

City of Tacoma  
Department of Public Works

# **SPECIFICATION NO. PW24-0054F**

## **PEDESTRIAN ACCESSIBILITY DISTRICT 10**

**Project No. PWK-G0065**

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

REQUEST FOR BIDS, SPECIAL PROVISIONS, BID PROPOSAL AND CONTRACT

FOR

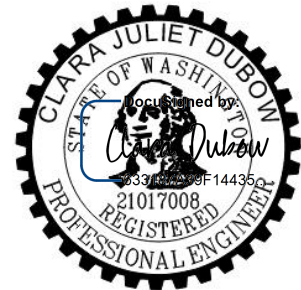
SPECIFICATION NO.  
PW24-0054F

PEDESTRIAN ACCESSIBILITY  
DISTRICT 10

PROJECT NO. PWK-G0065

Division 1

Clara Dubow, PE, Eng. Project Manager  
Engineering Division  
Public Works Department  
Tacoma Municipal Building, Room 522  
Tacoma, Washington 98402



05/22/2024

Division 2-9

Brian Wang, PE, Project Engineer  
Engineering Division  
Public Works Department  
Tacoma Municipal Building, Room 544  
Tacoma, Washington 98402



05/22/2024

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**City of Tacoma  
PUBLIC WORKS ENGINEERING**

**REQUEST FOR BIDS PW24-0054F  
Pedestrian Accessibility District 10**

**Submittal Deadline: 11:00 a.m., Pacific Time, Tuesday, Tuesday, July 2, 2024**

Submittals must be received by the City’s Procurement and Payables Division prior to 11:00 a.m. Pacific Time.

For electronic submittals, the City of Tacoma will designate the time of receipt recorded by our email, [sendbid@cityoftacoma.org](mailto:sendbid@cityoftacoma.org), as the official time of receipt. This clock will be used as the official time of receipt of all parts of electronic bid submittals. For in person submittals, the City of Tacoma will designate the time of receipt recorded by the timestamp located at the lobby security desk, as the official time of receipt. Late submittals will be returned unopened and rejected as non-responsive.

**Submittal Delivery:** Sealed submittals will be received as follows:

<p><b>By Email:</b>  <a href="mailto:sendbid@cityoftacoma.org">sendbid@cityoftacoma.org</a>  Maximum file size: 35 MB. Multiple emails may be sent for each submittal</p>	<p><b>In Person:</b>  Tacoma Public Utilities Administration Building North,  Main Floor, Lobby Security Desk  3628 South 35<sup>th</sup> Street  Tacoma, WA 98409  Monday – Friday 8:00 am to 4:30 pm</p>
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**Bid Opening:** Submittals must be received by the City’s Procurement and Payables Division prior to 11:00 a.m. Pacific Time. Sealed submittals in response to a RFB will be opened Tuesday’s at 11:15 AM by a purchasing representative and read aloud during a public bid opening held at the Tacoma Public Utilities Administrative Building North, 3628 S. 35<sup>th</sup> Street, Tacoma, WA 98409, conference room M-1, located on the main floor. They will also be held virtually Tuesday’s at 11:15 AM. Attend [via this link](#) or call 1 (253) 215 8782. Submittals in response to an RFP, RFQ or RFI will be recorded as received. As soon as possible, after 1:00 PM, on the day of submittal deadline, preliminary results will be posted to [www.TacomaPurchasing.org](http://www.TacomaPurchasing.org).

**Solicitation Documents:** An electronic copy of the complete solicitation documents may be viewed and obtained at the City’s plan distribution service provider, ARC, 632 Broadway, Tacoma, WA, or by going to <http://www.e-arc.com/location/tacoma>. Prospective bidders will be required to pay reproduction costs. A list of vendors registered for this solicitation is also available at their website.

**Pre-Proposal Meeting:** A pre-proposal meeting will not be held.

**Project Scope:** This Contract will generally consist of the construction of new ADA-compliant curb ramps, sidewalk connections, asphalt grind and overlay, new catch basins, site restoration, and other roadway work.

**Estimate:** \$1,975,000


**Paid Sick Leave:** The City of Tacoma requires all employers to provide paid sick leave in accordance with Washington State law.

**Americans with Disabilities Act (ADA Information):** The City of Tacoma, in accordance with Section 504 of the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA), commits to nondiscrimination on the basis of disability, in all of its programs and activities. Specification materials can be made available in an alternate format by emailing the contact listed below in the *Additional Information* section.

**Title VI Information:** “The City of Tacoma” in accordance with provisions of Title VI of the Civil Rights Act of 1964, (78 Stat. 252, 42 U.S.C. sections 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin in consideration of award.

**Additional Information:** Requests for information regarding the specifications may be obtained by contacting Carly Fowler by email to [cfowler@cityoftacoma.org](mailto:cfowler@cityoftacoma.org).

**Protest Policy:** City of Tacoma protest policy, located at [www.tacomapurchasing.org](http://www.tacomapurchasing.org), specifies procedures for protests submitted prior to and after submittal deadline.

 Meeting sites are accessible to persons with disabilities. Reasonable accommodations for persons with disabilities can be arranged with 48 hours advance notice by calling 253-502-8468.

## **SPECIAL REMINDER TO ALL BIDDERS**

**HEALTH & SAFETY:** Be sure to comply with all City of Tacoma health and safety requirements.

**PLEASE NOTE:** Be sure you have complied with all specifications and requirements and have signed all required documents.

**YOUR ATTENTION IS PARTICULARLY CALLED** to the following forms, which must be executed in full and submitted with your bid response:

1. **BID PROPOSAL:** The unit prices bid must be shown in the space provided. Check your computations for omissions and errors.
2. **SIGNATURE PAGE:** To be filled in and executed by a duly authorized officer or representative of the bidding entity. If the bidder is a subsidiary or doing business on behalf of another entity, so state, and provide the firm name under which business is hereby transacted.
3. **BID BOND:** The Bid Bond must be executed by the person legally authorized to sign the bid, and must be properly signed by the representatives of the surety company unless the bid is accompanied by a certified check. If Bid Bond is furnished, the form furnished by the City must be followed; no variations from the language thereof will be accepted. The amount of the Bid Bond must be not less than 5% of the total amount bid.
4. **CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES:** Bidder shall complete this form in its entirety to ensure submittal of a responsive bid.
5. **STATE RESPONSIBILITY AND RECIPROCAL BID PREFERENCE INFORMATION:** Bidder shall complete this form in its entirety to ensure submittal of a responsive bid.
6. **LIST OF SUBCONTRACTOR CATEGORIES OF WORK:** Bidder shall list all subcontractor(s) proposed to perform the work of heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW and electrical as described in Chapter 19.28 RCW. Bidder shall also list all subcontractor(s) proposed to perform the work of structural steel installation and/or rebar installation.

**FAILURE TO LIST SUBCONTRACTORS WILL RESULT IN THE BID BEING NON-RESPONSIVE AND THEREFORE VOID.**

7. **EQUITY IN CONTRACTING (EIC) UTILIZATION FORM**  
Bidders shall complete the Equity in Contracting Utilization Form in accordance with the City of Tacoma Equity in Contracting Regulations Manual and Chapter 1.07 of the City of Tacoma Municipal Code (TMC). This form shall be fully and accurately completed and returned with submission of the Bid and will be used to determine if the Bidder is in compliance with the EIC regulations and the TMC.

As part of the City of Tacoma's ongoing work to address past disparities and to increase the City's contracting with and utilization of historically underutilized businesses, the Equity in Contracting (EIC) Program places requirements on City contracts for utilization of businesses certified by the Washington State Office of Minority and Women's Business Enterprise and approved by the Equity in Contracting Program ("Certified

Businesses”). The EIC Program also provides guidance and technical assistance to Certified Businesses who are interested in providing supplies, services and public works to the City of Tacoma. The EIC Program requirements are contained in Tacoma Municipal Code Chapter 1.07.

See City of Tacoma – Equity In Contracting Program section for additional information and EIC Requirements.

**POST AWARD FORMS EXECUTED UPON AWARD:**

- A. CONTRACT: Must be executed by the successful bidder.
- B. PAYMENT BOND TO THE CITY OF TACOMA: Must be executed by the successful bidder and his/her surety company.
- C. PERFORMANCE BOND TO THE CITY OF TACOMA: Must be executed by the successful bidder and his/her surety company.
- D. CERTIFICATE OF INSURANCE: Shall be submitted with all required endorsements.
- E. LEAP UTILIZATION PLAN: Shall be submitted at the Pre-Construction Meeting.
- F. GENERAL RELEASE.

**CODE OF ETHICS:** The successful bidder agrees that its violation of the City’s Code of Ethics contained in TMC Chapter 1.46 shall constitute a breach of the contract subjecting the contract to termination.

**LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP):**

The Local Employment and Apprenticeship Training Program (LEAP) has been adopted to counteract economic and social ills, which accompany high rates of unemployment within the City of Tacoma. The Tacoma City Council established the mandatory LEAP program for public works contracts pursuant to Ordinance No. 28520. The primary goal is to provide an opportunity for City of Tacoma residents and Tacoma Public Utilities ratepayers to enter apprenticeship programs, acquire skills, and perform work that will provide living wages.

Example LEAP Requirements:

1. Local Employment Utilization Requirement – Prime contractor is required to ensure that 15 percent of the labor hours worked on the project are performed by residents of the City of Tacoma or local economically distressed areas, whether or not such person is an Apprentice.
2. Apprentice Utilization Requirement - Prime contractor is required to ensure that 15 percent of the labor hours worked on the project are performed by Apprentices who reside in the Tacoma Public Utilities service area.

NOTE: Depending on the number of requirements assigned to this project, the requirements could be satisfied concurrently. For example if the prime contractor utilizes individuals who simultaneously meet more than one assigned requirement, such as an apprentice who resides in the City of Tacoma or in a local economically distressed area, then the hours worked by that individual will be applied toward both requirements.

See City of Tacoma – Local Employment and Apprenticeship Training Program section for additional information and LEAP Requirements.



## **SPECIAL NOTICE TO BIDDERS**

Public works and improvement projects for the City of Tacoma are subject to Washington state law and Tacoma Municipal Code, including, but not limited to the following:

### **I. STATE OF WASHINGTON**

#### **A. RESPONSIBILITY CRITERIA – STATE OF WASHINGTON**

In order to be considered a responsible bidder the bidder must meet the following mandatory state responsibility criteria contained in RCW 39.04.350:

1. Have a current certificate of registration as a contractor in compliance with chapters 18.27 RCW, 18.106 RCW, 70.87 RCW, 19.28 RCW, which must have been in effect **at the time of bid submittal**;
2. Have a current Washington Unified Business Identifier (UBI) number;
3. If applicable:
  - a. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
  - b. Have a Washington Employment Security Department number, as required in Title 50 RCW;
  - c. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW and;
4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 (unlicensed or unregistered contractors) or 39.12.065(3) (prevailing wage).
5. Have received training on the requirements related to public works and prevailing wage under this chapter and chapter 39.12 RCW and must designate a person or persons to be trained on these requirements. The training must be provided by the department of labor and industries or by a training provider whose curriculum is approved by the department. Bidders that have completed three or more public works projects and have had a valid business license in Washington for three or more years are exempt from this subsection.

#### **B. RECIPROCAL PREFERENCE FOR RESIDENT CONTRACTORS:**

Effective March 30, 2012, RCW 39.04.380 imposes a reciprocal preference for resident contractors. Any bid received from a non-resident contractor from a state that provides an in-state percentage bidding preference is subject application of a comparable percentage disadvantage.

A non-resident contractor from a state that provides an in-state percentage bidding preference means a contractor that:

1. Is from a state that provides a percentage bid preference to its resident contractors bidding on public works projects, and
2. Does not have a physical office located in Washington at the time of bidding on the City of Tacoma public works project.

The state of residence for a non-resident contractor is the state in which the contractor was incorporated, or if not a corporation, the state in which the contractor's business entity was formed.

The City of Tacoma will evaluate all non-resident contractors for an out of state bidder preference. If the state of the non-resident contractor provides an in state contractor preference, a comparable percentage disadvantage will be applied to the non-resident contractor's bid prior to contract award. The responsive and lowest and best responsible bidder after application of any non-resident disadvantage will be awarded the contract.

The reciprocal preference evaluation does not apply to public works procured pursuant to RCW 39.04.155, RCW 39.04.280, federally funded competitive solicitations where such agencies prohibit the application of bid preferences, or any other procurement exempt from competitive bidding.

Bidders must provide the City of Tacoma with their state of incorporation or the state in which the business entity was formed and include whether the bidder has a physical office located in Washington.

The bidder shall submit documentation demonstrating compliance with above criteria on the enclosed State Responsibility and Reciprocal Bidder Information form.

### **C. SUBCONTRACTOR RESPONSIBILITY**

1. The Contractor shall include the language of this subcontractor responsibility section in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. The requirements of this section apply to all subcontractors regardless of tier.
2. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:
  - a. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
  - b. Have a current Washington Unified Business Identifier (UBI) number;
  - c. If applicable, have:
    - a. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
    - b. A Washington Employment Security Department number, as required in Title 50 RCW;
    - c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
    - d. An electrical contractor license, if required by Chapter 19.28 RCW;
    - e. An elevator contractor license, if required by Chapter 70.87 RCW and;
3. Not be disqualified from bidding on any public works contract under RCW 39.06.010 (unlicensed or unregistered contractors) or 39.12.065(3) (prevailing wage).

## **II. CITY OF TACOMA**

### **A. SUPPLEMENTAL RESPONSIBILITY CRITERIA – CITY OF TACOMA:**

In order to be considered a responsible bidder, the prospective bidder shall have all of the following qualifications set forth in Tacoma Municipal Code 1.06.262:

1. Adequate financial resources or the ability to secure such resources;
2. The necessary experience, stability, organization and technical qualifications to perform the proposed contract;
3. The ability to comply with the required performance schedule, taking into consideration all existing business commitments;
4. A satisfactory record of performance, integrity, judgment and skills; and
5. Be otherwise qualified and eligible to receive an award under applicable laws and regulations.
  - a. Bidder Responsibility. Bidders shall not be in violation of 39.04.350 RCW Bidder Responsibility Criteria - Supplemental Criteria.

In addition to the mandatory bidder responsibility criteria listed immediately above, the City may, in addition to price, consider any or all of the following criteria contained in Tacoma Municipal Code Chapter 1.06.262 in determining bidder responsibility:

1. The ability, capacity, experience, stability, technical qualifications and skill of the respondent to perform the contract;
2. Whether the respondent can perform the contract within the time specified, without delay or interference;
3. Integrity, reputation, character, judgment, experience, and efficiency of the respondents, including past compliance with the City's Ethics Code;
4. Quality of performance of previous contracts;
5. Previous and existing compliance with laws and ordinances relating to contracts or services;
6. Sufficiency of the respondent's financial resources;
7. Quality, availability, and adaptability of the supplies, purchased services or public works to the particular use required;
8. Ability of the respondent to provide future maintenance and service on a timely basis;
9. Payment terms and prompt pay discounts;
10. The number and scope of conditions attached to the submittal;
11. Compliance with all applicable City requirements, including but not limited to the City's Ethics Code and its Equity in Contracting and Local Employment and Apprenticeship Training programs;
12. Other qualification criteria set forth in the specification or advertisement that the appropriate department or division head determines to be in the best interests of the City.

The City may require bidders to furnish information, sworn or certified to be true, to demonstrate compliance with the City responsibility criteria set forth above. If the city manager or director of utilities is not satisfied with the sufficiency of the information provided, or if the prospective respondent does not substantially meet all responsibility requirements, any submittal from such respondent must be disregarded.

## **B. ADDITIONAL SUPPLEMENTAL CRITERIA – NOT APPLICABLE**

## **C. MODIFICATIONS TO SUPPLEMENTAL CRITERIA**

Potential bidders may request modifications to the City's **supplemental criteria** by submitting a written request to the Purchasing Division via email to [bids@cityoftacoma.org](mailto:bids@cityoftacoma.org) no later than 5:00 p.m. Pacific Time, three days prior to the submittal deadline. Please include the Specification No. and Title when submitting such requests. Requests must include justification for why certain criteria should be modified. Requests received after this date and time will not be considered.

The City will respond to a timely submitted request prior to the bid opening date. Changes to the supplemental criteria, if warranted, will be issued by addendum to the solicitation documents and posted to the City's website for the attention of all prospective bidders.

## **D. DETERMINATION OF BIDDER RESPONSIBILITY**

If the City determines the bidder does not meet the criteria above and is therefore not a responsible bidder, the City shall notify the bidder in writing with the reasons for its determination. If the bidder disagrees, the bidder may appeal the determination in a manner consistent with the City's Protest Policy. Appeals are coordinated by the Purchasing Division heard by the Procurement and Payables Division manager for contracts less than or equal to \$500,000 and by Contracts and Awards Board for contracts greater than \$500,000.

**PART I**

**BID PROPOSAL AND CONTRACT FORMS**

# **BID PROPOSAL**

SPECIFICATION NO. PW24-0054F

PEDESTRIAN ACCESSIBILITY DISTRICT 10

The undersigned hereby certifies that he/she has examined the location and construction details of work as outlined on the Plans and Specifications for Project No. PWK-G0065 and has read and thoroughly understands the Plans and Specifications and contract governing the work embraced in this improvement and the method by which payment will be made for said work, and hereby proposes to undertake and complete the work embraced in this improvement in accordance with said Plans, Specifications and contract and at the following schedule of rates and prices:

- NOTE:
1. Unit prices of all items, all extensions and total amount of bid should be shown. Show unit prices in figures only.
  2. The notations below the item numbers refer to the specification section where information may be found regarding each contract item. These notations are intended only as a guide and are not warranted to refer to all specification sections where information may be found.

**Pedestrian Accessibility District 10**

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
R1. 1-05	Roadway Surveying	1 Lump Sum	Lump Sum	\$_____
R2. 1-05	Project Redline Drawings	1 Lump Sum	Lump Sum	\$_____
R3. 1-07	SPCC Plan	1 Lump Sum	Lump Sum	\$_____
R4. 1-09	Mobilization	1 Lump Sum	Lump Sum	\$_____
R5. 1-10	Pedestrian Traffic Control	1 Lump Sum	Lump Sum	\$_____
R6. 1-10	Project Temporary Traffic Control	1 Lump Sum	Lump Sum	\$_____
R7. 2-01	Clearing and Grubbing	1 Lump Sum	Lump Sum	\$_____
R8. 2-01	Certified Arborist	1 Lump Sum	Lump Sum	\$_____
R9. 2-01	Certified Arborist Assessment Report Compliance	1 Force Account	Estimated	\$10,000.00
R10. 2-02	Existing Irrigation Systems	1 Force Account	Estimated	\$7,500.00
R11. 2-02	Removal of Structures and Obstructions	1 Lump Sum	Lump Sum	\$_____
R12. 2-02	Test Hole	30 Lin. Ft.	\$_____	\$_____
R13. 2-03	Roadway Excavation Incl. Haul	450 Cu. Yd.	\$_____	\$_____
R14. 2-06	Subgrade Maintenance and Protection	1 Lump Sum	Lump Sum	\$_____
R15. 2-06	Subgrade Protection Plan	1 Lump Sum	Lump Sum	\$_____

Contractor's Name: \_\_\_\_\_

Specification No. PW24-0054F

**Pedestrian Accessibility District 10**

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
R16. 2-09	Shoring or Extra Excavation Class B	440 Sq. Ft.	\$ _____	\$ _____
R17. 2-09	Structure Excavation Class B	58 Cu. Yd.	\$ _____	\$ _____
R18. 2-14	Remove Existing Pavement, Asphalt	2197 Sq. Yd.	\$ _____	\$ _____
R19. 2-14	Remove Existing Pavement, Concrete	1604 Sq. Yd.	\$ _____	\$ _____
R20. 2-14	Remove Existing Pavement, CA	86 Sq. Yd.	\$ _____	\$ _____
R21. 2-15	Remove Curb	2465 Lin. Ft.	\$ _____	\$ _____
R22. 2-16	Remove Catch Basin	34 Each	\$ _____	\$ _____
R23. 4-04	Crushed Surfacing Top Course	211 Ton	\$ _____	\$ _____
R24. 4-04	Crushed Surfacing Base Course	707 Ton	\$ _____	\$ _____
R25. 5-04	Planing Bituminous Pavement	1807 Sq. Yd.	\$ _____	\$ _____
R26. 5-04	Temporary Pavement Patch	11 Ton	\$ _____	\$ _____
R27. 5-04	HMA CL 1/2" PG 58H-22	511 Ton	\$ _____	\$ _____
R28. 5-05	Cement Conc. Pavement, 8- Inch Section	130 Sq. Yd.	\$ _____	\$ _____
R29. 7-02	Ductile Iron Culvert Pipe, 8-In. Diam.	28 Lin. Ft.	\$ _____	\$ _____
R30. 7-05	Adjust Existing Catch Basin, Furnish New Frame and Grate	14 Each	\$ _____	\$ _____

Contractor's Name: \_\_\_\_\_

Specification No. PW24-0054F



**Pedestrian Accessibility District 10**

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
R31. 7-05	Adjust Existing Manhole, Furnish New Frame and Cover	11 Each	\$ _____	\$ _____
R32. 7-05	Adjust Existing Valve Chamber to Grade	22 Each	\$ _____	\$ _____
R33. 7-05	Catch Basin Type 1	34 Each	\$ _____	\$ _____
R34. 7-05	Manhole 48 In. Diam. Type 3	1 Each	\$ _____	\$ _____
R35. 7-05	Connect New Sewer Pipe to Existing Structure	2 Each	\$ _____	\$ _____
R36. 7-05	Reconnect Existing Sewer Pipe to New Structure	32 Each	\$ _____	\$ _____
R37. 7-17	Testing Sewer Pipe	88 Lin. Ft.	\$ _____	\$ _____
R38. 7-17	Removal and Replacement of Unsuitable Material	35 Cu. Yd.	\$ _____	\$ _____
R39. 7-17	Ductile Iron Storm Sewer Pipe 12 In. Diam.	88 Lin. Ft.	\$ _____	\$ _____
R40. 7-20	Residential Storm Drain Through Curb	5 Each	\$ _____	\$ _____
R41. 8-01	Erosion/Water Pollution Control	1 Lump Sum	Lump Sum	\$ _____
R42. 8-01	Stormwater Pollution Prevention Plan (SWPPP)	1 Lump Sum	Lump Sum	\$ _____
R43. 8-02	Site Restoration	1 Lump Sum	Lump Sum	\$ _____
R44. 8-04	Cement Conc. Traffic Curb and Gutter	2770 Lin. Ft.	\$ _____	\$ _____
R45. 8-04	Cement Conc. Pedestrian Curb	1766 Lin. Ft.	\$ _____	\$ _____

Contractor's Name: \_\_\_\_\_

Specification No. PW24-0054F

**Pedestrian Accessibility District 10**

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
R46. 8-06	Cement Conc. Driveway Entrance	17 Sq. Yd.	\$ _____	\$ _____
R47. 8-09	Raised Pavement Marker Type 2	1 Per 100	\$ _____	\$ _____
R48. 8-09	Raised Pavement Marker Type 1	1 Per 100	\$ _____	\$ _____
R49. 8-13	Poured Monument	4 Each	\$ _____	\$ _____
R50. 8-14	Cement Conc. Sidewalk	688 Sq. Yd.	\$ _____	\$ _____
R51. 8-14	Cement Conc. Curb Ramp	132 Each	\$ _____	\$ _____
R52. 8-15	Quarry Spalls	2 Cu. Yd.	\$ _____	\$ _____
R53. 8-20	Remove and Replace Junction Box	9 Each	\$ _____	\$ _____
R54. 8-20	Conduit and Surface Restoration	1 Force Account	Estimated	\$25,000.00
R55. 8-21	Permanent Signing	1 Lump Sum	Lump Sum	\$ _____
R56. 8-22	Paint Line	56 Lin. Ft.	\$ _____	\$ _____
R57. 8-22	Plastic Stop Line	28 Lin. Ft.	\$ _____	\$ _____
R58. 8-22	Plastic Crosswalk Line	620 Lin. Ft.	\$ _____	\$ _____
R59. 8-22	Removing Painted Crosswalk Line	120 Sq. Ft.	\$ _____	\$ _____
R60. 8-32	Traffic Circle	1 Each	\$ _____	\$ _____

Contractor's Name: \_\_\_\_\_

Specification No. PW24-0054F

**Pedestrian Accessibility District 10**

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
R61. 8-40	Historic Stamp Preservation	20 Each	\$ _____	\$ _____

**TOTAL BASE BID FOR ITEMS R-1 THRU R-61** \$ \_\_\_\_\_

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**Proposal for Incorporating Recycled Materials into the Project**

In compliance with a new law that went into effect January 1, 2016 (SHB1695), the Bidder shall propose below, the total percent of construction aggregate and concrete materials to be incorporated into the Project that are recycled materials. Calculated percentages must be within the amounts allowed in Section 9-03.21(1) E, Table on Maximum Allowable Percent (By Weight) of Recycled Material, of the Standard Specifications.

Proposed total percentage: \_\_\_\_\_ percent.

*Note: Use of recycled materials is highly encouraged within the limits shown above, but does not constitute a Bidder Preference, and will not affect the determination of award, unless two or more lowest responsive Bid totals are exactly equal, in which case proposed recycling percentages will be used as a tie-breaker, per the APWA GSP in Section 1-03.1 of the Special Provisions. Regardless, the Bidder's stated proposed percentages will become a goal the Contractor should do its best to accomplish. Bidders will be required to report on recycled materials incorporated into the Project, in accordance with the APWA GSP in Section 1-06.6 of the Special Provisions.*

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**Bidder:** \_\_\_\_\_

**Signature of Authorized Official:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**SIGNATURE PAGE**

**CITY OF TACOMA  
PUBLIC WORKS ENGINEERING**

All submittals must be in ink or typewritten, executed by a duly authorized officer or representative of the bidding/proposing entity, and received and time stamped as directed in the **Request for Bids page near the beginning of the specification**. If the bidder/proposer is a subsidiary or doing business on behalf of another entity, so state, and provide the firm name under which business is hereby transacted.

**REQUEST FOR BIDS SPECIFICATION NO. PW24-0054F  
Pedestrian Accessibility District 10**

The undersigned bidder/proposer hereby agrees to execute the proposed contract and furnish all materials, labor, tools, equipment and all other facilities and services in accordance with these specifications.

The bidder/proposer agrees, by submitting a bid/proposal under these specifications, that in the event any litigation should arise concerning the submission of bids/proposals or the award of contract under this specification, Request for Bids, Request for Proposals or Request for Qualifications, the venue of such action or litigation shall be in the Superior Court of the State of Washington, in and for the County of Pierce.

**Non-Collusion Declaration**

*The undersigned bidder/proposer hereby certifies under penalty of perjury that this bid/proposal is genuine and not a sham or collusive bid/proposal, or made in the interests or on behalf of any person or entity not herein named; and that said bidder/proposer has not directly or indirectly induced or solicited any contractor or supplier on the above work to put in a sham bid/proposal or any person or entity to refrain from submitting a bid/proposal; and that said bidder/proposer has not, in any manner, sought by collusion to secure to itself an advantage over any other contractor(s) or person(s).*

\_\_\_\_\_  
Bidder/Proposer's Registered Name

\_\_\_\_\_  
Signature of Person Authorized to Enter      Date  
into Contracts for Bidder/Proposer

\_\_\_\_\_  
Address

\_\_\_\_\_  
Printed Name and Title

\_\_\_\_\_  
City, State, Zip

\_\_\_\_\_  
(Area Code) Telephone Number / Fax Number

\_\_\_\_\_  
Authorized Signatory E-Mail Address

\_\_\_\_\_  
State Business License Number  
in WA, also known as UBI (Unified Business Identifier) Number

\_\_\_\_\_  
E.I.No. / Federal Social Security Number Used on Quarterly  
Federal Tax Return, U.S. Treasury Dept. Form 941

\_\_\_\_\_  
State Contractor's License Number  
(See Ch. 18.27, R.C.W.)

\_\_\_\_\_  
E-Mail Address for Communications

Addendum acknowledgement #1 \_\_\_\_\_ #2 \_\_\_\_\_ #3 \_\_\_\_\_ #4 \_\_\_\_\_ #5 \_\_\_\_\_

***THIS PAGE MUST BE SIGNED AND RETURNED WITH SUBMITTAL.***

Herewith find deposit in the form of a cashier's check in the amount of \$ \_\_\_\_\_ which amount is not less than 5-percent of the total bid.

SIGN HERE \_\_\_\_\_

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## BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, \_\_\_\_\_, as Principal, and \_\_\_\_\_, as Surety, are held and firmly bound unto the City of Tacoma, as Obligee, in the penal sum of \_\_\_\_\_ dollars, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

The condition of this obligation is such that if the Obligee shall make any award to the Principal for

according to the terms of the proposal or bid made by the Principal therefor, and the Principal shall duly make and enter into a contract with the Obligee in accordance with the terms of said proposal or bid and award and shall give bond for faithful performance thereof, with Surety or Sureties approved by the Obligee; or if the Principal shall, in case of failure to do so, pay and forfeit to the Obligee the penal amount of the deposit specified in the call for bids, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect and the Surety shall forthwith pay and forfeit to the Obligee, as penalty and liquidated damages, the amount of this bond.

SIGNED, SEALED AND DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_\_.

PRINCIPAL:

SURETY:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

---

---

\_\_\_\_\_, 20\_\_\_\_\_

Received return of deposit in the sum of \$ \_\_\_\_\_

\_\_\_\_\_



City of Tacoma

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## Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date (June 4, 2024), that the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I certify under penalty of perjury under the laws of the state of Washington that the foregoing is true and correct.

\_\_\_\_\_  
Bidder

\_\_\_\_\_  
Signature of Authorized Official\*

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
City

\_\_\_\_\_  
State

**Check One:**

Individual

Partnership

Joint Venture

Corporation

State of Incorporation, or if not a corporation, the state where business entity was formed:

\_\_\_\_\_

If a co-partnership, give firm name under which business is transacted:

\_\_\_\_\_

*\* If a corporation, proposal must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, proposal must be executed by a partner.*

Specification No. \_\_\_\_\_

Name of Bidder: \_\_\_\_\_

## State Responsibility and Reciprocal Bid Preference Information

Certificate of registration as a contractor  
(Must be in effect at the time of bid submittal):

Number: \_\_\_\_\_

Effective Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Current Washington Unified Business Identifier  
(UBI) Number:

Number: \_\_\_\_\_

Do you have industrial insurance (workers' compensation)  
Coverage nor your employees working in Washington?

- Yes       No  
 Not Applicable

Washington Employment Security Department Number

Number: \_\_\_\_\_

Not Applicable

Washington Department of Revenue state excise tax  
Registration number:

Number: \_\_\_\_\_

Not Applicable

Have you been disqualified from bidding any public  
works contracts under RCW 39.06.010 or 39.12.065(3)?

- Yes       No

If yes, provide an explanation of your  
disqualification on a separate page.

Do you have a physical office located in the state of  
Washington?

- Yes       No

If incorporated, in what state were you incorporated?

State: \_\_\_\_\_  Not Incorporated

If not incorporated, in what state was your business  
entity formed?

State: \_\_\_\_\_

Have you completed the training required by RCW  
39.04.350, or are you on the list of exempt businesses  
maintained by the Department of Labor and Industries?

- Yes       No

# List of Subcontractor Categories of Work

Project Name Pedestrian Accessibility District 10

Subcontractor(s) that are proposed to perform the work of heating, ventilation and air conditioning, and/or plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW must be listed below. **This information must be submitted with the bid proposal or within one hour of the published bid submittal time via email to [sendbid@cityoftacoma.org](mailto:sendbid@cityoftacoma.org).**

Subcontractor(s) that are proposed to perform the work of structural steel installation and/or rebar installation must be listed below. **This information must be submitted with the bid proposal or within forty-eight hours of the published bid submittal time via email to [sendbid@cityoftacoma.org](mailto:sendbid@cityoftacoma.org).**

Failure to list subcontractors or naming more than one subcontractor to perform the same work will result in your bid being non-responsive. Contractors self-performing must list themselves below. The work to be performed is to be listed below the subcontractor(s) name.

Subcontractor Name \_\_\_\_\_  
Work to be Performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subcontractor Name \_\_\_\_\_  
Work to be Performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subcontractor Name \_\_\_\_\_  
Work to be Performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subcontractor Name \_\_\_\_\_  
Work to be Performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subcontractor Name \_\_\_\_\_  
Work to be Performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# EIC REQUIREMENT FORM

## EQUITY IN CONTRACTING REQUIREMENTS & PROCEDURES:

All bidders must complete and submit with their bid the following solicitation form contained in the bid submittal package:

City of Tacoma – EIC Utilization Form

### **IMPORTANT NOTE:**

It is the bidder's responsibility to ensure that the subcontractor(s) listed on the EIC Utilization Form are currently certified by the State of Washington's Office of Minority and Women Business Enterprises (OMWBE) at the time of bid opening. This may be verified by contacting the EIC Office at 253-591-5075 between 8 AM and 5 PM, Monday through Friday or the [OMWBE](#) Office at (866) 208-1064. Please refer to the City of Tacoma EIC code.

### **EQUITY IN CONTRACTING REQUIREMENTS**

Minority Business  
Enterprise Requirement

**20%**

Women Business  
Enterprise Requirement

**12%**

Small Business Enterprise  
Requirement

**20%**

A list of EIC-eligible companies is available on the following web site addresses:

[www.omwbe.diversitycompliance.com](http://www.omwbe.diversitycompliance.com)\*

**MATERIAL MISSTATEMENTS CONCERNING COMPLETED ACTIONS BY THE BIDDER IN ANY SWORN STATEMENT OR FAILURE TO MEET COMMITMENTS AS INDICATED ON THE EIC UTILIZATION FORM MAY RENDER THE BIDDER IN DEFAULT OF CITY ORDINANCE 1.07**

CCD/EIC: PWK-G0065-01-01

Date of Record: 04/25/2024

Project Spec#: PW24-0054F

Project Title: Pedestrian Accessibility District 10

\*For the OMWBE list, be sure to look for businesses in Pierce, King, Lewis, Mason, Grays Harbor, Thurston, or any counties adjacent to the county in which the work is performed per 1.07.050(2)(b-c). Contact the EIC Office if you have any questions.

# EQUITY IN CONTRACTING (EIC) UTILIZATION FORM



**STOP! READ Instructions to Bidders/Proposers for completing EIC Utilization Form.**

Failure to complete all sections of this form according to the instructions provided or failure to submit this form shall render the bid or proposal non-responsive. (If necessary, use additional forms to list the requirements of Columns A-D). City reserves the right to make minor, non-material corrections to completed Forms, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.

**Please note: Certified Businesses MUST be certified at time of or prior to bid opening.**

<b>1. Bidder Name:</b>					
<b>2. Project Title:</b>				<b>3. SPEC #:</b>	
<b>4. Base Bid – No Sales Tax (Must match Bid Proposal amount)</b>	\$				
Column A. Certified Business Name	Column B. Business Cert. Type			Column C. Bid Item(s) Number(s) performed by the Certified Business(es)	Column D. Subcontract Amount <small>If Material supplier, only 20% of the subcontract amount can be counted towards the EIC Requirements</small>
	MBE	WBE	SBE/DBE		
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	

\* For EIC Requirements on this Project, refer to \*EIC Requirements (EIC Reqs) Memo in the Bid Package

# EQUITY IN CONTRACTING (EIC) UTILIZATION FORM



**STOP! READ Instructions to Bidders/Proposers for completing EIC Utilization Form.**

Failure to complete all sections of this form according to the instructions provided or failure to submit this form shall render the bid or proposal non-responsive. (If necessary, use additional forms to list the requirements of Columns A-D). City reserves the right to make minor, non-material corrections to completed Forms, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.

**Please note: Certified Businesses MUST be certified at time of or prior to bid opening.**

## Example of a COMPLETED EIC UTILIZATION FORM

**Initial Information:**

<b>1. Bidder Name:</b>	ABC Construction, Inc.			<b>3. SPEC #:</b>	PW23-0011F
<b>2. Project Title:</b>	Downtown Restoration and Street Maintenance Project				
<b>4. Base Bid – No Sales Tax (Must match Bid Proposal amount)</b>	\$359,670.00				
Column A. Certified Business Name	Column B. Business Cert. Type			Column C. Bid Item(s) Number(s) performed by the Certified Business(es)	Column D. Subcontract Amount <small>If Material supplier, only 20% of the subcontract amount can be counted towards the EIC Requirements</small>
	MBE	WBE	SBE/DBE		
Traffic ABC <small>Representative Name &amp; Contact # below: Beth Bell – (253) 555-3333</small>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Bid Item #4- Pedestrian Traffic Control</b> <small>What is the Certified Firm Project Role? Subcontractor <input checked="" type="checkbox"/> Material Supplier (20%) <input type="checkbox"/></small>	<b>\$30,000</b>
Survey 101, Inc. <small>Representative Name &amp; Contact # below: John Doe – (253) 111-2233</small>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Bid Item #1 – Roadway Surveying</b> <small>What is the Certified Firm Project Role? Subcontractor <input checked="" type="checkbox"/> Material Supplier (20%) <input type="checkbox"/></small>	<b>\$9,500.00</b>
Hello Manufacturer <small>Representative Name &amp; Contact # below: Sam Jam – (253) 555-7899</small>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Bid Item #66- Green Durable Product</b> <small>What is the Certified Firm Project Role? Subcontractor <input type="checkbox"/> Material Supplier (20%) <input checked="" type="checkbox"/></small>	<b>\$10,000</b> <small>(In this example, Total subcontract amount is \$10,000- Only 20% of total will be applied towards *EIC Reqs)</small>
<small>Representative Name &amp; Contact # below:</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<small>What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/></small>	

\* For EIC Requirements on this Project, refer to \*EIC Requirements (EIC Reqs) Memo in the Bid Package

# INSTRUCTIONS TO BIDDERS FOR COMPLETING THE EQUITY IN CONTRACTING (EIC) UTILIZATION FORM

## Complete Initial Information Section:

1. Enter Bidder firm name
2. Enter Project Title as it appears on the Specification
3. Enter Spec # as it appears on the Specification
4. State the Base Bid, which is the Bidder's bid amount, plus any alternates, additives, and deductive selected by the City. Do not include sales tax.

**Complete Column "A":** List all Certified Businesses with whom you will execute a subcontract if you are the successful Bidder. Provide a contact person for the Certified Business and the contact phone number.

**Complete Column "B":** State if the identified Certified Business is certified as an MBE, WBE, and/or SBE/DBE. **Note:** One Certified Business may count towards multiple requirements; check all applicable certifications

**Complete Column "C":** Specify the role of each listed Certified Business by checking Subcontractor or Material Supplier. **Note:** Each role counts differently towards EIC Utilization Requirements.

- Subcontractor: 100% of subcontract amount counts towards the EIC Utilization Requirement
- Material Supplier: 20% of supply expenditure amount counts towards the EIC Utilization Requirement
- **EXAMPLE** Material cost = \$100,000 equates to  $(\$100,000 \times 20\%) = \$20,000$  to be applied towards the EIC Requirements

Provide a description of the scope of work, services, or materials/supplies planned to be provided by each listed Certified Business.

**Note:** The work description for each Certified Business listed on the EIC Utilization form must match the Certified Business's OMWBE Profile. This ensures that the Certified Business is able to perform the work scope or role for which they have been listed.

**Complete Column "D":** Enter the subcontract amount for each Certified Business listed. This amount is the price that Bidder and Certified Business have agreed upon **prior to submittal**.

## ADDITIONAL IMPORTANT INSTRUCTIONS:

- Bidders must contact and solicit bids from Certified Businesses prior to listing them on the EIC Utilization Form. EIC staff will contact all listed Certified Businesses to verify that they have been contacted by Bidder regarding participation and subcontract amounts **prior to being listed on this form**. If the listed Certified Businesses have not been contacted prior to being listed on this form, Bidders will be deemed non-responsive.
- Include the completed EIC Utilization form with bid submittal. Incomplete, incorrect, or missing forms will render a bid nonresponsive.
- If awarded the Contract from the Specification bidders must execute subcontracts or supply agreements with Certified Businesses listed on the EIC Utilization Form. Failure to enter into an agreement with the Certified Businesses listed in Column A for at least the corresponding dollar amount listed in Column D, may result in penalties authorized by the Tacoma Municipal Code (TMC) 1.07.110.

## CONTRACT

Resolution No.  
Contract No.

This Contract is made and entered into effective as of [Month], [Day], [Year] (“Effective Date”) by and between the City of Tacoma, a Municipal Corporation of the State of Washington (“City”), and [supplier name as it appears in Ariba, including dbas or trade names] (“Contractor”).

That in consideration of the mutual promises and obligations hereinafter set forth the Parties hereto agree as follows:

- I. Contractor shall fully execute and diligently and completely perform all work and provide all services and deliverables described herein and in the items listed below each of which are fully incorporated herein and which collectively are referred to as “Contract Documents”:

---

  1. Specification No. [Spec Number] [ Spec Title] together with all authorized addenda.
  2. Contractor’s submittal [or specifically described portions thereof] dated [Enter Submittal Date] submitted in response to Specification No. [Spec Number] [Spec Title].
  3. Describe with specific detail and list separately any other documents that will make up the contract (fee schedule, work schedule, authorized personnel, etc.) or any other additional items mutually intended to be binding upon the parties.

---
- II. If federal funds will be used to fund, pay or reimburse all or a portion of the services provided under the Contract, the terms and conditions set forth at this Appendix A are incorporated into and made part of this Contract and CONTRACTOR will comply with all applicable provisions of Appendix A and with all applicable federal laws, regulations, executive orders, policies, procedures, and directives in the performance of this Contract.  
  
If CONTRACTOR’s receipt of federal funds under this Contract is as a sub-recipient, a fully completed Appendix B, “Sub-recipient Information and Requirements” is incorporated into and made part of this Contract.
- III. In the event of a conflict or inconsistency between the terms and conditions contained in this document entitled Contract and any terms and conditions contained the above referenced Contract Documents the following order of precedence applies with the first listed item being the most controlling and the last listed item the least controlling:
  1. Contract, inclusive of Appendices A and B.
  2. List remaining Contract Documents in applicable controlling order.
- IV. The Contract terminates on xxxxx, and may be renewed for xxxxxxxx
- V. The total price to be paid by City for Contractor’s full and complete performance hereunder, including during any authorized renewal terms, may not exceed:  
\$[Dollar Amount], plus any applicable taxes.
- VI. Contractor agrees to accept as full payment hereunder the amounts specified herein and in Contract Documents, and the City agrees to make payments at the times and in the manner and upon the terms and conditions specified. Except as may be otherwise provided herein or in Contract Documents Contractor shall provide and bear the expense of all equipment, work and labor of any sort whatsoever that may be required for the transfer of materials and for constructing and completing the work and providing the services and deliverables required by this Contract.
- VII. The City’s preferred method of payment is by ePayables (Payment Plus), followed by credit card (aka procurement card), then Electronic Funds Transfer (EFT) by Automated Clearing House (ACH), then check or other cash equivalent. CONTRACTOR may be required to have the capability of accepting the City’s ePayables or credit card methods of payment. The City of Tacoma will not accept price changes or pay additional fees when ePayables (Payment Plus) or credit card is used. The City, in its sole discretion, will determine the method of payment for this Contract.

VIII. Failure by City to identify a deficiency in the insurance documentation provided by Contractor or failure of City to demand verification of coverage or compliance by Contractor with the insurance requirements contained in the Contract Documents shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

IX. Contractor and for its heirs, executors, administrators, successors, and assigns, does hereby agree to the full performance of all the requirements contained herein and in Contract Documents.

It is further provided that no liability shall attach to City by reason of entering into this Contract, except as expressly provided herein.

IN WITNESS WHEREOF, the Parties hereto have accepted and executed this Contract, as of the Effective Date stated above, which shall be Effective Date for bonding purposes as applicable.

CITY OF TACOMA:  
Signature:

CONTRACTOR:  
Signature:

Name:

Name:

Title:

Title:

(City of Tacoma use only - blank lines are intentional)

Director of Finance: \_\_\_\_\_

Deputy/City Attorney (approved as to form): \_\_\_\_\_

Approved By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Approved By: \_\_\_\_\_

**APPENDIX A  
FEDERAL FUNDING**

## 1. Termination for Breach

CITY may terminate this Contract in the event of any material breach of any of the terms and conditions of this Contract if CONTRACTOR's breach continues in effect after written notice of breach and 30 days to cure such breach and fails to cure such breach.

## 2. Prevailing Wages

1. If federal, state, local, or any applicable law requires CONTRACTOR to pay prevailing wages in connection with this Contract, and CONTRACTOR is so notified by the CITY, then CONTRACTOR shall pay applicable prevailing wages and otherwise comply with the Washington State Prevailing Wage Act (RCW 39.12) in the performance of this Contract.
2. If applicable, a Schedule of Prevailing Wage Rates and/or the current prevailing wage determination made by the Secretary of Labor for the locality or localities where the Contract will be performed is made of part of the Contract by this reference. If prevailing wages apply to the Contract, CONTRACTOR and its subcontractors shall:
  - i. Be bound by and perform all transactions regarding the Contract relating to prevailing wages and the usual fringe benefits in compliance with the provisions of Chapter 39.12 RCW, as amended, the Washington State Prevailing Wage Act and/or the Davis-Bacon Act (40 U.S.C. 3141- 3144, and 3146-3148) and the requirements of 29 C.F.R. pt. 5 as may be applicable, including the federal requirement to pay wages not less than once a week.
  - ii. Ensure that no worker, laborer or mechanic employed in the performance of any part of the Contract shall be paid less than the prevailing rate of wage specified on that Schedule and/or specified in a wage determination made by the Secretary of Labor (unless specifically preempted by federal law, the higher of the Washington state prevailing wage or federal Davis-Bacon rate of wage must be paid.
  - iii. Immediately upon award of the Contract, contact the Department of Labor and Industries, Prevailing Wages section, Olympia, Washington and/or the federal Department of Labor, to obtain full information, forms and procedures relating to these matters. Per such procedures, a Statement of Intent to Pay Prevailing Wages and/or other or additional documentation required by applicable federal law, must be submitted by CONTRACTOR and its subcontractors to the CITY, in the manner requested by the CITY, prior to any payment by the CITY hereunder, and an Affidavit of Wages Paid and/or other or additional documentation required by federal law must be received or verified by the CITY prior to final Contract payment.

