
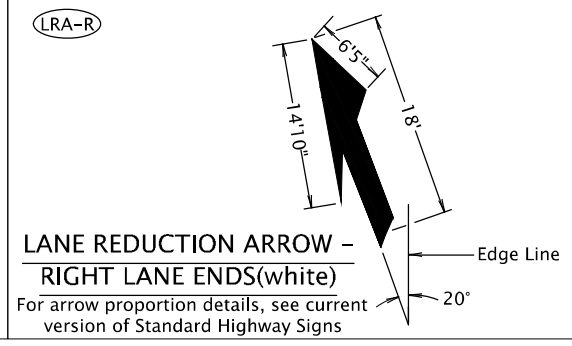
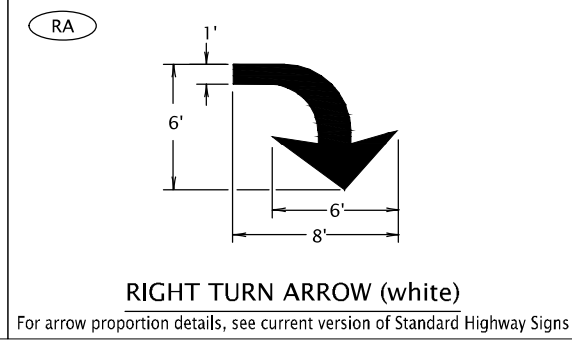
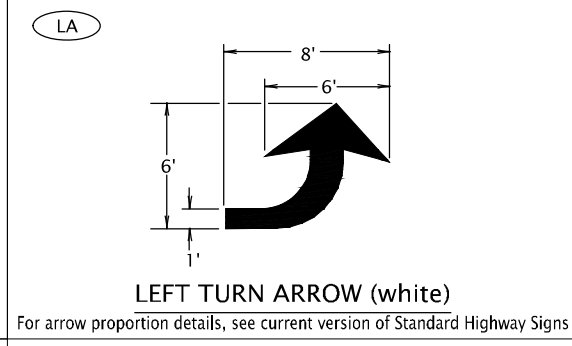
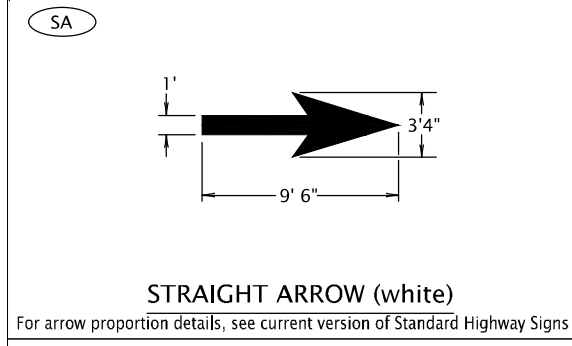
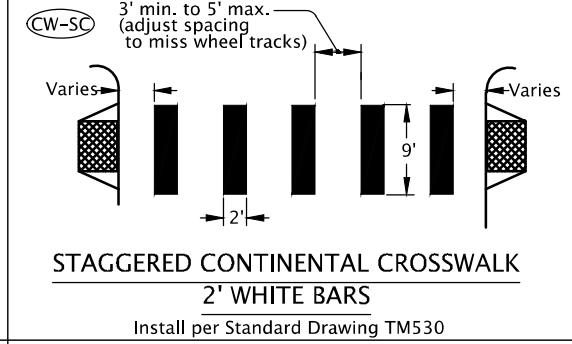
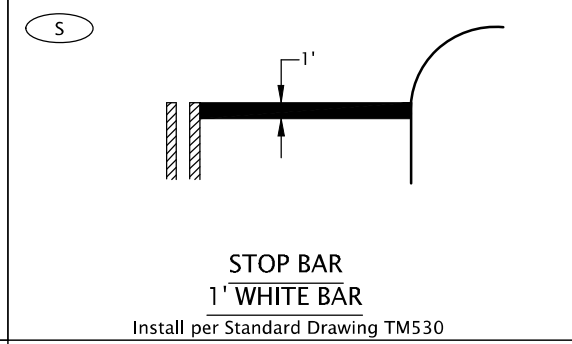
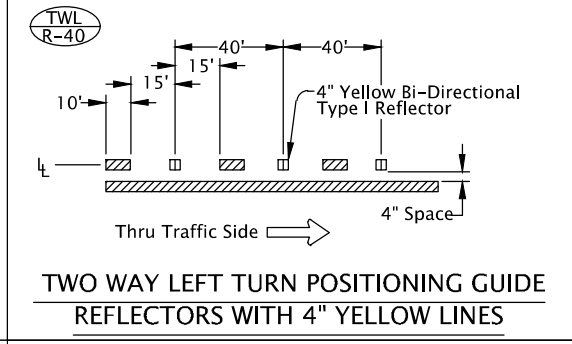
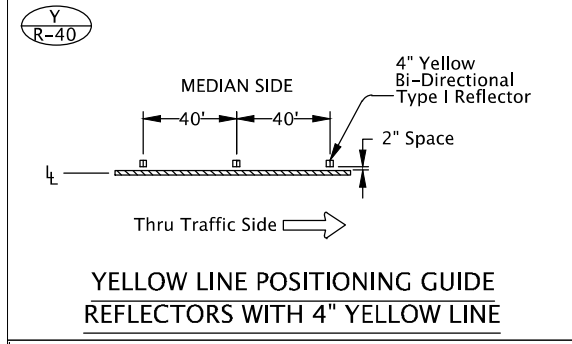
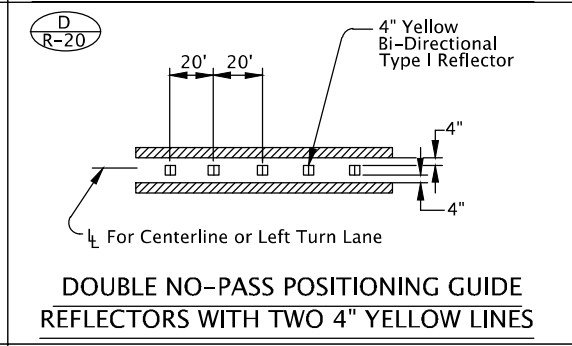
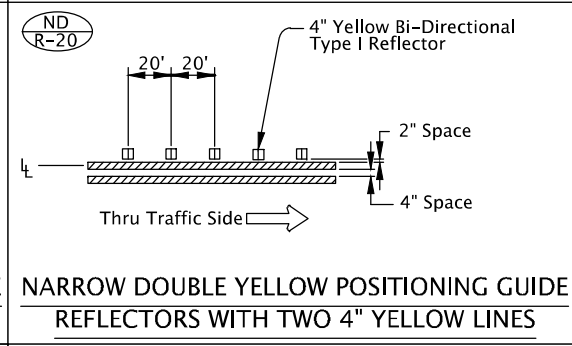
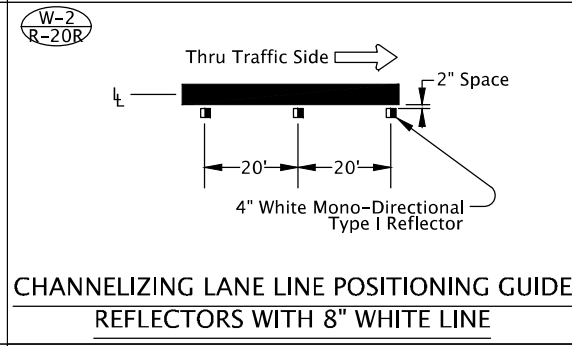
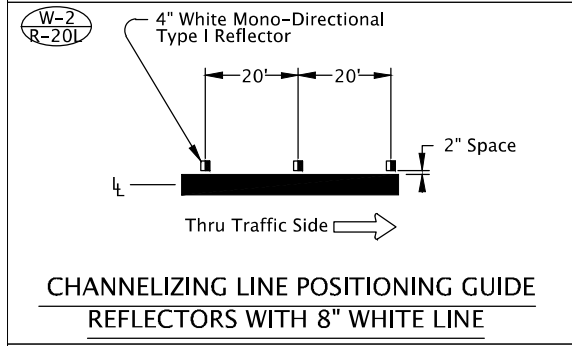
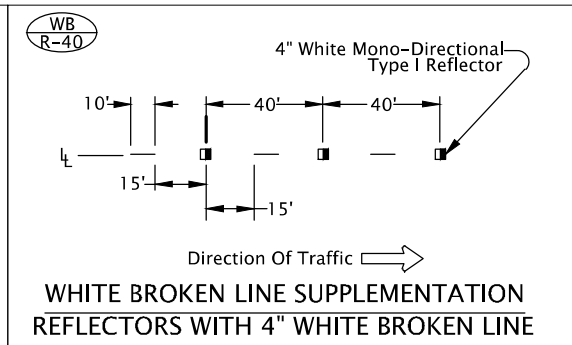
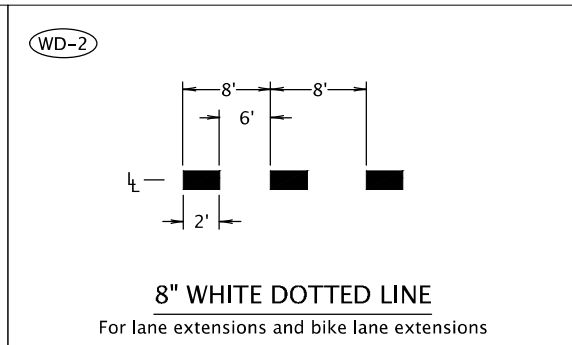
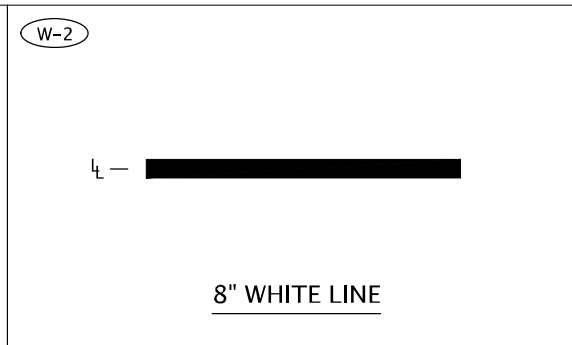
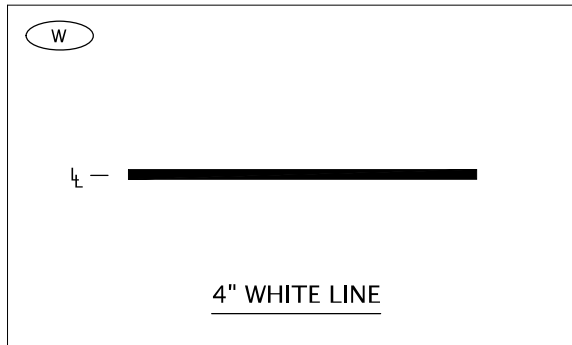
NO.	DATE:	REVISIONS

**murraysmith**  
 888 SW 5TH AVENUE, SUITE 1170  
 PORTLAND, OREGON 97204  
 P 503.225.9010

PROJECT NO.: 22342/22343  
 DATE: MARCH 2022

DIRECTOR  
 DAN JOHNSON

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- General Note:**
- Center pavement markings within the lane width.
  - Arrow, letter, and bike symbol dimensions nominal, excluding WWA.
  - All reflective pavement makers will be recessed unless otherwise specified, see std dwg TM517.

- LEGEND**
- ← Direction Of Traffic, Increasing Stationing Or Thru Traffic Side
  - └ Lane Line Dimensions Are Shown On The Striping Layout
  - Mono-directional crystal white marker reflects white to the left in this symbol
  - ▣ Bi-directional yellow/blue marker reflects yellow/blue both left and right in this symbol

**murraysmith**  
888 SW 5TH AVENUE, SUITE 1170  
PORTLAND, OREGON 97204  
P 503.225.9010

**REGISTERED PROFESSIONAL ENGINEER**  
76447  
DIGITALLY SIGNED Date: 2022.02.11 17:49:09-08'00'  
**OREGON**  
JUNE 2, 2011  
**ANDREW HENRY GIESY**  
RENEWS 6-30-23

**STRIPING DETAILS**  
SUNNYSIDE RD PAVING PROJECT - 122ND AVE TO 162ND AVE  
PROJECT NO.: 22342/22343  
DATE: MARCH 2022

**CLACKAMAS COUNTY**  
DEPT. OF TRANSPORTATION AND DEVELOPMENT  
150 BEAVERCREEK ROAD  
OREGON CITY, OR 97045  
**DAN JOHNSON**  
DIRECTOR

DESIGNED BY: **MME**  
DRAFTED BY: **DKH**  
CHECKED BY: **AHG**

NO.	DATE:	REVISIONS

Sheet No. **ST-12**

**LEGEND**


**CONTROLLERS**

 RETAIN AND PROTECT EXISTING CONTROLLER CABINET.

**JUNCTION BOXES**

 RETAIN AND PROTECT EXISTING JUNCTION BOX.

**CONDUITS**


 RETAIN AND PROTECT EXISTING ELECTRICAL CONDUIT.

 RETAIN AND PROTECT EXISTING DETECTOR CONDUIT.

 RETAIN AND PROTECT EXISTING SAND POCKET.

**DETECTION**

 ABANDON EXISTING SYSTEM LOOP.

 INSTALL (Ph = PHASE) ROUND LOOP DETECTOR. SEE TS-04 FOR DETAILS.

 RETAIN AND PROTECT EXISTING LOOP WIRE.

**WIRING**

 RETAIN AND PROTECT EXISTING WIRE.

**GENERAL NOTES**


- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT) STANDARD DRAWINGS, THE 2021 ODOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND THE SPECIAL PROVISIONS FOR THIS CONTRACT.
- MAINTAIN AND PROTECT THE EQUIPMENT ASSOCIATED WITH THE SYSTEMS LOOPS DETECTION SYSTEM INCLUDING BUT NOT LIMITED TO EXISTING JUNCTION BOXES, CONDUITS, LOOP WIRES, LOOP AMPLIFIERS, UNLESS OTHERWISE APPROVED BY ENGINEER OR NOTED ON THE PLAN SHEETS. CONTACT RICH GANDY, TRAFFIC SIGNAL LEAD ELECTRICIAN, 503-758-2065 AND RGANDY@CLACKAMAS.US, AND CARL OLSON, 503-742-4684 AND COLSON@CLACKAMAS.US, AT LEAST TWO WEEKS BEFORE STARTING ANY WORK THAT IMPACTS THE EXISTING SYSTEMS LOOP EQUIPMENT AT THE SUNNYSIDE/142ND, SUNNYSIDE/152ND INTERSECTION, AND SUNNYSIDE/162ND INTERSECTION.
- NOT ALL UTILITIES ARE SHOWN. CONTRACTOR TO VERIFY UTILITIES FOR POSSIBLE CONFLICTS PRIOR TO INSTALLING PEDESTRIAN PEDESTAL OR PEDESTRIAN PUSHBUTTON POST FOUNDATIONS.



**TRAFFIC COUNT LOOP LEGEND**  
**SUNNYSIDE ROAD PAVING PROJECT -**  
**SE 122ND AVE TO SE 162ND AVE**

DATE: MARCH 2022 | PROJECT NO.: 22342/22343

**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION  
 AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045

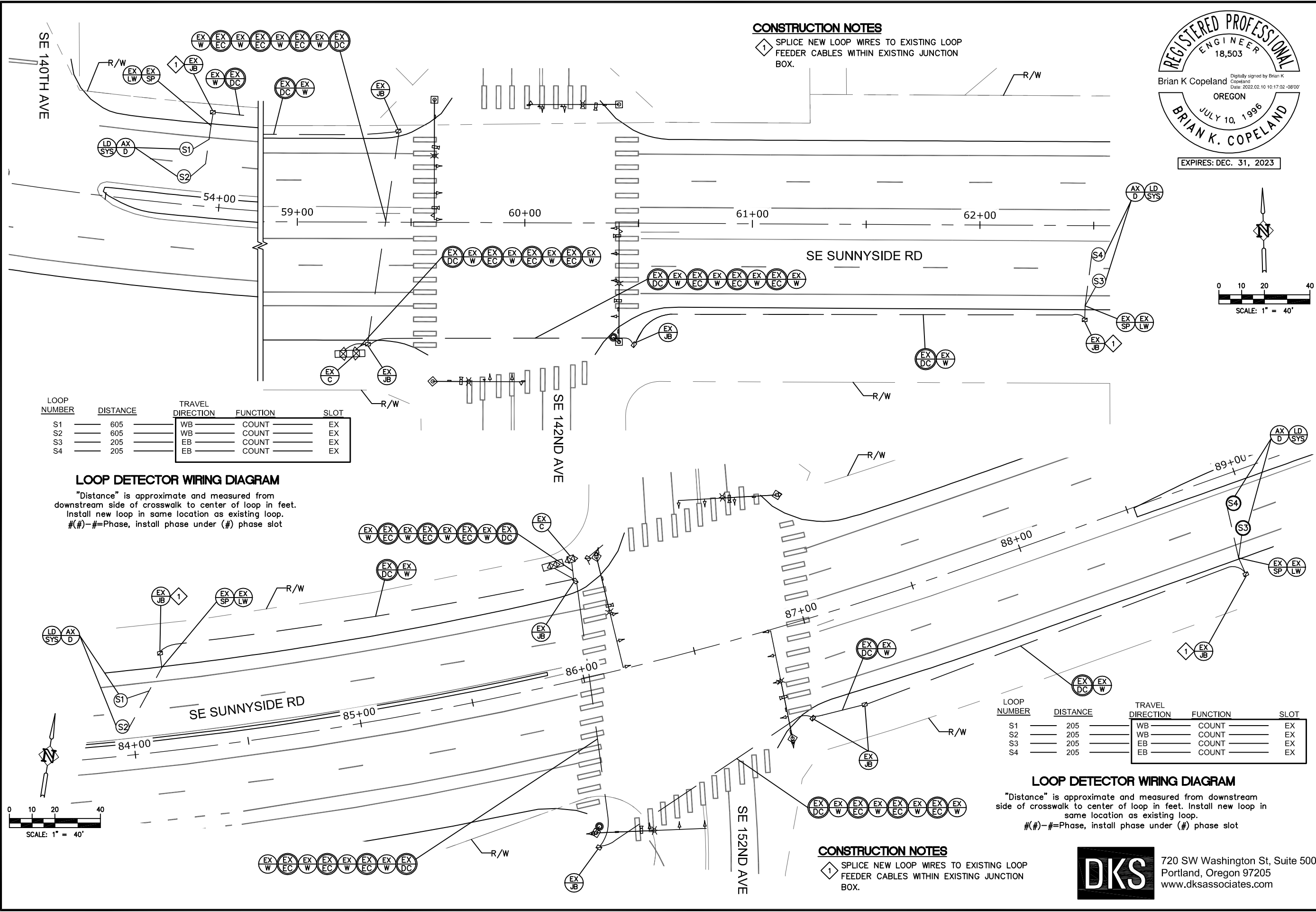


DAN JOHNSON  
 DIRECTOR

DESIGNED BY: **KCK**  
 DRAFTED BY: **KCD**  
 CHECKED BY: **BKC**

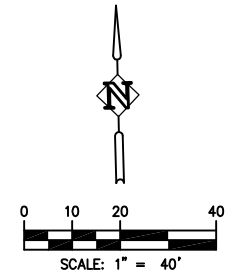
NO.	DATE	REVISIONS

**DKS**  
 720 SW Washington St, Suite 500  
 Portland, Oregon 97205  
 www.dksassociates.com



**CONSTRUCTION NOTES**  
 1 SPLICE NEW LOOP WIRES TO EXISTING LOOP FEEDER CABLES WITHIN EXISTING JUNCTION BOX.

**REGISTERED PROFESSIONAL ENGINEER**  
 18,503  
 Brian K Copeland  
 Oregon  
 July 10, 1996  
 EXPIRES: DEC. 31, 2023



LOOP NUMBER	DISTANCE	TRAVEL DIRECTION	FUNCTION	SLOT
S1	605	WB	COUNT	EX
S2	605	WB	COUNT	EX
S3	205	EB	COUNT	EX
S4	205	EB	COUNT	EX

**LOOP DETECTOR WIRING DIAGRAM**

"Distance" is approximate and measured from downstream side of crosswalk to center of loop in feet. Install new loop in same location as existing loop.  
 #(#)-#=#Phase, install phase under (#) phase slot

LOOP NUMBER	DISTANCE	TRAVEL DIRECTION	FUNCTION	SLOT
S1	205	WB	COUNT	EX
S2	205	WB	COUNT	EX
S3	205	EB	COUNT	EX
S4	205	EB	COUNT	EX

**LOOP DETECTOR WIRING DIAGRAM**

"Distance" is approximate and measured from downstream side of crosswalk to center of loop in feet. Install new loop in same location as existing loop.  
 #(#)-#=#Phase, install phase under (#) phase slot

**CONSTRUCTION NOTES**  
 1 SPLICE NEW LOOP WIRES TO EXISTING LOOP FEEDER CABLES WITHIN EXISTING JUNCTION BOX.



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**CLACKAMAS COUNTY**  
 DEPT. OF TRANSPORTATION AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045

**TRAFFIC COUNT LOOP PLAN**

**SUNNYSIDE ROAD PAVING PROJECT - SE 122ND AVE TO SE 162ND AVE**

DESIGNED BY: KCK  
 DRAFTED BY: KCD  
 CHECKED BY: BKC

REVISIONS

NO.	DATE:	

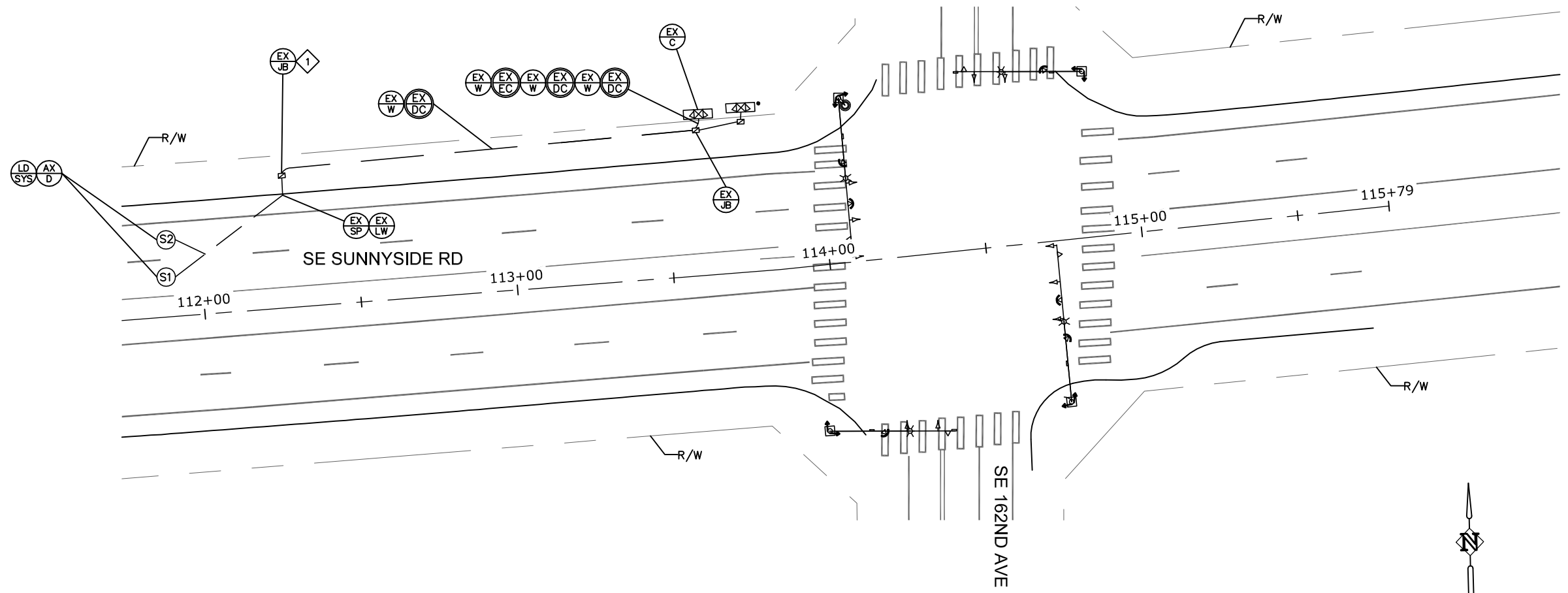
DATE: MARCH 2022 PROJECT NO.: 22342/22343

DAN JOHNSON DIRECTOR

Sheet No. **TS-02**

**CONSTRUCTION NOTES**

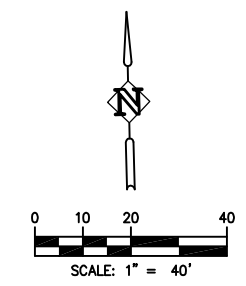
- 1 SPlice new loop wires to existing loop feeder cables within existing junction box.



LOOP NUMBER	DISTANCE	TRAVEL		FUNCTION	SLOT
		DIRECTION			
S1	205	WB		COUNT	EX
S2	205	WB		COUNT	EX

**LOOP DETECTOR WIRING DIAGRAM**

"Distance" is approximate and measured from downstream side of crosswalk to center of loop in feet. Install new loop in same location as existing loop.  
 #(#)-#=Phase, install phase under (#) phase slot



**DKS** 720 SW Washington St, Suite 500  
 Portland, Oregon 97205  
 www.dksassociates.com

**TRAFFIC COUNT LOOP PLAN**

**SUNNYSIDE ROAD PAVING PROJECT - SE 122ND AVE TO SE 162ND AVE**

CLACKAMAS COUNTY  
 DEPT. OF TRANSPORTATION AND DEVELOPMENT  
 150 BEAVERCREEK ROAD  
 OREGON CITY, OR 97045

DAN JOHNSON DIRECTOR

DESIGNED BY: KCK  
 DRAFTED BY: KCD  
 CHECKED BY: BKC

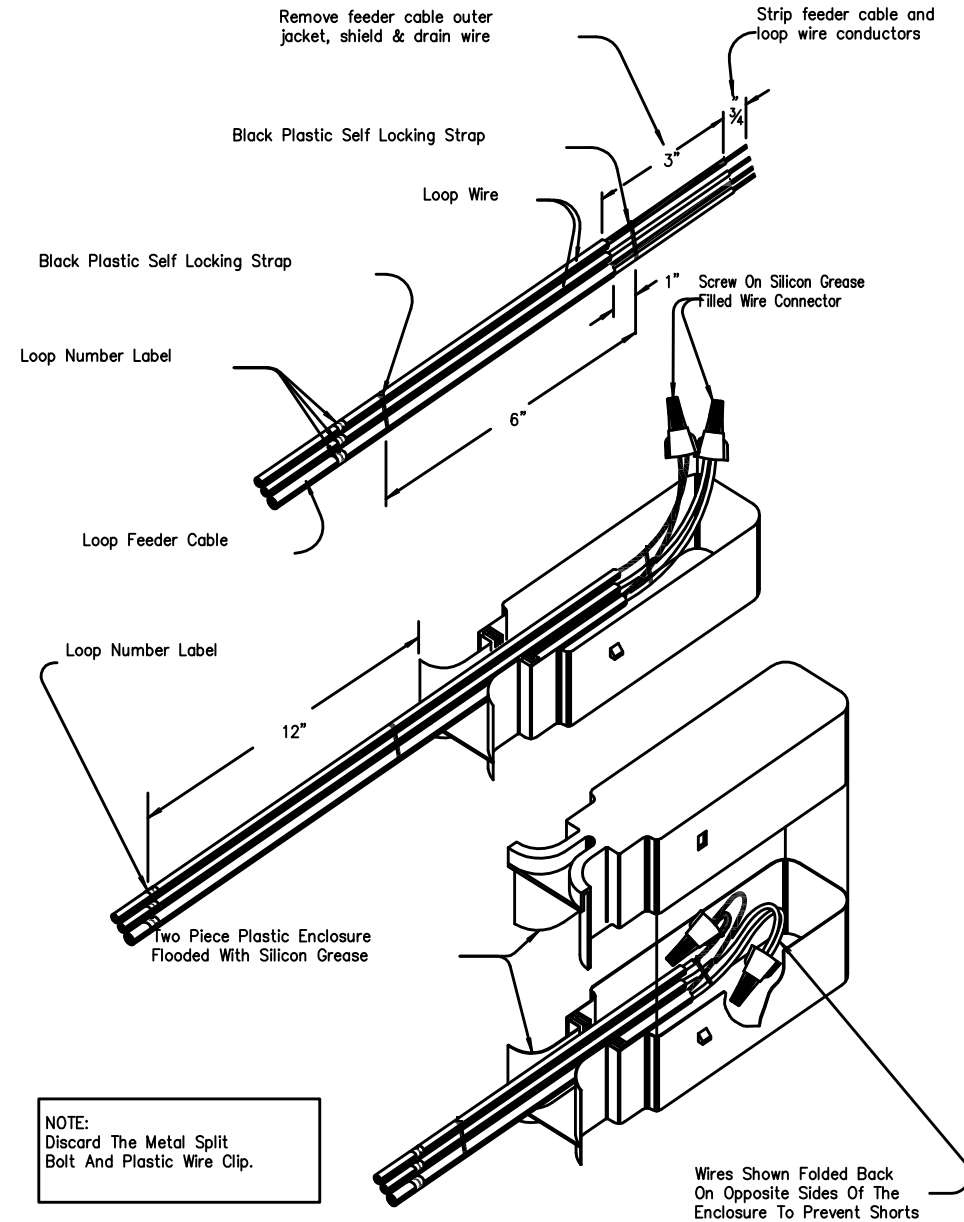
REVISIONS

NO.	DATE:		

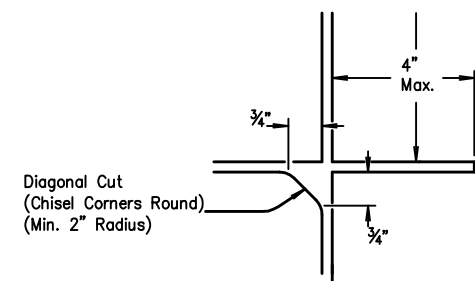
Sheet No. **TS-03**

DATE: MARCH 2022 PROJECT NO.: 22342/22343





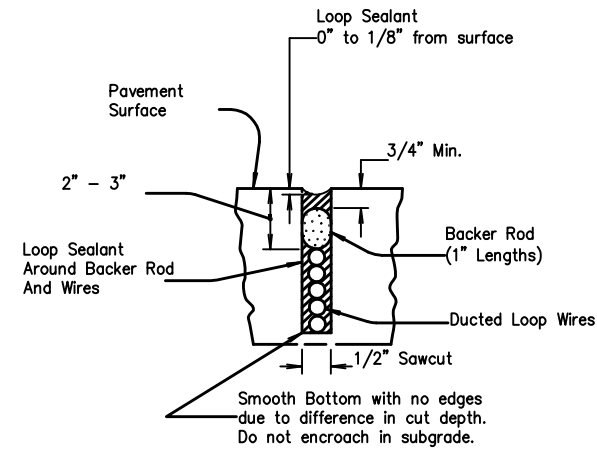
**SPLICE**



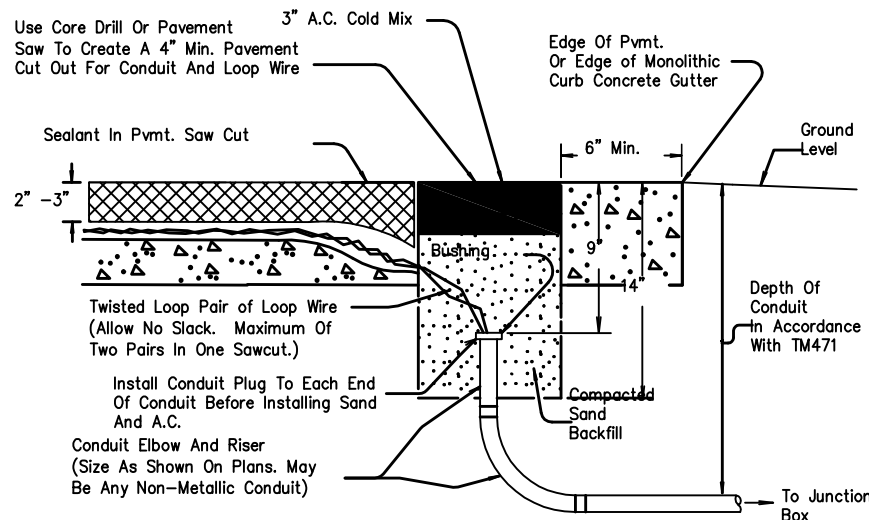
**SAWCUT CHISEL DETAIL**

**General Notes:**

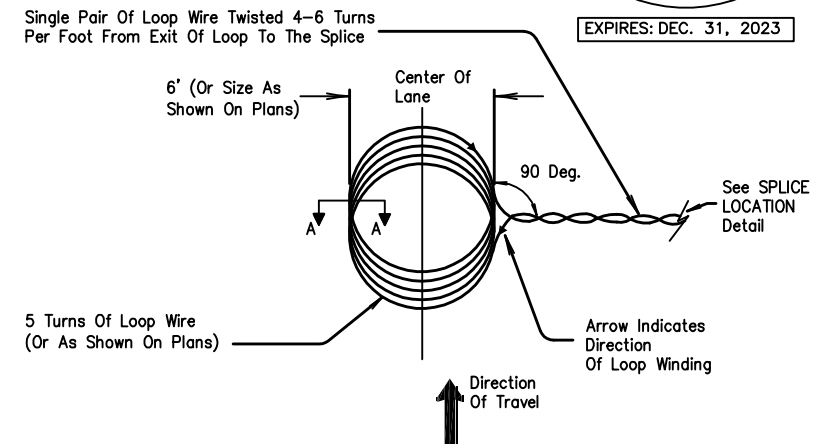
1. Install Round Or Diamond Loops As Shown On The Plans
2. Limit Angle Of All Sawcuts With Loop Wire To 90 Degrees Minimum And Use Sawcut Chisel Detail To Avoid Kinking The Wire.
3. Sawcuts Shall Not Create Islands Of Pavement Less Than 2.5 Ft<sup>2</sup> In Area.
4. Mark Loop Number On All Exposed Locations Of Loop Wire And Loop Feeder Cable With Permanent Tags. Use Hand-Held Labeler (Brady Idxpert With XC-1500-580-WT-BK Tags, Or Approved Equal).
5. At Existing Installations, Re-Wire And Re-Number New And Existing Detector Loops And Loop Feeders Cables, In Junction Boxes And Cabinet, To Match Wiring Diagram. Remove Any Existing Labels That Do Not Match The Wiring Diagram.



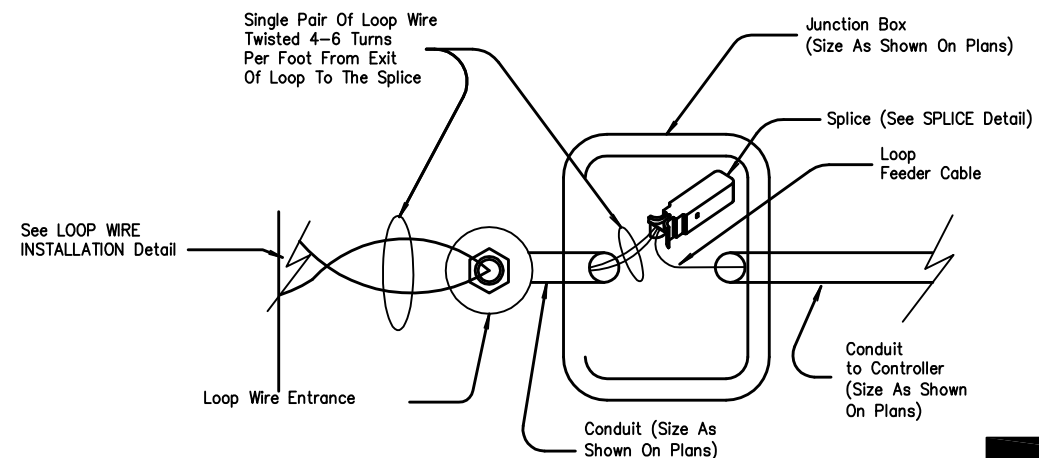
**SECTION A - A:  
LOOP SAWCUT CROSS SECTION**



**SAND POCKET LOOP WIRE ENTRANCE**



**LOOP WIRE INSTALLATION**



**SPLICE LOCATION**

**REGISTERED PROFESSIONAL ENGINEER**  
18,503  
Brian K Copeland  
Digitally signed by Brian K Copeland  
Date: 2022.02.10 10:18:14 -0800  
OREGON  
JULY 10, 1996  
BRIAN K. COPELAND  
EXPIRES: DEC. 31, 2023

**TRAFFIC COUNT LOOP DETAILS**  
**SUNNYSIDE ROAD PAVING PROJECT - SE 122ND AVE TO SE 162ND AVE**  
PROJECT NO.: 22342/22343

**CLACKAMAS COUNTY**  
DEPT. OF TRANSPORTATION AND DEVELOPMENT  
150 BEAVERCREEK ROAD  
OREGON CITY, OR 97045  
DAN JOHNSON  
DIRECTOR

DESIGNED BY: KCK  
DRAFTED BY: KCD  
CHECKED BY: BKC

NO.	DATE:	REVISIONS

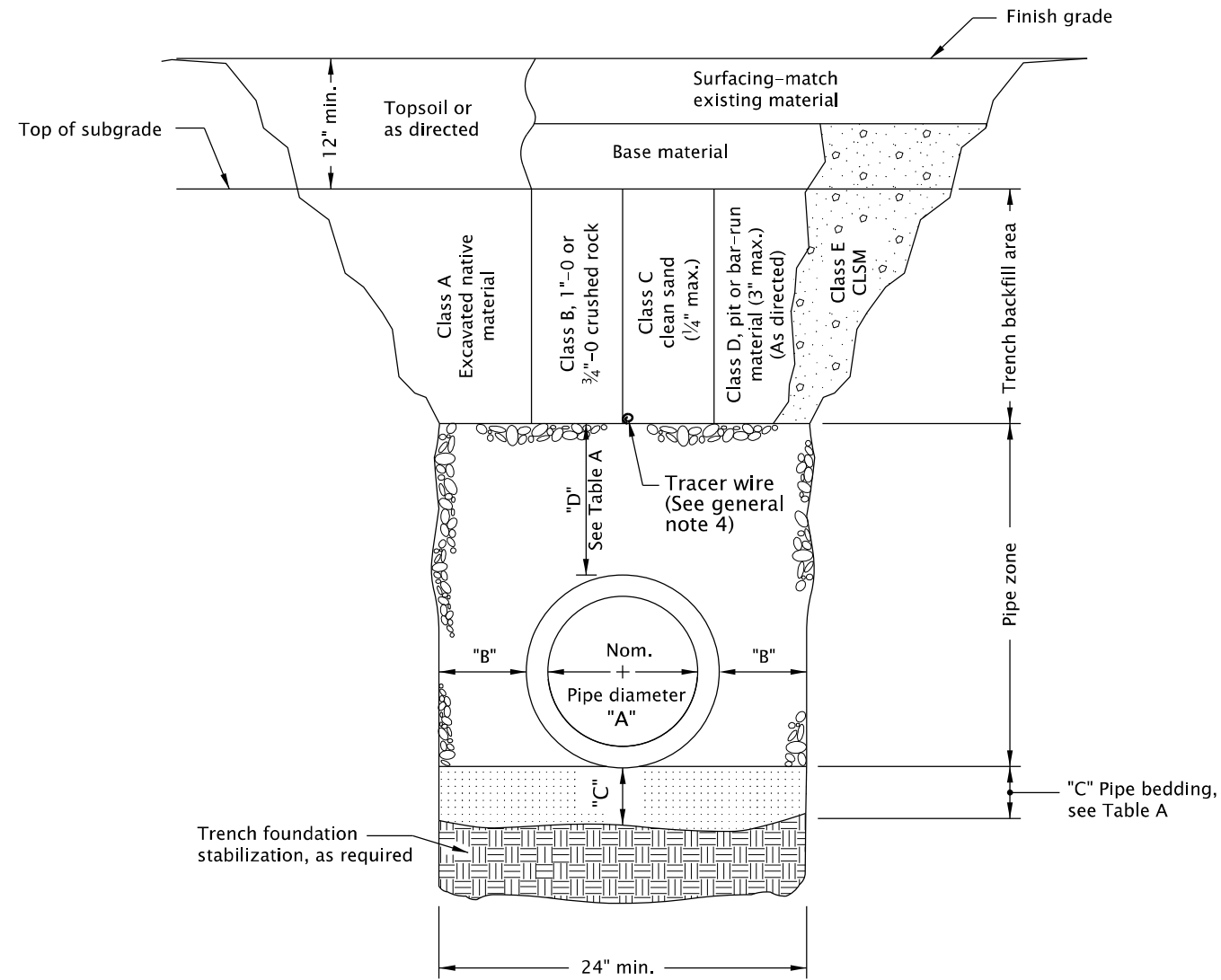
Sheet No. **TS-04**

**DKS** 720 SW Washington St, Suite 500  
Portland, Oregon 97205  
www.dksassociates.com

**TABLE A**

"A" (in)	"B" (in)	"C" (in)	"D" (in)
4	10	4	8
6	10	4	8
8	10	6	10
10	10	6	10
12	12	6	10
15	12	6	10
18	16	6	12
21	16	6	12
24	18	6	12
30	18	6	12
36	24	6	14
42	24	6	14
48	24	6	14
54	24	6	14
60	24	6	14
66	24	6	14
72	24	6	14

For pipes over 72" diameter, see general note 3.



MULTIPLE INSTALLATIONS	
DIAMETER	MIN. SPACE BETWEEN PIPES
Up to 48"	24"
48" to 72"	One half (1/2) dia. of pipe

**GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**

1. Surfacing of paved areas shall comply with street cut Std. Dwg. RD302.
2. For pipe installation in embankment areas where the trench method will not be used and the pipe is  $\geq 36$ " diameter, increase dimension "B" to nominal pipe diameter.
3. Pipes over 72" diameter are structures, and are not applicable to this drawing.
4. See Std. Dwg. RD336 for tracer wire details (When required).

CALC. BOOK NO.   N/A  

SDR DATE   14-JUL-2014  

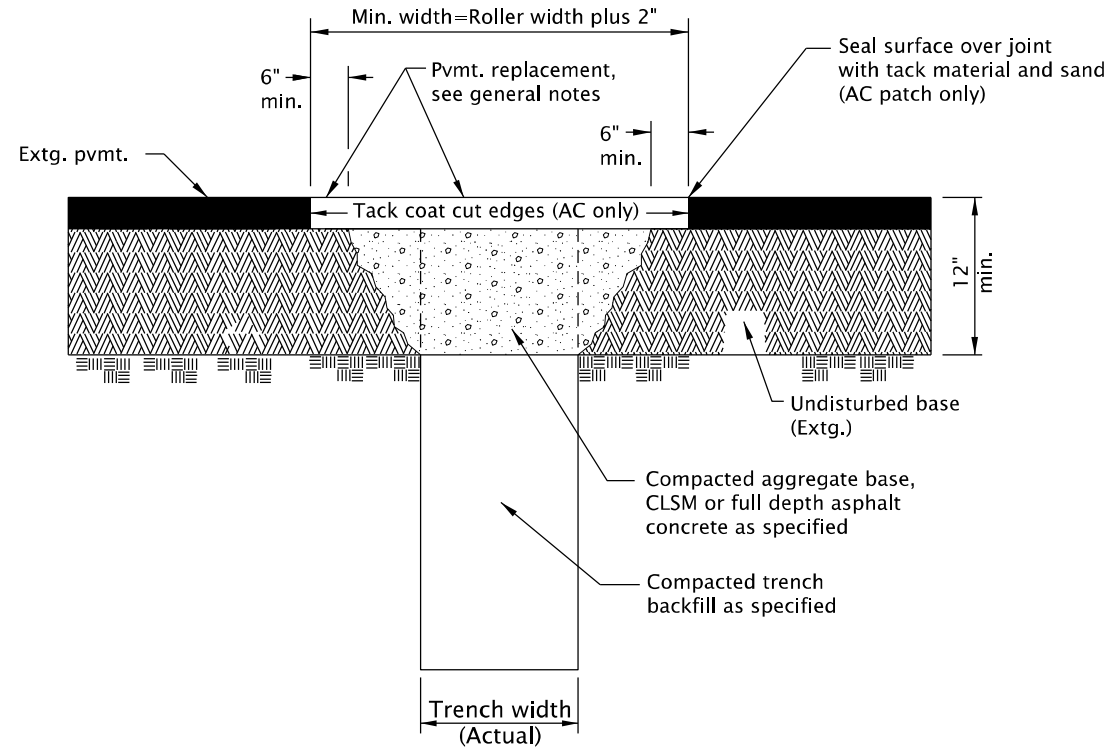
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS  
TRENCH BACKFILL, BEDDING,  
PIPE ZONE AND MULTIPLE  
INSTALLATIONS**

2021

DATE	REVISION DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*



- GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:
1. All existing AC or PCC pavement shall be sawcut prior to repaving.
  2. Concrete pavement shall be replaced with concrete to a minimum thickness of 8" or to the thickness of removed pavement, whichever is greater.
  3. For joining new concrete to existing concrete, see contract plans for sepecific details.
  4. Place AC mix minimum thkn. of 6" or the thkn. of the removed pavement, whichever is greater. Compact as specified.