## 3. COPELAND ANTI-KICKBACK ACT

For Contracts subject to Davis Bacon Act the following clauses will be incorporated into the Contract:

- A. CONTRACTOR shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this Contract.
- B. CONTRACTOR or subcontractor shall insert in any subcontracts the clause above and such other clauses federal agencies may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts.

The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these Contract clauses.

- C. Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.

#### **4. EQUAL EMPLOYMENT OPPORTUNITY**

During the performance of this Contract, CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. If the CONTRACTOR does over \$10,000 in business a year that is funded, paid or reimbursed with federal funds, CONTRACTOR will take specific and affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

- A. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- B. CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- C. CONTRACTOR will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.
- D. CONTRACTOR will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- E. CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- F. In the event of CONTRACTOR's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further federally funded contracts in accordance with procedures



authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

- G. CONTRACTOR will include the portion of the sentence immediately preceding paragraph (A) and the provisions of paragraphs (A) through (G) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. CONTRACTOR will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

## **5. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

- A. Overtime requirements. Neither CONTRACTOR or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- B. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (3)(A) of this section the CONTRACTOR and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such CONTRACTOR and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (3)(A) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (3)(A) of this section.
- C. Withholding for unpaid wages and liquidated damages. The CITY shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the CONTRACTOR or subcontractor under any such contract or any other Federal

contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such CONTRACTOR or sub-contractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (3)(B) of this section.

- D. Subcontracts. The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (3)(A) through (D) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime CONTRACTOR shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (3)(A) through (D) of this section.

#### **6. CLEAN AIR ACT**

- A. CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- B. CONTRACTOR agrees to report each violation to the CITY and understands and agrees that the CITY will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal funds.

#### **7. FEDERAL WATER POLLUTION CONTROL ACT**

- A. CONTRACTOR agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
- B. CONTRACTOR agrees to report each violation to the CITY and understands and agrees that the CITY will, in turn, report each violation as required to assure notification to the appropriate federal agency.
- C. CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal funding.

#### **8. DEBARMENT AND SUSPENSION**

- A. This Contract is a Covered Transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the CONTRACTOR is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
- B. CONTRACTOR must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier Covered Transaction it enters into.

- C. This certification is a material representation of fact relied upon by the CITY. If it is later determined that the CONTRACTOR did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to CITY, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- D. CONTRACTOR agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C throughout the period of this Contract and to include a provision requiring such compliance in its lower tier covered transactions.

## **9. BYRD ANTI-LOBBYING AMENDMENT**

- A. Contractors who apply or bid for an award of \$100,000 or more shall file the required certification with CITY. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the CITY.
- B. If applicable, CONTRACTOR must sign and submit to the CITY the certification required by Appendix A to 44 CFR Part 18 contained at Appendix A-1 to this Contract.

## **10. PROCUREMENT OF RECOVERED MATERIALS**

- A. In the performance of this Contract, CONTRACTOR shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:
  - i. Competitively within a timeframe providing for compliance with the contract performance schedule;
  - ii. Meeting contract performance requirements; or
  - iii. At a reasonable price.
- B. Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.
- C. CONTRACTOR also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

**APPENDIX A-1**

**APPENDIX A to 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING  
Certification for Contracts, Grants, Loans, and Cooperative Agreements**

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor, \_\_\_\_\_, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap.38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

\_\_\_\_\_  
Signature of Contractor's Authorized Official

\_\_\_\_\_  
Name and Title of Contractor's Authorized Official

\_\_\_\_\_  
Date

**APPENDIX B—Sub-recipient information and requirements**

Pursuant to 2 CFR 200.332(a)(1) Federal Award Identification

(i) Agency Name (must match the name associated with its unique entity identifier)		(ii) Unique Entity Identifier <i>(i.e., DUNS)</i>	City of Tacoma Number for This Agreement
(iii) Federal Award Identification Number (FAIN)	(iv) Federal Award Date	(v) Federal Period of Performance Start and End Date	(vi) Federal Budget Period Start and End Date
(vii) Amount of Federal Funds <i>Obligated</i> to the agency <i>by this action</i> : \$	(viii) Total Amount of Federal Funds <i>Obligated</i> to the agency	(ix) Total Amount of the Federal Award <i>Committed</i> to the agency \$	
(x) Federal Award Project Description:  CORONAVIRUS STATE AND LOCAL FISCAL RECOVERY FUNDS– City of Tacoma			
(xi) Federal Awarding Agency:  DEPARTMENT OF THE TREASURY	Pass-Through Entity:  City of Tacoma	Awarding Official Name and Contact Information:	
(xii) Assistance Listing Number and Name (the pass-through entity must identify the dollar amount made available under each Federal award and the Assistance Listing number at time of disbursement)			(xiii) Identification of Whether the Award is R&D
(xiv) Indirect Cost Rate for the Federal Award	Award Payment Method (lump sum payment or reimbursement)  REIMBURSEMENT		



# PAYMENT BOND TO THE CITY OF TACOMA

Resolution No. [Enter Reso # Here]  
Bond No.

That we, the undersigned, [Supplier name] \_\_\_\_\_  
as principal, and \_\_\_\_\_  
as a surety, are jointly and severally held and firmly bound to the CITY OF TACOMA, in the penal sum of,  
[\$dollar value], plus any applicable taxes \_\_\_\_\_, for the payment whereof Contractor and Surety bind themselves,  
their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

This obligation is entered into in pursuance of the statutes of the State of Washington, the Ordinances of the City of Tacoma.

WHEREAS, under and pursuant to the City Charter and general ordinances of the City of Tacoma, the said City has or is about to enter with the above bounden principal, a contract, providing for

Specification No. PW24-0054F

Specification Title: Pedestrian Accessibility District 10

Contract No. [Enter Contract # Here]

(which contract is referenced to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said principal has accepted, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth.

This statutory payment bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall pay all persons in accordance with RCW 39.08, 39.12, and 60.28, including all workers, laborers, mechanics, subcontractors, and materialmen, and all person who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and all taxes incurred on said Contract under Titles 50 and 51 RCW and all taxes imposed on the Principal under Title 82 RCW; and if such payment obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract shall in any way affect its obligation on this bond, and waivers notice of any changes, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

No suit or action shall be commenced hereunder by any claimant unless claimant shall have given the written notices to the City, and where required, the Contractor, in accordance with RCW 39.08.030.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of claims which may be properly filed in accordance with RCW 39.08 whether or not suit is commenced under and against this bond.

If any claimant shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgment and attorney fees as provided by RCW 39.08.030, shall also pay such costs and attorney fees as may be incurred by the City as a result of such suit. Venue for any action arising out of or in connection with this bond shall be in Pierce County, WA.

Surety companies executing bonds must be authorized to transact business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Department of the Treasury.

Resolution No. [Enter Reso # Here]

Specification No. PW24-0054F

Contract No. [Enter Contract # Here]

One original bond shall be executed, and be signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed power of attorney for the office executing on behalf of the surety.

Principal: [Supplier name]

\_\_\_\_\_

By: \_\_\_\_\_

Surety:

\_\_\_\_\_

By: \_\_\_\_\_

Agent's Name: \_\_\_\_\_

Agent's Address: \_\_\_\_\_



# PERFORMANCE BOND TO THE CITY OF TACOMA

Resolution No. [Enter Reso # Here]  
Bond No.

That we, the undersigned, [Supplier Name] \_\_\_\_\_  
as principal, and \_\_\_\_\_  
as a surety, are jointly and severally held and firmly bound to the CITY OF TACOMA, in the penal sum of  
\$[dollar value], plus any applicable tax, for the payment whereof Contractor and Surety bind themselves,  
their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

This obligation is entered into in pursuance of the statutes of the State of Washington, the Ordinances of the City of Tacoma.

WHEREAS, under and pursuant to the City Charter and general ordinances of the City of Tacoma, the said City has or is about to enter with the above bounden principal, a contract, providing for

Specification No. PW24-0054F

Specification Title: Pedestrian Accessibility District 10

Contract No. [Enter Contract # Here]

(which contract is referenced to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said principal has accepted, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth.

This statutory performance bond shall become null and void, if and when the principal, its heirs, executors, administrators, successors, or assigns shall well and faithfully perform all of the Principal's obligations under the Contract and fulfill all terms and conditions of all duly authorized modifications, additions and changes to said Contract that may hereafter be made, at the time and in the manner therein specified; and if such performance obligations have not been fulfilled, this bond shall remain in force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increase.

If the City shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgement, shall pay all costs and attorney's fees incurred by the City in enforcement of its rights hereunder. Venue for any action arising out of in in connection with this bond shall be in Pierce County, Washington.

Surety companies executing bonds must be authorized to transact business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Department of the Treasury.

One original bond shall be executed, and signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed power of attorney for the office executing on behalf of the surety.

Principal: [Supplier name]

\_\_\_\_\_

By: \_\_\_\_\_

Surety:

\_\_\_\_\_

By: \_\_\_\_\_

Agent's Name: \_\_\_\_\_

Agent's Address: \_\_\_\_\_



# GENERAL RELEASE TO THE CITY OF TACOMA

The undersigned, named as the contractor for \_\_\_\_\_  
between \_\_\_\_\_ and the City of Tacoma,  
(Themselves or Itself) Project / Spec. #  
dated \_\_\_\_\_, 20\_\_\_\_, hereby releases the City of  
Tacoma, its departmental officers and agents from any and all claim or claims  
whatsoever in any manner whatsoever at any time whatsoever arising out of and/or in  
connection with and/or relating to said contract, excepting only the equity of the  
undersigned in the amount now retained by the City of Tacoma under said contract,  
to-wit the sum of \$\_\_\_\_\_.

Signed at Tacoma, Washington this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Contractor

By \_\_\_\_\_

Title \_\_\_\_\_

**PART II**

**SPECIAL PROVISIONS**

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1 **INTRODUCTION**  
2 **(March 31, 2023 Tacoma GSP)**

3  
4 The following special provisions shall be used in conjunction with the "2024 Standard  
5 Specifications for Road, Bridge and Municipal Construction" and "Standard Plans for  
6 Road, Bridge, and Municipal Construction" as prepared by the Washington State  
7 Department of Transportation (WSDOT). State Standard Specifications are available  
8 through WSDOT, by calling (360) 705-7430, emailing engrpubs@wsdot.wa.gov, or may  
9 be downloaded, free of charge, from this location on the WSDOT home page:  
10 <http://www.wsdot.wa.gov/Publications/Manuals/M41-10.htm>

11  
12 These Special Provisions are made up of both General Special Provisions (GSPs) from  
13 various sources, which may have project-specific fill-ins; and project-specific Special  
14 Provisions. Each Provision either supplements, modifies, or replaces the comparable  
15 Standard Specification, or is a new Provision. The deletion, amendment, alteration, or  
16 addition to any subsection or portion of the Standard Specifications is meant to pertain  
17 only to that particular portion of the section, and in no way should it be interpreted that  
18 the balance of the section does not apply.

19  
20 The GSPs are labeled under the headers of each GSP, with the date of the GSP and its  
21 source, as follows:

- 22
- 23 *(May 18, 2007 APWA GSP)*
- 24 *(August 7, 2006 WSDOT GSP)*
- 25 *(April 2, 2007 Tacoma GSP)*
- 26

27 The project specific Special Provisions are labeled under the headers of each Special  
28 Provision as follows:

29 *(\*\*\*\*\*)*

30  
31 A pre-bid conference will not be held.

32  
33  
34 **DESCRIPTION OF WORK**  
35 **(\*\*\*\*\*)**

36  
37 This Contract will generally consist of the construction of new ADA-compliant curb  
38 ramps, sidewalk connections, asphalt grind and overlay, new catch basins, and site  
39 restoration.

40  
41 **1-01 DEFINITIONS AND TERMS**

42  
43 **1-01.3 Definitions**  
44 *(January 19, 2022, APWA GSP)*

45  
46 *Delete the heading **Completion Dates** and the three paragraphs that follow it, and*  
47 *replace them with the following:*

48  
49 **Dates**

50 ***Bid Opening Date***

51 The date on which the Contracting Agency publicly opens and reads the Bids.

1       **Award Date**  
2       The date of the formal decision of the Contracting Agency to accept the lowest  
3       responsible and responsive Bidder for the Work.

4       **Contract Execution Date**  
5       The date the Contracting Agency officially binds the Agency to the Contract.

6       **Notice to Proceed Date**  
7       The date stated in the Notice to Proceed on which the Contract time begins.

8       **Substantial Completion Date**  
9       The day the Engineer determines the Contracting Agency has full and unrestricted  
10      use and benefit of the facilities, both from the operational and safety standpoint, any  
11      remaining traffic disruptions will be rare and brief, and only minor incidental work,  
12      replacement of temporary substitute facilities, plant establishment periods, or  
13      correction or repair remains for the Physical Completion of the total Contract.

14      **Physical Completion Date**  
15      The day all of the Work is physically completed on the project. All documentation  
16      required by the Contract and required by law does not necessarily need to be  
17      furnished by the Contractor by this date.

18      **Completion Date**  
19      The day all the Work specified in the Contract is completed and all the obligations of  
20      the Contractor under the contract are fulfilled by the Contractor. All documentation  
21      required by the Contract and required by law must be furnished by the Contractor  
22      before establishment of this date.

23      **Final Acceptance Date**  
24      The date on which the Contracting Agency accepts the Work as complete.

25  
26      *Supplement this Section with the following:*

27  
28      All references in the Standard Specifications or WSDOT General Special Provisions, to  
29      the terms "Department of Transportation", "Washington State Transportation  
30      Commission", "Commission", "Secretary of Transportation", "Secretary", "Headquarters",  
31      and "State Treasurer" shall be revised to read "Contracting Agency".

32  
33      All references to the terms "State" or "state" shall be revised to read "Contracting  
34      Agency" unless the reference is to an administrative agency of the State of Washington,  
35      a State statute or regulation, or the context reasonably indicates otherwise.

36      All references to "State Materials Laboratory" shall be revised to read "Contracting  
37      Agency designated location".

38      All references to "final contract voucher certification" shall be interpreted to mean the  
39      Contracting Agency form(s) by which final payment is authorized, and final completion  
40      and acceptance granted.

41  
42      **Additive**  
43      A supplemental unit of work or group of bid items, identified separately in the Bid  
44      Proposal, which may, at the discretion of the Contracting Agency, be awarded in addition  
45      to the base bid.

46  
47  
48  
49

1 **Alternate**  
2 One of two or more units of work or groups of bid items, identified separately in the Bid  
3 Proposal, from which the Contracting Agency may make a choice between different  
4 methods or material of construction for performing the same work.

5  
6 **Business Day**  
7 A business day is any day from Monday through Friday except holidays as listed in  
8 Section 1-08.5.

9  
10 **Contract Bond**  
11 The definition in the Standard Specifications for “Contract Bond” applies to whatever  
12 bond form(s) are required by the Contract Documents, which may be a combination of a  
13 Payment Bond and a Performance Bond.

14  
15 **Contract Documents**  
16 See definition for “Contract”.

17  
18 **Contract Time**  
19 The period of time established by the terms and conditions of the Contract within which  
20 the Work must be physically completed.

21  
22 **Notice of Award**  
23 The written notice from the Contracting Agency to the successful Bidder signifying the  
24 Contracting Agency’s acceptance of the Bid Proposal.

25  
26 **Notice to Proceed**  
27 The written notice from the Contracting Agency or Engineer to the Contractor authorizing  
28 and directing the Contractor to proceed with the Work and establishing the date on  
29 which the Contract time begins.

30  
31 **Traffic**  
32 Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs,  
33 and equestrian traffic.

34  
35 *This section is supplemented with the following:*  
36 **(April 15, 2020 Tacoma GSP)**  
37 All references to the acronym “UDBE” shall be revised to read “DBE/EIC”.

38  
39 All references in the Standard Specifications to the term “Proposal Bond” shall be  
40 revised to read “Bid Bond.”

41  
42 **Base Bid**  
43 The summation of Bid Item amounts (extensions) in the Bid Forms, excluding Additives,  
44 Alternates, Deductives, Force Accounts, and taxes collected separately pursuant to  
45 Section 1-07.2.

46  
47 **Calendar Day**  
48 The time period of 24 hours measured from midnight to the next midnight, including  
49 weekends and holidays.

50  
51

1 **Change Order**

2 A written order to the Contractor, issued by the Contracting Agency after execution of  
3 the contract, authorizing an addition, deletion, or other revision in the Work, within the  
4 scope of the Contract Documents, and establishing the basis of payment and time  
5 adjustments, if any, for the Work affected by the change.  
6

7 **Day**

8 Unless otherwise specified, a calendar day.  
9

10 **Deductive**

11 A supplemental unit of work or group of Bid Items, identified separately in the Bid, which  
12 may, at the discretion of the Contract Agency, be deducted from the Base Bid should the  
13 Contract Agency choose not to Award the total Base Bid.  
14

15 **Grand Total Price**

16 The Grand Total Price of the Contract will include the Base Bid, Additives, Alternates,  
17 Deductives, Force Accounts, and taxes collected separately pursuant to Section 1-07.2.  
18

19 **Standard Specifications**

20 Divisions One through Nine of the specified edition of the WSDOT "Standard  
21 Specifications for Road, Bridge, and Municipal Construction."

1 **1-02 BID PROCEDURES AND CONDITIONS**

2  
3 **1-02.1 Prequalification of Bidders**

4 *Delete this section and replace it with the following:*

5  
6 **1-02.1 Qualifications of Bidder**  
7 **(January 24, 2011 APWA GSP)**

8  
9 Before award of a public works contract, a bidder must meet at least the minimum  
10 qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified  
11 to be awarded a public works project.

12  
13 **1-02.2 Plans and Specifications**  
14 **(\*\*\*\*\*)**

15 *Delete this section and replace it with the following:*

16  
17 Information as to where Bid Documents can be obtained or reviewed can be found in the  
18 Call for Bids (Advertisement for Bids) for the work.

19  
20 To reduce paper waste and promote sustainability, the Contracting Agency will only  
21 provide electronic copies of the project plans and specifications. If printed copies of the  
22 plans and specifications are necessary, the Contractor may obtain them from the source  
23 stated in the Call for Bids, at the Contractor's own expense. Prior to Notice to Proceed,  
24 the Contracting Agency may issue revised plans and specifications incorporating  
25 addenda published during the bid period. The Contractor should inquire with the  
26 Contracting Agency, before ordering plans and specifications, to determine if revisions  
27 are forthcoming.

28  
29 **1-02.4(1) General**  
30 **(December 30, 2022 APWA GSP Option B)**

31 *The first sentence of the ninth paragraph, beginning with "Prospective Bidder*  
32 *desiring...", is revised to read:*

33  
34 Prospective Bidders desiring an explanation or interpretation of the Bid Documents, shall  
35 request the explanation or interpretation in writing by close of business 6 business days  
36 preceding the bid opening to allow a written reply to reach all prospective Bidders before  
37 the submission of their Bids.

38  
39 **1-02.5 Proposal Forms**  
40 **(July 31, 2017 APWA GSP)**

41 *Delete this section and replace it with the following:*

42  
43 The Proposal Form will identify the project and its location and describe the work. It will  
44 also list estimated quantities, units of measurement, the items of work, and the materials  
45 to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal  
46 form that call for, but are not limited to, unit prices; extensions; summations; the total bid  
47 amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment  
48 of addenda; the bidder's name, address, telephone number, and signature; the bidder's  
49 UDBE/DBE/M/WBE commitment, if applicable; a State of Washington Contractor's  
50 Registration Number; and a Business License Number, if applicable. Bids shall be

1 completed by typing or shall be printed in ink by hand, preferably in black ink. The  
2 required certifications are included as part of the Proposal Form.

3  
4 The Contracting Agency reserves the right to arrange the proposal forms with alternates  
5 and additives, if such be to the advantage of the Contracting Agency. The bidder shall  
6 bid on all alternates and additives set forth in the Proposal Form unless otherwise  
7 specified.

8  
9 **1-02.6 Preparation of Proposal**  
10 **(January 4, 2024 APWA GSP 1-02.6, Option B)**

11  
12 *Supplement the second paragraph with the following:*

- 13 4. If a minimum bid amount has been established for any item, the unit or lump  
14 sum price must equal or exceed the minimum amount stated.  
15 5. Any correction to a bid made by interlineation, alteration, or erasure, shall be  
16 initialed by the signer of the bid.

17  
18 *Delete the last two paragraphs, and replace them with the following:*

19  
20 The Bidder shall submit with their Bid a completed Contractor Certification Wage Law  
21 Compliance form, provided by the Contracting Agency. Failure to return this certification  
22 as part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for  
23 Award. A Contractor Certification of Wage Law Compliance form is included in the  
24 Proposal Forms.

25  
26 The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

27  
28 A bid by a corporation shall be executed in the corporate name, by the president or a  
29 vice president (or other corporate officer accompanied by evidence of authority to sign).

30  
31 A bid by a partnership shall be executed in the partnership name, and signed by a  
32 partner. A copy of the partnership agreement shall be submitted with the Bid Form if any  
33 DBE requirements are to be satisfied through such an agreement.

34  
35 A bid by a joint venture shall be executed in the joint venture name and signed by a  
36 member of the joint venture. A copy of the joint venture agreement shall be submitted  
37 with the Bid Form if any DBE requirements are to be satisfied through such an  
38 agreement.

39  
40 *The fourth paragraph is revised to read:*  
41 **(October 18, 2013 Tacoma GSP)**

42  
43 The bidder shall submit the following completed forms:  
44 City of Tacoma – Equity in Contracting Utilization Form

1 *Add the following new section:*

2  
3 **1-02.6(1) Recycled Materials Proposal**  
4 **(January 4, 2016 APWA GSP)**

5  
6 The Bidder shall submit with the Bid, its proposal for incorporating recycled materials  
7 into the project, using the form provided in the Contract Provisions.

8  
9 **1-02.7 Bid Deposit**  
10 **(March 1, 2021 Tacoma GSP)**

11 *Delete this section and replace it with the following:*

12  
13 A deposit of at least 5 percent of the total Bid shall accompany each Bid. This deposit  
14 may be cash, certified check, cashier's check, or a proposal bond (Surety bond). Any  
15 proposal bond shall be on the Contracting Agency's form and shall be signed by the  
16 Bidder and the Surety. A proposal bond shall not be conditioned in any way to modify  
17 the minimum 5 percent required. The Surety shall: (1) be registered with the Washington  
18 State Insurance Commissioner, and (2) appear on the current Authorized Insurance List  
19 in the State of Washington published by the Office of the Insurance Commissioner.

20 The failure to furnish a Bid deposit of a minimum of 5 percent shall make the Bid  
21 nonresponsive and shall cause the Bid to be rejected by the Contracting Agency.

22 If submitting your bid electronically, a scanned version of the original bid bond or  
23 cashier's check shall accompany your electronic bid submittal. The original bid bond or  
24 cashier's check shall be sent to the Contracting Agency and received by the Contracting  
25 Agency within 7 calendar days of the bid opening or the bidder may be deemed non-  
26 responsive.

27 **Original bid bonds or cashier's check will be delivered to:**

28 **Tacoma Public Utilities Administration Building North**  
29 **Main Floor, Lobby Security Desk**  
30 **3628 South 35th Street**  
31 **Tacoma, WA 98409**  
32 **Monday – Friday 8:00 am to 4:30 pm**

33  
34 If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.

35  
36 **1-02.9 Delivery of Proposal**  
37 **(April 1, 2018 Tacoma GSP)**

38  
39 *Delete this section and replace it with the following:*

40  
41 Each Proposal shall be submitted in a sealed envelope, with the Project Name and  
42 Project Number as stated in the Call for Bids clearly marked on the outside of the  
43 envelope, or as otherwise required in the Bid Documents, to ensure proper handling and  
44 delivery.



1  
2 Electronic Proposals shall be submitted to the City via email to  
3 [sendbid@cityoftacoma.org](mailto:sendbid@cityoftacoma.org), with the Project Name as stated in the Call for Bids noted on  
4 the subject line of the email, or as otherwise required in the Bid Documents, to proper  
5 handling and delivery. All electronic documents shall be in PDF format.  
6

7 The Bidder shall submit to the Contracting Agency a signed "Certification of Compliance  
8 with Wage Payment Statutes" document where the Bidder under penalty of perjury  
9 verifies that the Bidder is in compliance with responsible bidder criteria in RCW  
10 39.04.350 subsection (1) (g), as required per Section 1-02.14. The "Certification of  
11 Compliance with Wage Payment Statutes" document shall be received with the Bid  
12 Proposal.  
13

#### 14 **1-02.10 Withdrawing, Revising, or Supplementing Proposal** 15 **(March 1, 2021 Tacoma GSP)**

16  
17 *Delete this section and replace it with the following:*

18 After submitting a Bid Proposal to the Contracting Agency, the Bidder may withdraw,  
19 revise, or supplement it if:

- 20 1. The Bidder submits a written request signed by an authorized person and emails  
21 it to [sendbid@cityoftacoma.org](mailto:sendbid@cityoftacoma.org), and
- 22 2. The Contracting Agency receives the request before the time set for receipt of  
23 Proposals, and
- 24 3. The revised or supplemented Bid Proposal (if any) is received by the Contracting  
25 Agency before the time set for receipt of Bid Proposals.

26 The Bidder's written request to revise or supplement a Bid Proposal must be  
27 accompanied by the revised or supplemented package in its entirety. If the Bidder does  
28 not submit a revised or supplemented package, then its bid shall be considered  
29 withdrawn.

30 Late revised or supplemented Bid Proposals or late withdrawal requests will be date  
31 recorded by the Contracting Agency and returned unopened.  
32  
33

#### 34 **1-02.12 Public Opening of Proposals** 35 **(March 1, 2021 Tacoma GSP)**

36 Proposals will be opened and publicly read via webcast at the time indicated in the call  
37 for Bids unless the Bid opening has been delayed or canceled.  
38

39 This public bid opening will be held via webinar. Please use the link below or on the  
40 Request for Bids page to join the webinar:

41  
42 <https://us06web.zoom.us/j/88402680573?pwd=eThSaXZxNER0TWRhUGx6U0F2cURM>  
43 [Zz09](#)  
44

45 Preliminary and final bid results are posted at [www.TacomaPurchasing.org](http://www.TacomaPurchasing.org).  
46

#### 47 **1-02.13 Irregular Proposals** 48 **(October 18, 2013 Tacoma GSP)**

1 *Delete this section and replace it with the following:*  
2

- 3 1. A proposal will be considered irregular and will be rejected if:
  - 4 a. The Bidder is not prequalified when so required;
  - 5 b. The authorized proposal form furnished by the Contracting Agency is not  
6 used or is altered;
  - 7 c. The completed proposal form contains any unauthorized additions,  
8 deletions, alternate Bids, or conditions;
  - 9 d. The Bidder adds provisions reserving the right to reject or accept the award,  
10 or enter into the Contract;
  - 11 e. A price per unit cannot be determined from the Bid Proposal;
  - 12 f. The Proposal form is not properly executed;
  - 13 g. The Bidder fails to submit or properly complete a Subcontractor list, if  
14 applicable, as required in Section 1-02.6;
  - 15 h. The bidder fails to submit or properly complete the EIC forms as required in  
16 Section 1-02.6;
  - 17 i. The Bid Proposal does not constitute a definite and unqualified offer to meet  
18 the material terms of the Bid invitation; or
  - 19 j. More than one proposal is submitted for the same project from a Bidder  
20 under the same or different names.
- 21 2. A Proposal may be considered irregular and may be reject if:
  - 22 a. The Proposal does not include a unit price for every Bid item;
  - 23 b. Any of the unit prices are excessively unbalanced (either above or below the  
24 amount of a reasonable Bid) to the potential detriment of the Contracting  
25 Agency;
  - 26 c. Receipt of Addenda is not acknowledged;
  - 27 d. A member of a joint venture or partnership and the joint venture or  
28 partnership submit Proposals for the same project (in such an instance, both  
29 Bids may be rejected); or
  - 30 e. If Proposal form entries are not made in ink.

31  
32  
33  
34 **1-02.14 Disqualification of Bidders**  
35 **(October 18, 2013 Tacoma GSP)**

36 *Delete this section and replace it with the following:*  
37

38 A Bidder will be deemed not responsible if:

- 39 1. the Bidder does not meet the mandatory bidder responsibility criteria in RCW  
40 39.04.350(1), as amended; or
- 41 2. evidence of collusion exists with any other Bidder or potential Bidder.  
42 Participants in collusion will be restricted from submitting further bids; or
- 43 3. the Bidder, in the opinion of the Contracting Agency, is not qualified for the  
44 work or to the full extent of the bid, or to the extent that the bid exceeds the  
45 authorized prequalification amount as may have been determined by a  
46 prequalification of the Bidder; or
- 47 4. an unsatisfactory performance record exists based on past or current  
48 Contracting Agency work or for work done for others, as judged from the  
49 standpoint of conduct of the work; workmanship; or progress; affirmative  
50 action; equal employment opportunity practices; termination for cause; or

- 1 Disadvantaged Business Enterprise, Minority Business Enterprise, or  
2 Women's Business Enterprise utilization; or
- 3 5. there is uncompleted work (Contracting Agency or otherwise) which in the  
4 opinion of the Contracting Agency might hinder or prevent the prompt  
5 completion of the work bid upon; or
  - 6 6. the Bidder failed to settle bills for labor or materials on past or current  
7 contracts, unless there are extenuating circumstances acceptable to the  
8 Contracting Agency; or
  - 9 7. the Bidder has failed to complete a written public contract or has been  
10 convicted of a crime arising from a previous public contract, unless there are  
11 extenuating circumstances acceptable to the Contracting Agency; or
  - 12 8. the Bidder is unable, financially or otherwise, to perform the work, in the  
13 opinion of the Contracting Agency; or
  - 14 9. there are any other reasons deemed proper by the Contracting Agency; or
  - 15 10. the Bidder fails to meet the Project-specific supplemental bidder responsibility  
16 criteria listed in the **Notice to All Bidders**; or
  - 17 11. The bidder fails to meet the EIC requirements as described in Section 1-02.6.
- 18

19 As evidence that the Bidder meets the bidder responsibility criteria above, the apparent  
20 two lowest Bidders must submit to the Contracting Agency within 24 hours of the bid  
21 submittal deadline, documentation (sufficient in the sole judgment of the Contracting  
22 Agency) demonstrating compliance with all applicable responsibility criteria, including all  
23 documentation specifically listed in the supplemental criteria. The Contracting Agency  
24 reserves the right to request such documentation from other Bidders as well, and to  
25 request further documentation as needed to assess bidder responsibility.

26

27 The basis for evaluation of Bidder compliance with these supplemental criteria shall be  
28 any documents or facts obtained by Contracting Agency (whether from the Bidder or  
29 third parties) which any reasonable owner would rely on for determining such  
30 compliance, including but not limited to: (i) financial, historical, or operational data from  
31 the Bidder; (ii) information obtained directly by the Contracting Agency from owners for  
32 whom the Bidder has worked, or other public agencies or private enterprises; and (iii)  
33 any additional information obtained by the Contracting Agency which is believed to be  
34 relevant to the matter.

35

36 If the Contracting Agency determines the Bidder does not meet the bidder responsibility  
37 criteria above and is therefore not a responsible Bidder, the Contracting Agency shall  
38 notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees  
39 with this determination, it may appeal the determination within 24 hours of receipt of the  
40 Contracting Agency's determination by presenting its appeal to the Contracting Agency.  
41 The Contracting Agency will consider the appeal before issuing its final determination. If  
42 the final determination affirms that the Bidder is not responsible, the Contracting Agency  
43 will not execute a contract with any other Bidder until at least two business days after the  
44 Bidder determined to be not responsible has received the final determination.

45

46 **1-02.15 Pre Award Information**  
47 **(December 30, 2022 APWA GSP)**

48

49 *Revise this section to read:*

50

1 Before awarding any contract, the Contracting Agency may require one or more of these  
2 items or actions of the apparent lowest responsible bidder:

- 3 1. A complete statement of the origin, composition, and manufacture of any or all  
4 materials to be used,
- 5 2. Samples of these materials for quality and fitness tests,
- 6 3. A progress schedule (in a form the Contracting Agency requires) showing the  
7 order of and time required for the various phases of the work,
- 8 4. A breakdown of costs assigned to any bid item,
- 9 5. Attendance at a conference with the Engineer or representatives of the Engineer,
- 10 6. Obtain, and furnish a copy of, a business license to do business in the city or  
11 county where the work is located.
- 12 7. Any other information or action taken that is deemed necessary to ensure that  
13 the bidder is the lowest responsible bidder.

## 16 **1-03 AWARD AND EXECUTION OF CONTRACT**

### 18 **1-03.1 Consideration of Bids** 19 **(December 30, 2022 APWA GSP)**

20 *Revise the first paragraph to read:*

21  
22 After opening and reading proposals, the Contracting Agency will check them for  
23 correctness of extensions of the prices per unit and the total price. If a discrepancy  
24 exists between the price per unit and the extended amount of any bid item, the price per  
25 unit will control. If a minimum bid amount has been established for any item and the  
26 bidder's unit or lump sum price is less than the minimum specified amount, the  
27 Contracting Agency will unilaterally revise the unit or lump sum price, to the minimum  
28 specified amount and recalculate the extension. The total of extensions, corrected  
29 where necessary, including sales taxes where applicable and such additives and/or  
30 alternates as selected by the Contracting Agency, will be used by the Contracting  
31 Agency for award purposes and to fix the Awarded Contract Price amount and the  
32 amount of the contract bond.

### 34 **1-03.1(1) Identical Bid Totals** 35 **(December 30, 2022 APWA GSP)**

36 *Revise this section to read:*

37  
38 After opening Bids, if two or more lowest responsive Bid totals are exactly equal, then  
39 the tie-breaker will be the Bidder with an equal lowest bid, that proposed to use the  
40 highest percentage of recycled materials in the Project, per the form submitted with the  
41 Bid Proposal. If those percentages are also exactly equal, then the tie-breaker will be  
42 determined by drawing as follows: Two or more slips of paper will be marked as follows:  
43 one marked "Winner" and the other(s) marked "unsuccessful". The slips will be folded to  
44 make the marking unseen. The slips will be placed inside a box. One authorized  
45 representative of each Bidder shall draw a slip from the box. Bidders shall draw in  
46 alphabetic order by the name of the firm as registered with the Washington State  
47 Department of Licensing. The slips shall be unfolded and the firm with the slip marked  
48 "Winner" will be determined to be the successful Bidder and eligible for Award of the  
49 Contract. Only those Bidders who submitted a Bid total that is exactly equal to the lowest

1 responsive Bid, and with a proposed recycled materials percentage that is exactly equal  
2 to the highest proposed recycled materials amount, are eligible to draw.

3  
4 **1-03.2 Award of Contract**  
5 **(March 27, 2003 Tacoma GSP)**

6 *This section is supplemented with the following:*

7  
8 All references to 45 calendar days shall be revised to read 60 calendar days.

9  
10 **1-03.3 Execution of Contract**  
11 **(January 4, 2024 APWA GSP Option B)**

12 *Revise this section to read:*

13  
14 Within 3 calendar days of Award date (not including Saturdays, Sundays and Holidays),  
15 the successful Bidder shall provide the information necessary to execute the Contract to  
16 the Contracting Agency. The Bidder shall send the contact information, including the full  
17 name, email address, and phone number, for the authorized signer and bonding agent to  
18 the Contracting Agency.

19  
20 Copies of the Contract Provisions, including the unsigned Form of Contract, will be  
21 available for signature by the successful bidder on the first business day following  
22 award. The number of copies to be executed by the Contractor will be determined by the  
23 Contracting Agency.

24  
25 Within 10 calendar days after the award date, the successful bidder shall return the  
26 signed Contracting Agency-prepared contract, an insurance certification as required by  
27 Section 1-07.18, a satisfactory bond as required by law and Section 1-03.4, the Transfer  
28 of Coverage form for the Construction Stormwater General Permit with sections I, III,  
29 and VIII completed when provided. Before execution of the contract by the Contracting  
30 Agency, the successful bidder shall provide any pre-award information the Contracting  
31 Agency may require under Section 1-02.15.

32  
33 Until the Contracting Agency executes a contract, no proposal shall bind the Contracting  
34 Agency nor shall any work begin within the project limits or within Contracting Agency-  
35 furnished sites. The Contractor shall bear all risks for any work begun outside such  
36 areas and for any materials ordered before the contract is executed by the Contracting  
37 Agency.

38  
39 If the bidder experiences circumstances beyond their control that prevents return of the  
40 contract documents within the calendar days after the award date stated above, the  
41 Contracting Agency may grant up to a maximum of 10 additional calendar days for  
42 return of the documents, provided the Contracting Agency deems the circumstances  
43 warrant it.

44  
45 **1-03.4 Contract Bond**  
46 **(July 23, 2015 APWA GSP)**

47 *Delete the first paragraph and replace it with the following:*

48  
49 The successful bidder shall provide executed payment and performance bond(s) for the  
50 full contract amount. The bond may be a combined payment and performance bond; or

1 be separate payment and performance bonds. In the case of separate payment and  
2 performance bonds, each shall be for the full contract amount. The bond(s) shall:

- 3 1. Be on Contracting Agency-furnished form(s);
- 4 2. Be signed by an approved surety (or sureties) that:
  - 5 a. Is registered with the Washington State Insurance Commissioner, and
  - 6 b. Appears on the current Authorized Insurance List in the State of Washington  
7 published by the Office of the Insurance Commissioner,
- 8 3. Guarantee that the Contractor will perform and comply with all obligations, duties,  
9 and conditions under the Contract, including but not limited to the duty and  
10 obligation to indemnify, defend, and protect the Contracting Agency against all  
11 losses and claims related directly or indirectly from any failure:
  - 12 a. Of the Contractor (or any of the employees, subcontractors, or lower tier  
13 subcontractors of the Contractor) to faithfully perform and comply with all  
14 contract obligations, conditions, and duties, or
  - 15 b. Of the Contractor (or the subcontractors or lower tier subcontractors of the  
16 Contractor) to pay all laborers, mechanics, subcontractors, lower tier  
17 subcontractors, material person, or any other person who provides supplies  
18 or provisions for carrying out the work;
- 19 4. Be conditioned upon the payment of taxes, increases, and penalties incurred on  
20 the project under titles 50, 51, and 82 RCW; and
- 21 5. Be accompanied by a power of attorney for the Surety's officer empowered to  
22 sign the bond; and
- 23 6. Be signed by an officer of the Contractor empowered to sign official statements  
24 (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be  
25 signed by the president or vice president, unless accompanied by written proof of  
26 the authority of the individual signing the bond(s) to bind the corporation (i.e.,  
27 corporate resolution, power of attorney, or a letter to such effect signed by the  
28 president or vice president).

29  
30  
31 **1-03.5 Failure to Execute Contract**  
32 **(April 15, 2020 Tacoma GSP)**

33 *The first sentence is revised to read:*

34  
35 Failure to return the insurance certification and bond with the signed contract as required  
36 in Section 1-03.3, or failure to provide Equity In Contracting (EIC) information if required  
37 in the contract, or failure or refusal to sign the Contract, or failure to register as a  
38 contractor in the state of Washington shall result in forfeiture of the bid bond or deposit  
39 of this Bidder.  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

1 **1-04 SCOPE OF THE WORK**

2

3 **1-04.2 Coordination of Contract Documents, Plans, Special Provisions,**  
4 **Specifications, and Addenda**  
5 **(March 13, 2012 APWA GSP)**

6 *Revise the second paragraph to read:*

7

8 Any inconsistency in the parts of the contract shall be resolved by following this order of  
9 precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

- 10 1. Addenda,  
11 2. Proposal Form,  
12 3. Special Provisions,  
13 4. Contract Plans,  
14 5. Amendments to the Standard Specifications,  
15 6. Standard Specifications,  
16 7. Contracting Agency's Standard Plans or Details (if any), and  
17 8. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.  
18

1 **1-05 CONTROL OF WORK**

2  
3 **1-05.3 Working Drawings**  
4 **(January 13, 2011 Tacoma GSP)**

5 *This section is deleted in its entirety and replaced with the following:*

6  
7 **1-05.3 Submittals**

8  
9 The Contractor shall not install materials or equipment, which require submittals, until  
10 reviewed by the Contracting Agency.

11  
12 The Contractor shall submit four (4) copies to the Engineer of all submittals required by  
13 the Contract Documents, unless otherwise required in these Special Provisions. This  
14 includes, but is not limited to:

- 15 • Shop Drawings/Plans
- 16 • Product Data
- 17 • Samples
- 18 • Reports
- 19 • Material Submittals (Ref. 1-06)
- 20 • Progress Schedules (Ref. 1-08.3)
- 21 • Guarantees/Warranties (Ref. 1-05.10)

22  
23 The Engineer will return one (1) copy to the Contractor.

24  
25 **1-05.3(1) Submittal Schedule**

26  
27 In conformance with section 1-08.3, the progress schedule shall be submitted and  
28 reviewed prior to commencing any work.

29  
30 No claim will be allowed for damages or extension of time resulting from rejection of a  
31 submittal or the requirement of resubmittals as outlined by this section.

32  
33 The Engineer's review will be completed as quickly as possible, but may require up to  
34 ten (10) working days from the date the submittals or resubmittals are received until they  
35 are sent to the Contractor. If more than ten (10) working days are required for the  
36 Engineer's review of any individual submittal or resubmittal, an extension of time will be  
37 considered in accordance with Section 1-08.8.

38  
39 **1-05.3(2) Submittal Procedures**

40  
41 Contractor submittals shall be in accordance with the following:

42  
43 The Contractor shall thoroughly review each submittal for dimensions, quantities, and  
44 details of the material or item shown. The Contractor shall review each submittal and  
45 note any errors, omissions, or deviations with the Contract Documents. The Contractor  
46 shall accept full responsibility for the completeness of each submittal.

47  
48 Each submittal shall have a unique number assigned to it, and the transmittals shall be  
49 sequentially numbered. The numbering of resubmittals shall meet the requirements of



1 Section 1-05.3(4). On each page, indicate the page number, and total number of pages  
2 in each submittal.

3  
4 Each submittal shall indicate the intended use of the item in the work. When catalog  
5 pages are submitted, applicable items shall be clearly identified. The current revision,  
6 issue number, and data shall be indicated on all drawings and other descriptive data.

7  
8 Each submittal should be transmitted with the "Submittal Transmittal Form" found at the  
9 end of this section. Upon request, an electronic copy of the Submittal Transmittal Form  
10 will be made available to the Contractor.

11  
12 In lieu of utilizing the Submittal Transmittal Form, the Contractor may display the  
13 following information on each submittal, in a clear space on the front of the submittal:

- 14
- 15
- 16 • Project Name: **Pedestrian Accessibility District 10**
- 17 • Project Specification Number: **PW24-0054F**
- 18 • Project No. **PWK-G0065**
- 19 • Submittal Date
- 20 • Description of Submittal
- 21 • Sequential, unique submittal number.
- 22 • Related Specification Section and/or plan sheet
- 23 • The following statement: "This document has been detail-checked for accuracy of  
24 content and for compliance with the Contract documents. The information  
25 contained herein has been fully coordinated with all involved Subcontractors."
- 26 • Printed or typed name and signature of Contractor.
- 27

28 When submitting product data, the Contractor shall modify drawings to delete any  
29 information not applicable to the project and add information that is applicable to the  
30 project. The Contractor shall mark copies of printed material to clearly identify the  
31 pertinent materials, products or models.

32  
33 Samples submitted shall be of sufficient size and quantity to clearly illustrate functional  
34 characteristics of product or material and full range of colors available. Field samples  
35 and mock-ups, where required, shall be erected at the project site where directed by the  
36 Engineer.

37  
38 The Contractor shall notify the Engineer, in writing at time of submission, of deviations in  
39 submittals from requirements of the Contract documents.

40  
41 The City shall not be responsible for delays in reviewing submittals not submitted in  
42 accordance with these specifications.

### 43 44 **1-05.3(3) Engineer's Review of Submittals**

45  
46 The Engineer's review of drawings and data submitted by the Contractor will cover only  
47 general conformity with the Contract drawings and specifications. The Engineer's review  
48 of submittals shall not relieve the Contractor from responsibility for errors, omissions,  
49 deviations, or responsibility for compliance with the Contract documents.

1 Review of a separate item does not constitute review of an assembly in which the item  
2 functions.

3  
4 When the submittal or resubmittal is marked “REVIEWED”, or “REVIEWED WITH  
5 COMMENTS”, no additional copies need to be furnished. The Contractor shall comply  
6 with any comments on the return submittal.

#### 7 8 **1-05.3(4) Resubmittals**

9  
10 When a submittal is marked “AMEND AND RESUBMIT” or “REJECTED, SEE  
11 REMARKS,” the Contractor shall make the corrections as noted and instructed by the  
12 Engineer and resubmit four (4) copies. The Contractor shall not install material or  
13 equipment that has received a review status of “AMEND AND RESUBMIT” or  
14 REJECTED, SEE REMARKS”.

15  
16 When corrected copies are resubmitted, the Contractor shall in writing direct specific  
17 attention to all revisions and shall list separately any revision made other than those  
18 called for by the Engineer on previous submittals. Resubmittals shall bear the number of  
19 the original submittal followed by a letter (A, B, etc.) to indicate the sequence of the  
20 resubmittal.

21  
22 The Contractor shall revise returned submittals as required and resubmit until final  
23 review is obtained.

24  
25 The Contractor shall verify that all exceptions previously noted by the Engineer have  
26 been accounted for.