CALC. BOOK NO.   N/A   SDR DATE   20-JUL-2020  

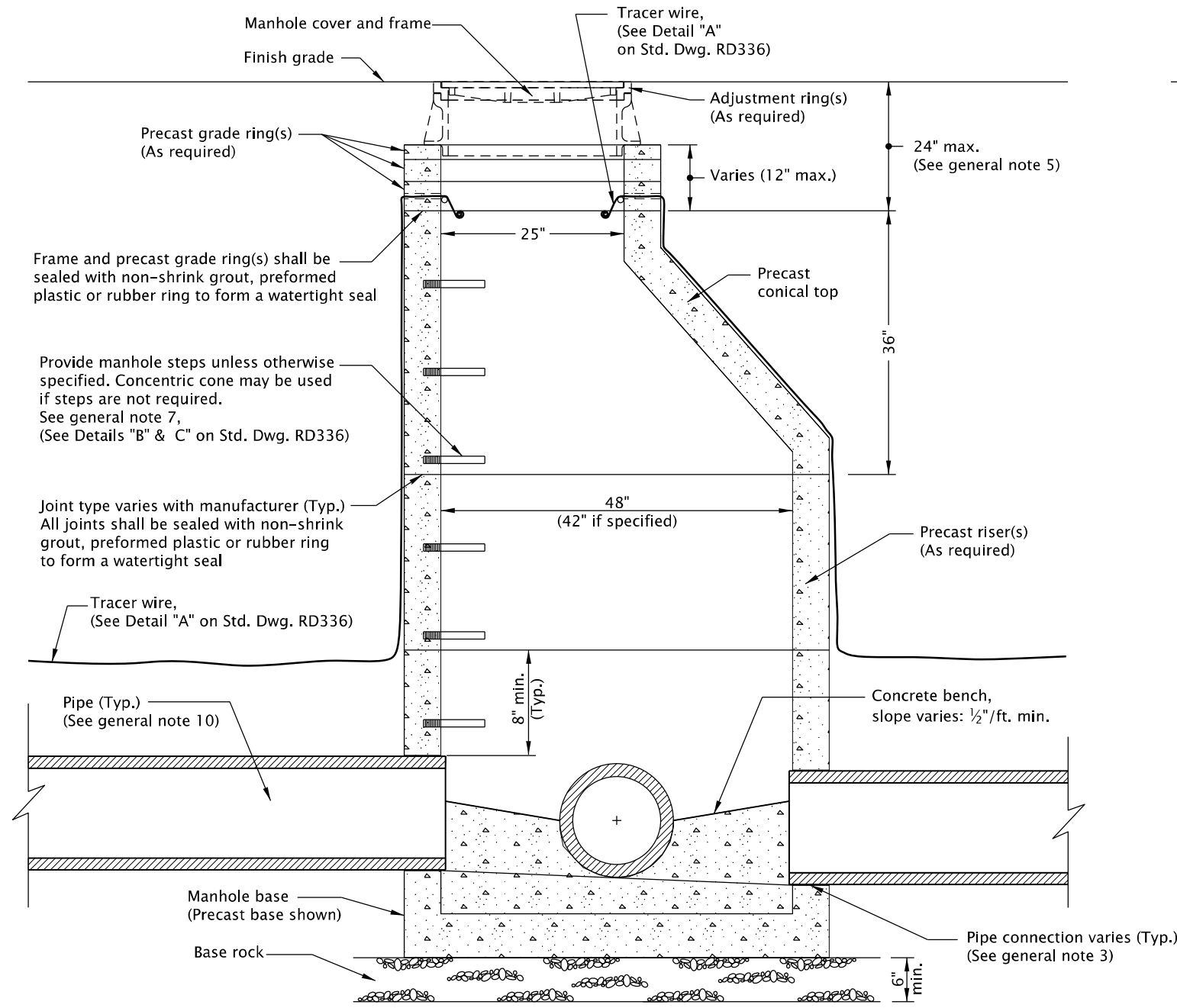
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

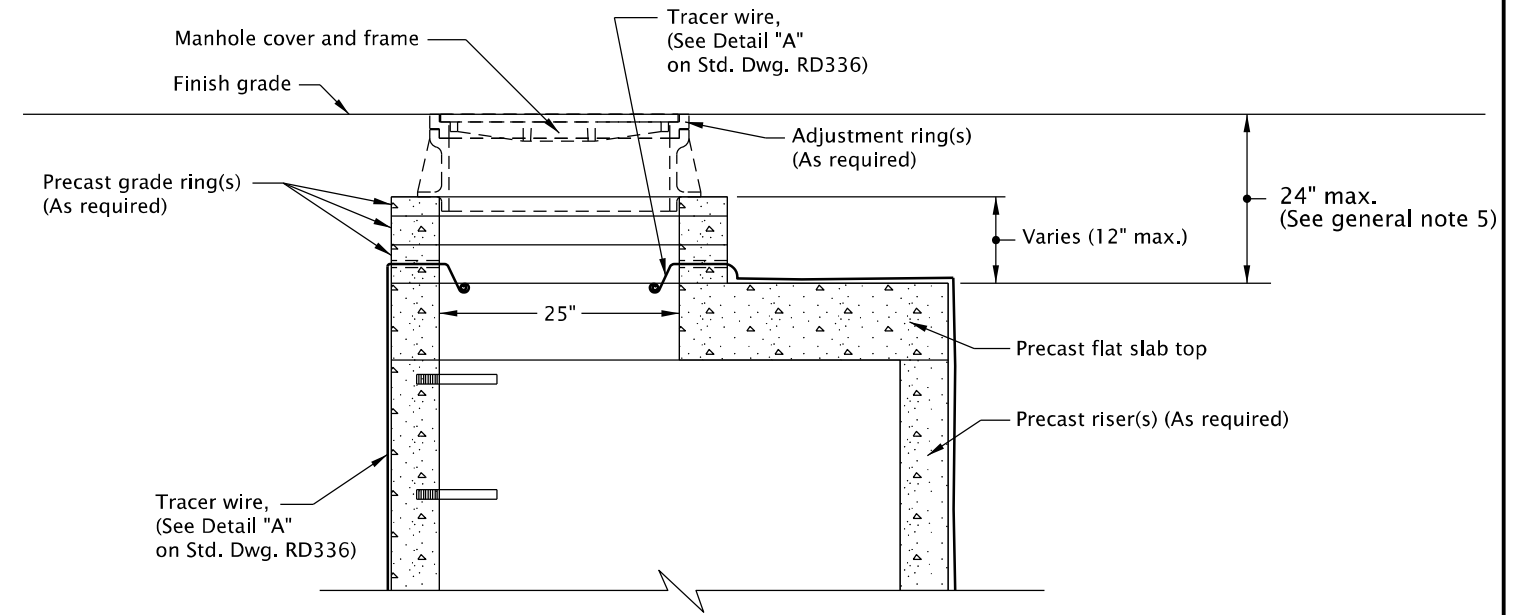
<b>OREGON STANDARD DRAWINGS</b>	
<b>STREET CUT</b>	
2021	
DATE	REVISION DESCRIPTION

rd335.dgn 20-JUL-2020

RD335



**MANHOLE WITH PRECAST CONICAL TOP**



**MANHOLE WITH PRECAST FLAT SLAB TOP**

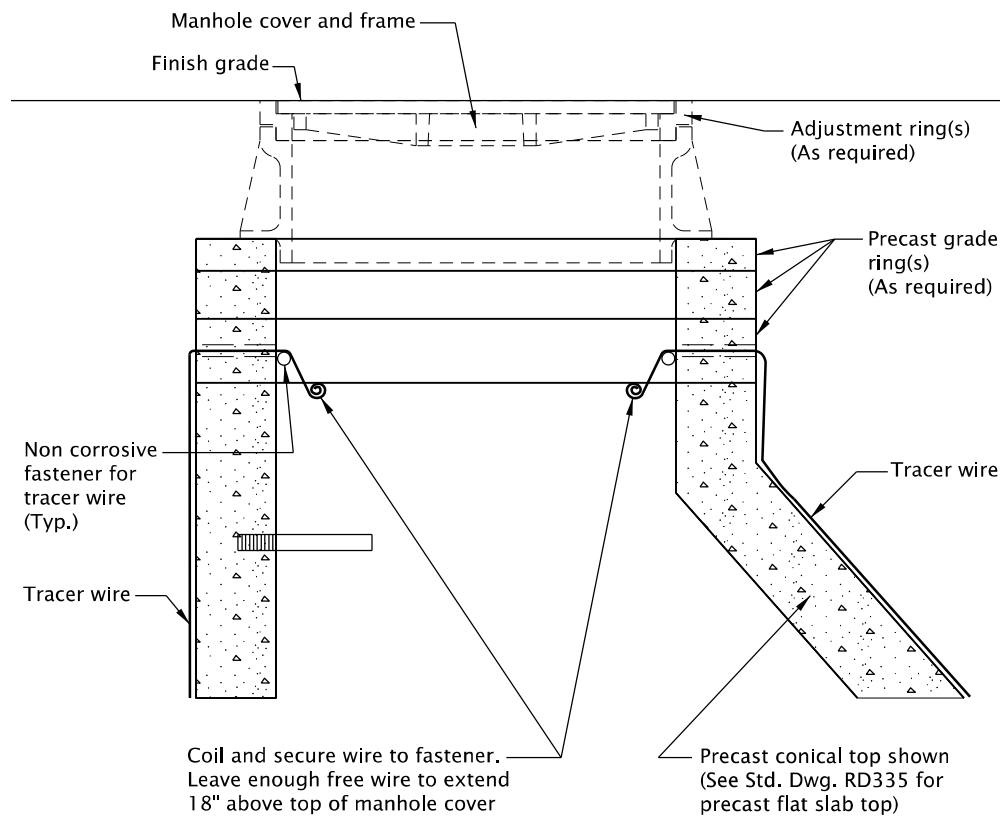
**GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. All precast products shall conform to requirements of ASTM C478.</li> <li>2. Standard precast manhole section diameter shall be 48". Use 42" if specified by the Engineer.</li> <li>3. See Std. Dwg. RD345 for pipe to manhole connections.</li> <li>4. See Std. Dwg. RD344 for manhole base section.</li> <li>5. Adjust 24" maximum.</li> <li>6. All connecting pipes shall have a tracer wire, or approved alternate.</li> </ol> | <ol style="list-style-type: none"> <li>7. See Std. Dwg. RD336 for manhole steps.</li> <li>8. See Std. Dwg. RD336 for details not shown.</li> <li>9. See Std. Dwg. RD356 for manhole covers and frames, manhole adjustment rings, etc.</li> <li>10. Max. pipe diameter varies with pipe material.</li> <li>11. See Std. Dwg. RD342 for shallow manholes.</li> <li>12. Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.</li> </ol> |
|--|--|

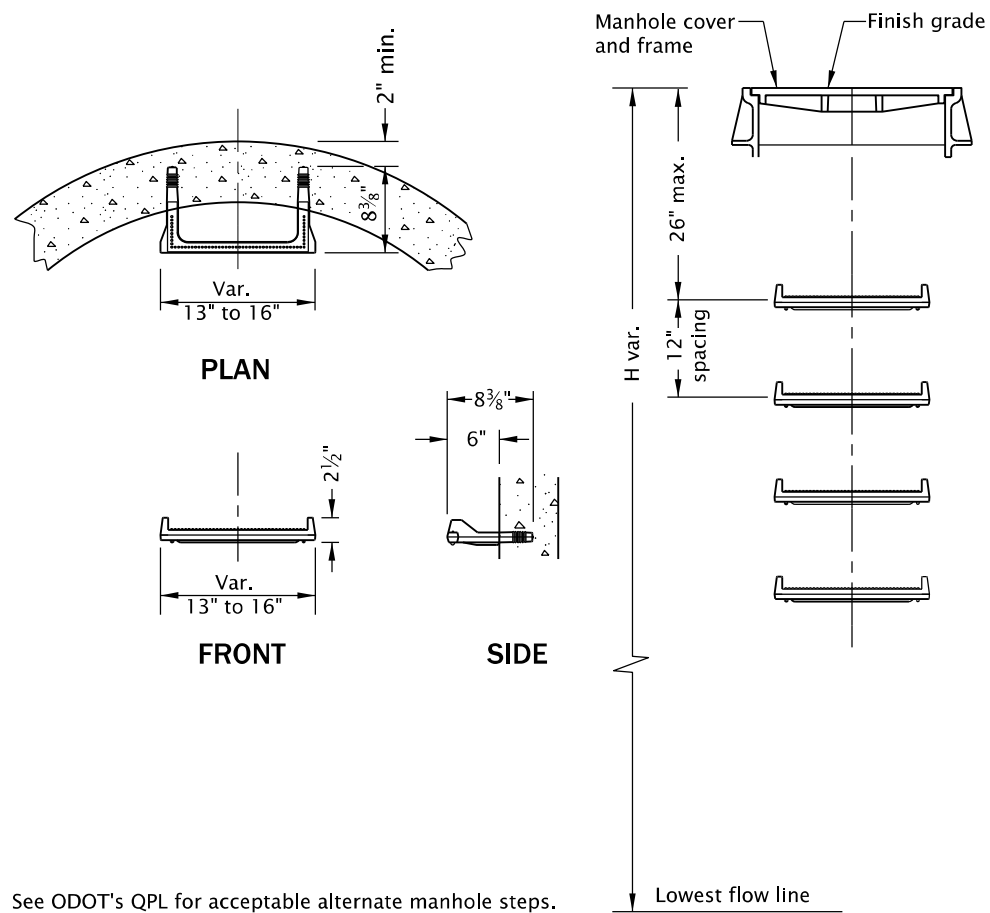
CALC. BOOK NO. <u>  N/A  </u>	SDR DATE <u>  21-JUN-2019  </u>
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
<b>OREGON STANDARD DRAWINGS</b>	
<b>STANDARD STORM SEWER MANHOLE</b>	
2021	
DATE	REVISION DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

rd336.dgn 20-JUL-2020

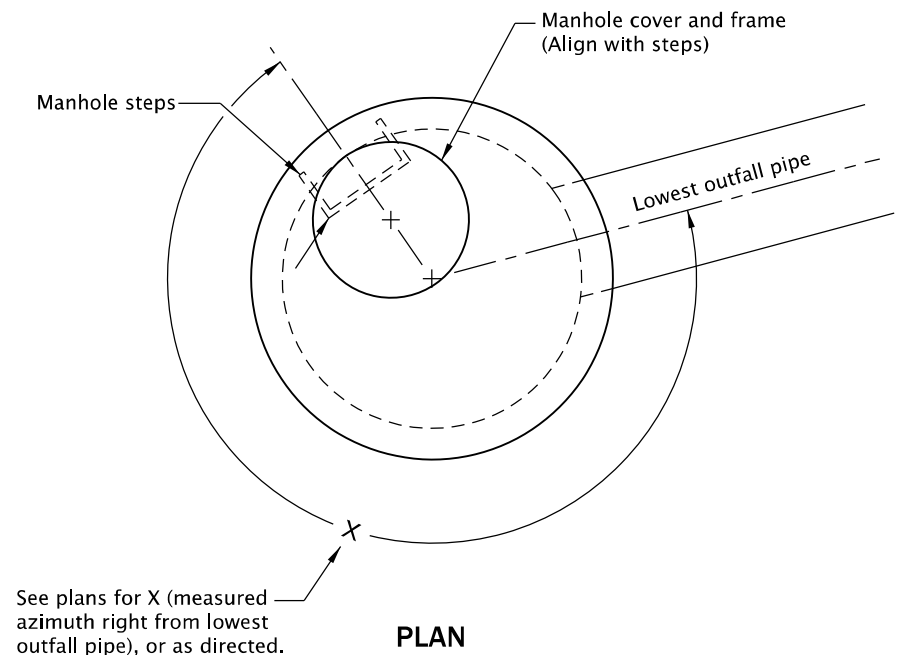


**DETAIL "A"**  
**TRACER WIRE**  
(See general note 6)



**DETAIL "B"**  
**MANHOLE STEPS**  
(See general note 7)

See ODOT's QPL for acceptable alternate manhole steps.  
NOTE: No conflict with pipe align with available shelf.



**DETAIL "C"**  
**PRECAST CONICAL TOP**  
**OR**  
**PRECAST FLAT SLAB TOP**  
**AND MANHOLE STEPS ORIENTATION**  
(See general note 7)

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

- All precast products shall conform to requirements of ASTM C478.
- Standard precast manhole section diameter shall be 48". Use 42" if specified by the Engineer.
- See Std. Dwg. RD345 for pipe to manhole connections.
- See Std. Dwg. RD344 for manhole base section.
- Adjust 24" maximum.
- All connecting pipes shall have a tracer wire, or approved alternate. Place tracer wire directly over pipe centerline and on top of the pipe zone material.

- Steps shall conform to requirements of ASTM C478. When H=42" or less omit steps. See Detail "C" for alignment of steps, and manhole cover and frame.
- See Std. Dwg. RD335 for details not shown.
- See Std. Dwg. RD356 for manhole covers and frames, manhole adjustment rings, etc.
- Max. pipe diameter varies with pipe material.
- See Std. Dwg. RD342 for shallow manholes.
- See project plans for details not shown.

CALC. BOOK NO. N/A

SDR DATE 16-JAN-2019

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS**  
**STANDARD MANHOLE DETAILS**

2021

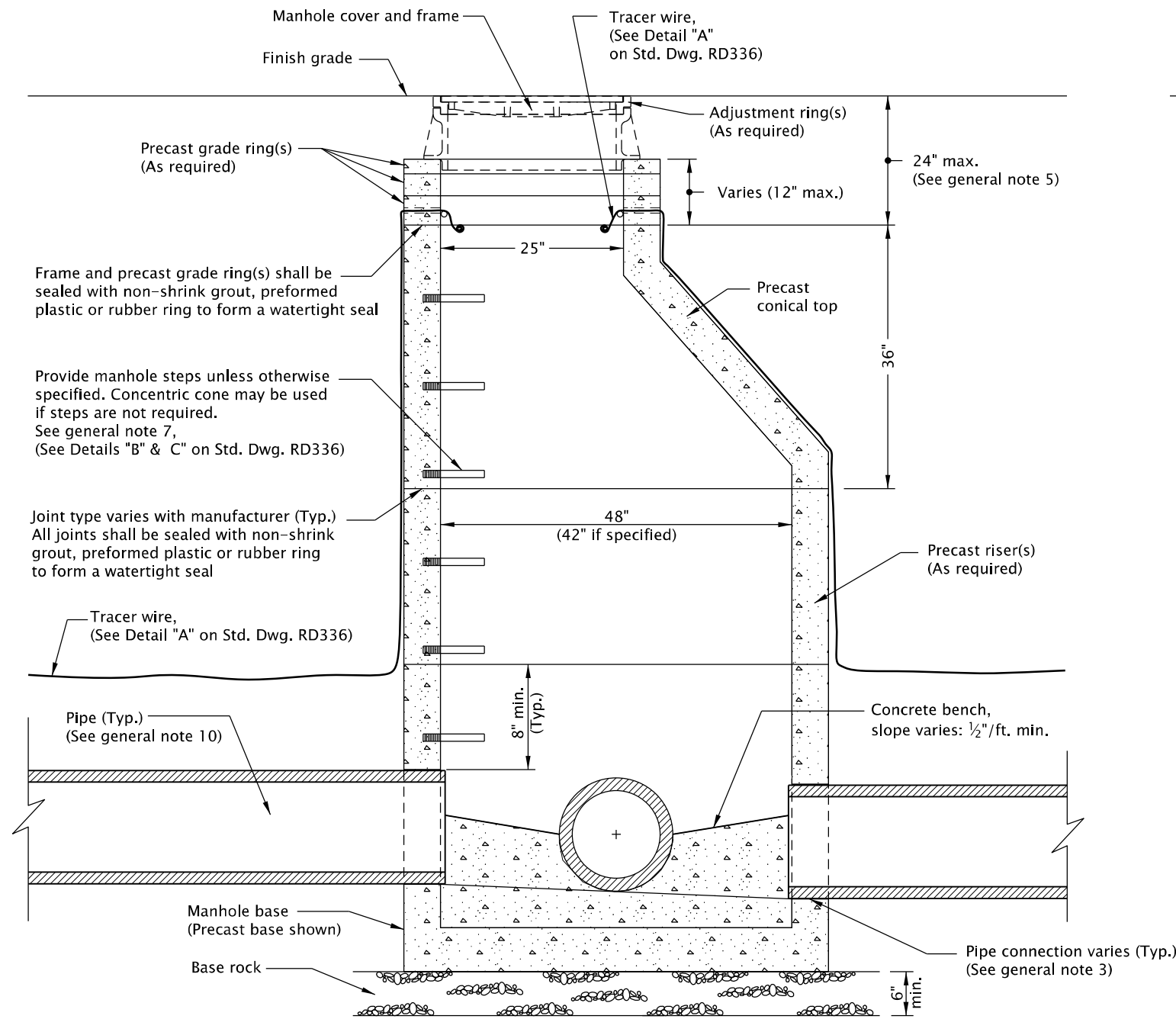
DATE	REVISION DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

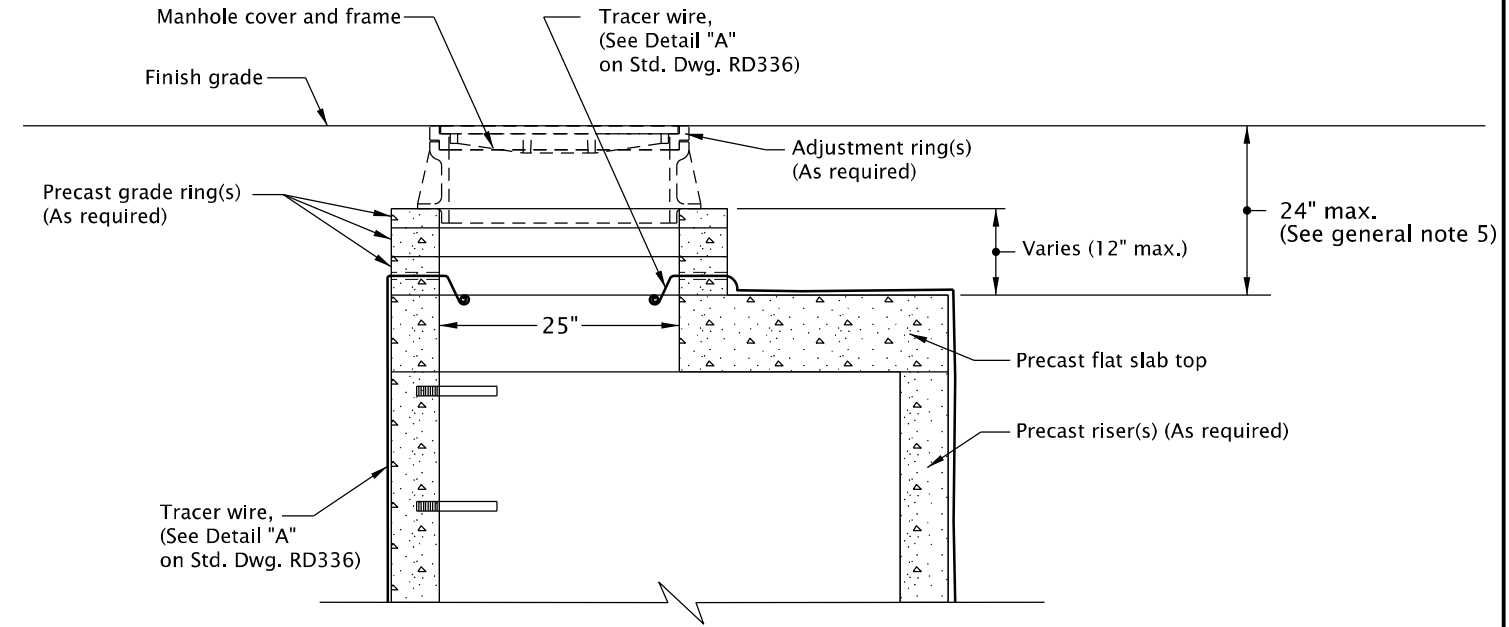
RD336

rd338.dgn 20-JUL-2020

RD338



**MANHOLE WITH PRECAST CONICAL TOP**



**MANHOLE WITH PRECAST FLAT SLAB TOP**

**GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**

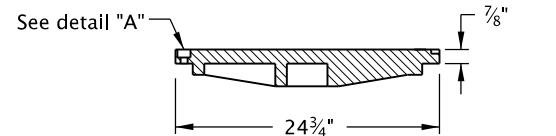
- |  |   |
|--|---|
| <p>1. All precast products shall conform to requirements of ASTM C478.</p> <p>2. Standard precast manhole section diameter shall be 48". Use 42" if specified by the Engineer.</p> <p>3. See Std. Dwg. RD345 for pipe to manhole connections.</p> <p>4. See Std. Dwg. RD344 for manhole base section.</p> <p>5. Adjust 24" maximum.</p> <p>6. All connecting pipes shall have a tracer wire, or approved alternate.</p> <p>7. See Std. Dwg. RD336 for manhole steps.</p> | <p>8. See Std. Dwg. RD336 for details not shown.</p> <p>9. See Std. Dwg. RD356 for manhole covers and frames, manhole adjustment rings, etc.</p> <p>10. Max. pipe diameter varies with pipe material.</p> <p>11. See Std. Dwg. RD342 for shallow manholes.</p> <p>12. Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.</p> <p>13. This detail limited to interior drop of 24". See Std. Dwgs. RD350 or RD352 for drop manhole details for drops in excess of 24".</p> |
|--|---|

CALC. BOOK NO. <u>    N/A    </u>		SDR DATE <u>    21-JUN-2019    </u>	
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications			
<b>OREGON STANDARD DRAWINGS</b>			
<b>STANDARD SANITARY SEWER MANHOLE</b>			
2021			
DATE	REVISION DESCRIPTION		

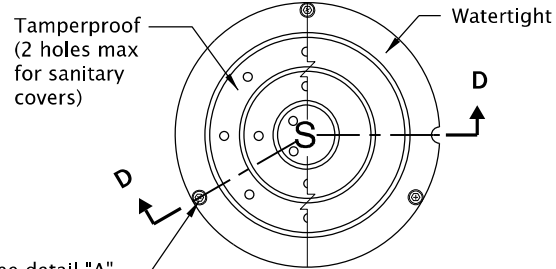
*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

rd356.dgn 20-JUL-2020

RD356

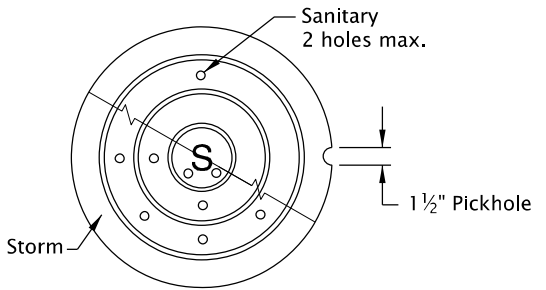


**SECTION D-D**

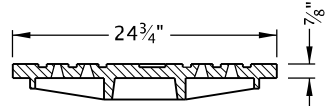


**PLAN**

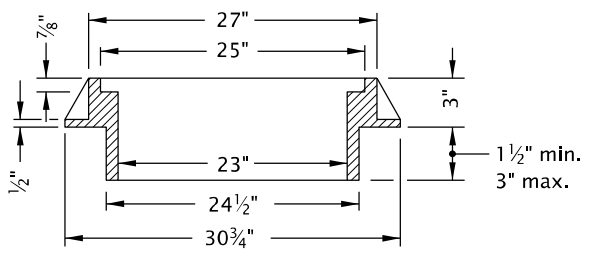
**CAST IRON TAMPERPROOF & WATERTIGHT COVER**  
(Frames available in standard or suburban pattern)



**COVER PLAN**

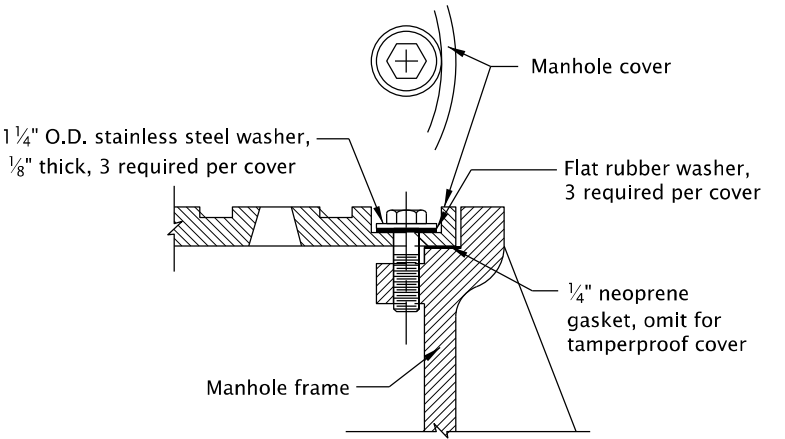


**COVER SECTION**



**FRAME SECTION**

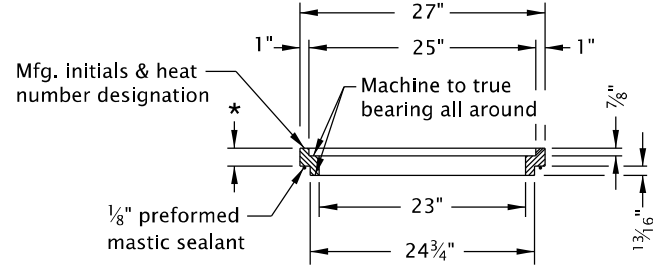
**CAST IRON SUBURBAN MANHOLE COVER & FRAME**  
For use on local streets only, as specified



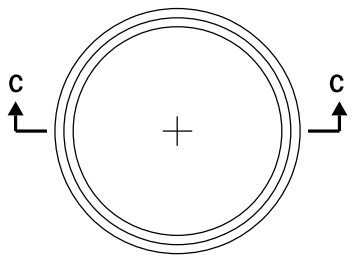
**NOTE:**  
3 required, equally spaced, 1/2"x1 1/2" pentagonal or hexagonal head, bronze or stainless steel. Install frame so that one bolt boss is located over the manhole steps (See general note 8).

**BOLT-DOWN (FOR TAMPERPROOF AND WATERTIGHT) DETAIL "A"**

\* Std. depths 1 1/2", 2", 2 1/2" & 3"  
Matl. to be grey cast iron ASTM A 48, Class 35B. Tolerance on non-machined surfaces to be |0.06", see general note 6

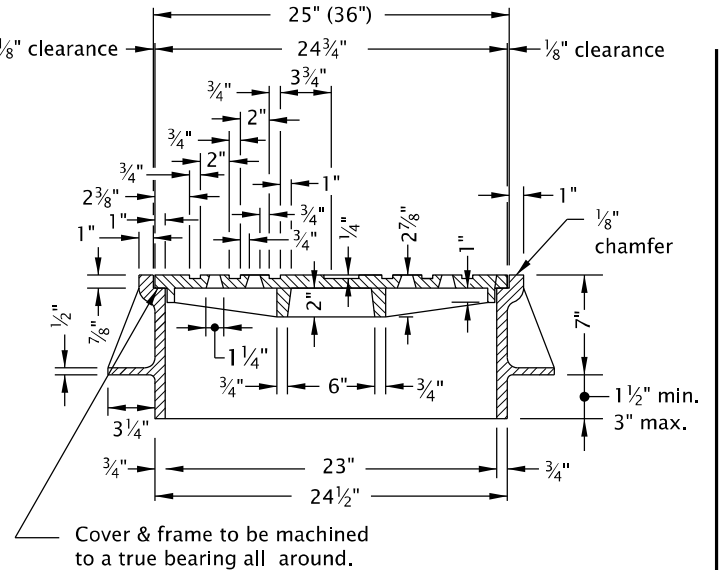


**SECTION C-C**



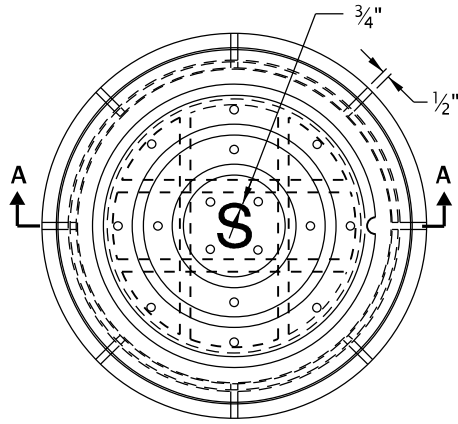
**PLAN**

**MANHOLE ADJUSTMENT RING**  
For use with Standard Manhole Frame



**SECTION A-A**

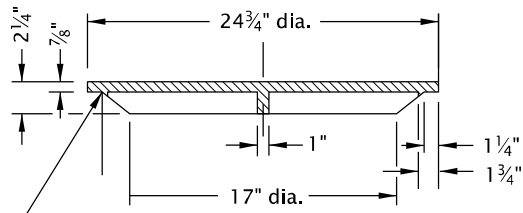
36" min. diameter cover is required for manholes with depths of 20' or greater. (See general note 4)



**PLAN**

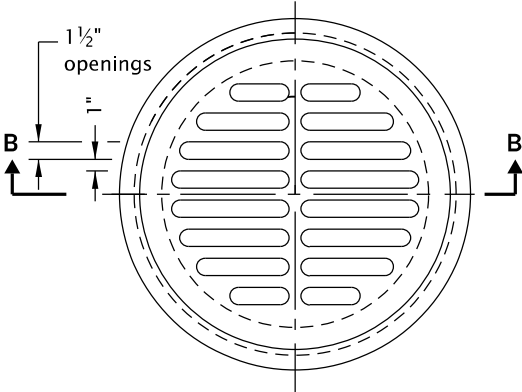
**STANDARD MANHOLE COVER & FRAME**

**NOTE:**  
Coat outside of frame with asphalt, where frame is to be placed in conc. pvmt., conc. gutter, or walk.



**SECTION B-B**

Machine finish all around for true bearing on frame



**PLAN**

For use with Standard Manhole Frame (See general note 7)

**STANDARD MANHOLE GRATE**

**GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**

1. Tamperproof covers required on sanitary or storm drain manhole where located in pedestrian ways or easement areas. Covers for sanitary manholes shall have 2 holes maximum.
2. Watertight covers required if located where cover may be submerged (no holes).
3. Covers and frames shall be stamped with manufacturer's initials, heat number and point of origin.
4. See Std. Dwg. RD336 for manhole steps.

5. See Std. Dwg. RD360 for manhole frame adjustment.
6. See ODOT's QPL for alternate manhole adjustment rings.
7. Manhole grate allowed only in locations not subject to bicycle or pedestrian use.
8. See ODOT's QPL for alternate bolt-down products.

CALC. BOOK NO. N/A

SDR DATE 21-JUN-2019

**NOTE:** All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS**

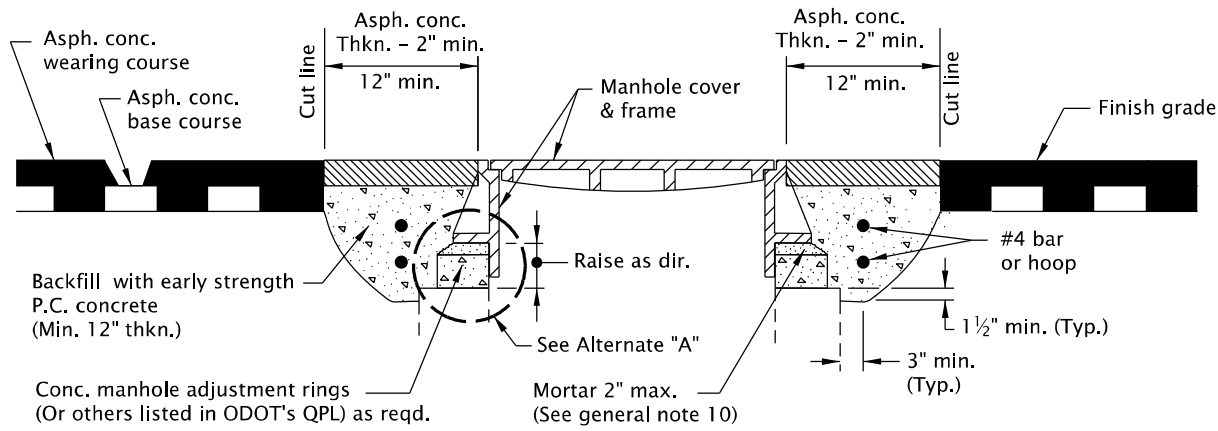
**MANHOLE COVERS AND FRAMES**

2021

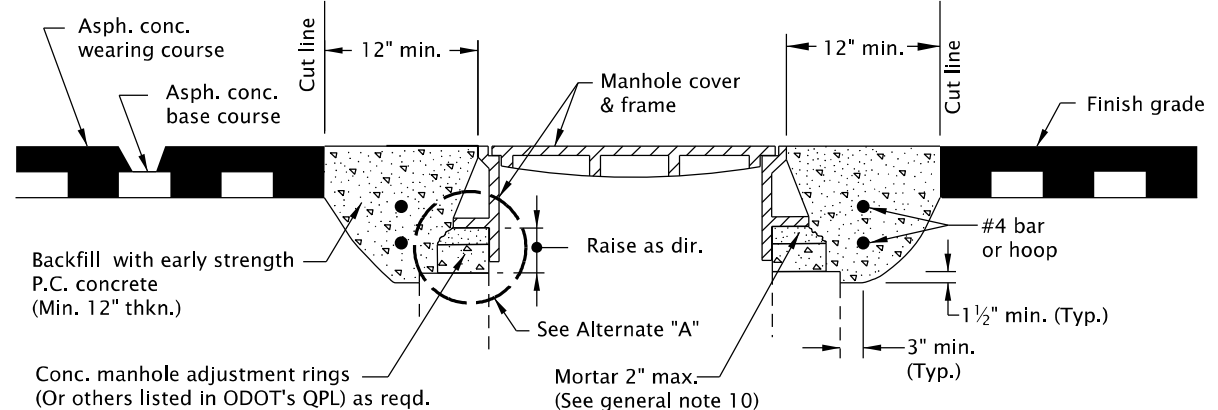
DATE	REVISION DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

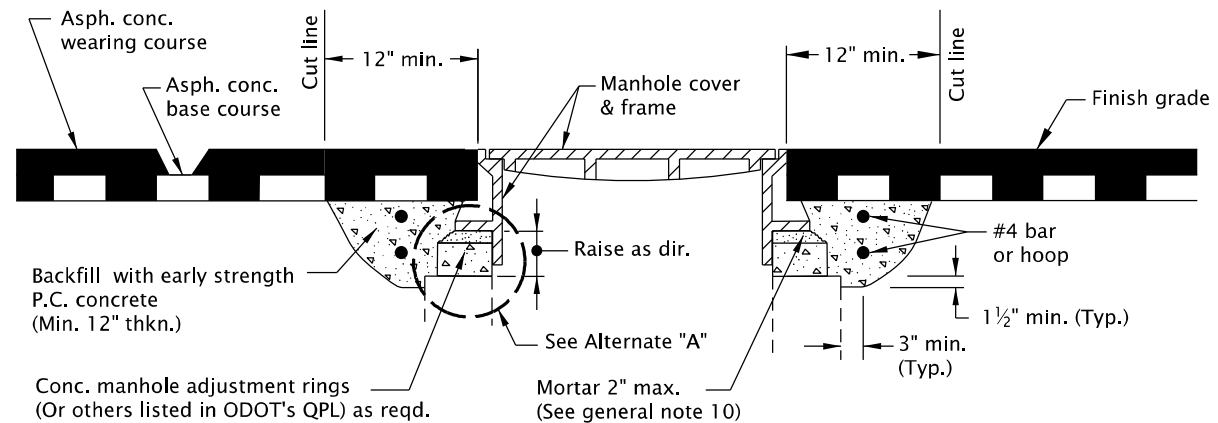
rd360.dgn 20-JUL-2020



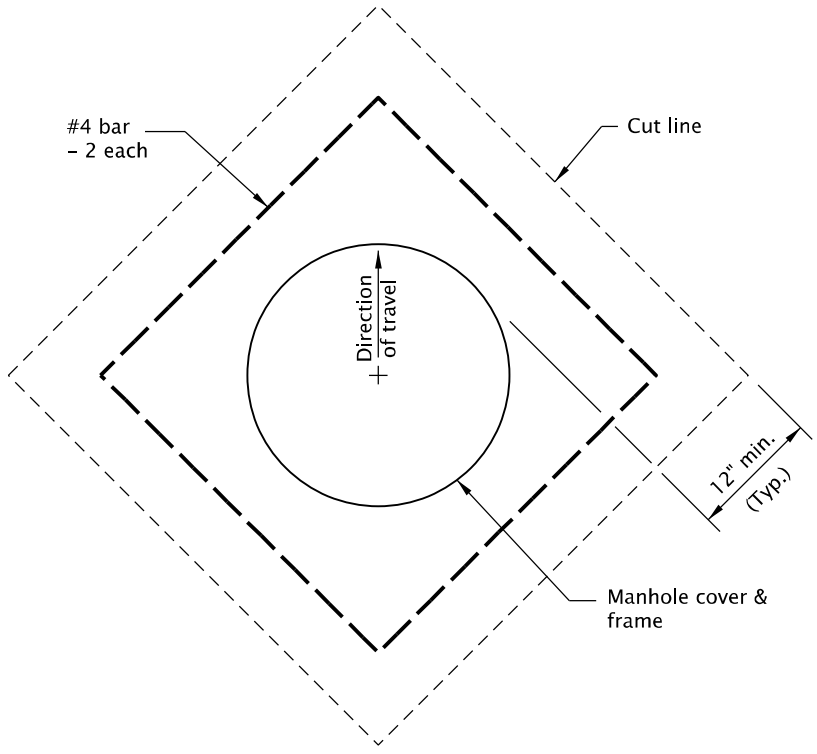
**METHOD "A"**



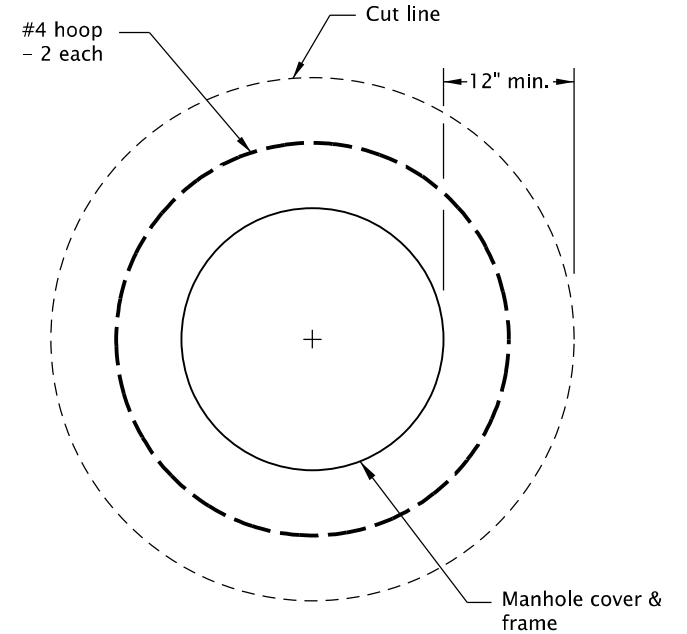
**METHOD "B"**



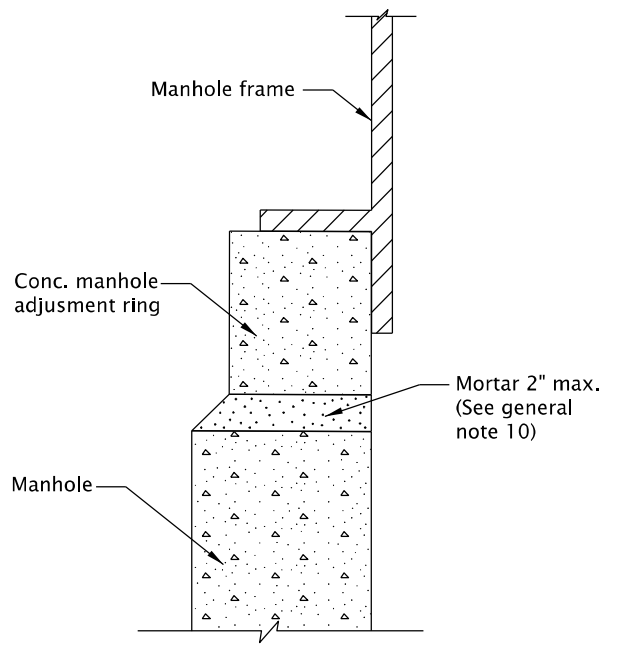
**METHOD "C"**



**PLAN SQUARE CUT**



**PLAN CIRCULAR CUT**



**ALTERNATE "A"**

**GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:**

1. Cover manhole with building paper and const. asph. conc. base course and wearing courses.
2. Saw cut square or circular excavation around manhole 12" min. from manhole frame.
3. Raise manhole cover and frame to finish grade by installing conc. manhole adjustment rings and leveling mortar, as shown.
4. Backfill with early strength Portland Cement Concrete. All concrete shall be commercial grade concrete.
5. Protect from traffic loading until conc. has cured to 3000 psi.
6. Apply tack coat to edges of existing pavement before installing patch.
7. Finish joint with asphalt seal and sand.
8. See Std. Dwg. RD336 for manhole steps details.
9. See appropriate manhole standard drawings for details not shown.
10. Use epoxy for synthetic grade rings.
11. See Std. Dwg. RD336 for tracer wire details.
12. See Std. Dwg. RD356 for manhole covers and frames.

CALC. BOOK NO.   N/A  

SDR DATE   21-JUL-2015  

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS**  
**MANHOLE FRAME ADJUSTMENT**

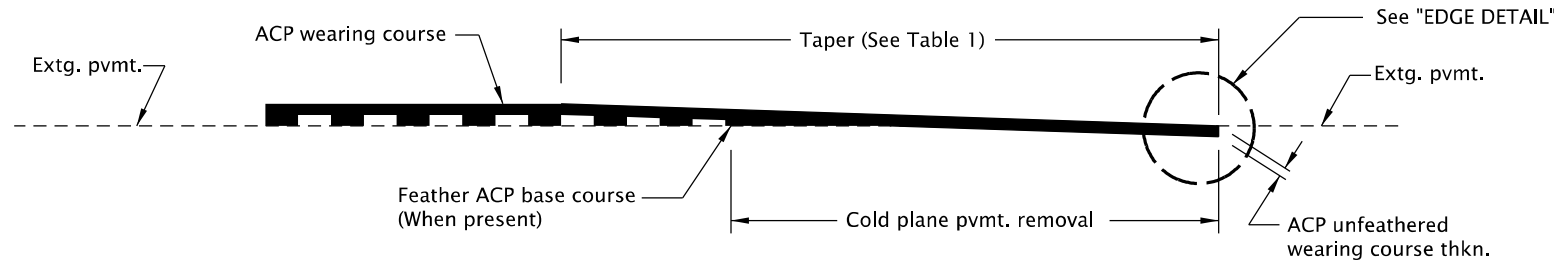
2021	
DATE	REVISION DESCRIPTION

RD360



rd610.dgn 20-JUL-2020

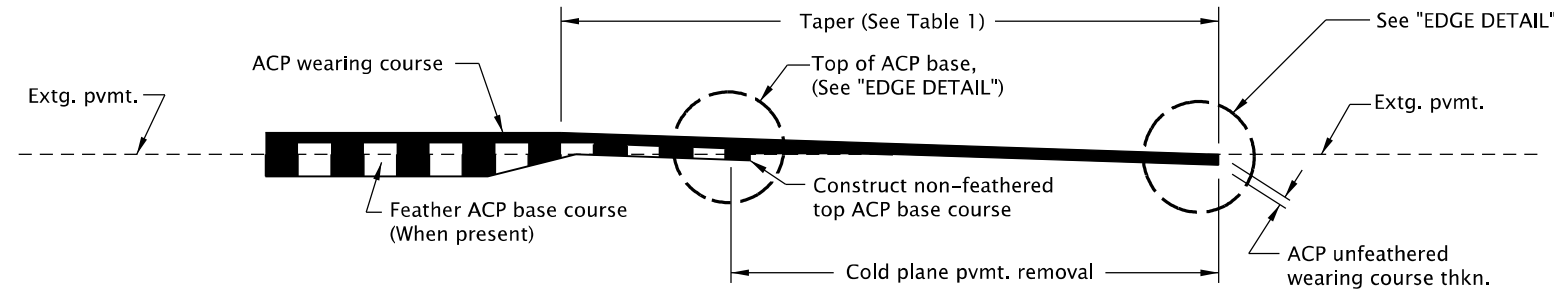
RD610



**METHOD A \***

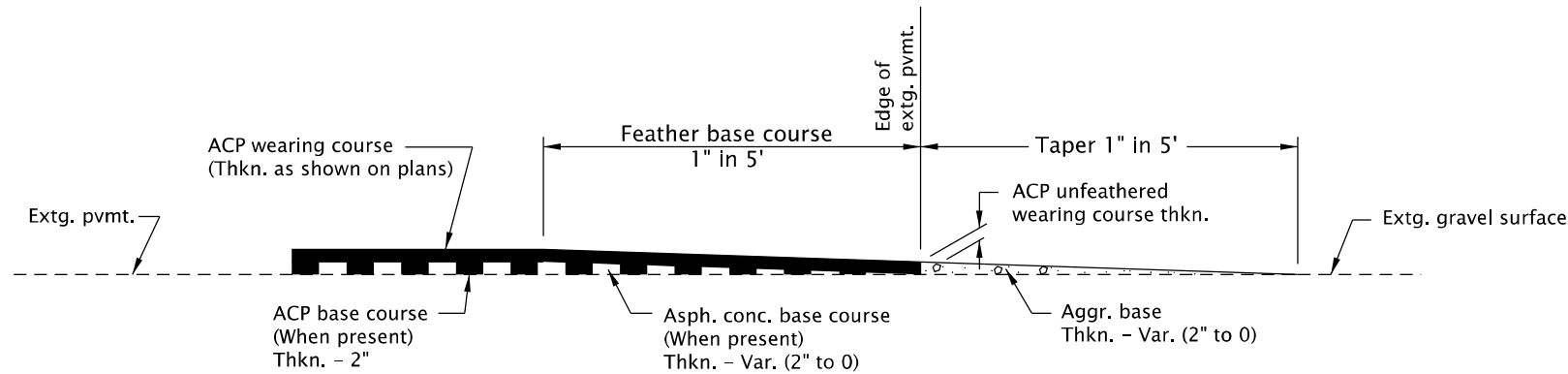
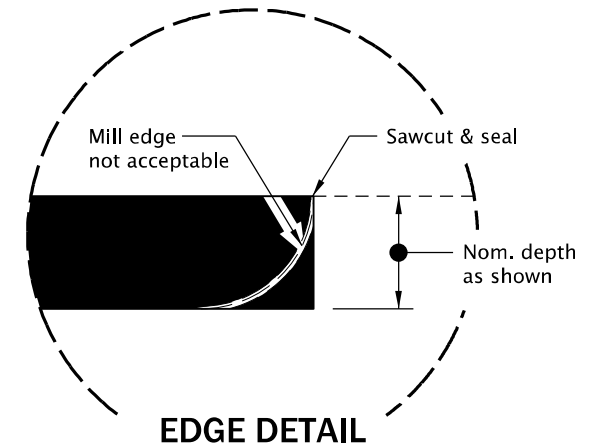
\* See project plans for method.

TABLE 1 TAPER LENGTHS	
Posted Speed	Taper Length
< 45 mph	1" per 50'
≥ 45 mph	1" per 100'

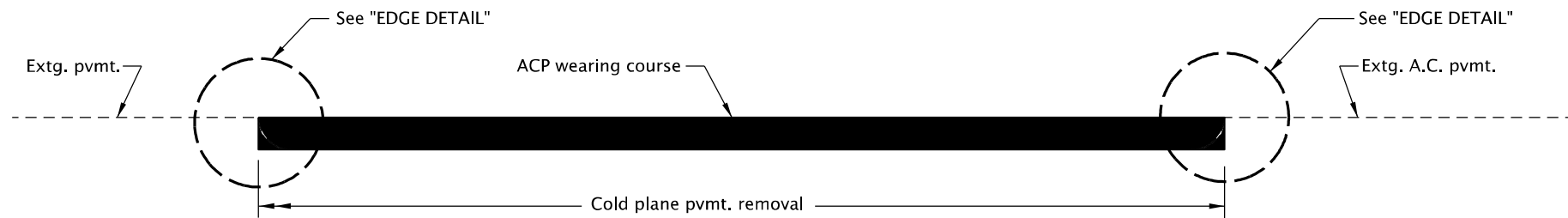


**METHOD B \***

**ACP PAVEMENT MATCH AT PROJECT ENDS  
OR BRIDGE ENDS WHEN NOT OVERLAYING THE BRIDGE**



**METHOD OF FEATHERING ACP PAVEMENT  
AT GRAVEL APPROACHES**



**METHOD OF MATCHING EXTG. ACP INLAY SURFACING**  
(Inlay to extg. asphalt conc. pvmt.)

CALC. BOOK NO. N/A

SDR DATE 25-JUL-2017

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS  
ASPHALT CONCRETE  
PAVEMENT (ACP)  
DETAILS**

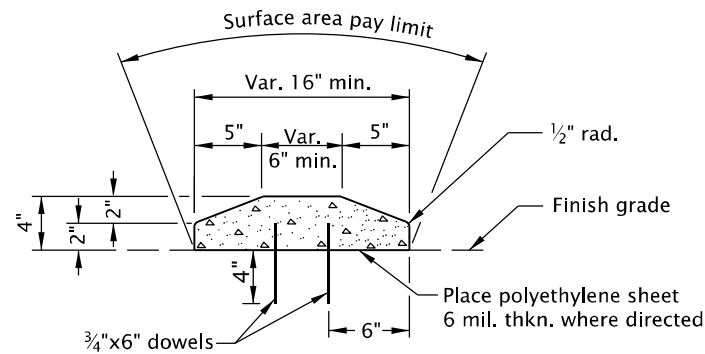
2021

DATE	REVISION DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

rd706.dgn 20-JUL-2020

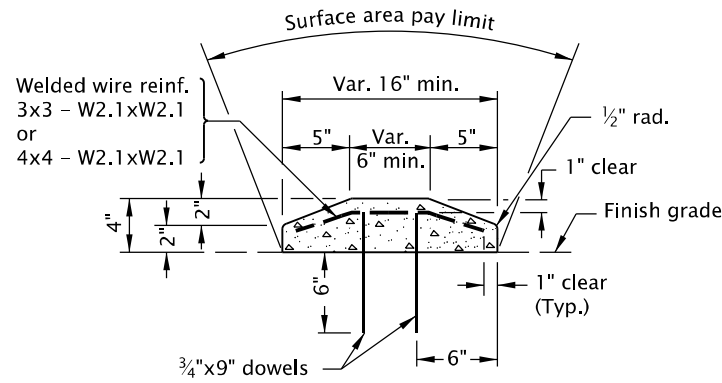
RD706



SECTION B-B

TYPE A

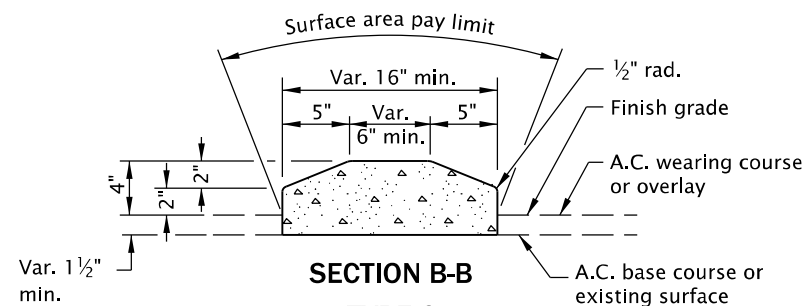
TRAFFIC SEPARATOR ON P.C. CONC. PVMT.



SECTION B-B

TYPE B

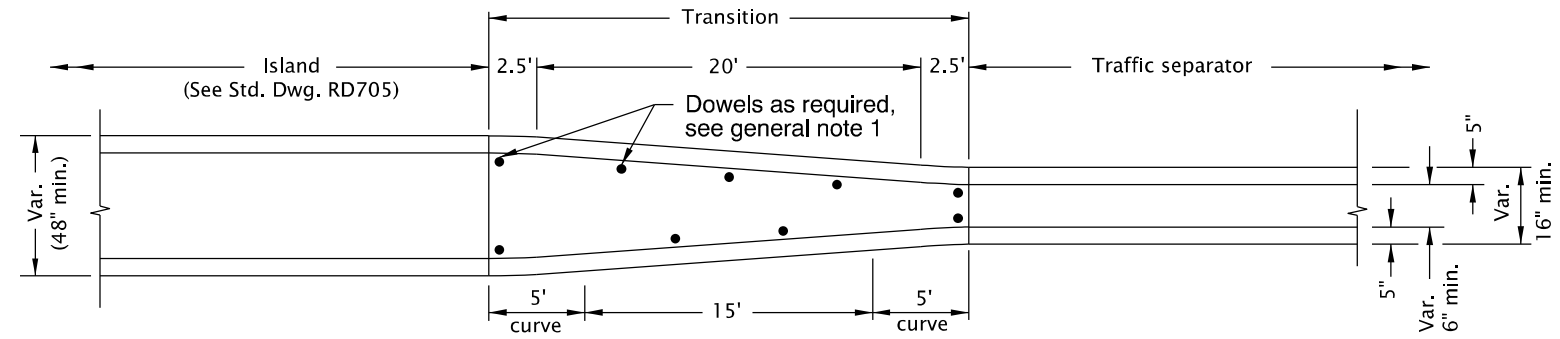
TRAFFIC SEPARATOR ON EXTG. A.C. PVMT.



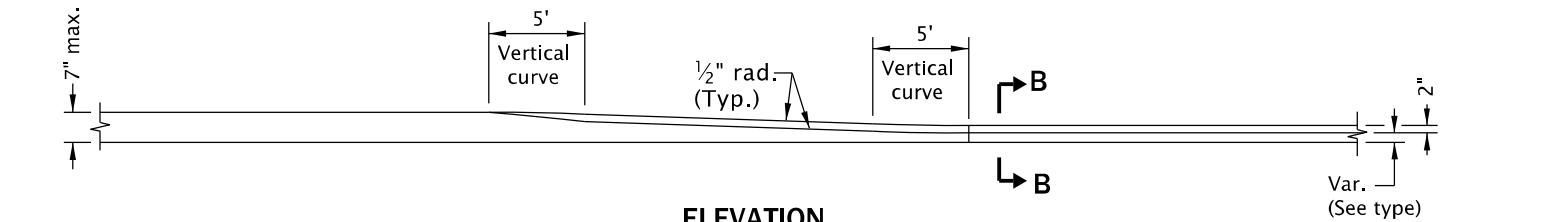
SECTION B-B

TYPE C

TRAFFIC SEPARATOR ON NEW A.C. PVMT.  
OR ON EXISTING A.C. PVMT. WITH OVERLAY

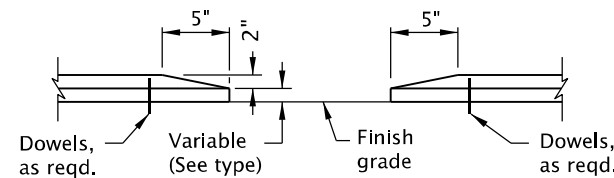


PLAN

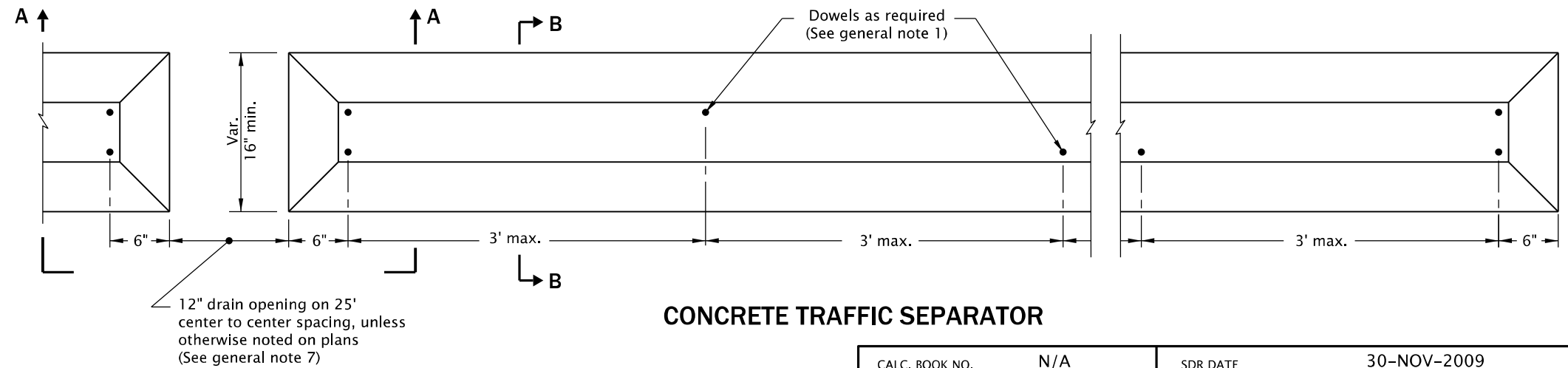


ELEVATION

TRANSITION FROM ISLAND TO TRAFFIC SEPARATOR



SECTION A-A



CONCRETE TRAFFIC SEPARATOR

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. In transitions conform to dowel plan per Std. Dwg. RD705.
2. Standard slope face is shown. Vary as shown on typical section or as directed.
3. Transverse joints in conc. traffic separators and transitions to match joints in conc. pvmt. and to be of same type (Omit dowels in expansion joints).
4. Set joint spacing 200' max. for expansion and 15' max. for contraction.
5. Place preformed filler along one side of conc. transitions in conc. pvmt. and around all curved ends.

6. Dowels shall be 3/4" dia. with length as shown. In new conc. pvmt. set dowels before conc. hardens. In extg. conc. pvmt. drill holes 1 1/2" dia. and grout dowels in. In A.C. pvmt. drive dowels.
7. Site conditions normally require a project specific drain opening spacing design, which considers roadway conditions (sheet flow limits, cross slope, superelevation, profile, pavement type, lane and shoulder widths, etc.).

CALC. BOOK NO. N/A

SDR DATE 30-NOV-2009

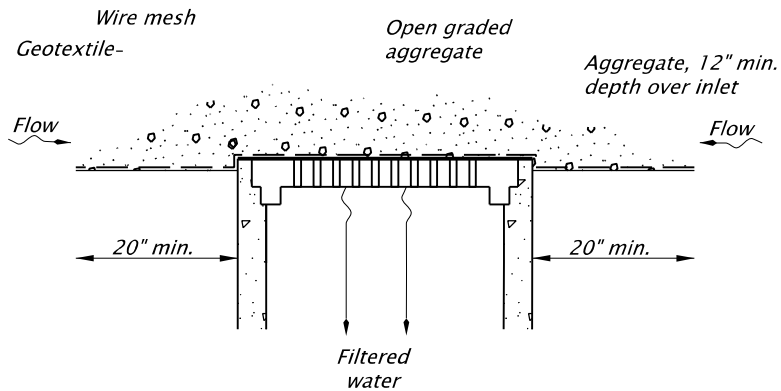
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS  
TRAFFIC SEPARATORS  
AND TRANSITIONS

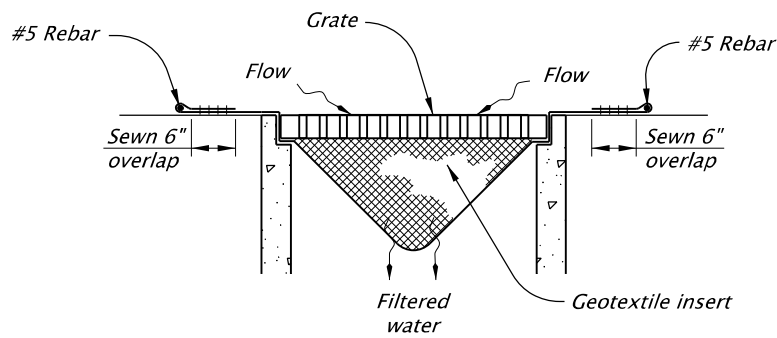
2021

DATE	REVISION DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

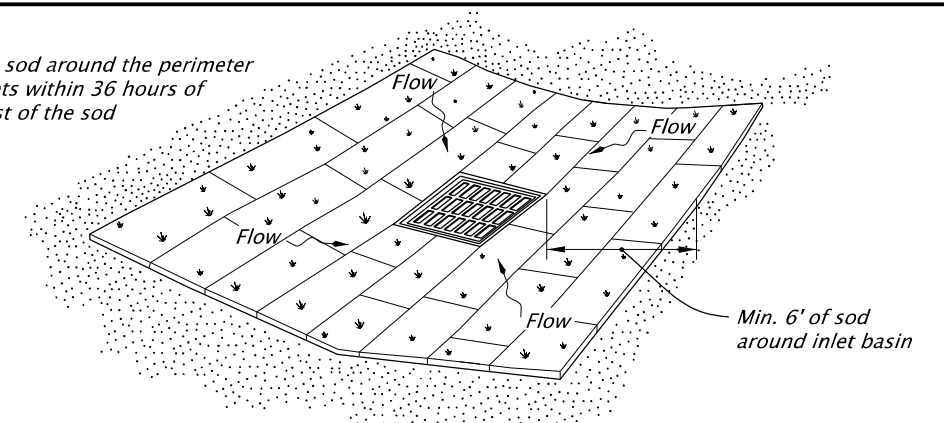


**GEOTEXTILE/WIRE MESH/AGGREGATE - TYPE 2**  
NOT TO SCALE

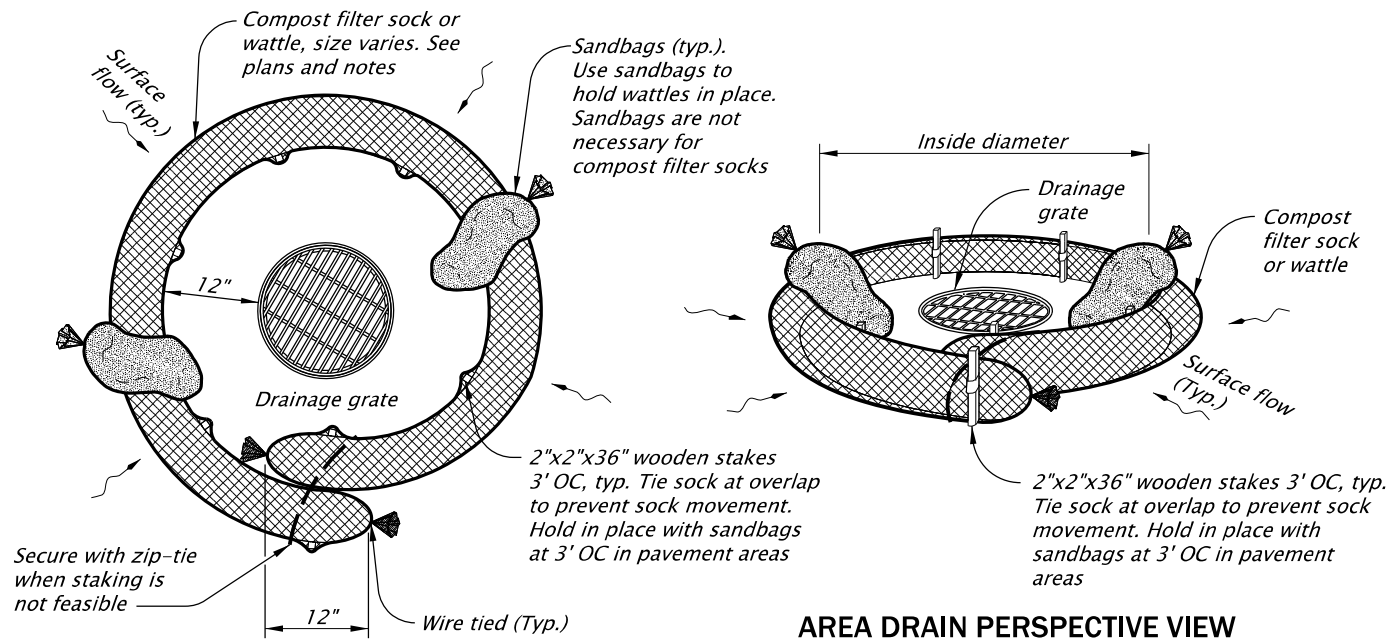


**PREFABRICATED FILTER INSERT - TYPE 3**  
NOT TO SCALE

NOTE:  
Install sod around the perimeter  
of inlets within 36 hours of  
harvest of the sod

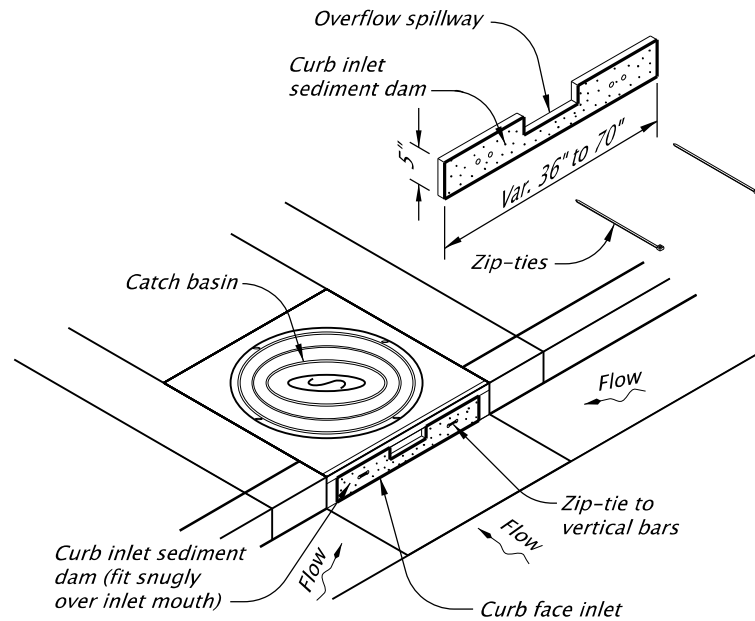


**SOD PROTECTION - TYPE 6**  
NOT TO SCALE

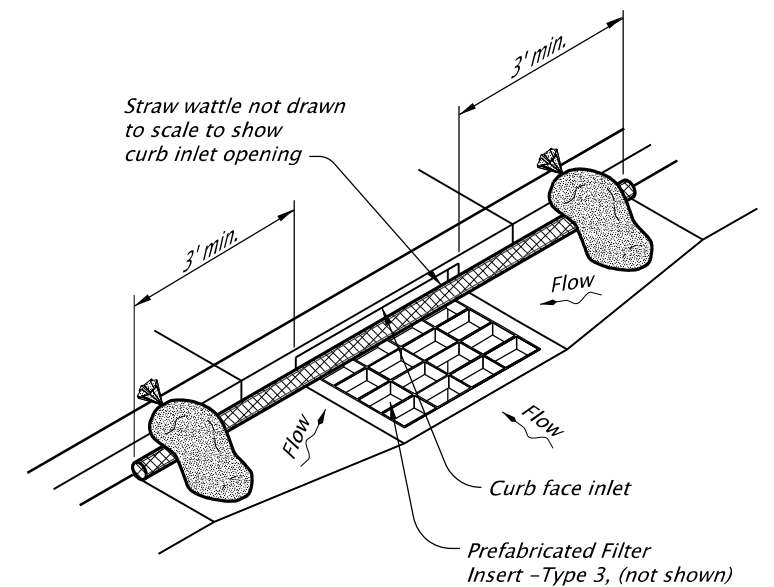


**AREA DRAIN PLAN**

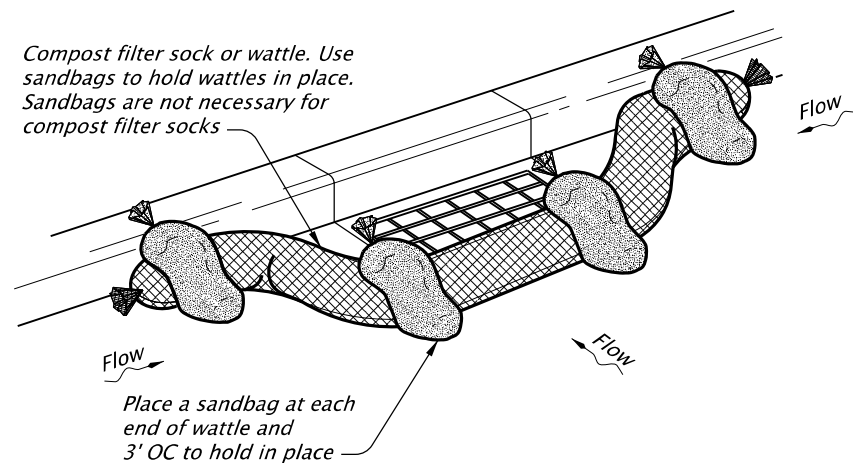
**AREA DRAIN PERSPECTIVE VIEW**



**CURB INLET SEDIMENT DAM - TYPE 10**  
NOT TO SCALE



**WATTLE BARRIER WITH FILTER INSERT - TYPE 11**  
NOT TO SCALE



**CURB INLET PERSPECTIVE VIEW**

**COMPOST FILTER SOCK OR WATTLE - TYPE 7**  
NOT TO SCALE

NOTES:  
Type 2 - Geotextile/wire mesh/aggregate  
Place the wire mesh over the grate.  
Place sediment fence geotextile over the  
wire mesh and perimeter area around  
structure.  
Install aggregate over the geotextile fabric.

Type 3 - Prefabricated filter inserts  
Install prefabricated filter inserts according  
to the plans, special provisions, and  
manufacturer recommendations.  
Prefabricated inserts with provisions for  
overflow are allowed only when  
accompanied by additional BMP's to  
prevent the potential of sediments  
entering project storm systems.  
Field fabricated inserts are not allowed.

Type 7 - Compost filter sock  
Drive 2"x2" wood stakes a minimum of  
6" into ground and flush with the top  
of the sock.  
Overlap ends of sock per manufacturers  
recommendations (12" min., 36" max.).  
Use 8" to 12" dia sock on curbside in traffic  
areas.

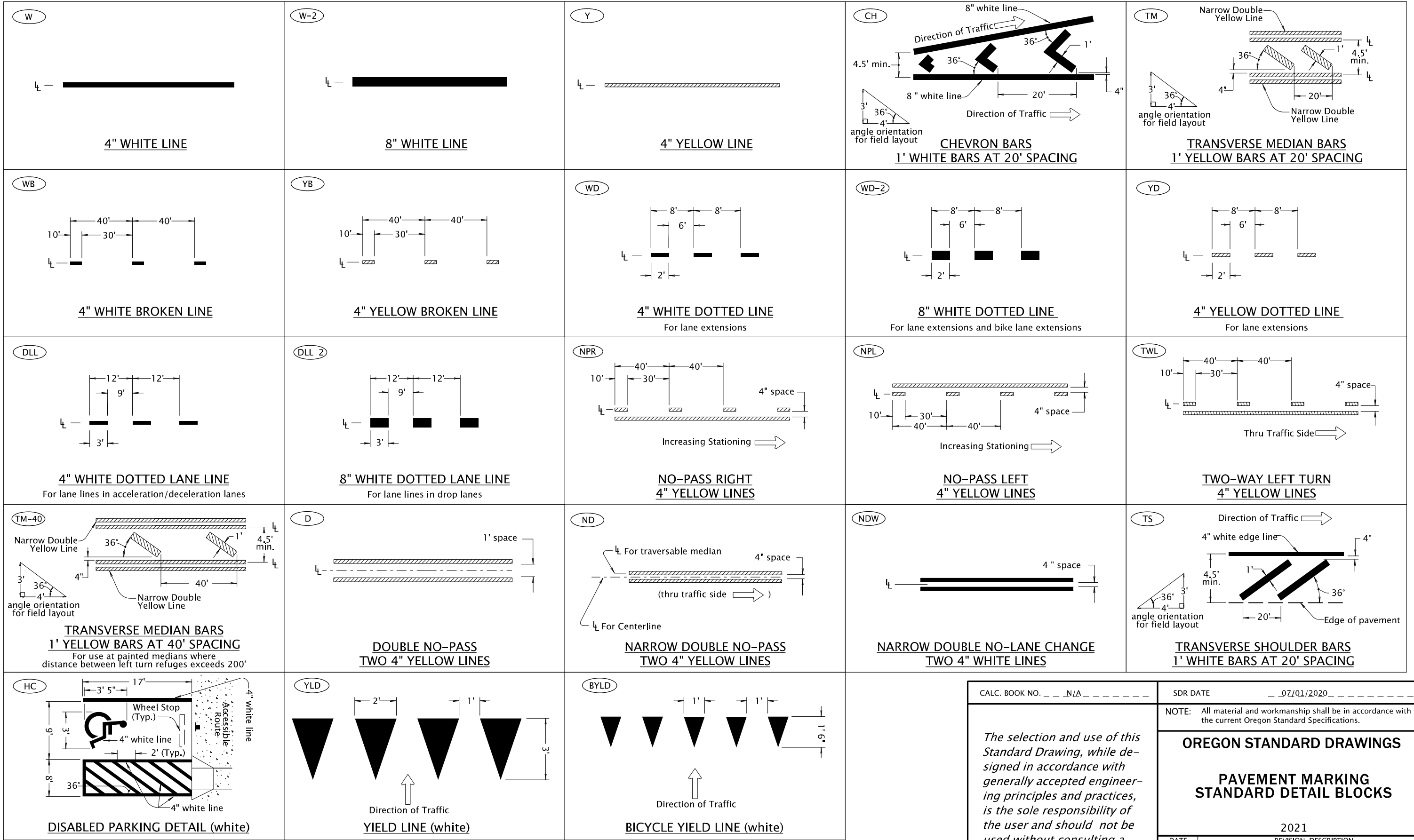
(Type 7 cont.)  
Use 12" to 18" dia sock in non-traffic areas  
or areas where the larger socks can be  
used safely.  
Use synthetic mesh socks for temporary  
installations.

Type 10 - Curb inlet sediment dam  
Fit curb inlet sediment dam snugly into inlet  
mouth. Curb inlet sediment dam is  
required for use with inlet filter insert  
where at-grade inlet grate and curb inlet  
are combined at a catch basin.

Type 11 - Wattle barrier with filter insert  
Install prefabricated filter insert per Type 3  
detail.  
Install wattles over opening and 36" to each  
side of opening tight against curb. Adjust  
wattle to force storm water to flow through  
filter insert or wattle prior to leaving the  
site.  
Adjust, replace or modify the inlet protection  
as needed to prevent sediment laden water  
from entering the catch basin.

CALC. BOOK NO. N/A	SDR DATE January, 2021
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
<b>OREGON STANDARD DRAWINGS</b>	
<b>INLET PROTECTION TYPE 2, 3, 6, 7, 10 AND 11</b>	
2021	
DATE	REVISION DESCRIPTION
Jan 2021	Removed Calc book numbers
Jan 2021	Moved notes up from overlapping the sheet border

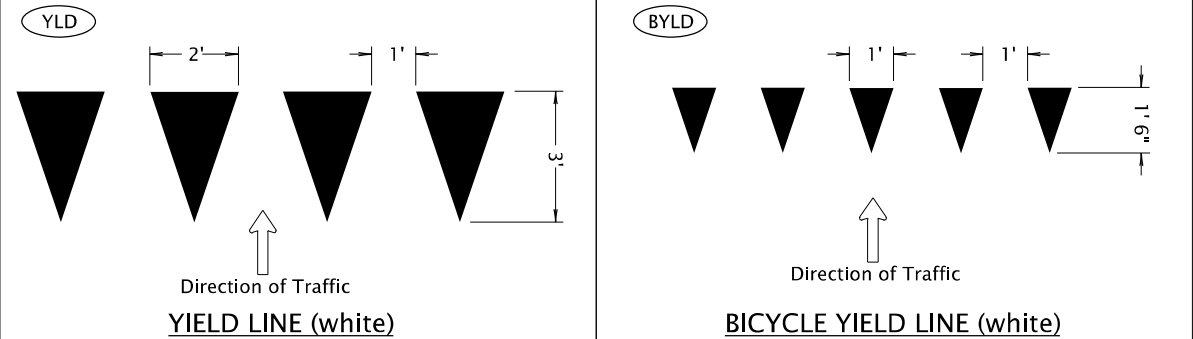
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.



← Direction Of Traffic, Increasing Stationing Or Thru Traffic Side

⊥ — Lane line dimensions are shown on the striping plans

**LEGEND**



CALC. BOOK NO. \_\_\_ N/A \_\_\_

SDR DATE \_\_\_ 07/01/2020 \_\_\_

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.

**OREGON STANDARD DRAWINGS**  
**PAVEMENT MARKING**  
**STANDARD DETAIL BLOCKS**

2021

DATE	REVISION DESCRIPTION
07/2020	Changed Min. widths for CH, TM, TM-40, and TS

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**SA**

**STRAIGHT ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**LA**

**LEFT TURN ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**RA**

**RIGHT TURN ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**LSA**

**LEFT TURN STRAIGHT ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**RSA**

**RIGHT TURN STRAIGHT ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**RALA**

**RIGHT TURN LEFT TURN ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**RSLA**

**RIGHT TURN STRAIGHT LEFT TURN ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**E-SA**

**ELONGATED STRAIGHT ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**E-LA**

**ELONGATED LEFT TURN ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**E-RA**

**ELONGATED RIGHT TURN ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**E-LSA**

**ELONGATED LEFT TURN STRAIGHT ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**E-RSA**

**ELONGATED RIGHT TURN STRAIGHT ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**E-RALA**

**ELONGATED RIGHT TURN LEFT TURN ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**E-RSLA**

**ELONGATED RIGHT TURN STRAIGHT LEFT TURN ARROW (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**F-LA**

**FISH-HOOK LEFT TURN ARROW (white)**  
For arrow proportion details, see the current ODOT Traffic Line Manual

**F-RALA**

**FISH-HOOK RIGHT TURN LEFT TURN ARROW (white)**  
For arrow proportion details, see the current ODOT Traffic Line Manual

**F-SA**

**FISH-HOOK STRAIGHT ARROW (white)**  
For arrow proportion details, see the current ODOT Traffic Line Manual

**F-RSA**

**FISH-HOOK RIGHT TURN STRAIGHT ARROW (white)**  
For arrow proportion details, see the current ODOT Traffic Line Manual

**F-LSA**

**FISH-HOOK LEFT TURN STRAIGHT ARROW (white)**  
For arrow proportion details, see the current ODOT Traffic Line Manual

**F-RSLA**

**FISH-HOOK RIGHT TURN STRAIGHT LEFT TURN ARROW (white)**  
For arrow proportion details, see the current ODOT Traffic Line Manual

**LRA-R**

**LANE REDUCTION ARROW - LEFT LANE ENDS (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**LRA-R**

**LANE REDUCTION ARROW - RIGHT LANE ENDS (white)**  
For arrow proportion details, see current version of Standard Highway Signs

**WWA**

**WRONG-WAY ARROW (white)**

CALC. BOOK NO. \_\_\_ N/A \_\_\_

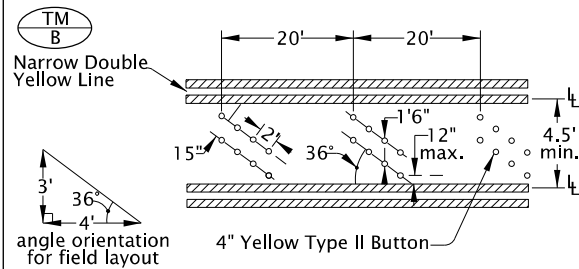
*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

SDR DATE		___07/01/2020___	
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.			
<b>OREGON STANDARD DRAWINGS</b>			
<b>PAVEMENT MARKING STANDARD DETAIL BLOCKS</b>			
2021			
DATE	REVISION DESCRIPTION		
07/2020	Some Detail Blocks moved to new Std. Drawing TM504 Fish-hook Arrows added, LRA split into LRA-L and LRA-R		

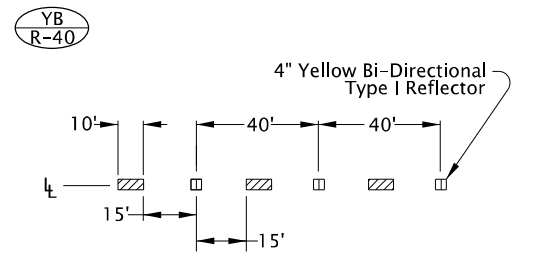
**General Note:**

- Center pavement markings within the lane width.
- Arrow and letter dimensions nominal, excluding WWA.

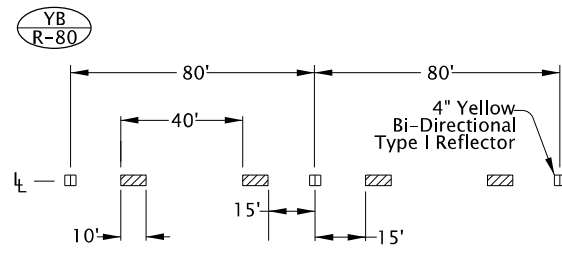
TM501



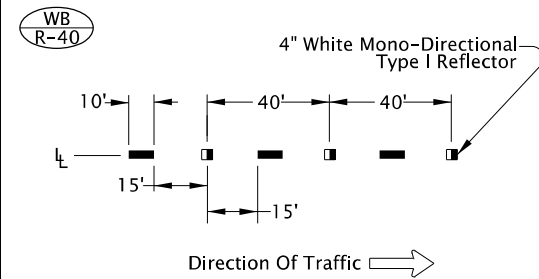
**TRANSVERSE MEDIAN BAR SUBSTITUTION BUTTON**



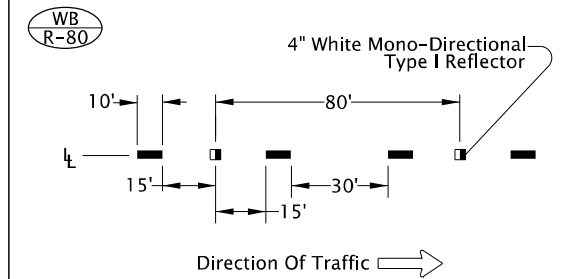
**YELLOW BROKEN LINE SUPPLEMENTATION REFLECTORS WITH 4" YELLOW BROKEN LINE**



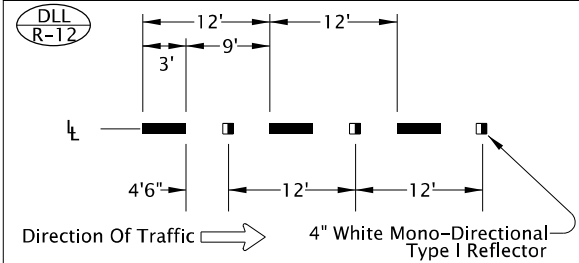
**YELLOW BROKEN LINE SUPPLEMENTATION REFLECTORS WITH 4" YELLOW BROKEN LINE**



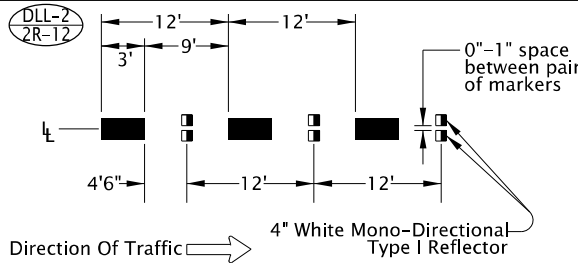
**WHITE BROKEN LINE SUPPLEMENTATION REFLECTORS WITH 4" WHITE BROKEN LINE**



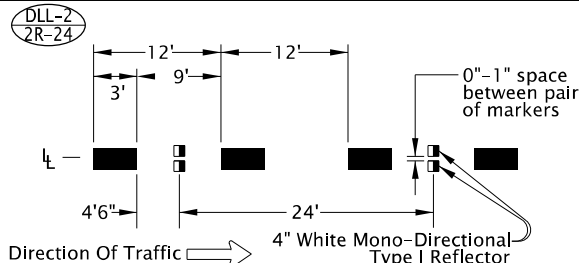
**WHITE BROKEN LINE SUPPLEMENTATION REFLECTORS WITH 4" WHITE BROKEN LINE**



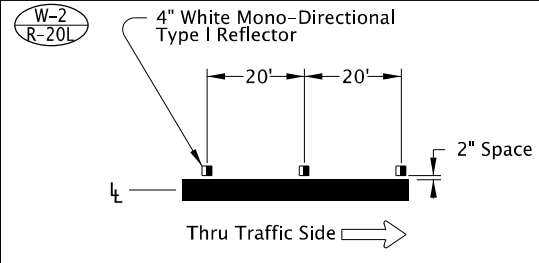
**WHITE DOTTED LANE LINE SUPPLEMENTATION REFLECTORS WITH 4" WHITE DOTTED LANE LINE**



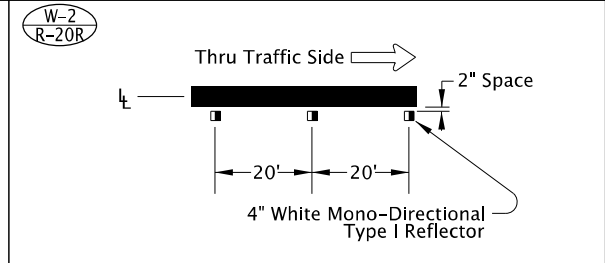
**WIDE DOTTED LANE LINE SUPPLEMENTATION REFLECTORS WITH 8" WHITE DOTTED LANE LINE**



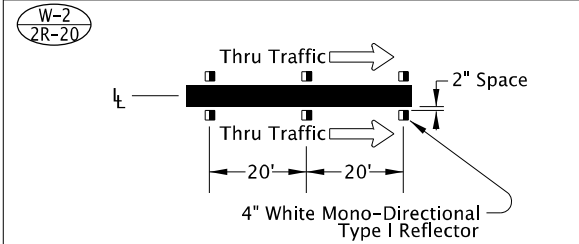
**WIDE DOTTED LANE LINE SUPPLEMENTATION REFLECTORS WITH 8" WHITE DOTTED LANE LINE**



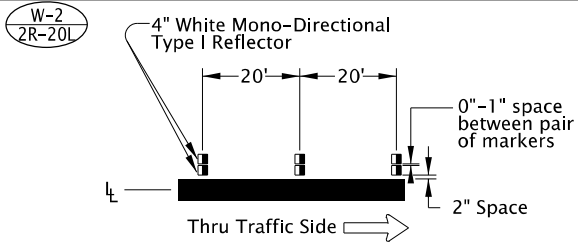
**CHANNELIZING LINE POSITIONING GUIDE REFLECTORS WITH 8" WHITE LINE**



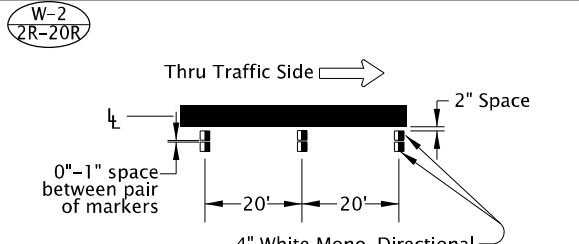
**CHANNELIZING LINE POSITIONING GUIDE REFLECTORS WITH 8" WHITE LINE**



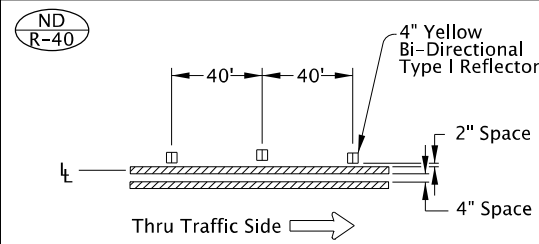
**CHANNELIZING LINE POSITIONING GUIDE REFLECTORS WITH 8" WHITE LINE**



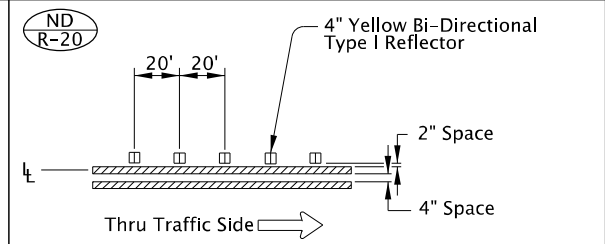
**CHANNELIZING LINE SUPPLEMENTATION REFLECTORS WITH 8" WHITE LINE**



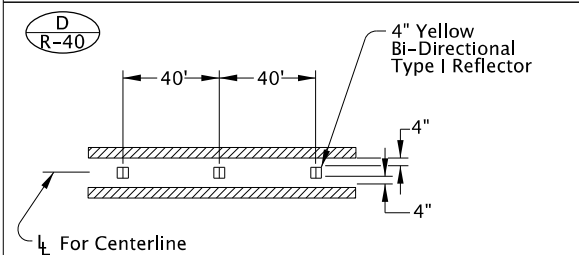
**CHANNELIZING LINE SUPPLEMENTATION REFLECTORS WITH 8" WHITE LINE**



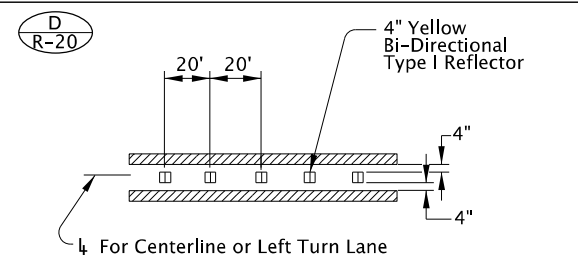
**NARROW DOUBLE YELLOW POSITIONING GUIDE REFLECTORS WITH TWO 4" YELLOW LINES**



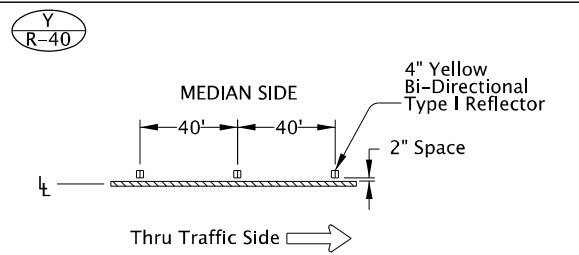
**NARROW DOUBLE YELLOW POSITIONING GUIDE REFLECTORS WITH TWO 4" YELLOW LINES**



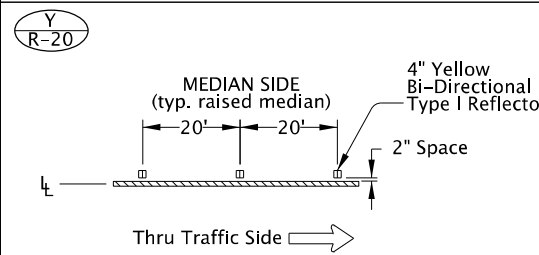
**DOUBLE NO-PASS POSITIONING GUIDE REFLECTORS WITH TWO 4" YELLOW LINES**



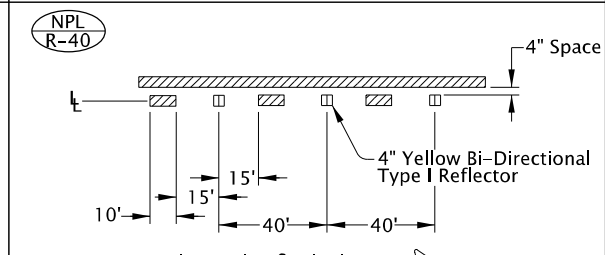
**DOUBLE NO-PASS POSITIONING GUIDE REFLECTORS WITH TWO 4" YELLOW LINES**



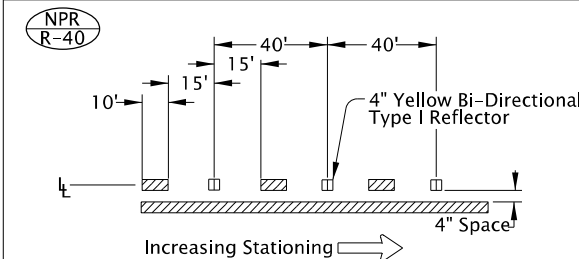
**YELLOW LINE POSITIONING GUIDE REFLECTORS WITH 4" YELLOW LINE**



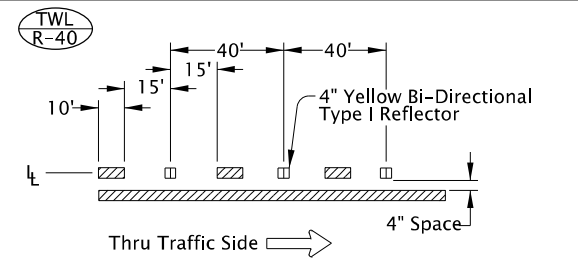
**YELLOW LINE POSITIONING GUIDE REFLECTORS WITH 4" YELLOW LINE**



**NO-PASS LEFT POSITIONING GUIDE REFLECTORS WITH 4" YELLOW LINES**



**NO-PASS RIGHT POSITIONING GUIDE REFLECTORS WITH 4" YELLOW LINES**



**TWO WAY LEFT TURN POSITIONING GUIDE REFLECTORS WITH 4" YELLOW LINES**

General note:  
1) Surface mount Raised Pavement Markers (RPMs) unless otherwise specified.

- LEGEND**
- ← Direction Of Travel, Increasing Stationing or Thru Traffic Side
  - ⊥ Lane line dimensions are shown on the striping plans
  - Mono-directional crystal white marker reflects white to the left in this symbol
  - Bi-directional yellow marker reflects yellow both left and right in this symbol

CALC. BOOK NO. \_\_\_ N/A \_\_\_

SDR DATE \_\_\_ 07/01/2020 \_\_\_

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.

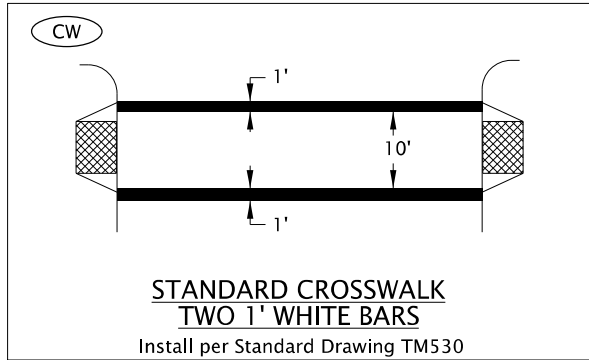
**OREGON STANDARD DRAWINGS**

**PAVEMENT MARKING STANDARD DETAIL BLOCKS**

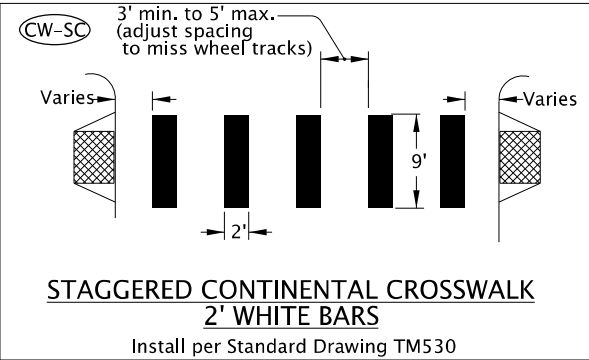
2021	
DATE	REVISION DESCRIPTION
07/2020	Changed min. width of TM/B from 6' to 4.5'

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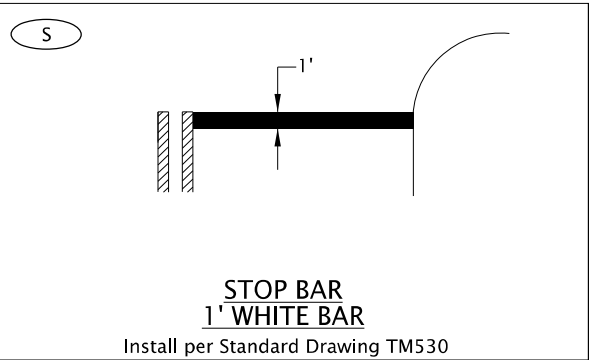
TM502



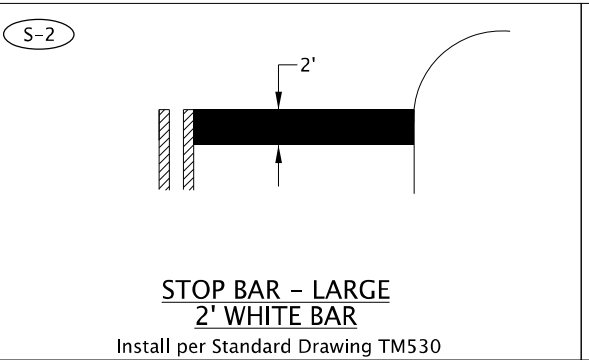
**STANDARD CROSSWALK**  
TWO 1' WHITE BARS  
Install per Standard Drawing TM530



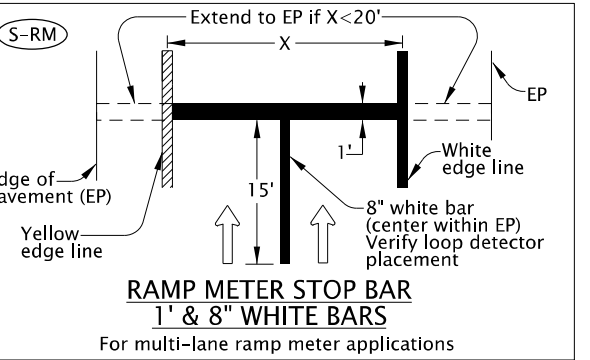
**STAGGERED CONTINENTAL CROSSWALK**  
2' WHITE BARS  
Install per Standard Drawing TM530



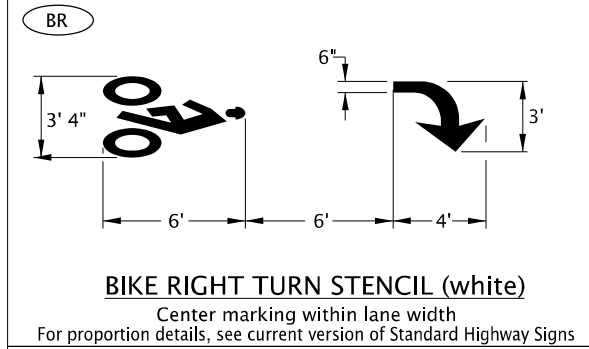
**STOP BAR**  
1' WHITE BAR  
Install per Standard Drawing TM530



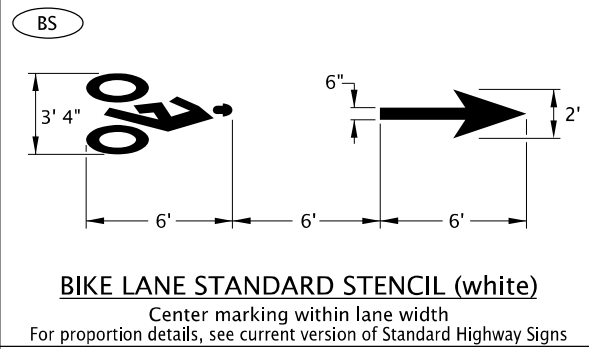
**STOP BAR - LARGE**  
2' WHITE BAR  
Install per Standard Drawing TM530



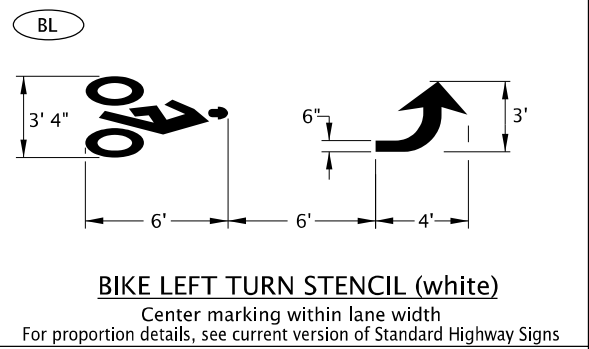
**RAMP METER STOP BAR**  
1' & 8" WHITE BARS  
For multi-lane ramp meter applications



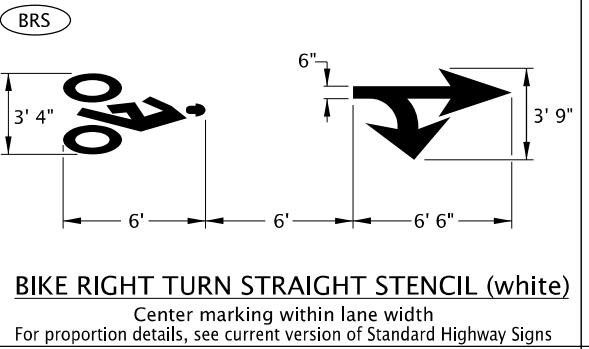
**BIKE RIGHT TURN STENCIL (white)**  
Center marking within lane width  
For proportion details, see current version of Standard Highway Signs



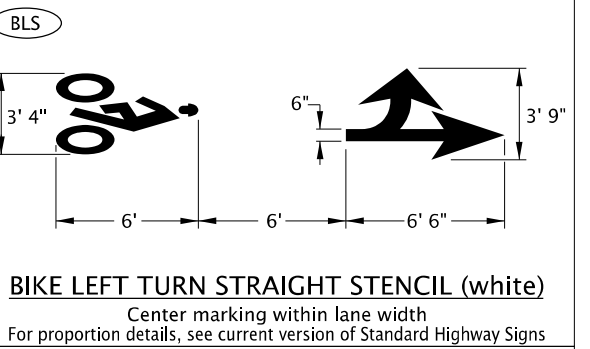
**BIKE LANE STANDARD STENCIL (white)**  
Center marking within lane width  
For proportion details, see current version of Standard Highway Signs



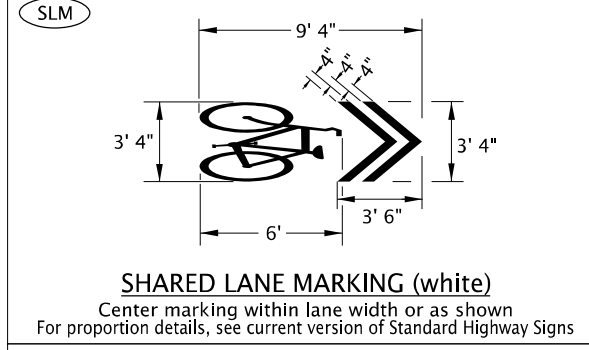
**BIKE LEFT TURN STENCIL (white)**  
Center marking within lane width  
For proportion details, see current version of Standard Highway Signs



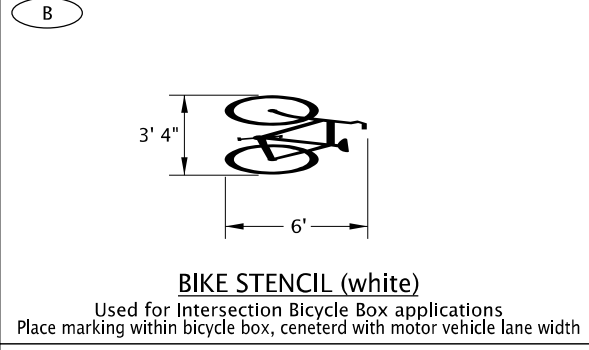
**BIKE RIGHT TURN STRAIGHT STENCIL (white)**  
Center marking within lane width  
For proportion details, see current version of Standard Highway Signs



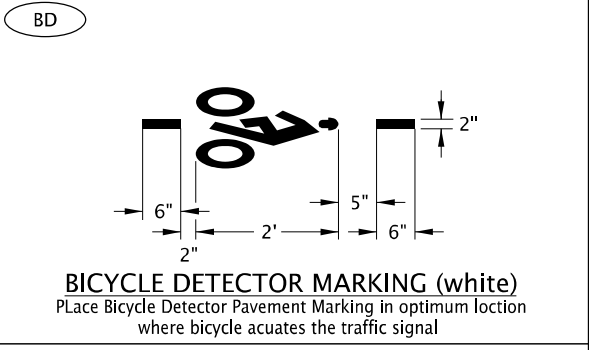
**BIKE LEFT TURN STRAIGHT STENCIL (white)**  
Center marking within lane width  
For proportion details, see current version of Standard Highway Signs



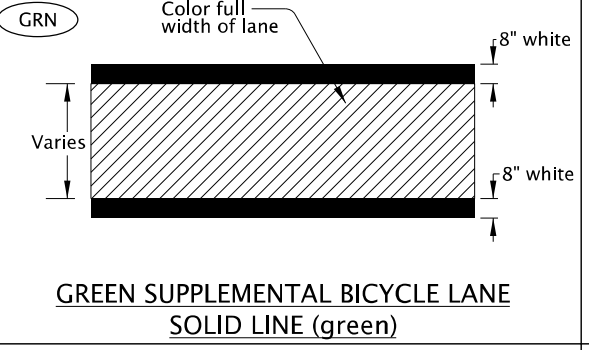
**SHARED LANE MARKING (white)**  
Center marking within lane width or as shown  
For proportion details, see current version of Standard Highway Signs



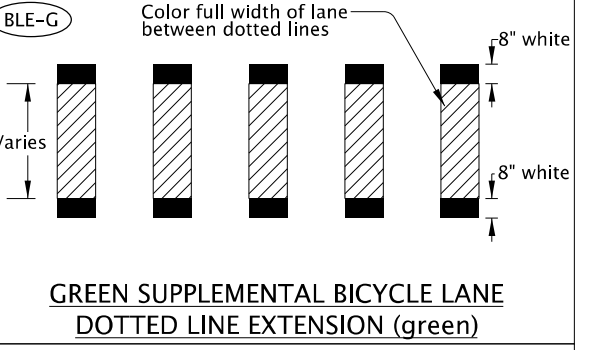
**BIKE STENCIL (white)**  
Used for Intersection Bicycle Box applications  
Place marking within bicycle box, centered with motor vehicle lane width



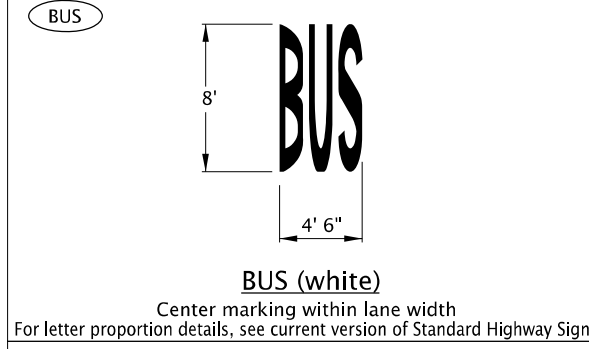
**BICYCLE DETECTOR MARKING (white)**  
Place Bicycle Detector Pavement Marking in optimum location where bicycle acuates the traffic signal



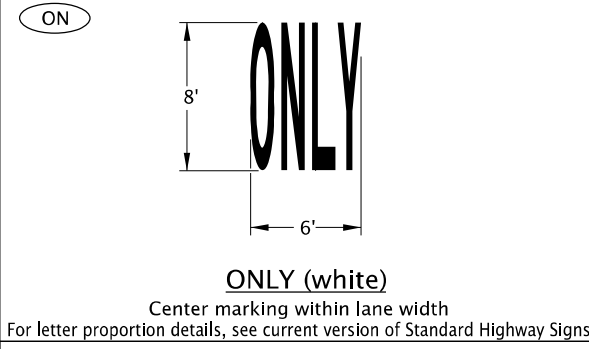
**GREEN SUPPLEMENTAL BICYCLE LANE**  
SOLID LINE (green)



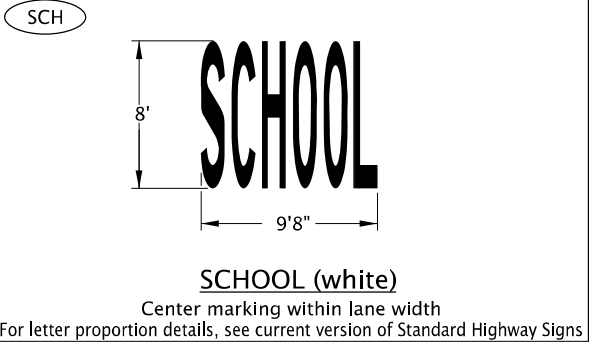
**GREEN SUPPLEMENTAL BICYCLE LANE**  
DOTTED LINE EXTENSION (green)



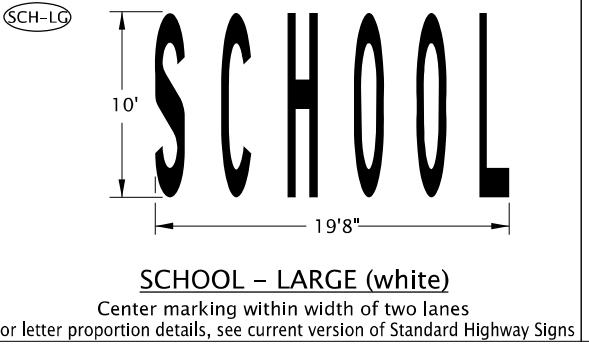
**BUS (white)**  
Center marking within lane width  
For letter proportion details, see current version of Standard Highway Signs



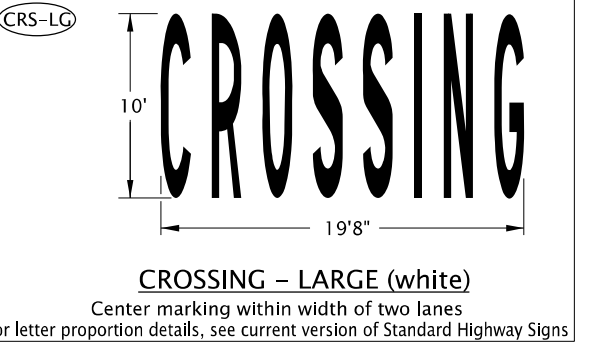
**ONLY (white)**  
Center marking within lane width  
For letter proportion details, see current version of Standard Highway Signs



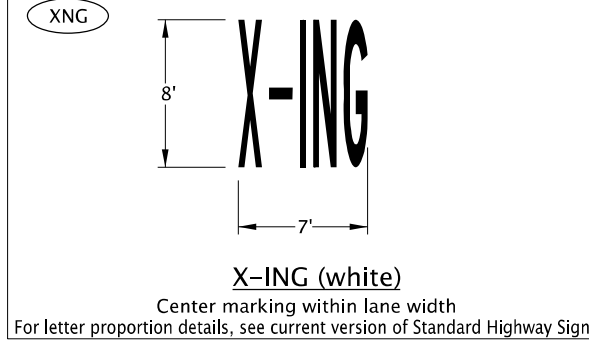
**SCHOOL (white)**  
Center marking within lane width  
For letter proportion details, see current version of Standard Highway Signs



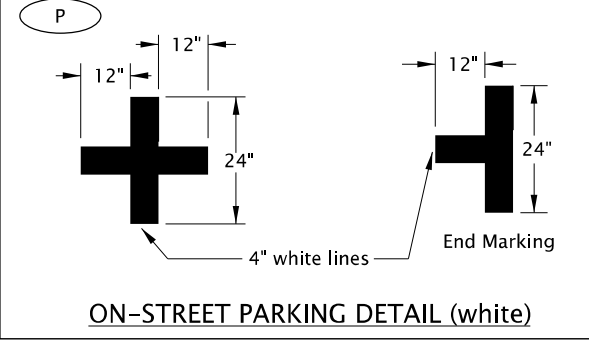
**SCHOOL - LARGE (white)**  
Center marking within width of two lanes  
For letter proportion details, see current version of Standard Highway Signs



**CROSSING - LARGE (white)**  
Center marking within width of two lanes  
For letter proportion details, see current version of Standard Highway Signs



**X-ING (white)**  
Center marking within lane width  
For letter proportion details, see current version of Standard Highway Signs



**ON-STREET PARKING DETAIL (white)**

General Note:  
1. Arrow, letter, and bike symbol dimensions nominal.