#### 27 28 **1-05.3(5) Submittal Requirements by Section**

29  
30 The following is a summary of submittal requirements. This summary is not inclusive of  
31 all submittal requirements. The Contractor shall review each individual section in the  
32 applicable provisions or specifications, as noted below, for specific requirements.  
33

Section	Description
1-05.3(6)	Project Red Line Drawings
1-06.1	Proposed Material Sources
1-06.1(2)	Request for Approval of Material
1-06.3	Manufacturer's Certificate of Compliance
1-07.15	Temporary Water Pollution/Erosion Control Plan
1-07.15(1)	Spill Prevention, Control and Countermeasures (SPCC) Plan
1-07.16(1)	Property Owner Notification
1-08.3(2)	Progress Schedule
1-09.6	Equipment Rental Rates and Equipment Watch Sheets
1-09.9	Schedule Of Values
1-10.2	Traffic Control Plan
2-07.3(1)	Hydrant Permit
2-09.3(4)	Engineered Shoring Design for Depths Over 20 Feet
4-04	Crushed Surfacing Top Course
4-04	Crushed Surfacing Base Course
5-04	Asphalt Mix Design Certification
5-05	Concrete Mix Design
7-05	Manholes
7-05	Castings
7-05	Kor-N-Seal Connector
7-08.3(1)A	Dewatering Plan
7-08.3(1)A	Special Approved Discharge (SAD) Permit for Sanitary
7-08.3(1)C	Pipe Bedding
7-08.3(3)	Trench Backfill
7-08.3(5)	Temporary Storm Sewer Bypass Plan
7-08.3(5)	Temporary Sanitary Sewer Bypass Plan
7-08.3(6)	Pipe Abandonment Plan
7-08.3(6)	CDF Mix Design
7-17	Pipe materials
7-18	Inserta-Tees
8-01.3(1)A	Stormwater Pollution Prevention Plan (SWPPP)

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**1-05.3(6) Project Red Line Drawings**

The Contractor shall submit Project Red Line Drawings in accordance with the following.

Red line drawings refer to those documents maintained and annotated by the Contractor during construction and is defined as, a neatly and legibly marked set of Contract drawings showing any changes made to the original details of work.

The Contractor shall maintain drawings in good condition; protect from deterioration and keep in a clean, dry, and secure location. The Project Red Line Drawings shall not be used for construction purposes.

The Contractor shall provide to the City, access to Project Red Line Drawings at all times during normal working hours.

1 Red line drawings shall be updated on a continuous basis. The Contractor shall bring  
2 the up-to-date drawings to a monthly “red line review” meeting where the Engineer will  
3 verify the maintenance of the Project Red Line Drawings as part of the condition  
4 precedent to approving the monthly progress payment disbursement process. Monthly  
5 progress payments to the Contractor may not be processed, if red line information for  
6 the involved work to date has not been accurately recorded on the Project Red Line  
7 Drawings.

8  
9 At the completion of the construction work, prior to pre-final payment, all Project Red  
10 Line Drawings shall be submitted to the Engineer.

11  
12 A. Project Red Line Drawings:

13  
14 Do not permanently conceal any work until required information has been recorded.  
15 Mark drawings to show the actual installation where the installation varies from the  
16 work as originally shown on the Contract drawings or indicated in the Contract  
17 Specifications. Give particular attention to information on concealed elements that  
18 would be difficult to measure and record at a later date.

- 19  
20 1. Changes and information shall be clearly drawn, described and shown  
21 technically correct.
- 22  
23 2. Mark drawings with red erasable pencil.
- 24  
25 3. Record data as soon as possible after obtaining it.
- 26  
27 4. Mark any new information.
- 28  
29 5. Keep accurate measurements of horizontal and vertical locations of  
30 underground services and utilities.
- 31  
32 6. Mark any changes made where installation varies from that shown  
33 originally, such as, in materials, equipments, locations, alignments,  
34 elevations, and any other dimensions of the work.
- 35  
36 7. For any work not demolished, abated, or salvaged, cross out and  
37 appropriately annotate “Not Complete”.
- 38  
39 8. Indicate revisions to drawings with a “cloud” drawn around the  
40 revision and note date the revision(s) was made.
- 41  
42 9. Note Request For Change (RFC), Request For Information (RFI), and  
43 similar identification, where applicable.

44  
45 B. Format:

46  
47 Identify and date each print; include the designation “PROJECT RED LINE  
48 DRAWINGS” in a prominent location.

- 49  
50 1. Prints: Organize Red Line Drawings into manageable sets. Include  
51 identification on cover sheets.

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2. Identify cover sheets as follows:

- Specification No.
- Project Name
- Date
- "PROJECT RED LINE DRAWINGS"
- Name of Engineer
- Name of Contractor

3. Electronic Copies: Scan full-size (dimension size: 22x34) Project Red Line Drawings and submit, on a CD-R, in pdf format.

The lump sum Contract price for "Project Red Line Drawings" shall be full pay for all costs associated with, including but not limited to, documenting, revising, updating, maintaining, and submitting red line drawings at the completion of construction work.

**1-05.4 Conformity with and Deviations from Plans and Stakes**

*Supplement this section with the following:*

**1-05.4 Conformity with Deviations from Plans and Stakes - Roadway and Utility (June 1, 2023 Tacoma GSP)**

**All surveying for this project shall be the responsibility of the City.**

The Contractor shall inform the Engineer when monuments are discovered that were not identified in the Plans and construction activity may disturb or damage the monuments. All monuments noted on the plans "DO NOT DISTURB" shall be protected throughout the length of the project or be replaced at the Contractors expense.

**1-05.7 Removal of Defective and Unauthorized Work (October 1, 2005 APWA GSP)**

*Supplement this section with the following:*

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to

1 perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from  
2 monies due, or to become due, the Contractor. Such direct and indirect costs shall  
3 include in particular, but without limitation, compensation for additional professional  
4 services required, and costs for repair and replacement of work of others destroyed or  
5 damaged by correction, removal, or replacement of the Contractor's unauthorized work.  
6

7 No adjustment in Contract time or compensation will be allowed because of the delay in  
8 the performance of the work attributable to the exercise of the Contracting Agency's  
9 rights provided by this Section.

10  
11 The rights exercised under the provisions of this section shall not diminish the  
12 Contracting Agency's right to pursue any other avenue for additional remedy or  
13 damages with respect to the Contractor's failure to perform the work as required.  
14

#### 15 **1-05.11 Final Inspection**

16 *Delete this section and replace it with the following:*  
17

#### 18 **1-05.11 Final Inspections and Operational Testing** 19 **(October 1, 2005 APWA GSP)** 20

##### 21 **1-05.11(1) Substantial Completion Date** 22

23 When the Contractor considers the work to be substantially complete, the Contractor  
24 shall so notify the Engineer and request the Engineer establish the Substantial  
25 Completion Date. The Contractor's request shall list the specific items of work that  
26 remain to be completed in order to reach physical completion. The Engineer will  
27 schedule an inspection of the work with the Contractor to determine the status of  
28 completion. The Engineer may also establish the Substantial Completion Date  
29 unilaterally.  
30

31 If, after this inspection, the Engineer concurs with the Contractor that the work is  
32 substantially complete and ready for its intended use, the Engineer, by written notice to  
33 the Contractor, will set the Substantial Completion Date. If, after this inspection the  
34 Engineer does not consider the work substantially complete and ready for its intended  
35 use, the Engineer will, by written notice, so notify the Contractor giving the reasons  
36 therefore.  
37

38 Upon receipt of written notice concurring in or denying substantial completion, whichever  
39 is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized  
40 interruption, the work necessary to reach Substantial and Physical Completion. The  
41 Contractor shall provide the Engineer with a revised schedule indicating when the  
42 Contractor expects to reach substantial and physical completion of the work.  
43

44 The above process shall be repeated until the Engineer establishes the Substantial  
45 Completion Date and the Contractor considers the work physically complete and ready  
46 for final inspection.  
47

##### 48 **1-05.11(2) Final Inspection and Physical Completion Date** 49

50 When the Contractor considers the work physically complete and ready for final  
51 inspection, the Contractor by written notice, shall request the Engineer to schedule a

1 final inspection. The Engineer will set a date for final inspection. The Engineer and the  
2 Contractor will then make a final inspection and the Engineer will notify the Contractor in  
3 writing of all particulars in which the final inspection reveals the work incomplete or  
4 unacceptable. The Contractor shall immediately take such corrective measures as are  
5 necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously,  
6 diligently, and without interruption until physical completion of the listed deficiencies.  
7 This process will continue until the Engineer is satisfied the listed deficiencies have been  
8 corrected.

9  
10 If action to correct the listed deficiencies is not initiated within 7 days after receipt of the  
11 written notice listing the deficiencies, the Engineer may, upon written notice to the  
12 Contractor, take whatever steps are necessary to correct those deficiencies pursuant to  
13 Section 1-05.7.

14 The Contractor will not be allowed an extension of Contract time because of a delay in  
15 the performance of the work attributable to the exercise of the Engineer's right  
16 hereunder.

17  
18 Upon correction of all deficiencies, the Engineer will notify the Contractor and the  
19 Contracting Agency, in writing, of the date upon which the work was considered  
20 physically complete. That date shall constitute the Physical Completion Date of the  
21 Contract, but shall not imply acceptance of the work or that all the obligations of the  
22 Contractor under the contract have been fulfilled.

### 23 24 **1-05.11(3) Operational Testing**

25  
26 It is the intent of the Contracting Agency to have at the Physical Completion Date a  
27 complete and operable system. Therefore when the work involves the installation of  
28 machinery or other mechanical equipment; street lighting, electrical distribution or signal  
29 systems; irrigation systems; buildings; or other similar work it may be desirable for the  
30 Engineer to have the Contractor operate and test the work for a period of time after final  
31 inspection but prior to the physical completion date. Whenever items of work are listed in  
32 the Contract Provisions for operational testing they shall be fully tested under operating  
33 conditions for the time period specified to ensure their acceptability prior to the Physical  
34 Completion Date. During and following the test period, the Contractor shall correct any  
35 items of workmanship, materials, or equipment which prove faulty, or that are not in first  
36 class operating condition. Equipment, electrical controls, meters, or other devices and  
37 equipment to be tested during this period shall be tested under the observation of the  
38 Engineer, so that the Engineer may determine their suitability for the purpose for which  
39 they were installed. The Physical Completion Date cannot be established until testing  
40 and corrections have been completed to the satisfaction of the Engineer.

41  
42 The costs for power, gas, labor, material, supplies, and everything else needed to  
43 successfully complete operational testing, shall be included in the unit Contract prices  
44 related to the system being tested, unless specifically set forth otherwise in the proposal.

45  
46 Operational and test periods, when required by the Engineer, shall not affect a  
47 manufacturer's guaranties or warranties furnished under the terms of the Contract.

48  
49 *Add the following new section:*

50

1 **1-05.12(1) One-Year Guarantee Period**  
2 **(March 8, 2013 APWA GSP)**

3  
4 The Contractor shall return to the project and repair or replace all defects in  
5 workmanship and material discovered within one year after Final Acceptance of the  
6 Work. The Contractor shall start work to remedy any such defects within 7 calendar  
7 days of receiving Contracting Agency's written notice of a defect, and shall complete  
8 such work within the time stated in the Contracting Agency's notice. In case of an  
9 emergency, where damage may result from delay or where loss of services may result,  
10 such corrections may be made by the Contracting Agency's own forces or another  
11 Contractor, in which case the cost of corrections shall be paid by the Contractor. In the  
12 event the Contractor does not accomplish corrections within the time specified, the work  
13 will be otherwise accomplished and the cost of same shall be paid by the Contractor.  
14

15 When corrections of defects are made, the Contractor shall then be responsible for  
16 correcting all defects in workmanship and materials in the corrected work for one year  
17 after acceptance of the corrections by Contracting Agency.  
18

19 This guarantee is supplemental to and does not limit or affect the requirements that the  
20 Contractor's work comply with the requirements of the Contract or any other legal rights  
21 or remedies of the Contracting Agency.  
22

23 **1-05.13 Superintendents, Labor and Equipment of Contractor**  
24 **(August 14, 2013 APWA GSP)**

25  
26 *Delete the sixth and seventh paragraphs of this section.*  
27

28 **1-05.15 Method of Serving Notices**  
29 *(January 4, 2024 APWA GSP)*

30  
31 Revise the second paragraph to read:

32  
33 All correspondence from the Contractor shall be served and directed to the  
34 Engineer. All correspondence from the Contractor constituting any notification,  
35 notice of protest, notice of dispute, or other correspondence constituting  
36 notification required to be furnished under the Contract, must be written in paper  
37 format, hand delivered or sent via certified mail delivery service with return  
38 receipt requested to the Engineer's office. Electronic copies such as e-mails or  
39 electronically delivered copies of correspondence will not constitute such notice  
40 and will not comply with the requirements of the Contract.  
41

42 *Add the following new section:*  
43

44 **1-05.16 Water and Power**  
45 **(October 1, 2005 APWA GSP)**

46  
47 The Contractor shall make necessary arrangements, and shall bear the costs for power  
48 and water necessary for the performance of the work, unless the Contract includes  
49 power and water as a pay item.  
50  
51  
52



**SUBMITTAL TRANSMITTAL FORM**

Project Name: **Pedestrian Accessibility District 10**  
 Project Specification Number: **PW24-0054F**  
 Project No. **PWK-G0065**

ATTN: Construction Division                      Date: \_\_\_\_\_

Submittal Number \_\_\_\_\_

Specification Number \_\_\_\_\_                      Bid Item No. \_\_\_\_\_

Submittal Description \_\_\_\_\_

We are sending you:

Copies	Date	Page	Description

Transmitted:          Submittals (Product Data) for information only.  
                                 Submittals for review and comment.

Remarks: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Certify Either A or B:

- A.      This document has been detail-checked for accuracy of content and for compliance with the Contract documents **(no exceptions)**. The information contained herein has been fully coordinated with all involved Subcontractors.
- B.      This document has been detail-checked for accuracy of content and for compliance with the Contract documents **except for the attached deviations**. The information contained herein has been fully coordinated with all involved Subcontractors.

Certified By: \_\_\_\_\_  
Signature

1 **1-06 CONTROL OF MATERIAL**

2  
3 **1-06.1 Approval of Materials Prior To Use**  
4 **(September 15, 2010 Tacoma GSP)**

5 *This section is revised in its entirety to read:*

6  
7 All materials and equipment shall be submitted for review in accordance with section 1-  
8 05.3 of these special provisions.

9  
10 For aggregates, the Contractor shall notify the Engineer of all proposed aggregates.  
11 The Contractor shall use the Aggregate Source Approval (ASA) Database.

12  
13 All equipment, materials, and articles incorporated into the permanent Work:

- 14  
15 1. Shall be new, unless the Special Provisions or Standard Specifications permit  
16 otherwise;
- 17  
18 2. Shall meet the requirements of the Contract and be approved by the Engineer;
- 19  
20 3. May be inspected or tested at any time during their preparation and use; and
- 21  
22 4. Shall not be used in the Work if they become unfit after being previously  
23 approved.

24  
25 **1-06.1(1) Qualified Products List (QPL)**

26 *This section is revised in its entirety to read:*

27  
28 QPL's are not accepted by the City.

29  
30 **1-06.1(2) Request for Approval of Material (RAM)**

31 *This section is deleted in its entirety.*

32  
33 **1-06.6 Recycled Materials**  
34 **(January 4, 2016 APWA GSP)**

35 *Delete this section, including its subsections, and replace it with the following:*

36  
37 The Contractor shall make their best effort to utilize recycled materials in the  
38 construction of the project. Approval of such material use shall be as detailed elsewhere  
39 in the Standard Specifications.

40  
41 Prior to Physical Completion the Contractor shall report the quantity of recycled  
42 materials that were utilized in the construction of the project for each of the items listed  
43 in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete  
44 aggregate, recycled glass, steel furnace slag and other recycled materials (e.g.  
45 utilization of on-site material and aggregates from concrete returned to the supplier).  
46 The Contractor's report shall be provided on DOT form 350-075 Recycled Materials  
47 Reporting.

1 **1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**

2  
3 **1-07.1 Laws to be Observed**  
4 **(October 1, 2005 APWA GSP)**

5 *Supplement this section with the following:*

6  
7 In cases of conflict between different safety regulations, the more stringent regulation  
8 shall apply.

9  
10 The Washington State Department of Labor and Industries shall be the sole and  
11 paramount administrative agency responsible for the administration of the provisions of  
12 the Washington Industrial Safety and Health Act of 1973 (WISHA).

13  
14 The Contractor shall maintain at the project site office, or other well known place at the  
15 project site, all articles necessary for providing first aid to the injured. The Contractor  
16 shall establish, publish, and make known to all employees, procedures for ensuring  
17 immediate removal to a hospital, or doctor's care, persons, including employees, who  
18 may have been injured on the project site. Employees should not be permitted to work  
19 on the project site before the Contractor has established and made known procedures  
20 for removal of injured persons to a hospital or a doctor's care.

21  
22 The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of  
23 the Contractor's plant, appliances, and methods, and for any damage or injury resulting  
24 from their failure, or improper maintenance, use, or operation. The Contractor shall be  
25 solely and completely responsible for the conditions of the project site, including safety  
26 for all persons and property in the performance of the work. This requirement shall  
27 apply continuously, and not be limited to normal working hours. The required or implied  
28 duty of the Engineer to conduct construction review of the Contractor's performance  
29 does not, and shall not, be intended to include review and adequacy of the Contractor's  
30 safety measures in, on, or near the project site.

31  
32 **1-07.2 State Taxes**  
33 **(January 6, 2015 Tacoma GSP)**

34 *Supplement this section with the following:*

35  
36 Washington State Department of Revenue Rules 170 and 171 shall apply as shown in  
37 the Proposal and per Section 1-07.2 of the WSDOT and APWA Standard Specifications  
38 for Road, Bridge, and Municipal Construction.

39  
40 **1-07.2(3) Services**

41 *Replace this section with the following:*

42  
43 The Contractor shall not collect retail sales tax from the Contracting Agency on any  
44 contract wholly for professional or other services (as defined in Washington State  
45 Department of Revenue Rules 138 and 244).

46  
47 **1-07.9 Wages**

48  
49 **1-07.9(5)C Certified Payrolls**

50 **(\*\*\*\*\*)**

51 *The second sentence of the first paragraph is revised to read:*

1  
2 Weekly certified payrolls shall be submitted for the Contractor and all lower tier  
3 subcontractors or agents.

4  
5 *This section is supplemented with the following:*

6  
7 Where fringe benefits are paid in cash, certified payrolls shall include the fringe benefit  
8 dollar amount paid to each employee for each employee classifications.

9  
10 Where fringe benefits are paid into approved plans, funds, or programs, the amount of  
11 the fringe benefits shall be identified in the "Benefit Distribution" section of the Certified  
12 Payroll Affirmation form.

13  
14 **1-07.9(5) Required Documents**  
15 **(March 1, 2004 Tacoma GSP)**

16 *The first sentence of the third paragraph is revised to read:*

17  
18 Weekly certified payrolls shall be submitted for the Contractor and all lower tier  
19 subcontractors or agents.

20  
21 *This section is supplemented with the following:*

22  
23 Where fringe benefits are paid in cash, certified payrolls shall include the fringe benefit  
24 dollar amount paid to each employee for each employee classification.

25  
26 Where fringe benefits are paid into approved plans, funds, or programs, the amount of  
27 the fringe benefits shall be identified in the "Benefit Distribution" section of the Certified  
28 Payroll Affirmation form.

29  
30 **1-07.15 Temporary Water Pollution/Erosion Control**  
31 **(March 23, 2010 Tacoma GSP)**

32 *This section is supplemented with the following:*

33  
34 Stormwater or dewatering water that has come in contact with concrete rubble, concrete  
35 pours, or cement treated soils shall be maintained to pH 8.5 or less before it is allowed  
36 to enter waters of the State or the City stormwater system. If pH exceeds 8.5, the  
37 Contractor shall immediately discontinue work and initiate treatment according to the  
38 plan to lower the pH. Work may resume, with treatment, once the pH of the stormwater  
39 is 8.5 or less or it can be demonstrated that the runoff will not reach surface waters or  
40 the City stormwater system.

41  
42 High pH process water shall not be discharged to waters of the State or the City  
43 stormwater system. Unless specific measures are identified in the Special Provisions,  
44 high pH water may be infiltrated, dispersed in vegetation or compost, or discharged to a  
45 sanitary sewer system. Disposal shall be in accordance with the City of Tacoma Surface  
46 Water Management Manual or to City wastewater system with proper approval. Water  
47 being infiltrated or dispersed shall have no chance of discharging directly to waters of  
48 the State or the City stormwater system, including wetlands or conveyances that  
49 indirectly lead to waters of the State. High pH process water shall be treated to within a  
50 range of 6.5 to 8.5 pH units prior to infiltration to ensure the discharge does not cause a  
51 violation of groundwater quality standards. If water is discharged to the sanitary sewer,

1 the Contractor shall provide a copy of permits and requirements for placing the material  
2 into a sanitary sewer system prior to beginning the work. Process water may be  
3 collected and disposed of by the Contractor off the project site. The Contractor shall  
4 provide a copy of the permit for an approved waste site for the disposal of the process  
5 water prior to the start of work that generates the process water. A Special Approved  
6 Discharge permit shall be required for all discharges to the sanitary sewer system.

7  
8 **1-07.15(1) Spill Prevention, Control and Countermeasures Plan**  
9 **(February 9, 2011 Tacoma GSP)**

10 *This section is revised to read:*

11  
12 The Contractor shall prepare a project-specific spill prevention, control, and  
13 countermeasures plan (SPCC Plan) that will be used for the duration of the project. The  
14 Contractor shall submit the plan to the Project Engineer no later than the date of the  
15 preconstruction conference. No on-site construction activities may commence until the  
16 Contracting Agency accepts an SPCC Plan for the project.

17 The SPCC Plan shall address all fuels, petroleum products, hazardous materials, and  
18 other materials as defined in Chapter 447 of the WSDOT Environmental Procedures  
19 Manual (M 31-11). Occupational safety and health requirements that may pertain to  
20 SPCC Plan implementation are contained in, but not limited to, WAC 296-824 and WAC  
21 296-843.

22  
23 **Implementation Requirements**

24 The SPCC Plan shall be updated by the Contractor throughout project construction so  
25 that the written plan reflects actual site conditions and practices. The Contractor shall  
26 update the SPCC Plan at least annually and maintain a copy of the updated SPCC Plan  
27 on the project site. All project employees shall be trained in spill prevention and  
28 containment, and they shall know where the SPCC Plan and spill response kits are  
29 located and have immediate access to them.

30  
31 If hazardous materials are encountered or spilled during construction, the Contractor  
32 shall do everything possible to control and contain the material until appropriate  
33 measures can be taken. The Contractor shall supply and maintain spill response kits of  
34 appropriate size within close proximity to hazardous materials and equipment.

35  
36 The Contractor shall implement the spill prevention measures identified in the SPCC  
37 Plan before performing any of the following:

- 38  
39 1. Placing materials or equipment in staging or storage areas.  
40  
41 2. Refueling, washing, or maintaining equipment.  
42  
43 3. Stockpiling contaminated materials.  
44

45 **SPCC Plan Element Requirements**

46 The SPCC Plan shall set forth the following information in the following order:

- 47  
48 1. Responsible Personnel

- 1 Identify the name(s), title(s), and contact information, including a 24/7 emergency  
2 contact number, for the personnel responsible for implementing and updating the  
3 plan, including all spill responders.  
4
- 5 2. Spill Reporting  
6 List the names and telephone numbers of the Federal, State, and local agencies  
7 the Contractor shall notify in the event of a spill. The City of Tacoma contact will  
8 be the Wastewater Treatment Plant Operations number at 253.591.5595 and the  
9 City Source Control Spill Response number at 253.502.2222.  
10
- 11 3. Project and Site Information  
12 Describe the following items:  
13 A. The project Work.  
14 B. The site location and boundaries.  
15 C. The drainage pathways from the site, including both stormwater and sanitary  
16 conveyance pathways.  
17 D. Nearby waterways and sensitive areas and their distances from the site.  
18
- 19 4. Potential Spill Sources  
20 Describe each of the following for all potentially hazardous materials brought or  
21 generated on-site (including materials used for equipment operation, refueling,  
22 maintenance, or cleaning):  
23 A. Name of material and its intended use.  
24 B. Estimated maximum amount on-site at any one time.  
25 C. Location(s) (including any equipment used below the ordinary high water line)  
26 where the material will be staged, used, and stored and the distance(s) from  
27 nearby waterways and sensitive areas.  
28 D. Decontamination location and procedure for equipment that comes into  
29 contact with the material.  
30 E. Disposal procedures.  
31 F. Include a Material Safety Data Sheet (MSDS) for each potentially hazardous  
32 material.  
33
- 34 5. Pre-Existing Contamination  
35 Describe any pre-existing contamination and contaminant sources (such as  
36 buried pipes or tanks) in the project area that are described in the Contract  
37 documents. Identify equipment and work practices that will be used to prevent  
38 the release of contamination.  
39
- 40 6. Spill Prevention and Response Training  
41 Describe how and when all personnel (including refueling Contractors and  
42 Subcontractors) will be trained in spill prevention, containment, and response in  
43 accordance with the Plan. Describe how and when all spill responders will be  
44 trained in accordance with WAC 296-824.  
45
- 46 7. Spill Prevention  
47 Describe the following items:  
48 A. Spill response kit contents and location(s).  
49 B. Security measures for potential spill sources.  
50 C. Secondary containment practices and structures for all containers to handle  
51 the maximum volume of potential spill of hazardous materials.

- 1 D. Methods used to prevent stormwater from contacting hazardous materials.  
 2 E. Site inspection procedures and frequency.  
 3 F. Equipment and structure maintenance practices.  
 4 G. Daily inspection and cleanup procedures that ensure all equipment used  
 5 below the ordinary high water line is free of all external petroleum-based  
 6 products.  
 7 H. Refueling procedures for equipment that cannot be moved from below the  
 8 ordinary high water line.  
 9
- 10 8. Spill Response  
 11 Outline the response procedures the Contractor will follow for each scenario  
 12 listed below. Include a description of the actions the Contractor shall take and the  
 13 specific on-site spill response equipment that shall be used to assess the spill,  
 14 secure the area, contain and eliminate the spill source, and clean up and dispose  
 15 of spilled and contaminated material.  
 16  
 17 Response procedures shall be outlined in the Spill Response section and shall  
 18 include notification to the City of Tacoma Wastewater Treatment Plant  
 19 Operations number at 253.591.5595 and the City Source Control Spill Response  
 20 number at 253.502.2222.  
 21  
 22 A. A spill of each type of hazardous material at each location identified in 4,  
 23 above.  
 24 B. Stormwater that has come into contact with hazardous materials.  
 25 C. Drainage pathways from the site, including both stormwater and sanitary  
 26 conveyance pathways.  
 27 D. A release or spill of any unknown pre-existing contamination and contaminant  
 28 sources (such as buried pipes or tanks) encountered during project Work.  
 29 E. A spill occurring during Work with equipment used below the ordinary high  
 30 water line.  
 31  
 32 If the Contractor will use a Subcontractor for spill response, provide contact  
 33 information for the Subcontractor under item 1 (above), identify when the  
 34 Subcontractor will be used, and describe actions the Contractor shall take while  
 35 waiting for the Subcontractor to respond.  
 36
- 37 9. Project Site Map  
 38 Provide a map showing the following items:  
 39  
 40 A. Site location and boundaries.  
 41 B. Site access roads.  
 42 C. Drainage pathways from the site.  
 43 D. Nearby waterways and sensitive areas.  
 44 E. Hazardous materials, equipment, and decontamination areas identified in 4,  
 45 above.  
 46 F. Pre-existing contamination or contaminant sources described in 5, above.  
 47 G. Spill prevention and response equipment described in 7 and 8, above.  
 48
- 49 10. Spill Report Forms  
 50 Provide a copy of the spill report form(s) that the Contractor will use in the event  
 51 of a release or spill.

1  
2 **Payment**

3 Payment will be made in accordance with Section 1-04.1 for the following Bid item when  
4 it is included in the Proposal:

5  
6 "SPCC Plan," lump sum.

7  
8 When the written SPCC Plan is accepted by the Contracting Agency, the Contractor  
9 shall receive 50-percent of the lump sum Contract price for the plan.

10  
11 The remaining 50-percent of the lump sum price will be paid after the materials and  
12 equipment called for in the plan are mobilized to the project.

13  
14 The lump sum payment for "SPCC Plan" shall be full pay for:

- 15  
16 1. All costs associated with creating the accepted SPCC Plan.  
17  
18 2. All costs associated with providing and maintaining the on-site spill prevention  
19 equipment described in the accepted SPCC Plan.  
20  
21 3. All costs associated with providing and maintaining the on-site standby spill  
22 response equipment and materials described in the accepted SPCC Plan.  
23  
24 4. All costs associated with implementing the spill prevention measures identified in  
25 the accepted SPCC Plan.  
26  
27 5. All costs associated with updating the SPCC Plan as required by this  
28 Specification.  
29

30 As to other costs associated with releases or spills, the Contractor may request payment  
31 as provided for in the Contract. No payment shall be made if the release or spill was  
32 caused by or resulted from the Contractor's operations, negligence, or omissions.  
33

34 **1-07.16 Protection and Restoration of Property**

35  
36 **1-07.16(1) Private/Public Property**  
37 **(January 13, 2011 Tacoma GSP)**

38 *This section is supplemented with the following:*  
39

40 Stockpiling in City of Tacoma right-of-way or on existing or new improvements shall not  
41 occur unless approved by the Engineer. All stockpile sites shall be restored to as good  
42 or better condition.  
43

44 The Contractor shall contact all property owners and tenants in the vicinity of this project,  
45 via newsletter/ mailing, a minimum of one (1) week prior to start of construction. The  
46 Contractor shall submit a draft of the property owner notification prior to posting/ mailing.  
47

48 The newsletter/ mailing shall advise the owners and tenants of the construction schedule  
49 and indicate the Contractor's name, contact person, and telephone numbers.  
50



1 **1-07.17 Utilities and Similar Facilities**  
2 **(June 1, 2023 Tacoma GSP)**

3 *The first paragraph is supplemented with the following:*

4  
5 Public and private utilities or their Contractors will furnish all work necessary to adjust,  
6 relocate, replace, or construct their facilities unless otherwise provided for in the Plans or  
7 these Special Provisions. Such adjustment, relocations, replacement, or construction  
8 will be done within the time for performance of this project. The Contractor shall  
9 coordinate their work with such adjustment, relocation, or replacement of utility work.  
10 This may require the Contractor to phase their work in a manner that will allow for the  
11 utility work.

12  
13 The Contractor shall coordinate their work with all utilities and other organizations which  
14 have to adjust or revise their facilities within the project area. These may include, but  
15 are not limited to:

- 16
- 17 • City of Tacoma Light Division, Contact: Kevin Kelley, phone: (253) 502-8229
- 18 • City of Tacoma Water Division, Contact: Kimberly Baard, phone: (253) 396-3317
- 19 • City of Tacoma Traffic Division, Signal/Streetlight Shop, phone: (253) 591-5287
- 20 • Rainier Connect, Contact: Brian Munson, phone: (253) 312-2819;  
21 [Brian.Munson@Rainierconnect.net](mailto:Brian.Munson@Rainierconnect.net)
- 22 • Puget Sound Energy, Contact: Mike Klapperich, Electric, phone: (253) 313-3790;  
23 [michael.klapperich@pse.com](mailto:michael.klapperich@pse.com) OR Amber Uhls, Gas, phone: (253) 476-6137;  
24 [amber.uhls@pse.com](mailto:amber.uhls@pse.com)
- 25 • Lumen, Contact: Al (Aliyah) Skaro, [relocations@lumen.com](mailto:relocations@lumen.com)
- 26 • Terra Tech LLC, Contact: Chris Janoski, phone: (303) 552-8545;  
27 [chrisjanoski@terratechllc.net](mailto:chrisjanoski@terratechllc.net)
- 28 • Comcast, Contact: Todd Gallant, phone: (253) 878-4955,  
29 [todd\\_gallant@cable.comcast.com](mailto:todd_gallant@cable.comcast.com)
- 30 • AT&T/Siena Engineering Group, Contact: Louie Van Hollebeke, phone: (425) 896-  
31 9850; [louie.vanhollebeke@sienaengineeringgroup.com](mailto:louie.vanhollebeke@sienaengineeringgroup.com) OR Steve Duppenhtaler,  
32 phone: (425) 286-3822; [sd1891@att.com](mailto:sd1891@att.com) OR Roberta Anderson, phone: (425)  
33 896-9839; [roberta.anderson@sienaengineeringgroup.com](mailto:roberta.anderson@sienaengineeringgroup.com)
- 34 • Level 3 Communications, [Level3NetworkRelocations@Level3.com](mailto:Level3NetworkRelocations@Level3.com)
- 35 • One-Number Locator Service “One Call System” telephone **1-800-424-5555**
- 36 • Verizon, Contact: David Lacombe, phone: (206) 305-5366
- 37 • MCI Metro Utility, Contact: Brad Landis, phone: (425) 229-3123
- 38 • T-Mobile, Contact: Steven Schauer, Phone: (360) 402-7725;  
39 [sschauer@cogentco.com](mailto:sschauer@cogentco.com)
- 40 • Zayo Communications, Contact: Phil Braum, [phil.braum@zayo.com](mailto:phil.braum@zayo.com) ;  
41 [zayo.relo.washington@zayo.com](mailto:zayo.relo.washington@zayo.com)

42  
43 If the Contractor plans to excavate or trench within ten (10) feet of any utility pole or  
44 other electric or water utility structure owned by the City of Tacoma, the Contractor shall  
45 contact the City of Tacoma, Department of Public Utilities, Field Coordinator, telephone  
46 number 502-8044, and arrange for an inspection before proceeding. The Contractor  
47 shall perform, at the Contractor's expense, such additional work as is required to protect  
48 the pole or structure from subsidence. The Contractor may be directed to suspend work  
49 at the site of any such excavation until such utility structures are adequately protected.

1 Garbage, recycling, and yard waste pick up within the project limits, check City of  
2 Tacoma website.

3  
4 **1-07.18 Public Liability and Property Damage Insurance**

5 *Delete this section in its entirety, and replace it with the following:*

6  
7 **1-07.18 Insurance**  
8 **(December 17, 2019 Tacoma GSP)**

9  
10 During the course and performance of the services herein specified, the Contractor will  
11 maintain the insurance coverage in the amounts and in the manner specified in the City  
12 of Tacoma Insurance Requirements as is applicable to the services and deliverables  
13 provided under this Contract. The City of Tacoma Insurance Requirements document is  
14 fully incorporated herein by reference.

15  
16 Failure by the Contracting Agency to identify a deficiency in the insurance  
17 documentation provided by the Contractor or failure of the Contracting Agency to  
18 demand verification of coverage or compliance by the Contractor with these insurance  
19 requirements shall not be construed as a waiver of the Contractor's obligation to  
20 maintain such insurance.

21  
22 *This section is supplemented with the following;*

23  
24 The project specific Insurance Requirements for the Contractor are included in Part V of  
25 these specifications.

26  
27 **1-07.23 Public Convenience and Safety**

28  
29 **1-07.23(1) Construction Under Traffic**  
30 **(May 2, 2017 APWA GSP)**

31  
32 *Revise the third sentence of the second paragraph to read:*

33  
34 Accessibility to existing or temporary pedestrian push buttons shall not be impaired; if  
35 approved by the Contracting Agency activating pedestrian recall timing or other  
36 accommodation may be allowed during construction.

37  
38 **1-07.23(1) Construction Under Traffic**  
39 **(March 1, 2004 Tacoma GSP)**

40 *This section is supplemented with the following:*

41  
42 The following special traffic requirements shall be adhered to during all phases of  
43 construction:

44  
45 South State Street, South Ferry Street, South 14th Street, Sprague Avenue (arterial),  
46 South 11th Street (arterial), South 12th Street (arterial), and South 15th Street (arterial)  
47 shall remain fully open to vehicular and pedestrian traffic at all times.

48  
49 McKinley Avenue and South 43<sup>rd</sup> Street (west of McKinley Avenue) are arterial streets  
50 which shall remain full open to vehicular and pedestrian traffic at all times, but also

1 where planned construction will require particular exceptions to this default condition, as  
2 noted in #7 below.

3  
4 EXCEPTION:

5 1. Non-arterial classified roadways are permitted to be closed to traffic, in  
6 association with active work areas (but not concurrently with other adjacent non-  
7 arterial closures), so long as local access to properties and businesses is  
8 accommodated in the following scenarios:

- 9 • During construction working hours when arrangements in advance have  
10 been made through coordination between the requestor, the contractor,  
11 and the City;
- 12 • During construction working hours when special/emergency access is  
13 needed;
- 14 • During construction working hours when emergency services needs to  
15 use the roadway;
- 16 • During construction working hours when passage through/along the work  
17 area is the only means to access an intersecting road and/or adjacent  
18 property; and
- 19 • During non-construction hours (unless progression of work makes it  
20 infeasible to do so, in which case the Contractor shall inform and obtain  
21 pre-approval from the City).

22 2. During non-construction hours, the project area shall be left in a state that  
23 permits on-street parking (as was allowable prior to project start) so long as the  
24 permitted parking does not hamper the flow of traffic, temporary traffic control,  
25 and/or safety.

26 3. Project work areas adjacent to or intersecting arterial streets (as identified  
27 above) shall not hinder the safety or traffic operations of the arterial street such  
28 that two-way vehicular traffic (in separate lanes) cannot be maintained at all  
29 times. Additionally, if the work requires the reduction of a lane of traffic in a given  
30 direction of traffic on an arterial street, then that impact will only be permitted  
31 between 9 AM and 3 PM and those impacts shall be limited to one direction of  
32 the arterial at a time. Additional or alternative hours can be considered by the  
33 City with supporting justification. Any directional/full closure of any arterial street  
34 will not be permitted.

35 4. Flagging arterial street intersections (as identified above) shall not be  
36 permitted between 7 AM and 7 PM.

37 5. A “spotter” dedicated to assisting pedestrians through or around the work  
38 zone or to ensure a pedestrian detour is followed must be available during active  
39 working hours for the conditions described herein. A dedicated spotter is needed  
40 when project work impacts use of an arterial intersection that then requires a  
41 pedestrian to utilize an alternate route and crossing of the arterial street that has  
42 less pedestrian and/or traffic control provisions as the impacted location. For  
43 non-construction hours, the work-related impact that caused the need for a  
44 spotter shall be eliminated or mitigated to the City’s satisfaction so that a spotter  
45 is not required during that time.

46 6. Any demolition, or closure of pedestrian accessibility, at a given corner of an  
47 intersection must be limited to that given corner, with the remaining three corners  
48 at the intersection (at a minimum) being used to facilitate a pedestrian detour  
49 until full accessibility or an accessible connection with at least one other corner  
50 from the corner under construction can be re-established. Any temporary

1 pedestrian access path/route that may be employed shall provide equivalent to,  
2 or better, accessibility than the unavailable path/route in accordance with the  
3 Americans with Disabilities Act and the Proposed Accessibility Guidelines for  
4 Pedestrian Facilities in the Public Right-of-Way (PROWAG).

5 7. (specific to intersection of McKinley Avenue and South 43<sup>rd</sup> Street and its  
6 arterial segments: “McKinley Avenue north of South 43<sup>rd</sup> Street,” “McKinley  
7 Avenue south of South 43<sup>rd</sup> Street,” and “South 43<sup>rd</sup> Street west of McKinley  
8 Avenue”) When a stage of construction or the sequencing of construction will not  
9 allow for two-way vehicular traffic on the arterial segments of this intersection,  
10 then a directional detour will need to be established using only the surrounding  
11 network of arterial roadways (e.g., South 38<sup>th</sup> Street, South 56<sup>th</sup> Street, Pacific  
12 Avenue, and/or Portland Avenue). Directional closures should apply the  
13 following order of preference as the stage of work/work space needs allow:

- 14 • Affecting arterial segment of South 43<sup>rd</sup> Street in the westbound direction  
15 starting at McKinley Avenue intersection
- 16 • Affecting arterial segment of South 43<sup>rd</sup> Street in the eastbound direction  
17 approaching the McKinley Avenue intersection
- 18 • Affecting arterial segment of South 43<sup>rd</sup> Street in the both directions  
19 associated with the McKinley Avenue intersection
- 20 • Affecting arterial segments of McKinley Avenue in the southbound  
21 direction approaching the South 43<sup>rd</sup> Street intersection

22  
23 No stage of work and/or temporary traffic control scenario will be permitted to  
24 that does not, at a minimum, maintain at least the northbound arterial flow of  
25 McKinley Avenue, even if the flow of traffic would have to be shifted.

26  
27 All potential directional closure situations described above must provide a  
28 means for pedestrian (including bicycles on-sidewalk) to pass through or  
29 around the work site —via unimproved, temporarily provisioned, and/or newly  
30 reconstructed facilities that meet or exceed pre-project accessibility  
31 conditions—to be support continuous mobility and access along either  
32 roadway.

33  
34 All potential directional closure situations described above must be planned  
35 and sequenced to limit the instances of fluctuating directional closures while  
36 also minimizing the total duration that the public is subjected to using the  
37 arterial-based closure.

38  
39 The non-arterial/east leg of this intersection is not subject to the specifications  
40 within this specific listing but is subject to the preceding listings as they apply to  
41 non-arterial roadways.

42  
43 To minimize the disruption to access to adjacent properties, and to Pierce Transit  
44 operations, the lane closure area shall be limited to that area of active work and  
45 necessary for appropriate lane closure tapers. The Contractor shall stage work to  
46 maintain legal access to and egress from all properties at all times.

47  
48 A safe pedestrian access shall be provided at all times through the project area. All lane  
49 closures shall be coordinated with the adjacent businesses, school/school district, other

1 contractors working within the project vicinity, local transit agencies and the City. Not  
2 more than one corner shall be closed at one time.

3  
4 Where, in the opinion of the Engineer, parking is a hazard to through traffic or to the  
5 construction work, parking may be restricted either entirely or during the time when it  
6 creates a hazard. Signs for restricting parking shall be approved by the City and placed  
7 by the Contractor at least seventy-two (72) hours in advance for any property. The  
8 Contractor shall be responsible for and shall maintain all such signs. The replacement  
9 of signs restricting parking shall be as approved by the Engineer.

10  
11 The Contractor shall notify all property owners and tenants of detours, street and alley  
12 closures, or other restrictions that may interfere with their access. Notification shall be at  
13 least seventy-two (72) hours in advance for any affected property.

14  
15 Emergency traffic, such as police, fire, and disaster units, shall be provided access at all  
16 times. In addition, the Contractor shall coordinate Contractor activities with all disposal  
17 firms and transit bus service that may be operating in the project area.

18  
19 It is the intent of the Contract to effectively prevent the deposition of debris on streets in  
20 areas of public traffic or where such debris may be transported into a drainage  
21 system. When construction operations are such that debris from the work is deposited  
22 on the streets, the Contractor shall, at a minimum, remove on a daily basis any deposits  
23 or debris which may accumulate on the roadway surface. Should daily removal be  
24 insufficient to keep the streets clean, the Contractor shall perform removal operations on  
25 a more frequent basis. If the Engineer determines that a more frequent cleaning is  
26 impractical or if the Contractor fails to keep the streets free from deposits and debris  
27 resulting from the work, the Contractor shall, upon order of the Engineer, provide  
28 facilities for and remove all deposits from the tires or between wheels before trucks or  
29 other equipment will be allowed to travel over paved streets. Should the Contractor fail  
30 or refuse to clean the streets in question, or the trucks or equipment in question, the  
31 Engineer may order the work suspended at the Contractor's risk until compliance with  
32 Contractor's obligations is assured, or the Engineer may order the streets in question  
33 cleaned by others and such costs incurred by the City in achieving compliance with  
34 these contract requirements, including cleaning of the streets, shall be deducted from  
35 moneys due or to become due the Contractor on monthly estimate. The Contractor shall  
36 have no claim for delay or additional costs should the Engineer choose to suspend the  
37 Contractor's work until compliance is achieved.

38  
39  
40 **1-07.23(2) Construction and Maintenance of Detours**  
41 **(March 1, 2004 Tacoma GSP)**

42 *This section is supplemented with the following:*

43  
44 Detour signing during any allowed road closures shall be in accordance with Detour  
45 Plans, when included in the Contract Documents. When plans are not included in the  
46 Contract Documents, the Contractor shall submit plans for detours in accordance with  
47 the "Manual on Uniform Traffic Control Devices (MUTCD)". In addition, where the  
48 Contractor believes an alternate plan will safely and adequately maintain vehicular and  
49 pedestrian traffic, the Contractor may submit alternate plans to those for traffic control  
50 and detours required by MUTCD or contract documents. Such alternate plans must  
51 comply with the MUTCD and shall be in writing and submitted to the Engineer at least

1 fifteen (15) days in advance of their intended use. In general, detouring of arterial traffic  
2 must be accomplished on streets designated as City Arterials. Detouring of arterial  
3 traffic on non-arterial streets will not be allowed. The acceptance of any alternate plan  
4 shall be entirely at the discretion of the Engineer and the Contractor shall have no claim  
5 by reason of a plan being rejected or modified, nor shall there be any additional payment  
6 by reason of using a substitute plan.

7  
8 The Contractor shall notify the Engineer five (5) working days in advance of  
9 implementation of any street closures/detours allowed under the Contract. Advance  
10 notice signing shall be placed a minimum of three (3) working days prior to  
11 implementation of any street closure/detour.