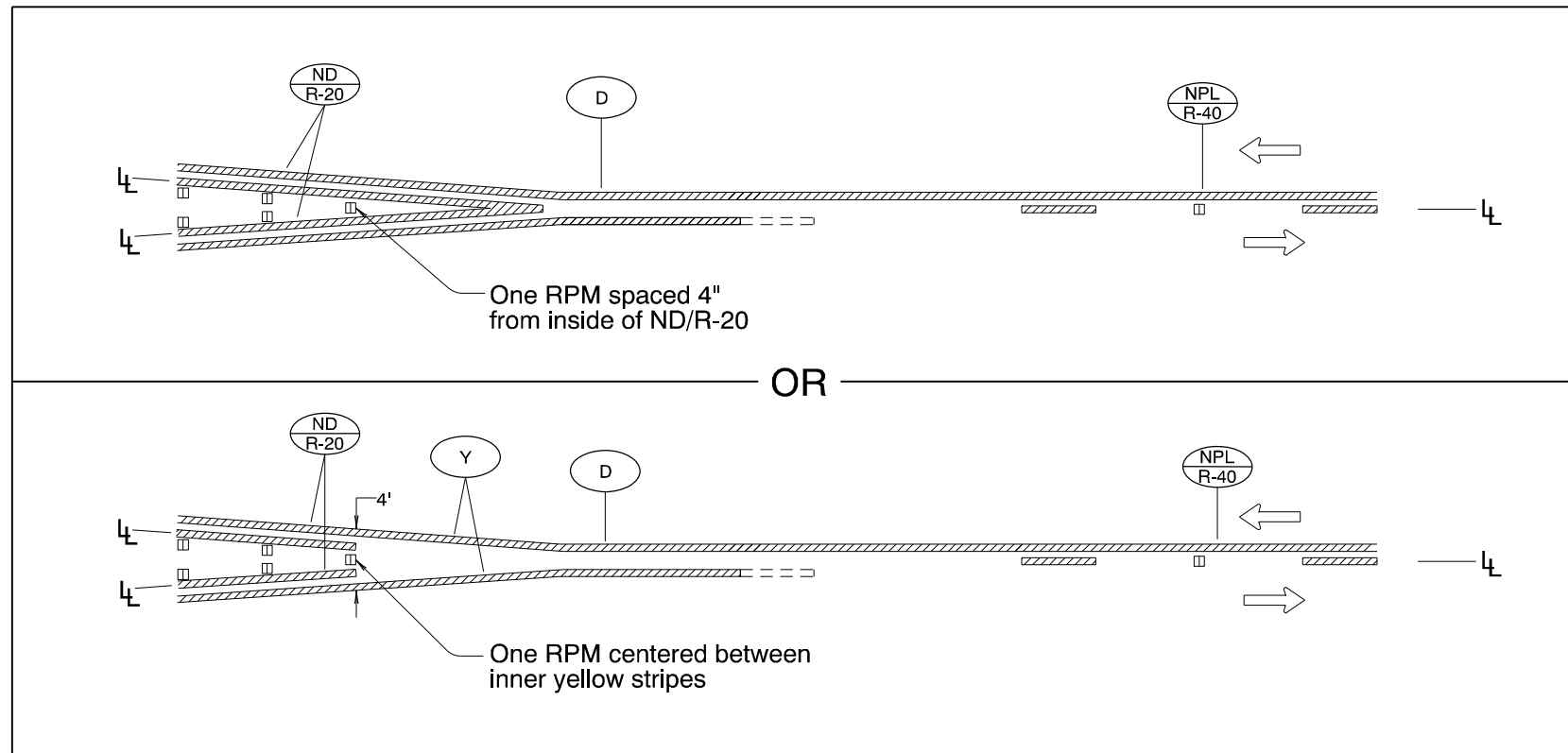
**LEGEND**  
← Direction of Travel

CALC. BOOK NO. \_\_\_N/A\_\_\_

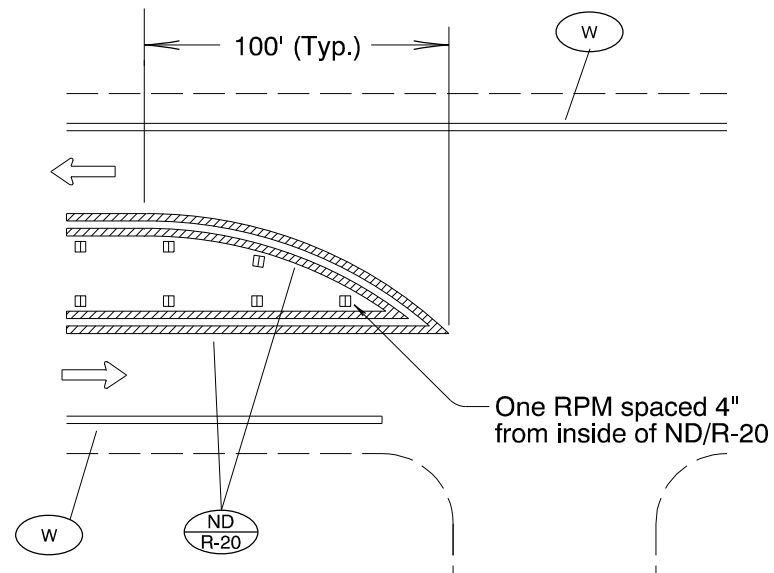
*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

SDR DATE		___01/03/2020___	
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.			
<b>OREGON STANDARD DRAWINGS</b>			
<b>PAVEMENT MARKING</b>			
<b>STANDARD DETAIL BLOCKS</b>			
2021			
DATE	REVISION DESCRIPTION		

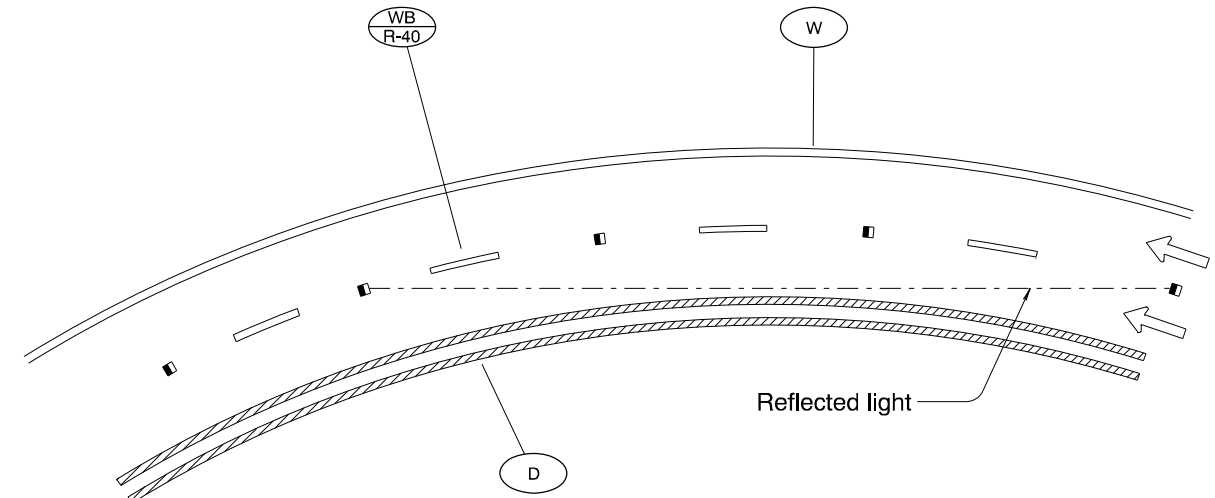
TM503



**MEDIAN WIDTH TRANSITION**  
 (TWO NARROW DOUBLE YELLOW LINES TO ONE-DIRECTION NO-PASSING LINE)  
 (Refer to TM539 for additional details)

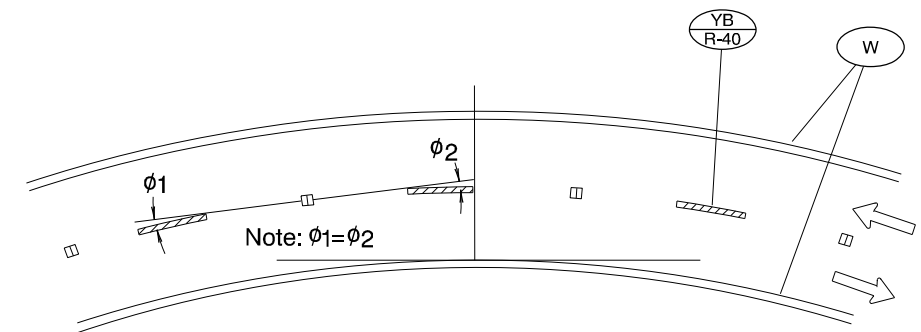


**MEDIAN BULLNOSE DETAIL**



**NOTE:**  
 On one way sections the marker shall be installed with the reflective surface aimed to direct the reflected light back three markers.

(a) PAVEMENT MARKER INSTALLATION FOR MONO-DIRECTIONAL RAISED PAVEMENT MARKERS



(b) PAVEMENT MARKER INSTALLATION FOR BI-DIRECTIONAL RAISED PAVEMENT MARKERS

**PAVEMENT MARKER INSTALLATION ON HORIZONTAL CURVES**

**LEGEND**

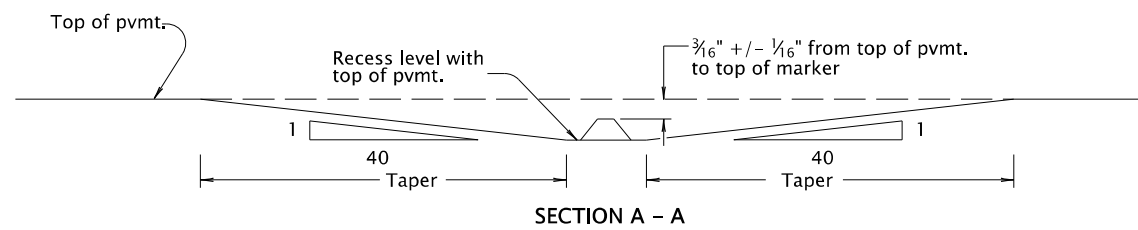
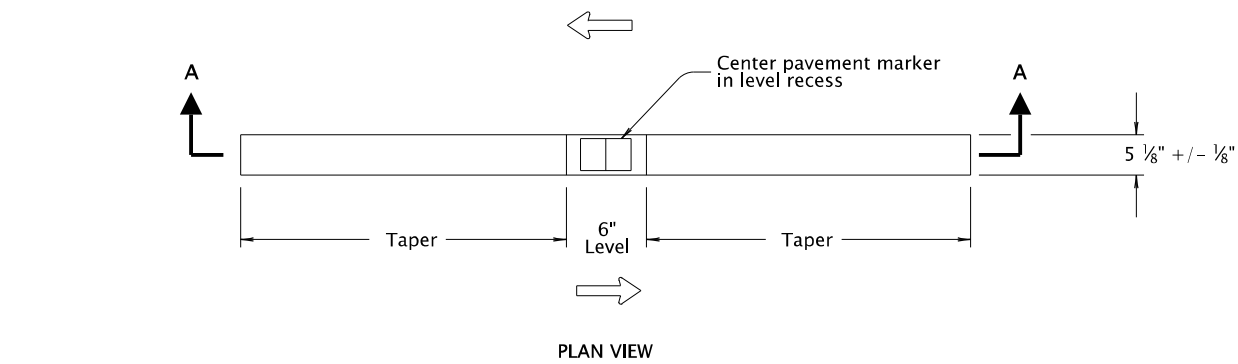
- Mono-Directional White (marker reflects white to left in this symbol)
  - Bi-Directional Yellow (marker reflects yellow to both the left and right in this symbol)
- Increasing stationing from left to right
- ← Direction of Travel
- ⊥ Lane line dimensions are shown on the striping plans.

To be accompanied by Standard Dwg. Nos. TM500 thru TM504

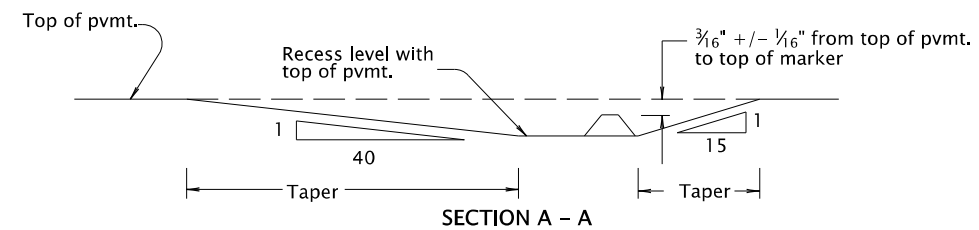
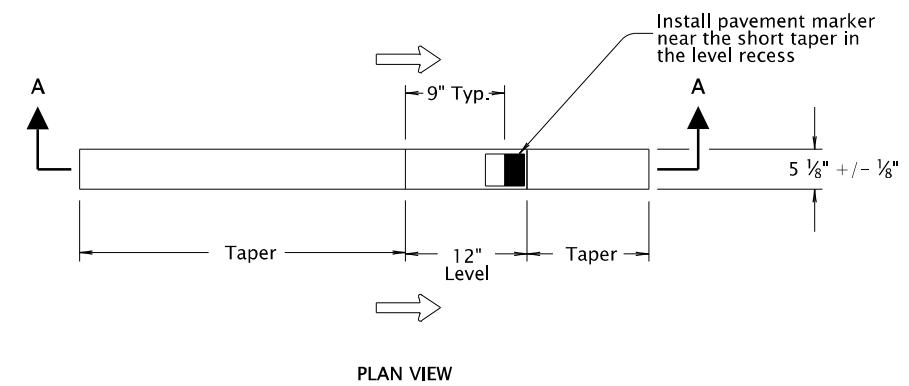
CALC. BOOK NO. N/A	SDR DATE July 1, 2015
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
<b>OREGON STANDARD DRAWINGS</b>	
<b>PAVEMENT MARKERS</b>	
2021	
DATE	REVISION DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*





BI-DIRECTIONAL RECESSED PAVEMENT MARKER DETAIL



MONO-DIRECTIONAL RECESSED PAVEMENT MARKER DETAIL

LEGEND

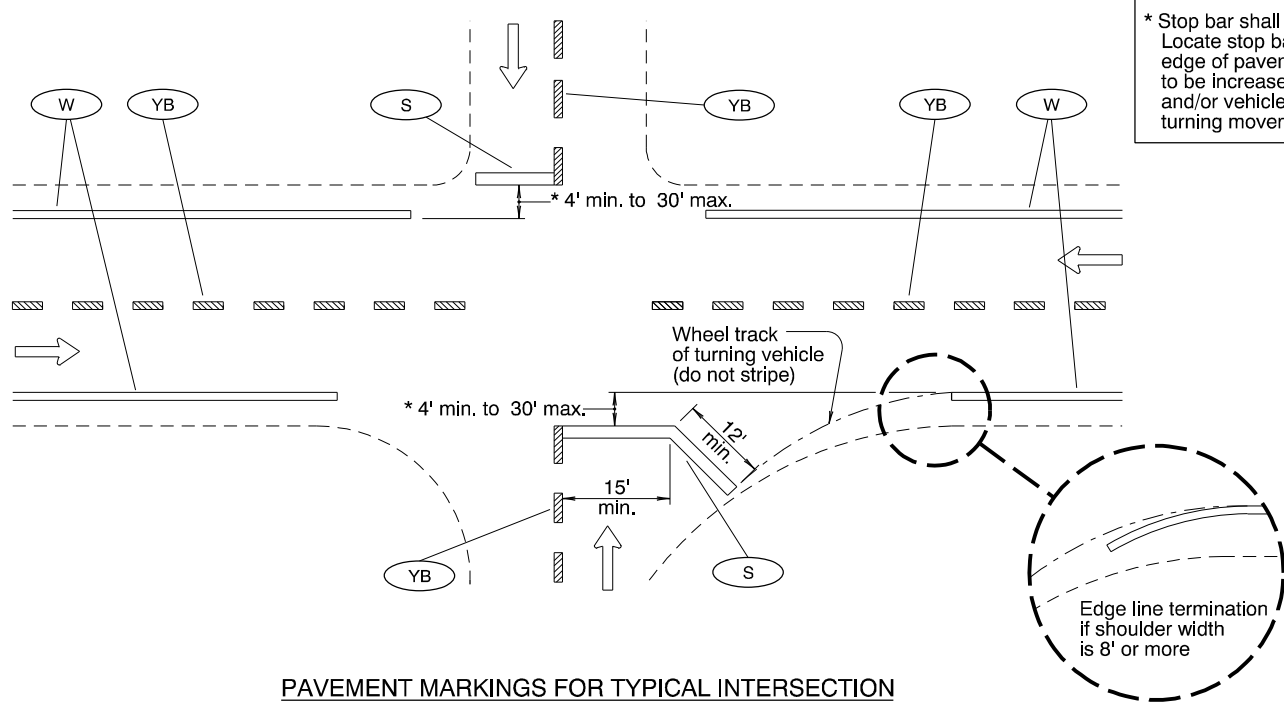
- ← Direction of Travel
- Bi-directional yellow marker reflects yellow both left and right in this symbol
- Mono-directional crystal white marker reflects white to the left in this symbol

To be accompanied by Standard Dwg. Nos. TM502 and TM515

CALC. BOOK NO. _ _ _ N/A _ _ _ _ _	SDR DATE _ _ _ 07/06/2021 _ _ _ _ _
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.	
<b>OREGON STANDARD DRAWINGS</b>	
<b>RECESSED PAVEMENT MARKERS</b>	
2021	
DATE	REVISION DESCRIPTION
07/2021	Updated to better fit ODOT drafting standards

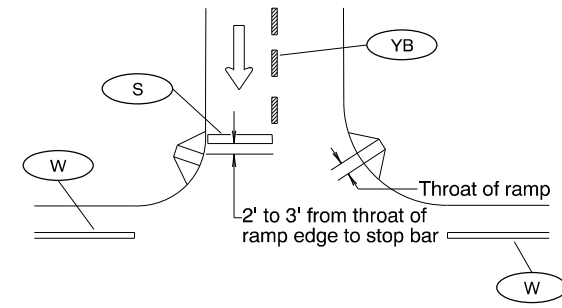
*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

TM517

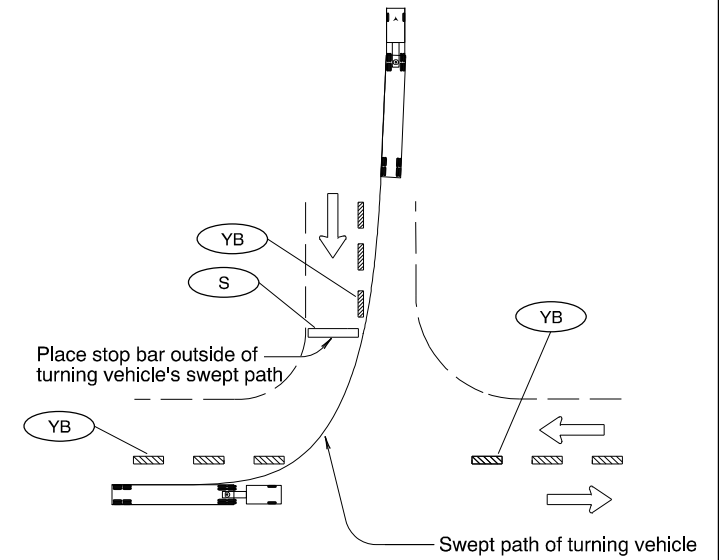


PAVEMENT MARKINGS FOR TYPICAL INTERSECTION

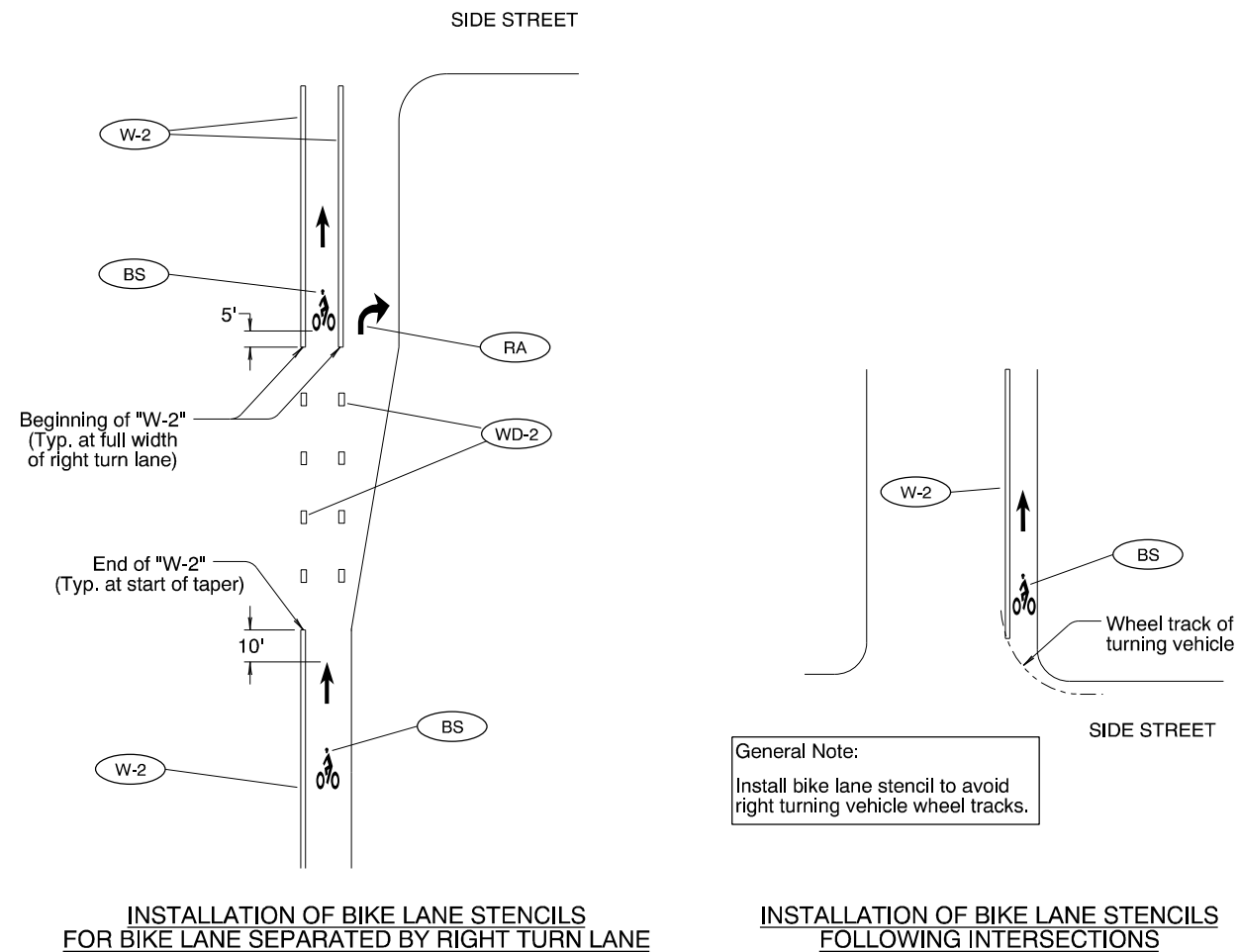
\* Stop bar shall be placed as near as possible to the intersecting traveled way. Locate stop bar 4' min. to 30' max. in advance of the extended fog line, edge of pavement, or curb face. Minimum stop bar distance may need to be increased, depending on location of pedestrian ramps (see Detail "A") and/or vehicle turn radii (see Detail "B"). Field verify sight distance and truck turning movements.



Detail "A"  
STOP BAR PLACEMENT WITH RESPECT TO PEDESTRIAN RAMP



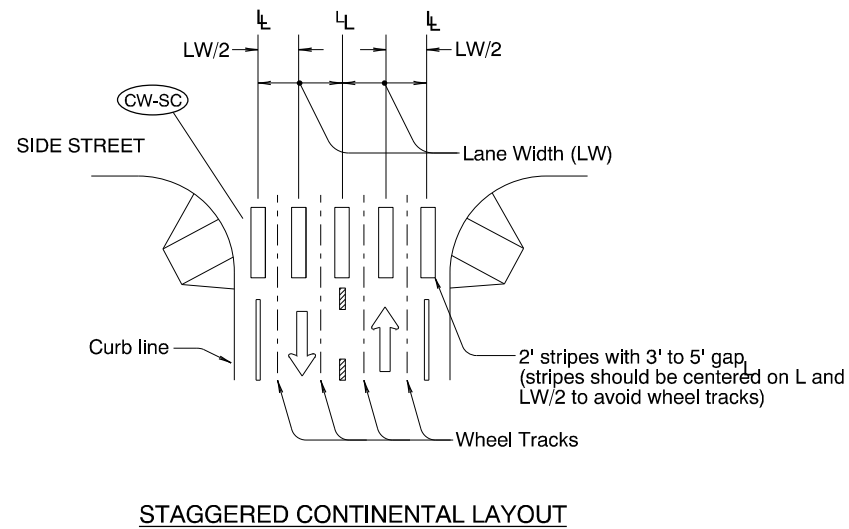
Detail "B"  
STOP BAR PLACEMENT WITH RESPECT TO TURN RADII



INSTALLATION OF BIKE LANE STENCILS FOR BIKE LANE SEPARATED BY RIGHT TURN LANE

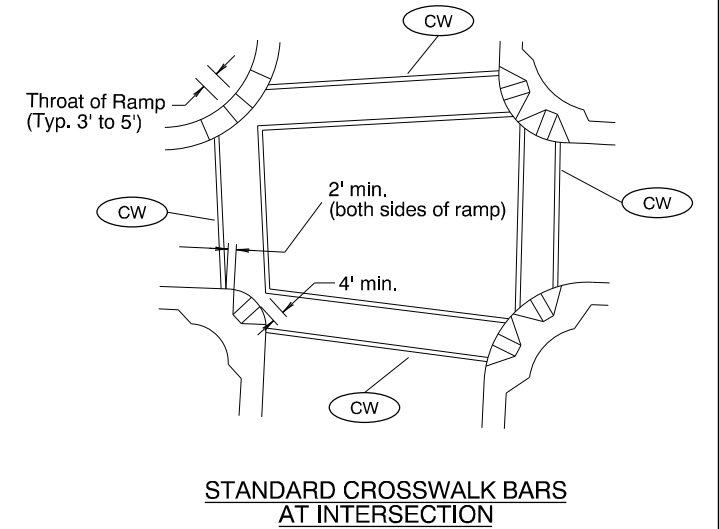
INSTALLATION OF BIKE LANE STENCILS FOLLOWING INTERSECTIONS

General Note:  
Install bike lane stencil to avoid right turning vehicle wheel tracks.



STAGGERED CONTINENTAL LAYOUT

General Note:  
1. Install crosswalk bars such that the throat of the ADA ramp is entirely within crosswalk markings, or 5' back of extended fog line, edge of pavement, or curb face.



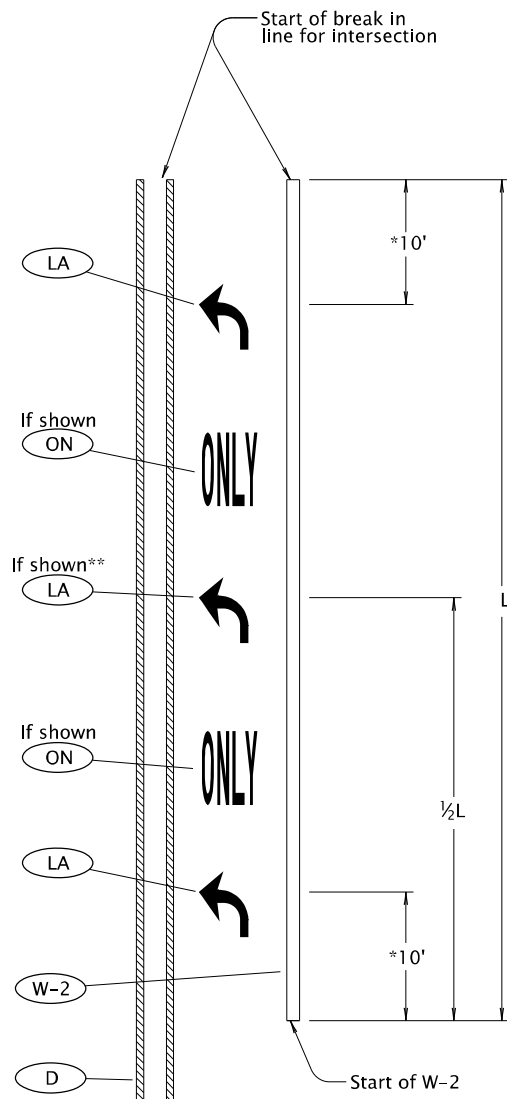
STANDARD CROSSWALK BARS AT INTERSECTION

To be accompanied by Standard Dwg. Nos. TM500 thru TM504

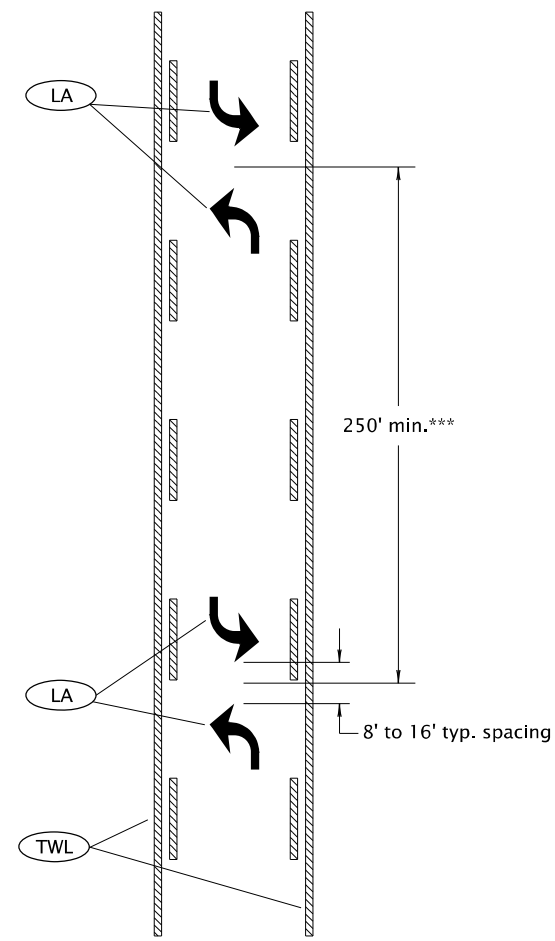
CALC. BOOK NO. N/A	SDR DATE July 10, 2020
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
<b>OREGON STANDARD DRAWINGS INTERSECTION PAVEMENT MARKINGS (CROSSWALK, STOP BAR &amp; BIKE LANE STENCIL)</b>	
2021	
DATE	REVISION DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

**LEGEND**  
 Direction of Travel  
 L - Lane line dimensions are shown on the striping plans



LANE USE ARROW PLACEMENT FOR TURN LANE  
DETAIL "A"



TWO-WAY LEFT TURN LANE ARROW PLACEMENT  
DETAIL "B"

General Notes:

- 1) Center pavement marking legends within the lane.
- 2) Placement of lane use arrows with respect to the 8" wide white line (W-2) channelization shown in Detail "A" applies to both left and right turn lanes.
- 3) Center "ONLY" markings between lane use arrows.

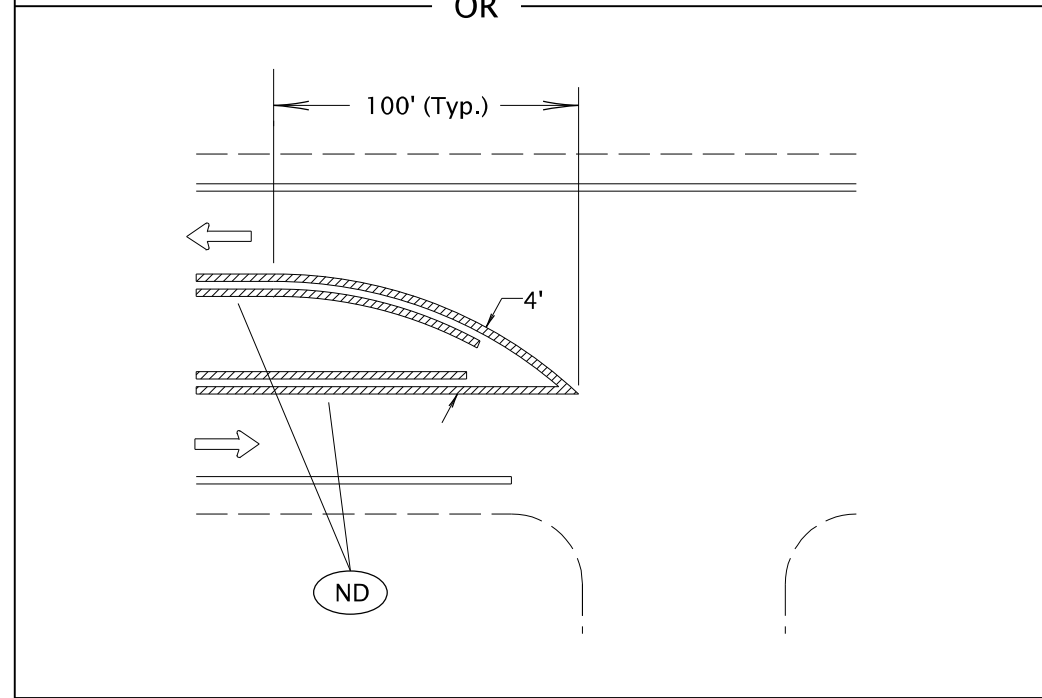
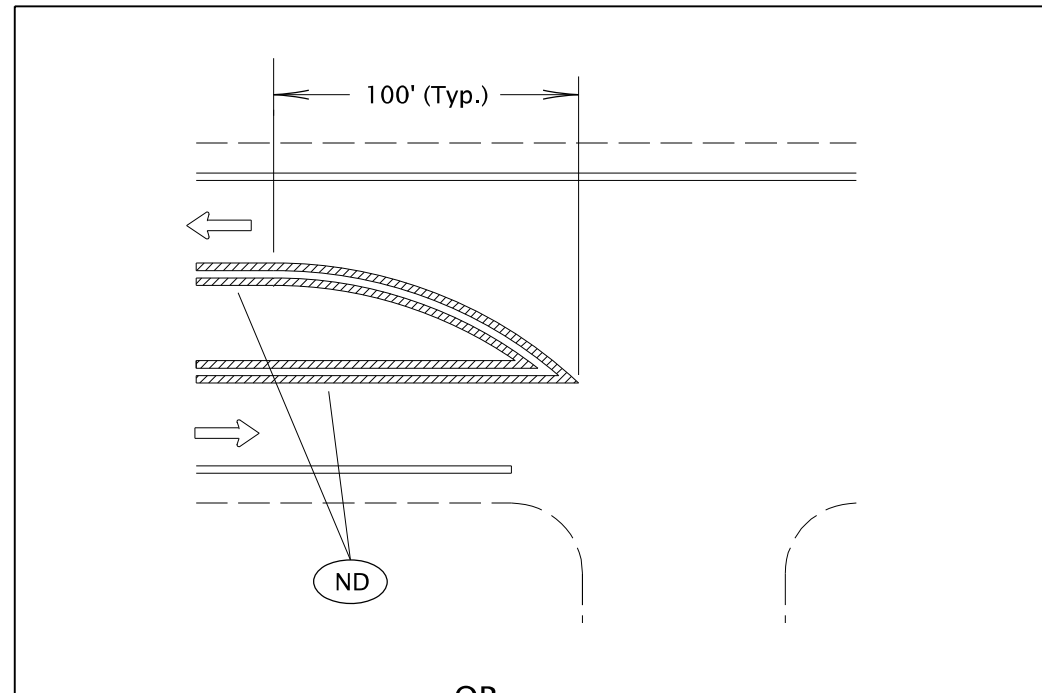
\* 15' when installing elongated arrows.  
 \*\* When L is greater than 400', install 3rd lane use arrow at 1/2 L as shown in Detail "A".  
 \*\*\* Double arrows to be placed at even intervals, proportioned within block or as shown.

To be accompanied by Standard Dwg. Nos. TM500 thru TM504

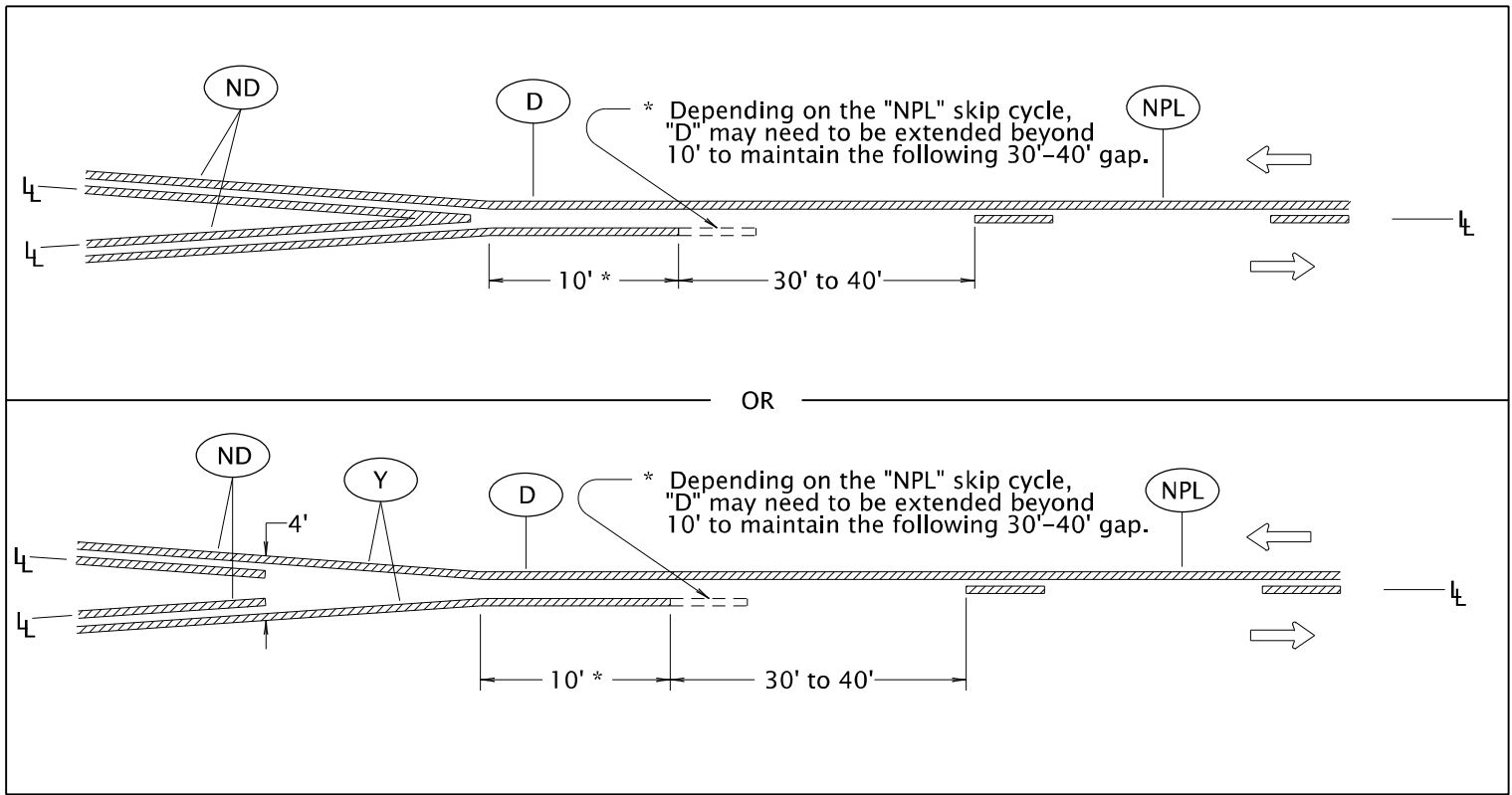
CALC. BOOK NO. _ _ _ N/A _ _ _ _ _	SDR DATE _ _ _ 07/01/2020 _ _ _ _ _
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.	
<b>OREGON STANDARD DRAWINGS</b>	
<b>TURN ARROW MARKING DETAILS</b>	
2021	
DATE	REVISION DESCRIPTION
07/2020	Extended accompanied by drawings to include TM504

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

TM531



**MEDIAN BULLNOSE DETAIL**



**MEDIAN WIDTH TRANSITION  
(TWO NARROW DOUBLE YELLOW LINES TO ONE-DIRECTION NO-PASSING LINE)**

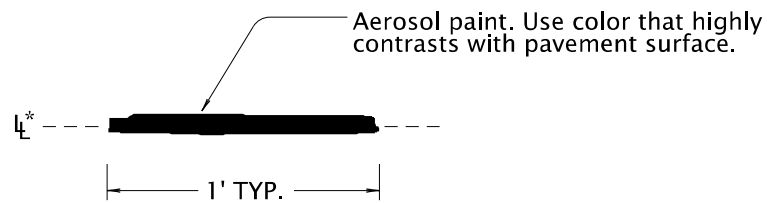
- LEGEND**
- ← Increasing stationing from left to right
  - ← Direction of Travel
  - └ Lane line dimensions are shown on the striping plans

To be accompanied by Standard Dwg. Nos. TM500 thru TM504

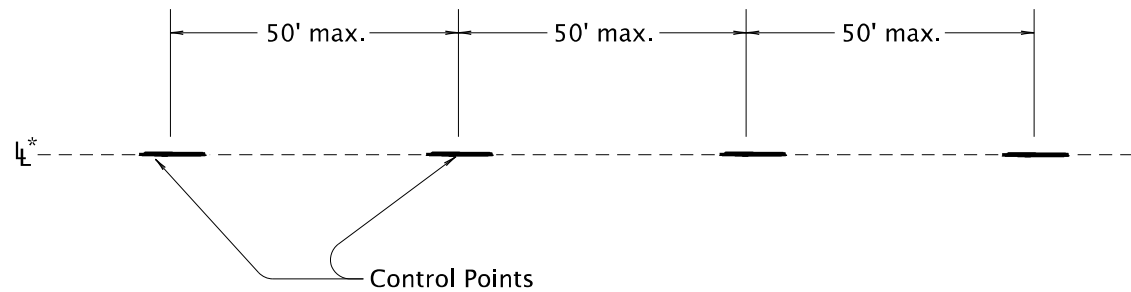
CALC. BOOK NO. <u>  N/A  </u>	SDR DATE <u>  07/01/2020  </u>
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.	
<b>OREGON STANDARD DRAWINGS</b>	
<b>MEDIAN AND LEFT TURN CHANNELIZATION DETAILS</b>	
2021	
DATE	REVISION DESCRIPTION
07/2020	Extended accompanied by drawings to include TM504

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

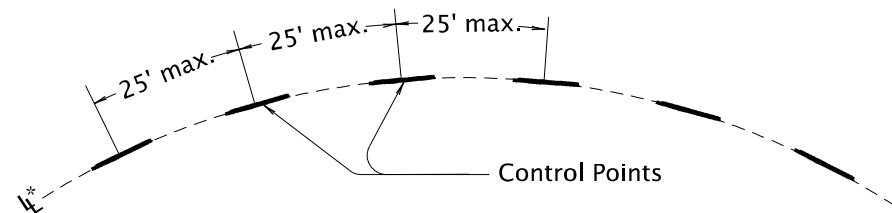
TM539



**CONTROL POINT**



**CONTROL POINT LAYOUT - TANGENT SECTIONS**



**CONTROL POINT LAYOUT - CURVE SECTIONS**

**General note:**

1.) Use control points to make continuous narrow guideline as specified.

\* Control points are placed along the lane line for all longitudinal lines except the following:

**ND** For center lines only A control point layout 4" offset from the lane line is required for a ND line when used as a center line.

To be accompanied by Standard Dwg. Nos. TM500 thru TM504

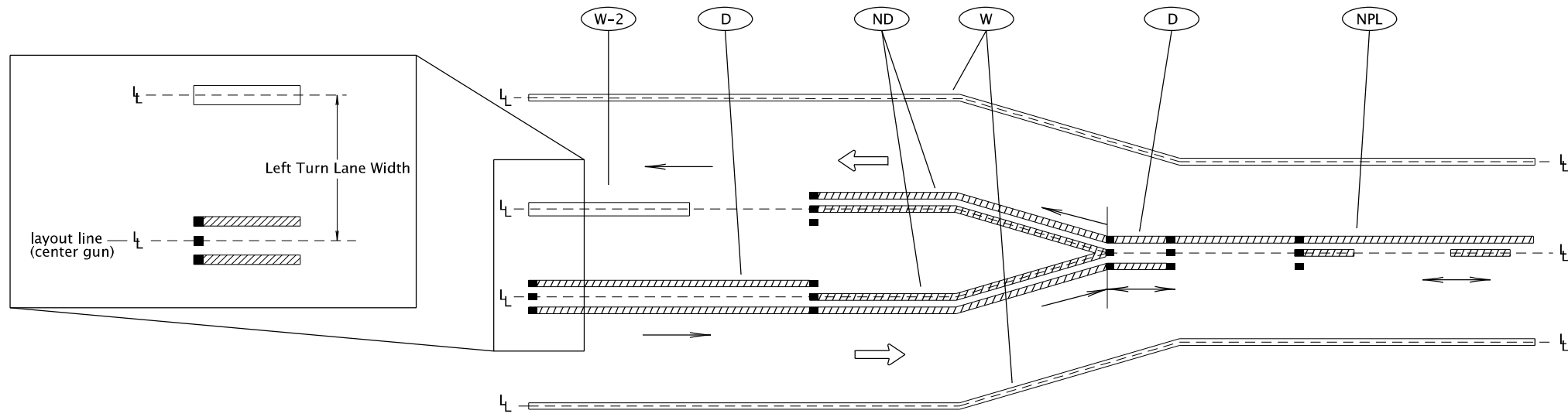
CALC. BOOK NO. _ _ _ N/A _ _ _ _ _	SDR DATE _ _ _ 07/01/2020 _ _ _ _ _
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.	
<b>OREGON STANDARD DRAWINGS</b>	
<b>ALIGNMENT LAYOUT: GENERAL</b>	
2021	
DATE	REVISION DESCRIPTION
07/2020	Extended accompanied by drawings to include TM504

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**LEGEND**

L\* — Lane line dimensions are shown on the striping plans.

TM560

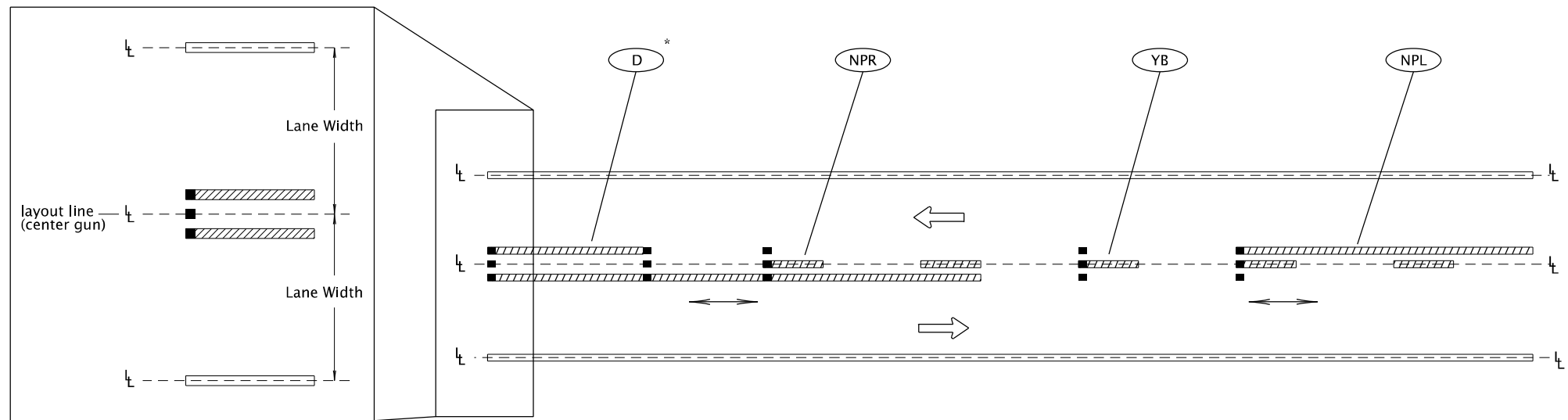


LEFT TURN LANE ALIGNMENT LAYOUT

- General note:
- 1) Install control points for pavement marking alignment layout along the center gun location.
  - 2) Increasing stationing from left to right

LEGEND

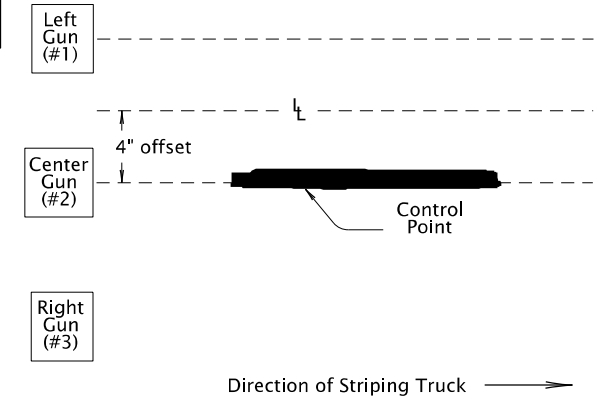
- ← Direction Of Travel and Thru Traffic Side.
- └ Lane line dimensions are shown on the striping plans.
- ↔ Direction of striping truck (may go either direction)
- Direction of striping truck (may go one direction only)
- Three gun installation system (center dot represents center gun)



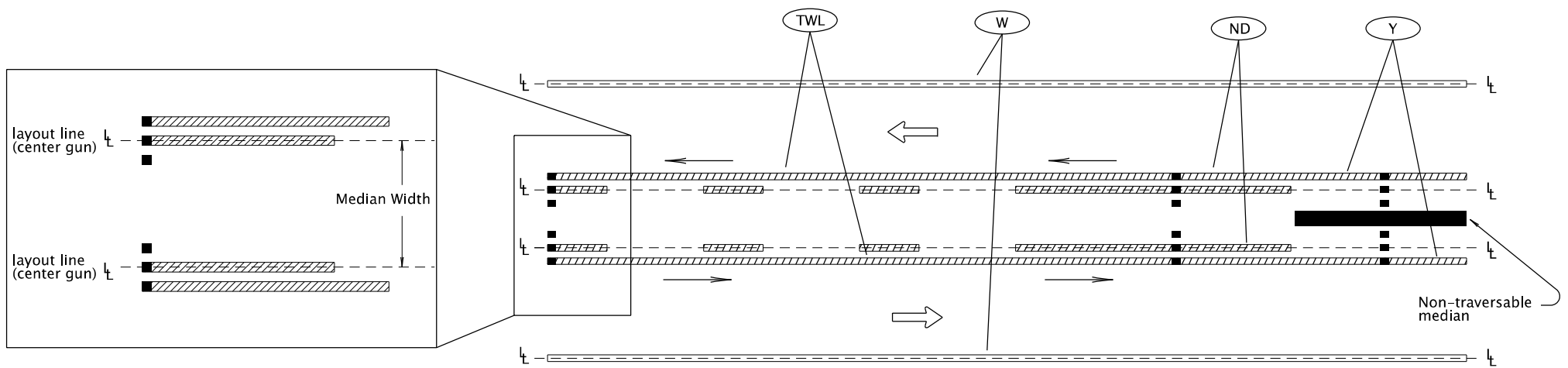
CENTERLINE ALIGNMENT LAYOUT

\*When ND is used as centerline markings, a control point layout 4" offset from the lane line is required.

Line Types requiring control points to be 4" offset from lane line:  
 ND  
 For centerlines only



4" Offset of Lane Line and Center Gun



MEDIAN ALIGNMENT LAYOUT

To be accompanied by Standard Dwg. Nos. TM500 thru TM504

CALC. BOOK NO. \_ \_ \_ N/A \_ \_ \_ SDR DATE \_ \_ \_ 07/01/2020 \_ \_ \_

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS  
 ALIGNMENT LAYOUT:  
 LEFT TURN LANE,  
 CENTERLINE & MEDIANS

2021

DATE	REVISION DESCRIPTION
07/2020	Extended accompanied by drawings to include TM504

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

TM561

tm800.dgn 01-JUL-2021

00800

TAPER TYPES & FORMULAS	
TAPER	FORMULA
Merging (Lane Closure)	"L"
Shifting	"L"/2 or 1/2"L"
Shoulder Closure	"L"/3 or 1/3"L"
Flagging (See Drg. TM850)	50' - 100'
Downstream (Termination)	Varies (See Drawings)

★ Use Pre-Construction Posted Speed to select the Speed from the Tables below:

TEMPORARY BARRIER FLARE RATE TABLE	
★ SPEED (mph)	MINIMUM FLARE RATE
≤ 30	8:1
35	9:1
40	10:1
45	12:1
50	14:1
55	16:1
60	18:1
65	19:1
70	20:1

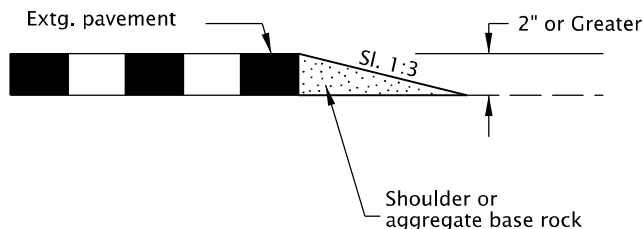
MINIMUM LENGTHS TABLE					
"L" VALUE FOR TAPERS (ft)					BUFFER "B" (ft)
★ SPEED (mph)	W = Lane or Shoulder Width being closed or shifted				
	W ≤ 10	W = 12	W = 14	W = 16	
25	105	125	145	165	75
30	150	180	210	240	100
35	205	245	285	325	125
40	265	320	375	430	150
45	450	540	630	720	180
50	500	600	700	800	210
55	550	660	770	880	250
60	600	720	840	960	285
65	650	780	910	1000	325
70	700	840	980	1000	365
FREEWAYS					
55	1000	1000	1000	1000	250
60	1000	1000	1000	1000	285
65	1000	1000	1000	1000	325
70	1000	1000	1000	1000	365

- NOTES:
- For Lane closures where W < 10', use "L" value for W = 10'.
  - For Shoulder closures where W < 10', use "L" value for W = 10' or calculate "L" using formula, for Speeds ≥ 45: L = WS, Speeds < 45: L = S<sup>2</sup>W/60, S = Speed, W=Width

TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE				
★ SPEED (mph)	Sign Spacing (ft)			Max. Channelizing Device Spacing (ft)
	A	B	C	
20 - 30	100	100	100	20
35 - 40	350	350	350	20
45 - 55	500	500	500	40
60 - 70	700	700	700	40
Freeway	1000	1500	2640	40

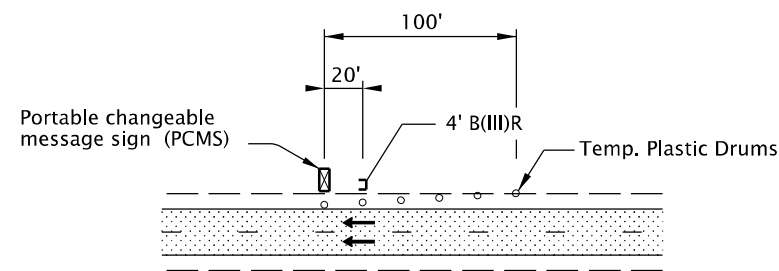
- NOTES:
- Place traffic control devices on 10 ft. spacing for intersection and access radii.
  - When necessary, sign spacing may be adjusted to fit site conditions. Limit spacing adjustments to 30% of the "A" dimension for all speeds.

- NOTES:
- When paved shoulders adjacent to excavations are less than four feet wide protect longitudinal abrupt edge as shown.
  - Use aggregate wedge when abrupt edge is 2 inches or greater.



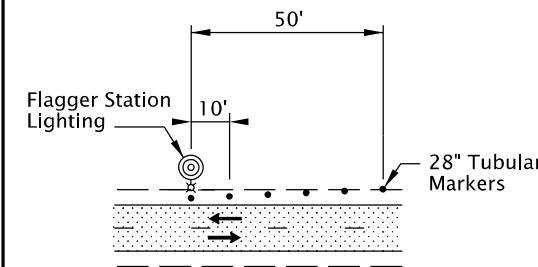
EXCAVATION ABRUPT EDGE

- NOTES:
- Install PCMS beyond the outside shoulder, when possible.
  - Use the appropriate type of barricade panels for PCMS location. Right shoulder, use Type B(III)R. Left shoulder, use Type B(III)L.
  - Use six drums in shoulder taper on 20' spacing. The drums and barricade may be omitted when PCMS is placed behind a roadside barrier.
  - Detail as shown is used for traileered and non-crashworthy components of:
    - Portable Traffic Signals
    - Smart Work Zone Systems



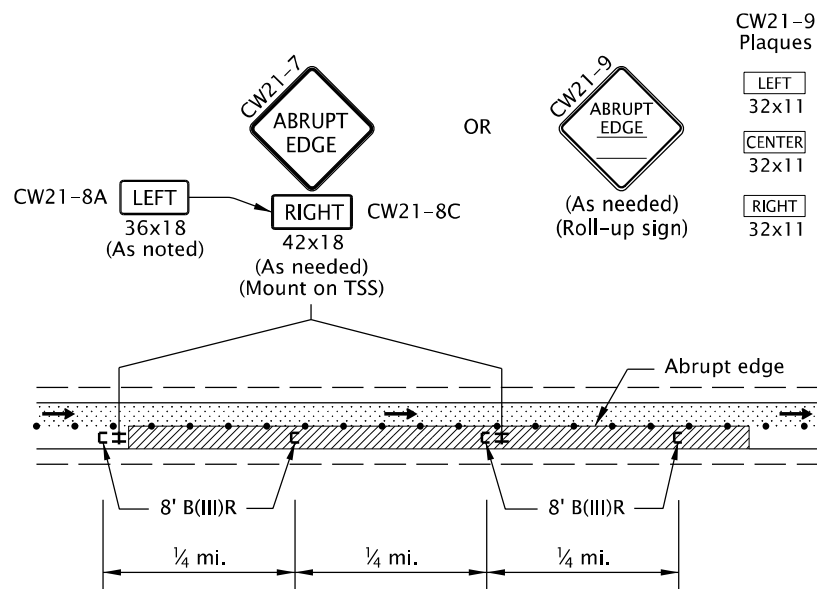
PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) INSTALLATION

- NOTES:
- Install Flagger Station Lighting beyond the outside shoulder, where practical.
  - Use six tubular markers in shoulder taper on 10' spacing.
  - Place cart / generator / power supply off of the shoulder, as far as practical.



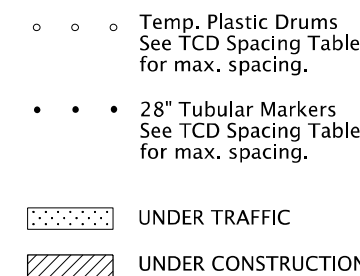
FLAGGER STATION LIGHTING DELINEATION

- NOTES:
- Abrupt edges may be created by paving, operations, excavations or other roadway work. Use abrupt edge signing for longitudinal abrupt edges of 1 inch or greater.
  - If the excavation is located on left side of traffic, replace the 8' B(III)R barricades with 8' B(III)L barricades and replace the "RIGHT" (CW21-8C) riders with "LEFT" (CW21-8A) riders.
  - Continue signing and other traffic control devices throughout excavation area at spacings shown.
  - If roll-up signs are used, attach the correct (CW21-9) plaques to the sign face using hook and loop fasteners. Place roll-up signs in advance of barricades.



TYPICAL ABRUPT EDGE DELINEATION

- GENERAL NOTES FOR ALL TCP DRAWINGS:
- Signs and other Traffic Control Devices (TCD) shown are the minimum required.
  - Place a barricade approx. 20' ahead of all sequential arrow boards.
  - Arrows shown in roadway are directional arrows to indicate traffic movements.
  - All signs are 48" x 48" unless otherwise shown. Use fluorescent orange sheeting for the background of all temporary warning signs.
  - All diamond shaped warning signs mounted on barrier sign supports shall be 36" by 36". All other signs mounted on barrier sign supports shall not exceed 12 sq. ft. in total sign area.
  - Low speed highways have a pre-construction posted speed of 40 mph or less. High speed highways have a pre-construction posted speed of 45 mph or higher.
  - Do not locate sign supports in locations designated for bicycle or pedestrian traffic.
  - Combine drawing details to complete temporary traffic control for each work activity.
  - To be accompanied by Dwg. Nos. TM820 & TM821.



CALC. BOOK NO. \_\_\_\_ TM09-01 \_\_\_\_ SDR DATE \_\_\_\_ 01-JUL-2021 \_\_\_\_

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS**

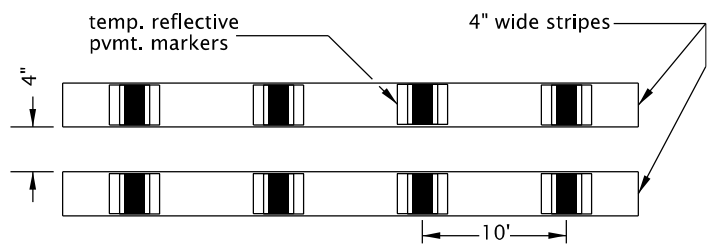
**TABLES, ABRUPT EDGE AND PCMS DETAILS**

2021

DATE	REVISION	DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

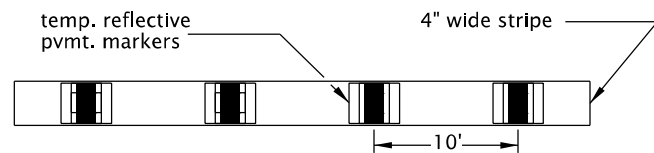
tm810.dgn 01-JUL-2020



**LAYOUT "A"**  
(Supplemented double solid lines)

TYPICAL APPLICATIONS:

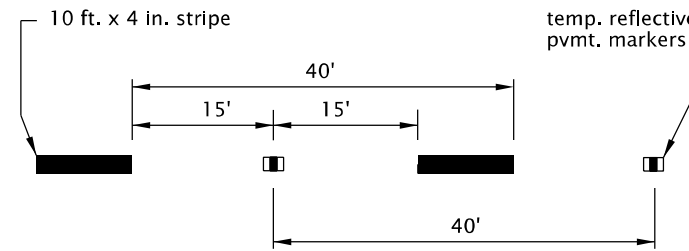
- To prohibit lane changes or passing (include appropriate regulatory signs).
- Freeway or multilane shifts and crossovers.
- For projects in place through winter months.
- Two-lane, two-way centerlines.



**LAYOUT "B"**  
(Supplemented solid line)

TYPICAL APPLICATIONS:

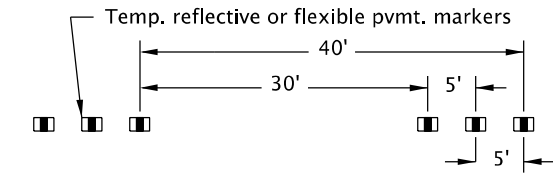
- Alignment shifts or crossovers.
- To discourage lane changes in multilane sections.
- For projects in place through winter months.



**LAYOUT "C"**  
(Supplemented broken lines)

TYPICAL APPLICATIONS:

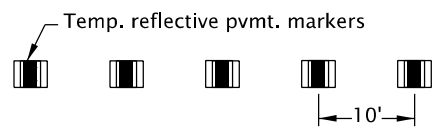
- Freeway and multilane broken lines.
- High ADT 2 lane roads (greater than 10,000).
- For projects in place through winter months.



**LAYOUT "D"**  
(Simulated broken lines)

TYPICAL APPLICATIONS:

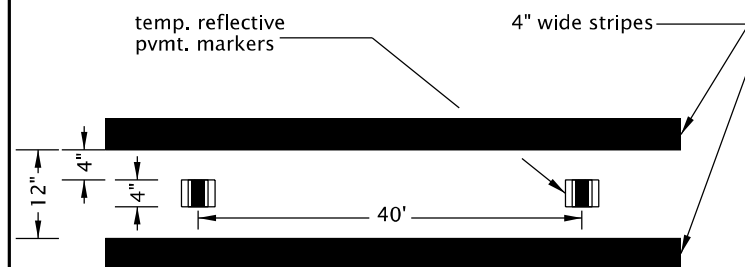
- During staging on finished/existing surfaces.
- HMAC intermediate surfaces.
- Emulsified asphalt surface treatments (chip seals) where permanent pavement markings cannot be placed within two weeks.



**LAYOUT "E"**  
(Simulated Solid Lines)

TYPICAL APPLICATIONS:

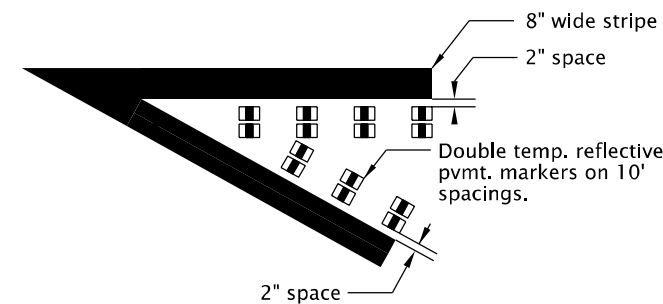
- Alignment shifts or crossovers.
- To discourage lane changes in multilane sections.
- Edge lines for short durations, less than 14 days.



**LAYOUT "F"**  
(Supplemented wide double solid lines)

TYPICAL APPLICATIONS:

- To prohibit lane changes or passing (include appropriate regulatory signs).
- 2 lane, 2 way centerlines.
- 2 lane, 1 way alignments on freeways or multi-lane highways.



**LAYOUT "G"**  
(Supplemented solid 8" line)

TYPICAL APPLICATIONS:

- Gore areas
- Alignment splits (bifurcations)

GENERAL NOTES FOR ALL DETAILS:

- When using Supplemented or Simulated lines:
  1. Yellow Bi-Directional Pavement Markers are required for Two-Way Traffic.
  2. White Mono-Directional Pavement Markers are required for one-way traffic or edge lines.
- Supplemented lines are painted lines enhanced with Reflective Pavement Markers.
- Simulated lines are Reflective Pavement Markers placed in a pattern to substitute for a painted line.
- Pavement marking colors shall conform to the MUTCD.

CALC. BOOK NO. \_\_\_\_\_ N/A \_\_\_\_\_

SDR DATE \_\_\_\_\_ 01-JUL-2020 \_\_\_\_\_

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS**  
**TEMPORARY PAVEMENT MARKINGS**

2021

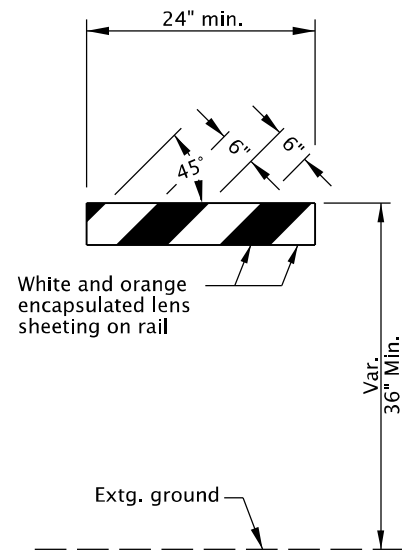
DATE	REVISION	DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

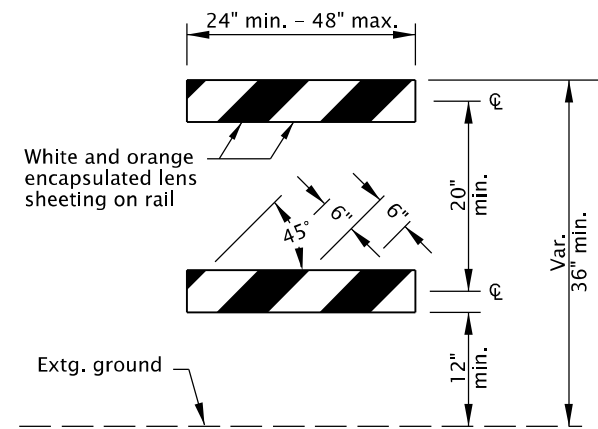
TM810



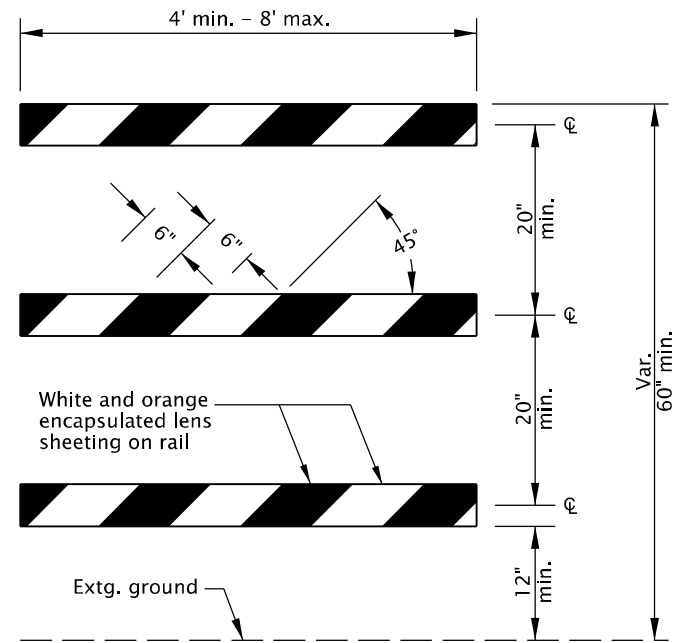
tm820.dgn 01-JUL-2020



**TYPE I**



**TYPE II**



**TYPE III**

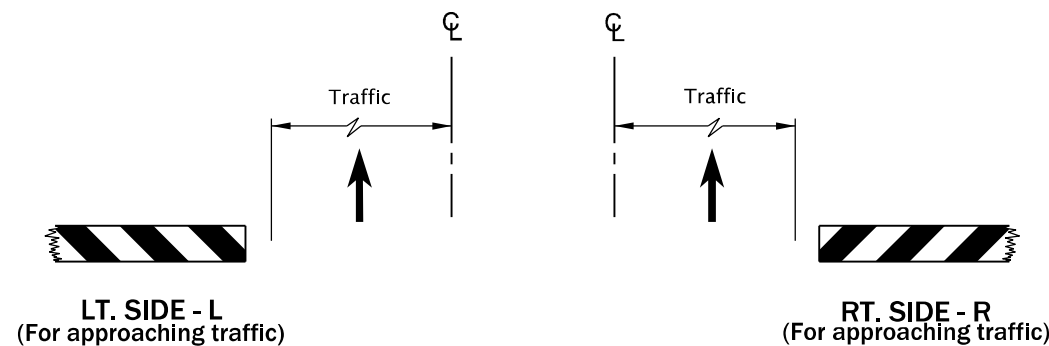
**BARRICADE RAIL LAYOUT**

**GENERAL NOTES FOR ALL DETAILS:**

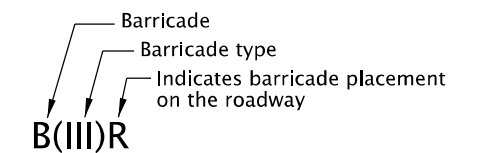
- Sandbags (approximately 25 lb sack filled with sand) may be placed on lower frame to provide additional ballast.
- Ballast shall not extend above bottom rail or be suspended from barricade.
- For rails less than 36" long, 4" wide stripes shall be used.
- Rails must be 8" min. to 12" max. in height.
- Use barricades from ODOT Qualified Products List (QPL).
- Use 4' Type III barricades where horizontal space is limited.
- Do not block bike lanes or shoulders unless the facility is properly closed and signed.
- Do not place barricades in sidewalks unless sidewalk is closed and a temporary pedestrian accessible route (TPAR) is signed according to the TCP. See Dwg. No. TM844.

**NOTES:**

- Markings for barricade rails shall slope downward at an angle of 45° in the direction traffic is to pass.
- Where a barricade extends entirely across a roadway, it is desirable that the stripes slope downward in the direction toward which traffic must turn in detouring.
- Where both right and left turns are provided for, slope the chevron striping downward in both directions from the center of the barricade.
- For full roadway closures, the C or LR barricade may be used. Extend barricades completely across roadway unless access is required for local road users.



**DIAGRAM FOR BARRICADE PLACEMENT AND SLOPE MARKING**



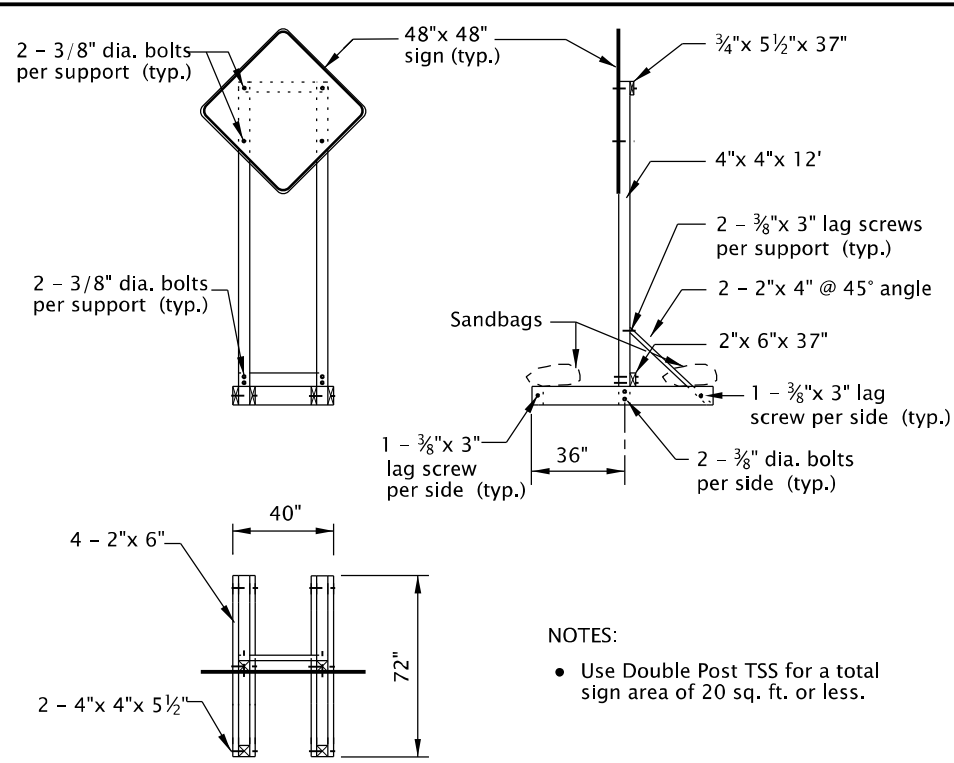
**BARRICADE NOTATION**

CALC. BOOK NO. _____ N/A _____	SDR DATE _____ 01-JUL-2020 _____
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
<b>OREGON STANDARD DRAWINGS</b>	
<b>TEMPORARY BARRICADES</b>	
2021	
DATE	REVISION DESCRIPTION

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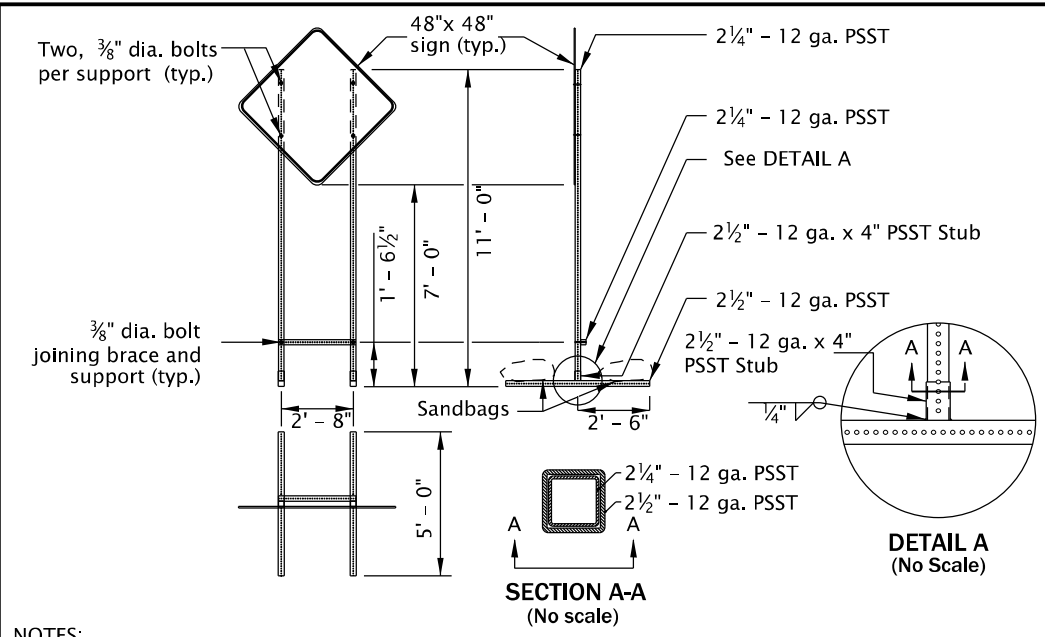
TM820

tm821.dgn 01-JUL-2020



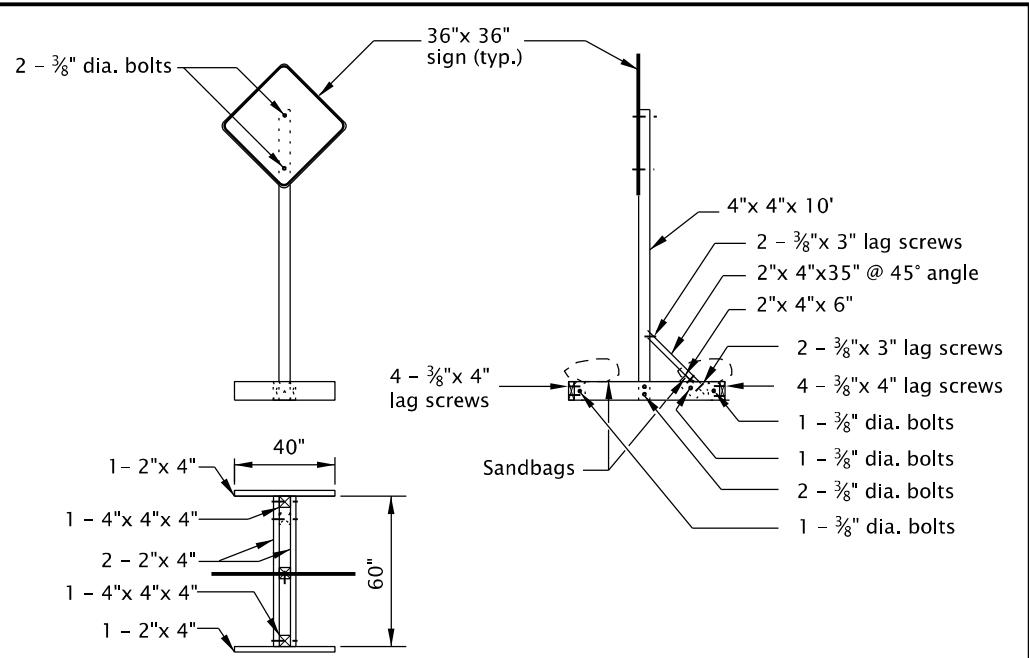
- NOTES:
- Use Double Post TSS for a total sign area of 20 sq. ft. or less.

**DOUBLE POST DETAIL**



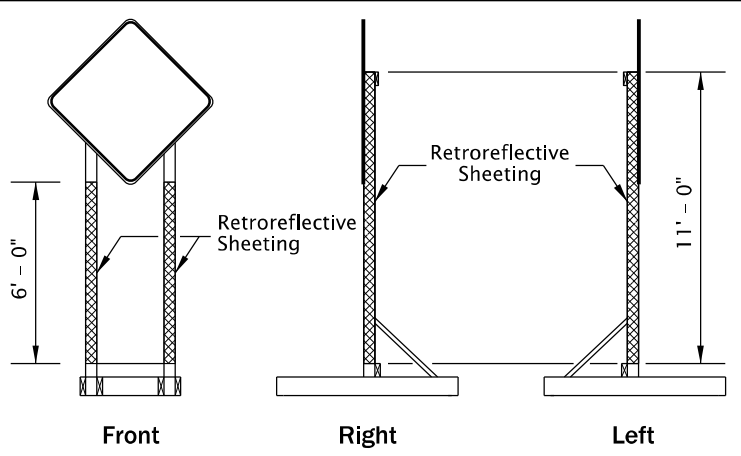
- NOTES:
- Use PSST TSS's for a total sign area of 16 sq. ft. or less.
  - All members shall have a minimum yield stress of 50 ksi.
  - Galvanize steel according to ASTM A653 with coating designation G90. Remove Galvanizing from steel before welding. Repair Galvanizing according to ASTM A780.
  - Use A325 Bolts or equivalent.
  - 2 1/4 - 12 ga. PSST to extend entire length inside of the 2 1/2 - 12 ga. x 4 inch PSST Stub.
  - Do not use bolt to secure 2 1/4 inch PSST inside of the 2 1/2 - 12 ga. x 4 inch PSST Stub.
  - Weld steel according to American Welding Society (AWS) D.1.1.

**PERFORATED STEEL SQUARE TUBE (PSST) DETAIL**

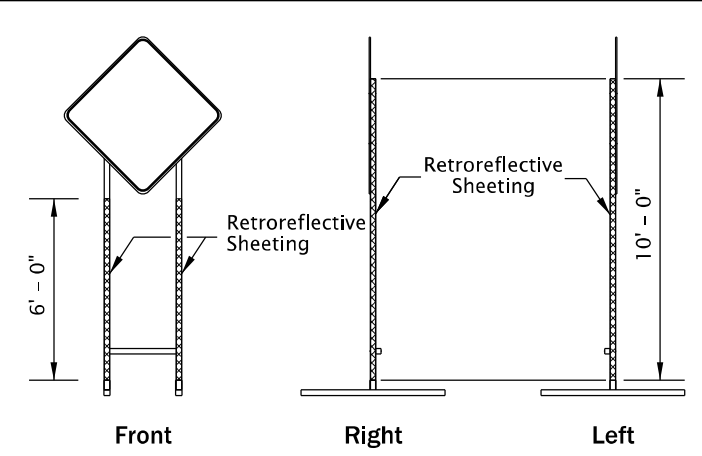


- NOTES:
- Use Single Post TSS for a total sign area of 12 sq. ft. or less.
  - Use Single Post TSS for mounting "Business Access" (CG20-11) signs. Do not mount signs on Type II or III Barricades.

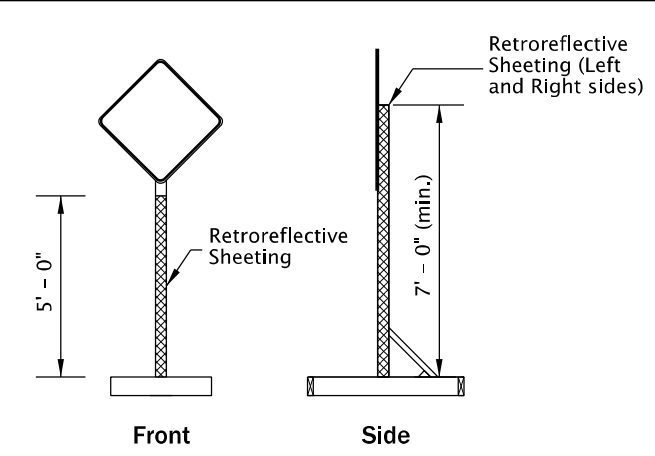
**SINGLE POST DETAIL**



**Double Post**



**Perforated Steel Square Tube (PSST)**



**Single Post**

- NOTES:
- Apply fluorescent orange, ANSI Type VIII or IX retroreflective sheeting to TSS posts, as shown, for all temporary signs, except "STOP" and "DO NOT ENTER". For "STOP" and "DO NOT ENTER" signs, used red ANSI Type III or IV retroreflective sheeting on the TSS posts.
  - Apply sign post retroreflectivity to each TSS post facing front; and to the left and right sides of the TSS, as shown. Use 3" wide sheeting for wood post TSS's. Use 2" wide sheeting for PSST TSS's.
  - Sheeting may be applied directly to post material; or applied to a rigid, lightweight substrate, then securely attached to the posts.

**SIGN POST REFLECTIVE SHEETING PLACEMENT**

- TEMPORARY SIGN SUPPORT GENERAL NOTES:
- Do not tip over TSS at any time.
  - Do not locate TSS's in locations that block pedestrian or bicycle traffic.
  - For wooden TSS's, use either Douglas Fir or Hem Fir, which is surfaced four sides (S4S) and free of heart center (FOHC).
  - See "Temporary Sign Placement" detail on TM822 for sign installation heights.
  - Do not place or stack ballast more than 24" above the ground.
  - When sign is inconsistent with current work zone conditions, cover sign; or turn sign 90 degrees away from approaching traffic. Remove TSS from roadway when signing is not needed for more than 3 days.
  - Place a minimum of 50 lbs of sandbags on each of the four TSS supports legs. (25 lb. max per bag) (min. 100 lbs per side of each TSS).
  - See Dwg. No. TM204 for flag board mounting detail.

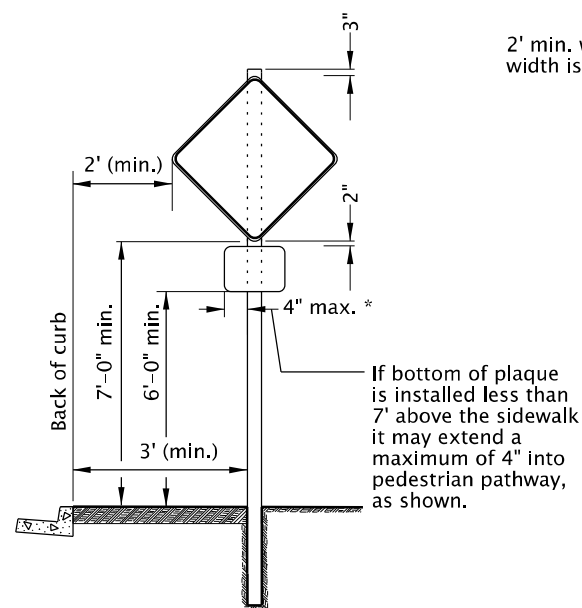
CALC. BOOK NO. _____ N/A _____	SDR DATE _____ 01-JUL-2020 _____
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
<b>OREGON STANDARD DRAWINGS</b>	
<b>TEMPORARY SIGN SUPPORTS</b>	
2021	
DATE	REVISION DESCRIPTION

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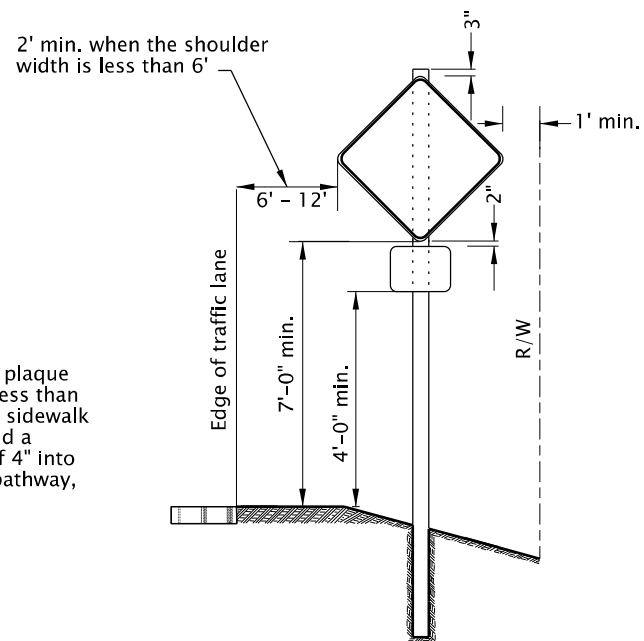
TM821

NOTES:

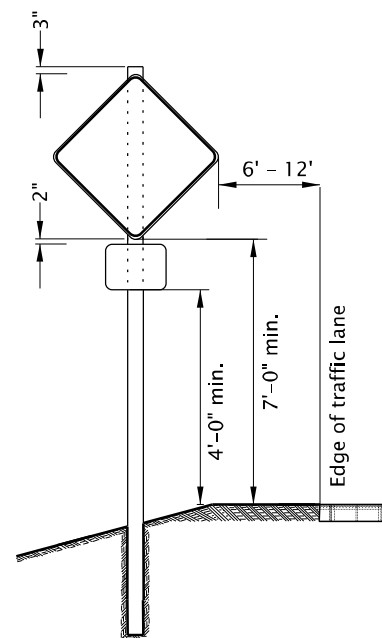
- Do not block bicycle lanes, sidewalks, or TPAR's with sign supports. Maintain minimum widths for these facilities according TCP Design Manual, MUTCD, ADA, or as directed.
- To be accompanied by Dwg. Nos. TM670, TM671, TM687, TM688 & TM689.



Urban Areas With Curb/Sidewalk

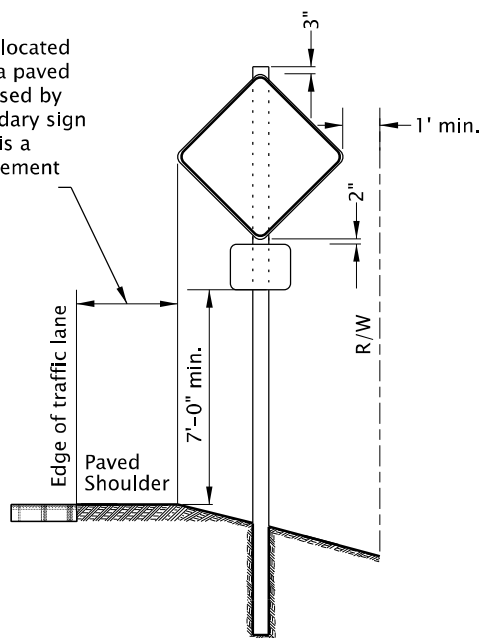


Rural Areas



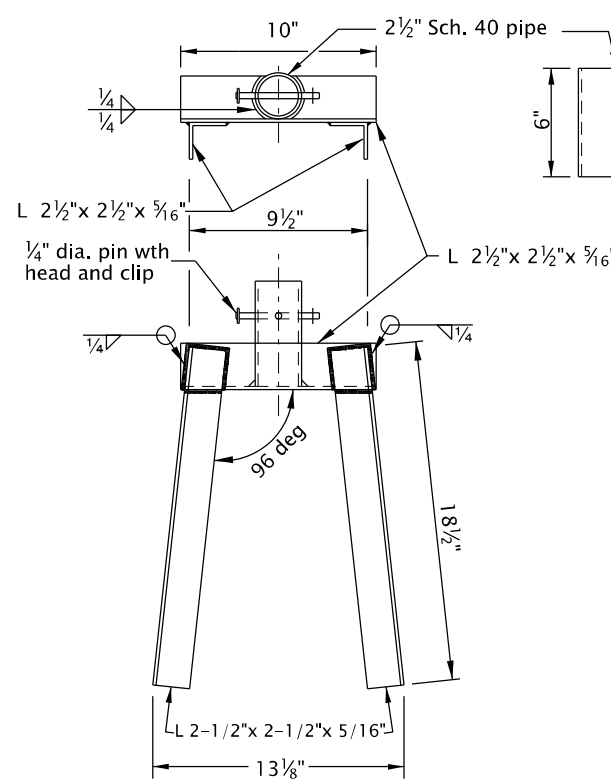
Divided Highway/Freeway Medians  
No Curb/Sidewalk

Where temporary signs are located adjacent to or intrude into a paved shoulder or other surface used by bicycle traffic, install secondary sign (plaque) so bottom of sign is a minimum of 7'-0" above pavement surface, as shown.



Rural or Urban Areas - Curb or No Curb  
Bicycles On Shoulder

TEMPORARY SIGN PLACEMENT



NOTES:

- Drill additional holes so sign can be rotated 90 degrees and pinned when not in use.
- All structural steel shall conform to ASTM A36.
- Support fits both 32" and 42" tall "F" barrier.
- Use for supporting a maximum 12 sq. ft. of total sign area.
- Place support at connection between two concrete barrier sections.
- Weld steel according to American Welding Society (AWS) D.1.1.
- Do not use clipped signs.
- Follow manufacturer recommendation when installing signs on barrier other than concrete.

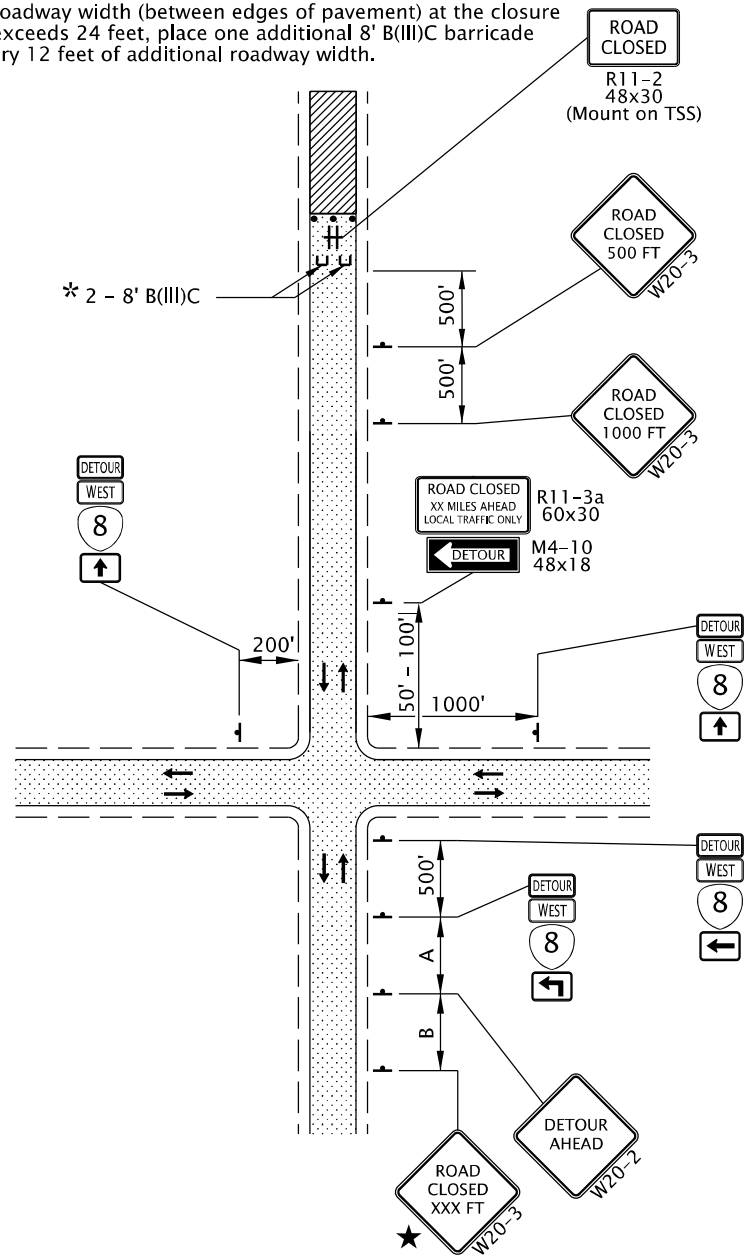
CONCRETE BARRIER SIGN SUPPORT

CALC. BOOK NO. _____ N/A _____	SDR DATE _____ 01-JUL-2020 _____
<p><i>The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.</i></p>	NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications
	<b>OREGON STANDARD DRAWINGS</b>
	<b>TEMPORARY SIGN SUPPORTS</b>
	2021
DATE	REVISION DESCRIPTION

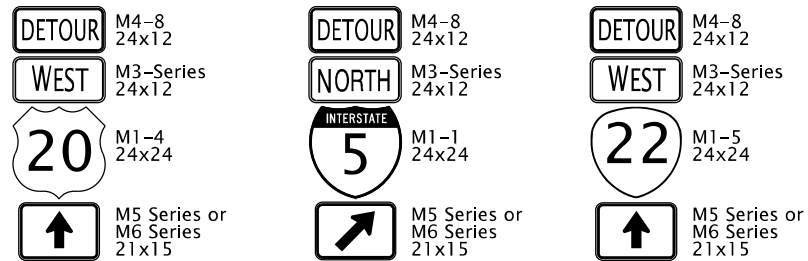
tm840.dgn 01-JUL-2020

NOTES:  
If closure point is less than 1500 ft. from nearest intersection, use a "ROAD CLOSED TO THRU TRAFFIC" (R11-4) sign in place of the "ROAD CLOSED XX MILES AHEAD" sign.

\* If the roadway width (between edges of pavement) at the closure point exceeds 24 feet, place one additional 8' B(III)C barricade for every 12 feet of additional roadway width.

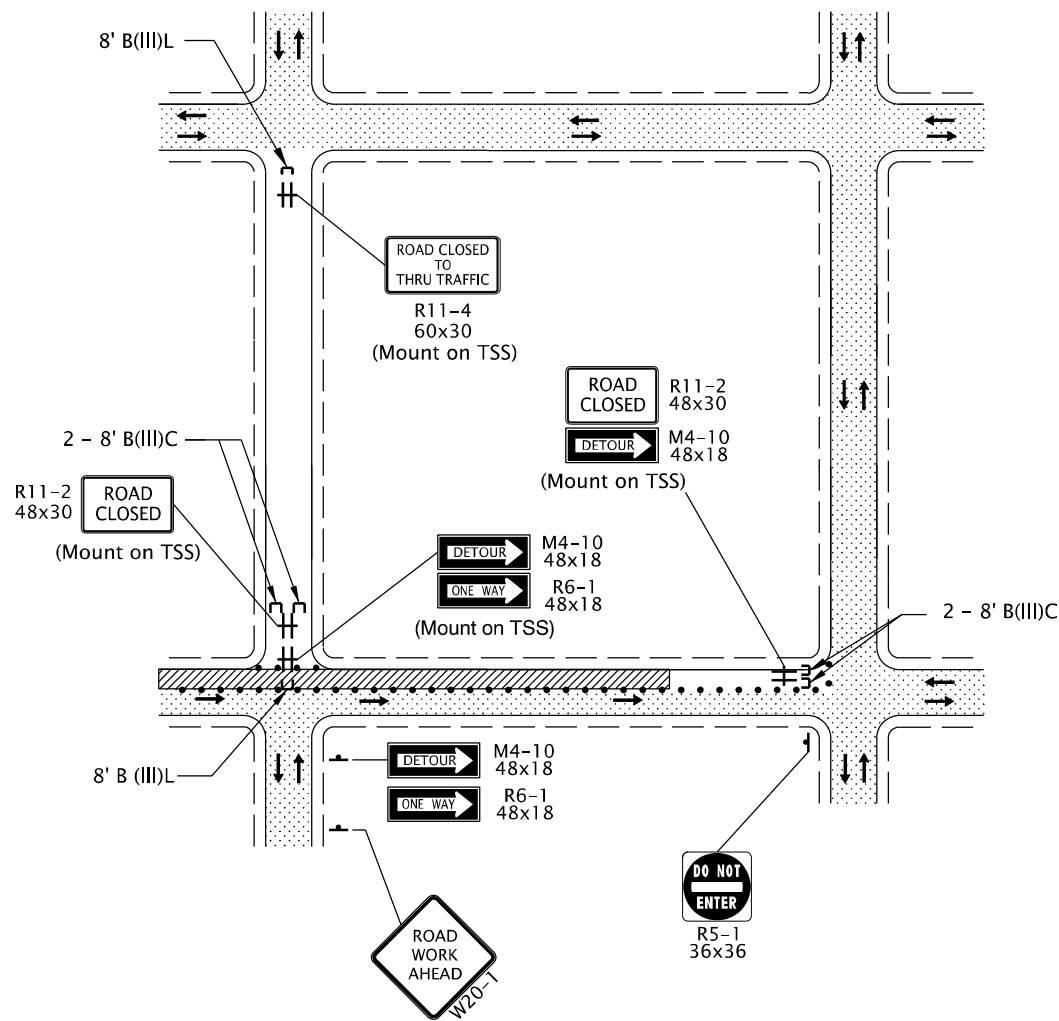


TYPICAL ROAD CLOSURE WITH DETOUR



NOTE:  
• When detour routes overlap, each Route Shield will include a separate cardinal direction, detour, and directional arrow auxiliary sign assembly.