12  
13 A minimum of five (5) working days (seven for Pierce Transit) prior to any street closure,  
14 the Contractor shall notify all entities below:

15		
16	Tacoma Fire Dept.	(253-591-5733)
17	Tacoma Police Dept.	(253-591-5950)
18	LESA Communications Center	(253-798-4721 - Opt.#1)
19	Tacoma Public Schools Transportation Office	(253-571-1853)
20	Pierce Transit	(253-377-5027)
21	Tacoma Environmental Services Solid Waste	(253-591-5544)
22	Tacoma Public Works Engineering Division	(253-591-5500)
23	Tacoma Public Works Streets and Grounds	(253-591-5495)
24		

25  
26 **1-07.24 Rights of Way**  
27 **(July 23, 2015 APWA GSP)**

28  
29 *Delete this section and replace it with the following:*

30  
31 Street Right of Way lines, limits of easements, and limits of construction permits are  
32 indicated in the Plans. The Contractor's construction activities shall be confined within  
33 these limits unless arrangements for use of private property are made.

34  
35 Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of  
36 way and easements, both permanent and temporary, necessary for carrying out the  
37 work. Exceptions to this are noted in the Bid Documents or will be brought to the  
38 Contractor's attention by a duly issued Addendum.

39  
40 Whenever any of the work is accomplished on or through property other than public  
41 Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any  
42 easement agreement obtained by the Contracting Agency from the owner of the private  
43 property. Copies of the easement agreements may be included in the Contract  
44 Provisions or made available to the Contractor as soon as practical after they have been  
45 obtained by the Engineer.

46  
47 Whenever easements or rights of entry have not been acquired prior to advertising,  
48 these areas are so noted in the Plans. The Contractor shall not proceed with any portion  
49 of the work in areas where right of way, easements or rights of entry have not been  
50 acquired until the Engineer certifies to the Contractor that the right of way or easement is  
51 available or that the right of entry has been received. If the Contractor is delayed due to

1 acts of omission on the part of the Contracting Agency in obtaining easements, rights of  
2 entry or right of way, the Contractor will be entitled to an extension of time. The  
3 Contractor agrees that such delay shall not be a breach of contract.

4

5 Each property owner shall be given 48 hours' notice prior to entry by the Contractor.  
6 This includes entry onto easements and private property where private improvements  
7 must be adjusted.

8

9 The Contractor shall be responsible for providing, without expense or liability to the  
10 Contracting Agency, any additional land and access thereto that the Contractor may  
11 desire for temporary construction facilities, storage of materials, or other Contractor  
12 needs. However, before using any private property, whether adjoining the work or not,  
13 the Contractor shall file with the Engineer a written permission of the private property  
14 owner, and, upon vacating the premises, a written release from the property owner of  
15 each property disturbed or otherwise interfered with by reasons of construction pursued  
16 under this contract. The statement shall be signed by the private property owner, or  
17 proper authority acting for the owner of the private property affected, stating that  
18 permission has been granted to use the property and all necessary permits have been  
19 obtained or, in the case of a release, that the restoration of the property has been  
20 satisfactorily accomplished. The statement shall include the parcel number, address,  
21 and date of signature. Written releases must be filed with the Engineer before the  
22 Completion Date will be established.

1 **1-08 PROSECUTION AND PROGRESS**

2  
3 *Add the following new section:*

4 **1-08.0 Preliminary Matters**  
5 **(May 25, 2006 APWA GSP)**

6  
7 **1-08.0(1) Preconstruction Conference**  
8 **(October 10, 2008 APWA GSP)**

9  
10 Prior to the Contractor beginning the work, a preconstruction conference will be held  
11 between the Contractor, the Engineer and such other interested parties as may be  
12 invited. The purpose of the preconstruction conference will be:

- 13 1. To review the initial progress schedule;
- 14 2. To establish a working understanding among the various parties associated or  
15 affected by the work;
- 16 3. To establish and review procedures for progress payment, notifications,  
17 approvals, submittals, etc.;
- 18 4. To establish normal working hours for the work;
- 19 5. To review safety standards and traffic control; and
- 20 6. To discuss such other related items as may be pertinent to the work.

21  
22 The Contractor shall prepare and submit at the preconstruction conference the following:

- 23 1. A breakdown of all lump sum items;
- 24 2. A preliminary schedule of working drawing submittals; and
- 25 3. A list of material sources for approval if applicable.

26  
27 *Add the following new section:*

28 **1-08.0(2) Hours of Work**  
29 **(March 3, 2008 Tacoma GSP)**

30  
31 Except in the case of emergency or unless otherwise approved by the Contracting  
32 Agency, the normal straight time working hours for the contract shall be any consecutive  
33 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day with a maximum 1-hour  
34 lunch break and a 5-day work week. The normal straight time 8-hour working period for  
35 the contract shall be established at the preconstruction conference or prior to the  
36 Contractor commencing the work.

37  
38 If a Contractor desires to perform work on holidays, Saturdays, Sundays, or before 7:00  
39 a.m. or after 6:00 p.m. on any day, the Contractor shall apply in writing to the Engineer  
40 for permission to work such times. Permission to work longer than an 8-hour period  
41 between 7:00 a.m. and 6:00 p.m. is not required. Such requests shall be submitted to  
42 the Engineer no later than noon on the working day prior to the day for which the  
43 Contractor is requesting permission to work.

44  
45 Permission to work between the hours of 9:00 p.m. and 7:00 a.m. during weekdays and  
46 between the hours of 9:00 p.m. and 9:00 a.m. on weekends or holidays may also be  
47 subject to noise control requirements. Approval to continue work during these hours  
48 may be revoked at any time the Contractor exceeds the Contracting Agency's noise  
49 control regulations or complaints are received from the public or adjoining property  
50 owners regarding the noise from the Contractor's operations. The Contractor shall have  
51 no claim for damages or delays should such permission be revoked for these reasons.



1 Permission to work Saturdays, Sundays, holidays or other than the agreed upon normal  
2 straight time working hours Monday through Friday may be given subject to certain other  
3 conditions set forth by the Contracting Agency or Engineer. These conditions may  
4 include but are not limited to: requiring the Engineer or such assistants as the Engineer  
5 may deem necessary to be present during the work; requiring the Contractor to  
6 reimburse the Contracting Agency for the costs in excess of straight-time costs for  
7 Contracting Agency employees who worked during such times, on non Federal aid  
8 projects; considering the work performed on Saturdays and holidays as working days  
9 with regards to the contract time; and considering multiple work shifts as multiple  
10 working days with respect to contract time even though the multiple shifts occur in a  
11 single 24-hour period. Assistants may include, but are not limited to, survey crews;  
12 personnel from the Contracting Agency's material testing lab; inspectors; and other  
13 Contracting Agency employees when in the opinion of the Engineer, such work  
14 necessitates their presence.

15  
16

17 *Add the following new section:*

18 **1-08.0(3) Reimbursement for Overtime Work of Contracting Agency Employees**  
19 **(September 29, 2009 Tacoma GSP)**

20

21 Where the Contractor elects to work on a Saturday, Sunday, or holiday, or longer than  
22 an 8-hour work shift on a regular working day, as defined in the Standard Specifications,  
23 such work shall be considered as overtime work. On all such overtime work, city staff  
24 may be required at the discretion of the Engineer. In such case, the Contracting Agency  
25 may deduct from amounts due or to become due to the Contractor for the costs in  
26 excess of the straight-time costs for employees of the Contracting Agency required to  
27 work overtime hours.

28

29 The Contractor by these specifications does hereby authorize the Engineer to deduct  
30 such costs from the amount due or to become due to the Contractor.

31

32 **1-08.1(5) Restrictions on Subcontracting**  
33 **(August 8, 2023 Tacoma GSP)**

34

35 *This section is deleted.*

36

37 **1-08.1(7)A Payment Reporting**  
38 **(August 8, 2023 Tacoma GSP)**

39

40 *This section is deleted.*

41

42 *Replace 1-08.1(8) in its entirety with the following:*

43 **1-08.1(8) Subcontracting – Equity in Contracting**  
44 **(August 8, 2023 Tacoma GSP)**

45

46 The Contractor shall follow the Equity in Contracting Program included in Part III, and  
47 these Regulations shall be considered part of the Contract.

48

49 **1-08.4 Prosecution of Work**

50 *Delete this section and replace it with the following:*

51

1 **1-08.4 Notice to Proceed and Prosecution of Work**  
2 **(July 23, 2015 APWA GSP)**

3  
4 Notice to Proceed will be given after the contract has been executed and the contract  
5 bond and evidence of insurance have been approved and filed by the Contracting  
6 Agency. The Contractor shall not commence with the work until the Notice to Proceed  
7 has been given by the Engineer. The Contractor shall commence construction activities  
8 on the project site within ten days of the Notice to Proceed Date, unless otherwise  
9 approved in writing. The Contractor shall diligently pursue the work to the physical  
10 completion date within the time specified in the contract. Voluntary shutdown or slowing  
11 of operations by the Contractor shall not relieve the Contractor of the responsibility to  
12 complete the work within the time(s) specified in the contract.

13  
14 When shown in the Plans, the first order of work shall be the installation of high visibility  
15 fencing to delineate all areas for protection or restoration, as described in the Contract.  
16 Installation of high visibility fencing adjacent to the roadway shall occur after the  
17 placement of all necessary signs and traffic control devices in accordance with 1-10.1(2).  
18 Upon construction of the fencing, the Contractor shall request the Engineer to inspect  
19 the fence. No other work shall be performed on the site until the Contracting Agency has  
20 accepted the installation of high visibility fencing, as described in the Contract.

21  
22  
23 **1-08.5 Time for Completion**  
24 **(March 16, 2016 Tacoma GSP)**

25 *Revise the third and fourth paragraphs to read:*

26  
27 Contract time shall begin on the first working day following the Notice to Proceed Date.

28  
29 Each working day shall be charged to the contract as it occurs, until the contract work is  
30 physically complete. If substantial completion has been granted and all the authorized  
31 working days have been used, charging of working days will cease. Each week the  
32 Engineer will provide the Contractor a statement that shows the number of working days:  
33 (1) charged to the contract the week before; (2) specified for the physical completion of  
34 the contract; and (3) remaining for the physical completion of the contract. The  
35 statement will also show the nonworking days and any partial or whole day the Engineer  
36 declares as unworkable. Within 10 calendar days after the date of each statement, the  
37 Contractor shall file a written protest of any alleged discrepancies in it. To be considered  
38 by the Engineer, the protest shall be in sufficient detail to enable the Engineer to  
39 ascertain the basis and amount of time disputed. By not filing such detailed protest in  
40 that period, the Contractor shall be deemed as having accepted the statement as  
41 correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10  
42 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily  
43 be charged as a working day then the fifth day of that week will be charged as a working  
44 day whether or not the Contractor works on that day.

45  
46 *Revise the sixth paragraph to read:*

47  
48 The Engineer will give the Contractor written notice of the completion date of the  
49 contract after all the Contractor's obligations under the contract have been performed by  
50 the Contractor. The following events must occur before the Completion Date can be  
51 established:

- 1 1. The physical work on the project must be complete; and
- 2 2. The Contractor must furnish all documentation required by the contract and
- 3 required by law, to allow the Contracting Agency to process final acceptance of
- 4 the contract. The following documents must be received by the Project Engineer
- 5 prior to establishing a completion date:
- 6 a. Certified Payrolls (per Section 1-07.9(5)).
- 7 b. Material Acceptance Certification Documents
- 8 c. Reports of Amounts Credited as EIC Participation, as required by the
- 9 Contract Provisions.
- 10 d. Final Contract Voucher Certification
- 11 e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor
- 12 and all Subcontractors
- 13 f. Property owner releases per Section 1-07.24

14  
15 *This section is supplemented with the following*  
16 **(March 1, 2004 Tacoma GSP)**

17  
18 This project shall be physically completed within **100** working days.

19  
20  
21 **1-08.9 Liquidated Damages**  
22 **(March 3, 2021 APWA GSP, Option B)**

23 *Revise the second and third paragraphs to read:*

24  
25 Accordingly, the Contractor agrees:

- 26
- 27 1. To pay (according to the following formula) liquidated damages for each working
- 28 day beyond the number of working days established for Physical Completion,
- 29 and
- 30
- 31 2. To authorize the Engineer to deduct these liquidated damages from any money
- 32 due or coming due to the Contractor.
- 33

34 **Liquidated Damages Formula**

35  
36  $LD = 0.15C/T$

37  
38 Where:

39 LD = liquidated damages per working day (rounded to the nearest dollar)

40 C = original Contract amount

41 T = original time for Physical Completion

42  
43 When the Contract Work has progressed to Substantial Completion as defined in the  
44 Contract, the Engineer may determine the Contract Work is Substantially Complete.  
45 The Engineer will notify the Contractor in writing of the Substantial Completion Date. For  
46 overruns in Contract time occurring after the date so established, the formula for  
47 liquidated damages shown above will not apply. For overruns in Contract time occurring  
48 after the Substantial Completion Date, liquidated damages shall be assessed on the  
49 basis of direct engineering and related costs assignable to the project until the actual  
50 Physical Completion Date of all the Contract Work. The Contractor shall complete the

1 remaining Work as promptly as possible. Upon request by the Project Engineer, the  
2 Contractor shall furnish a written schedule for completing the physical Work on the  
3 Contract.  
4  
5  
6

1 **1-09 MEASUREMENT AND PAYMENT**

2  
3  
4 **1-09.2(1) General Requirements for Weighing Equipment**  
5 **(January 4, 2024 APWA GSP, Option B)**

6  
7 Revise item 4 of the fifth paragraph to read:

- 8  
9 4. Test results and scale weight records for each day's hauling operations are  
10 provided to the Engineer daily. Reporting shall utilize WSDOT form 422-027A,  
11 Scaleman's Daily Report, unless the printed ticket contains the same information  
12 that is on the Scaleman's Daily Report Form. The scale operator must provide  
13 AM and/or PM tare weights for each truck on the printed ticket.

14  
15 **1-09.6 Force Account**  
16 **(December 30, 2022 APWA GSP)**

17 *Supplement this section with the following:*

18  
19 The Contracting Agency has estimated and included in the Proposal, dollar amounts for  
20 all items to be paid per force account, only to provide a common proposal for Bidders. All  
21 such dollar amounts are to become a part of Contractor's total bid. However, the  
22 Contracting Agency does not warrant expressly or by implication, that the actual amount  
23 of work will correspond with those estimates. Payment will be made on the basis of the  
24 amount of work actually authorized by the Engineer.

25  
26 **(January 13, 2011 Tacoma GSP)**

27 *Item #3 of this Section is supplemented with the following:*

28  
29 The Contractor shall submit a comprehensive summary list of all equipment anticipated  
30 to be used on the project and their associated AGC/WSDOT Equipment Rental Rates.  
31 The list shall include the contractor's equipment number, make, model, year, operation  
32 rate, standby rate, applicable attachments and any other applicable information  
33 necessary to determine the applicable rates in accordance with this section. In addition,  
34 the contractor shall submit an Equipment Watch rate sheet ([www.equipmentwatch.com](http://www.equipmentwatch.com))  
35 for each piece of equipment in the summary list. Access to the Equipment Watch web  
36 site is available at the City's Construction Management Office.

37  
38  
39 **1-09.9 Payments**  
40 **(March 13, 2012 APWA GSP)**

41 *Delete the first four paragraphs and replace them with the following:*

42  
43 The basis of payment will be the actual quantities of Work performed according to the  
44 Contract and as specified for payment.

45  
46 The Contractor shall submit a breakdown of the cost of lump sum bid items at the  
47 Preconstruction Conference, to enable the Project Engineer to determine the Work  
48 performed on a monthly basis. A breakdown is not required for lump sum items that  
49 include a basis for incremental payments as part of the respective Specification. Absent  
50 a lump sum breakdown, the Project Engineer will make a determination based on

1 information available. The Project Engineer's determination of the cost of work shall be  
2 final.

3  
4 Progress payments for completed work and material on hand will be based upon  
5 progress estimates prepared by the Engineer. A progress estimate cutoff date will be  
6 established at the preconstruction conference.

7  
8 The initial progress estimate will be made not later than 30 days after the Contractor  
9 commences the work, and successive progress estimates will be made every month  
10 thereafter until the Completion Date. Progress estimates made during progress of the  
11 work are tentative, and made only for the purpose of determining progress payments.  
12 The progress estimates are subject to change at any time prior to the calculation of the  
13 final payment.

14  
15 The value of the progress estimate will be the sum of the following:

- 16 1. Unit Price Items in the Bid Form — the approximate quantity of acceptable  
17 units of work completed multiplied by the unit price.
- 18 2. Lump Sum Items in the Bid Form — based on the approved Contractor's lump  
19 sum breakdown for that item, or absent such a breakdown, based on the  
20 Engineer's determination.
- 21 3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job  
22 site or other storage area approved by the Engineer.
- 23 4. Change Orders — entitlement for approved extra cost or completed extra work  
24 as determined by the Engineer.

25  
26 Progress payments will be made in accordance with the progress estimate less:

- 27 1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
- 28 2. The amount of progress payments previously made; and
- 29 3. Funds withheld by the Contracting Agency for disbursement in accordance with  
30 the Contract Documents.

31  
32 Progress payments for work performed shall not be evidence of acceptable performance  
33 or an admission by the Contracting Agency that any work has been satisfactorily  
34 completed. The determination of payments under the contract will be final in accordance  
35 with Section 1-05.1.

36  
37 *This section is supplemented with the following:*  
38 **(January 6, 2015 Tacoma GSP)**

39  
40 Breakdowns of all lump sum items shall be provided for all lump sum items and shall  
41 include all costs for labor, equipment, materials, and taxes (as applicable) associated  
42 with the lump sum item. Washington State Department of Revenue Rules 170 and 171  
43 apply to lump sum items per Section 1-07.2 of the WSDOT State Amendments to the  
44 Standard Specifications.

45  
46 Stockpiled Material - The point of acceptance of stockpiled material for payment and  
47 quality shall be at the time of incorporation into the contract.

1 **1-09.9(1) Retainage**  
2 **(May 10, 2006 Tacoma GSP)**

3 *The fourth paragraph is supplemented with the following:*

4

5 6. A "General Release to the City of Tacoma" is on file with the Contracting Agency.

6 7. A release has been obtained from the City of Tacoma's City Clerk's Office.

7

8 **1-09.13(3)A Arbitration General**  
9 **(January 19, 2022 APWA GSP)**

10 *Revise the third paragraph to read:*

11

12 The Contracting Agency and the Contractor mutually agree to be bound by the decision  
13 of the arbitrator, and judgment upon the award rendered by the arbitrator may be  
14 entered in the Superior Court of the county in which the Contracting Agency's  
15 headquarters is located, provided that where claims subject to arbitration are asserted  
16 against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior  
17 Court. The decision of the arbitrator and the specific basis for the decision shall be in  
18 writing. The arbitrator shall use the Contract as a basis for decisions.

1 **1-10 TEMPORARY TRAFFIC CONTROL**

2  
3 **1-10.1 General**

4 *Section 1-10.1 is supplemented with the following:*

5  
6 **Temporary Pedestrian Access**

7 **(\*\*\*\*\*)**

8 All pedestrian access paths shall be maintained per Proposed Accessibility Guidelines  
9 for Pedestrian Facilities in the Public Right-of-Way (PROWAG) and Specification  
10 Sections 1-07.23, and 1-10. The Contractor shall submit the proposed material type for  
11 “Temporary Pedestrian Access” to the Engineer for approval prior to construction. The  
12 Contractor shall maintain each pedestrian access and make repairs as directed for the  
13 duration of the construction, until the sidewalk and entry ways are finished at each  
14 respective location.

15  
16 **Automated Flagger Assistance Devices**

17 Automated Flagger Assistance Devices (AFADs), if needed/used, shall meet the  
18 requirements of the MUTCD.

19  
20 **1-10.1(2) Description**

21 **(\*\*\*\*\*)**

22 *The first sentence of the fourth paragraph is revised to read:*

23  
24 The Contractor shall keep lanes, on-ramps, and off-ramps open to traffic at all times  
25 except when Work requires closure(s) that have been requested and approved in  
26 accordance with section 1-10.2(2).

27  
28 *The third sentence of the fourth paragraph is revised to read:*

29  
30 Approved lane and ramp closures shall be for the minimum time required to complete  
31 the Work.

32  
33 *This section is supplemented with the following:*

34  
35 Only uniformed off-duty police officers shall be used to control traffic when it is  
36 necessary to override or provide traffic control at signalized intersections. Off-duty City  
37 of Tacoma Police Department Officers are preferred, and the Contractor shall grant the  
38 Tacoma PD the “first right of refusal” by contacting the Tacoma PD first as stated below.

39  
40 The City will make all necessary temporary adjustments to existing traffic signals and  
41 traffic signal activators.

42  
43 Existing signs shall not be removed until the Contractor has provided for temporary  
44 measures sufficient to safeguard and direct traffic after existing signs have been  
45 removed. Preservation of temporary traffic control and street name signs shall be the  
46 sole responsibility of the Contractor.

47  
48 As the work progresses and permits, temporarily relocated and/or removed traffic signs  
49 shall be reset in their permanent location. Permanent signs and other traffic control  
50 devices damaged or lost by the Contractor shall be replaced or repaired at the  
51 Contractor’s expense.



1 **Traffic Control Management**

2 **1-10.2(1) General**

3 **(October 3, 2017)**

4 *Section 1-10.2(1) is supplemented with the following:*

5  
6 The Traffic Control Supervisor shall be certified by one of the following:

7  
8 The Northwest Laborers-Employers Training Trust

9 27055 Ohio Ave.

10 Kingston, WA 98346

11 (360) 297-3035

12 <https://www.nwlett.edu>

13  
14 Evergreen Safety Council

15 12545 135th 11 Ave. NE

16 Kirkland, WA 98034-8709

17 1-800-521-0778

18 <https://www.esc.org>

19  
20 The American Traffic Safety Services Association

21 15 Riverside Parkway, Suite 100

22 Fredericksburg, Virginia 22406-1022

23 Training Dept. Toll Free (877) 642-4637

24 Phone: (540) 368-1701

25 <https://atssa.com/training>

26  
27 Integrity Safety

28 13912 NE 20th Ave.

29 Vancouver, WA 98686

30 (360) 574-6071

31 <https://www.integritysafety.com>

32  
33 US Safety Alliance

34 (904) 705-5660

35 <https://www.ussafetyalliance.com>

36  
37 K&D Services Inc.

38 2719 Rockefeller Ave.

39 Everett, WA 98201

40 (800) 343-4049

41 <https://www.kndservices.net>

42  
43 *Section 1-10.3 is supplemented with the following:*

44  
45 **Signalized Intersections**

46 **(August 15, 2019 Tacoma GSP)**

47  
48 When construction operations are such that an existing traffic signal is required to be  
49 overridden to allow for traffic control measures, only a uniformed off-duty police officer  
50 shall override the signal.

51

1 All off-duty officers shall be commissioned within the State of Washington.

2  
3 Tacoma Police Department officers shall be the first choice for traffic control that  
4 overrides any traffic signal within the jurisdiction of the City of Tacoma Police  
5 Department. The Contractor shall first contact Tacoma Police Department, Special  
6 Events Sergeant, to schedule police officers for the specified traffic control duty.

7  
8 Tacoma Police Department  
9 Special Events Sergeant  
10 (253) 591-5932  
11 [TacomaPoliceEvents@ci.tacoma.wa.us](mailto:TacomaPoliceEvents@ci.tacoma.wa.us)  
12

13 The Contractor shall request officers at least 48 hours in advance for scheduling unless  
14 an exception is approved by the Engineer.

15  
16 The Contractor shall immediately notify the Engineer in writing if Tacoma Police  
17 Department cannot supply officers for the requested date(s). The Contractor shall  
18 include the written response from Tacoma Police Department and state the preference  
19 to either postpone the affected Work or request officers from other State of Washington  
20 jurisdictions. Using officers from other jurisdictions must be approved by the Engineer.

21  
22 The Contractor will not be compensated for any off-duty officers from other jurisdictions  
23 performing traffic control without prior approval from the Engineer and the Contracting  
24 Agency may stop work in accordance with Section 1-08.6, "Suspension of Work".  
25

### 26 **1-10.3(1) Traffic Control Labor**

27 The first paragraph is revised to read:

28  
29 The Contractor shall furnish all personnel for flagging, for the execution of all procedures  
30 related to temporary traffic control and for the setup, maintenance and removal of all  
31 temporary traffic control devices and construction signs necessary to control vehicular,  
32 bicycle, and pedestrian traffic during construction operations.  
33

### 34 **1-10.3(1)A Flaggers and Spotters**

35 (\*\*\*\*\*)

#### 36 **Spotters**

37  
38 The Contractor shall provide a spotter where needed or as required in Section 1-07.23(1).  
39 In addition to the responsibilities described in Section 1-07.23(1), a spotter shall also be  
40 required to walk ahead of the construction vehicle in the direction of vehicle travel to insure  
41 no pedestrians (or other road users) are in the path of vehicle travel. The spotter shall  
42 signal the vehicle to stop should a pedestrian or other road user be in the immediate path  
43 of the vehicle. The vehicle shall remain stopped until all pedestrians/road users are clear  
44 from the immediate path of the vehicle.  
45

### 46 **1-10.3(1)B Other Traffic Control Labor**

47 This section is revised to read:

48  
49 In addition to flagging duties, the Contractor shall provide personnel for all other traffic  
50 control procedures required by the construction operations and for the labor to install,  
51 maintain, and remove any traffic control devices shown on Traffic Control Plans.

1 **1-10.3(3)A Construction Signs**  
2 **(January 11, 2006 Tacoma GSP)**

3 *The fifth paragraph is revised to read:*

4  
5 Signs, posts, or supports that are lost, stolen, damaged, destroyed, or which the  
6 Engineer deems to be unacceptable while their use is required on the project shall be  
7 replaced by the Contractor at their expense.

8  
9 **1-10.3(3)C Portable Changeable Message Sign**  
10 **(August 4, 2010 Tacoma GSP)**

11 *This section is supplemented with the following:*

12  
13 Portable Changeable Message Signs shall be required on arterials streets where  
14 construction occurs for durations longer than seven (7) calendar days. Signs shall be  
15 solar charged and programmable. Signs shall be provided a minimum of seven (7)  
16 calendar days prior to construction and remain through the duration of the construction  
17 on the arterial street. Signs shall be provided on each end of the arterial street  
18 construction zone notifying oncoming traffic of the construction conditions. All costs  
19 associated with providing and maintaining the signs for the required duration shall be  
20 included in the proposal item, "Project Temporary Traffic Control", per lump sum.

21  
22 (\*\*\*\*\*)

23 To prevent hacker from getting access to the Portable Change Message Signs (PCMS),  
24 the contractor is required to change the default password and to take other appropriate  
25 measures for field access to message control features on the PCMS. In addition, the  
26 contractor shall verify the PCMS control box, if any, is secured and locked from  
27 tampering during the daily review of the work zone set up and conditions of the traffic  
28 control devices.

29  
30 **1-10.4 Measurement**

31  
32 **1-10.4(2) Item Bids with Lump Sum for Incidentals**  
33 **(January 11, 2006 Tacoma GSP)**

34 *This section is supplemented with the following:*

35  
36 No unit of measure will apply to the position of traffic control manager and it will be  
37 considered included in other unit contract prices in the Bid Proposal.

38  
39 **1-10.4(3) Reinstating Unit Items with Lump Sum Traffic Control**

40 *Section 1-10.4(3) is supplemented with the following:*

41  
42 (August 2, 2004)

43 The bid proposal contains the item "**Project Temporary Traffic Control,**" lump sum and  
44 the additional temporary traffic control items listed below. The provisions of Section 1-  
45 10.4(1), Section 1-10.4(3), and Section 1-10.5(3) shall apply.

46  
47 \*\*\*

48 **"Pedestrian Traffic Control," lump sum**

49  
50 **END OF SECTION**

51

1 **2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP**

2 **(\*\*\*\*\*)**

3  
4 **2-01.1 Description**

5 *The first sentence of the first paragraph is revised to read:*

6  
7 Contractor shall clear, grub, and cleanup those areas contained within the “Clearing &  
8 Grubbing” limits indicated on the Plans and as needed to complete the Contract Work.

9  
10 *This section is supplemented with the following:*

11  
12 Trees, stumps, shrubs, and brush located outside the Clearing & Grubbing limits shall be  
13 considered as part of “Clearing and Grubbing” when identified for removal on the Plans.

14  
15 **2-01.2 Disposal of Usable Material and Debris**

16 *The second paragraph is revised to read:*

17  
18 The Contractor shall dispose of all debris in accordance with Section 2-01.2(2).

19  
20 **2-01.3(1) Clearing**

21 *This section is revised to read:*

22  
23 The Contractor Shall:

- 24 1. Fell trees only within the area to be cleared as shown on the Plans.
- 25 2. Close-cut parallel to the slope of the ground all stumps to be left in the  
26 cleared area outside the slope stakes.
- 27 3. Close cut all stumps that will be buried by fills 5-feet or less in depth.
- 28 4. Follow these requirements for all stumps that will be buried by fills deeper  
29 than 5-feet from the top, side, or end surface of the embankment or any  
30 structure and are in a location that will not be terraced as described in  
31 Section 2-03.3(14):
  - 32 a. Close-cut stumps under 18-inches in diameter.
  - 33 b. Trim stumps that exceed 18-inches in diameter to no more than 12-  
34 inches above original ground level.
- 35 5. Leave standing any trees or native growth indicated by the Engineer.
- 36 6. Trim all trees to be left standing to the height specified by the Engineer and  
37 certified Arborist, with a minimum height of eight (8) feet above sidewalk and  
38 fourteen (14) feet above the roadway surface. Neatly cut all limbs close to  
39 the tree trunk. All tree trimming must be done by or under the direction of a  
40 certified Arborist.
- 41 7. Thin clumps of native growth as the Engineer may direct.
- 42 8. Protect, by fencing if necessary, all trees or native growth from any damage  
43 caused by construction operations in accordance with Standard Plans LS-08  
44 through LS-11.
- 45 9. Trim all shrubs and brush which covers sidewalks, curb, curb and gutter, and  
46 curb ramps to a minimum of four inches from the edge of sidewalk or as  
47 directed by the Engineer or Certified Arborist.
- 48 10. Remove and dispose of, or relocate the following existing features where  
49 necessary within the project limits or as indicated on the Plans:
  - 50 a. Cement concrete gutter boxes.

- b. Large rocks used for the purpose of landscaping or as a barrier when inside the paving limits.
- c. Wood curbs, logs, railroad ties, and other timber used for landscaping when inside the paving limits.
- d. Bollards inside the paving area and not designated to remain.

- 11. Perform all work as required by the certified Arborist Reports, attached in the appendix to protect, remove, trim, prune roots or limbs, and any other works detailed in the Arborist Reports. This includes all labor, time, and materials for this work. This work shall be performed on Force Account per Section 1-09.6.
- 12. Remove trees as indicated on the plans or as directed by the Engineer or certified Arborist. The tree removal shall include stump grinding to eight inches below final grade and removal of roots according to the Plans and Specifications, and as directed by the Engineer and certified Arborist, such that a new tree can be planted in the same area.
- 13. All stumps identified for stump grinding or as directed by the Engineer or certified Arborist shall be ground to eight inches below final grade.

**2-01.3(1)A Tree Protection**

Trees not marked for removal or in clearing and grubbing limits shall be protected in accordance with Standard Specifications, Urban Forestry Manual, City of Tacoma Standard Plan, and certified arborist recommendations. Protection activities shall include, but are not limited to, use of straight edge buckets for excavation, hand digging where necessary, clean cutting roots that need removal, root shaving, installing wire mesh and fencing, protecting cut roots.

**2-01.3(2) Grubbing**

*Item e is revised to read:*

Upon which embankments will be placed, except stumps may be close-cut or trimmed as allowed in Section 2-01.3(1) item 4.

**2-01.3(5) Certified Arborist**

The Contractor shall provide a certified Arborist on site to assess and provide Arborist Reports for all work within the Tree Protection Zone of a tree in accordance with the Urban Forestry Manual and the Tacoma Municipal Code 13.06.502. All work done in the critical root zone shall be in compliance with the Arborist Report provided by the certified Arborist or under the direction of the certified Arborist.

The certified Arborist shall be on site to assess and provide direction for all tree trimming, limb or root pruning of greater than 4 inches, and tree removals as specified in the Plans or other tree work as directed by the Engineer. The certified Arborist shall submit an Arborist Report to the Engineer in accordance with the Special Provisions.

The Arborist shall be certified by the International Society of Arboriculture (ISA).

**2-01.3(6) Definition of Vegetation**

1 A "tree" is defined as any self-supporting, woody perennial plant having a main stem  
2 (trunk) and which normally attains a height of at least ten (10) feet at maturity, usually  
3 with one (1) main stem or trunk and many branches.

4  
5 A "shrub" is defined as any woody perennial plant which normally attains a height of less  
6 than ten (10) feet at maturity and which can be construed to have some landscape  
7 value.

8  
9 "Brush" is defined as any perennial vegetation which normally attains a height of ten (10)  
10 feet or less at maturity, which is not maintained as part of a landscape feature, which is  
11 "volunteer" growth or which exists in a naturalized state. Examples include but are not  
12 limited to stands of blackberries and scotch broom.

### 13 14 **2-01.3(7) Tree and Stump Classifications**

15  
16 Trees shall be classified by the measured diameter at a point four and one-half (4-½)  
17 feet above average ground level. Trees that have several stems at the four and one-half  
18 (4-½) foot height will be considered a tree clump. The largest diameter single stem will  
19 be measured and will dictate the class rating. Only the largest, single stem in the clump  
20 will be utilized for measurement and payment.

21  
22 Stumps shall be classified by the measured diameter at the highest point of the stump  
23 above the average ground level or a point four and one-half (4-1/2) feet above the  
24 average ground level, whichever is less.

25  
26 Trees and stumps will be classified as follows:

27		
28	Less than 4 inches	Class 0
29	4 inches up to but not including 12 inches	Class I
30	12 inches up to but not including 24 inches	Class II
31	24 inches up to and including 42 inches	Class III
32	Greater than 42 inches (Tree height greater than 30 feet)	Class IV
33	Greater than 42 inches (Tree height of 30 feet or less)	Class V
34		

### 35 36 **2-01.4 Measurement**

37 *This section is supplemented with the following:*

38  
39 No specific unit of measurement shall apply to the lump sum item "Certified Arborist".

40  
41 No specific unit of measurement shall apply to "Certified Arborist Assessment Report  
42 Compliance", by force account.

### 43 44 **2-01.5 Payment**

45  
46 *The Bid item "Clearing and Grubbing" is supplemented with the following:*

47  
48 In addition, the lump sum Contract price for "Clearing and Grubbing" shall be full pay for  
49 native growth protection and tree protection, including tree protection fencing in  
50 accordance with Standard Plans LS-08 thru LS-11.

51

1 *This section is supplemented with the following:*

2

3 “Certified Arborist”, lump sum

4

5 The lump sum contract price for “Certified Arborist” shall be full pay for all labor,  
6 materials, and equipment to provide a certified Arborist on site prior to and during  
7 construction to perform all tree assessments, provide tree assessment reports, direct  
8 and assess all tree trimming, root and limb pruning, tree removals or other tree works as  
9 directed by the Engineer or Specifications. No extra payment shall be made for any  
10 delays in construction schedule to provide a certified Arborist and provide tree  
11 assessment reports.

12

13 “Certified Arborist Assessment Report Compliance”, by force account

14

15 An estimated amount is entered into the bid proposal for “Certified Arborist Assessment  
16 Report Compliance”, by force account. The Contractor will be compensated by force  
17 account per Section 1-09.6 for all Work related to the Arborist Assessment Report as  
18 directed by the Certified Arborist as specified in Section 2-01.3(5).

19

20

21

22

**END OF SECTION**

1 **2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

2 **(\*\*\*\*\*)**

3  
4 **2-02.1 Description**

5 *The first sentence of the first paragraph is revised to read:*

6  
7 The Work described in this section includes relocating, removing and disposing of, or  
8 salvaging, materials named in the Special Provisions or as shown on the plans, including  
9 all such items that are omitted in bid items outside of Section 2-02.

10  
11 *This section is supplemented with the following:*

12  
13 The Work described in this section also includes test holes according to this special  
14 provision, for determining the location and depth of existing utilities or structures.  
15 Backfilling of trenches, holes, or pits resulting from this Work is included.

16  
17 **2-02.2 Materials**

18 *This section is revised to read:*

19 Materials shall include all material or equipment needed to excavate, remove, shore,  
20 salvage and store, and to replace existing material.

21  
22  
23 **2-02.3 Construction Requirements**

24 *The first sentence of the first paragraph is revised to read:*

25  
26 As shown per Plans, Specifications and per these Special Provisions, the Contractor  
27 shall relocate or raze, remove, and dispose of all underground structures and  
28 utilities, fences, landscaping walls, extruded curbs, rubble, and any other  
29 obstructions that form an obstacle to construction.

30  
31 **2-02.3(3) Removal of Pavement, Sidewalks, and Curbs**

32 *This section is deleted.*

33  
34 *This Section is supplemented with the following:*

35  
36 The Contractor shall haul and dispose of all soil material excavated from the Project site  
37 in accordance with Special Provisions Sections 2-03.

38  
39 *Section 2-02.3 is supplemented with the following:*

40  
41 **2-02.3(5) Existing Traffic Signs**

42  
43 Any street name signs, traffic signs and parking signs that exist in the work area shall  
44 be removed or salvaged and replaced as shown on the Plans or directed by the  
45 Engineer. Any signs not shown for removal shall be salvaged and replaced as  
46 directed by the Engineer.

47  
48 **2-02.3(6) Test Holes**

49  
50 The engineer may at certain locations on the project site need to discover or locate an  
51 existing utility or structure that does not have proper as-built information. The contractor



1 shall excavate a small test hole, where directed by the engineer, in determining the  
2 location and depth of the existing utility or structure.

3  
4 The test hole may be excavated by conventional excavation methods or by the use of a  
5 vacuum truck. The test hole for the conventional method shall be a minimum of 48" by  
6 48" in width. The test hole shall be no deeper than 17 feet in depth. Gravel borrow shall  
7 be used to backfill the excavated hole. The gravel borrow shall be compacted in  
8 accordance to section 2-09 of the standard specifications. Three inches of asphalt shall  
9 be placed on top of the gravel borrow to provide a driving surface in a travel lane.

### 10 11 **2-02.3(7) Existing Irrigation Systems**

12  
13 The Engineer shall verify, in the presence of the owner and Contractor, operation,  
14 location, and existing pressure capabilities and continuity of existing private systems  
15 prior to excavation and removal. Not all existing sprinkler heads may be shown on the  
16 plans.

17  
18 The Contractor shall cut and cap the existing systems to remain in place. The work shall  
19 include testing the resulting sprinkler system operation, and making the necessary  
20 repairs and modifications as directed by the Engineer. Sprinkler heads, pipe, wiring,  
21 control valves or other irrigation materials removed will be given to the owner for their  
22 use in making necessary modifications to their remaining irrigation system. If the  
23 Contractor damages any of these materials during clearing & grubbing, excavation and  
24 removal and storage, the Contractor will replace the damaged materials with new of  
25 same make and model, or approved equal. Replacement of damaged materials will be  
26 at the Contractor's expense.

27  
28 Removal of materials, cutting and capping, and all additional work of reconnecting, and  
29 making necessary modifications, including installation of new point of connection  
30 equipment and/ or improvements to provide a working, functional system shall be as  
31 directed by the Engineer and according to Section 8-03, except payment shall be  
32 according to Section 2-02.5.

### 33 34 **2-02.4 Vacant**

35 *This Section including the heading is revised to read:*

### 36 37 **2-02.4 Measurement**

38 *This section is supplemented with the following:*

39  
40 Measurement of the test hole shall be measured per linear foot from the surface of the  
41 existing ground to the bottom of the excavated test hole.

42  
43 No specific unit of measurement will apply to "Existing Irrigation Systems" per force  
44 account, which shall be itemized by the contractor.

### 45 46 **2-02.5 Payment**

47 *This section is supplemented with the following:*

48  
49 Payment will be made in accordance with Section 1-04.1, for the following Bid items  
50 when they are included in the Proposal:

1 "Removal of Structures and Obstructions", per lump sum

2

3 Any relocation, salvage, demolition and removal Work according to these specifications  
4 and not specifically included in other bid items shall be paid for under "Removal of  
5 Structures and Obstructions", lump sum.

6

7 "Test Hole", per linear foot

8

9 The unit contract price per linear foot for "Test Hole" shall be full pay for all labor,  
10 equipment, and materials required to perform potholing, complete and close the test  
11 hole, and construct temporary pavement repair in accordance with these specifications,  
12 and section 5-04.

13

14 For the purpose of providing a common Proposal for all Bidders, the quantity for "Test  
15 Hole" has been entered in the Proposal based on 10 test holes to be excavated to locate  
16 utility conflicts. Payment shall be made for the actual quantity used.

17

18 "Existing Irrigation Systems", by force account

19

20 Cutting, removing, capping, and modifying, repairing existing irrigation systems in  
21 accordance with these Specifications and Special Provisions shall be paid by force  
22 account in accordance with Section 1-09.6.

23

24

**END OF SECTION**

25

26

27

1 **2-03 ROADWAY EXCAVATION AND EMBANKMENT**  
2 **(August 14, 2019 Tacoma GSP)**

3

4 **2-03.1 Description**

5 *The last sentence of the first paragraph is deleted.*

6

7 **2-03.3 Construction Requirements**

8

9 **2-03.3(5) Slope Treatment**

10 *This section is deleted.*

11

12 **2-03.3(19) Removal of Pavement, Sidewalks, Curbs, and Gutters**

13 *This section is deleted.*

14

15

16

17

**END OF SECTION**

18

19

1 **2-06 SUBGRADE PREPARATION**

2 **(\*\*\*\*\*)**

3  
4 **2-06.3 Construction Requirements**

5 *This section is supplemented with the following:*

6  
7 **Subgrade Repair for Subgrade Not Constructed Under Same Contract**

8 Upon removal of pavement, the Contractor and City Inspector shall walk the subgrade  
9 surface to determine and delineate any subgrade areas that need to be repaired. Any  
10 Subgrade areas that require repair, from the initial walkthrough, shall be determined  
11 solely by the City Inspector. Any initial subgrade repairs shall be paid for according to  
12 Section 2-06.5(2). Subgrade repair shall be performed in accordance with Section 2-06  
13 and immediately after it has been determined and delineated. In order to minimize  
14 damage to the subgrade, the Contractor is encouraged to minimize pavement removal  
15 during the work.

16  
17 **Subgrade Maintenance and Protection**

18 Immediately after the contractor constructs the subgrade or completes initial subgrade  
19 repair to the City's satisfaction, the contractor shall maintain and protect the subgrade.  
20 Any defects or damage of the subgrade thereafter shall be repaired or replaced  
21 according to Section 2-06, at the Contractor's expense before placement of any  
22 succeeding courses or pavement. Maintenance and protection of the subgrade shall be  
23 the responsibility of the Contractor. The Contractor shall be required to take  
24 precautionary measures to prevent damage by heavy loads or equipment, as well as  
25 from inclement weather.

26  
27 The Contractor and City Inspector should walk the exposed subgrade on a daily basis to  
28 determine if there is damage to the subgrade. Any Subgrade areas that require repair  
29 according to this section shall be determined solely by the City Inspector.

30  
31 **Subgrade Protection plan**

32 The contractor shall submit and have an approved subgrade protection plan prior to  
33 pavement removal. The subgrade protection plan shall contain, at a minimum, the  
34 following:

- 35 • General protection procedures and materials, including protection from damage  
36 caused by traffic and construction equipment.
- 37 • Protection procedures and materials to be used prior to and during inclement  
38 weather events.
- 39 • Protection procedures and materials to be used during utility trenching.
- 40 • Repair methods and materials to be used in the event of subgrade damage.

41 The subgrade protection plan is considered a living document and shall be updated if the  
42 Engineer deems the procedures and materials inadequate at any time during  
43 construction.

44  
45 **2-06.5 Measurement and Payment**

46 *This section is supplemented with the following:*

47  
48 Subgrade Maintenance and Protection shall be paid by lump sum and shall apply to all  
49 subgrade.

1 "Subgrade Maintenance and Protection", per lump sum

2

3 The lump sum price for "Subgrade Maintenance and Protection" shall be full pay for all  
4 material, labor, and equipment for implementation of subgrade maintenance and  
5 protection, as determined by the City Inspector.

6

7 If the contractor fails to protect the subgrade so that additional subgrade repairs are  
8 required as determined by the City Inspector, then the city shall not owe payment for  
9 these additional subgrade repairs in accordance with Section 2-06.3.

10

11 "Subgrade Protection Plan", per lump sum.

12

13 The lump sum contract price for "Subgrade Protection Plan" shall be full pay for all costs,  
14 including but not limited to, preparing, submitting, revising, and resubmitting revisions for  
15 the Subgrade Protection Plan.

16

17 **2-06.5(2) Subgrade Not Constructed Under Same Contract**

18 *Item 5 under this section is deleted.*

19

20

21

**END OF SECTION**

1 **2-07 WATERING**  
2 **(August 3, 2009 Tacoma GSP)**

3  
4 **2-07.3 Construction Requirements**

5 *The last sentence of the first paragraph is revised to read:*

6  
7 The Engineer may direct that the Contractor apply water during non-working hours such  
8 as evenings, weekends, or recognized holidays.

9  
10 *Section 2-07.3 is supplemented with the following:*

11  
12 **2-07.3(1) Water Supplied from Hydrants**

13  
14 There is no guarantee that all fire hydrants will be available for use for cleaning, lining, or  
15 any other construction activities associated with this project. Prior to construction  
16 activities, it shall be the Contractor's responsibility to verify which hydrants will be  
17 available by contacting Tacoma Water. The Contractor shall use only those hydrants  
18 designated by Tacoma Water.

19  
20 Water supplied from hydrants governed by Tacoma Water shall be used in strict  
21 compliance with the "Operating Procedures for the use of Water Division Hydrants"  
22 available at the Tacoma Water Permit Counter.

23  
24 The Contractor shall obtain a Hydrant Permit prior to start of work by contacting the  
25 Water Permit Counter at:

26  
27 Tacoma Public Utilities  
28 Administrative Building, 2<sup>nd</sup> floor  
29 3628 South 35<sup>th</sup> Street  
30 Tacoma, WA 98409  
31 (253) 502-8247

32  
33 A copy of the approved Hydrant Permit shall be submitted to the Engineer.

34  
35 Contractor personnel shall be in possession of a valid Tacoma Public Utilities Hydrant  
36 Certification Card prior to obtaining a permit. If necessary, contractor personnel shall  
37 undergo training to receive the required certification. Contact the Water Permit Counter  
38 to set up training as necessary.

39  
40  
41  
42 **END OF SECTION**  
43

1 **2-09 STRUCTURE EXCAVATION**  
2 **(March 17, 2016 Tacoma GSP)**

3  
4 **2-09.4 Measurement**

5 *This section is supplemented with the following:*

6  
7 **Longitudinal Limits.** For all storm and sanitary sewers the longitudinal measurement  
8 will be from center of manhole to center of manhole or to the inside face of catch basins  
9 and similar type structures.

10  
11 *The fourth paragraph is revised to read:*

12  
13 There will be no specific unit of measure for the excavation required for manholes, catch  
14 basins, grate inlets, and drop inlets.

15  
16 **2-09.5 Payment**

17 *The pay item for "Structure Excavation Class B", is revised to read:*

18  
19 "Structure Excavation Class B", per cubic yard.

20  
21 The unit Contract price for "Structure Excavation Class B" shall be full payment for all  
22 excavation, removal of water; storing, protecting and re-handling of suitable backfill  
23 material; backfilling of the trench, compaction of backfill, and all other work necessary for  
24 the construction of the sewer trench.

25  
26 **END OF SECTION**  
27  
28  
29

1 **2-14 PAVEMENT REMOVAL**

2 **(\*\*\*\*\*)**

3  
4 **2-14.1 Description**

5  
6 The Work described in this section includes the removal and disposal of pavement  
7 surfaces identified on the Plans or as marked in the field.

8  
9 **2-14.2 Pavement Classification**

10  
11 Removal of pavement will be according to type and class based on composition and  
12 thickness, as defined below:

- 13
- |    |                  |  |
|----|------------------|--|
| 14 | <b>Type I</b>    | Pavement removal where all or portions of the existing pavement is     |
| 15 |                  | being removed in conjunction with street construction or any other     |
| 16 |                  | removal not described below for Type II or Type III.                   |
| 17 |                  |  |
| 18 | <b>Type II</b>   | Pavement removal required for the placing of utilities at greater and  |
| 19 |                  | varying depths, such as sewers.  |
| 20 |                  |  |
| 21 | <b>Type III</b>  | Pavement removal required for narrow and shallow utility cuts in order |
| 22 |                  | to install light cables, conduits and similar shallow utilities.       |
| 23 |                  |  |
| 24 | <b>Class A2</b>  | Class A2 pavement removal shall apply to the removal of asphalt        |
| 25 |                  | concrete, bituminous road surfacing, multiple lift bituminous surface  |
| 26 |                  | treatments or any combination of these components having an            |
| 27 |                  | average thickness of two inches or less.                               |
| 28 |                  |  |
| 29 | <b>Class A4</b>  | Class A4 pavement removal shall apply to the removal of asphalt        |
| 30 |                  | concrete, bituminous road surfacing, multiple lift bituminous surface  |
| 31 |                  | treatments or any combination of these components having an            |
| 32 |                  | average thickness between two inches and four inches.                  |
| 33 |                  |  |
| 34 | <b>Class A8</b>  | Class A8 pavement removal shall apply to the removal of asphalt        |
| 35 |                  | concrete, bituminous road surfacing, multiple lift bituminous surface  |
| 36 |                  | treatments or any combination of these components having an            |
| 37 |                  | average thickness between four inches and eight inches.                |
| 38 |                  |  |
| 39 | <b>Class C6</b>  | Class C6 pavement removal shall apply to all non-reinforced cement     |
| 40 |                  | concrete pavements or slabs having an average thickness of six         |
| 41 |                  | inches or less. After the curbs and pavement have been constructed,    |
| 42 |                  | the Contractor may be required to remove additional sidewalk           |
| 43 |                  | necessary to provide proper connections and grades, as determined      |
| 44 |                  | by the Engineer.   |
| 45 |                  |  |
| 46 | <b>Class C12</b> | Class C12 pavement removal shall apply to all non-reinforced cement    |
| 47 |                  | concrete pavements or slabs having an average thickness of between     |
| 48 |                  | 6 inches and 12 inches.  |
| 49 |                  |  |
| 50 | <b>Class CA</b>  | Class CA pavement removal shall apply to all pavements that have a     |
| 51 |                  | wearing surface of asphalt concrete upon a cement concrete             |



1 pavement or, cement concrete base, and for which the total combined  
2 thickness of the pavement averages between six inches and twelve  
3 inches.

4  
5 **Class H** Class H pavement removal shall apply to early type pavement of a  
6 cement concrete base with a brick or cobblestone surface and  
7 potentially an additional layer of asphalt concrete pavement for which  
8 the total combined thickness of the pavement averages between ten  
9 inches and twenty inches.

### 10 11 **2-14.3 Construction Requirements**

12  
13 All final meetlines shall be sawcut.

14  
15 Where monolithic cement concrete pavement and curb are being removed, the curb  
16 removal shall be considered as pavement removal, and the measurement for payment  
17 will be to the back of the curb.

18  
19 The removal of existing street improvements shall be conducted in such a manner as not  
20 to damage utilities and any portion of the improvement that is to remain in place. Any  
21 deviation in this matter will obligate the Contractor, at no expense to the Contracting  
22 Agency, to repair, replace, or otherwise make proper restoration to the satisfaction of the  
23 Engineer.

24  
25 In the event a pavement averages more than the maximum thickness specified for its  
26 class, an additional payment will be made to cover the extra thickness removed by a  
27 proportional conversion into additional square yards.

### 28 29 30 **2-14.4 Measurement**

31  
32 Pavement removal will be measured per square yard.

33  
34 Type I pavement removal will be measured in its original position.

### 35 36 **2-14.5 Payment**

37  
38 Payment will be made in accordance with Section 1-04.1.

39  
40 "Remove Existing Pavement, Asphalt", per square yard

41  
42 "Remove Existing Pavement, Asphalt" shall include all costs remove pavement of all  
43 Types in Classes A2, A4, and A8 as defined in this section.

44  
45 "Remove Existing Pavement, Concrete", per square yard

46  
47 "Remove Existing Pavement, Concrete" shall include all costs to remove pavement of all  
48 Types in Classes C6, C8, and C12 as defined in this section.

49  
50 "Remove Existing Pavement, CA", per square yard

51

1 "Remove Existing Pavement, CA" shall include all costs to remove pavement of all  
2 Types and Classes CA as defined in this section.

3

4 All costs associated with saw cutting meet lines shall be included in the unit Contract  
5 price for associate pavement removal bid item.

6

7

8

9

10

**END OF SECTION**

11

12

1 **2-15 CURB AND CURB AND GUTTER REMOVAL**

2 **(\*\*\*\*\*)**

3  
4 **2-15.1 Description**

5  
6 The work described in this section includes the complete removal and disposal of curbs  
7 and curb and gutter identified on the Plans or as marked in the field.

8  
9 **2-15.2 Curb Classification**

10  
11 Removal of curb and/or curb and gutter will be based on composition, as defined below:

12  
13 **Integral Curb** - Integral curb shall consist of curb that is constructed monolithic with the  
14 adjacent cement concrete pavement.

15  
16 **Curb** - Curb may consist of cement concrete curb, granite curb, or any other  
17 combination of rigid material that extends below the pavement surface elevation.

18  
19 **Extruded/Precast Curb** - Extruded or precast curb may consist of asphalt or concrete  
20 extruded or precast curb that is installed on a pavement surface.

21  
22 **Curb and Gutter** - Curb and gutter may be cement concrete, or a cement concrete curb  
23 with a brick gutter on a cement concrete base, or other combination of rigid material.

24  
25 **2-15.3 Construction Requirements**

26  
27 Integral curb removal shall consist of the removal of the curb and the integral base  
28 section under the curb. The removal shall be accomplished by sawcutting along the  
29 face of the curb.

30  
31 The removal of the curb and/or curb and gutter shall be conducted in such a manner as  
32 not to damage utilities and any portion of the improvement that is to remain in place.  
33 Any deviation in this matter will obligate the Contractor, at no expense to the Contracting  
34 Agency, to repair, replace, or otherwise make proper restoration to the satisfaction of the  
35 Engineer.

36  
37 **2-15.4 Measurement**

38  
39 Curb and curb and gutter removal will be measured per linear foot.

40  
41 **2-15.5 Payment**

42  
43 Payment will be made in accordance with Section 1-04.1.

44  
45 "Remove Curb", per linear foot

46  
47 The unit price per linear foot for "Remove Curb" shall include all classifications of concrete  
48 curb removal. All costs associated with saw cutting necessary for the removal of curb  
49 and/or curb and gutter shall be included in the unit contract price for removal.

50  
51 **END OF SECTION**

1 **2-16 REMOVAL OF CATCH BASINS, MANHOLES, CURB INLETS, ETC.**  
2 **(\*\*\*\*\*)**

3  
4 **2-16.1 Description**

5  
6 The Work described in this section includes the complete removal and disposal of catch  
7 basins, manholes, and curb inlets as identified on the Plans.

8  
9 **2-16.2 Vacant**

10  
11 **2-16.3 Construction Requirements**

12  
13 Where the structures are removed, the excavation shall be backfilled with imported  
14 backfill material.

15  
16 Where the storm and wastewater sewer structures are removed, the excavation shall be  
17 backfilled with imported backfill material.

18  
19 All pipe openings shall be plugged in accordance with 7-08.3(4).

20  
21 The removal of the structures shall be conducted in such a manner as not to damage  
22 utilities and any portion of the improvement that is to remain in place. Any deviation in  
23 this matter will obligate the Contractor, at no expense to the Contracting Agency, to  
24 repair, replace, or otherwise make proper restoration to the satisfaction of the Engineer.

25  
26 **2-16.4 Measurement**

27  
28 The removal of catch basins, manholes, and curb inlets will be measured per each.

29  
30 **2-16.5 Payment**

31  
32 Payment will be made in accordance with Section 1-04.1.

33  
34 "Remove Catch Basin", per each

35  
36 All costs associated with the placement and compaction of the backfill material shall be  
37 included in the unit Contract price for removal.

38  
39  
40 **END OF SECTION**  
41

1 **3-04 ACCEPTANCE OF AGGREGATE**

2 **(\*\*\*\*\*)**

3  
4 **3-04.1 Description**

5 *This Section is revised to read:*

6  
7 This work shall consist of acceptance of aggregate as provided for under nonstatistical  
8 evaluation.

9  
10 **3-04.3(1) General**

11 *This Section is revised to read:*

12  
13 For the purpose of acceptance sampling and testing, all test results obtained for a  
14 material type will be evaluated collectively. Sublot sampling and testing will be performed  
15 on a random basis at the frequency of one sample per sublot. Based on plan quantities,  
16 the sublot size will be determined to the nearest 100 tons (50 cy). The maximum sublot  
17 size will be as defined in Table 1.

18  
19 **3-04.3(4) Testing Results**

20 *This Section is revised to read:*

21  
22 The results of all acceptance testing will be provided by the Engineer within 3 working  
23 day of testing.

24  
25 **3-04.3(5) Nonstatistical Evaluation**

26 *This Section is revised to read:*

27  
28 Each lot of aggregate materials produced under nonstatistical evaluation and having all  
29 constituents falling within the specification limits shall be accepted with no further  
30 evaluation. When one or more constituents fall outside the specification limits, the  
31 material will be evaluated by more sample tests. A minimum of three sublots will be  
32 sampled and tested, when less than three sublots exist additional samples shall be  
33 tested to provide a minimum of three sets of results for evaluation. The test results of the  
34 sublots shall be evaluated in accordance with Section 1-06.2 using the price adjustment  
35 factors from Table 2 to determine the appropriate CPF. The maximum CPF shall be  
36 1.00.

37  
38 **3-04.3(6) Statistical Evaluation**

39 *This section is deleted.*

40  
41  
42 **END OF SECTION**  
43

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46

**4-04 BALLAST AND CRUSHED SURFACING**  
**(\*\*\*\*\*)**

**4-04.1 Description**

*This section is supplemented with the following:*

Contractors are encouraged to use recycled material in place of crushed stone according to these special provisions.

**4-04.2 Materials**

*This section is supplemented with the following:*

Permeable Ballast	4-04.3(11) & 9-03.9(2)
Crushed Surfacing Top Course	9-03.9(3)
Crushed Surfacing Base Course	9-03.9(3)

Recycled material shall be according to Section 9-03.21. Recycled Concrete Aggregate may be used as a crushed surfacing material under HMA pavement. The contractor is encouraged to also use recycled concrete aggregate as a crushed surfacing material to replace unsuitable subgrade in the road, and for foundation under cement concrete sidewalk, curbs, curb ramps, and concrete driveway approaches.

**4-04.3 Construction Requirements**

*This section is supplemented with the following:*

Where Recycled Material is used in place of any specified material in this section, the construction requirements shall apply as they are for the replaced material.

The contractor may use Recycled Concrete Aggregate instead of Crushed Surfacing as shown per the plans, and according to Sections 9-03.21 and 9-03.9(3), and the table in Section 9-03.21(1)E.

**4-04.5 Payment**

*This section is supplemented with the following:*

All costs for labor, equipment, and materials required to furnish, place, and compact the crushed surfacing top course for all asphalt concrete approaches and non-paved approaches shall be included in the unit Contract price for "Crushed Surfacing Top Course", per ton.

**END OF SECTION**

1 Supplement Division 4 with the following new section:

2  
3 **5-04 HOT MIX ASPHALT**

4 **(\*\*\*\*\*)**

5 *This Section is revised according to the following overriding provisions:*

6  
7 Nonstatistical or test point evaluation shall be the method for HMA compaction  
8 acceptance for all HMA pavement, except where visual or commercial evaluation is  
9 specified. Visual evaluation shall be considered synonymous with commercial  
10 evaluation. The Contracting Agency will not be required to perform any acceptance by  
11 statistical evaluation.

12  
13 All references to “statistical” are revised to read “nonstatistical”, and “nonstatistical”  
14 evaluation shall be considered synonymous with “test point” evaluation. Thus, all  
15 Specifications for test procedures, methods, construction requirements, and  
16 requirements for evaluation and acceptance shall apply to the Work with the following  
17 exceptions:

- 18 • The Contracting Agency shall not be required to perform statistical analysis of  
19 any acceptance test results.
- 20 • Quantities for sublots and lots shall be as determined by the Engineer. If test  
21 results are found not to be within specification requirements, additional testing  
22 as needed to determine a CPF may be performed.
- 23 • The Contracting Agency shall not be required to make price adjustments based  
24 on pay factors and composite pay factors.

25  
26 **5-04.1 Description**

27 **(\*\*\*\*\*)**

28  
29 **5-04.2 Materials**

30  
31 **5-04.2(1) How to Get an HMA Mix Design on the QPL**

32 **(April 1, 2018 Tacoma GSP)**

33 *For Subsection 5-04.2(1) the term “Contracting Agency” is revised to read “WSDOT”.*

34  
35  
36 **5-04.2(2) Mix Design – Obtaining Project Approval**

37 **(April 1, 2018 Tacoma GSP)**

38 *This section is revised to read:*

39  
40 The Contactor shall submit each HMA mix design to the Contracting Agency on WSDOT  
41 Form 350-042. The Contractor shall provide a mix design based upon 3 million ESAL’s.

42  
43 No paving shall begin prior to the HMA mix design acceptance by the Engineer for the  
44 Job Mix Formula (JMF) that will be used for the same paving. The Contracting Agency  
45 will evaluate HMA mix design submittals according to Visual Evaluation per Table 1.  
46 The mix design will be the initial JMF for the class of HMA. The Contractor may request  
47 a change in the JMF. Any adjustments to the JMF will require the approval of the  
48 Project Engineer and must be made in accordance with Section 9-03.8(7).

49  
50 Mix designs for HMA shall have the aggregate structure and asphalt binder content  
51 determined in accordance with WSDOT Standard Operating Procedure 732 and meet

1 the requirements of Sections 9-03.8(2) and 9-03.8(6). The Contractor shall determine  
2 anti-strip additive requirements for the HMA and submit laboratory test data for anti-  
3 stripping and rutting in accordance with the following options:

- 4 • Hamburg Wheel track Test and Section 9-03.8(2), or
- 5 • Tensile Strength Ratio (TSR) Test per AASHTO T 283, or
- 6 • Previous WSDOT Lab mix design verification test data and stripping evaluation,  
7 per the Engineer's discretion and as stated below.

8  
9 With the HMA mix design submittal the Contractor shall provide one of the following mix  
10 design verification certifications for Contracting Agency review:

- 11 • The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one  
12 of the mix design verification certifications listed below.
- 13 • The proposed HMA mix design on WSDOT Form 350-042 with the seal and  
14 certification (stamp & signature) of a valid licensed Washington State Professional  
15 Engineer.\*\*
- 16 • The Mix Design Report for the proposed HMA mix design developed by a qualified  
17 City or County laboratory that is within one year of the approval date.\*\*

18  
19 \*\*The mix design shall be performed by a lab accredited by a national authority such as  
20 Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The  
21 Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO  
22 Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO  
23 resource proficiency sample program.

24  
25 At the discretion of the Engineer, the Contracting Agency may accept verified mix  
26 designs older than 12 months from the original verification date with a certification from  
27 the Contractor that the materials and sources are the same as those shown on the  
28 original mix design.

29  
30 For the use of Commercial HMA, the Contractor shall select a class of HMA and design  
31 level of Equivalent Single Axle Loads (ESAL's) appropriate for the required use.  
32 Commercial HMA can be accepted by a Contractor certificate of compliance letter  
33 stating the material meets the HMA requirements defined in the Contract.

34  
35 **5-04.2(2)B Using HMA Additives**  
36 **(April 1, 2018 Tacoma GSP)**

37 *This section is revised to read:*

38  
39 The Contractor may, at the Contractor's discretion, elect to use additives that reduce the  
40 optimum mixing temperature or serve as a compaction aid for producing HMA. Additives  
41 include organic additives, chemical additives and foaming processes. The use of  
42 Additives is subject to the following:

- 43
- 44 • Do not use additives that reduce the mixing temperature in the production  
45 of High RAP/Any RAS mixtures.
- 46
- 47 • Before using additives, obtain the Engineer's approval using WSDOT  
48 Form 350-076 to describe the proposed additive and process.
- 49



1 **5-04.3 Construction Requirements**

2  
3 **5-04.3(2) Paving Under Traffic**  
4 **(April 1, 2018 Tacoma GSP)**

5 *The second paragraph is supplemented with the following:*

6  
7 No traffic shall be allowed on any newly placed pavement without the approval of the  
8 Engineer.

9  
10 **5-04.3(3)C Pavers**  
11 **(April 1, 2018 Tacoma GSP)**

12 *The second paragraph is deleted.*

13  
14 **5-04.3(3)D Material Transfer Device or Material Transfer Vehicle**  
15 **(April 1, 2018 Tacoma GSP)**

16 *The first paragraph is revised to read:*

17  
18 A Material Transfer Device/Vehicle (MTD/V) shall not be used unless specific paving  
19 areas are specified below. A MTD/V shall only be used according to this special  
20 provision for the following paving areas:

21  
22 **5-04.3(4)C Pavement Repair**  
23 **(April 1, 2018 Tacoma GSP)**

24 *This section is revised to read:*

25  
26 Pavement repair shall be in accordance with the City of Tacoma Right-of-Way  
27 Restoration Policy found at:

28  
29 [https://www.cityoftacoma.org/government/city\\_departments/public\\_works/right-of-way](https://www.cityoftacoma.org/government/city_departments/public_works/right-of-way)

30  
31 Pavement repair consists of asphalt concrete saw-cutting, removing asphalt concrete  
32 pavement, removing crushed surfacing and subgrade, and installing Construction  
33 Geotextile for Separation, placing crushed surfacing top course over the Construction  
34 Geotextile, and HMA in accordance with the Contract or as directed by the Engineer.

35  
36 Pavement repair excavation may also be performed by the use of a milling machine of a  
37 type that has operated successfully on work comparable with that to be done under the  
38 Contract and shall be approved by the Engineer prior to use. If a milling machine is  
39 used for excavation, the excavation shall be as directed by the Engineer.

40  
41 In all types of excavation, after the removal of the asphalt, the base material will be  
42 evaluated by the Engineer to determine if it is suitable. If the base is determined not to  
43 be suitable, the Contractor shall remove the base material and restore the sub-grade in  
44 accordance with Section 2-06 and the Plans, regardless of the method used for  
45 excavation.

46  
47 Estimated plan quantities for pavement repair are approximate and are provided for  
48 bidding purposes only. The actual dimensions to be used will be verified by the  
49 Engineer at the time of construction. Contrary to Section 1-04.6, no changes to the unit  
50 prices bid for the various items will be permitted due to any increase or decrease in the  
51 amount of pavement repair.

1  
2 Payment for pavement repair shall be by the unit Bid prices according to the Contract for  
3 all materials, labor, and equipment required to complete the pavement repair. Items not  
4 included in the Proposal shall be paid for according to Section 1-04.1(2).

5  
6 **5-04.3(6) Mixing**  
7 **(April 1, 2018 Tacoma GSP)**

8 *The first paragraph is revised to read:*  
9

10 The asphalt supplier shall add anti-stripping additive to the liquid asphalt prior to  
11 shipment to the asphalt mixing plant. The Contractor shall submit the anti-stripping  
12 additive amount and the manufacturer's certification, together with the HMA mix design  
13 submittal in accordance with Section 5-04.2. Paving shall not begin before the anti-  
14 stripping additive submittal is accepted by the Engineer.

15  
16 **5-04.3(9) HMA Mixture Acceptance**  
17 **(April 1, 2018 Tacoma GSP)**

18 *The first paragraph is revised to read:*  
19

20 The Contracting Agency will evaluate the HMA mixture by nonstatistical or visual  
21 evaluation as determined from the criteria in Table 7 or as determined by the Engineer.  
22

23 **5-04.3(9)A Test Sections**  
24 **(April 1, 2018 Tacoma GSP)**

25 *The first paragraph is revised to read:*  
26

27 At the start of paving, if requested by the Contractor, a compaction test section shall be  
28 constructed as directed by the Engineer to determine the compactibility of the mix  
29 design. Compactibility shall be based on the ability of the mix to attain the specified  
30 minimum density (91 percent of the maximum density determined by WSDOT SOP 729,  
31 and FOP for AASHTO T 209).

32  
33 Following determination of compactibility, the Contractor is responsible for the control of  
34 the compaction effort. If the Contractor does not request a test section, the mix will be  
35 considered compactible. See also Section 5-04.3(10)C2.  
36

37 The Contractor shall also construct a test section when requested by the Engineer. Test  
38 sections that are in complete compliance with the requirements of Section 5-04 can be  
39 incorporated into the Work, and shall be included in the quantities for related Bid Items;  
40 otherwise, the Contractor shall remove the defective pavement in failed test sections as  
41 determined by the Engineer and at no cost to the Contracting Agency. The Contracting  
42 Agency will only pay for HMA pavement that is accepted and incorporated into the  
43 project at the discretion of the Engineer. See also Section 5-04.3(10)C2.  
44

45 *The second paragraph is revised to read:*  
46

47 The purpose of a test section is to determine whether or not the Contractor's mix design  
48 and production processes will produce HMA meeting the Contract requirements related  
49 to mixture. Construct HMA mixture test sections at the beginning of paving, using at  
50 least 100 tons and a maximum of 800 tons or as specified by the Engineer. Each test  
51 section shall be constructed in one continuous operation.

1  
2 **5-04.3(9)B Mixture Acceptance – Statistical Evaluation**  
3 **(April 1, 2018 Tacoma GSP)**

4 *The title of this Section is revised to read:*

5 **5-04.3(9)B Mixture Acceptance – Nonstatistical Evaluation**

6  
7 **5-04.3(9)B1 Mixture Statistical Evaluation – Lots and Sublots**  
8 **(April 1, 2018 Tacoma GSP)**

9 *The title of this Section is revised to read:*

10 **5-04.3(9)B1 Mixture Nonstatistical Evaluation – Lots and Sublots**

11 *This Section is revised to read:*

12  
13 For HMA in a structural application, sampling and testing for total project quantities less  
14 than 400 tons is at the discretion of the engineer. For HMA used in a structural  
15 application and with a total project quantity less than 800 tons but more than 400 tons, a  
16 minimum of one acceptance test shall be performed:

- 17 i. If test results are found to be within specification requirements, additional  
18 testing will be at the engineer's discretion.  
19 ii. If test results are found not to be within specification requirements, additional  
20 testing as needed to determine a CPF shall be performed.  
21 iii. For a mixture lot in progress with a mixture CPF less than 0.75, a new  
22 mixture lot will begin at the Contractor's request after the Engineer is satisfied  
23 that material conforming to the Specifications can be produced. See also  
24 Section 5-04.3(11)F.  
25 iv. If, before completing a mixture lot, the Contractor requests a change to the  
26 JMF which is approved by the Engineer, the mixture produced in that lot after  
27 the approved change will be evaluated on the basis of the changed JMF, and  
28 the mixture produced in that lot before the approved change will be evaluated  
29 on the basis of the unchanged JMF; however, the mixture before and after  
30 the change will be evaluated in the same lot. Acceptance of subsequent  
31 mixture lots will be evaluated on the basis of the changed JMF.

32  
33 **5-04.3(9)E Mixture Acceptance – Notification of Acceptance Test Results**  
34 **(April 1, 2018 Tacoma GSP)**

35 *The first and second paragraphs of this section are revised to read:*

36  
37 The Contracting Agency will endeavor to provide written notification (via email to the  
38 Contractor's designee) of acceptance test results within 24 hours of the sample being  
39 made available to the Contracting Agency. However, the Contractor agrees:

- 40  
41 1. Quality control, defined as the system used by the Contractor to monitor,  
42 assess, and adjust its production processes to ensure that the final HMA  
43 mixture will meet the specified level of quality, is the sole responsibility of the  
44 Contractor.  
45  
46 2. The Contractor has no right to rely on any testing performed by the  
47 Contracting Agency, nor does the Contractor have any right to rely on timely  
48 notification by the Contracting Agency of the Contracting Agency's test  
49 results (or statistical analysis thereof), for any part of quality control and/or  
50 for making changes or correction to any aspect of the HMA mixture.  
51

- 1           3. The Contractor shall make no claim for untimely notification by the  
2 Contracting Agency of the Contracting Agency's test results (or statistical  
3 analysis thereof).  
4

5 **5-04.3(10)B HMA Compaction - Cyclic Density**  
6 **(April 1, 2018 Tacoma GSP)**

7 *This section is deleted.*  
8

9 **5-04.3(10)C1 HMA Compaction Statistical Evaluation – Lots and Sublots**  
10 **(April 1, 2018 Tacoma GSP)**

11 *This section is deleted.*  
12

13 **5-04.3(10)C2 HMA Compaction Statistical Evaluation – Acceptance Testing**  
14 **(April 1, 2018 Tacoma GSP)**

15 *The title of this section is revised to read:*

16 **5-04.3(10)C2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing**

17 *The second paragraph is revised to read:*  
18

19 Compaction tests will be performed at a minimum of 5 various locations, as determined  
20 by the Engineer, for each 400 tons placed. The locations will be determined by the  
21 stratified random sampling procedure conforming to WSDOT Test Method T 716. For an  
22 area in progress with a CPF less than 0.75, a new compaction sequence will begin at  
23 the Contractor's request after the Project Engineer is satisfied that material conforming  
24 to the Specifications can be produced. The Compaction Test Procedures will be  
25 provided to the Contractor by the Contracting Agency at the Pre-Construction  
26 Conference or a Pre-Paving Meeting, prior to the placement of HMA material on site.  
27

28 *This Section is supplemented with the following:*  
29

30 Cores may be used as an addition to the nuclear density gauge tests. When cores are  
31 taken by the Engineer at the request of the Contractor, the request shall be made by  
32 noon of the first working day following placement of the mix. The Engineer shall be  
33 reimbursed for the coring expenses.  
34

35 The Engineer will inform the Contractor of field compaction test results as work is being  
36 performed. Formal Test Report(s) will be provided to the Contractor within 3 Working  
37 Days.  
38

39 HMA for preleveling shall be compacted to the satisfaction of the Engineer.  
40  
41

42 **5-04.4 Measurement**  
43 **(\*\*\*\*\*)**

44 *The first paragraph is revised to read:*  
45

46 HMA CI. \_\_\_ PG \_\_\_, will be measured by the ton in accordance with Section 1-09.2,  
47 with no deduction being made for the weight of asphalt binder, blending sand, mineral  
48 filler, anti-stripping additive, or any other component of the mixture; and the  
49 measurement shall include asphalt wedge curbs and thickened edges in accordance  
50 with the Plans or as directed by the Engineer. If the Contractor elects to remove and

1 replace mix as allowed in Section 5-04.3(11), the material removed will not be  
2 measured.

3  
4 *The second paragraph is revised to read:*

5  
6 No specific unit of measure will apply to roadway cores, which shall be included in the  
7 measurements for the HMA items that are included in the Proposal.

8  
9 *This section is supplemented with the following:*

10  
11 No specific unit of measure will apply to anti-stripping additive, which shall be included in  
12 the measurements for the HMA items that are included in the Proposal.

13  
14 **5-04.5 Payment**

15 **(\*\*\*\*\*)**

16 *Pay items for “Job Mix Compliance Price Adjustment” and “Compaction Price*  
17 *Adjustment” are deleted.*

18  
19 *The following pay items for HMA are revised to read:*

20  
21 “HMA Cl. \_\_\_ PG \_\_\_”, per ton.

22  
23 The unit Contract price per ton for “HMA Cl. \_\_\_ PG \_\_\_” shall be full payment for all  
24 costs incurred to carry out the requirements of Section 5-04, including coring and testing,  
25 and shall include anti-stripping additive, pre-level, asphalt wedge curbs, thickened  
26 edges, curb drains, approaches and connection to existing drains in accordance with the  
27 Contract. Any costs that are already included in other Bid items in the Proposal shall not  
28 be included in the unit Contract prices per ton for these HMA Bid items.

29  
30 *This section is supplemented with the following:*

31  
32 “Temporary Pavement Patch”, per ton.

33  
34 The unit Contract price for “Temporary Pavement Patch” shall be full pay for all labor,  
35 equipment, and materials required to furnish and install; maintain; and remove and  
36 dispose of the temporary patch. The unit contract price shall apply to Temporary  
37 Pavement Patches made with HMA or Cold Plant Mix.

38  
39 Temporary pavement patches shall be HMA Cl. ½” PG 58H-22.

40  
41 **END OF SECTION**  
42

1 **5-05 CEMENT CONCRETE PAVEMENT**  
2 **(October 14, 2020 Tacoma GSP)**

3  
4 **5-05.1 Description**

5 *This section is supplemented with the following:*

6  
7 All concrete pavement restoration shall be performed in accordance with the City of  
8 Tacoma’s Right-of-Way Restoration Policy found at [www.govME.org](http://www.govME.org).

9  
10 **5-05.3 Construction Requirements**

11  
12 **5-05.3(1) Concrete Mix Design for Paving**

13 *The sixth paragraph is supplemented with the following:*

14  
15 The submittal for the concrete mix design shall provide the following: the date, the  
16 amount of materials (i.e. cement, sand, aggregates, water), the type and amount of each  
17 admixture, and the designated 28-day compressive strength specific to the mix design  
18 being submitted. The design compressive strength shall be a minimum of 4,000 psi.

19  
20 **5-05.3(4)A Acceptance of Portland Cement Concrete Pavement**

21 *This section is supplemented with the following:*

22  
23 Acceptance of concrete will be on a non-statistical acceptance only.

24  
25 *The first, second, third and fourth paragraphs are deleted.*

26  
27 **5-05.3(8) Joints**

28 *The second paragraph is revised to read:*

29  
30 The Contractor shall submit a concrete panel jointing plan in accordance with the Plans  
31 and these Specifications. When a concrete panel jointing plan is included in the Plans,  
32 the Contractor may adopt or submit a revised jointing plan in accordance with Standard  
33 Plans and the Specifications at the Contractor’s own expense. The Contractor’s jointing  
34 plan shall be approved in writing by the Engineer before the start of concrete paving.

35  
36 When new pavement abuts existing pavement, the locations of the joints in the new  
37 pavement shall match with the joints in the existing pavement unless otherwise  
38 approved by the Engineer.

39  
40 **5-05.3(10) Tie Bars and Corrosion Resistant Dowel Bars**

41  
42 *This section is revised to read:*

43  
44 Proposed concrete pavement section shall not include tie bars or dowel bars.

45  
46 **5-05.3(11) Finishing**

47  
48 *The third paragraph is revised to read:*

49  
50 In advance of curing operations, the pavement shall receive an initial texturing followed  
51 by final finishing. Initial texturing shall be performed with a burlap drag or broom device,

1 creating striations in the same orientation as the final finish. The concrete roadway  
2 surface shall be finished with a transverse tining. Where integral concrete curbs are  
3 constructed, the roadway surface finish shall end 12 inches from the flowline.

4  
5 *The fourth paragraph is revised to read:*

6  
7 Burlap drags, brooms and tine devices may be installed on self-propelled equipment  
8 having external alignment control. When texturing the pavement with burlap, the area of  
9 burlap in contact with the pavement shall be maintained constant at all times. Broom  
10 and tine devices shall be provided with positive elevation control. Downward pressure  
11 on pavement surface shall be maintained at all times during texturing so as to achieve  
12 uniform texturing without measurable variations in pavement profile. If self-propelled  
13 texturing machines are used, these shall be operated so that travel speed during  
14 texturing is maintained constant. Failure of the texturing equipment to perform according  
15 to this section shall constitute cause for stopping placement of concrete until the  
16 equipment deficiency or malfunction is corrected.

17  
18 *The fifth paragraph is revised to read:*

19  
20 The surface finish shall be as shown per Plans and in accordance with these Special  
21 Provisions. The Engineer may specify either transverse tining, or longitudinal tining, or a  
22 heavy broom finish for any part of the project. Transverse tining is the standard concrete  
23 finish.

24  
25 *The seventh paragraph is revised to read:*

26  
27 **Test Panel:**

28 At the start of concrete pavement construction, the Contractor shall first finish a textured  
29 concrete test panel and the Engineer shall give approval of the achieved finish according  
30 to this section prior to further concrete pavement construction. If the test panel is  
31 rejected by the Engineer, the Contractor shall remove and replace the test panel at no  
32 additional cost to the Contracting Agency. The Contractor can designate one of the  
33 project panels as a test panel or create a sacrificial test panel on site of at least four feet  
34 by eight feet.

35  
36 Project panels not meeting the characteristics of the test panel shall be removed and  
37 replaced at no additional cost to the Contracting Agency.

38  
39 *The eighth through tenth paragraphs are deleted.*

40  
41 **5-05.3(12) Surface Smoothness**

42 *The section is revised to read:*

43  
44 The Contractor shall measure surface smoothness with a 10-foot straightedge as  
45 directed by the Engineer. The finished grade surface shall not vary more than 1/8 inch  
46 from the bottom edge of a 10-foot straightedge placed on the surface parallel to the  
47 centerline. Perpendicular to the centerline, the finished grade surface shall not vary  
48 more than 1/4 inch from the bottom edge of a 10-foot straightedge laid across any lane.

49  
50 The completed surface shall be of uniform texture, smooth, shall conform to Plans as to  
51 crown and grade, and shall be free from defects of all kinds. Corrective work shall be as

1 directed by the Engineer; and the Contractor shall complete corrective work at no  
2 additional expense, including traffic control, to the City of Tacoma.

3  
4 **5-05.3(14) Cold Weather Work**

5 *This section is supplemented with the following:*

6  
7 The following additional requirements for placing concrete shall be in effect from  
8 November 1 to April 1:

- 9 • Engineer shall be notified at least 24 hours prior to placement of concrete.
- 10 • All concrete placement shall be completed no later than 2:00 p.m. each  
11 day.
- 12 • Where forms have been placed and the subgrade has been subjected to  
13 frost, no concrete shall be placed until the ground is completely thawed.  
14 At that time, the forms shall be adjusted and subgrade repaired as  
15 determined by the Engineer.

16  
17 **5-05.4 Measurement**

18 *This section is revised to read:*

19  
20 Measurement for cement concrete pavement and concrete base pavement shall be by  
21 the square yard for the pavement completed and accepted according to Section 5-05  
22 and the Plans, including the area underneath curbs. No deduction will be made for  
23 castings in pavement.

24  
25 Cement Concrete Pavement for Pavement Patches will be measured by the square yard

26  
27 **5-05.5 Payment**

28 *This section is revised to read:*

29  
30 Payment will be made in accordance with Section 1-04.1.

31  
32 "Cement Conc. Pavement, 8-Inch Section", per square yard.

33  
34 The unit Contract price per square yard for "Cement Conc. Pavement, 8-Inch Section"  
35 shall be full payment for all costs incurred to carry out the requirements of Section 5-05  
36 and the Plans.

37  
38 No dowels shall be required for the cement conc. pavement, 8-inch section.

39  
40 **END OF SECTION**



1 **6-02 CONCRETE STRUCTURES**

2 **(\*\*\*\*\*)**

3  
4 **6-02.3(6)A2 Cold Weather Protection**

5 *This section is revised to read:*

6  
7 This Specification applies when the weather forecast on the day of concrete placement  
8 predicts air temperatures below 35°F at any time during the 7 days following placement.  
9 The weather forecast is based on predictions from the Western Region Headquarters of  
10 the National Weather Service. This forecast can be found at [www.wrh.noaa.gov](http://www.wrh.noaa.gov).

11  
12 The temperature of the concrete shall be maintained above 40°F during the entire curing  
13 period or 7 days, whichever is greater. Prior to placing concrete in cold weather, the  
14 Contractor shall provide a written procedure for cold weather concreting to the Engineer.  
15 The procedure shall detail how the Contractor will adequately cure the concrete and  
16 prevent the concrete temperature from falling below 35°F. Extra protection shall be  
17 provided for areas especially vulnerable to freezing (such as exposed top surfaces,  
18 corners and edges, thin sections, and concrete placed into steel forms). Concrete  
19 placement will only be allowed if the Contractor's cold weather protection plan has been  
20 accepted by the Engineer.

21  
22 The Contractor shall not mix nor place concrete while the air temperature is below 35°F,  
23 unless the water or aggregates (or both) are heated to at least 70°F. The aggregate shall  
24 not exceed 150°F. If the water is heated to more than 150°F, it shall be mixed with the  
25 aggregates before the cement is added. Any equipment and methods shall heat the  
26 materials evenly. Concrete placed in shafts and piles is exempt from such preheating  
27 requirements.

28  
29 The Contractor may warm stockpiled aggregates with dry heat or steam, but not by  
30 applying flame directly or under sheet metal. If the aggregates are in bins, steam or  
31 water coils or other heating methods may be used if aggregate quality is not affected.  
32 Live steam heating is not permitted on or through aggregates in bins. If using dry heat,  
33 the Contractor shall increase mixing time enough to permit the aggregates to absorb  
34 moisture.

35  
36 Starting immediately after placement, the concrete temperatures shall be maintained at  
37 or above 40°F and the relative humidity shall be maintained above 80 percent. These  
38 conditions shall be maintained for a minimum of 7 days or for the cure period required by  
39 Section 6-02.3(11), whichever is longer. During this time, if the temperature of the  
40 concrete falls below 40°F no curing time is awarded for that day. Should the Contractor  
41 fail to adequately protect the concrete and the temperature of the concrete falls below  
42 35°F during curing, the Engineer may reject it.

43  
44 The Contractor is solely responsible for protecting concrete from inclement weather  
45 during the entire curing period. Permission given by the Engineer to place concrete  
46 during cold weather will in no way ensure acceptance of the Work by the Contracting  
47 Agency. Should the concrete placed under such conditions prove unsatisfactory in any  
48 way, the Engineer shall still have the right to reject the Work although the plan and the  
49 Work were carried out with the Engineer's permission.

50 **END OF SECTION**

1 **7-02 CULVERTS**

2 (\*\*\*\*\*)

3  
4 **7-02.1 Description**

5 *This section is supplemented with the following:*

6  
7 A culvert pipe with beveled ends shall be placed under curb ramps to ensure existing  
8 drainage where indicated in the plans or as directed by the Engineer in the field.

9  
10 **7-02.2 Materials**

11 *This section is supplemented with the following:*

12  
13 Ductile Iron Sewer Pipe  
14 9-05.13

15  
16 All culvert pipe shall have a smooth interior wall.

17  
18 **7-02.3 Construction Requirements**

19 *This section is supplemented with the following:*

20  
21 The culvert pipe shall be placed under the ramp to maintain existing drainage. The pipe  
22 shall extend on both sides a minimum of two feet from the edge of the ramp and be  
23 beveled on each end. Quarry Spalls shall be placed at each end of the pipe or as  
24 directed by the Engineer.

25  
26 After placement of any culvert pipe the Engineer may direct the Contractor to reshape  
27 and/or excavate a portion of the existing ditch beyond the end of the pipe to maintain  
28 positive drainage, this work shall be included in the lump sum bid item "Site Restoration"  
29 in accordance with Section 8-02.

30  
31 **7-02.5 Payment**

32 *This section is supplemented with the following:*

33  
34 "Ductile Iron Culvert Pipe, 8-In. Diam." per linear foot.

35  
36 The unit contract price for "D.I. Culvert Pipe, 8-In. Diam." per linear foot shall be full pay  
37 for all labor, materials, and equipment necessary to install the pipe as shown in the plans  
38 and as described in these specifications including, but not limited to, excavation, haul,  
39 disposal of extra material, backfill, bedding, and beveling. Quarry Spalls shall be paid in  
40 accordance with Section 8-15. Re-grading and restoration beyond the ends of the pipe  
41 shall be paid in accordance with Section 8-02.

42  
43  
44 **END OF SECTION**

1 **7-04 STORM SEWERS**  
2 **(March 17, 2003 Tacoma GSP)**

3

4 *This section is deleted. The requirements of Section 7-17 shall apply to storm sewers.*

5

6

7

**END OF SECTION**

1 **7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS**

2 **(\*\*\*\*\*)**

3  
4 **7-05.1 Description**

5 *This section is supplemented with the following:*

6  
7 All references to sanitary sewers shall be construed to also mean storm sewers.

8  
9 **7-05.2 Materials**

10 *This section is supplemented with the following:*

11  
12 All manholes or other utility structures placed within the sidewalk, bike lane, crosswalk,  
13 or other pedestrian path shall have a cover with non-slip coating installed at the time of  
14 manufacture. The minimum coefficient of friction for non-slip coatings shall be 0.6.

15  
16 **7-05.3 Construction Requirements**

17 *The first sentence of the eleventh paragraph is revised to read:*

18  
19 A flexible pipe-to-manhole connector shall be used in all connections of rigid and  
20 thermoplastic pipes to **new** precast concrete manholes to provide a watertight joint  
21 between the pipe and the manhole, unless otherwise directed by the Engineer. The  
22 connector shall be “Kor-N-Seal” with “Wedge Korband”(Type I or II as required for pipe  
23 diameter), manufactured by NPC, Inc., Milford, New Hampshire, or Engineer approved  
24 equal. The connectors shall be installed in accordance with the manufacturer’s  
25 recommendations.

26  
27 **7-05.3(1) Adjusting Manholes and Catch Basins to Grade**

28 *This section is revised to read:*

29  
30 **7-05.3(1) Adjusting Utility Structures to Grade**

31  
32 Where shown in the Plans or where directed by the Engineer, utility structures shall be  
33 adjusted to grade as staked or as otherwise designated by the Engineer.

34  
35 The materials and methods of construction shall conform to the requirements specified  
36 in Section 7-05.3 and Standard Plan No. SU-25 or SU-37. The finished structure shall  
37 conform to the requirements of the standard plan for the specific structure.

38  
39 Where indicated on the plans to use a combination inlet frame and grate for “Adjust  
40 Existing Catch Basin, Furnish New Frame and Grate,” it shall be used in place of a  
41 vaned grate. All combination inlet frame and grates shall conform to WSDOT Standard  
42 Plan B-25.20.01.

43  
44 When adjusting an existing catch basin the contractor shall clean the structure in  
45 accordance with specification 7-07 and shall include all costs in the price for adjustment.

46  
47 Where shown on the plans for water main valve chambers to be adjusted to grade,  
48 existing valve cans and covers shall be replaced with new castings. New water valve  
49 cans and covers for “Adjust Existing Valve Chamber to Grade” will be provided by the  
50 Contracting Agency. The Contractor shall coordinate with the Contracting Agency for

1 pick-up of the castings. The contractor shall arrange pick-up, a minimum of **5 working**  
2 **days** prior, with:

3  
4 Geff Yotter, Water Distribution Operations Manager,  
5 By phone at 253-502-8253 (office) or 253-377-5966 (mobile)  
6 or by email at GYotter2@cityoftacoma.org  
7

8 The pick-up location shall be:

9  
10 Water Operations Distribution Building  
11 3506 South 35<sup>th</sup> Street  
12 Tacoma, WA 98409  
13

14 Where shown in the Plans to adjust utility structure to grade and the new cover will be  
15 located within the sidewalk, bike lane, crosswalk or other pedestrian pathway, the  
16 contractor shall furnish a new cover with non-slip coating to be used for the utility  
17 adjustment. The slip resistant coating material for these utility covers is intended to  
18 withstand rough weather, daily vehicle wear and tear, and have a minimum coefficient of  
19 friction of 0.6.  
20

### 21 **7-05.3(3) Connections to Existing Manholes**

22 *The first sentence is revised to read:*

23  
24 The Contractor shall inspect the existing manholes in the field to verify invert elevations  
25 and the scope of work necessary to make the connection(s) prior to construction.  
26

27 *This new section is added:*  
28  
29

### 30 **7-05.3(3)A Reconnect Existing Sewer Pipe to New Structure**

31 *(\*\*\*\*\*)*  
32

33 The Contractor shall reconnect existing sewer pipes to new structures where shown on  
34 the plans. The Contractor shall locate the existing pipe and place the new structure in  
35 line with the existing pipe. The invert elevation shall be field determined.  
36

37 The Contractor shall cut the existing sewer pipe within 5 feet of the new structure and  
38 work within the pavement removal limits according to the plans. The Contractor shall  
39 connect the existing pipe to the new structure using the same pipe material and size if  
40 possible; or use a similar interior size PVC, RCP, or DI pipe depending on pipe cover  
41 and connection options with appropriate pipe adaptors. Submit manufacturer's  
42 recommendations.  
43

44 Rigid Couplings shall be used at any pipe joint in which bell and spigot or fused joints  
45 are not used. Flexible couplings are not permitted, except for side sewer installation.  
46 The rigid couplings shall be Romac, JCM Industries, or Krausz-USA, or an Engineer  
47 approved equal.  
48

49 PVC pipe shall not be used with less than 3 feet of cover to finished grade, and only DI  
50 pipe shall be used with less than 1.5 feet of cover.  
51

1 **7-05.4 Measurement**

2 *The sixth paragraph is revised to read:*

3  
4 Connections to existing structures will be measured per each.