TYPICAL TRAILBLAZER ASSEMBLY



TYPICAL PARTIAL ROAD CLOSURE

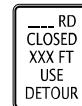
GENERAL NOTES FOR ALL DETAILS:

★ A "Street Name" rider may be used to enhance Road Closure signing; or provide a project specific design; or, as shown in the traffic control plan.



### RD  
Rider width to be determined by width of street name.

OR



48 x 60 (nom.)  
Project Specific Design

OR



48 x 60 (nom.)  
Project Specific Design

• Use a minimum of two Type III barricades for a road closure. For roads  $\geq 36'$  wide between curbs or edge of pavement, use a minimum of three Type III barricades for the closure point.

• For full road closures, the C or LR barricade may be used.

• Place additional signing as directed.

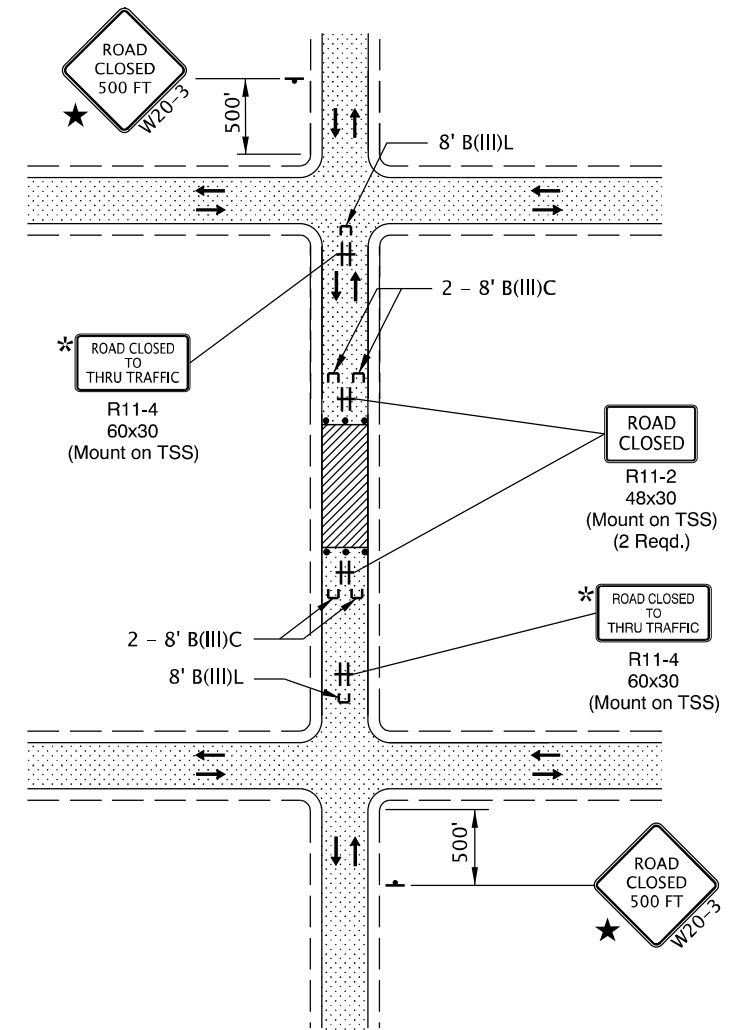
• To determine sign spacing A, B, & C, use the "TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE" on Dwg. TM800.

• To be accompanied by Dwg. Nos. TM820 & TM821.

••••• 28" Tubular Markers  
See TCD Spacing Table on TM800 for max. spacing.

..... UNDER TRAFFIC

////// UNDER CONSTRUCTION



NOTE:  
\* If accesses exist between intersection and point of closure, install "ROAD CLOSED TO THRU TRAFFIC" sign as shown.

TYPICAL ROAD CLOSURE

CALC. BOOK NO. \_N/A\_ SDR DATE \_01-JUL-2020\_

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

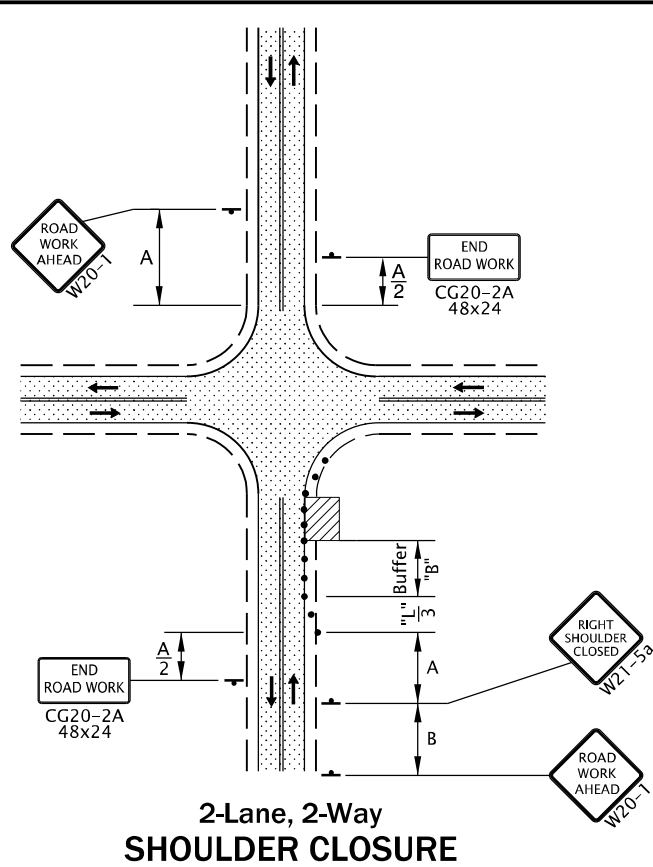
OREGON STANDARD DRAWINGS

CLOSURE DETAILS

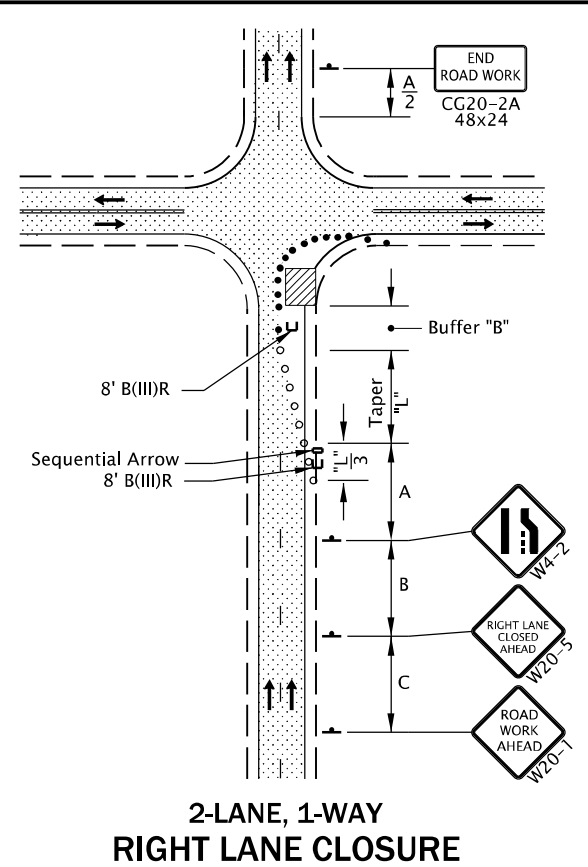
2021

DATE	REVISION DESCRIPTION

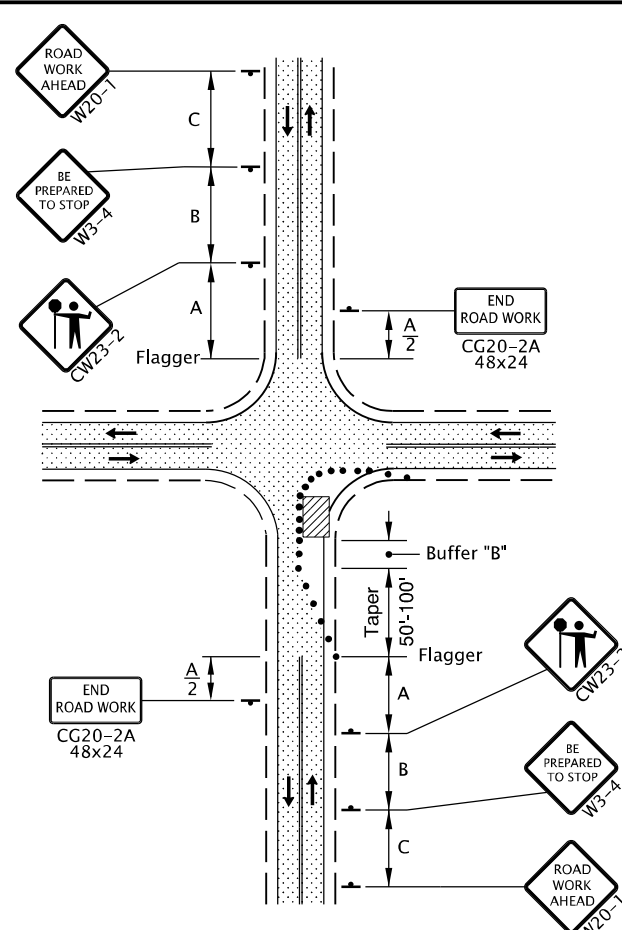
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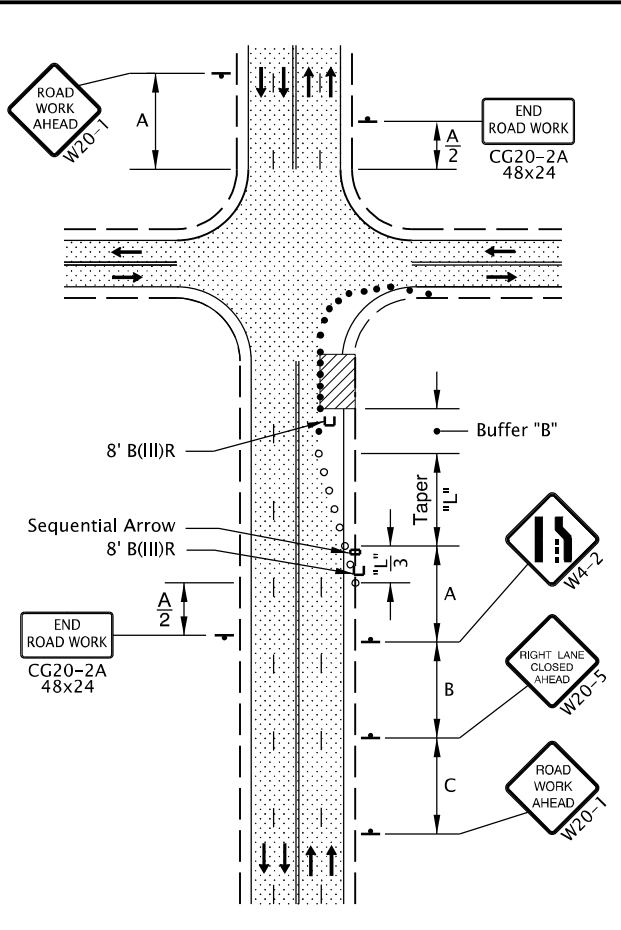
**2-Lane, 2-Way SHOULDER CLOSURE**



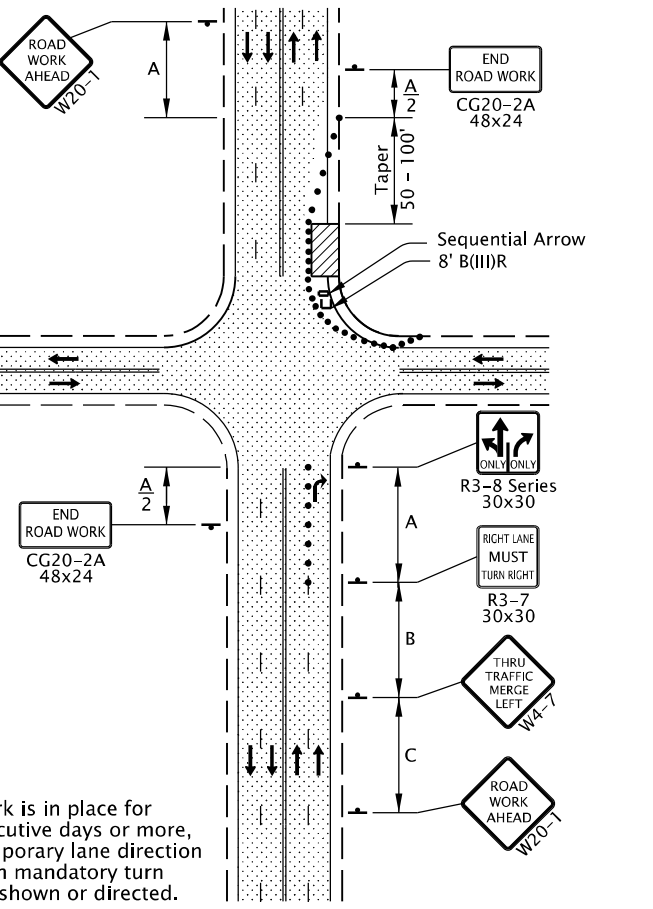
**2-LANE, 1-WAY RIGHT LANE CLOSURE**



**2-Lane, 2-Way ONE LANE CLOSURE**

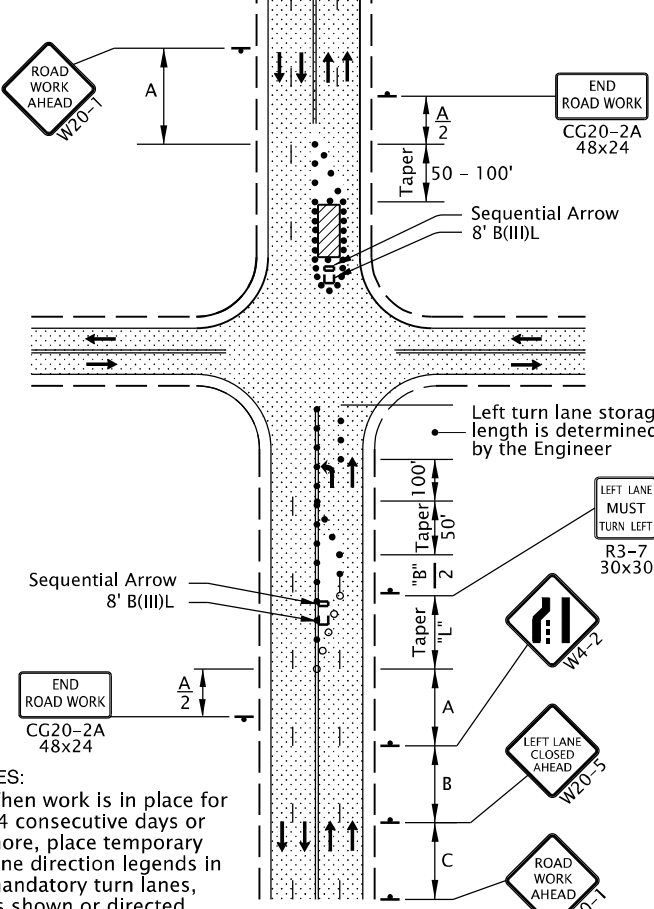


**4-Lane, 2-Way RIGHT LANE CLOSURE, NEAR SIDE**



**4-Lane, 2-Way RIGHT LANE CLOSURE, FAR SIDE**

NOTES:  
 • When work is in place for 14 consecutive days or more, place temporary lane direction legends in mandatory turn lanes, as shown or directed.



**4-Lane, 2-Way LEFT LANE CLOSURE, FAR SIDE**

NOTES:  
 • When work is in place for 14 consecutive days or more, place temporary lane direction legends in mandatory turn lanes, as shown or directed.

**GENERAL NOTES FOR ALL DETAILS:**

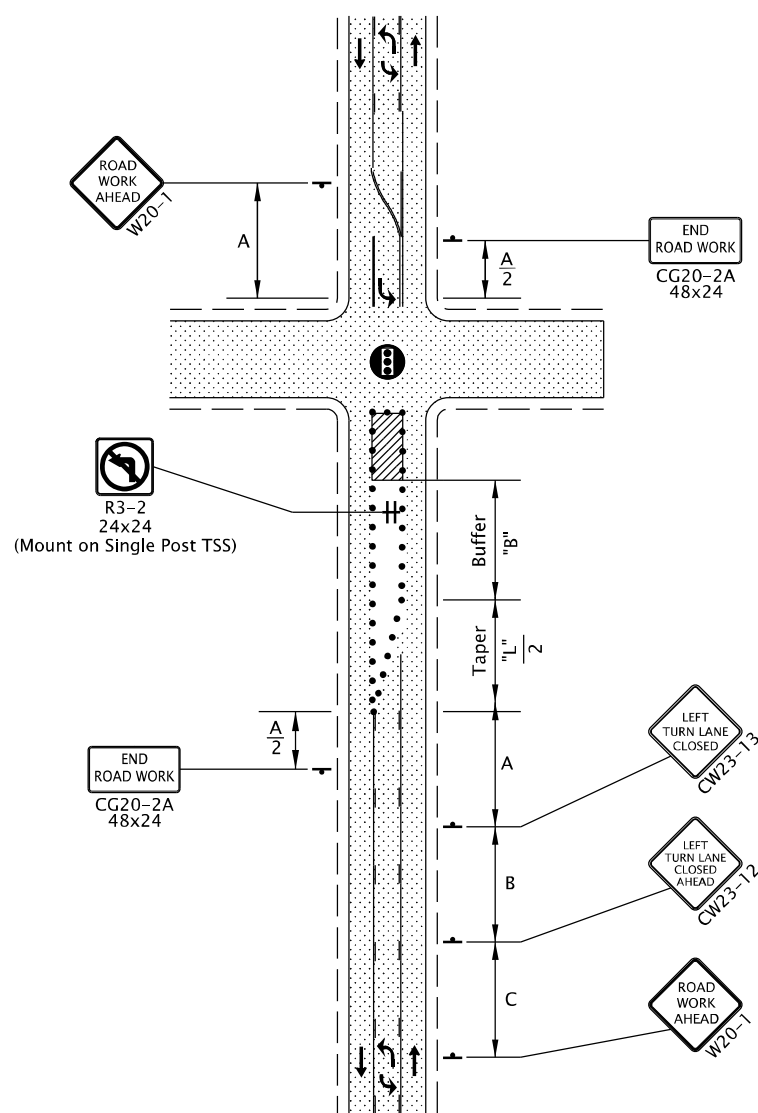
- Additional Traffic Control Measures (TCM) may be required for all legs of the intersection.
- The "FLAGGER" (CW23-2) symbol sign shall be used only in conjunction with the "BE PREPARED TO STOP" (W3-4) sign.
- To determine Taper Length ("L") and Buffer Length ("B"), use the "MINIMUM LENGTHS TABLE" on Dwg. TM800.
- For left lane or shoulder work, place TCD to close left lane or shoulder. Use "LEFT LANE CLOSED AHEAD" (W20-5) sign, "LEFT LANE ENDS" (W4-2L) symbol sign, or "LEFT SHOULDER CLOSED" (W21-5a) sign, where applicable.
- To determine sign spacing A, B, and C, use "TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE" on Dwg. TM800.
- When a through road intersects within the work zone, place a "ROAD WORK AHEAD" (W20-1) sign in advance of the intersection at sign spacing A.
- Tubular markers may be used in lane closure tapers where posted speed is 40 mph or less.
- Where shoulder width is limited, Sequential Arrow may be placed within the lane closure taper.
- Place channelizing devices around intersection radii, business accesses and driveways at 10' spacing.
- Install a "BICYCLES ON ROADWAY" (CW11-1) sign in advance of the closure when a bike lane is closed, or when the shoulder is closed and bikes are expected.
- To be accompanied by Dwg. Nos. TM820, TM821 & TM840.

- • • • • 28" Tubular Markers  
See TCD Spacing Table on TM800 for max. spacing.
- • • • • Temp. Plastic Drums  
See TCD Spacing Table on TM800 for max. spacing.

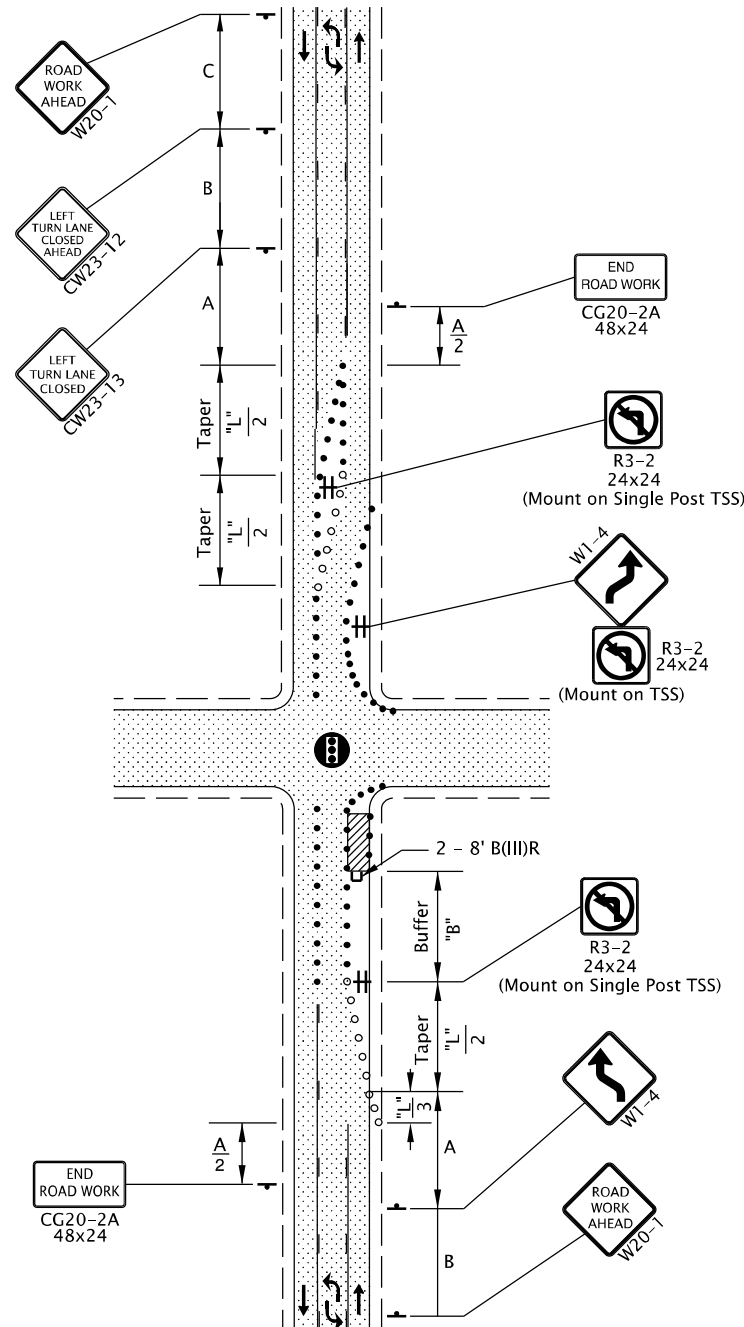
• UNDER TRAFFIC  
 • UNDER CONSTRUCTION

CALC. BOOK NO. \_\_\_\_\_ N/A \_\_\_\_\_  
 SDR DATE \_\_\_\_\_ 01-JUL-2020 \_\_\_\_\_  
 NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications  
**OREGON STANDARD DRAWINGS**  
**INTERSECTION WORK ZONE DETAILS**  
 2021  
 DATE \_\_\_\_\_ REVISION \_\_\_\_\_ DESCRIPTION \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

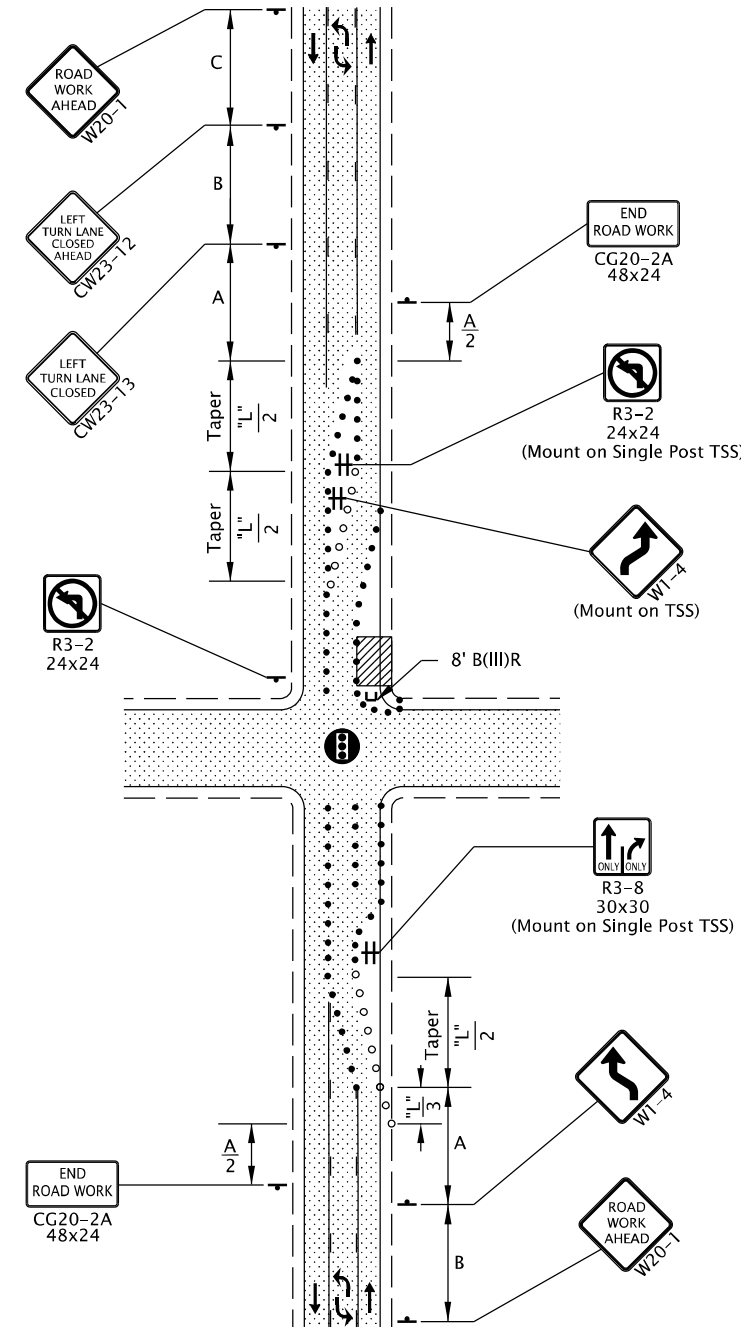
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2-Lane, 2-Way Roadway With Left Turn Median  
LEFT TURN MEDIAN CLOSURE



2-Lane, 2-Way Roadway With Left Turn Median  
RIGHT LANE CLOSURE, NEAR SIDE



2-Lane, 2-Way Roadway With Left Turn Median  
RIGHT LANE CLOSURE, FAR SIDE

GENERAL NOTES FOR ALL DETAILS:

- Additional Traffic Control Measures (TCM) may be required for all legs of the intersection.
- To determine Taper Length ("L") and Buffer Length ("B") shown on this sheet, use the "MINIMUM LENGTHS TABLE" on Dwg. TM800.
- Taper length of "L" for through lane shifting tapers may be used for higher speed roads.
- Taper length of "L"/2 for center turn lane closure may be used in areas with a high number of accesses within the work zone.
- When a through road intersects within the work zone, place a "ROAD WORK AHEAD" (W20-1) sign in advance of the intersection at sign spacing A.
- To determine sign spacing A, B, and C, use "TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE" on Dwg. TM800.
- Place channelizing devices around intersection radii, business accesses, and driveways at 10' spacing.
- Tubular markers may be used in lane closure tapers where the posted speed is 40 mph or less.
- Install a "BICYCLES ON ROADWAY" (CW11-1) sign in advance of the closure when a bike lane is closed, or when the shoulder is closed and bikes are expected.
- Signal timing adjustments determined by Engineer.
- To be accompanied by Dwg. Nos. TM820 & TM821.

- [Signal Symbol] Signal
- [Tubular Markers Symbol] 28" Tubular Markers  
See TCD Spacing Table on TM800 for max. spacing
- [Plastic Drums Symbol] Temp. Plastic Drums  
See TCD Spacing Table on TM800 for max. spacing
- [Under Traffic Symbol] UNDER TRAFFIC
- [Under Construction Symbol] UNDER CONSTRUCTION

CALC. BOOK NO. \_\_\_\_\_ N/A \_\_\_\_\_

SDR DATE \_\_\_\_\_ 01-JUL-2020 \_\_\_\_\_

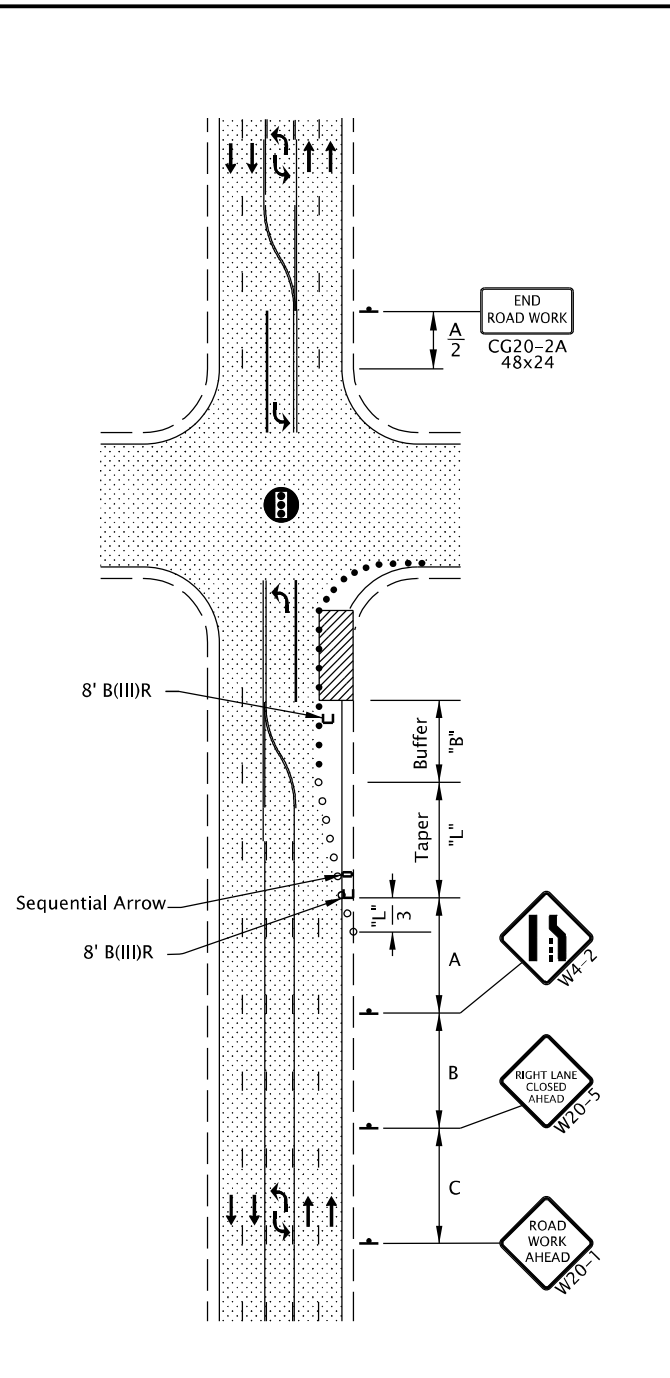
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS  
SIGNALIZED INTERSECTION DETAILS

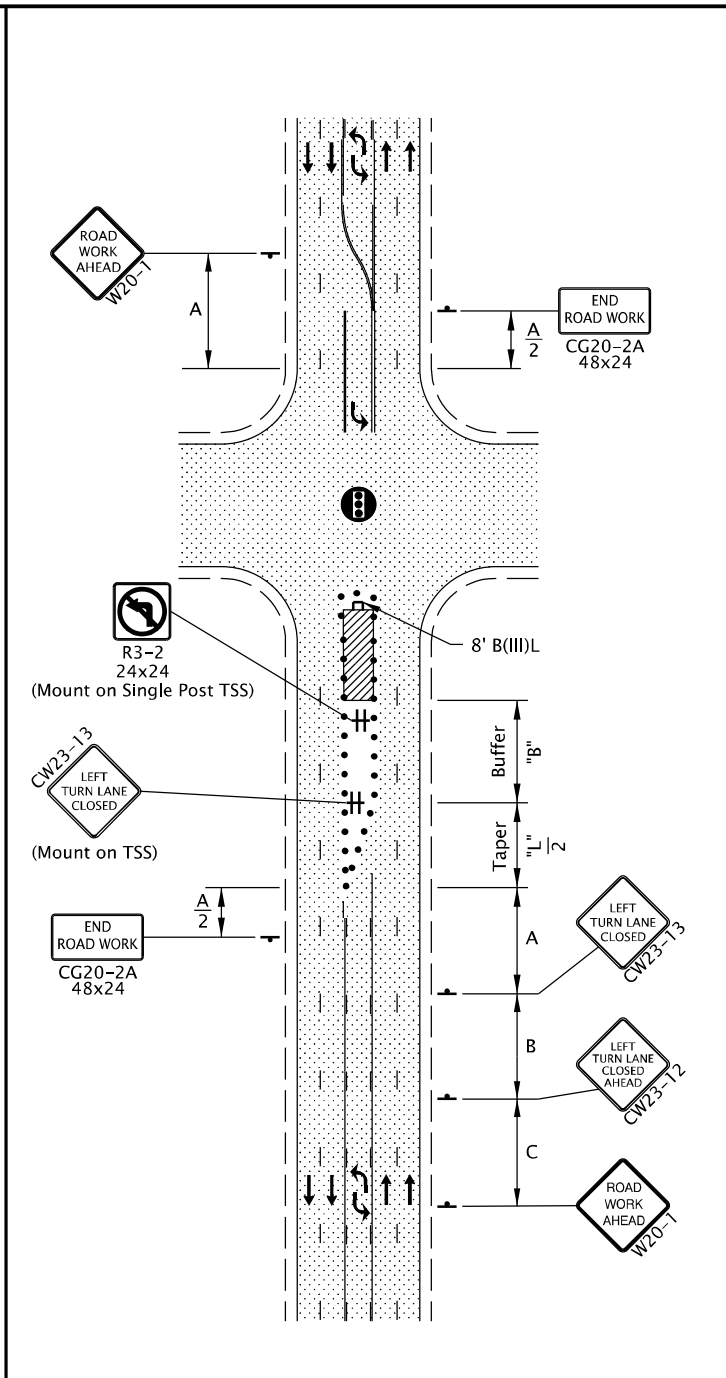
2021

DATE	REVISION DESCRIPTION

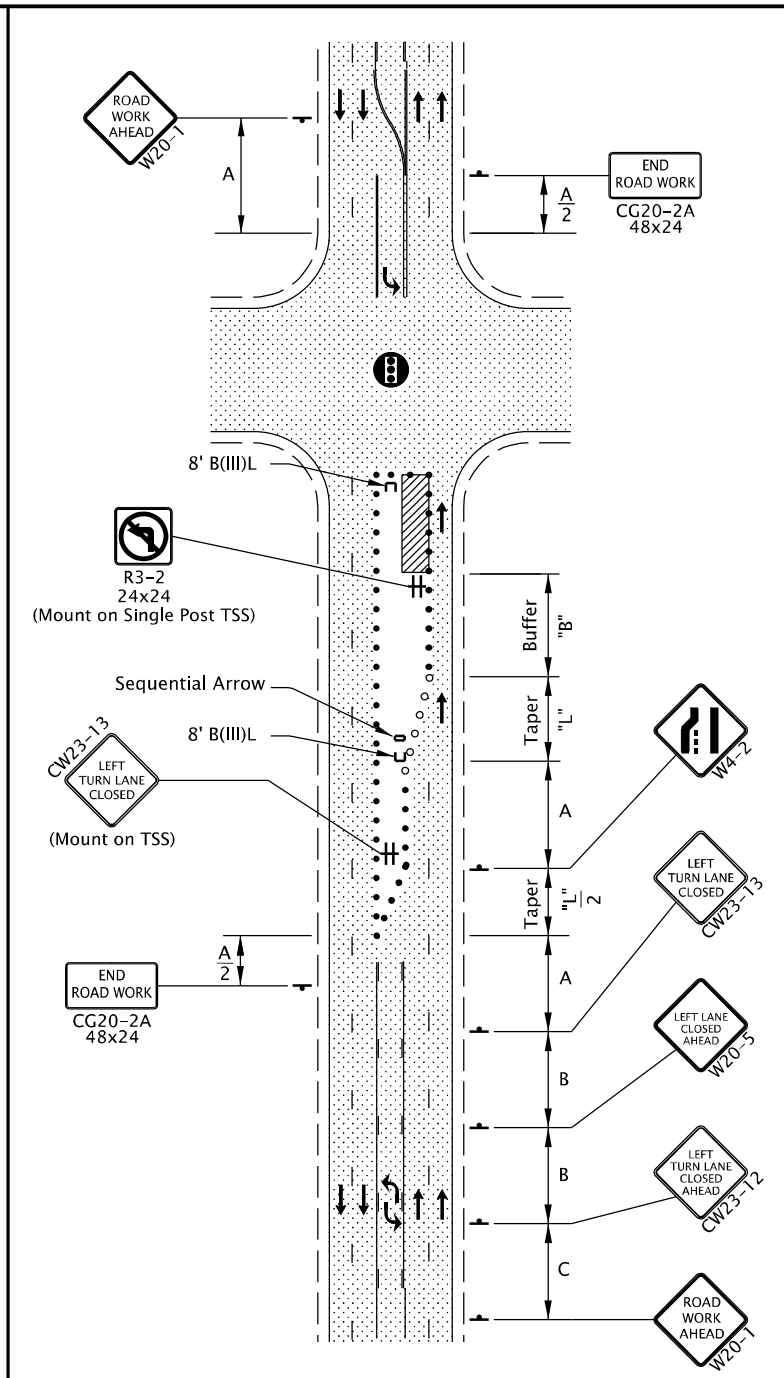
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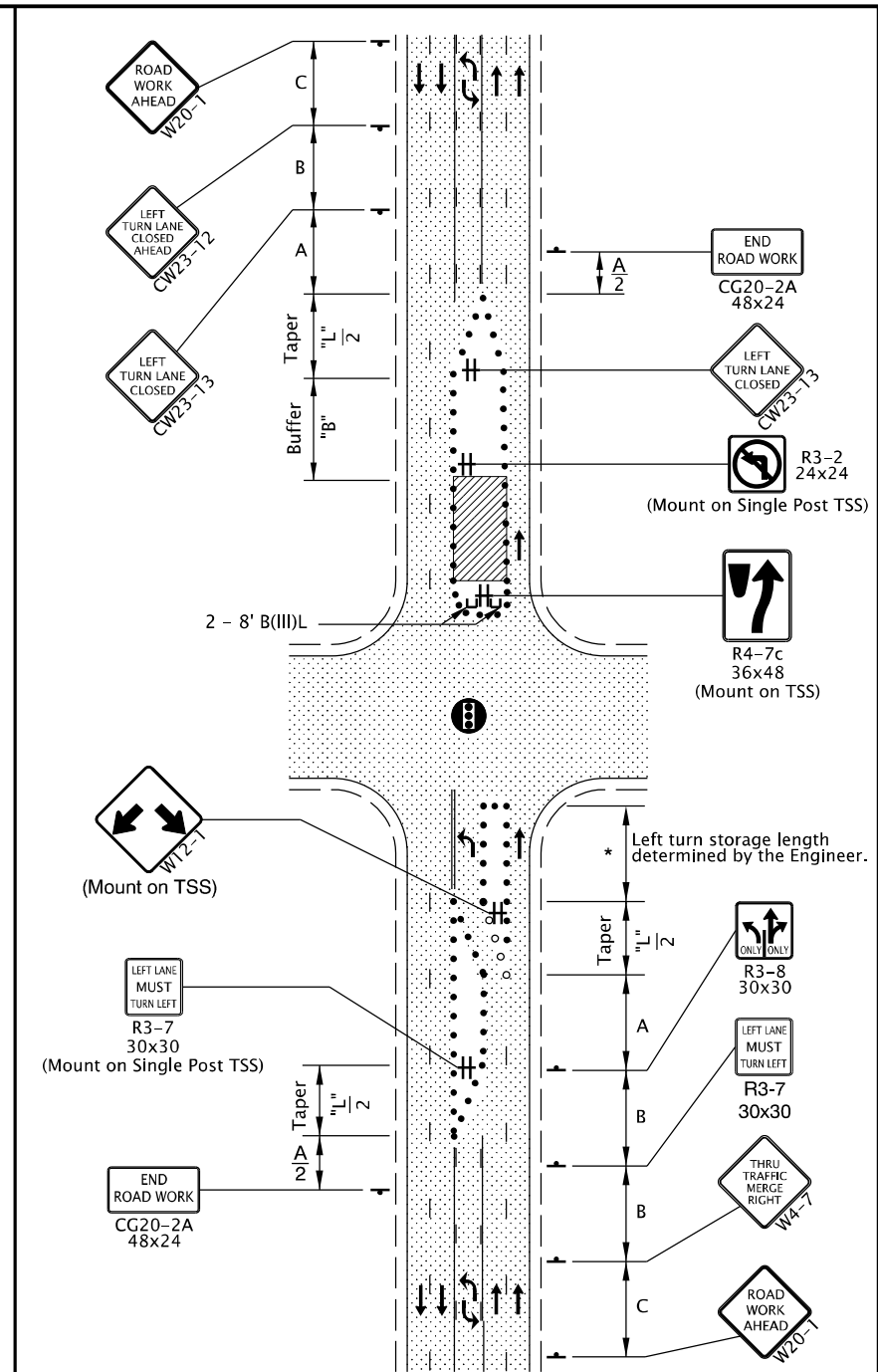
**4-Lane, 2-Way Roadway With Left Turn Median  
RIGHT LANE CLOSURE**



**4-Lane, 2-Way Roadway With Left Turn Median  
LEFT TURN MEDIAN CLOSURE**



**4-Lane, 2-Way Roadway With Left Turn Median  
LEFT TURN MEDIAN AND LEFT LANE CLOSURE**



**4-Lane, 2-Way Roadway With Left Turn Median  
LEFT TURN MEDIAN & LEFT LANE CLOSURE, FAR SIDE**

- GENERAL NOTES FOR ALL DETAILS:**
- Additional Traffic Control Measures (TCM) may be required for all legs of the intersection.
  - To determine Taper Length ("L") and Buffer Length ("B") shown on this sheet, use the "MIMUM LENGTHS TABLE" on Dwg. TM800.
  - When a through road intersects within the work zone, place a "ROAD WORK AHEAD" (W20-1) sign in advance of the intersection at sign spacing A.
  - To determine sign spacing A, B, and C, use "TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE" on Dwg. TM800.
  - Tubular markers may be used in lane closure tapers where the posted speed is 40 mph or less.
  - Taper Length of "L" for the through-lane shifting tapers may be used for higher speed roads.
  - Taper Length of "L"/2 for center turn lane closure may be used in areas with high number of accesses within the work zone.
  - Place channelizing devices around intersection radii, business accesses and driveways at 10' spacing.
  - Install a "BICYCLES ON ROADWAY" (CW11-1) sign in advance of the closure when a bike lane is closed, or when the shoulder is closed and bikes are expected.
  - Signal timing adjustments determined by the Engineer.
  - To be accompanied by Dwg. Nos. TM820 & TM821.

	Signal
	28" Tubular Markers See TCD Spacing Table on TM800 for max. spacing.
	Temp. Plastic Drums See TCD Spacing Table on TM800 for max. spacing.
	UNDER TRAFFIC
	UNDER CONSTRUCTION

CALC. BOOK NO. \_\_\_\_\_ N/A \_\_\_\_\_

SDR DATE \_\_\_\_\_ 01-JUL-2020 \_\_\_\_\_

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

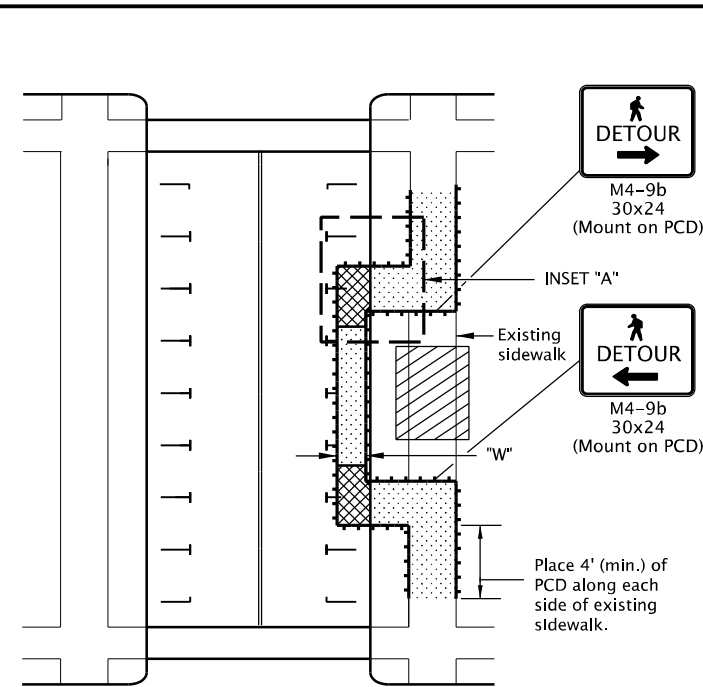
**OREGON STANDARD DRAWINGS**

**MULTI-LANE SIGNALIZED INTERSECTION DETAILS**

2021

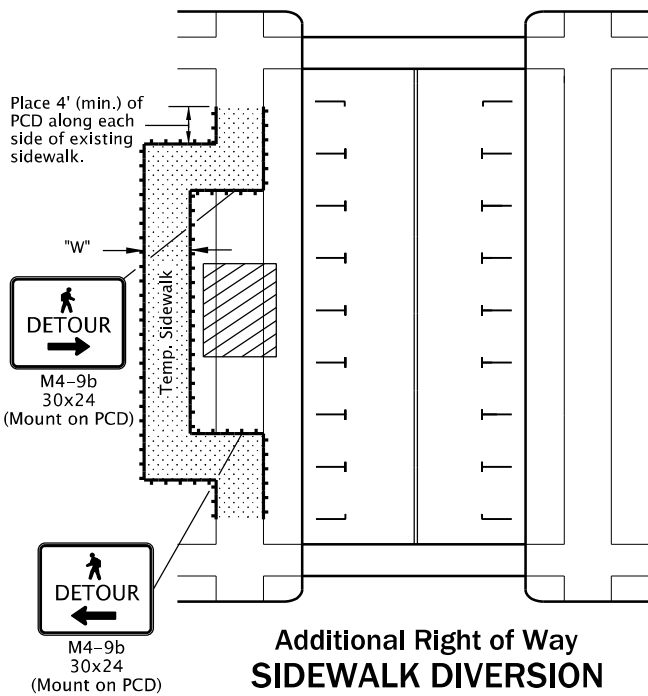
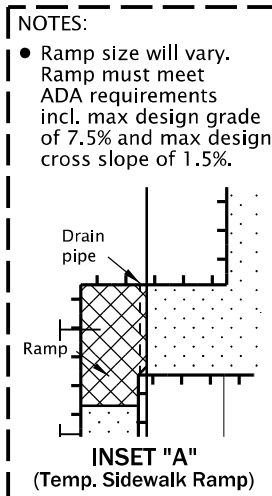
DATE	REVISION	DESCRIPTION

tm844.dgn 01-JUL-2020

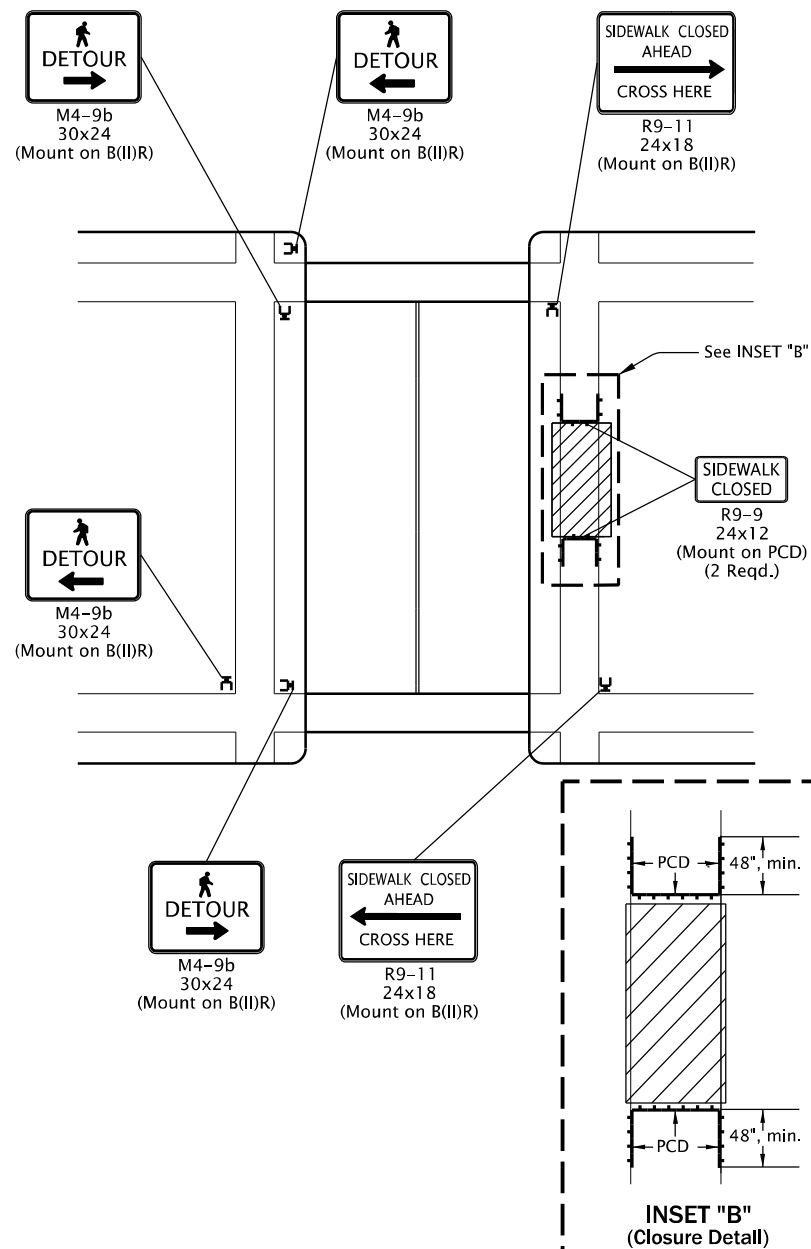


**Within Roadway  
SIDEWALK DIVERSION**

- NOTES:
- Place or construct temp. sidewalk ramp, as needed.
  - For roadways with a pre-construction posted speed of 40 mph or less.
  - See inset "A" for Temp. Sidewalk Ramp details.
  - "W" = 60", or, where 60" width cannot be maintained through the entire route, provide 48" min. width with 60" x 60" passing spaces every 200 ft.
  - Use temporary ADA compliant surfaces to cross planter strips or other non-traversable surfaces.