5  
6 *This section is supplemented with the following:*

7  
8 Reconnecting existing sewer pipes to new manhole structures will be measured per  
9 each.

10  
11 **7-05.5 Payment**

12 *The first paragraph is supplemented with the following:*

13  
14 The unit Contract price for “Manhole \_\_\_\_\_” shall be full pay for all work required to  
15 furnish and install the new manhole to finished grade, including, but not limited to,  
16 excavating for, furnishing backfill, compaction of backfill, connection of new pipe(s),  
17 channeling, covers, frames, ladders, steps, and handholds, as applicable per Standard  
18 Plans. This includes providing nonslip covers where required.

19  
20 The unit Contract price for “Catch Basin \_\_\_\_\_” shall be full pay for all work required to  
21 furnish and install the new catch basin to finished grade, including, but not limited to,  
22 excavating for, furnishing backfill, compaction of backfill, connection of new pipe(s),  
23 frame, cover, as applicable per Standard Plans.

24  
25  
26 *The pay item for Connect New Sewer Pipe \_\_\_-Inch Diam. To Existing Structure is*  
27 *revised to read:*

28  
29 “Connect New Sewer Pipe to Existing Structure”, per each

30  
31 The unit Contract price per each for “Connect New Sewer Pipe to Existing Structure”  
32 shall include connecting new sewer pipes of all diameters. No extra payment shall be  
33 made for varying sewer pipe diameters.

34  
35  
36 *This section is supplemented with the following:*

37  
38 “Reconnect Existing Sewer Pipe to New Structure”, per each.

39  
40 The unit Contract price per each shall be full pay for all labor, equipment and materials  
41 necessary to reconnect the existing sewer pipe of any diameter to the new structure as  
42 specified in Section 7-05.3. No extra payment shall be made for varying pipe diameters.

43  
44 “Adjust Existing Catch Basin, Furnish New Frame and Grate”, per each

45  
46 The unit Contract price per each for “Adjust Existing Catch Basin, Furnish New Frame  
47 and Grate” shall be full pay for all costs associated with adjusting the frame and grate to  
48 finished grade, including but not limited to, excavating, furnish and place backfill,  
49 furnishing and installing the new frame and grate, compacting, surfacing, and  
50 restoration.

1 "Adjust Existing Manhole, Furnish New Frame and Cover", per each

2

3 The unit Contract price per each for "Adjust Existing Manhole, Furnish New Frame and  
4 Cover" shall be full pay for all costs associated with adjusting the frame and cover to  
5 finished grade, including but not limited to, excavating, furnish and place backfill,  
6 furnishing and installing the new frame and cover, compacting, surfacing, and  
7 restoration.

8

9

10 "Adjust Existing Valve Chamber to Grade", per each

11

12 The unit Contract price per each for "Adjust Existing Valve Chamber to Grade" shall be  
13 full pay for all costs associated with the adjusting the valve chamber to finished grade,  
14 including but not limited to, excavating, furnish and place backfill, compacting, concrete  
15 surfacing, and restoration.

16

17

18

19

20

21

**END OF SECTION**

1 **7-07 CLEANING EXISTING DRAINAGE STRUCTURES**  
2 **(March 23, 2010 Tacoma GSP)**

3  
4 **7-07.3 Construction Requirements**

5 *Item three of paragraph two is revised to read:*

- 6  
7 3. If sediment and water from structures does not meet the conditions described in 1  
8 or 2 above, the Contractor shall collect and dispose of all water used and all  
9 debris generated in cleaning operations. No cleaning water or debris shall be  
10 flushed downstream beyond the limits of the work.

11  
12 All lines shall be cleaned prior to any inspection of an existing drainage line or structure.

13  
14 **7-07.5 Payment**

15 *This section is revised to read:*

16  
17 All costs for cleaning existing drainage structures shall be included in other bid items in  
18 the Bid Proposal.

19  
20  
21  
22 **END OF SECTION**



1 **7-08 GENERAL PIPE INSTALLATION REQUIREMENTS**

2 **(\*\*\*\*\*)**

3  
4 **7-08.3 Construction Requirements**

5 *This section is supplemented with the following:*

6  
7 **All material excavated from the wastewater and stormwater trenches shall be**  
8 **considered unsuitable for backfill and shall be removed and replaced with**  
9 **imported backfill, meeting the requirements of Section 9-03.12(2).**

10  
11 **7-08.3(1)A Trenches**

12 *The tenth paragraph of this section is deleted. All dewatering requirements are found in*  
13 *section 8-01.3(1)C.*

14  
15 **7-08.3(1)C Bedding the Pipe**

16 *This section is supplemented with the following:*

17  
18 Pipe bedding for sanitary and storm sewers shall be in accordance with City of Tacoma  
19 Standard Plan No. SU-16.

20  
21 **7-08.3(2)F Plugs and Connections**

22 *This section is supplemented with the following:*

23  
24 Rigid Couplings, manufactured by Romac Industries, Inc., or Engineer approved equal,  
25 shall be used at any pipe joint in which bell and spigot or fused joints are not  
26 used. Flexible couplings are not permitted, except for side sewer installation.

27  
28 **7-08.3(2)G Jointing of Dissimilar Pipe**

29 *This section is revised to read:*

30  
31 Dissimilar pipe shall be joined by use of rigid couplings manufactured by Romac  
32 Industries, Inc., or Engineer approved equal, except for side sewer installation.

33  
34 **7-08.3(3) Backfilling**

35 *The second paragraph is revised to read:*

36  
37 Pipe zone backfill, backfill above pipe zone, and extra excavation area backfill material  
38 shall meet the requirements of Section 9-03.12(2). (Pipe zone backfill shall meet the  
39 requirements of Section 9-03.9(3) for Crushed Surfacing Top Course. Backfill above  
40 pipe zone and extra excavation area backfill material shall meet the requirements of  
41 Section 9-03.12(2), Gravel Backfill for Walls.) Recycled concrete shall not be used for  
42 pipe zone bedding, pipe zone backfill, backfill above pipe zone, and extra excavation  
43 area backfill.

44  
45 *The fourth paragraph is revised to read:*

46  
47 Backfill above the pipe zone shall be accomplished in such a manner that the pipe will  
48 not be shifted out of position nor damaged by impact or overloading. If pipe is being  
49 placed in a new embankment, backfill above the pipe zone shall be placed in  
50 accordance with Section 2-03.3(14)C. If pipe is being placed under existing paved  
51 areas, or roadways, backfill above the pipe zone shall be placed in horizontal layers no

1 more than 12-inches thick and compacted to 95-percent maximum density. If pipe is  
2 being placed in non-traffic areas, backfill above the pipe zone shall be placed in  
3 horizontal layers no more than 12-inches thick and compacted to 85-percent maximum  
4 density. All compaction shall be in accordance with the Compaction Control Test of  
5 Section 2-03.3(14)D.

6  
7 **All material excavated from the trench shall be considered unsuitable for backfill**  
8 **and shall be removed and replaced with imported backfill, meeting the**  
9 **requirements of Section 9-03.12(2) and paid for in the bid item “Removal and**  
10 **Replacement of Unsuitable Material”, or “Removal and Replacement of Unsuitable**  
11 **Contaminated Material, Incl. Haul” in Special Provisions Section 7-17.**

12  
13 *Section 7-08.3 is supplemented with the following:*

14 **7-08.3(5) Temporary Bypass Pumping**

15  
16 **7-08.3(5)A General Requirements**

17  
18 It shall be the Contractor’s responsibility to design, operate, and install a bypass  
19 pumping system to maintain operation of the existing storm and/or sanitary sewer  
20 systems throughout the duration of the project without any interruption of sewer service.  
21 The Contractor shall divert all flows around each segment of the pipe and/or structure  
22 designated for replacement. This diversion shall consist of redirecting flow from an  
23 upstream manhole and pumping it to a manhole downstream of the replacement  
24 operation. After the pipe replacement work is completed and accepted by the City, flow  
25 shall be returned to the reconstructed storm or sanitary sewer. The area affected by the  
26 bypass operation shall be fully restored.

27  
28 Flow from the bypass system shall be discharged into the same system downstream of  
29 the work unless prior approval is obtained from the Engineer to utilize a nearby pipe  
30 network. The Engineer will determine if the nearby system has capacity to receive the  
31 additional bypass flow.

32  
33 To determine locations of upstream and downstream manholes for bypass purposes,  
34 Bidders may view pipe networks on the City of Tacoma GIS map at  
35 <https://tmap.cityoftacoma.org/>. Pipe networks are viewable by navigating to the  
36 intersection/street, selecting the Layer list icon in the upper right corner, and checking  
37 the box adjacent to either the Wastewater Network or Stormwater Network, as  
38 applicable.

39  
40 Bypass pumping shall be done in such a manner as not to damage private or public  
41 property, or create a nuisance or public menace. The pumped sewage or stormwater  
42 shall be in enclosed hoses or pipes that are adequately protected from traffic, and shall  
43 be redirected into the appropriate sewer system. The discharge of sewage to private  
44 property, city streets, sidewalks, storm sewer, or any location other than an approved  
45 sanitary sewer is prohibited. The Contractor shall be liable for all cleanup, damages,  
46 and resultant fines should the Contractor’s operation cause any backups, overflows, or  
47 property damage.

48  
49 The Contractor shall be required to test the bypass pumping system in the presence of  
50 the Engineer prior to taking any sewer system out of service.

51

1 Silenced pumps shall be used in all areas of night time work to minimize noise disruption  
2 and meet the noise control requirements of Tacoma Municipal Code Chapter 8.122.

3  
4 The Contractor shall use hard pipe to bypass sewers 12-inches in diameter or greater.  
5 The Contractor shall not block any driveways or intersections, but shall bury the pipe to  
6 allow continuous access through intersections and driveways.

7  
8 The Contractor may use lay-flat hose to bypass storm and sanitary sewers that are less  
9 than 12 inches in diameter. The Contractor shall ensure that sewage spills do not occur  
10 with the use of lay flat hoses. If sewage spills occur, the Contractor will be required to  
11 use hard pipe for all sanitary sewers.

### 12 13 **7-08.3(5)B Backup Equipment and Monitoring**

14  
15 Bypass pumping shall be scheduled for continuous operation with back-up pumps,  
16 generators, and other equipment available at all times for periods of maintenance and  
17 refueling or failure of the primary bypass pump(s). The Contractor shall provide  
18 experienced monitoring personnel on site at all times to verify the bypass pumping  
19 system remains functional. These individuals shall have the experience to operate and  
20 maintain the bypass system to ensure there is continuous operation of the bypass  
21 system.

### 22 23 **7-08.3(5)C Flow for Bypass System Design**

24  
25 The Contractor's bypass operation shall be sized to handle, at a minimum, the full pipe  
26 capacity in each subject line removed from service. If flow conditions are greater than  
27 full pipe, the Contractor may elect to wait for flow conditions to subside prior to removing  
28 the subject line from service. Working days may be adjusted per Specification 1-08.5.  
29 Once the Contractor removes a section of line or pump station from service he/she is  
30 responsible to bypass any and all flow in the system during construction, even in the  
31 event the system surcharges and exceeds the full pipe capacity, until the line or pump  
32 station is returned to service.

### 33 34 **7-08.3(5)D Bypass Pumping Plan**

35  
36 The Contractor shall submit Bypass Pumping Plans for each location included in the  
37 Contract in accordance with Section 1-05. The Contractor's plans for bypass pumping  
38 shall be reviewed by the Contracting Agency before the Contractor will be allowed to  
39 commence bypass pumping. The review of the bypassing system and equipment by the  
40 Engineer shall in no way relieve the Contractor of his responsibility and public liability.

41  
42 At a minimum, the bypass pumping plan for each location shall include the following:

- 43 1. Location of pumps and generators
- 44 2. Method, type, and size of plugs
- 45 3. Size, material, location, and method of installation of suction piping
- 46 4. Size, material, location, and method of installation of discharge piping
- 47 5. Bypass pump sizes, capacity, number of each to be on site
- 48 6. For pipes sized 12-inches and greater (excluding catch basins), calculations of  
49 static lift, friction losses, and flow velocity, including pump performance curves  
50 showing pump operating range
- 51 7. Power generator and standby size and location

- 1 8. Method of noise control for pumps and generators to comply with the City's noise
- 2 ordinance, Tacoma Municipal Code Chapter 8.122 if necessary
- 3 9. Calculations for selection of bypass pumping pipe sizes
- 4 10. Method of protecting discharge manholes from erosion or damage
- 5 11. All backup equipment including pumps, hoses, generators, and pipe
- 6 12. Contractor's 24-hour emergency contact name and phone number
- 7 13. Description of proposed contingency plan and clean up method for any spills that
- 8 may occur.
- 9

10 **7-08.3(6) Abandon Existing Pipe**

11  
12 If construction of the new sewer pipe does not result in the removal of the existing pipe  
13 due to differing alignments, then the existing pipe shall be abandoned in place as shown  
14 in the Plans. The Contractor shall plug all pipe branches, stubs, or other open ends of  
15 the pipe to be abandoned and fill with CDF. The Contractor shall submit a Pipe  
16 Abandonment Plan in accordance with Section 1-05.3 describing the proposed methods  
17 for filling the pipes with CDF, specifically addressing how the pipes will be filled in a  
18 manner that will prevent air pockets from being left in the abandoned pipe. The CDF mix  
19 design shall meet the requirements of Section 2-09.3(1)E.

20  
21 If the pipes to be abandoned are removed and disposed of during construction of the  
22 new sewers, all costs for the removal and disposal shall be included in the unit contract  
23 price for "Structure Excavation, Class B," at per cubic yard.

24  
25 **7-08.4 Measurement**

26 *This section is supplemented with the following:*

27  
28 Abandonment of existing sewer pipes will be measured by the cubic yard of CDF  
29 necessary to fill the existing pipes.

30  
31 **7-08.5 Payment**

32 *This section is supplemented with the following:*

33  
34 "CDF for Pipe Abandonment", per cubic yard.

35  
36 The unit Contract price for "CDF for Pipe Abandonment" shall be full payment for all  
37 labor, materials, and equipment necessary to abandon the sewer pipes.

38  
39

1 **7-17 SANITARY SEWERS**

2 **(\*\*\*\*\*)**

3  
4 **7-17.1 Description**

5 *This section is supplemented with the following:*

6  
7 All references to sanitary sewer shall also mean storm sewers.

8  
9 **7-17.2 Materials**

10 *The first paragraph is revised to read:*

11  
12 Pipe materials used for storm and sanitary sewers shall be as shown on plans. All  
13 references to PVC shall mean Solid Wall PVC Sewer Pipe. Profile Wall PVC will not be  
14 permitted.

15  
16 *This section is supplemented with the following:*

17  
18 Polyvinyl Chloride (PVC) Pressure Pipe (4-inches and over) 9-30.1(5)A

19  
20 **7-17.3 Construction Requirements**

21  
22 **7-17.3(2)A General**

23 *The first paragraph is revised to read:*

24  
25 Sewers and appurtenances shall be cleaned and tested after backfilling by either  
26 exfiltration or low-pressure air method at the option of the Contractor, except where the  
27 ground water table is such that the Engineer may require the infiltration test.

28  
29 **7-17.3(2)H Television Inspection**

30 *The first sentence is revised to read:*

31  
32 The Contractor shall video inspect all sanitary and storm sewers prior to paving where  
33 paving occurs over sewers, or prior to final acceptance.

34  
35 **7-17.3(3) Technical Requirements**

36 *Add the following new section:*

37  
38 **General**

39 The Contractor shall hire a third-party television inspection company to perform  
40 television inspection services on all new full segments and partial segments of sanitary  
41 and storm sewer mains and side sewers, including the connection point between new  
42 and existing pipes, and newly constructed manholes. The television inspection  
43 subcontractor must attend the Pre-Construction Conference in order to discuss the  
44 submittal process and required formatting of videos and databases, as described in this  
45 Section.

46  
47 **Schedule & Review Requirements**

48 CCTV inspections shall be performed in accordance with the excavation and paving  
49 criteria defined in Section 1-08.4 of these Specifications. Final pavement restoration  
50 shall not occur until the Contracting Agency has approved all applicable pipe segments,  
51 video files, and databases within the paving limits.

1  
2 The Contractor shall provide the Contracting Agency 72 hours of advance notice so that  
3 the Engineer may be present during the inspection if so elected. The inspection video  
4 and associated database file for each pipe segment, including all side sewers (if  
5 applicable), shall be submitted to the Contracting Agency for review and approval within  
6 ten (10) working days of the installation. The Engineer may take up to three working  
7 days to review the files. If more than three working days are required for the Engineer's  
8 review of the videos, an extension of time will be considered in accordance with Section  
9 1-08.8. No claim will be allowed for damages and no extension of time will be granted  
10 resulting from the rejection of a video or database due to not meeting the technical  
11 requirements or construction defects identified in the video.  
12

### 13 **Inspection and Video Criteria**

14 CCTV inspection work shall be completed by certified National Association of Sewer  
15 Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP)  
16 trained operator(s) using established PACP coding and observations. Coding and  
17 observation results shall be recorded and presented on a per asset basis, from structure  
18 to structure. A pipe asset is defined as one continuous pipe from the upstream structure  
19 to the downstream structure. Footage shall be recorded with the starting and ending  
20 points being the center of the manholes and/or catch basins, with the exception that if  
21 partial segments are constructed in this Contract, including side  
22 sewers, the inspection only needs to show all new work up to and including the  
23 connection to the existing pipe. Inspections shall be performed after the manhole has  
24 been channeled and the camera operator shall pan around and record the inside of  
25 each manhole and/or catch basin constructed in this project at the start and end of each  
26 inspection. The television camera shall have a resolution of 700 lines minimum and  
27 shall have a source of illumination attached to it.  
28

29 The video files shall be recorded and submitted in WMV format and include an  
30 unmodified NASSCO-PACP Certified Access Database conducted entirely in digital  
31 format with electronic reference to the survey which is intended to be imported into the  
32 Contracting Agency's viewing software, GraniteNet. The PACP database must be in  
33 MDB format and shall include the Contracting Agency's SAP ID for pipe segments and  
34 structures. No other file formats will be accepted unless approved by the Contracting  
35 Agency.  
36

37 All videos and database files shall be submitted via the Internet web-based project  
38 management communications tool, e-Builder software. The Contractor shall review  
39 each video and database prior to submitting to confirm formatting is correct and no pipe  
40 repairs are needed.  
41

42 The Contractor shall provide video identifying each pipe segment by manhole, catch  
43 basin, and pipe segment SAP ID numbers. The inspection shall identify all connections,  
44 general conditions of the sewer pipelines, problem areas, location of all connections or  
45 problem areas by linear footage, and observations concerning the condition of the pipe  
46 joints. The camera system used shall be capable of travelling up to 500 linear feet.  
47

48 Although newly constructed, the sewers will likely be in service with flow present during  
49 inspections. The Contractor shall clean the main within 24 hours of the CCTV  
50 inspection. The lens shall remain clean and clear for the duration of the inspection.  
51 Should the lens become soiled, or fogged, or otherwise impaired to any degree that

1 impedes the ability to clearly see the condition of the pipe, the inspection shall be halted  
2 to clean and clear the lens. No additional compensation will be made for re-inspections  
3 required by the Contracting Agency due to soiled, fogged, or otherwise impaired camera  
4 lenses.

5  
6 The Contractor shall maintain sufficient light levels within the main to allow for visual  
7 inspection of the pipe walls for a minimum of four feet for all pipe sizes. Additionally, the  
8 Contractor shall make certain that the light levels are not so bright that visual inspection  
9 is impeded.

10  
11 The CCTV Inspection shall be a continuous, unedited video and shall include the  
12 following information:

- 13 • Date of Inspection
- 14 • Main segment number
- 15 • Upstream and downstream manhole and/or catch basin numbers
- 16 • Current distance along the mainline

17  
18 In addition, the Contractor shall perform wastewater side sewer inspections where they  
19 exist via a mainline camera with a lateral launching setup. The lateral launch camera  
20 shall be capable of extending at least 30 feet from the main into side sewers and shall  
21 include an on-screen footage counter. The quality of the side sewer inspection shall  
22 meet the same requirements as the mainline camera. The lateral launch camera must  
23 be self-leveling and shall also include a sonde transmitter to locate the side sewer in the  
24 event of a defect. All side sewer inspections within a given segment shall be  
25 incorporated into the same video and database file as the mainline inspection.

26  
27 The Contractor shall bear all costs incurred in correcting any deficiencies found during  
28 television inspection including the cost of any additional cleaning and television  
29 inspection that may be required by the Engineer to verify the correction of said  
30 deficiency.

31  
32 The Contractor shall be responsible for all costs incurred in any television inspection  
33 performed solely for the benefit of the Contractor.

34  
35  
36 **7-17.4 Measurement**

37 *This section is supplemented with the following:*

38  
39 Removal and replacement of unsuitable, contaminated and non-contaminated, backfill  
40 material will be determined by the cubic yard in place, based on a neat line  
41 measurement per this Section and Section 2-09. Any removal and replacement of  
42 unsuitable material outside neat line measurement shall be incidental to the Bid item.

43  
44 No specific unit of measurement will apply for television inspection as required in this  
45 section. All costs shall be included in the per foot price of pipe installed.

1  
2 **Horizontal Limits:** The horizontal limits shall be as defined in Section 2-09.4.

3  
4 **Longitudinal Limits:** The longitudinal limits shall be as defined in Section 2-09.4.

5  
6 **Lower Limits:** The lower limits shall be the top of the pipe zone as shown on Standard  
7 Plan No. SU-16.

8  
9 **Upper Limits:** The upper limits shall be the subgrade elevation of the proposed  
10 roadway section or pavement patch section.

11  
12 All costs associated with the disposal of material located above the upper limits shall be  
13 included in the unit contract price for other items of work, unless a proposal item is  
14 included for this specific item of work.

15  
16 Pipe zone limits are as defined in Standard Plan SU-16.

17  
18 **7-17.5 Payment**

19 *The first paragraph is supplemented with the following:*

20  
21 “Ductile Iron Storm Sewer Pipe 12 In. Diam.”, per linear foot.

22  
23 *The second paragraph is revised to read:*

24  
25 The unit Contract price per linear foot for sewer pipe of the kind and size specified shall  
26 be full pay for the furnishing, hauling, and assembling in place the complete installation,  
27 including but not limited to, disposal of material excavated within the pipe zone,  
28 furnishing and installing pipe bedding and backfill material within the pipe zone, cleaning,  
29 and all wyes, tees, special fitting, joint materials, and other appurtenances necessary for  
30 the completion of the installation to the required line and grade, unless proposal items  
31 are included for these specific items of work, and shall also include all costs associated  
32 with cleaning the pipe and performing and submitting television inspection videos.  
33 Sewer pipe per linear foot shall not be paid until the Contracting Agency has approved  
34 the CCTV inspection video and database, and provided approval of the pipe segment.

35  
36 *The pay item “Removal and Replacement of Unsuitable Material” is revised to read:*

37  
38 “Removal and Replacement of Unsuitable Material”, per cubic yard.

39  
40 The unit Contract price per cubic yard for “Removal and Replacement of Unsuitable  
41 Material” shall be full pay for all work required to haul and dispose of the unsuitable  
42 material as specified in Section 7-08.3(1)A and the furnishing of suitable backfill material  
43 as specified in Section 7-08.3(3).

44  
45 **All material excavated from the trench shall be considered unsuitable for backfill**  
46 **above the pipe zone and shall be removed and replaced with imported backfill,**  
47 **meeting the requirements of Section 9-03.12(2) and paid for in the bid item**  
48 **“Removal and Replacement of Unsuitable Material”.**

49  
50  
51 **END OF SECTION**



1 **7-20 RESIDENTIAL STORM DRAIN THROUGH CURB**  
2 **(\*\*\*\*\*)**

3  
4 **7-20.1 Description**  
5

6 This work consists of furnishing and installing residential storm drains under sidewalks  
7 as located and detailed in the Plans and Specifications.

8  
9 **7-20.2 Materials**

10

11	PVC Drain Pipe, couplings and fittings	9-05.1(5)
12	Ductile Iron Drain Pipe, couplings and fittings	9-05.13
13	Wire Mesh Reinforcement	9-07.7
14	Grout	9-20.3

15  
16 **7-20.3 Construction Requirements**  
17

18 The Contractor shall construct the residential storm drain through curb as shown in City  
19 of Tacoma Standard Plan SU-29 for a residential storm drain through concrete curb and  
20 gutter and City of Tacoma Standard Plan SU-29A for a residential storm drain sidewalk  
21 and through asphalt wedge curb. The slope of the drain pipe shall match the cross  
22 slope of the sidewalk including grade-breaks in the sidewalk.

23  
24 **7-20.4 Measurement**  
25

26 Residential Storm Drain Through Curb shall be measured per each residential storm  
27 drain installed according to Standard Plan SU-29.

28  
29 **7-20.4 Payment**  
30

31 Payment will be made in accordance with Section 1-04.1 for each of the following listed  
32 Bid Items that is included in the proposal.

33  
34 "Residential Storm Drain Through Curb", per Each.

35  
36 The unit Contract price per each for "Residential Storm Drain Through Curb" shall be full  
37 pay for all labor, materials, and equipment required to construct as shown in the  
38 Standard Plans.

39  
40 **END OF SECTION**

41  
42

1 **8-01 EROSION CONTROL AND WATER POLLUTION CONTROL**

2 **(\*\*\*\*\*)**

3  
4 **8-01.1 Description**

5 *This section is supplemented with the following:*

6  
7 The City of Tacoma Stormwater Management Manual is available on the City’s website  
8 at [www.cityoftacoma.org/stormwatermanual](http://www.cityoftacoma.org/stormwatermanual).

9  
10 The City of Tacoma has been issued a Washington State Department of Ecology  
11 NPDES Construction Stormwater General Permit for this project. This Work also  
12 consists of administration and compliance with the requirements of this permit for this  
13 project. A copy of this permit is included in the Appendix of these Special Provisions.

14  
15 **8-01.3(1) General**

16 *The third sentence of the first paragraph is revised to read:*

17  
18 The adaptive management shall use the means and methods identified in this section  
19 and the means and methods identified in the Washington State Department of  
20 Transportation’s *Temporary Erosion and Sediment Control Manual* or the City of  
21 Tacoma’s *Stormwater Management Manual* for construction stormwater.

22  
23 *This section is supplemented with the following:*

24  
25 The Contractor shall perform all work in compliance with the NPDES Construction  
26 Stormwater General Permit issued for this project.

27  
28 The permit shall be transferred to the Contractor prior to issuance of a Notice to Proceed  
29 and terminated upon completion of the project per the following:

- 30  
31 1. The City will provide the Contractor with a Transfer of Coverage form prior to  
32 issuing a Notice to Proceed.  
33 2. The Contractor shall sign and return the Transfer of Coverage form to the City.  
34 3. The City will process the transfer and pay any associated transfer fees to the  
35 Washington State Department of Ecology.  
36 4. Once the transfer is complete and a Notice to Proceed has been issued, the  
37 Contractor is responsible for performing all work in compliance with the permit  
38 and the plans and specifications.  
39 5. The Contractor shall pay any renewal fees if the need for permit renewal is  
40 caused by contractor, otherwise the City will pay all renewal fees.  
41 6. Upon Physical Completion of the Work the Contractor shall submit a Notice of  
42 Termination to the Washington State Department of Ecology and provide the  
43 City documentation that the termination is effective.

44  
45 **8-01.3(1)A Submittals**

46 *This section is revised to read:*

47  
48 The Contractor shall prepare and implement a project-specific Construction Stormwater  
49 Pollution Prevention Plan (SWPPP) in accordance with the City of Tacoma Stormwater  
50 Management Manual (SWMM), Volume 2. The SWPPP is a document that describes

1 the potential for pollution problems on a construction site and explains and illustrates the  
2 measures to be taken on the construction site to control those problems.

3  
4 The Construction SWPPP shall be prepared as a stand-alone document consisting of  
5 two sections: Section 1) Construction SWPPP Narrative and Section 2) Temporary  
6 Erosion and Sediment Control (TESC) Plans.

7  
8 The Contracting Agency has prepared the Construction Stormwater Pollution Prevention  
9 Plan Checklist to aid the Contractor in development of the SWPPP. This checklist  
10 provides the Contractor with a tool to determine if all the major items are included in the  
11 Construction SWPPP and on the TESC Plans and can be found in Volume 2, Chapter 2  
12 of the SWMM. Contractors are encouraged to complete and submit this checklist with  
13 the Construction SWPPP.

14  
15 The City of Tacoma has prepared a SWPPP template that can be used for projects in  
16 the City of Tacoma. The template can be found on Tacoma's website at:  
17 <https://www.cityoftacoma.org/cms/One.aspx?portalId=169&pageId=144265>. The  
18 Contractor developing the SWPPP must ensure that all references are appropriate for  
19 the Project.

20  
21 The SWPPP is considered a "living" document that shall be revised to account for  
22 additional erosion control/pollution prevention BMPs as they become necessary and are  
23 implemented in the field during project construction. A copy of the most current SWPPP  
24 and TESC Plan shall remain on-site at all times and an additional copy shall be  
25 forwarded to the Engineer. At the Contractor's preference, revisions to the SWPPP and  
26 TESC Plan may be forwarded to the Engineer rather than submitting a complete  
27 document. Revisions to the SWPPP and TESC Plan may be kept on-site in a file along  
28 with the original SWPPP document.

29  
30 The Contractor shall provide Stormwater Pollution Prevention Plan inspection reports or  
31 forms per 8-01.3(1) B to the Project Engineer no later than the end of the next working  
32 day following the inspection.

### 33 34 **8-01.3(1)B Erosion and Sediment Control (ESC) Lead**

35 *This section is revised to read:*

36  
37 The Contractor shall identify the ESC Lead at the Preconstruction Meeting and the  
38 contact information for the ESC Lead shall be added to the Stormwater Pollution  
39 Prevention Plan (SWPPP) Report and the Temporary Erosion and Sediment Control  
40 (TESC) Plan Sheet. The ESC Lead shall maintain, for the life of the contract, a current  
41 Certified Erosion and Sediment Control Lead (CESCL) certificate or maintain a current  
42 Certified Professional in Erosion and Sediment Control (CPESC) certificate from a  
43 course approved by the Washington State Department of Ecology. The CESCL or  
44 CPESC shall be listed on the Emergency Contact List required under Section 1-  
45 05.13(1).

46  
47 The CESCL or CPESC shall direct implementation of the measures identified in the  
48 SWPPP and as shown on the TESC plan. Implementation shall include, but is not  
49 limited to the following:

- 1 1. Installing and maintaining all temporary erosion and sediment control Best  
2 Management Practices (BMPs) included in the SWPPP and as shown on the  
3 TESC plan. Damaged or inadequate BMPs shall be corrected as needed to  
4 assure continued performance of their intended function in accordance with  
5 BMP specifications and Permit requirements.
- 6 2. Performing monitoring as required by the NPDES Construction Stormwater  
7 General Permit.
- 8 3. Inspecting all on-site erosion and sediment control BMPs at least once every  
9 calendar week and within 24 hours of any discharge from the site. A SWPPP  
10 Inspection report or form shall be prepared for each inspection and shall be  
11 included in the SWPPP file. A copy of each SWPPP Inspection report or  
12 form shall be submitted to the Engineer no later than the end of the next  
13 working day following the inspection. The report or form shall include, but not  
14 be limited to the following:
  - 15 a. When, where, and how BMPs were installed, maintained, modified,  
16 and removed.
  - 17 b. Observations of BMP effectiveness and proper placement.
  - 18 c. Recommendations for improving future BMP performance with  
19 upgraded or replacement BMPs when inspections reveal SWPPP  
20 inadequacies.
  - 21 d. Approximate amount of precipitation since last inspection and when  
22 last inspection was performed.
- 23 4. Updating and maintaining a SWPPP file on site that includes, but is not  
24 limited to the following:
  - 25 a. SWPPP Inspection Reports or Forms.
  - 26 b. SWPPP narrative.
  - 27 c. National Pollutant Discharge Elimination System Construction  
28 Stormwater General Permit (Notice of Intent).
  - 29 d. All documentation and correspondence related to the NPDES  
30 Construction Stormwater General Permit.
  - 31 e. Other applicable permits.

32  
33 Upon request, the file shall be provided to the Engineer for review.

### 34 35 **8-01.3(1)C Water Management**

36 *This section is revised to read:*

37  
38 **General.** The Contractor is responsible for keeping excavations free from standing  
39 water during construction and disposing of the water in a manner that will not cause  
40 pollution, injury to public or private property, or cause a nuisance to the public.  
41 Groundwater flowing toward, into, or within excavations shall be controlled to prevent  
42 sloughing of excavation walls, boils, uplift, and heave in the excavation, and to eliminate  
43 interference with orderly progress of construction. The control of groundwater shall be  
44 such that softening of the bottom of excavations, or formation of “quick” conditions or  
45 “boils” during excavation, shall not occur. The Contractor is responsible for all  
46 foundation material required due to lack of dewatering efforts.

47  
48 **Dewatering Requirements.** The Contractor shall design, construct, and operate a  
49 dewatering system in accordance with this Section and the SAD Authorization. The  
50 Contractor shall have competent workers available at all times for the continuous and  
51 successful operation of the dewatering and monitoring system.

1  
2 **Dewatering Plan.** The Contractor shall submit a dewatering plan to the Engineer for  
3 review in accordance with Section 1-05.3 prior to the start of construction. Review of the  
4 dewatering plan submitted by the Contractor shall not relieve the Contractor from full  
5 responsibility for adequate design and performance of the system. The Contractor shall  
6 be solely responsible for the proper design, installation, operation and maintenance of  
7 the dewatering system. The Contractor shall be liable for any damages caused by  
8 system failure.

9  
10 The dewatering plan shall include the following components:

- 11  
12 1. System Components – Describe the method and equipment proposed for  
13 dewatering the excavation. The Contractor shall have on hand sufficient  
14 pumping equipment and machinery in good working condition for all  
15 emergencies, including power outage and flooding
- 16 2. Treatment Method – Describe how dewatering water that is to be  
17 discharged to the City's sanitary sewer system will be treated to meet the  
18 applicable discharge limits of the Special Approved Discharge  
19 Authorization and Tacoma Municipal Code 12.08. Provide applicable  
20 calculations.
- 21 3. Point of Discharge – Describe the point of discharge of the dewatering  
22 water. Any discharges to private property will require written  
23 documentation from the property owner that this point of discharge is  
24 permitted. The Contractor shall provide all proposed points of discharge  
25 as part of the Special Approved Discharge Authorization Application.
- 26 4. Maintenance Plan – Describe how the designed system will be  
27 maintained over the course of the project.
- 28 5. Monitoring Plan – Describe how discharge will be monitored to ensure  
29 compliance with all discharge requirements.
- 30 6. Special Approved Discharge (SAD) Authorization Application – The  
31 Contractor shall apply for a SAD Authorization as part of the dewatering  
32 plan. No discharge of dewatering water to the City's sewer systems will  
33 be permitted without obtaining this authorization. The City Construction  
34 Manager will provide the SAD authorization application to the Contractor  
35 after award of the contract.

36  
37 **Requirements for Dewatering Water Discharge to the Storm Sewer System.**

38 Dewatering water will not be permitted to be discharged into the storm water system on  
39 this project.

40  
41 **Requirements for Dewatering Water Discharge to the Sanitary Sewer System.**

42 Prior to discharge of dewatering water to the City's sanitary sewer system, sediment  
43 control BMPs must be employed. Groundwater discharges to the sanitary sewer system  
44 shall have 225 mg/L or less of Total Suspended Solids (TSS). TSS analysis may be  
45 completed by the City Lab with a three-day turnaround, or by a third party laboratory at  
46 no additional cost to the City.

47  
48 In addition to the TSS Requirements, the water shall contain no visible oil sheen or  
49 chemical odors. If the Contractor encounters any signs of oil within the soil or  
50 dewatering water, including any sheen on the water, and/or any chemical odor in the

1 water or soils, the Engineer and Source Control shall be notified immediately and all  
2 discharges to the sanitary sewer system shall be stopped immediately.

3  
4 In the presence of oil sheens and/or chemical odors, the Contractor shall test the  
5 dewatering water prior to discharge for contaminants referenced in the Special Approved  
6 Discharge Authorization and Tacoma Municipal Code 12.08.020. All discharges to the  
7 City’s sanitary sewer system shall not exceed the limits of the Special Approved  
8 Discharge Authorization or TMC 12.08.020, whichever is most stringent.

9  
10 The Contractor shall control the flow of water into the downstream system to ensure that  
11 the capacity of the City’s sanitary sewer system is not exceeded as a result of the  
12 additional flows caused by the dewatering water. The Contractor shall contact the  
13 Engineer to request pipe capacity information for the Contractor’s proposed discharge  
14 points.

15  
16 The Contractor shall measure and record in gallons the total quantity of dewatering  
17 water discharged to the sanitary sewer system. This can be done by metering the flow  
18 or calculating batch discharges based on the volume of tanks used. In accordance with  
19 the SAD Authorization, the Contractor shall report the discharge quantities with the  
20 associated test results to Source Control.

21  
22 **8-01.3(2) Temporary Seeding and Mulching**

23  
24 **8-01.3(2)B Temporary Seeding**

25 *The first paragraph is supplemented with the following:*

26  
27 All seeding areas shall be seeded with the following mix:

28

Type of Seed	% by Weight
Chewings or Annual Bluegrass <i>Festuca rubra var. commutate or Poa anna</i>	40
Perennial Rye <i>Lolium perenne</i>	50
Redtop or Colonial Bentgrass <i>Agrostis alba or Agrostis tenuis</i>	5
White Dutch Clover <i>Trifolium repens</i>	5

29  
30 The rate of application shall be 120 lbs per acre.

31  
32 Seeding fertilizer shall be per seed supplier’s recommendations for hydroseed  
33 application.

34  
35 *The fifth paragraph is supplemented with the following:*

36  
37 Seed shall be distributed uniformly over the designated area. Half of the seed shall be  
38 sown with the sower moving in one direction, and the remainder with the sower moving  
39 at right angles to the first sowing.

1 **8-01.3(2)D Temporary Mulching**

2 *This section is supplemented with the following:*

3  
4 The Contractor shall reapply mulch as needed to protect exposed soil and seeded areas  
5 from erosion.

6  
7 **8-01.3(2)E Tackifiers**

8 *This section is supplemented with the following:*

9  
10 The Contractor shall follow the requirements of the City of Tacoma Surface Water  
11 Management Manual BMP C120 for using tackifiers with hydro seeding.

12  
13 **8-01.3(7) Stabilized Construction Entrance**

14 *The third paragraph is revised to read:*

15  
16 When the contract requires a wheel wash in conjunction with the stabilized entrance, the  
17 details for the wheel wash and the method for containing and treating the sediment-  
18 laden runoff shall be included as part of the SWPPP and TESC Plan.

19  
20 **8-01.3(8) Street Cleaning**

21 *The fourth paragraph is revised to read:*

22  
23 Street washing with water shall not be permitted.

24  
25 **8-01.3(9)D Inlet Protection**

26 *Replace the third paragraph of this section with the following:*

27  
28 When the depth of accumulated sediment and debris reaches approximately 1/3 the  
29 height of an internal device or 1/3 the height of the external device (or less when so  
30 specified by the manufacturer), or as designated by the Engineer, the sediment and  
31 debris shall be removed and disposed of per SWMM BMP C220 or as specified on the  
32 Plans or within the SWPPP.

33  
34 *The section is supplemented with the following:*

35  
36 Only bag-type filters are allowed for use in the public right of way.

37  
38 **8-01.3(10) Wattles**

39 *The fifth and sixth sentences of the first paragraph are revised to read:*

40  
41 On gradually sloped or clay-type soils trenches shall be 3 to 5 inches deep. On loose  
42 soils, in high rainfall areas, or on steep slopes, trenches shall be 3 to 5 inches deep, or  
43 1/2 to 2/3 the thickness of the wattle, whichever is greater.

44  
45 **8-01.4 Measurement**

46  
47 **8-01.4(2) Item Bids**

48 *This section is supplemented with the following:*

49  
50 No specific unit of measurement shall apply to the lump sum item "Stormwater Pollution  
51 Prevention Plan (SWPPP)".

1  
2 No specific unit of measurement shall apply to the lump sum item “NPDES Construction  
3 Stormwater General Permit”.

4  
5 No specific unit of measure shall apply to the lump sum item “Erosion Control”.

6  
7 **8-01.5 Payment**

8 *This section is supplemented with the following:*

9  
10 Where removal of erosion control BMPs is directed by the Engineer according to 8-  
11 01.3(16) or according to these specification and the plans, removal shall be included in  
12 the lump sum or unit cost for these respective BMPs.

13  
14 **8-01.5(2) Item Bids**

15 *This section is supplemented with the following:*

16  
17 “Stormwater Pollution Prevention Plan (SWPPP)”, per lump sum

18  
19 The lump sum contract price for “Stormwater Pollution Prevention Plan (SWPPP)” shall  
20 be full pay for all costs, including but not limited to, preparing, submitting, revising, and  
21 resubmitting revisions for the Stormwater Pollution Prevention Plan.

22  
23 “Erosion/Water Pollution Control”, per lump sum.

24  
25 The lump sum contract price for “Erosion/Water Pollution Control” shall be full pay for all  
26 cost for labor, equipment, and materials to perform all work associated with erosion  
27 control. Work shall include, but shall not be limited to, furnishing, purchase and delivery  
28 or required materials, installation and maintenance of temporary erosion and sediment  
29 control measures, and all costs incurred by the Contractor in performing the Contract  
30 Work defined in Section 8-01, except for unit bid items in Section 8-01 when these are  
31 included in the bid proposal. It is the Contractor’s responsibility to maintain, repair, and  
32 replace any and all erosion control measures as required to maintain compliance with  
33 the NPDES Construction Stormwater General Permit and Tacoma Municipal Code 12.08  
34 for the entire duration of the Project.

35  
36  
37  
38 **END OF SECTION**  
39  
40  
41



1 **8-02 ROADSIDE RESTORATION**

2 **(\*\*\*\*\*)**

3  
4 **8-02.1 Description**

5 *This section is supplemented with the following:*

6  
7 This Work shall include roadside maintenance and construction cleanup in accordance  
8 with the Specifications.

9  
10 **8-02.2 Materials**

11 *This section is supplemented with the following:*

12  
13 Root barrier shall be rigid-type root barrier module panels and shall be at least  
14 75 percent recycled polypropylene or high-impact polystyrene with added ultraviolet  
15 inhibitors. Material shall have 0.060-inch to 0.075-inch wall thickness, 18-inch height.  
16 Panels shall have reinforcing ribs 1/2-inch deep, raised vertical ribs running  
17 perpendicular to sheet, 6 inches on center.

18  
19 **8-02.3 Construction Requirements**

20 *This section is supplemented with the following:*

21  
22 Soil excavated in connection with this Work shall be included in the measurements and  
23 payments for "Roadway Excavation \_\_\_\_ Incl. Haul" in accordance with Section 2-03,  
24 Roadway Excavation and Embankment.

25  
26 The Contractor shall haul and dispose of all soil material excavated from the Project site  
27 in accordance with Section 2-03.

28  
29 **8-02.3(1) Responsibility During Construction**

30 *The third paragraph is revised to read:*

31  
32 The Contractor shall protect existing trees, grass and vegetation in accordance with the  
33 Plans and Section 1-07.16(2). The Contractor shall protect existing planting beds, lawn  
34 and grass areas as shown per Plans in accordance with City of Tacoma Standard Plan  
35 GSI-01a. The Contractor shall protect existing trees in accordance with City of Tacoma  
36 Standard Plans LS-08, LS-09, LS-10, and LS-11, unless these are to be removed per  
37 Plans and Specifications.

38  
39 *This section is supplemented with the following:*

40  
41 The Contactor shall not dump or stockpile topsoil, compost, mulch, or any other  
42 landscape materials directly on roadway surfaces and shall employ the appropriate  
43 BMPs for stockpiling at a stockpile site out of the right-of-way. The Contractor shall  
44 place landscape materials such as Topsoil, Compost or Mulch immediately upon  
45 delivery to the jobsite. The Contractor may request to stockpile these materials in writing  
46 by submitting a Roadside Work Plan. Stockpiling in the public right-of-way shall only be  
47 permitted as approved in writing by the Engineer.

48  
49 The Contractor shall notify the Engineer of any conflict between the proposed work and  
50 any obstructions, and shall repair damage in accordance with Section 1-07.16,  
51 Protection and Restoration of Property.

1  
2 Prior to starting work, the Contractor shall locate and protect all underground utilities in  
3 accordance with Section 1-07.17, Utilities and Similar Facilities.

4  
5 **8-02.3(2)A Roadside Work Plan**

6 *Item 1.b. is revised to read:*

7  
8 Means and Methods for vegetation protection in accordance with City of Tacoma  
9 Standard Plans GSI-01a, LS-08, LS-09, LS-10, and LS-11; and Section 1-  
10 07.16(2).