**Additional Right of Way  
SIDEWALK DIVERSION**

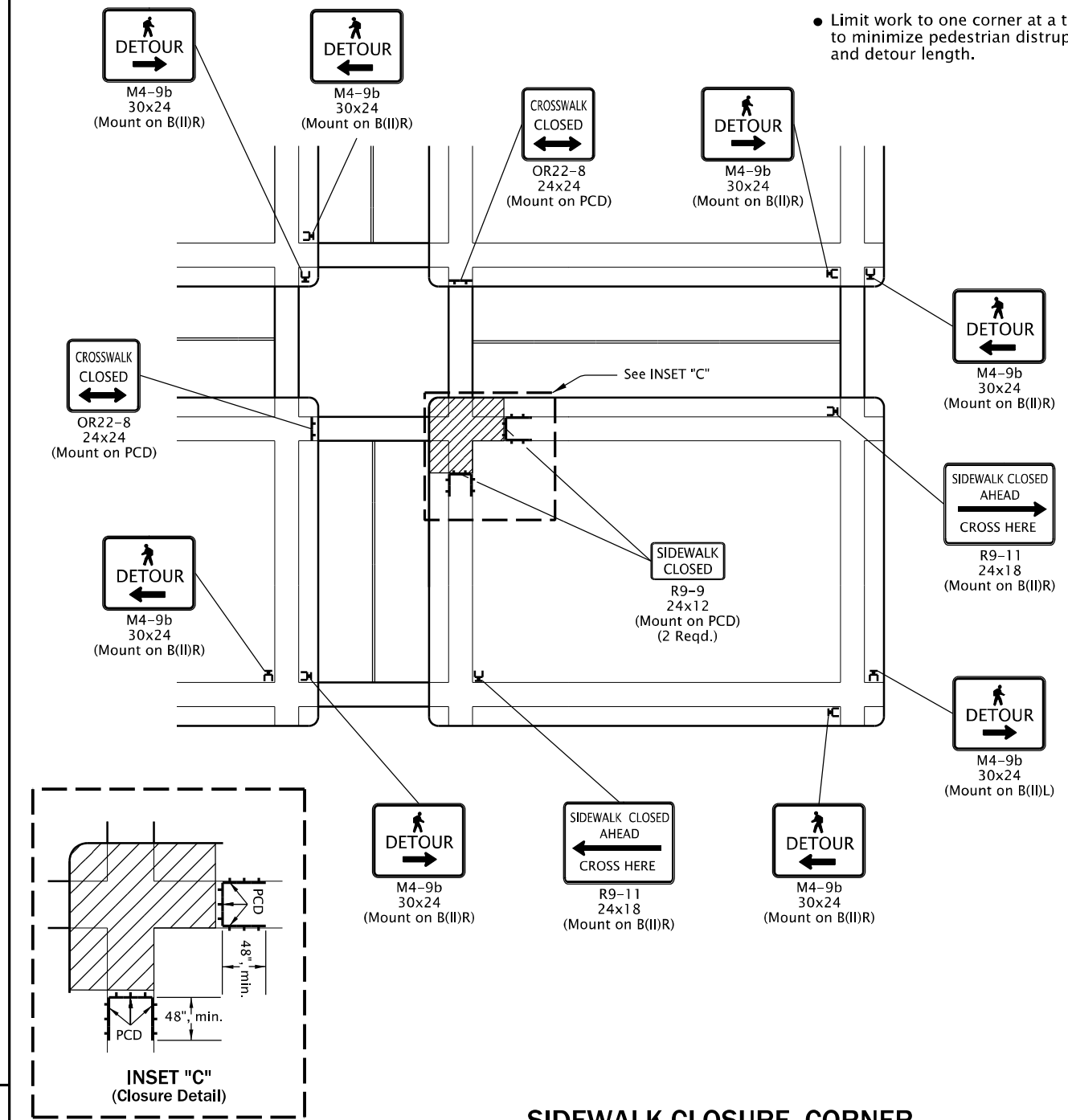


**SIDEWALK CLOSURE, MIDBLOCK**

**GENERAL NOTES FOR ALL DETAILS:**

- When closing or relocating crosswalks or other pedestrian facilities provide ADA compliant facilities. Include accessibility features consistent with existing pedestrian facilities by providing adequate slope transitions and surfacing.
- Provide non-slip, 60 inch minimum wide surface through entire pedestrian route. If not possible, provide 48" min. width with 60" x 60" passing spaces every 200 feet along the route.
- Only TCD for pedestrians are shown. Other devices may be necessary to control vehicular traffic.
- Stage work, as necessary, to provide a temporary pedestrian access route at all times. For roadways with no available detours, maintain one open sidewalk at all times.
- Minimize pedestrian out-of-direction travel.
- To be accompanied by Dwg. Nos. TM820 & TM821.

- UNDER PEDESTRIAN TRAFFIC
- UNDER CONSTRUCTION
- PEDESTRIAN CHANNELIZING DEVICE (PCD)



**SIDEWALK CLOSURE, CORNER**

NOTE:  
• Limit work to one corner at a time to minimize pedestrian disruption and detour length.

CALC. BOOK NO. \_\_\_\_\_ N/A \_\_\_\_\_ SDR DATE \_\_\_\_\_ 01-JUL-2020 \_\_\_\_\_

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS  
TEMPORARY PEDESTRIAN  
ACCESSIBLE ROUTES**

2021

DATE	REVISION DESCRIPTION

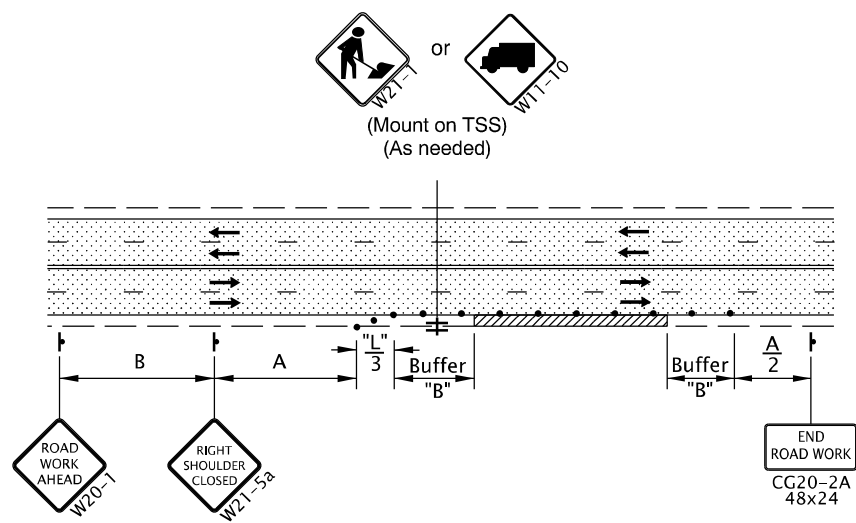
*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

TM844



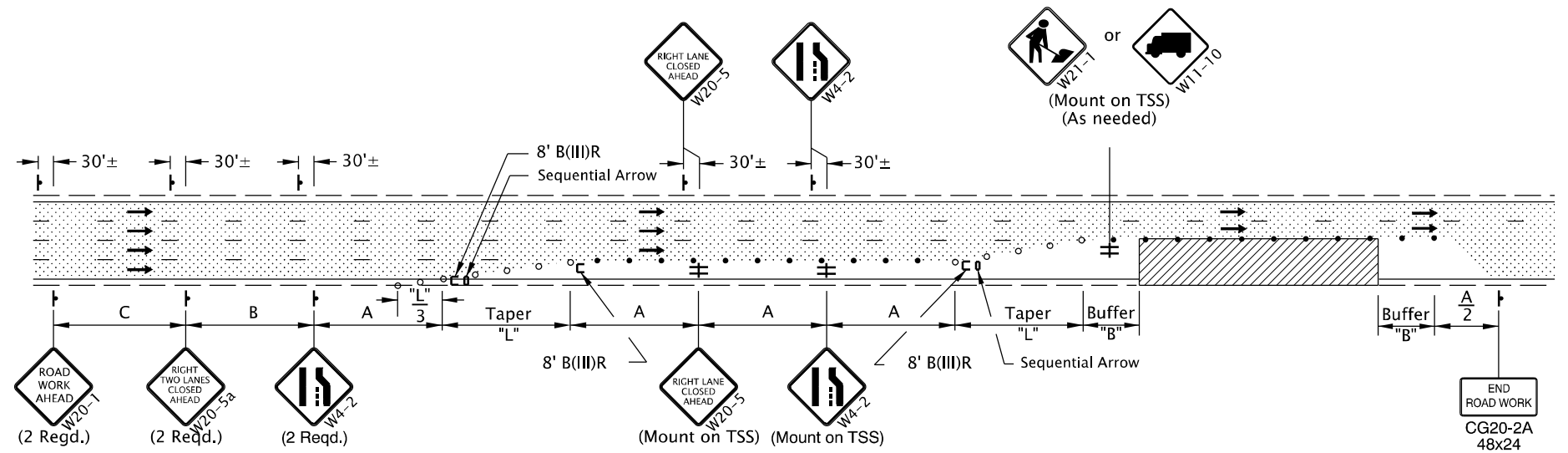
tm851.dgn 01-JUL-2020

NOTE:  
 • For left shoulder work, place TCD to close the left shoulder. Use "LEFT SHOULDER CLOSED" (W21-5a) sign.

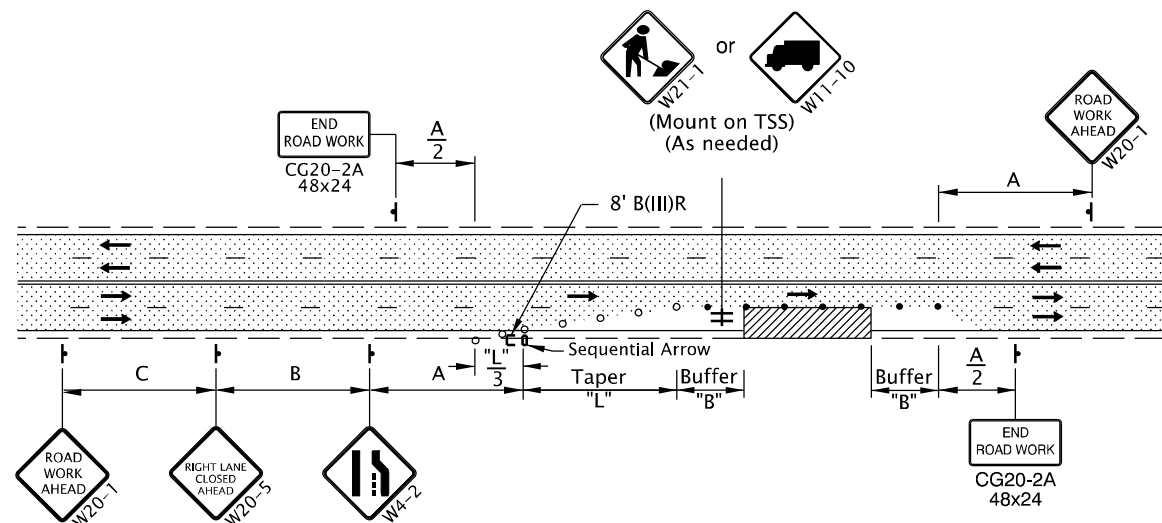


4-Lane, 2-Way Roadway  
SHOULDER CLOSURE

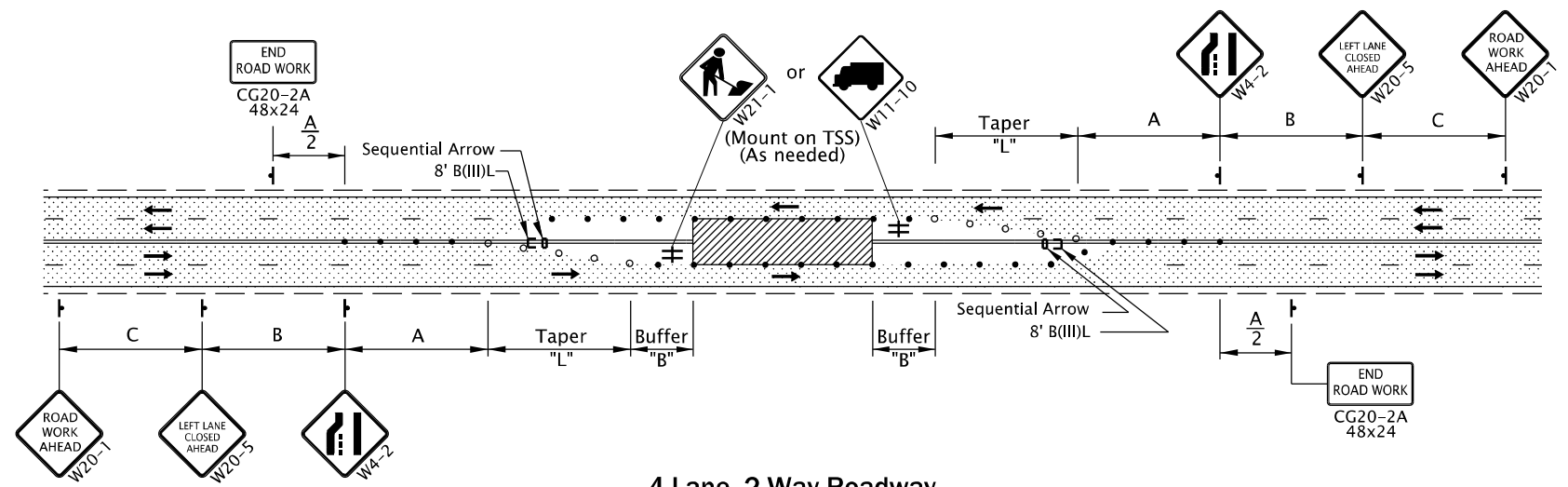
NOTE:  
 • For left lane work, place TCD to close the left lane. Use "LEFT TWO LANES CLOSED AHEAD" (W20-5a), "LEFT LANE CLOSED AHEAD" (W20-5) and "LEFT LANE ENDS" (W4-2) symbol signs.



4-Lane, 1-Way Roadway  
TWO LANE CLOSURE



4-Lane, 2-Way Roadway  
EXTERIOR LANE CLOSURE

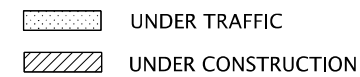


4-Lane, 2-Way Roadway  
INTERIOR LANE CLOSURE

GENERAL NOTES FOR ALL DETAILS:

- Install temporary striping as directed.
- Signing and other TCD shown to be installed in conjunction with the work areas, shall move with the work areas.
- To determine Taper Length ("L") and Buffer Length ("B"), use the "MINIMUM LENGTHS TABLE" on Dwg. No. TM800.
- To determine sign spacing A, B, and C, use "TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE" on Dwg. No. TM800.
- Channelization devices may be placed at 10' spacing around the Work Area for emphasis or if the area is exposed to traffic on both sides simultaneously.
- Install a "BICYCLES ON ROADWAY" (CW11-1) sign in advance of the closure when a bike lane is closed, or when the shoulder is closed and bikes are expected.
- To be accompanied by Dwg. Nos. TM820 & TM821.

- • • 28" Tubular Markers  
See TCD Spacing Table on TM800 for max. spacing.
- • • Temp. Plastic Drums  
See TCD Spacing Table on TM800 for max. spacing.



CALC. BOOK NO. \_\_\_\_\_ N/A \_\_\_\_\_

SDR DATE \_\_\_\_\_ 01-JUL-2020 \_\_\_\_\_

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS**  
**NON-FREEWAY MULTI-LANE SECTIONS**

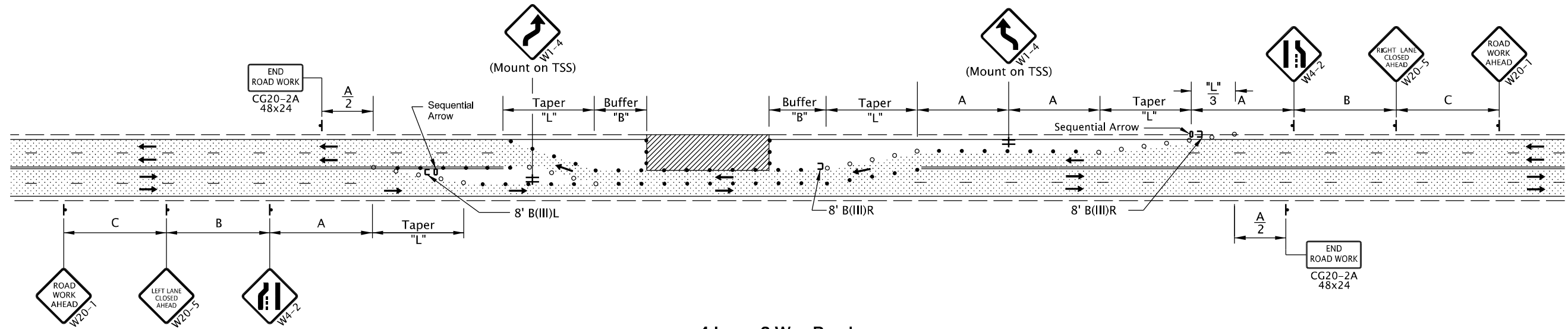
2021

DATE	REVISION DESCRIPTION

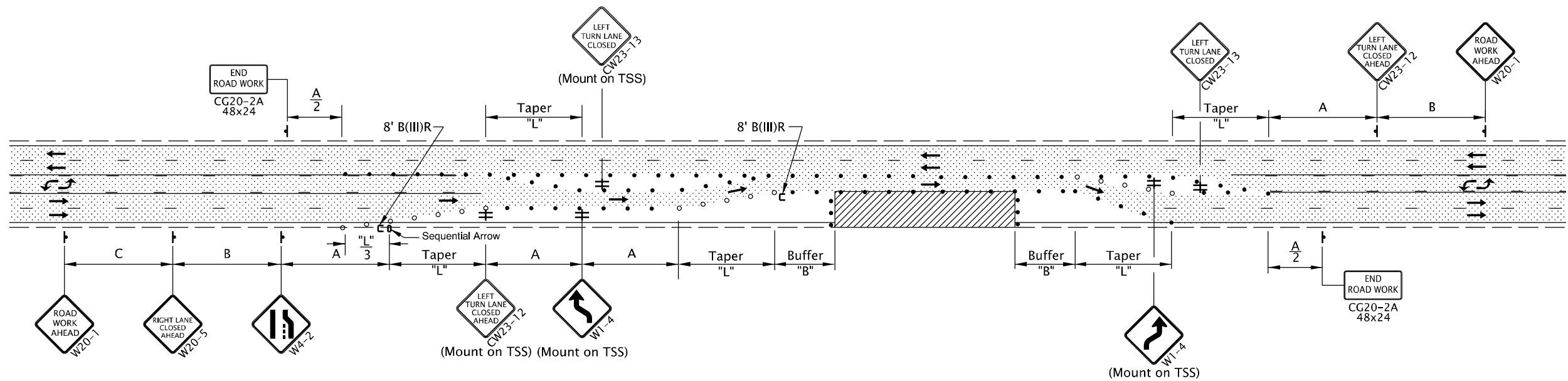
*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

TM851

tm852.dgn 01-JUN-2020



**4-Lane, 2-Way Roadway  
TWO LANE CLOSURE, CROSSOVER**



**4-Lane, 2-Way Roadway With (TWLTL)  
TWO LANE AND MEDIAN CLOSURE**

**GENERAL NOTES FOR ALL DETAILS:**

- Install temporary striping as directed.
- Signing and other TCD shown to be installed in conjunction with the work areas, shall move with the work areas.
- To determine Taper Length ("L") and Buffer Length ("B"), use the "MINIMUM LENGTHS TABLE" on Dwg. No. TM800.
- When the length of the area under construction is less than 600 ft. use a DOUBLE REVERSE CURVE (W24-1) sign in place of the first REVERSE CURVE (W1-4) sign in each direction.
- Install a "BICYCLES ON ROADWAY" (CW11-1) sign in advance of the closure when a bike lane is closed, or when the shoulder is closed and bikes are expected.
- To determine sign spacing A, B, and C, use "TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE" on Dwg. No. TM800.
- Shifting tapers of length "L" recommended for high-speed (>40 mph) roadways; however taper lengths of "L"/2 may be used for low-speed roadways (≤40 mph) or where space is limited.
- Channelization devices may be placed at 10' spacing around the Work Area for emphasis.
- To be accompanied by Dwg. Nos. TM820 & TM821.

- • • 28" Tubular Markers  
See TCD Spacing Table on TM800 for max. spacing.
  - • • Temp. Plastic Drums  
See TCD Spacing Table on TM800 for max. spacing.
- UNDER TRAFFIC  
 UNDER CONSTRUCTION

CALC. BOOK NO. \_\_\_\_\_ N/A \_\_\_\_\_

SDR DATE \_\_\_\_\_ 01-JUL-2020 \_\_\_\_\_

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

**OREGON STANDARD DRAWINGS  
NON-FREEWAY MULTI-LANE  
SECTIONS**

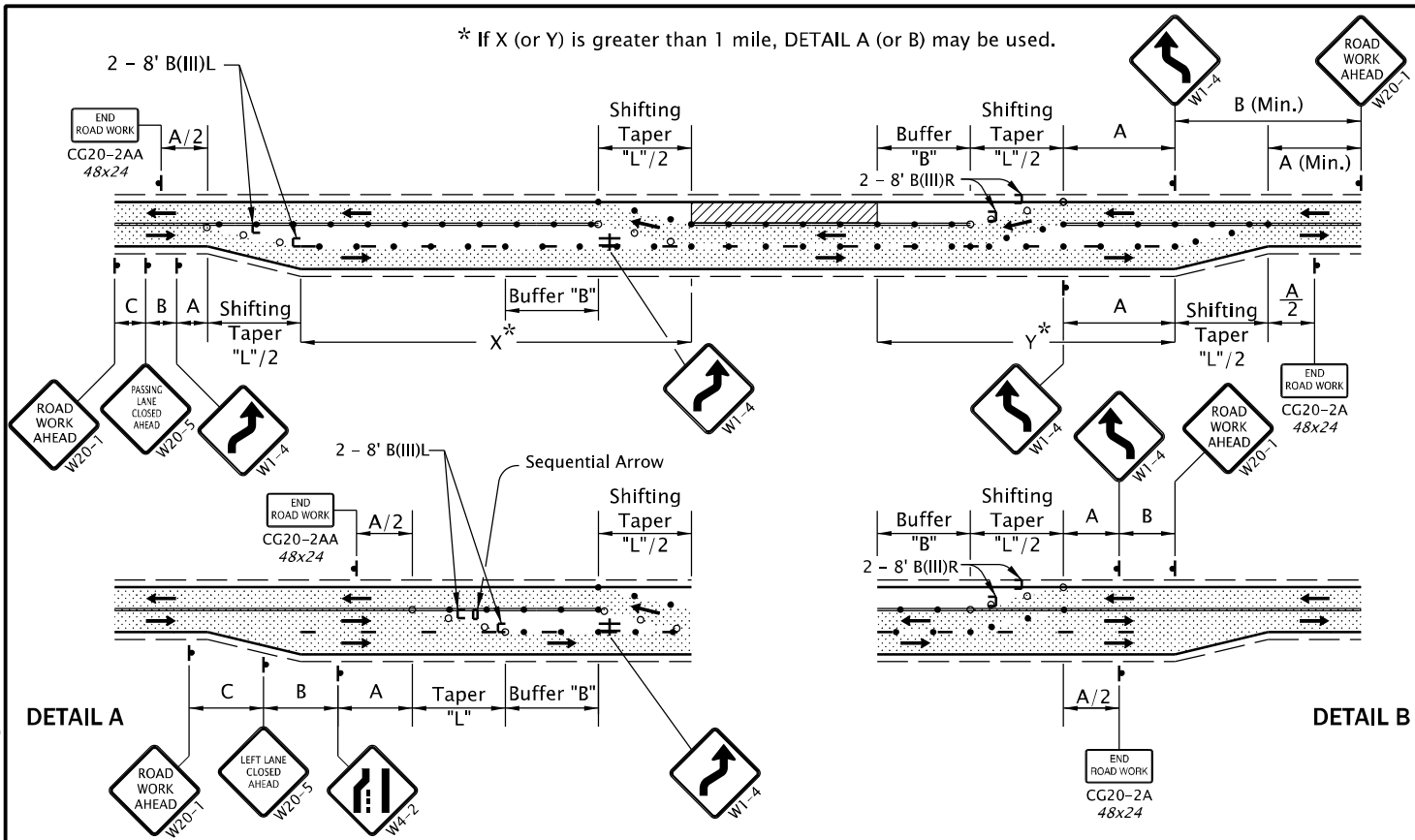
2021

DATE	REVISION DESCRIPTION

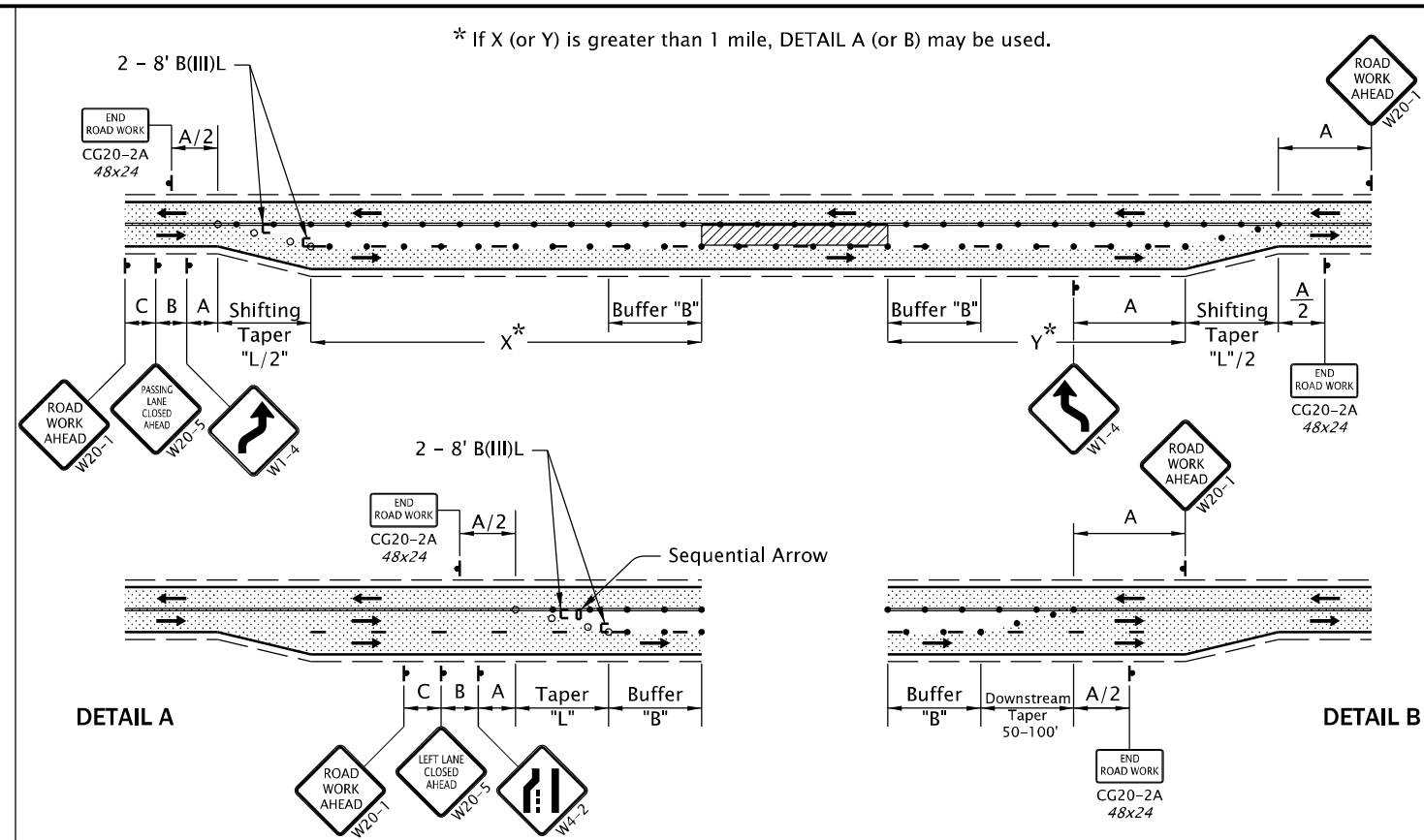
*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

TM852

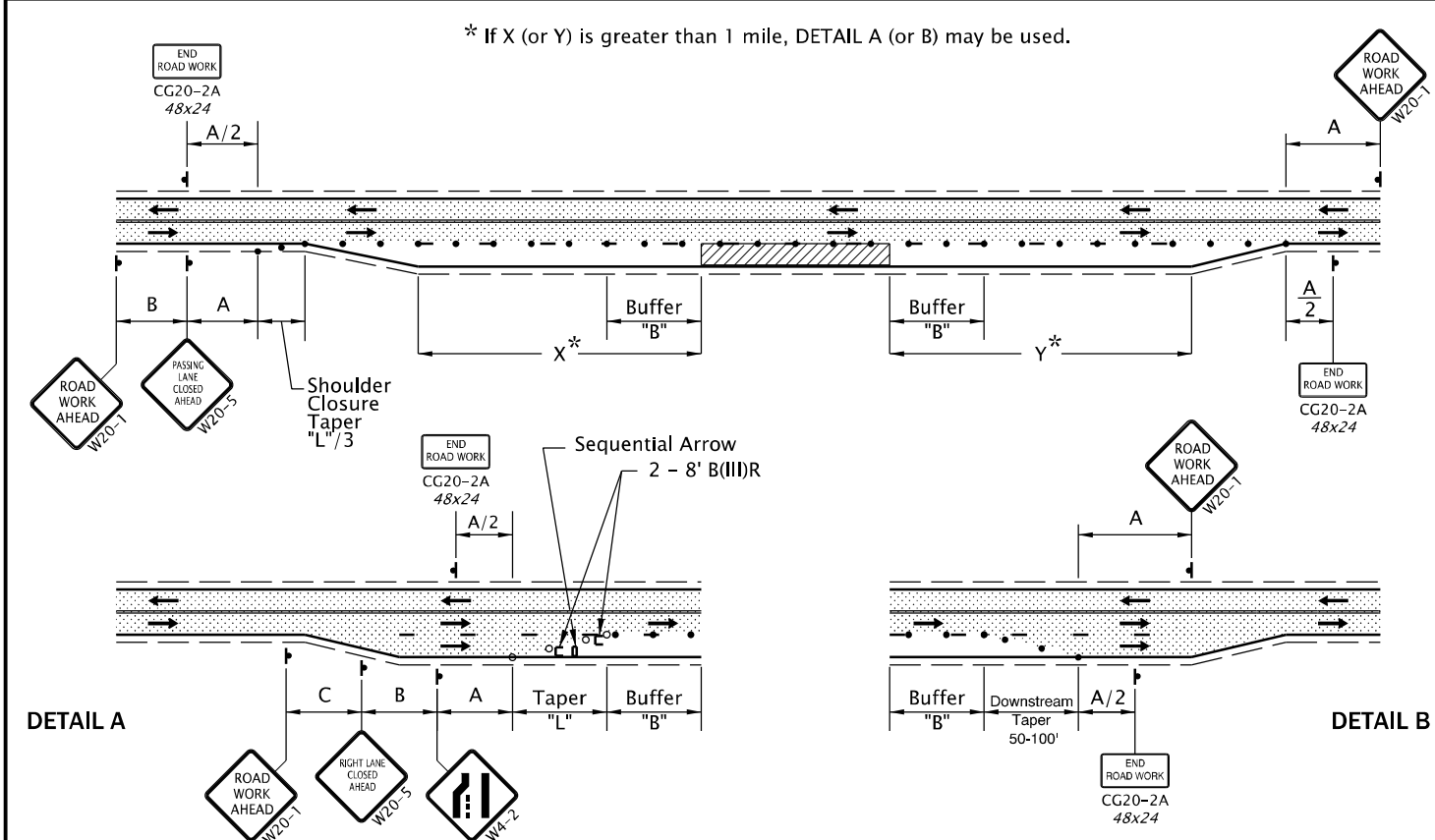
tm853.dgn 01-JUL-2020



3-Lane, 2-Way Roadway  
ONE LANE CLOSURE, CROSSOVER



3-Lane, 2-Way Roadway  
ONE LANE CLOSURE



3-Lane, 2-Way Roadway  
PASSING LANE CLOSURE

GENERAL NOTES FOR ALL DETAILS:

- Install temporary striping as directed.
- Signing and other TCD shown to be installed in conjunction with the work areas, shall move with the work areas.
- To determine Taper Length ("L") and Buffer Length ("B"), use the "MINIMUM LENGTHS TABLE" on Dwg. No. TM800.
- Cover all applicable existing passing lane signing prior to installing TCD.
- Install Type III barricades in closed lanes at 1/4 mile intervals.
- When passing is allowed in opposing lanes, restrict passing with double yellow centerline and appropriate signing as directed.
- Channelization devices may be placed on 10' around the Work Area for emphasis or if the area is to be exposed to traffic on both sides simultaneously.
- Install a "BICYCLES ON ROADWAY" (CW11-1) sign in advance of the closure when a bike lane is closed, or when the shoulder is closed and bikes are expected.

- To determine sign spacing A, B, and C, use "TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE" on Dwg. No. TM800.
- When the length of the area under construction is less than 600 ft. use a DOUBLE REVERSE CURVE (W24-1) sign in place of the first REVERSE CURVE (W1-4) sign in each direction.

• • • 28" TUBULAR MARKERS  
See TCD Spacing Table on TM800 for max. spacing.

○ ○ ○ TEMP. PLASTIC DRUMS  
See TCD Spacing Table on TM800 for max. spacing.

▨ UNDER TRAFFIC  
▨ UNDER CONSTRUCTION

CALC. BOOK NO. _____ N/A _____	SDR DATE _____ 01-JUL-2020 _____
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
<b>OREGON STANDARD DRAWINGS</b>	
<b>NON-FREEWAY MULTI-LANE SECTIONS</b>	
2021	
DATE	REVISION DESCRIPTION

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*

TM853

# SE SUNNYSIDE ROAD / SE 169TH AVE LEFT TURN LANE EXTENSION CLACKAMAS COUNTY, OREGON

## TOPOGRAPHIC LEGEND:

- |  |                            |  |  |
|--|----------------------------|--|--|
|  | LINEAR AC PATCH (UTILITY?) |  | SHRUB / BUSH (SIZE AS NOTED)                               |
|  | SANITARY SEWER MANHOLE     |  | DECIDUOUS TREE (APPROXIMATE DIAMETER/BREAST HIGH AS NOTED) |
|  | CURB INLET                 |  | TRAFFIC SIGNAL BOX   |
|  | STORM SEWER MANHOLE        |  |  |
|  | WATER VALVE                |  |  |
|  | IRRIGATION BOX             |  |  |

NOTE: SYMBOLS SHOWN HEREON ARE FOR GRAPHICAL REPRESENTATION PURPOSES AND DO NOT NECESSARILY SHOW SHAPE, SIZE, ROTATION, CONDITION, TYPE, ETC. OF THE ACTUAL PHYSICAL IMPROVEMENTS THAT THEY REPRESENT. CONDITION, TYPE, ROTATION, ETC. MAY VARY AMONGST ITEMS SHOWN BY THE SAME SYMBOL.

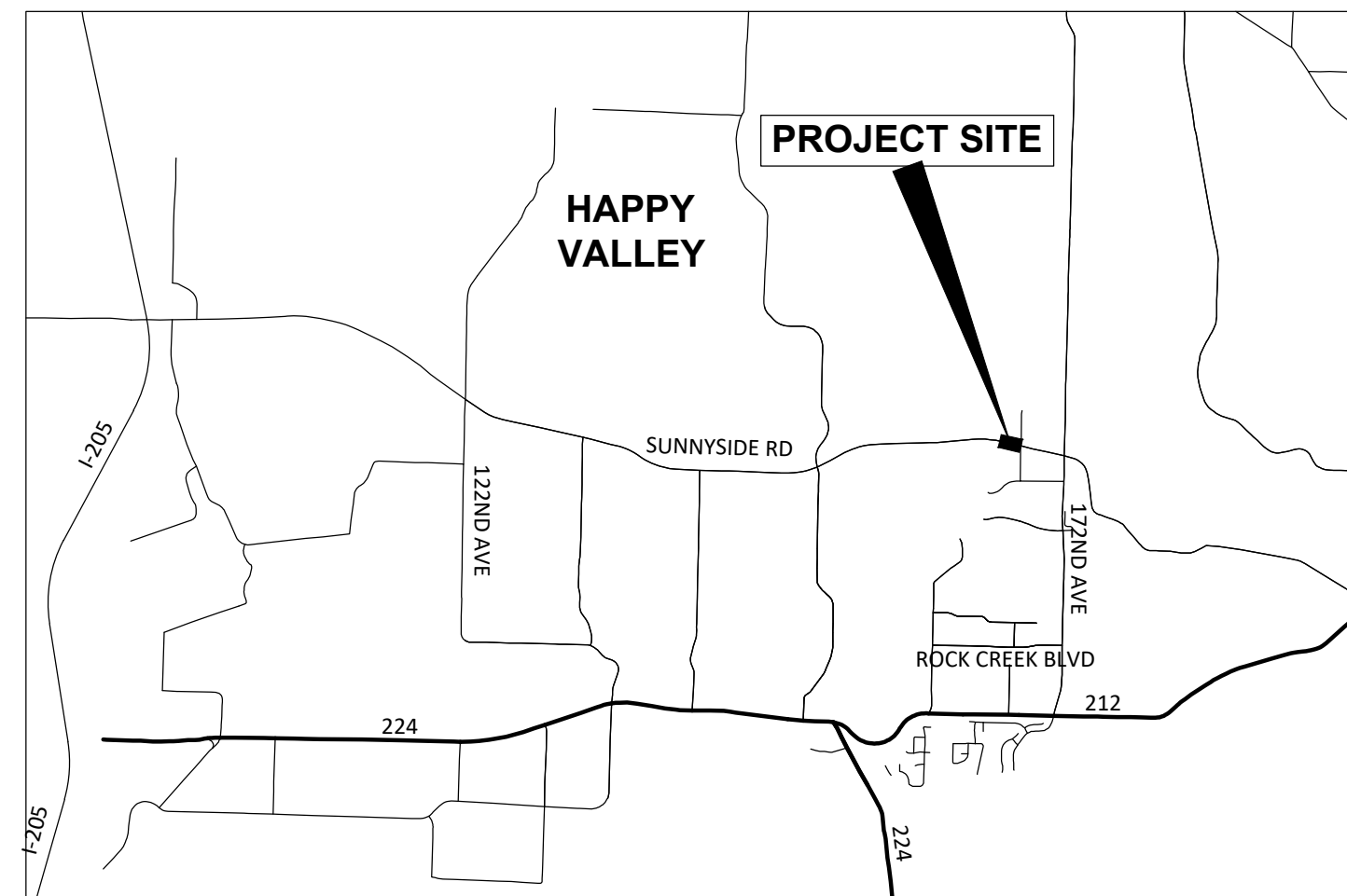
## VERTICAL DATUM:

ELEVATION DATUM: NAVD88, PER OCRS  
BENCHMARK: CP202 (BRASS PLUG MARKED HHR CONTROL)  
ELEVATION: 354.20'  
LOCATION: NORTH SIDE SUNNYSIDE RD APPROX 350' WEST OF 172ND

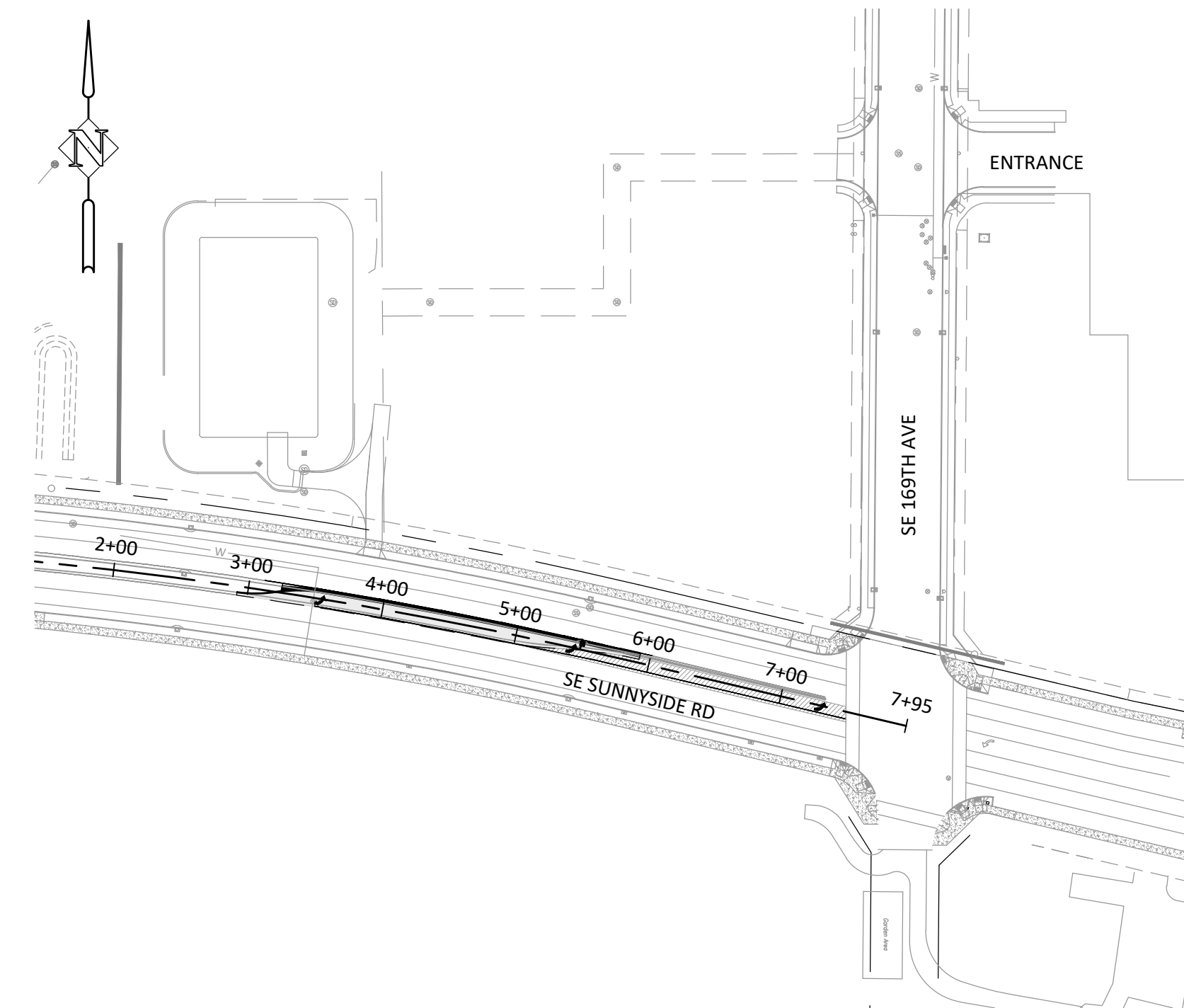
\*\*THE SURVEY DATA HEREIN WAS ADJUSTED HOLDING THE ELEVATION OF CP500 FIXED PER MEI-01

## HORIZONTAL DATUM

ASSUMED HORIZONTAL DATUM BASED ON MEI-01 AND TAS-03



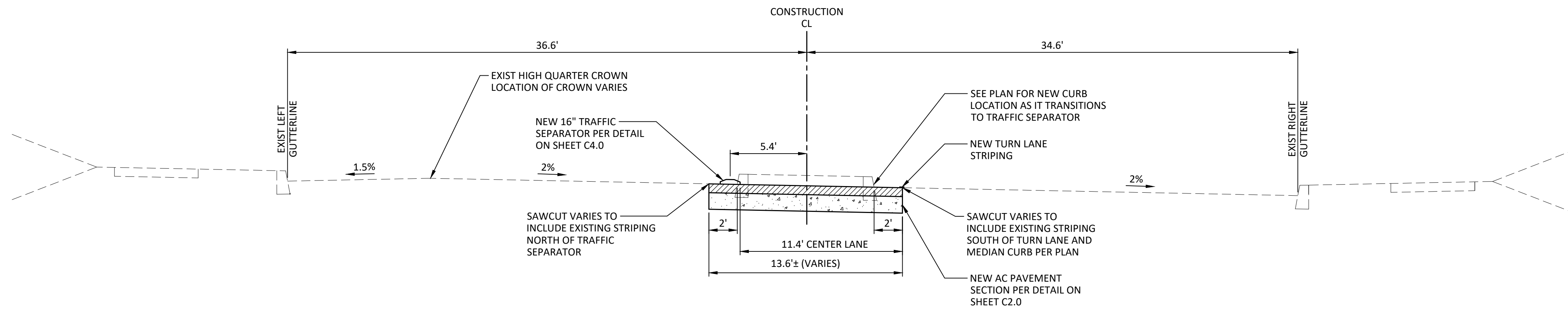
**VICINITY MAP**  
NTS.



**SITE MAP**  
1" = 200'

## CIVIL SHEET INDEX

- C1.0 COVER & GENERAL NOTES
- C2.0 TRAFFIC SEPARATOR PLAN
- C3.0 GRADING PLAN
- C4.0 DETAILS



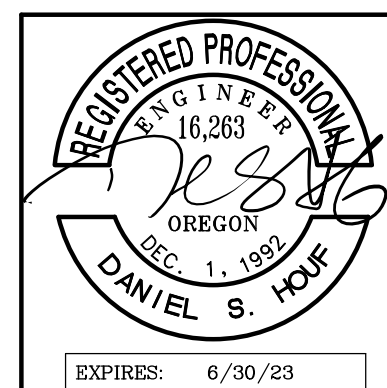
**SUNNYSIDE - TURN LANE**  
SCALE: 1" = 5'

**NOTE:**  
ORIGINAL DESIGN OF SUNNYSIDE ROAD WAS IN METRIC UNITS, SO THERE MAY BE MINOR DIMENSIONAL CHANGES IN THE FIELD TO MATCH EXISTING LANE WIDTH, ETC.

DATE	NO.	DESCRIPTION
R E V I S I O N S		

DESIGNED:	HHRP TEAM
DRAWN:	TLH
CHECKED:	DSH
DATE:	02/11/2022



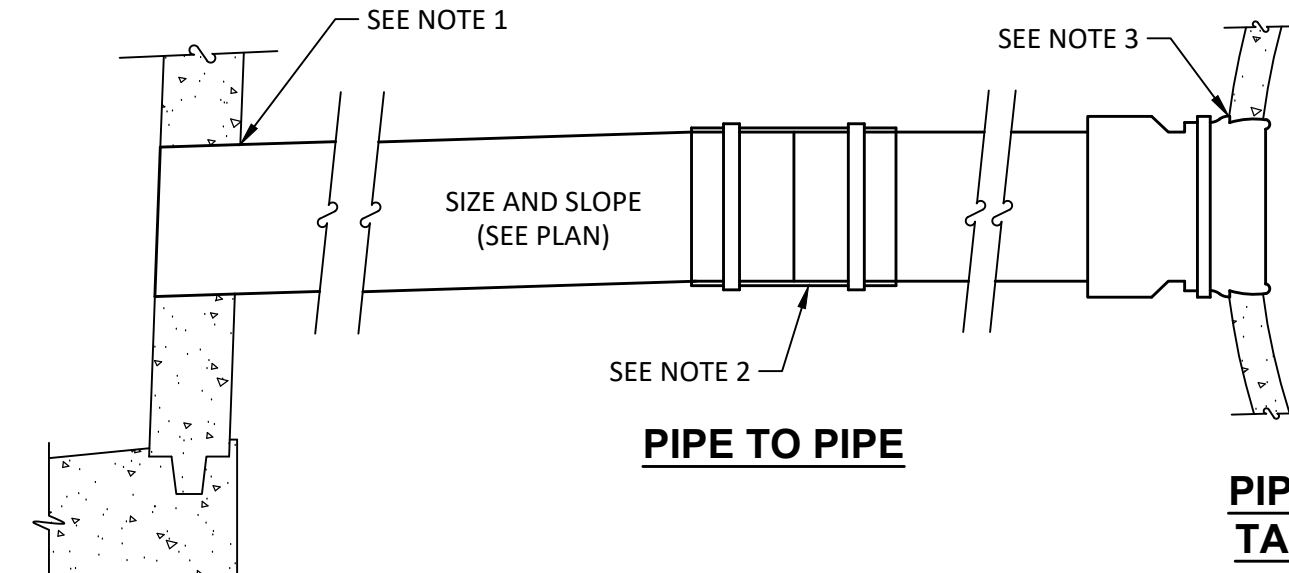
**Harper Houf Peterson Righellis Inc.**  
ENGINEERS \* PLANNERS  
LANDSCAPE ARCHITECTS \* SURVEYORS  
205 SE Spokane Street, Suite 200, Portland, OR 97202  
phone: 503.221.1131 www.hhrp.com fax: 503.221.1171

WORKSITE #2 - COVER & GENERAL NOTES  
**SUNNYSIDE & SE 169TH TURN LANE EXTENSION**  
HAPPY VALLEY, OREGON

BID SET  
SHEET NO.  
**C1.0**  
JOB NO.  
CLA-104

P:\01-Portland\CLA (Clackamas County)\CLA-104 (Sunnyside Turn Lane Extension)\CLA-104-DWG\Sheet\CLA104-1 0 COVER.dwg

**STATIONING IS CONSTRUCTION  
STATIONING ONLY AND NOT  
ROW CENTERLINE STATIONING.**

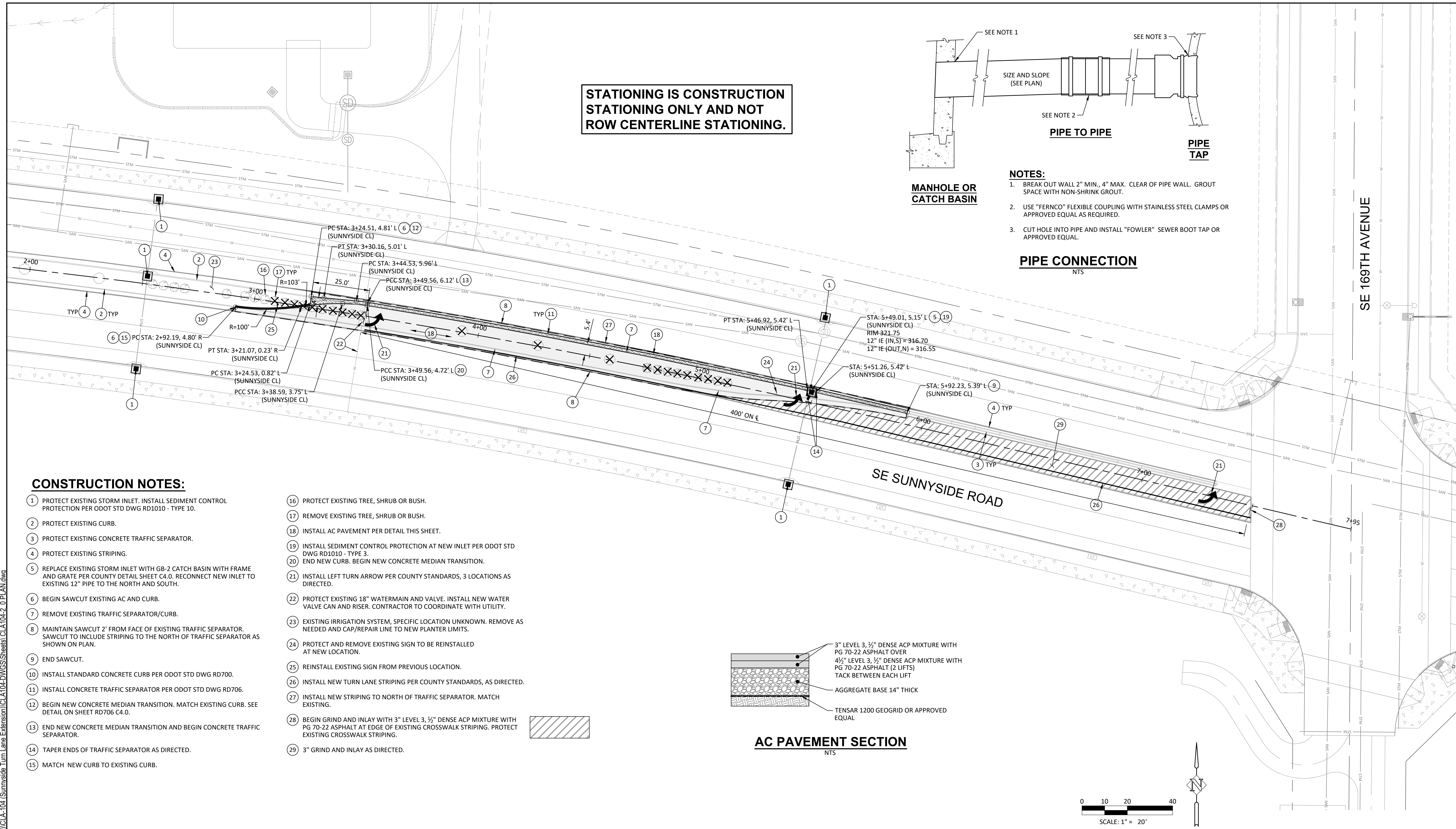


**NOTES:**

1. BREAK OUT WALL 2" MIN., 4" MAX. CLEAR OF PIPE WALL. GROUT SPACE WITH NON-SHRINK GROUT.
2. USE "FERNCO" FLEXIBLE COUPLING WITH STAINLESS STEEL CLAMPS OR APPROVED EQUAL AS REQUIRED.
3. CUT HOLE INTO PIPE AND INSTALL "FOWLER" SEWER BOOT TAP OR APPROVED EQUAL.