11  
12  
13 **8-02.3(4) Topsoil**

14 *This section is supplemented with the following:*

15  
16 The Contractor shall use Topsoil Type A in accordance with Special Provisions Section  
17 9-14.2 unless otherwise shown on the Plans or as approved by the Engineer.

18  
19 **8-02.3(4)A Topsoil Type A**

20 *This section is revised to read:*

21  
22 Topsoil Type A shall be an imported topsoil and compost mix from a topsoil supplier or  
23 certified composting facility in accordance with Section 9-14.5(8). The Contractor shall  
24 place, till and fine grade Topsoil Type A in accordance with Section 8-02 and City of  
25 Tacoma Standard Plan GSI-01d. Topsoil Type A shall conform to Sections 9-14.2 and  
26 9-14.2(1). The Contractor shall submit a certification by the supplier that the contents of  
27 the Topsoil meet the requirements in the Special Provisions.

28  
29 **8-02.3(4)B Topsoil Type B**

30 *This section is supplemented with the following:*

31  
32 The Contractor shall stockpile, place, amend with compost, till and fine grade Topsoil  
33 Type B in accordance with Section 8-02 and City of Tacoma Standard Plan GSI-01c.

34  
35 **8-02.3(4)C Topsoil Type C**

36 *This section is supplemented with the following:*

37  
38 The Contractor shall stockpile, place, amend with compost, till and fine grade Topsoil  
39 Type C in accordance with Section 8-02 and City of Tacoma Standard Plan GSI-01c.

40  
41  
42 **8-02.3(5) Roadside Seeding, Lawn and Planting Area Preparation**

43 *This section is supplemented with the following:*

44  
45 All grades shall be maintained in the areas to be planted in a true and even condition.  
46 The contractor shall be careful not to disturb any of the existing or cut slopes. Where  
47 final grades have not been established, the areas shall be finish graded and all surfaces  
48 left in an even and compacted condition. The finished grade shall be such that after  
49 planting, the grade shall be flush with adjoining surfaces; positive drainage shall also be  
50 maintained.

1 **8-02.3(5)A Seeding Area Preparation**

2 *Item 4. of this section is revised to read:*

- 3
- 4 4. Amended topsoil shall be cultivated to a depth of **8** inches or imported  
5 and placed in accordance with Standard Plans GSI-01b through GSI-01d.  
6 Rake to a smooth even grade without low areas that trap water and  
7 compact. The finished grade of the soil shall be 1 inch below the top of all  
8 curbs, junction and valve boxes, walks, driveways and other structures.  
9

10 **8-02.3(5)B Lawn Area Preparation**

11 *Item 3 is supplemented with the following:*

12

13 The depth of cultivation shall be 4 inches.

14

15 *Item 4 is revised to read:*

- 16
- 17 4. Amended topsoil shall be cultivated to a depth of **8** inches settled depth or  
18 imported and placed in accordance with Standard Plans GSI-01b through  
19 GSI-01d. Rake to a smooth even grade without low areas that trap water  
20 and compact. The finished grade of the soil shall be 1 inch below the top  
21 of all curbs, junction and valve boxes, walks, driveways and other  
22 structures.  
23

24 **8-02.3(5)C Planting Area Preparation**

25 *Items 5. of this section is revised to read:*

- 26
- 27 4. Amended topsoil shall be cultivated to a depth of **8** inches or imported  
28 and placed in accordance with Standard Plans GSI-01b through GSI-01d.  
29 Do not till or place loose topsoil without compaction and stabilization  
30 measures on slopes 3H:1V or steeper.  
31

32 *Item 7 is supplemented with the following:*

33

34 The finished grade shall be such that after planting, the grade shall be flush with  
35 adjoining vegetative surfaces; positive drainage shall also be maintained.  
36

37 *Add the following new Item:*

- 38
- 39 9. The contractor shall be careful not to disturb any of the existing or cut  
40 slopes.  
41

42 **8-02.3(6) Mulch and Amendments**

43 *This section is supplemented with the following:*

44

45 Existing Topsoil areas shall be amended in place with Compost in accordance with  
46 Standard Plan GSI-01b as specified or as shown per Plans.  
47

48 Compost amendment shall be included in Topsoil Type A, B, or C in accordance with  
49 Standard Plans GSI-01c and GSI-01d, and compost content is included in the Topsoil  
50 quantity.  
51

1 Soil Amendment General Requirements:

- 2
- 3 1) Soil Amendment areas, as described in this specification, shall include an amended
- 4 topsoil layer with a minimum depth of 8 inches
- 5
- 6 2) Planting beds shall be stabilized with bark or wood chip mulch to the depths specified
- 7 on the Plans.
- 8
- 9 3) Sequencing and Scheduling: Do not perform soil preparation work in areas subject to
- 10 the subsequent work of other sections, unless approved otherwise.
- 11
- 12 4) Contractor has the option of amending the soils at the “Pre-Approved Rates” as
- 13 specified in the below Soil Amendment Layer Table, or performing soil amendment at
- 14 the “Calculated Rates” required to meet the performance criteria specified in the Soil
- 15 Amendment Layer Table. Contractor shall perform soil characterization testing and
- 16 have a qualified professional perform the soil amendment calculations as outlined in
- 17 Section 8-02.3(2)A Roadside Work Plan if choosing to amend soils to meet the
- 18 “Calculated Rates” performance criteria.

19

20 Scarification Layer:

21

22 Scarify or till subgrade to depth of 9-inches (as needed to achieve 12-inches of

23 loosened soil after amendment placed). Entire surface should be disturbed by

24 scarification prior to starting soil amendments. Do not scarify within drip line of

25 existing trees to be retained.

26

27 Soil Amendment Layer:

<b>A. Planting Beds:</b>	<b>B. Seeded Areas:</b>
i. PRE-APPROVED RATE: Place and rototill 3-inches of compost into 5-inches of soil;  ii. CALCULATED RATE: Place and rototill calculated amount of compost into depth of soil needed to achieve 8-inches of settled soil at minimum 10% organic content.	i. PRE-APPROVED RATE: Place and rototill 2-inches of compost into 6-inches of soil;  ii. CALCULATED RATE: Place and rototill calculated amount of compost into depth of soil needed to achieve 8-inches of settled soil at minimum 5% organic content.
Rake beds to smooth, and remove surface rocks over 2-inch diameter.	Water or roll to compact soil to 85% of maximum.
	Rake to level, and remove surface woody debris and rocks larger than 1- inch diameter.

28

29 **8-02.3(6)A Compost**

30 *This section is supplemented with the following:*

31

32 Compost as a surface applied mulch shall be Coarse Compost in accordance with BMP

33 C125, Section 1.12 and A900 – Compost, Chapter 21.9, of the City of Tacoma

34 Stormwater Management Manual.

35

36 The Contractor shall report the amount of cubic yards of Compost incorporated into the

37 project, both as mulch and as topsoil amendment or content. The Contractor shall

38 submit the quantity of Compost per type and supplier.

1 **8-02.3(8)C Pruning, Staking, Guying and Wrapping**

2 *This section is supplemented with the following:*

3  
4 Crossed or rubbing branches shall be removed providing the natural shape of the tree is  
5 preserved. Under no circumstances shall pruning be done prior to inspection and  
6 approval of plants by the Engineer. All cuts shall be made flush with the parent stem  
7 leaving no stubs. Pruning cuts shall be made in a manner to favor the earliest possible  
8 covering of the wound by callus growth. Cuts that produce large wounds and weaken  
9 the tree will not be acceptable.

10  
11 Top growth removal to compensate for root loss shall not exceed one-third (1/3) of the  
12 top growth unless otherwise specified or directed by the Engineer. Cuts created 3/4 inch  
13 in diameter shall be treated with an approved tree wound dressing. All pruning shall  
14 produce a clean cut without bruising or tearing the bark and shall be in living wood  
15 where the wood can properly heal over.

16  
17 Evergreens shall not be pruned, except to remove injured branches. The use of pole  
18 shears and/or hedge shears for pruning deciduous and evergreen trees will not be  
19 permitted. All trimmings and other debris left over from the planting operations shall be  
20 collected and disposed of off the site.

21  
22 All evergreen trees and deciduous trees over 15 feet in height shall be guyed with three  
23 wires or cables.

24  
25 All deciduous and evergreen trees shall be staked the same day of planting.

26  
27 *Add the following sections:*

28  
29 **8-02.3(8)D Root Barrier**

30  
31 The Contractor shall stake location for approval of the Engineer before proceeding with  
32 installation. Assemble the appropriate number of root barrier panels as required in the  
33 Plans. Trench immediately adjacent to hardscape to the appropriate depth for installation  
34 of specified root barrier so that top of barrier is 1/2 inch to 1 inch (12.7 mm to 25.4 mm)  
35 above finished soil grade. Place root barrier in trench, vertical ribs facing toward planting  
36 area and tree roots. Where possible, use pavement edge as a guide for root barrier  
37 alignment. Backfill adjacent planting soil against the root barrier to promote clean fit to  
38 hardscape. Fill to finish grade.

39  
40 **8-02.3(8)E Tree Watering Bags**

41  
42 The Contractor shall install one Tree Watering Bag per tree as shown on the plans,  
43 following completion of the planting at the start of the watering season. Install Tree  
44 Watering Bag in accordance with manufacturer's instructions and 8-02.3(18) Tree  
45 Watering Bag.

46  
47 **8-02.3(9) Seeding, Fertilizing, and Mulching**

48  
49 **8-02.3(9)A Dates for Seed Application**

50 *The first paragraph is revised to read:*

51

1 Unless otherwise allowed by the Engineer, and where no irrigation system is to be  
2 installed, seed shall be applied during the following periods only:

3  
4 March 1<sup>st</sup> – June 30<sup>th</sup>  
5 September 1<sup>st</sup> - October 25  
6

7 All seeding to be done through hydro-seeding.

8  
9 **8-02.3(9)B Seeding and Fertilizing**

10 *This section is supplemented with the following:*

11  
12 All seeding areas shall be seeded with the following mix:  
13

Type of Seed	% by Weight
Dwarf Tall Fescue (several varieties) <i>Festuca arundinacea var.</i>	45
Dwarf Perennial Rye (Barclay) <i>Lolium perenne var. Barclay</i>	30
Red Fescue <i>Festuca rubra</i>	20
Colonial Bentgrass <i>Agrostis tenuis</i>	5

14  
15 The rate of application shall be 120 lbs per acre.

16  
17 **8-02.3(10) Lawn Installation**

18  
19 **8-02.3(10)A Dates and Conditions for Lawn Installation**

20 *The second paragraph is supplemented with the following:*

21  
22 Where no irrigation system is to be installed, the lawn shall be placed during the  
23 following period only:

24  
25 March 1<sup>st</sup> – June 30<sup>th</sup>  
26 September 1<sup>st</sup> - October 25  
27

28 **8-02.3(10)B Lawn Seeding and Sodding**

29 *The first paragraph is supplemented with the following:*

30  
31 Seed type, rate, and methods of application shall be in accordance with Section 8-  
32 02.3(9).

33  
34 *The third paragraph is supplemented with the following:*

35  
36 Topsoil shall be installed and prepped in accordance with City of Tacoma Standard Plan  
37 GSI-01D. On sloped areas, the sod strips shall be laid perpendicular to the flow of  
38 water.

39  
40 **8-02.3(10)C Lawn Establishment**

41 *This section is supplemented with the following:*

1  
2 Lawn that is replaced shall be a low-growing application mix.

3  
4 **8-02.3(11) Mulch**

5 *The first paragraph is supplemented with the following:*

6  
7 Mulch shall be of the type and applied at the rate required in BMPs C120 & 121 of the  
8 City of Tacoma Surface Water Management Manual. The contractor shall re-apply  
9 mulch to protect exposed soil and seeded areas from erosion.

10  
11 **8-02.3(11)B Bark or Wood Chip Mulch**

12 *The third sentence of the first paragraph is revised to read:*

13  
14 Bark or Wood Chip Mulch shall be feathered to plant material trunks, stems, canes, or  
15 root collars, Mulch shall be placed so that it is 1-inch below the top of junction and valve  
16 boxes, curbs and pavement edges.

17  
18 *The second sentence of the third paragraph is revised to read:*

19  
20 Bark or wood chip mulch shall be feathered to plant material trunks, stems, canes, or  
21 root collars, and level with the top of junction and valve boxes, curbs and pavement  
22 edges.

23  
24 *This section is supplemented with the following:*

25  
26 Bark or wood chip mulch in accordance with Section 9-14.5(3) shall be applied to a  
27 minimum depth of 3 inches at the location indicated on the Plans or as directed by the  
28 Engineer.

29  
30 Bark or Wood Chip Mulch shall be placed over all planting beds to the depth and at the  
31 locations indicated on the Plans. Thoroughly water and hose down plants with a fine spray  
32 to wash the leaves of the plants immediately after application.

33  
34 Mulch shall meet the requirements of Section 9-14.4(3) Bark or Wood Chips of these  
35 Special Provisions.

36  
37 Contractor shall not apply Bark or Wood Chip Mulch directly to the base of tree trunks.

38  
39 **8-02.3(14) Plant Replacement**

40 *This section is revised to read:*

41  
42 The Contractor shall provide the Contracting Agency a one (1) year non pro-rated, full  
43 labor and materials warranty for all planted material. The warranty shall cause the  
44 Contractor to remove and replace all rejected plant material during the warranty period.  
45 The warranty period shall begin at the date of physical completion of the contract and  
46 end one calendar year from that date.

47  
48 The Contractor shall be responsible for growing or providing enough plants for  
49 replacement of all plant material rejected during the warranty period. All rejected plant  
50 material shall be replaced at dates approved by the Engineer.

1 All replacement plants shall be of the same species and quality as the plants they  
2 replace. Plants may vary in size reflecting one season of growth should the Contractor  
3 elect to hold plant material under nursery conditions for an additional year to serve as  
4 replacement plants.

5  
6 Replacement plants will be subject to the original warranty provision as stated above.

7  
8 *Add the following new section:*

9 **8-02.3(17) Site Restoration**

10  
11 During the construction of the roadway or HMA overlay, curb ramp construction, curb  
12 and gutter construction, and sidewalk construction; the Contractor shall replace in kind,  
13 including but not limited to: any lawn, topsoil, plants, wood chip mulch, garden walls,  
14 rockery, or irrigation heads/pipes, affected by the work and as shown on the Plans. Each  
15 location of work shall be graded to a smooth and even surface, matching existing  
16 grades. Grading shall be accomplished to blend the new work with the existing ground  
17 lines and to maintain natural drainage courses. In areas abutting the roadway, or where  
18 it is common for pedestrians to walk, lawn restoration shall either be protected from any  
19 kind of traffic until the end of the establishment period or left in a manner that is firm  
20 when subjected to foot traffic. Restoration of grass areas by placement of seed shall be  
21 done through hydro-seeding. Hand seeding will not be allowed, except in small areas as  
22 allowed by the Engineer. In addition landscaping items not included in the Proposal shall  
23 be included under "Site Restoration", lump sum.

24  
25 All excess materials shall be removed from the site.

26  
27 **8-02.3(18) Tree Watering Bag**

28  
29 Each tree watering bag shall be filled to capacity not less than once per week, during the  
30 watering season, which is considered to be April 15th through September 30th. It is the  
31 Contractor's responsibility to monitor the water in each watering bag and advise the City  
32 if additional water cycles are required. The Contractor shall ensure that each watering  
33 bag is functioning correctly and shall replace any malfunctioning, damaged, or stolen  
34 watering bags. If watering a bag is stolen or damaged by the acts of others, the City will  
35 pay invoice cost with no markup only for the replacement watering bags and the  
36 Contractor will be responsible for the labor to install the replacement bags.

37  
38 Watering will be weather dependent. It is the responsibility of the Contractor to monitor  
39 the watering requirements and the frequency may increase or decrease throughout the  
40 term of the Agreement. If more than 0.5 inches of rainfall occurs within a 48-hour period,  
41 the contractor may elect to forgo tree watering until the rainfall has ceased and for a  
42 period of 48 hours following the rain.

43  
44 Upon completion of the contract, the watering bags in good working condition shall  
45 become the property of the City. All other watering bags shall be disposed of by the  
46 Contractor. The Contractor shall deliver the watering bags that are good working  
47 condition to Environmental Services.

48  
49 **8-02.4 Measurement**



1 *The fifteenth paragraph is deleted.*

2

3 *This section is supplemented with the following:*

4

5 No specific unit of measure will be applied to the lump sum bid item Site Restoration.

6

7 **8-02.5 Payment**

8

9 *Paragraphs 14 through 17, pertaining to partial payment, are deleted.*

10

11 *Paragraphs 20 through 26, pertaining to partial payment, are deleted.*

12

13 *The following pay items are revised to read:*

14

15

16 "Site Restoration", per lump sum.

17

18 The lump sum payment for "Site Restoration" shall be full pay for all materials, labor,  
19 tools, equipment, and supplies necessary for restoration of the job site and any  
20 landscape items according to the Plans and Specifications, including but not limited to  
21 grass sod/seed, planting area preparation, soil amendment, grading, cultivating,  
22 planting, mulching, cleanup, and water necessary to complete the site restoration, as  
23 specified.

24

25 *The last paragraph is deleted.*

26

27

28 **END OF SECTION**

29

30

31

32

1 **8-03 IRRIGATION SYSTEM**

2 **(\*\*\*\*\*)**

3  
4 **8-03.1 Description**

5 *This Section is supplemented with the following:*

6  
7 Repair and relocation of existing sprinkler systems that encroach into the construction  
8 zone shall be according to these specifications and Section 2-02, Existing Irrigation  
9 Systems.

10  
11 **8-03.3(1) General Requirements**

12 *This section is supplemented with the following:*

13  
14 All electrical work from the electrical source to the controller junction box must be  
15 completed by a licensed electrical contractor.

16  
17 **8-03.3(7)A Irrigation Sleeves**

18 *This section is supplemented with the following:*

19  
20 Final position of capped sleeves shall be level with the finished grade or mulch.

21  
22 **8-03.3(9)B Irrigation Heads**

23 *The first sentence is revised to read:*

24  
25 Unless otherwise indicated in the Plans, final position of irrigation heads shall be flush  
26 and level with or ½ inch below the finished grade in grass or mulch areas as measured  
27 from the top of the irrigation head

28  
29 **8-03.3(9)C Valve, Valve Boxes, Hose Bibs**

30 *The second paragraph is revised to read:*

31  
32 Final position of valve boxes and quick coupler valves shall be level with the finished  
33 grade or mulch.

34  
35 **8-03.3(9)E Controller**

36 *This section is supplemented with the following:*

37  
38 A zone diagram shall be posted in the controller to facilitate the selection of the valves to  
39 be operated.

40  
41 **8-03.3(9)G Electrical Wire Installation**

42 *This section is supplemented with the following:*

43  
44 All electrical work from the electrical source to the controller junction box must be  
45 completed by a licensed electrical contractor.

46  
47 **8-03.10 Flushing and Testing**

48  
49 **8-03.3(10)A General Requirements**

50 *This section is supplemented with the following:*

51

1 The Contractor shall advise the Engineer at least 24 hours before pressure tests and  
2 flushing are to be conducted.

3  
4 **8-03.3(10)B Mainline or Lateral Flushing**

5 *This section is supplemented with the following:*

6  
7 The Contractor shall advise the Engineer at least 24 hours before mainline or lateral  
8 flushing are to be conducted.

9  
10  
11 **8-03.3(10)C Mainline or Lateral Hydrostatic Pressure Testing**

12 *This section is supplemented with the following:*

13  
14 The Contractor shall advise the Engineer at least 24 hours before mainline or lateral  
15 pressure tests are to be conducted.

16  
17 **8-03.3(13) As-Built Plans, M&O Manuals, and Operating Tools**

18  
19 **8-03.3(13)C Operating Tools**

20 *This third paragraph is revised to read:*

21  
22 Laminated copies of the timing and valve schedule and zoning diagrams shall be placed  
23 in the controller boxes and in locations specified by the Engineer.

24  
25  
26 **END OF SECTION**  
27  
28

1 **8-04 CURBS, GUTTERS, AND SPILLWAYS**

2 **(\*\*\*\*\*)**

3  
4 **8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways**

5 *The first paragraph is revised to read:*

6  
7 Cement concrete curb, curb and gutters, gutters, and spillways shall be constructed  
8 with air entrained concrete Class 3000 conforming to the requirements of Section 6-02.

9  
10 *The first sentence in the fourth paragraph is revised to read:*

11  
12 Expansion joints in the Curb or Curb and Gutter shall be spaced at 15-foot intervals; and  
13 shall be located at both ends of all curb returns, drainage structures, bridges, and cold  
14 joints with existing curbs and gutters.

15  
16 *Section 8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways is supplemented with*  
17 *the following:*

18  
19 **8-04.3(1)C Integral Cement Concrete Curb**

20  
21 When integral curb is being constructed with the pavement, fresh concrete for the  
22 integral curb shall be placed at such time as will enable the top section of the curb to be  
23 consolidated, finished, and bonded to the pavement slab while the concrete is plastic.

24  
25 Where curb is not being placed integral with the pavement slab, reinforcing steel dowels  
26 shall be placed in the base section for the curb in accordance with the standard drawing.

27  
28 *Section 8-04.3 Construction Requirements is supplemented with the following:*

29  
30 **8-04.3(6) Cold Weather Work**

31  
32 The following additional requirements for placing concrete shall be in effect from  
33 November 1 to April 1:

- 34  
35
- 36 • The Engineer shall be notified at least 24 hours prior to placement of concrete.
  - 37 • All concrete placement shall be completed no later than 2:00 p.m. each day.
  - 38 • Where forms have been placed and the subgrade has been subjected to frost, no  
39 concrete shall be placed until the ground is completely thawed. At that time, the  
40 forms shall be adjusted and subgrade repaired as determined by the Engineer.
  - 41 • When temperatures below 35 degrees Fahrenheit are predicted up to 7 days  
42 after pouring the concrete, the concrete shall be covered in blankets.

43 **8-04.5 Payment**

44  
45 **(\*\*\*\*\*)**

46 *The bid item "Cement Conc. Traffic Curb and Gutter" is revised to read:*

47  
48 "Cement Conc. Traffic Curb and Gutter", per linear foot

49

1 The unit contract price per linear foot for "Cement Conc. Traffic Curb and Gutter" shall  
2 be full pay for all labor, tools, equipment, and materials required to construct concrete  
3 curbs and gutters according to the Plans and these Specifications. This bid item shall  
4 include all other curb types that are not specifically included in the bid Proposal.

5  
6  
7  
8  
9  
10  
11

**END OF SECTION**

1 **8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES**

2 **(\*\*\*\*\*)**

3  
4 **8-06.3 Construction Requirements**

5 *The first paragraph is revised to read:*

6  
7 Cement concrete driveway approaches shall be constructed with air entrained concrete  
8 Class 3000 conforming to the requirements of Section 6-02 or Portland Cement  
9 Concrete Pavement conforming to the requirements of Section 5-05.

10  
11 *This section is supplemented with the following sub-section:*

12  
13 **8-06.3(1) Cold Weather Work**

14  
15 The following additional requirements for placing concrete shall be in effect from  
16 November 1 to April 1:

- 17  
18
  - 19 • The Engineer shall be notified at least 24 hours prior to placement of concrete.
  - 20 • All concrete placement shall be completed no later than 2:00 p.m. each day.
  - 21 • Where forms have been placed and the subgrade has been subjected to frost, no  
22 concrete shall be placed until the ground is completely thawed. At that time, the  
23 forms shall be adjusted and subgrade repaired as determined by the Engineer.
  - 24 • When temperatures below 35 degrees Fahrenheit are predicted up to 7 days  
25 after pouring the concrete, the concrete shall be covered in blankets.

26 **8-06.5 Payment**

27 *This section is revised to read:*

28  
29 Payment will be made in accordance with Section 1-04.1, for the following Bid item:

30  
31 **(\*\*\*\*\*)**

32 "Cement Conc. Driveway Entrance", per square yard.

33  
34 The unit contract price per square yard for "Cement Conc. Driveway Entrance" shall be  
35 full pay for all labor, tools, equipment, and materials required to construct concrete  
36 driveways in segments; excavation and construction and removal of Temporary Driveway  
37 Access shall be included. All types of concrete driveway entrances are included in this  
38 bid item.

39  
40 Excavation required for the construction of the driveway entrance shall be paid for under  
41 the unit Contract price for "Roadway Excavation, Incl. Haul" or "Roadway Excavation of  
42 Contaminated Material, Incl. Haul" when included in the Proposal. Otherwise, the  
43 Contractor shall include all costs associated with excavating, including haul and  
44 disposal, regardless of the depth in the unit Contract price for "Cement Conc. Driveway  
45 Entrance".

46  
47 **END OF SECTION**

1 **8-13 MONUMENT CASES**

2 **(\*\*\*\*\*)**

3 *This section is revised to read:*

4  
5 **8-13.1 Description**

6  
7 This Work shall consist of constructing monuments in accordance with the Standard  
8 Plan and these Specifications, in conformity with the lines and locations shown in the  
9 Plans or as staked by the Engineer.

10  
11 All existing monument cases that are intact shall be removed and sent to the City of  
12 Tacoma Field Survey Office.

13  
14 **8-13.2 Materials**

15  
16 Concrete shall be Class 3000 in accordance with the requirements of Section 6-02.  
17 Commercial concrete will be allowed.

18  
19 Bronze markers will be supplied by the Contracting Agency.

20  
21 **8-13.3 Construction Requirements**

22  
23 The Contracting Agency shall obtain a permit for the temporary removal of the  
24 Monument from the Washington State Department of Natural Resources in accordance  
25 with WAC 332-120. The Contracting Agency will provide a copy of the Permit to the  
26 Contractor. The Contractor shall not remove the existing Monument before receiving the  
27 permit and approval from the Engineer in writing. The Contractor shall adhere to WAC  
28 332-120, DNR Application for Permit to Remove or Destroy a Survey Monument”, when  
29 removing existing survey monuments.

30  
31 The Contractor shall construct the poured monument in accordance with the City of  
32 Tacoma Standard Plan SU-01. The brass marker position shall be staked by the  
33 Contracting Agency. The bronze marker shall be engraved with the PLS number of the  
34 Professional Land Surveyor staking and verifying the monument location.

35  
36 Bronze disks will be installed with the text legible from facing magnetic North. Disks to  
37 be installed to a positional tolerance of +/- 0.04 feet from center of disk to actual position  
38 by the Contractor using four 2-foot offset reference marks established by the Contracting  
39 Agency.

40  
41 **8-13.4 Measurement**

42  
43 Measurement of the poured monument will be per each.

44  
45 **8-13.5 Payment**

46  
47 Payment will be made in accordance with Section 1-04.1.

48  
49 “Poured Monument”, per each.

50

1 The unit Contract price per each for "Poured Monument" shall be full pay for all labor,  
2 equipment, and materials required to furnish and install the monument, including the  
3 removal of existing monuments and necessary pavement removal to accommodate the  
4 installation in accordance with the standard plan and specifications.

5  
6  
7  
8  
9

**END OF SECTION**



1 **8-14 CEMENT CONCRETE SIDEWALKS**

2 **(\*\*\*\*\*)**

3  
4 **8-14.3 Construction Requirements**

5  
6 **8-14.3(3) Placing and Finishing Concrete**

7 *The fourth paragraph is revised to read:*

8  
9 Curb ramps shall be constructed according to these Specifications, the Contract Plans,  
10 and City of Tacoma Standard Plans. The detectable warning pattern shall have the  
11 truncated dome shape shown in the Standard Plans and as specified in Specification  
12 Section 8-14.3(5)A

13  
14 **8-14.3(4) Curing**

15 *The second sentence is revised to read:*

16  
17 Curing shall be in accordance with Section 5-05.3(13).

18  
19 *Section 8-14 is supplemented with the following:*

20  
21 **8-14.3(20) Cold Weather Work**

22  
23 The following additional requirements for placing concrete shall be in effect from  
24 November 1 to April 1:

- 25
- 26 • The Engineer shall be notified at least 24 hours prior to placement of concrete.
  - 27 • All concrete placement shall be completed no later than 2:00 p.m. each day.
  - 28 • Where forms have been placed and the subgrade has been subjected to frost, no
  - 29 concrete shall be placed until the ground is completely thawed. At that time, the
  - 30 forms shall be adjusted and subgrade repaired as determined by the Engineer.
  - 31 • When temperatures below 35 degrees Fahrenheit are predicted up to 7 days
  - 32 after pouring the concrete, the concrete shall be covered in blankets.

33  
34 **8-14.3(5) Detectable Warning Surface**

35  
36 **8-14.3(5)A General**

37 *The first paragraph is revised to read:*

38  
39 The detectable warning surface shall be located as shown in the Plans and per the  
40 requirements of the City of Tacoma Standard Plans. The detectable warning surface  
41 shall have the truncated dome shape shown in the Standard Plans.

42  
43 **8-14.3(21) Thickened Edge for Sidewalk**

44  
45 Thickened edge shall be constructed in accordance with the standard plan.

46  
47 **8-14.5 Payment**

48 *The pay item "Cement Conc. Sidewalk" is supplemented with the following:*

49

1 All additional costs related to the construction of thickened edges shall be included in the  
2 unit contract cost for "Cement Conc. Sidewalk".

3

4 *The sixth paragraph is revised to read:*

5

6 Excavation required for the construction of the sidewalk shall be paid for under the unit  
7 contract price for "Roadway Excavation, Incl. Haul" or "Roadway Excavation of  
8 Contaminated Material, Incl. Haul" when included in the proposal. Otherwise, the  
9 Contractor shall include all costs associated with excavating, including haul and  
10 disposal, regardless of the depth in the unit contract price for "Cement Conc. Sidewalk"  
11 and/or "Cement Conc. Curb Ramp".

12

13 *This section is supplemented with the following:*

14

15 *The bid item "Cement Conc. Curb Ramp Type ---", per each is revised to read:*

16

17 "Cement Conc. Curb Ramp", per each

18

19 The unit Contract price per each for "Cement Conc. Curb Ramp" shall be full pay for  
20 installing the complete curb ramp per Plans and Specifications, and as directed by the  
21 Engineer, including ramps, landings, flares, wings, and detectable warning surfaces as  
22 specified. This bid item shall include all curb ramp types as shown on the Plans.

23

1 **8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, AND ELECTRICAL**  
2 **(January 28, 2022 Tacoma GSP)**

3  
4 **8-20.1(3) Permitting and Inspections**

5 *The third paragraph is revised to read:*

6  
7 All new services require a Tacoma Public Utilities Permit and inspection by Tacoma  
8 Power. All work on the load side of the service will be inspected by the Signal and  
9 Streetlight Shop Inspector.

10  
11 **8-20.2 Materials**

12 *This section is supplemented with the following:*

13  
14 The Contractor shall warranty all electrical and mechanical equipment described in this  
15 section for satisfactory in service operation for one year following project acceptance.  
16 Warranty shall include troubleshooting, labor, materials and all other costs to bring the  
17 equipment to a satisfactory level of service. Normal maintenance is not included in the  
18 warranty.

19  
20 **8-20.2(1) Equipment List and Drawings**

21 *This section is revised to read:*

22  
23 Within 20 days following execution of the Contract, the Contractor shall submit to  
24 the Engineer a completed "Request for Approval of Material" that describes the material  
25 proposed for use to fulfill the Plans and Specifications.

26  
27 The Contractor shall submit Type 2 Working Drawings consisting of supplemental data,  
28 sample articles, or both, of the material proposed for use. Supplemental  
29 data includes such items as catalog cuts, product Specifications, shop drawings, wiring  
30 diagrams, etc.

31  
32 The Contractor shall submit Type 2 Working Drawings consisting of the following  
33 information for each different type of luminaire required on the Contract:

- 34  
35 1. Isocandela diagrams showing vertical light distribution, vertical control limits,  
36 and lateral light distribution classification.  
37 2. Details showing the lamp socket positions with respect to lamp and refractor  
38 for each light distribution type. This requires that the Contracting Agency  
39 know what the light pattern available are and the light distribution.  
40

41 Additional submittals for proposed alternate LED Roadway Luminaires shall be in  
42 conformance with section 9-29.10.

43  
44 The Contractor shall submit for approval Type 3E Working Drawings in accordance with  
45 [Section 1-05.3](#) for each type of light standard and each type of signal standard called for  
46 on this project.

47  
48 The Engineer's acceptance of any submitted documentation shall in no way relieve the  
49 Contractor from compliance with the safety and performance requirements as specified  
50 herein.  
51

1 Submittals required shall include but not be limited to the following:  
2

- 3 1. A Type 2 Working Drawing consisting of a material staging plan, should the  
4 Contractor propose Contracting Agency-owned property for staging areas.
- 5 2. A Type 2 Working Drawing consisting of a cable vault installation plan  
6 showing the exact proposed installation location by Roadway station, offset  
7 and the scheduled sequence for each cable vault installation.
- 8 3. A Type 2E Working Drawing consisting of a pit plan, for each boring pit,  
9 depicting the protection of traffic and pedestrians, pit dimensions, shoring,  
10 bracing, struts, walers, sheet piles, conduit skids, and means of attachment,  
11 casing type, and casing size.
- 12 4. A Type 2E Working Drawing consisting of a boring plan depicting the boring  
13 system and entire support system.

### 14 **8-20.3 Construction Requirements**

#### 15 **8-20.3(1) General**

16 *This section is supplemented with the following:*  
17

18 The Contractor shall call 24 hours prior for inspection before covering any underground  
19 conduit, prior to installing any detection loops, or placing concrete for foundations. For  
20 inspections, notify Traffic Signal/Streetlighting at (253) 591-5287.  
21

22 Work shall be sequenced such that after the new signal is placed in operation, the  
23 Contractor shall remove any equipment not required for the operation of the new signal.  
24 The Contractor shall remove the old vehicle and pedestrian signal heads immediately  
25 after the new system is operational.  
26

27 For new signals, the contractor shall provide a Portable Message Change Sign in each  
28 direction and operate the PMCS for one week before, and one week after activating the  
29 new signal. This work shall be paid for in accordance with Section 1-10.  
30

31 Uniformed police officers shall be provided by the Contractor to direct traffic at any time  
32 the signal is not in normal operation. This work shall be paid for in accordance with  
33 Section 1-10.  
34

35 The following existing and temporary equipment shall be deconstructed/removed by the  
36 Contractor and delivered to the City of Tacoma Signal/Streetlight Shop located at 3401A  
37 South Orchard Street. Care shall be exercised in removing and salvaging the  
38 equipment. Any equipment damaged during removal, hauling, and stockpiling shall be  
39 repaired or replaced by the Contractor at no expense to the City.  
40

- 41 • All signal heads and mounting hardware
- 42 • Flashing beacons, and flasher control panel
- 43 • Steel poles, mast arms, and hardware
- 44 • Aluminum poles, mast arms, and hardware
- 45 • Controller cabinets and all internal hardware and wiring
- 46 • Vehicle detection systems, including video, microwave, and infrared systems,  
47 and associated hardware
- 48 • All Opticom equipment or other preemption and priority equipment.
- 49 • LED luminaries, LED retrofit kits, and LED lamps
- 50 • Ornamental/Decorative fixtures and poles/posts

- 1 • Pedestrian signals, poles, and pushbuttons.
- 2 • Signs, brackets, and hardware
- 3 • Locking junction box security lids, security bolts, and all other wire theft
- 4 deterrent security hardware

5  
6 All other equipment shall be removed of and disposed of by the Contractor, including but  
7 not limited to the following:

- 8 • Wood poles
- 9 • All wiring outside of the controller cabinet
- 10 • Loops
- 11 • Non-LED cobra-head fixtures

12  
13  
14

#### 15 **8-20.3(4) Foundations**

16 *This section is supplemented with the following:*

17

18 Breakaway Base Connection brackets for pedestrian pushbutton poles (Type PPB) shall  
19 be installed with the flanges parallel to the traveled way, as shown on WSDOT standard  
20 plan J-20.15-03.

21

22 Anchor bolts for streetlight standards and for strain poles shall extend a minimum of two  
23 threads and a maximum of six threads above the top heavy-hex-nut. A minimum of  
24 three threads shall remain between bottom of the leveling hex-nut and the top of the  
25 foundation.

26

27 Foundations shall be excavated using an auger and poured against undisturbed material  
28 unless otherwise approved by the Engineer. Vacuum excavation should be used where  
29 there is a possibility of conflict with utilities or other facilities.

30

31 Forming the foundation with galvanized culvert pipe or similar forming methods will only  
32 be allowed when soil conditions or other factors make this method of construction  
33 necessary and is approved by the Engineer. Biodegradable forming tubes shall be fully  
34 removed from the cured concrete prior to backfilling. When using culvert or tubes, the  
35 following backfill requirements will apply. The area between the form and undisturbed  
36 material shall be filled with CDF. For lightly loaded installations and only with the  
37 approval of the Engineer, Crushed Surfacing Top Course meeting the requirements of  
38 Section 9-03.9(3) may be used. Placement shall be in accordance with Section 2-  
39 09.3(1)E and shall be backfilled and compacted in the presence of the Engineer.

40

#### 41 **8-20.3(5) Conduit**

42

##### 43 **8-20.3(5)A General**

44 *This section is supplemented with the following:*

45

46 Unless otherwise specified in the plans and specifications, standard conduit sizes shall  
47 be as follows:

48

49

50

- Underground Streetlight Conduit: 2 inch diameter
- Pole Riser Service Installations: 1-1/2 inch diameter
- Traffic Signal Conduit: 3 inch diameter

- Traffic Signal Communication: 3 inch diameter
- All other conduit: 2 inch diameter, unless otherwise specified.

As soon as the mandrel has been pulled through, both ends of the conduit shall be sealed in an approved manner. Location wire, in conformance with 9-29.3(2)A4 and Pull Tape, in conformance with 9-29.1(10), shall be installed in all empty conduits. At least three (3) feet of the location wire and pull tape shall be neatly coiled and secured to the conduit in the same manner as is shown in Washington State Department of Transportation Standard Plan J-28.70-01, Details A and B.

### **8-20.3(5)B Conduit Type**

*This section is supplemented with the following:*

Conduit under driveways and other vehicular access ways shall be Schedule 80 high-density polyethylene (HDPE), Schedule 80 PVC, or rigid metal conduit (RMC)

Conduit installed in a joint trench, with power, and that is installed a minimum of 36-inches from finished grade may utilize Schedule 40 PVC in lieu of Schedule 80 PVC. This allowance shall not be construed to permit the use of dissimilar materials in a single run.

Pole riser conduit material types shall be in accordance with applicable City of Tacoma standard plans.

### **8-20.3(5)D Conduit Placement**

*This Section is supplemented with the following:*

Conduit terminating in pole foundations shall extend to 3 inches below the handhole.

Conduit terminating in controller foundations shall terminate 1 inch above the foundation.

### **8-20.3(5)E1 Open Trenching**

*Subsection 5 is revised to read:*

5. Trenches located within the paved roadway shall be backfilled with 3 inches of sand over the conduit, followed by material meeting the requirements of Section 9-03.12(3). Compaction shall be in conformance with Section 2-09.3(1)E. All street cuts shall be repaired in accordance with the standard plans.

*This section is supplemented with the following new Subsections:*

7. Where multiple conduit are installed in the same trench, the trench shall be of sufficient width to accommodate all conduit, with a minimum 3-inch separation between each conduit, and a minimum clearance of 1-inch on the sides of the trench. When conduit is laid horizontal to one another, the conduit shall be laid at the same elevation, parallel with one another. When conduit is laid vertically in the same trench, conduit spacers shall be used to maintain the 3-inch separation. Spacers shall be installed in accordance with the manufacturer's recommendations for conduit of that size and type. Additional spacers shall be required where the supported conduit is sagging more than 20% of the nominal diameter of the conduit.

- 1 8. In all conduit trenches, metallic, detectible, utility warning tape shall be placed at  
2 twelve (12) inches below final grade.  
3

4 **8-20.3(6) Junction Boxes, Cable Vaults, and Pull Boxes**

5 *This section is supplemented with the following:*  
6

7 Unless otherwise specified in the plans, or as otherwise directed by the engineer, all  
8 junction boxes exposed to vehicular traffic shall be Heavy-Duty. Field adjustment of  
9 junction boxes, which cause junction boxes to be installed within an intersection radius  
10 and within four feet of the curb face may be required to be Heavy-Duty. Final placement  
11 and type of all junction boxes within an intersection shall be as directed by the Engineer.  
12

13 Adjacent junction boxes shall be separated by a minimum of three-inches.  
14

15 Concrete meeting the requirements of 6-02.3(2)B shall be placed surrounding all  
16 junction boxes except as otherwise provided for below. Concrete shall be flush with the  
17 top of the junction box and the adjacent improvements. Concrete shall be cast in place.  
18 Junction boxes shall be secured with the concrete border as follows:  
19

- 20 1. When the junction box is located within a concrete or asphalt section and is  
21 located a minimum of 12-inches from the edge of the section, a concrete border  
22 will not be required.
- 23 2. Where junction boxes are located within 12-inches from the edge of the concrete  
24 or asphalt section, the junction box shall secured on all sides with a minimum 12-  
25 inch wide, 6-inch deep concrete section. Concrete shall be finished in the same  
26 manner as the adjacent concrete where applicable.
- 27 3. Where junction boxes are located within a planter strip, a landscaped area, or  
28 other non-hardened surface, the junction box shall be bordered on all sides with  
29 a minimum 6-inch wide, 12-inch deep concrete section flush with the top of the  
30 junction box.  
31

32 When setting a new junction box on an existing streetlight circuit where no equipment  
33 ground is present, a non-conductive junction box and lid shall be utilized.  
34

35 All junction box lids for illumination systems shall be welded in place using two one and  
36 one-half inch long welds on opposite corners of the junction box lid and frame. Welding  
37 shall occur after inspection and testing of the illumination system and confirmation from  
38 the Engineer. An Illumination System may consist of a separate illumination service or  
39 circuit.  
40

41  
42 **8-20.3(7) Messenger Cable, Fittings**

43 *The second paragraph of this section is deleted.*  
44

45 *This section is supplemented with the following:*  
46

47 Cable ties shall be used to neatly secure the signal cable to the span wire at 10-inch  
48 centers and shall be tightened at top. Excess tie material shall be completely cut off.  
49 The signal control cable shall be below the span wire and shall be straight with no  
50 twisting or spiraling.  
51

1 A minimum 5% sag shall be provided in the span wire when fully loaded with all  
2 vehicular signal heads, unless otherwise directed by the Engineer.

3  
4 **8-20.3(8) Wiring**

5 *The third paragraph is revised to read:*

6  
7 All splices in underground illumination circuits, induction loop circuits, and magnetometer  
8 circuits shall be installed at junction boxes. The only splice allowed in an induction loop  
9 circuit shall be the shielded cable to loop wire splice. The only splice allowed in a  
10 magnetometer circuit shall be the probe lead-in cable to the magnetometer cable splice.

11  
12 Induction loop splices and magnetometer splices shall be heat shrink type with moisture  
13 blocking material, sized for the conductors. Magnetometer and induction loop splices  
14 shall be soldered. The end of the sheathing shall be sealed with a heat shrink insulator.

15  
16  
17 *The fourth paragraph is revised to read:*

18  
19 Signal wiring shall be in conformance with the following:

- 20  
21
- 22 1. All termination for traffic signal control systems shall be in accordance with  
23 City of Tacoma Standard Plan TS-15.
  - 24 2. All signal wiring shall be 14 gauge 5-conductor or 12 gauge 2-conductor  
25 stranded copper wire unless otherwise shown in the plans.
  - 26 3. For 5-section heads, 2-5c-14 gauge conductors shall be utilized.
  - 27 4. 5c wire shall not be split between high voltage and low voltage. Where a  
28 pedestrian head and a pedestrian push button share a common pole, a  
29 separate 2c shall be pulled in for the push button.
  - 30 5. A single 5c may be split between two pedestrian heads on a common pole  
31 with a jumper across the neutral.
  - 32 6. Opticom and detection wiring shall be per manufacturer's recommendations.

33 All wiring entering the cabinet shall be gathered across the conduits to the right front of  
34 the cabinet, neatly tied, and circle the base of the cabinet counterclockwise as further  
35 described below:

- 36  
37
- 38 1. Communication cables shall circle the base of the cabinet, counterclockwise  
39 from front right, one full circle, and around to the back of the right panel.  
40 Cables shall follow up the back of the right panel and terminate on the  
41 terminal strip identified by the Engineer. Unless otherwise directed by the  
42 Engineer, cable outer jacket sheathing shall be removed from a point two (2)  
43 inches below the terminal strip. Cables shall be uniform in length, with  
44 sufficient slack to reach any terminal on the terminal strip. Individual wire  
45 slack shall be neatly looped back and tied. A bolt/flanged nut alligator jaw  
46 shield bond connector shall be utilized.
  - 47 2. Power service conductors shall circle the base of the cabinet,  
48 counterclockwise from front right, one full circle, and back around to the front  
49 right of the base.
  - 50 3. Detection cables shall circle the base of the cabinet, counterclockwise from  
51 front right, to the back of the left panel. Cables shall follow up the back of the  
left panel and terminate as directed in the field.



- 1           4. Signal vehicle and pedestrian head shall circle the base of the cabinet,  
2           counterclockwise from front right, to back left. Cable outer jacket sheathing  
3           shall be removed from the point that the conductor reaches the back left of  
4           the cabinet to the ends of the conductors. All vehicle and pedestrian  
5           conductors in the cabinets shall be uniform in length, with sufficient slack to  
6           reach any terminal on the load bay. Individual wire slack shall be neatly  
7           looped back and tied.
- 8           5. Push button conductors shall circle the base of the cabinet, counterclockwise  
9           from front right, to front left. Cable outer jacket sheathing shall be removed  
10          from the point that the conductor reaches the front left of the cabinet to the  
11          ends of the conductors. All push button conductors in the cabinets shall be  
12          uniform in length, with sufficient slack to reach any terminal on the terminal  
13          strip. Individual wire slack shall be neatly looped back and tied.