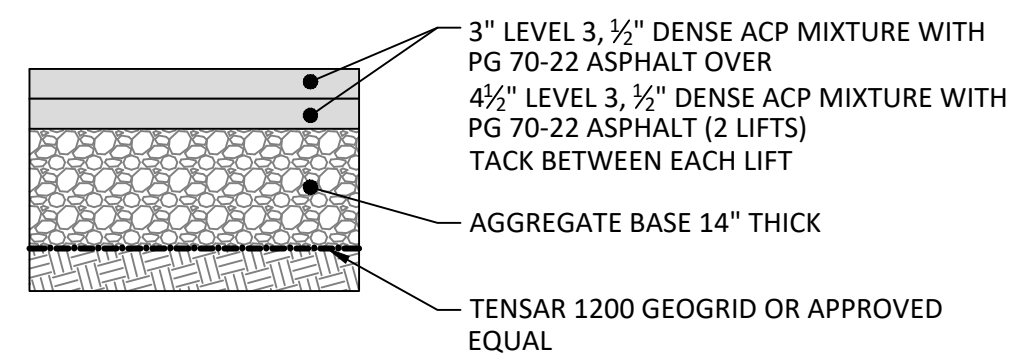
**PIPE CONNECTION**

NTS



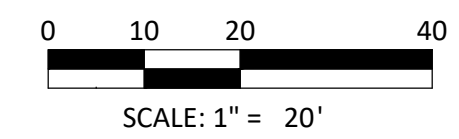
**CONSTRUCTION NOTES:**

1. PROTECT EXISTING STORM INLET. INSTALL SEDIMENT CONTROL PROTECTION PER ODOT STD DWG RD1010 - TYPE 10.
2. PROTECT EXISTING CURB.
3. PROTECT EXISTING CONCRETE TRAFFIC SEPARATOR.
4. PROTECT EXISTING STRIPING.
5. REPLACE EXISTING STORM INLET WITH GB-2 CATCH BASIN WITH FRAME AND GRATE PER COUNTY DETAIL SHEET C4.0. RECONNECT NEW INLET TO EXISTING 12" PIPE TO THE NORTH AND SOUTH.
6. BEGIN SAWCUT EXISTING AC AND CURB.
7. REMOVE EXISTING TRAFFIC SEPARATOR/CURB.
8. MAINTAIN SAWCUT 2' FROM FACE OF EXISTING TRAFFIC SEPARATOR. SAWCUT TO INCLUDE STRIPING TO THE NORTH OF TRAFFIC SEPARATOR AS SHOWN ON PLAN.
9. END SAWCUT.
10. INSTALL STANDARD CONCRETE CURB PER ODOT STD DWG RD700.
11. INSTALL CONCRETE TRAFFIC SEPARATOR PER ODOT STD DWG RD706.
12. BEGIN NEW CONCRETE MEDIAN TRANSITION. MATCH EXISTING CURB. SEE DETAIL ON SHEET RD706 C4.0.
13. END NEW CONCRETE MEDIAN TRANSITION AND BEGIN CONCRETE TRAFFIC SEPARATOR.
14. TAPER ENDS OF TRAFFIC SEPARATOR AS DIRECTED.
15. MATCH NEW CURB TO EXISTING CURB.
16. PROTECT EXISTING TREE, SHRUB OR BUSH.
17. REMOVE EXISTING TREE, SHRUB OR BUSH.
18. INSTALL AC PAVEMENT PER DETAIL THIS SHEET.
19. INSTALL SEDIMENT CONTROL PROTECTION AT NEW INLET PER ODOT STD DWG RD1010 - TYPE 3.
20. END NEW CURB. BEGIN NEW CONCRETE MEDIAN TRANSITION.
21. INSTALL LEFT TURN ARROW PER COUNTY STANDARDS, 3 LOCATIONS AS DIRECTED.
22. PROTECT EXISTING 18" WATERMAIN AND VALVE. INSTALL NEW WATER VALVE CAN AND RISER. CONTRACTOR TO COORDINATE WITH UTILITY.
23. EXISTING IRRIGATION SYSTEM, SPECIFIC LOCATION UNKNOWN. REMOVE AS NEEDED AND CAP/REPAIR LINE TO NEW PLANTER LIMITS.
24. PROTECT AND REMOVE EXISTING SIGN TO BE REINSTALLED AT NEW LOCATION.
25. REINSTALL EXISTING SIGN FROM PREVIOUS LOCATION.
26. INSTALL NEW TURN LANE STRIPING PER COUNTY STANDARDS, AS DIRECTED.
27. INSTALL NEW STRIPING TO NORTH OF TRAFFIC SEPARATOR. MATCH EXISTING.
28. BEGIN GRIND AND INLAY WITH 3" LEVEL 3, 1/2" DENSE ACP MIXTURE WITH PG 70-22 ASPHALT AT EDGE OF EXISTING CROSSWALK STRIPING. PROTECT EXISTING CROSSWALK STRIPING.
29. 3" GRIND AND INLAY AS DIRECTED.



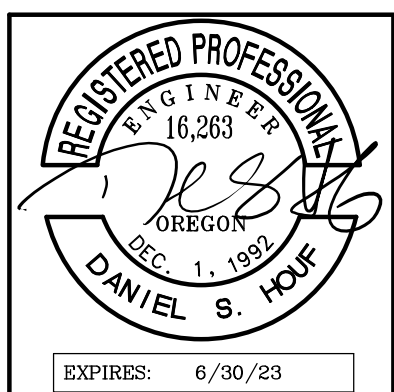
**AC PAVEMENT SECTION**

NTS



P:\01-Portland\CLA (Clackamas County)\CLA-104 (Sunnyside Turn Lane Extension)\CLA-104-DWG\Sheets\CLA104-2 - 0 PLAN.dwg

DESIGNED:	HHPR TEAM		
DRAWN:	TLH		
CHECKED:	DSH		
DATE:	02/11/2022		
DATE	NO.	DESCRIPTION	
R E V I S I O N S			

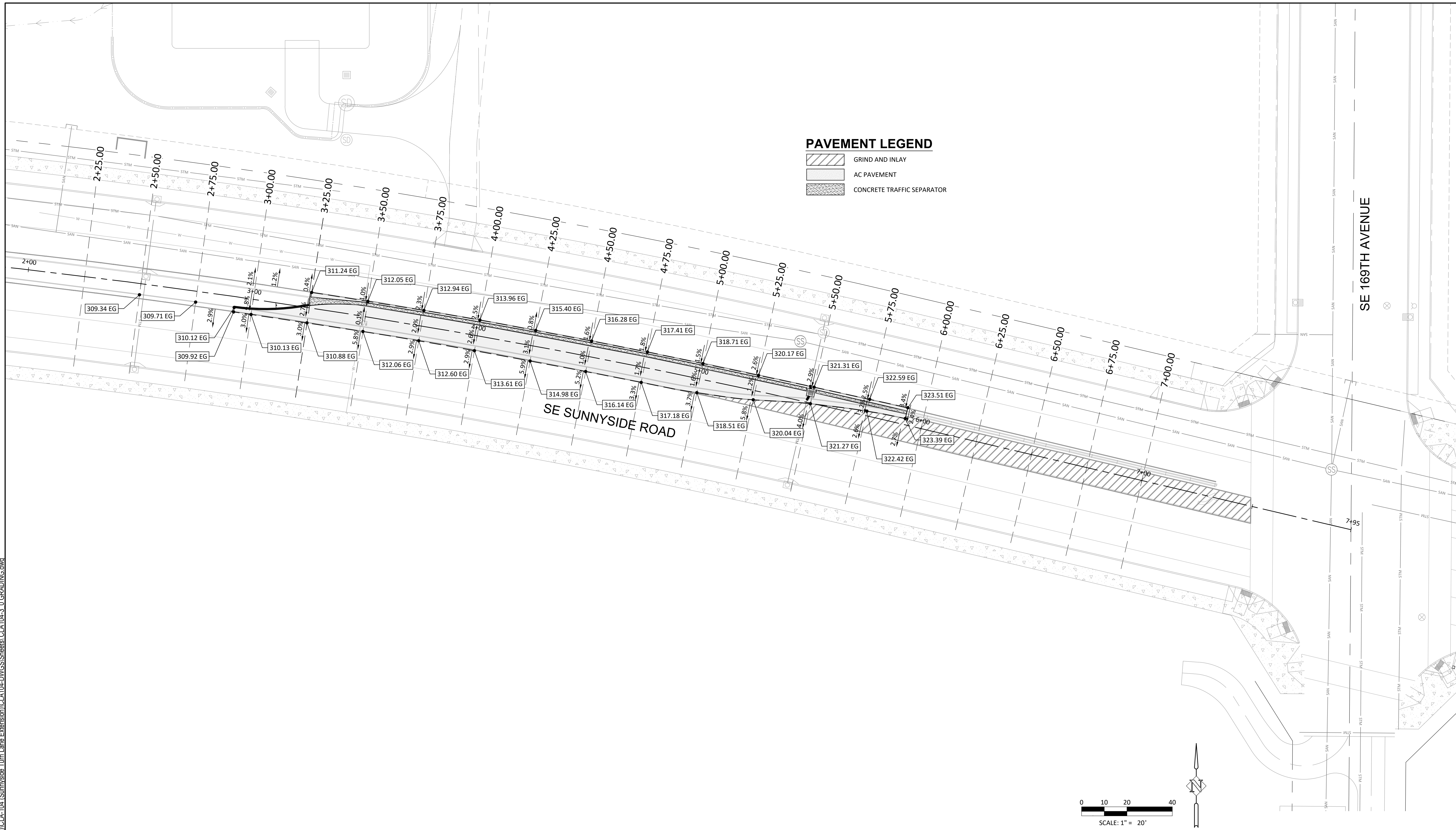


**HHPR** Harper Houf Peterson Righellis Inc.  
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205 SE Spokane Street, Suite 200, Portland, OR 97202  
phone: 503.221.1131 www.hhpr.com fax: 503.221.1171




WORKSITE #2 - TRAFFIC SEPARATOR PLAN  
**SUNNYSIDE & SE 169TH TURN LANE EXTENSION**  
HAPPY VALLEY, OREGON

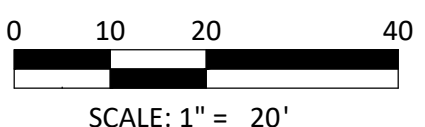
SHEET NO.	<b>C2.0</b>
JOB NO.	
CLA-104	

P:\01-Portland\CLA (Clackamas County)\CLA-104 (Sunnyside Turn Lane Extension)\CLA104-DWG\Sheets\CLA104-3\_0 GRADING.dwg

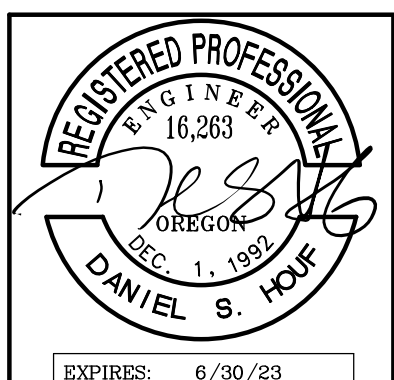


**PAVEMENT LEGEND**

-  GRIND AND INLAY
-  AC PAVEMENT
-  CONCRETE TRAFFIC SEPARATOR



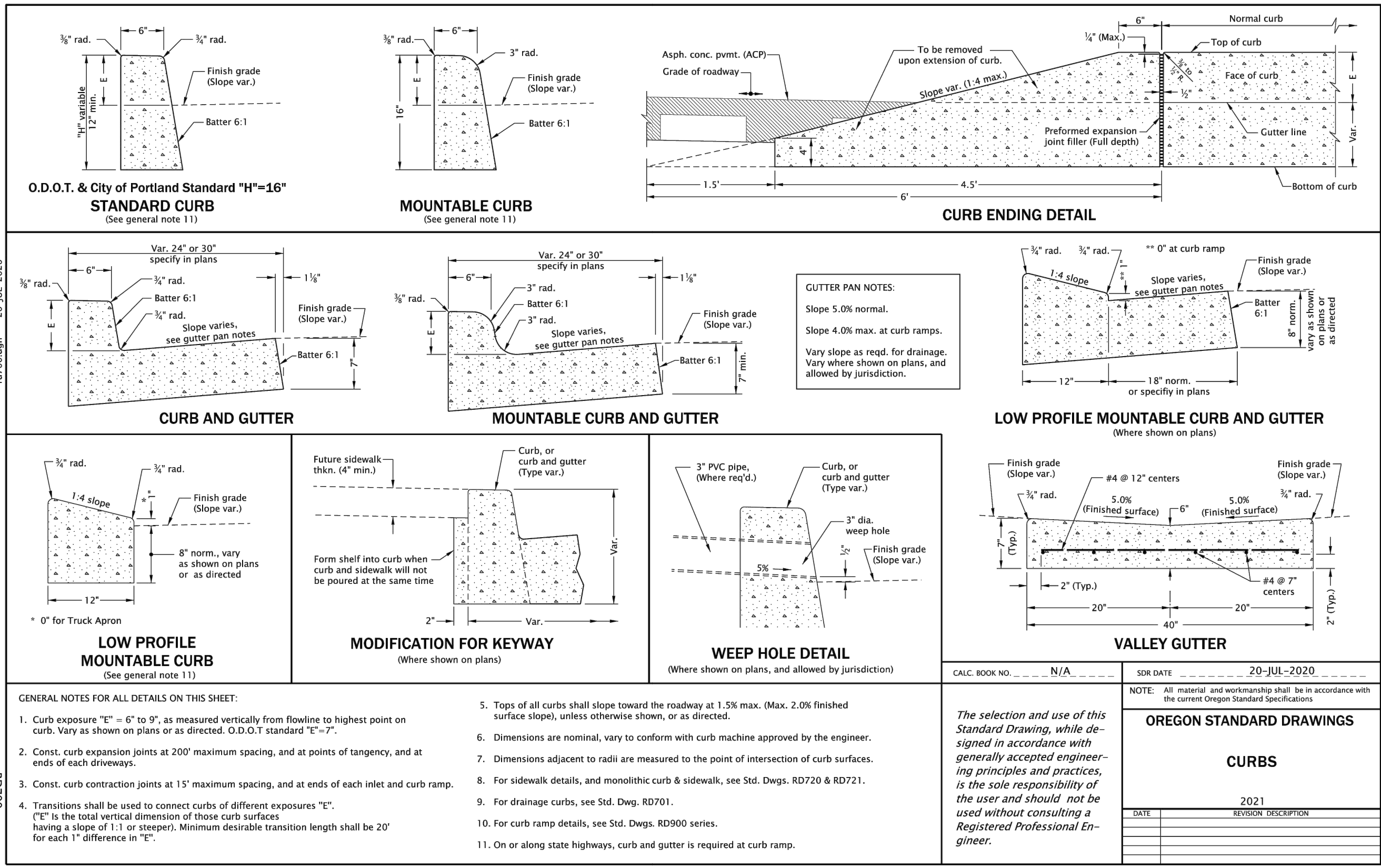
DESIGNED:		HHPR TEAM
DRAWN:		TLH
CHECKED:		DSH
DATE:		02/11/2022
DATE	NO.	DESCRIPTION
R E V I S I O N S		



**HHPR** Harper Houf Peterson Righellis Inc.  
ENGINEERS \* PLANNERS  
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 205 SE Spokane Street, Suite 200, Portland, OR 97202  
 phone: 503.221.1131 www.hhpr.com fax: 503.221.1171

**WORKSITE #2 - GRADING PLAN**  
**SUNNYSIDE & SE 169TH TURN LANE EXTENSION**  
 HAPPY VALLEY, OREGON

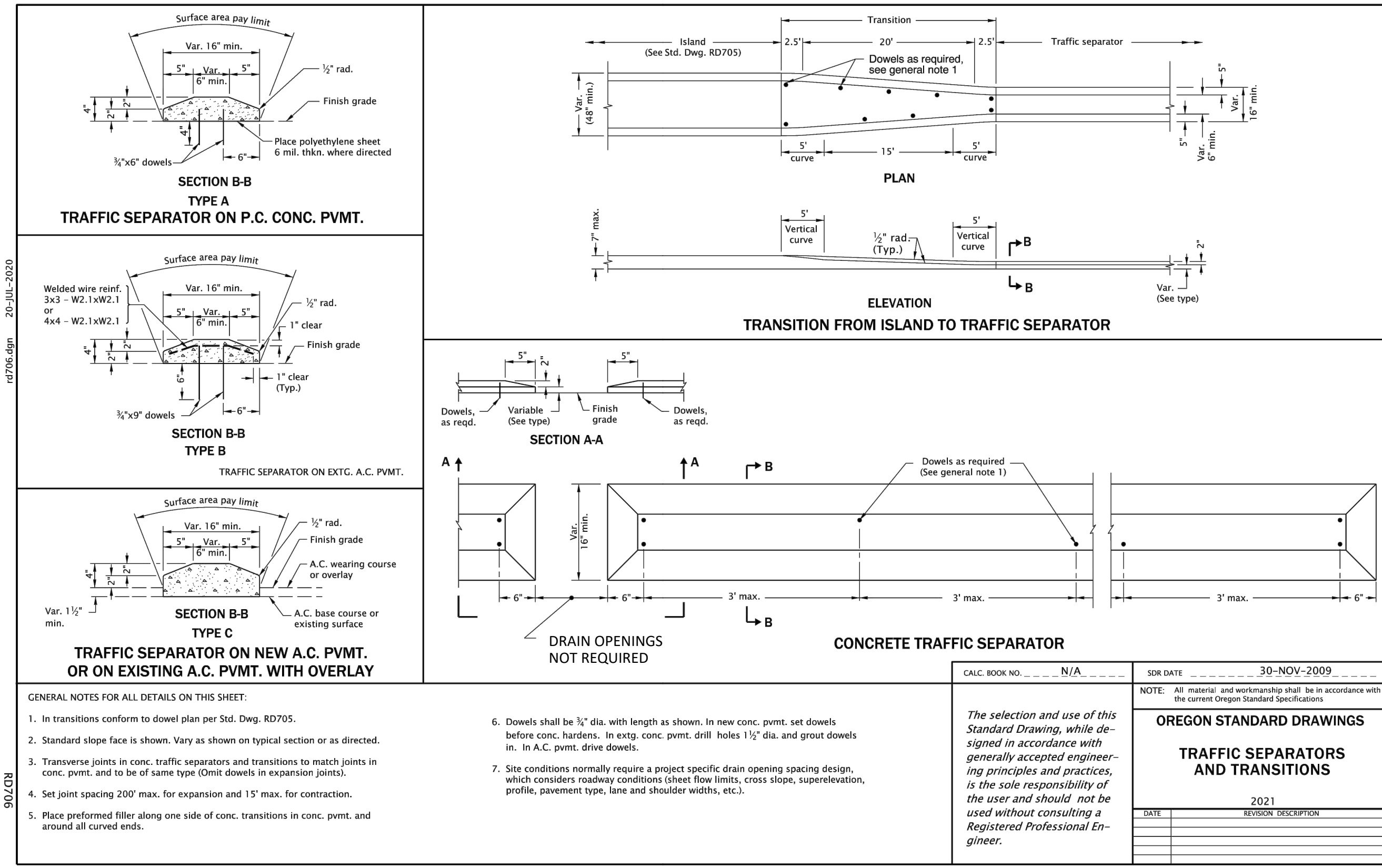
SHEET NO.	<b>C3.0</b>
JOB NO.	CLA-104



GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. Curb exposure "E" = 6" to 9", as measured vertically from flowline to highest point on curb. Vary as shown on plans or as directed. O.D.O.T. standard "E" = 7".
2. Const. curb expansion joints at 200' maximum spacing, and at points of tangency, and at ends of each driveway.
3. Const. curb contraction joints at 15' maximum spacing, and at ends of each inlet and curb ramp.
4. Transitions shall be used to connect curbs of different exposures "E". ("E" is the total vertical dimension of those curb surfaces having a slope of 1:1 or steeper). Minimum desirable transition length shall be 20' for each 1" difference in "E".
5. Tops of all curbs shall slope toward the roadway at 1.5% max. (Max. 2.0% finished surface slope), unless otherwise shown, or as directed.
6. Dimensions are nominal, vary to conform with curb machine approved by the engineer.
7. Dimensions adjacent to radii are measured to the point of intersection of curb surfaces.
8. For sidewalk details, and monolithic curb & sidewalk, see Std. Dwg. RD720 & RD721.
9. For drainage curbs, see Std. Dwg. RD701.
10. For curb ramp details, see Std. Dwg. RD900 series.
11. On or along state highways, curb and gutter is required at curb ramp.

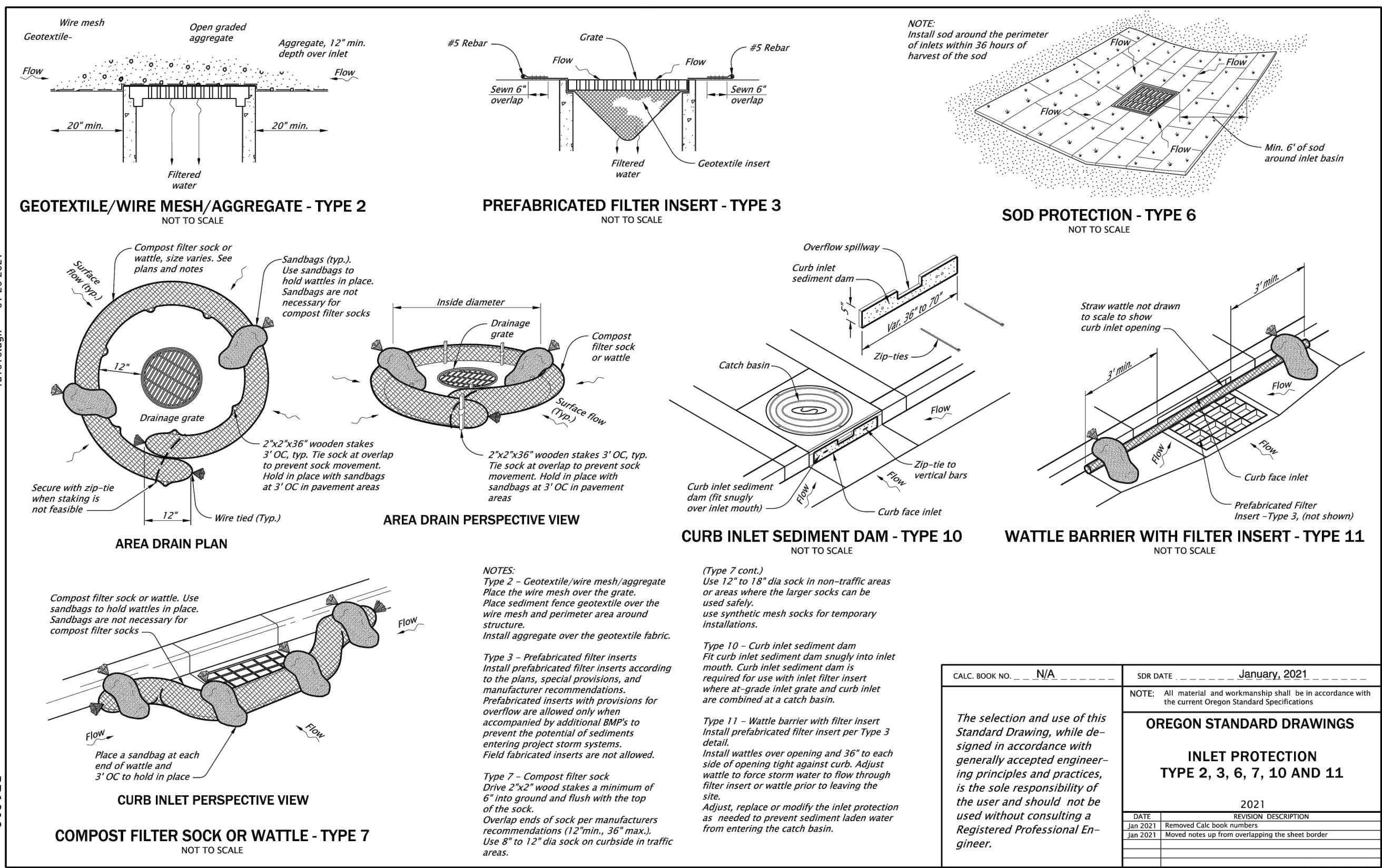
Effective Date: December 1, 2021 - May 31, 2022 RD700



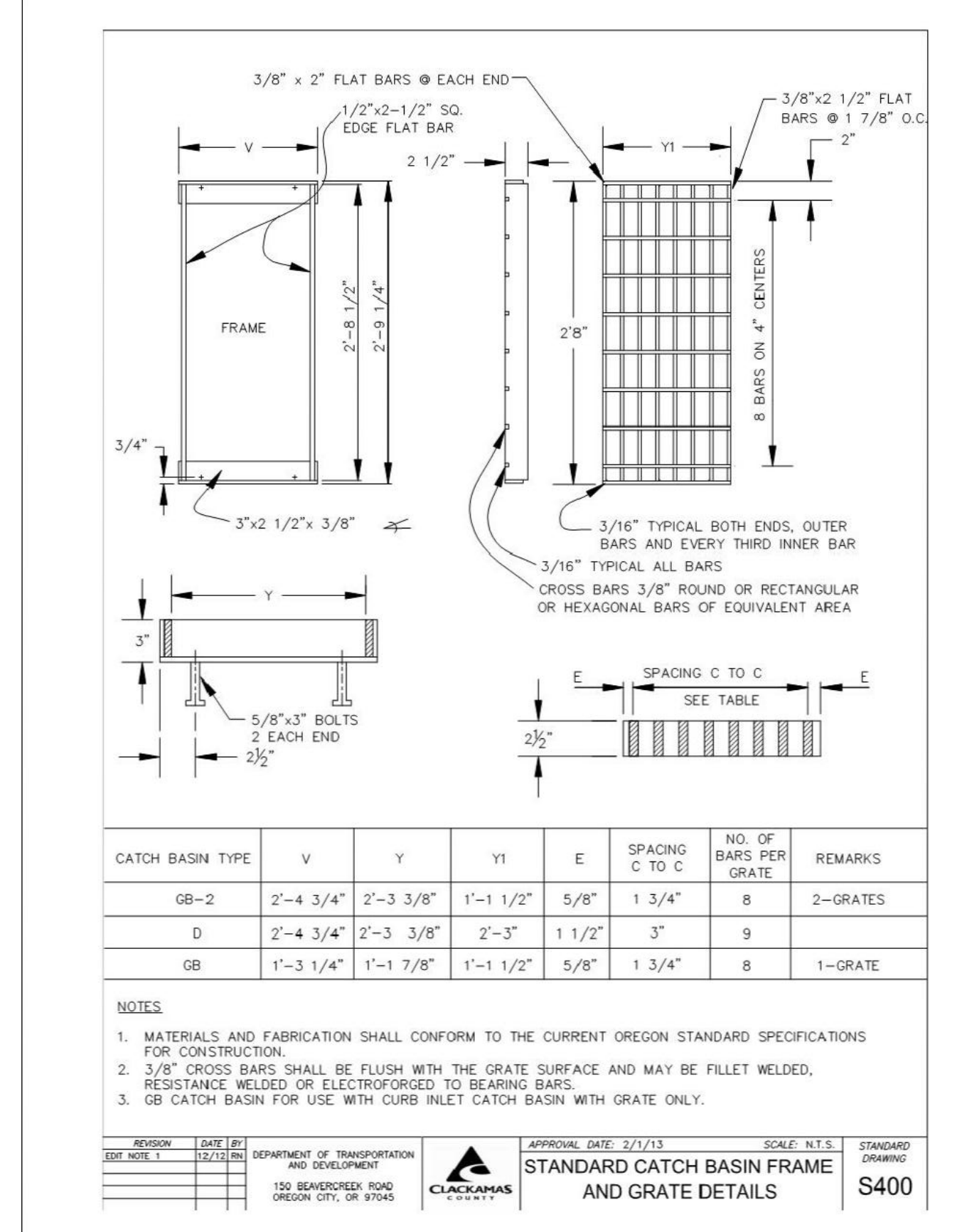
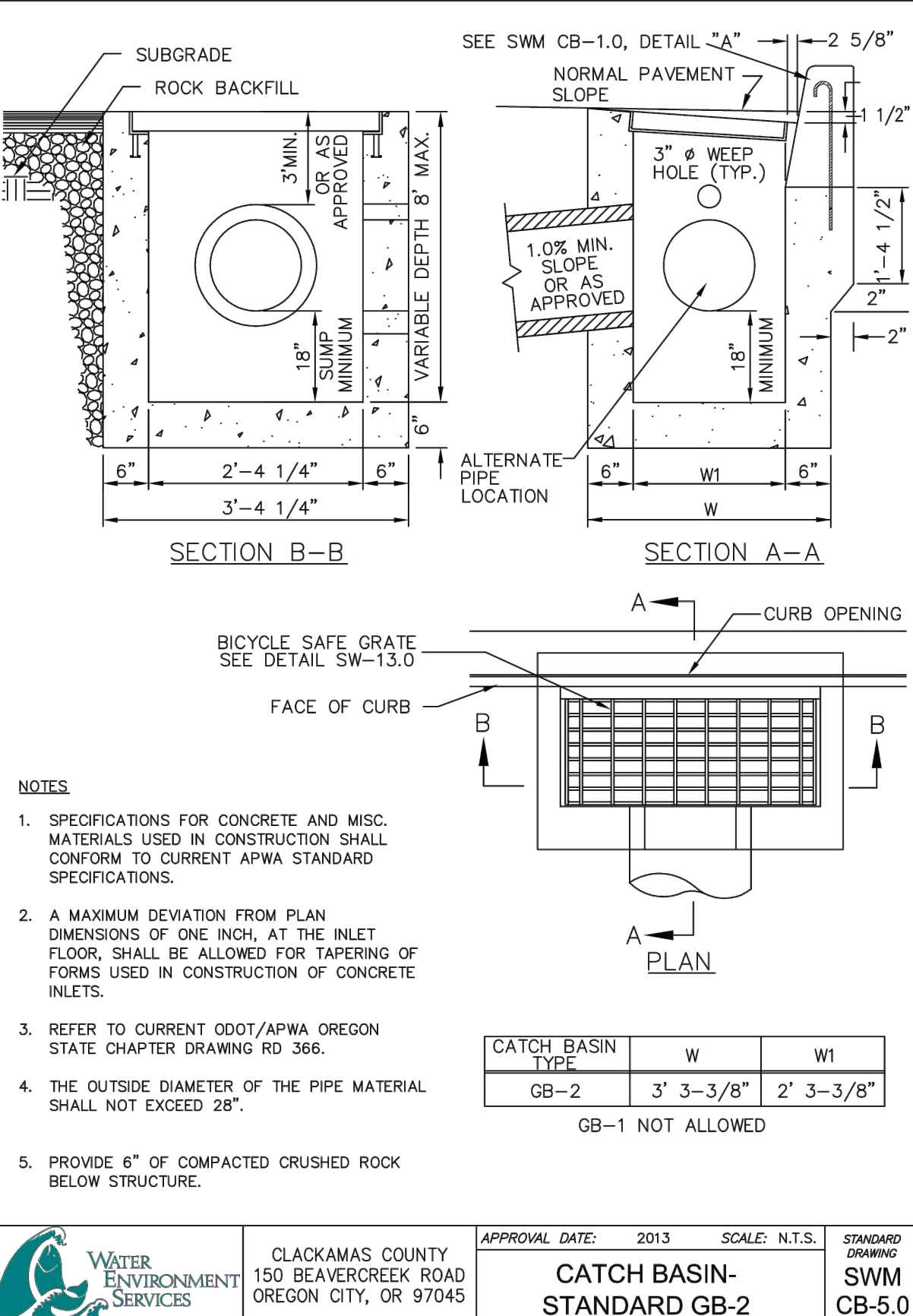
GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. In transitions conform to detail plan per Std. Dwg. RD705.
2. Standard slope face is shown. Vary as shown on typical section or as directed.
3. Transverse joints in conc. traffic separators and transitions to match joints in conc. p.v.m.t. and to be of same type (omit dowels in expansion joints).
4. Set joint spacing 200' max. for expansion and 15' max. for contraction.
5. Place preformed filler along one side of conc. transitions in conc. p.v.m.t. and around all curved ends.
6. Dowels shall be 1/2" dia. with length as shown. In new conc. p.v.m.t. set dowels before conc. hardens. In extg. conc. p.v.m.t. drill holes 1 1/2" dia. and grout dowels in. In A.C. p.v.m.t. drive dowels.
7. Site conditions normally require a project specific drain opening spacing design, which considers roadway conditions (sheet flow limits, cross slope, super-elevation, profile, pavement type, lane and shoulder widths, etc.).

Effective Date: December 1, 2021 - May 31, 2022 RD706



Effective Date: December 1, 2021 - May 31, 2022 RD1010



DATE	NO.	DESCRIPTION

DESIGNED: HHPR TEAM  
DRAWN: TLH  
CHECKED: DSH  
DATE: 02/11/2022



**Harper Houf Peterson Righellis Inc.**  
ENGINEERS \* PLANNERS  
LANDSCAPE ARCHITECTS \* SURVEYORS  
205 SE Spokane Street, Suite 200, Portland, OR 97202  
phone: 503.221.1131 www.hhpr.com fax: 503.221.1171

**WORKSITE #2 - DETAILS**  
**SUNNYSIDE & SE 169TH TURN LANE EXTENSION**  
HAPPY VALLEY, OREGON

SHEET NO. **C4.0**  
JOB NO. CLA-104

P:\01-Portland\CLA (Clackamas County)\CLA-104 (Sunnyside Turn Lane Extension)\CLA-104-DWGSSheets\CLA104-4\_0 DETAILS.dwg



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
06/08/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER LIC #0C36861 Alliant Insurance Services, Inc. 100 Pine Street, 11th Floor San Francisco, CA 94111	1-415-403-1491	CONTACT NAME: Kimberly Leikam PHONE (A/C. No. Ext): 415-403-1491 E-MAIL ADDRESS: kleikam@alliant.com	FAX (A/C. No): 415-874-4818
INSURED Granite Construction Company 585 West Beach Street Watsonville, CA 95076		INSURER(S) AFFORDING COVERAGE	
		INSURER A: VALLEY FORGE INS CO	NAIC # 20508
		INSURER B: CONTINENTAL CAS CO	20443
		INSURER C: TRANSPORTATION INS CO	20494
		INSURER D:	
		INSURER E:	
		INSURER F:	

**COVERAGES**

CERTIFICATE NUMBER: 65732939

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.


INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liability <input checked="" type="checkbox"/> XCU Hazards GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC <input type="checkbox"/> OTHER:	X	X	GL2074978689	10/01/20	10/01/23	EACH OCCURRENCE	\$ 2,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 2,000,000
							MED EXP (Any one person)	\$ Nil
							PERSONAL & ADV INJURY	\$ 2,000,000
							GENERAL AGGREGATE	\$ 10,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
A	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY <input checked="" type="checkbox"/> Contractual	X	X	BUA2074978692	10/01/20	10/01/23	COMBINED SINGLE LIMIT (Ea accident)	\$ 2,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
								\$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			CUE2068209453	10/01/21	10/01/22	EACH OCCURRENCE	\$ 8,000,000
							AGGREGATE	\$ 8,000,000
								\$
C	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	WC274978658 (NY)	10/01/21	10/01/22	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER	
C				WC274978661 (MT,WI,HI)	10/01/21	10/01/22	E.L. EACH ACCIDENT	\$ 2,000,000
A				WC274978644 (AOS/Stop Gap)	10/01/21	10/01/22	E.L. DISEASE - EA EMPLOYEE	\$ 2,000,000
A				WC274978630 (CA)	10/01/21	10/01/22	E.L. DISEASE - POLICY LIMIT	\$ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: Project Name: # 2022-32 Sunnyside Road Area Paving Project  
 Clackamas County, its officers, agents, and employees are included as Additional Insured as required by written and executed agreement per the attached endorsements. Coverage is primary & non-contributory and waivers of subrogation apply.

30 Days Written Notice of Cancellation for Non-Renewal and 10 Days Notice of Cancellation for Non-Payment of Premiums  
 GL Per ISO Form CG0001 10/01; AL Per ISO Form CA0001 10/13

**CERTIFICATE HOLDER****CANCELLATION**

Clackamas County  2051 Kaen Road  Oregon City, OR 97045  USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
--	--

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ACORD 25 (2016/03)

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ttaganap  
65732939



# SUPPLEMENT TO CERTIFICATE OF INSURANCE

DATE  
06/08/2022

NAME OF INSURED: Granite Construction Company

The named insured reserves its rights to provide any additional coverages under the policies above to only those expressly negotiated for by contract.



**BLANKET ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS –  
WITH PRODUCTS-COMPLETED OPERATIONS COVERAGE**

It is understood and agreed that this endorsement amends the **COMMERCIAL GENERAL LIABILITY COVERAGE PART** as follows:

**SCHEDULE (OPTIONAL)**

<b>Name of Additional Insured Persons Or Organizations</b>
(As required by "written contract" per Paragraph A. below.)

<b>Locations of Covered Operations</b>
(As per the "written contract," provided the location is within the "coverage territory" of this Coverage Part.)

**A. Section II - Who Is An Insured** is amended to include as an additional insured:

1. Any person or organization whom you are required by "written contract" to add as an additional insured on this Coverage Part; and
2. The particular person or organization, if any, scheduled above.

**B.** The insurance provided to the additional insured is limited as follows:

1. The person or organization is an additional insured only with respect to liability for "bodily injury," "property damage," or "personal and advertising injury" caused in whole or in part by:
  - a. Your acts or omissions, or the acts or omissions of those acting on your behalf, in the performance of your ongoing operations specified in the "written contract"; or
  - b. "Your work" that is specified in the "written contract" but only for "bodily injury" or "property damage" included in the "products-completed operations hazard," and only if:
    - (1) The "written contract" requires you to provide the additional insured such coverage; and
    - (2) This Coverage Part provides such coverage.
2. If the "written contract" specifically requires you to provide additional insurance coverage via the 10/01 edition of CG2010 (aka CG 20 10 10 01), or via the 10/01 edition of CG2037 (aka CG 20 37 10 01), or via the 11/85 edition of CG2010 (aka CG 20 10 11 85), then in paragraph **B.1.** above, the words 'caused in whole or in part by' are replaced by the words 'arising out of'.
3. We will not provide the additional insured any broader coverage or any higher limit of insurance than:
  - a. The maximum permitted by law;
  - b. That required by the "written contract";
  - c. That described in **B.1.** above; or
  - d. That afforded to you under this policy,
 whichever is less.
4. Notwithstanding anything to the contrary in Condition **4. Other Insurance** (Section **IV**), this insurance is excess of all other insurance available to the additional insured whether on a primary, excess, contingent or

any other basis. But if required by the "written contract" to be primary and non-contributory, this insurance will be primary and non-contributory relative to insurance on which the additional insured is a Named Insured.

5. The insurance provided to the additional insured does not apply to "bodily injury," "property damage," or "personal and advertising injury" arising out of:
  - a. The rendering of, or the failure to render, any professional architectural, engineering, or surveying services, including:
    - (1) The preparing, approving, or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and
    - (2) Supervisory, inspection, architectural or engineering activities; or
  - b. Any premises or work for which the additional insured is specifically listed as an additional insured on another endorsement attached to this Coverage Part.

**C. SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS** is amended as follows:

1. The **Duties In The Event of Occurrence, Offense, Claim or Suit** condition is amended to add the following additional conditions applicable to the additional insured:

An additional insured under this endorsement will as soon as practicable:

- (1) Give us written notice of an "occurrence" or an offense which may result in a claim or "suit" under this insurance, and of any claim or "suit" that does result;
- (2) Except as provided in Paragraph **B.4.** of this endorsement, agree to make available any other insurance the additional insured has for a loss we cover under this Coverage Part;
- (3) Send us copies of all legal papers received, and otherwise cooperate with us in the investigation, defense, or settlement of the claim or "suit"; and
- (4) Tender the defense and indemnity of any claim or "suit" to any other insurer or self insurer whose policy or program applies to a loss we cover under this Coverage Part. But if the "written contract" requires this insurance to be primary and non-contributory, this provision (4) does not apply to insurance on which the additional insured is a Named Insured.

We have no duty to defend or indemnify an additional insured under this endorsement until we receive from the additional insured written notice of a claim or "suit."

- D. Only for the purpose of the insurance provided by this endorsement, **SECTION V – DEFINITIONS** is amended to add the following definition:

"Written contract" means a written contract or written agreement that requires you to make a person or organization an additional insured on this Coverage Part, provided the contract or agreement:

1. Is currently in effect or becomes effective during the term of this policy; and
2. Was executed prior to:
  - a. The "bodily injury" or "property damage"; or
  - b. The offense that caused the "personal and advertising injury,"for which the additional insured seeks coverage under this Coverage Part.

All other terms and conditions of the Policy remain unchanged.

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**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

## **DESIGNATED CONSTRUCTION PROJECT(S) GENERAL AGGREGATE LIMIT**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

### **SCHEDULE**

**Designated Construction Project(s):**

Any construction project as required by a written contract or agreement that was executed prior to the date of loss.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

- A.** For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under Section **I** – Coverage **A**, and for all medical expenses caused by accidents under Section **I** – Coverage **C**, which can be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:
1. A separate Designated Construction Project General Aggregate Limit applies to each designated construction project, and that limit is equal to the amount of the General Aggregate Limit shown in the Declarations.
  2. The Designated Construction Project General Aggregate Limit is the most we will pay for the sum of all damages under Coverage **A**, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard," and for medical expenses under Coverage **C** regardless of the number of:
    - a. Insureds;
    - b. Claims made or "suits" brought; or
    - c. Persons or organizations making claims or bringing "suits."
  3. Any payments made under Coverage **A** for damages or under Coverage **C** for medical expenses shall reduce the Designated Construction Project General Aggregate Limit for that designated construction project. Such payments shall not reduce the General Aggregate Limit shown in the Declarations nor shall they reduce any other Designated Construction Project General Aggregate Limit for any other designated construction project shown in the Schedule above.
  4. The limits shown in the Declarations for Each Occurrence, Damage To Premises Rented To You and Medical Expense continue to apply. However, instead of being subject to the General Aggregate Limit shown in the Declarations, such limits will be subject to the applicable Designated Construction Project General Aggregate Limit.

- B.** For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under Section I – Coverage **A**, and for all medical expenses caused by accidents under Section I – Coverage **C**, which cannot be attributed only to ongoing operations at a single designated construction project shown in the Schedule above:
1. Any payments made under Coverage **A** for damages or under Coverage **C** for medical expenses shall reduce the amount available under the General Aggregate Limit or the Products-completed Operations Aggregate Limit, whichever is applicable; and
  2. Such payments shall not reduce any Designated Construction Project General Aggregate Limit.
- C.** When coverage for liability arising out of the "products-completed operations hazard" is provided, any payments for damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard" will reduce the Products-completed Operations Aggregate Limit, and not reduce the General Aggregate Limit nor the Designated Construction Project General Aggregate Limit.
- D.** If the applicable designated construction project has been abandoned, delayed, or abandoned and then restarted, or if the authorized contracting parties deviate from plans, blueprints, designs, specifications or timetables, the project will still be deemed to be the same construction project.
- E.** The provisions of Section III – Limits Of Insurance not otherwise modified by this endorsement shall continue to apply as stipulated.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**  
**CONTRACTUAL LIABILITY – RAILROADS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

<b>Scheduled Railroad:</b>	<b>Designated Job Site:</b>
Any railroad which the named insured is required by written contract to add to this schedule.	Any jobsite designated in the written contract with a scheduled railroad.

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

With respect to operations performed for, or affecting, a Scheduled Railroad at a Designated Job Site, the definition of "insured contract" in the Definitions section is replaced by the following:

9. "Insured Contract" means:
- a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract";
  - b. A sidetrack agreement;
  - c. Any easement or license agreement;
  - d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;
  - e. An elevator maintenance agreement;
  - f. That part of any other contract or agreement pertaining to your business (including an indemnification of a municipality in connection with work performed for a municipality) under which you assume the tort liability of another party to pay for "bodily injury" or "property

damage" to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph f. does not include that part of any contract or agreement:

- (1) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:
  - (a) Preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
  - (b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage;
- (2) Under which the insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in Paragraph (1) above and supervisory, inspection, architectural or engineering activities.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**Waiver of Transfer of Rights of Recovery Against Others to Us**

This endorsement modifies insurance provided under the following:

**Commercial General Liability Coverage Form**

Under SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS, The Transfer Of Rights Of Recovery Against Others To Us Condition is amended by the addition of the following:

We waive any right of recovery we may have against any person or organization because of payments we make for injury or damage arising out of:

1. Your ongoing operations; or
2. "Your work" included in the "products completed operations hazard."

However, this waiver applies only when you have agreed in writing to waive such rights of recovery in a contract or agreement, and only if the contract or agreement:

1. Is in effect or becomes effective during the term of this policy; and
2. Was executed prior to loss.

This endorsement is part of your policy and takes effect on the effective date of your policy, unless another effective date is shown below.

Must Be Completed	
ENDT. NO. 26	POLICY NO. GL 2074978689

Complete Only When This Endorsement Is Not Prepared with the Policy Or Is Not to be Effective with the Policy	
ISSUED TO: Granite Construction Incorporated	EFFECTIVE DATE OF THIS ENDORSEMENT: 10/01/20



POLICY NUMBER: GL2074978689  
EFFECTIVE: 10/01/2020

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**CHANGES – NOTICE OF CANCELLATION  
OR MATERIAL COVERAGE CHANGE**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
LIQUOR LIABILITY COVERAGE PART  
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART  
POLLUTION LIABILITY COVERAGE PART  
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART  
RAILROAD PROTECTIVE LIABILITY COVERAGE PART

In the event of cancellation or material change that reduces or restricts the insurance afforded by this Coverage Part (other than the reduction of aggregate limits through payment of claims), we agree to mail prior written notice of cancellation or material change to:

**SCHEDULE**

1. Name: Any person or organization you are required by written contract or agreement to mail prior written notice of cancellation or material change.
2. Address: Per Certificates of Insurance on file with the broker.
3. Number of days advance notice:  
  
For non-payment of premium, the greater of:
  - the number of days required by state statute or
  - the number of days required by written contract  
For any other reason, the lesser of:
  - 60 days or
  - the number of days required in a written contract





## ADDITIONAL INSURED – PRIMARY AND NON-CONTRIBUTORY

It is understood and agreed that this endorsement amends the **BUSINESS AUTO COVERAGE FORM** as follows:

### SCHEDULE

Name of Additional Insured Persons Or Organizations
Any person or organization whom the named insured is required by written contract to add as an additional insured on this policy.

1. In conformance with paragraph **A.1.c.** of **Who Is An Insured** of Section **II – LIABILITY COVERAGE**, the person or organization scheduled above is an insured under this policy.
2. The insurance afforded to the additional insured under this policy will apply on a primary and non-contributory basis if you have committed it to be so in a written contract or written agreement executed prior to the date of the "accident" for which the additional insured seeks coverage under this policy.

All other terms and conditions of the Policy remain unchanged.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

# **WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US (WAIVER OF SUBROGATION)**

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM  
BUSINESS AUTO COVERAGE FORM  
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

<p><b>Named Insured: Granite Construction Incorporated</b></p> <p><b>Endorsement Effective Date: 10/01/2020</b></p>
---

### **SCHEDULE**

<p><b>Name(s) Of Person(s) Or Organization(s):</b></p> <p>Any person or organization for whom or which you are required by written contract or agreement to obtain this waiver from us.</p>
<p>Information required to complete this Schedule, if not shown above, will be shown in the Declarations.</p>

The **Transfer Of Rights Of Recovery Against Others To Us** condition does not apply to the person(s) or organization(s) shown in the Schedule, but only to the extent that subrogation is waived prior to the "accident" or the "loss" under a contract with that person or organization.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**Notice of Cancellation or Material Change –  
Designated Person or Organization**

This endorsement modifies insurance provided under the following:

**Business Auto Coverage Form**

In the event of cancellation or material change that reduces or restricts the insurance afforded by this Coverage Part, we agree to mail prior written notice of cancellation or material change to:

**SCHEDULE**

1. Name: Any person or organization you are required by written contract or agreement to mail prior written notice of cancellation or material change.
2. Address: Per Certificates of Insurance on file with the broker.
3. Number of days advance notice:

For non-payment of premium, the greater of:

- the number of days required by state statute or
- the number of days required by written contract

For any other reason, the lesser of:

- 60 days or
- the number of days required in a written contract

This endorsement is part of your policy and takes effect on the effective date of your policy, unless another effective date is shown below.

Must Be Completed	
ENDT. NO.	POLICY NO.
19	BUA 2074978692

Complete Only When This Endorsement Is Not Prepared With the Policy Or Is Not to be Effective with the Policy	
ISSUED TO:	EFFECTIVE DATE OF THIS ENDORSEMENT
Granite Construction Company	10/01/2020



Countersigned by

  
Authorized Representative

**WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT**

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

WHERE REQUIRED BY AN EXECUTED WRITTEN CONTRACT IN ALL STATES WHERE APPLICABLE.

**BLANKET WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS – CALIFORNIA**

This endorsement changes the policy to which it is attached.

It is agreed that Part One - Workers' Compensation Insurance G. Recovery From Others and Part Two - Employers' Liability Insurance H. Recovery From Others are amended by adding the following:

We will not enforce our right to recover against persons or organizations. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

**PREMIUM CHARGE - Refer to the Schedule of Operations**

The charge will be an amount to which you and we agree that is a percentage of the total standard premium for California exposure. The amount is N/A.

All other terms and conditions of the policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the policy issued by the designated Insurers, takes effect on the Policy Effective Date of said policy at the hour stated in said policy, unless another effective date (the Endorsement Effective Date) is shown below, and expires concurrently with said policy unless another expiration date is shown below.

This endorsement changes the policy to which it is attached effective on the date issued unless otherwise stated.

**(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)**

Endorsement Effective	10/01/2021	Policy No.	WC274978644 Valley Forge Insurance Co.	Endorsement No.	000
			WC274978658 Transportation Insurance Co.		
Insured	Granite Construction Incorporated		WC274978661 Transportation Insurance Co.	Premium \$	
			WC274978630 Valley Forge Insurance Co.		

Countersigned by \_\_\_\_\_



**WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE POLICY**

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**NOTICE OF CANCELLATION OR MATERIAL CHANGE ENDORSEMENT**

In the event of cancellation or other material change of the policy, we will mail advance notice to the person or organization named in the Schedule. The number of days advance notice is shown in the Schedule.

This endorsement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

**Schedule**

1. Number of days advance notice:

For non-payment of premium, the greater of:

- the number of days required by state statute or
- the number of days required by written contract

For any other reason, the lesser of:

- 60 days or
- the number of days required in a written contract

2. Notice will be mailed to:

Any person or organization you are required by written contract or agreement to mail prior written notice of cancellation or material change.

Address: Per Certificates of Insurance on file with the broker

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective 10-1-21

Policy No. WC274978630 Valley Forge Insurance Company

WC274978644 Valley Forge Insurance Company

WC274978658 Transportation Insurance Company

WC274978661 Transportation Insurance Company