14  
15          *The fourth paragraph is revised to read:*

16  
17          Signal wiring shall be in conformance with the following:

- 18  
19           1. All termination for traffic signal control systems shall be in accordance with  
20           City of Tacoma Standard Plan TS-15.
- 21           2. All signal wiring shall be 14 gauge 5-conductor or 12 gauge 2-conductor  
22           stranded copper wire unless otherwise shown in the plans.
- 23           3. For 5-section heads, 2-5c-14 gauge conductors shall be utilized.
- 24           4. 5c wire shall not be split between high voltage and low voltage. Where a  
25           pedestrian head and a pedestrian push button share a common pole, a  
26           separate 2c shall be pulled in for the push button.
- 27           5. A single 5c may be split between two pedestrian heads on a common pole  
28           with a jumper across the neutral.
- 29           6. Opticom and detection wiring shall be per manufacturer's recommendations.

30  
31          Field wiring of the cabinet shall be done by City of Tacoma Signal Electricians after all  
32          wiring has been pulled into the cabinet and properly labeled with a temporary label  
33          consisting of white electricians tape with permanent marker. The Contractor shall  
34          provide a detailed description/key of all temporary labeling. The cabinet and labeling  
35          shall be inspected by the Signal/Streetlight inspector prior to cabinet wiring. The  
36          Contractor shall allow five working days for City Electricians to field wire the cabinet after  
37          the inspection is complete. Improper or incorrect labeling requiring additional effort by  
38          the City may result in additional time required by City forces to wire the cabinet.

39  
40          *The fifth paragraph is revised to read:*

41  
42          Splices and taps on underground and overhead circuits shall be made with solderless  
43          crimp connectors, installed with an approved tool designed for the purpose, to securely  
44          join the wires both mechanically and electrically. Splices and taps will be sealed in  
45          accordance with this section.

46  
47          *The seventh paragraph is revised to read:*

48  
49          Aerial illumination splices shall be taped with thermoplastic electrical insulating tape  
50          equivalent to the original wire insulation rating and thickness. It shall be well lapped over  
51          the original insulation.

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*The eighth paragraph is revised to read:*

All splices in junction boxes and handholes shall be taped and sealed with an electrical coating. Tape splice insulation shall consist of thermoplastic electrical insulating tape equivalent to the original wire insulation rating and thickness. It shall be well lapped over the original insulation and moisture resistant electrical coating shall be applied and allowed to dry. Two layers of thermoplastic tape will then be applied, followed by a second layer of moisture resistant electrical coating.

*The ninth paragraph is revised to read:*

Illumination cable in light standards shall be #10 AWG USE or "Pole and Bracket" cable, as specified in Section 9-29.3(2)D of the Standard Specifications.

*The tenth paragraph is revised to read:*

Fifteen (15) feet of slack cable shall be provided at the controller end of all cables terminating in the controller cabinet. A minimum of three (3) feet of slack cable shall be left at all strain poles and junction boxes.

**8-20.3(10) Service, Transformer, and Intelligent Transportation System (ITS) Cabinets**

*The second, third, and fifth paragraphs are deleted.*

**8-20.3(13) Illumination Systems**

**8-20.3(13)A Light Standards**

*The sixth, seventh, and eighth paragraphs (regarding pole identification numbers) are deleted.*

*This section is supplemented with the following:*

Conventional Base installation shall conform to the following:

The light standards shall be assembled and mounted complete on foundations perfectly straight and in good alignment. Proper leveling of the standards shall be accomplished by means of four leveling nuts that are to be employed with the anchor bolts. Standards shall be plumb within 1/50-inch per foot.

Luminaires shall be securely attached to the mast arm in a straight and level position. The luminaires shall be installed at a specified number of degrees from level if directed by the Engineer. After the poles are plumbed, grout shall be neatly placed between the pole base and the concrete. The Contractor shall form a 1/2-inch diameter weep hole in the grout. The nuts and bolts required for this foundation shall be furnished by the Contractor.

All above grade signal and streetlight infrastructure, including streetlight standards, traffic signal poles, push-button poles, cabinets, and enclosures, shall not be installed closer than three (3) feet from face of curb to the nearest part of the pole or structure and no closer than five (5) feet from fire hydrants and utility poles.

1 **8-20.3(13)B Vacant**

2 *This vacant section is renamed and replaced with the following:*

3  
4 **8-20.3(13)B Temporary Lighting (use when Contractor provided temporary lighting)**

5 *This section is supplemented with the following*

6 The Contractor shall schedule the work to minimize the outage between any existing  
7 lights and new lights. The temporary lighting shall be installed and operational before  
8 the existing lighting is removed from service. Temporary lighting shall be provided by  
9 the Contractor. City Signal/Streetlight Maintenance Crews will hot splice the final  
10 connection or connections. The Contractor shall provide 72 hours notice to schedule the  
11 City crews for the hot splicing.  
12

13  
14 **8-20.3(13)B Temporary Lighting (use when City provided temporary lighting)**

15  
16 The Contractor shall schedule the work to minimize the outage between any existing  
17 lights and new lights. The Contractor shall allow ample time for City forces to provide  
18 and install the temporary lighting before the existing lighting is removed from service. All  
19 materials and equipment provided by the City for the temporary lighting shall be owned  
20 by the City.  
21

22  
23  
24 **8-20.3(13)C Luminaires**

25 *This section is supplemented with the following:*

26  
27 All luminaires supplied by the project shall be identified with a green “H-1” label on the  
28 bottom of the luminaire. H-1 labels can be obtained at the Signal and Streetlight shop or  
29 through the Signal and Streetlight Inspector.  
30

31  
32 **8-20.3(14) Signal Systems**

33  
34 **8-20.3(14)A Signal Controllers**

35 *This section is revised to read:*

36  
37 The fully wired control cabinet, the controller, the MMU, and detection hardware for the  
38 cabinet shall be delivered to the City of Tacoma Traffic Signal Shop for configuration,  
39 programming, testing, and certification prior to installation. At the Contractor’s request,  
40 the City will off load the equipment. The Contractor shall notify the City 24 hours in  
41 advance of the equipment delivery.  
42

43 A minimum of two weeks shall be required for the City to configure and test the cabinet  
44 and controller for each intersection. If multiple cabinets and controllers are delivered,  
45 the Contractor shall identify the sequence for configuration and allow one additional  
46 week for each additional cabinet and controller delivered.  
47

48 The Contractor shall be responsible for transporting the controller cabinet from the  
49 Signal/Streetlight Shop site to the jobsite, and for installation of the cabinet and all field  
50 wiring. Field wiring shall be performed in accordance with 8-20.3(8) and as directed by  
51 City of Tacoma Signal and Streetlight personnel in the field.

1  
2 **8-20.3(14)B Signal Heads**

3 *This section is supplemented with the following:*

4  
5 For span wire installation, the red indications shall be leveled to within 1 inch for each  
6 direction as approved by the City. The height to the bottom of the lowest head shall be  
7 17 feet, plus or minus 3 inches. Height to the bottom of the lowest four-section or five-  
8 section head shall be a minimum of 16 feet-3 inches, plus or minus 3 inches.

9  
10 For span wire installation, the signal stem (drop pipe) shall be 1 to 3 feet long unless  
11 otherwise approved by the Engineer.

12  
13 **8-20.3(14)C Induction Loop Vehicle Detectors**

14 *Subsections 2, 4, 9, and 10 are deleted.*

15  
16 **8-20.3(14)E Signal Standards**

17 *This section is supplemented with the following:*

18  
19 Unless otherwise shown in the plans, a terminal cabinet shall be installed on all new  
20 traffic signal strain poles and traffic signal mast arm standards. Where modifications to  
21 existing signal systems include replacement, addition, or modifications to existing signal  
22 head wiring, a terminal cabinet shall be added to the existing strain pole or mast arm  
23 standard.

24  
25 For strain poles and mast arm poles supporting signal indications for one leg of the  
26 intersection, an 8" deep, 16" high, and 12" wide terminal cabinet shall be installed. For  
27 strain poles and mast arm poles supporting signal indications for two or more legs of the  
28 intersection an 8" deep, 24" high, and 18" wide terminal cabinet shall be installed.

29  
30 Terminal cabinets shall be in conformance with 9-29.25.

31  
32 *Section 8-20.3(14) is supplemented with the following new section:*

33 **8-20.3(14)F Thermal, Microwave, Fish-Eye, and LED Optical Vehicle Detection**

34  
35 A representative from the City of Tacoma Signal and Streetlight operations shop shall be  
36 on site during all work within the signal cabinet. The Contractor shall notify the Engineer  
37 two working days in advance of work within the cabinet.

38  
39 The Contractor shall install and test the detection system in accordance with the  
40 manufacturer's recommendations and these special provisions. Detection units shall be  
41 mounted and all cabling shall be in accordance with the manufacture's  
42 recommendations. The installation shall include all field equipment as well as all  
43 equipment required in the controller cabinet.

44  
45 Detection unit locations as shown on the plans are approximate. Detection units shall be  
46 mounted at a sufficient height to prevent occlusion from cross traffic. Detection units  
47 shall be field adjusted as directed by the Engineer and equipment manufacturer for  
48 maximum coverage. A factory-certified representative of the equipment manufacturer  
49 shall inspect and provide a written verification that the installation has been performed in  
50 accordance with the manufacturers requirements.

1 The factory-certified representative of the equipment manufacturer shall supervise all  
2 testing of the equipment and shall provide written documentation showing acceptance of  
3 the testing and verification that the system is a complete, fully functional system.

4  
5 All equipment shall be warranted against manufacturing defects in materials and  
6 workmanship for a period of 3 years from the date of signal turn-on.

7  
8 **8-20.3(17)B “As Built” Plans**

9 *This section is supplemented with the following:*

10  
11 These drawings shall show the routing of all underground conduits. The locations of the  
12 conduit shall be dimensioned with a precision and accuracy of 1 foot.

13  
14 **8-20.4 Measurement**

15 *This section is revised to read:*

16  
17 *This section is supplemented with the following:*

18  
19 Remove and Replace Junction Box will be measured per each replaced junction box  
20 regardless of the type specified use.

21  
22 **8-20.5 Payment**

23 *This section is supplemented with the following:*

24  
25 “Remove and Replace Junction Box”, per each.

26  
27 The unit Contract price per each for “Remove and Replace Junction Box” shall be full  
28 pay for all work to remove the existing junction box, replacing or new placement of the  
29 junction box with the specified type and removed as shown in the Plans or as directed by  
30 the Engineer. The Contractor shall be responsible to confirm the type of Junction Box to  
31 be used and shall replace the Junction Box in-kind to the existing Junction Box. The  
32 costs for this work shall include all handling, hauling, disposing, furnishing, excavation,  
33 and placing the junction box. Any work to restore facilities, such as but not limited to,  
34 providing conduit, rerouting conduit, pulling wire, reconnecting the system and testing  
35 the system as directed by the Engineer shall be included in this bid item.

36  
37 “Conduit and Surface Restoration”, per Force Account

38  
39 Conduit and Surface Restoration shall be full pay for furnishing all conduit, elbows,  
40 bends, caps, unions, junction boxes, and fittings: for placing the pipe in accordance with  
41 the above provision, including all trenching, jacking, or drilling required, backfilling of any  
42 voids around conduits, junction boxes, or trenches; restoration of native vegetation  
43 disturbed by the operation, removal and restoration of pavement and bedding of the  
44 pipe; installation of ground wire in vacant conduit and all other Work necessary for the  
45 installation of the conduit, except that when conduit is included on any project as an  
46 integral part of an illumination, traffic signal, or ITS system.

47  
48  
49  
50  
51 **END OF SECTION**

1 **8-22 PAVEMENT MARKING**

2 **(\*\*\*\*\*)**

3  
4 **8-22.2 Materials**

5 *The Section is supplemented with the following:*

6  
7 All “Plastic Crosswalk Line”, and “Plastic Stop Line” shall be hot applied thermoplastic.  
8 The applied markings shall be very durable, oil and grease impervious, and provide  
9 immediate and continuing retro-reflectivity meeting the requirements of Section 9-  
10 34.3(2).

11  
12 Materials used for curb paint shall be the same as for pavement marking paint per  
13 Section 9-34.2.

14  
15 **8-22.3 Construction Requirements**

16  
17 **8-22.3(3)E Installation**

18 *The Section is supplemented with the following for applying Type B material:*

19  
20 **Effective Performance Life:** When properly applied, in accordance with manufacturer’s  
21 instructions, the preformed marking materials shall be neat and durable. The markings  
22 shall remain skid resistant and show no lifting, shrinkage, tearing, roll back, or other  
23 signs of poor adhesion.

24  
25 **Packaging:** The flexible preformed marking material, for use as transverse or bike  
26 symbols as well as legends, shall be available in flat form material up to a maximum of 2  
27 foot width by 4 foot length. The material shall be packed in suitable cartons clearly  
28 labeled for ease of identifying the contents. Packaging shall not use plastic liners within  
29 to separate material from itself. Product packaging shall identify part number and mil  
30 thickness.

31  
32 **Material Replacement Provisions:** Any properly applied preformed marking materials  
33 that shall smear or soften independent of pavement movement or condition within a  
34 period of one year from date of application shall be replaced by the supplier.

35  
36 **Installation:** The preformed marking materials shall be applied in accordance with the  
37 manufacturer’s recommendations on clean and dry surfaces. New Portland concrete  
38 cement surfaces must be sandblasted to entirely remove curing compound. Marking  
39 configuration shall be in accordance with the “Manual on Uniform Traffic Control  
40 Devices,” where applicable.

41  
42 **New Surfaces:** Preformed marking materials specified for newly paved asphalt road  
43 surfaces shall be capable of being applied as the original permanent marking on the day  
44 the surface is paved.

45  
46 **Fusion:** The preformed marking materials shall be fusible to the pavement by means of  
47 a propane torch recommended by the manufacturer.

48  
49 **Technical Services:** The supplier shall provide technical services as may be required.  
50

1 **8-22.3(3)F Application Thickness**

2 *The Section is supplemented with the following:*

3

4 **8-22.3(4) Tolerances for Lines**

5 *The allowable tolerance for "Length of Line" is revised to read:*

6

7 **Length of Line:** The longitudinal accumulative error within a 32-foot length of skip  
8 stripe shall not exceed plus or minus 1 inch.

9

10 **8-22.4 Measurement**

11 *The last sentence of the sixth paragraph is revised to read:*

12

13 Crosswalk lines will be measured by the linear foot of marking installed.

14

15 *The section is supplemented with the following:*

16

17 Painted curb will be measured by the linear foot of curb line as "Painted Curb."

18

19 **8-22.5 Payment**

20

21 *This section is supplemented with the following:*

22

23 "Plastic Crosswalk Line", per linear foot.

24

25

26

27 **END OF SECTION**

28

29

30

31

32

33

1 **8-32 VACANT**

2 *This Section including the heading is revised to read:*

4 **8-32 TRAFFIC CIRCLE**

5 **(\*\*\*\*\*)**

7 **8-32.1 Description**

9 This Work consists of installing Traffic Circles as shown in the details on the Plans.

11 **8-32.2 Materials**

13 Materials shall meet the requirements of the following sections:

15	Cement	9-01
16	Aggregates	9-03
17	Premolded Joint Filler	9-04.1
18	Corrosion Resistant Dowel Bars	9-07.5(2)
19	Raised Pavement Marker	9-21
20	Concrete Curing Materials and Admixtures	9-23
21	Epoxy Resins	9-26

23 **8-32.3 Construction Requirements**

25 The Traffic Circle shall be constructed as detailed in the Plans. The locations for the  
26 Traffic Circle is shown in the Plans.

29 **8-32.4 Measurement**

31 Traffic Circles shall be measured per each traffic circle installed.

33 **8-32.5 Payment**

35 "Traffic Circle" per each.

37 The unit Contract price per each for "Traffic Circle" shall be full pay for a material, labor,  
38 time necessary to install the Traffic Circle as detailed in the Plans. This includes but is  
39 not limited to all topsoil, compaction, curb, raised pavement markers, rebar, rebar  
40 support, and all other items shown in the detail on the Plans or as directed by the  
41 Engineer.

44 **END OF SECTION**



1 **8-40 HISTORIC STAMP PRESERVATION**  
2 **(\*\*\*\*\*)**

3  
4 **8-40.1 Description**

5  
6 All existing Historical Stamps and Impressions, as shown in plans or as determined by  
7 the Engineer shall be salvaged and relocated in a position such that it can be read from  
8 the street.

9  
10 **8-40.3 Construction Requirements**

11  
12 The contractor shall preserve Historical Stamps and Impressions according to City of  
13 Tacoma Standard Plan SU-40. If it is determined by the Engineer in field that the date  
14 stamps or impressions cannot be relocated or they are damaged the contractor shall  
15 remove and dispose of the existing Historical Stamp.

16  
17 **8-40.4 Measurement**

18  
19 Historic Stamp Preservation shall be measured per each restoration of existing Historic  
20 Stamp.

21  
22 **8-40.5 Payment**

23  
24 "Historic Stamp Preservation" per each.

25  
26 The unit Contract price per each for "Historic Stamp Preservation" shall be full pay for a  
27 material, labor, time necessary to salvage, protect, relocate, replace, or dispose of  
28 existing Historic Stamps and Impressions per City of Tacoma Standard Plan SU-40.

29  
30  
31 **END OF SECTION**

32

1 **9-03 AGGREGATES**

2

3 **9-03.1 Aggregates for Portland Cement Concrete**

4

5 **9-03.1(1) General Requirements**  
6 **(June 16, 2016 Tacoma GSP)**

7 *The seventh paragraph is deleted*

8

9 **9-03.6 Vacant**  
10 **(Jun 16, 2016 Tacoma GSP)**

11 *This section, including the title, is revised to read:*

12

13 **9-03.6 Aggregates for Asphalt Treated Base (ATB)**

14

15 **9-03.6(1) General Requirements**

16

17 Aggregates for asphalt treated base shall be manufactured from ledge rock, talus, or  
18 gravel, in accordance with the provisions of Section 3-01 that meet the following test  
19 requirements:

20

21 Los Angeles Wear, 500 Rev. 30% max.

22 Degradation Factor 15 min.

23

24 **9-03.6(2) Grading**

25

26 Aggregates for asphalt treated base shall meet the following requirements for grading:

27

Sieve Size	Percent Passing
2"	100
1/2"	56-100
No. 4	32-72
No. 10	22-57
No. 40	8-32
No. 200	2.0-9.0

28

29 All percentages are by weight.

30

31 **9-03.6(3) Test Requirements**

32

33 When the aggregates are combined within the limits set forth in Section 9-03.6(2) and  
34 mixed in the laboratory with the designated grade of asphalt, the mixture shall be  
35 capable of meeting the following test values:

36

37 % of Theoretical Maximum Specific Gravity (GMM) (approximate)

38

39 AASHTO T324, WSDOT TM T718 or ASTM D3625

40 (Acceptable anti-strip evaluation tests)

41

93@  
100 gyrations  
Pass

1 The sand equivalent value of the mineral aggregate for asphalt treated base (ATB) shall  
2 not be less than 35.

3  
4 **9-03.8 Aggregates for Hot Mix Asphalt**  
5 **(March 9, 2016 APWA GSP)**

6 *Supplement section 9-03.8 with the following:*

7  
8 **Aggregates for Porous Hot Mix Asphalt/Porous Warm Mix Asphalt (PHMA/PWMA)**  
9 **General Requirements**

10  
11 Aggregates for Porous Hot Mix Asphalt (PHMA) or Porous Warm Mix Asphalt (PWMA)  
12 shall be manufactured from ledge rock, talus, or gravel, in accordance with the  
13 provisions of Section 3-01 that meet the following test requirements:

14  
15 Los Angeles Wear, 500 Rev. 30% max.  
16 Degradation Factor 15 min.

17  
18 **Grading**

19 Aggregates for PHMA/PWMA shall meet the following requirements for grading:  
20

Sieve Size	Percent Passing*
3/4" square	100
1/2" square	90 - 100
3/8" square	55 - 90
U.S. No. 4	10 - 40
U.S. No. 8	0 - 20
U.S. No. 40	0 - 13
U.S. No. 200	0 - 5

\* All percentages are by weight.

21  
22 The aggregate for PHMA/PWMA shall consist of crushed stone with a percent fracture  
23 greater than 90% on two faces on the No. 4 sieve and above, and shall be tested in  
24 accordance with the field operating procedures for AASHTO T 335.

25  
26 **9-03.12 Gravel Backfill**

27  
28 **9-03.12(3) Gravel Backfill for Pipe Zone Bedding**  
29 **(Jun 16, 2016 Tacoma GSP)**

30 *The grading requirements included in this section are revised to read:*  
31

Sieve Size	Percent Passing*
3/4" square	100
3/8" square	95-100
U.S. No. 8	0 - 10
U.S. No. 200	0 - 3

32 Sand Equivalent 35 Minimum

33 \* All percentages are by weight

1  
2  
3  
4  
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7  
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9  
10  
11  
12  
13  
14  
15

**9-03.21 Recycled Material**

**9-03.21(1) General Requirements  
(Jun 16, 2016 Tacoma GSP)**

*This section is supplemented with the following:*

Recycled materials will only be permitted upon approval of the Engineer. Recycled concrete shall not be permitted for use as pipe zone backfill, backfill above pipe zone, and extra excavation area backfill material.

**END OF SECTION**

1 **9-08 PAINTS AND RELATED MATERIALS**

2 **(March 23, 2010 Tacoma GSP)**

3 *The following section is added:*

4  
5 **9-08.20 Painting Surfaces Systems**

6  
7 The surfaces shall be painted in accordance with the type materials and exposures as  
8 identified in this section. The Contractor shall provide the Engineer with a paint mil.

9  
10 **9-08.20(1) Steel**

11  
12 A. Exposed/outside exposure(non-galvanized)

- 13 1. Primer Coat Section 9-08.1(2)C (2.5-mils)  
14 2. Intermediate Coat Section 9-08.1(2)G (3.5-mils)  
15 3. Top Coat: Section 9-08.1(2)H (1.0-mils)

16  
17 B. Exposed/Interior exposure(non-galvanized)

- 18 1. Primer Coat: Section 9-08.1(2)C (2.5-mils)  
19 2. Intermediate Coat: Section 9-08.1(2)G (3.5-mils)  
20 3. Top Coat: Section 9-08.1(2)H (1.0-mils)

21  
22 C. Unexposed/interior & exterior (non-galvanized)

- 23 1. Primer Coat: Section 9-08.1(2)C (2.5-mils)

24  
25 D. Exposed/interior & outside exposure(galvanized)

- 26 1. Primer Coat: Section 9-08.1(2)E (2.5-mils)  
27 2. Top Coat: Section 9-08.1(2)H (1.0-mils)

28  
29 E. Powder Coating and Galvanize Coating shall be applied where indicated in the  
30 contract documents. All other surfaces to be coated per Section 6-07.3.

31  
32 F. Painting shall be applied in accordance with Section 6-07.3.

33  
34 **9-08.20(2) Concrete**

35  
36 A. Exposed/outside exposure

- 37 1. 1<sup>st</sup> Cost: Section 9-08.3 (3.0-mils)

38  
39 B. Exposed/Interior exposure

- 40 1. 1<sup>st</sup> Cost: Section 9-08.1(3) (2.0-mils)  
41 2. 2<sup>nd</sup> Cost: Section 9-08.1(3) (1.0-mils)

42  
43 C. Surface to be painted where indicated on contract plans

44  
45 D. Colors to be selected by the Project Engineer

46  
47 **9-08.20(3) Wood**

48  
49 All surfaces to be coated where and in accordance with contract documents as  
50 indicated.

51  
52 **END OF SECTION**

1 **9-14 EROSION CONTROL AND ROADSIDE PLANTING**  
2 **(May 15, 2023 Tacoma GSP)**

3  
4 **9-14.2 Topsoil**

5  
6 **9-14.2(1) Topsoil Type A**

7 *This Section is revised to read:*

8  
9 Topsoil Type A shall meet the following requirements:

- 10  
11 • The source Topsoil shall be friable and loamy, and can contain loam, sandy  
12 loam, silty loam, clay loam, or a sandy clay loam.  
13 • Topsoil Type A shall be organically amended with Compost before delivery to the  
14 job site, and the Compost shall conform to Special Provision 9-14.5(8).  
15 • The amended Topsoil shall have minimum 10% organic matter for use in planting  
16 beds; typically containing 40% compost.  
17 • The amended Topsoil shall have minimum 5% organic matter for grass seeding  
18 and lawn areas; typically containing 25% compost.  
19 • The pH shall be between 6.0 and 8.0.  
20 • The amended Topsoil shall have maximum 25% passing the #200 sieve.  
21 • The amended Topsoil shall not exhibit visible water or dust during handling.  
22

23 **9-14.5(8) Compost**

24 *This Section is supplemented with the following:*

25  
26 The Compost supplier shall produce Compost from a certified composting facility.  
27 Certified compost facilities are included on a list and an interactive map available on the  
28 Washington State Department of Ecology Composting website:

29  
30 [https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Organic-](https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Organic-materials/Managing-organics-compost)  
31 [materials/Managing-organics-compost](https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Organic-materials/Managing-organics-compost)  
32

33 Compost shall meet the definition for “composted material” per WAC 173-350-100 and  
34 comply with standards in WAC 173-350-220, except the feedstock may contain bio  
35 solids or manure feed stocks. When feedstock material is sourced in a pest quarantine  
36 area the owners of the organic waste shall comply with WAC 16-470-124 including  
37 processing conditions and heat treatments for pest control; and shall obtain a special  
38 permit from the Washington State Department of Agriculture.  
39

40 City of Tacoma TAGRO Potting Soil Mix, which is derived from the municipal solid waste  
41 compost program, can be used as Compost or shall be added as part of the Compost  
42 mix for landscaping and roadside restoration, including topsoil amendment and topsoil  
43 mix content.  
44

45 Compost shall meet the following additional criteria:

- 46  
47 • No visible water or dust during handling  
48 • 40% minimum to 65% maximum organic content per TMECC  
49 • Carbon to Nitrogen ratio below 25:1, or up to 35:1 for plants native to Puget  
50 Sound lowland region, or up to 40% as a coarse compost for surface mulch only.

1  
2 For use as Topsoil amendment in BMP L613, Post Construction Soil Quality and Depth,  
3 Compost shall meet the following additional criteria:  
4

- 5 • The Compost must originate from a feedstock that contains compost derived  
6 from municipal solid waste compost programs, such as TAGRO. Facilities that  
7 produce compost from post-consumer food waste, yard debris, and food scraps  
8 can be found on the [Department of Ecology WA composting facilities and](#)  
9 [material types table](#).
- 10 • The compost must originate from a feedstock that has a minimum of 65%  
11 recycled plant waste comprised of “yard debris”, “crop residues”, and “bulking  
12 agents”. A maximum of 35% post-consumer food waste can be substituted for  
13 recycled plant waste. The Compost may have up to 35% bio solids or manure.  
14 Percentages are specified by volume. Quoted terms are defined in WAC 173-  
15 350-100.
- 16 • Stable and mature per TMECC, meaning the Compost tests results show low  
17 oxygen use and low CO2 generation, and as capable of supporting plant growth.
- 18 • Use a Fine Compost per gradation in Section 9-14.5(8).
- 19 • Refer to Standard Plan series GSI-01b through GSI-01d for application.  
20

21  
22 **END OF SECTION**  
23  
24  
25  
26

1 **9-28 SIGNING MATERIALS AND FABRICATION**  
2 **(April 1, 2012 Tacoma GSP)**

3

4 **9-28.1 General**

5 *The second sentence of the first paragraph is hereby revised to read:*

6

7 Permanent signs which measure 36 inches or less on a side and are to be mounted on a  
8 single post shall be constructed of single 0.080-inch aluminum panels.

9

10 *The third sentence of the first paragraph is hereby revised to read:*

11

12 Sign overlay panels shall be 0.050-inch aluminum panels.

13

14 **9-28.9 Fiberglass Reinforced Plastic Signs**

15 *This section is deleted in its entirety.*

16

17

18

**END OF SECTION**

19

20



1 **9-29 ILLUMINATION, SIGNALS, ELECTRICAL**  
2 **(August 14, 2019 Tacoma GSP)**

3  
4 **9-29.1(6) Detectable Underground Warning Tape**

5 *This section is supplemented with the following:*

6  
7 For electrical circuits detectable underground warning tape shall be high visibility red,  
8 with continuous legend of "Caution Electric Line Buried Below" or equal. The warning  
9 tape shall be polyethylene with a metallic backing. The polyethylene shall be a minimum  
10 3 inches wide, 4 mils thick.

11  
12 **9-29.2 Junction Boxes, Cable Vaults and Pull Boxes**

13  
14 Unless otherwise specified, all junction boxes containing illumination and signal control  
15 cable shall be Type 1, Standard Duty with alternate 2 locking lid per state standard plan  
16 J-40.10-02.

17  
18 Unless otherwise specified, all junction boxes containing interconnect cabling shall be  
19 Type 2, Standard Duty with alternate 2 locking lid per state standard plan J-40.10-02.

20  
21 **9-29.2(4) Cover Markings**

22 *The second paragraph of this section is revised to read:*

23  
24 Covers shall be marked or embossed with "LT" for boxes containing illumination circuits.  
25 Covers shall be marked or embossed with "TS" for boxes containing traffic signal circuits

26  
27  
28 **9-29.3 Fiber Optic Cable, Electrical Conductors, and Cable**

29 *This section is supplemented with the following:*

30  
31 Where not otherwise specified, all wiring shall meet standard of the industry for the  
32 application employed. Wiring shall be consistent with manufacturers' recommendations  
33 and meet all applicable codes.

34  
35 **9-29.3(2)A Single Conductor**

36  
37 **9-29.3(2)A1 Single Conductor Current Carrying**

38 *This section is supplementing with the following:*

39  
40 Service connections shall be stranded copper size AWG #6 USE unless otherwise  
41 shown in the plans. Black conductor insulation shall be used for the service and the  
42 neutral conductor shall be white. Color tape marking shall not be acceptable for the  
43 neutral conductor.

44  
45 **9-29.3(2)A2 Grounding Electrode Conductor**

46 *This section is supplemented with the following:*

47  
48 Grounding electrode conductor shall be minimum #8 AWG unless otherwise shown in  
49 the plans. When the ground is pulled through a conduit, the wire shall be insulated.  
50 Color tape marking shall not be acceptable for marking the ground.

1 **9-29.3(2)A3 Equipment Grounding and Bonding Conductors**

2 *This section is supplemented with the following:*

3  
4 Equipment grounding shall be minimum #8 AWG unless otherwise shown in the plans.  
5 When the ground is pulled through a conduit, the wire shall be insulated. Color tape  
6 marking shall not be acceptable for marking the ground.

7  
8 **9-29.3(2)B Multi-Conductor Cable**

9 *This section is supplemented with the following:*

10  
11 Two-conductor through 10-conductor unshielded signal control cable, shall have  
12 stranded copper conductors, size AWG 14, and shall conform to International Municipal  
13 Signal Association (IMSA) signal cable 20-1.

14  
15 **9-29.3(2)F Detector Loop Wire**

16 *This section is revised to read:*

17  
18 The loop wire shall be IMSA 51-7, #14 AWG, encased in an orange colored HDPE  
19 jacket. Shielded loop lead-in wire shall be #18 stranded tinned-copper, twisted pair, 2  
20 conductor cable with polyethylene insulation, conductors cabled, and shall have  
21 aluminum-polyester foil-shield furnished in 100% coverage, stranded tinned-copper drain  
22 wire and an overall chrome-vinyl jacket.

23  
24 **9-29.3(2)I Twisted Pair Communication Cable**

25 *This section is revised to read:*

26  
27 The cable for interconnect for underground installation shall be IMSA 40-2 #19 AWG 6  
28 twisted pair, shielded, PE outer jacket or IMSA 40-4 #19 AWG 6 twisted pair, figure 8,  
29 shielded, PE outer jacket for overhead installation.

30  
31 **9-29.4 Messenger Cable, Fittings**

32 *This section is supplemented with the following:*

33  
34 Messenger cable shall be 5/16-inch, seven-wire strand messenger cables conforming to  
35 ASTM A 475, extra-high strength grade, 11,200 lbs. min. breaking strength, Class B  
36 galvanized.

37  
38 All guy eye anchor rods shall be double-hub type.

39  
40 Weatherheads shall be clamp-on type PVC. Where used for signal or flashing beacon  
41 conductors, the center of the wire entrance shall be cut or machined out to a large  
42 diameter to accommodate entry of multi-conductors. All edges shall be smoothed to  
43 avoid chaffing.

44  
45 All miscellaneous nuts, bolts, washers and fittings shall be stainless steel or brass  
46 unless otherwise noted.

47  
48 All metal line hardware shall be hot-dipped galvanized in conformance with the  
49 requirements of ASTM Designation A-153. All eyebolts shall be thimble eye design cast  
50 or welded to form a solid eye.

51

1 5-strand, class B galvanized steel, pretwisted guy strand dead ends, high strength cable  
2 conforming to ASTM Designation A-475, shall be utilized at all span wire terminations.  
3 1/2" rope wire thimbles shall be required where span wire connects to all poles or bull  
4 rings, except where thimble eye bolts are used. Span wire shall normally be installed  
5 directly pole to pole, unless otherwise directed or specified.  
6

7 Strain insulators shall be installed where connecting to wood poles. Where span wire is  
8 connected to a steel or concrete pole, insulators shall not be installed. Strain insulators  
9 shall be wet process, porcelain, conforming to EEI-NEMA Class 54-2 standards for  
10 12,000-pound ultimate strength and shall be installed 9 feet from the pole.  
11

### 12 **9-29.6 Light and Signal Standards**

13 *This section is supplemented with the following:*

14 All light and signal standards shall be fixed base.

15  
16       The head of the handhold security bolt shall be flush with the face of plate. The face  
17 plate of the handhole shall be flush with pole.  
18

### 19 **9-29.6(3) Timber Light Standards, Timber Strain Poles, Timber Service Supports**

20 *This section is supplemented with the following:*

21 All timber poles shall be Class II unless otherwise specified.

22  
23 Mast arms for wood poles shall be "tapered elliptical" or "tapered truss" style, of a size  
24 sufficient to be used with a luminaire weight of 48 pounds with an EPA of 1.1 square  
25 feet. Arms shall have 2-3/8 inches O.D. x 8-inch long slip fitter for mounting luminaire.  
26  
27

### 28 **9-29.6(5) Foundation Hardware**

29 *This section is supplemented with the following:*

30 All pedestrian pushbutton poles (Type PPB) shall be installed utilizing a Breakaway  
31 Base Connection system in conformance with WSDOT standard plan J-20.15-03.  
32 Bracket shall be sized to accommodate a standard push button pole with an outside  
33 diameter of 3.5-inches. Anchor bolt receivers shall be installed at 2-3/4-inch by 7-15/16  
34 inch on center.  
35

36 *Section 9-29.6 is supplemented with the following new section:*

### 37 38 **9-29.6(6) City of Tacoma Universal Pole**

39  
40 Unless otherwise specified, light standards and strain poles shall be in conformance with  
41 the following City of Tacoma standard design.  
42

#### 43 **Strength**

44 Each pole and mast arm shall have adequate strength for the designated luminaire with  
45 1.8 safety factor for maximum combined stresses using 90 mph isotach (117 mph gusts)  
46 per AASHTO specifications for structure supports for highway luminaires. Design shall  
47 be based on total loading of 50 pounds and EPA of 2.0 square feet.  
48

#### 49 **Standard Bolt Spacing**

1 30 Foot poles -- Baseplate shall accommodate 1 inch anchor bolts. The bolt circle shall  
2 be between 11 inches and 13 inches.

3 40 Foot Poles -- Baseplate shall accommodate 1 inch anchor bolts. The bolt circle shall  
4 be between 12.5 inches and 14.5 inches.

5  
6 **9-29.6(6)A Steel Strain Poles**

7  
8 Each pole shall be of tapered round or octagonal construction.

9  
10 CLASS 1 POLE: Design for dead load tensions up to 1500 pounds

11 CLASS 2 POLE: Design for dead load tensions up to 2600 pounds

12  
13 Class 1 poles shall have a minimum base diameter of 12-inches for octagonal poles and  
14 12-1/4-inches for round poles. Poles shall have a minimum wall thickness of 0.3125-  
15 inches. Anchor bolts shall be 1-1/2-inch by 60-inches and shall have a spacing of 11-  
16 5/16-inches on center, on the square. It is the responsibility of the pole manufacturer to  
17 maintain proper clearance between the pole shaft and nuts for the anchor bolts.

18  
19 Class 2 poles shall have a minimum base diameter of 13-1/2-inches for octagonal poles  
20 and 14-inches for round poles. Poles shall have a minimum wall thickness of 0.375-  
21 inches. Anchor bolts shall be 2-inch by 66-inches and shall have a spacing of 12-3/4-  
22 inches on center, on the square. It is the responsibility of the pole manufacturer to  
23 maintain proper clearance between the pole shaft and nuts for the anchor bolts

24  
25 Poles shall be of single-ply construction. Multiple-ply poles shall not be allowed.

26  
27 Each pole shall be of tapered round or octagonal construction. Pole taper shall be in the  
28 range of 0.13 to 0.14 in/ft.

29  
30 A base plate and top casting shall be securely attached to each pole. The attachment of  
31 the base plate to the pole shall be a welded connection sufficient to develop the full  
32 strength of the pole. The base plate shall have four (4) holes which will sufficiently  
33 accommodate the specified anchor bolts for the pole class.

34  
35 Pole shall be of sufficient strength to allow for the span wire to be installed to sag an  
36 amount equal to 5% of the span length.

37  
38 The maximum acceptable deflection, at 30 feet above the base, is 5 inches. The  
39 specified deflection shall be at a loading condition of 1,500 pounds horizontal pull at 30  
40 feet above the base for Class 1 Poles. For Class 2 Poles, the loading condition shall be  
41 2,600 pounds horizontal pull at 30 feet above the base.

42  
43 Structural material shall be zinc-coated by a "hot-dip" process in accordance with ASTM  
44 A123 and the final coating shall measure 0.0039 inch or more in thickness as  
45 determined by a magnetic thickness gauge. All tapped holes shall be chased after  
46 galvanizing. Hardware shall be coated in accordance with ASTM A307.

47  
48 The finished pole shall be reasonably straight and free from injurious defects. If  
49 galvanizing is damaged, the maximum area to be repaired is defined in accordance with  
50 ASTM A123 Section 4.6. The maximum area to be repaired in the field shall be  
51 determined in advance by the Engineer. Repair areas damaged during construction,

1 handling, transport or installation by one of the approved methods in accordance with  
2 ASTM A780 whenever damage exceeds 3/16 inches in width. Minimum thickness for  
3 repair shall measure 0.0039 inches.

4  
5 The company shall furnish the purchaser with template prints showing spacing and size  
6 of holes in base for the anchor rods.

7  
8 The material shall carry the manufacturer's standard guarantee against any defect in  
9 material or workmanship for a minimum period of one year following the date of  
10 installation. The Contractor shall submit mil test reports for all steel used in the  
11 manufacturing of strain poles and pedestals.

12  
13 The Contractor shall submit a Certificate of Compliance with ASTM Standards and  
14 Specifications for galvanizing. The certificate, signed by the galvanizer, shall detail  
15 galvanizing process and testing procedure to determine that galvanizing meets minimum  
16 thickness specified.

17  
18 The contractor shall submit welder certification. Welders must be certified to AWS  
19 standards.

20  
21 Each pole shall include the following:

- 22 1. One (1) rain-tight pole cap.
- 23 2. One (1) 4-inch by 6-1/2-inch handhole at base end with cover plate opposite  
24 to mast arm.
- 25 3. Anchor bolts shall be hot dipped galvanized steel with two (2) galvanized nuts  
26 and two (2) washers for each bolt. Only 12-inches of threaded end of the  
27 bolts must be galvanized. 1-1/2-inch diameter bolts shall have 8-inches of  
28 top thread and 2-inch diameter bolts shall have 10-inches of top thread.
- 29 4. Anchor bolts shall have threaded bottom ends to receive an anchor plate and  
30 nut. The nut shall be tack-welded to the anchor plate. Anchor plates for 1-  
31 1/2-inch diameter anchor bolts shall be 4-inch square by 1-inch thick. Anchor  
32 plates for 2-inch diameter anchor bolts shall be 6-inch square by 1-inch thick
- 33 5. One (1) adjustable strain clamp to be mountable between 26 to 28 feet above  
34 the base. Clamp shall provide facility to attach span wire at four-quarter  
35 points.
- 36 6. Provisions for mounting a mast arm of specified length. All poles shall be  
37 supplied with one mast arm mounting flange. The centerline of the flange  
38 shall be approximately 6 inches below the top of 38-foot poles and 24 inches  
39 below the top of 30-foot poles. The flanges shall conform with the detail  
40 drawing included in the Special Provisions. Poles ordered without mast arms  
41 but with provisions for a later addition of a mast arm shall be provided with a  
42 metal cover and gasket to protect the opening being provided. The cover  
43 shall be bolted to the pole using the holes provided for fastening the mast  
44 arm.
- 45 7. One (1) two-inch coupling to receive clamp-on type aluminum weatherhead  
46 positioned at 27 feet, and no more than 45° from the location of the mast  
47 arm, unless otherwise specified.
- 48 8. One (1) 1-1/4-inch coupling for wire inlet located directly opposite the mast  
49 arm.
- 50 9. One (1) grounding lug-hole in lip of handhole for 1/2-NC brass bolt.

1 **9-29.6(6)B Luminaire Mast Arms**

2  
3 Each mast arm shall have sufficient strength with a 1.8 safety factor to support a 70-  
4 pound luminaire on an 18-foot mast arm per the latest AASHTO Specifications for  
5 Structural Supports for Highway Signs, Luminaires and Traffic Signals.

6  
7 Material and workmanship shall conform to the best commercial standards of the  
8 industry.

9  
10 The mast arm and its fastening shall be constructed of steel conforming to Section 9-  
11 29.6

12  
13 Each mast arm shall support a ballast-in-head luminaire and shall provide a luminaire  
14 mounting height of approximately two (2) feet above the strain pole mounting flange.

15  
16 The mast arm shall provide a horizontal extension from the center of the pole to the  
17 center of the luminaire as shown in the Plans.

18  
19 The mast arm shall be of tapered construction. The luminaire end of the mast arm shall  
20 not exceed 2.375 inches O.D. for a minimum distance of 8 inches. The outside arm  
21 diameter at the pole flange shall not exceed 5.88 inches.

22  
23 The mast arm shall be capable of being fastened to the mast arm mounting flange  
24 dimensioned in the detail drawing. All mounting bolt heads shall clear the weld.

25  
26 **9-29.10 Luminaires**

27 *This section is supplemented with the following:*

28  
29 Unless otherwise shown in the plans all new luminaires shall be Light Emitting Diode  
30 (LED) fixtures conforming to these specifications.

31  
32 Luminaires shall be provided with utility labels. Utility labels shall show actual total  
33 system wattage for LED luminaires.

34  
35 All LED Luminaires shall conform to the following minimum criteria:

- 36 • UL Listed
  - 37 • A Qualified Product on one of the following fixture lists:
    - 38 ○ Energy Star
    - 39 ○ Design Lights Consortium
    - 40 ○ Lighting Design Lab
  - 41 • Warranty: 10 Year Minimum including power driver and LED chips.
  - 42 • Input Voltage: 120-277V
  - 43 • Color Rendering Index (CRI): 70 Minimum
  - 44 • Correlated Color Temperature (CCT):
    - 45 ○ 3000K for Residential Streets
    - 46 ○ 4000K for Arterial Streets
  - 47 • Calculated Lumen Maintenance Factor (LMF): 100,000 hours or more (L70  
48 at 25°C/77°F) in accordance with IESNA TM-21-11 and IESNA LM-80-08
  - 49 • Surge suppression protection: 10kV (IEEE/ANSI C62.41.2)
- 50

1 **9-29.10(1) Conventional Roadway Luminaries**

2 *This section is supplemented with the following:*

3  
4 **Photometrics**

5 Unless otherwise specified, the light distribution shall be IES Type III, medium, cutoff.

6  
7 Photometric Performance:

8 Flat lens luminaires shall have a total downward utilization greater than 65%.

9 Drop lens luminaires shall have a total downward utilization greater than 70%.

10  
11 Photometric performance shall be verified with photometric report from an independent  
12 testing laboratory. Report should be submitted with the bid when requested. Failure to  
13 supply report within ten (10) working days of bid opening may be cause, at the City of  
14 Tacoma's discretion, for the bid to be considered non-responsive.

15  
16 **Ballasts**

17 Ballasts shall be suitable for operation on 240 volt circuits unless otherwise stated.

18  
19 150 watt luminaires shall be 55 volt design.

20  
21 Each luminaire shall have fuses and fuseholders for each power conductor above  
22 ground potential. Fuses shall be 10.3mm x 38.1 mm (13/32" x 1.5"). Fuses shall be  
23 slow blow type (carry 110%, open at 135% within 1 hour, carry 200% for minimum of 10  
24 seconds). Luminaires 250 Watts and below shall have 5 amp fuses. Luminaires above  
25 250 watts shall have 10 amp fuses

26  
27 Luminaires shall have receptacle for ANSI standard twistlock photoelectric controls. For  
28 240 volt luminaires the photocell shall be wired for 240 volts.

29  
30 *This section is supplemented with the following new section:*

31 **9-29.10(1)A LED Roadway Luminaires**

32  
33 Each luminaire shall have LED compatible fuses (in conformance with the  
34 manufacturer's recommendations) and fuseholders for each power conductor above  
35 ground potential. Fuses shall be located in the fixture head. Fuses shall be 10.3mm x  
36 38.1 mm (13/32" x 1.5"). Fuses shall be slow blow type (carry 110%, open at 135%  
37 within 1 hour, carry 200% for minimum of 10 seconds). Luminaires 250 Watts and below  
38 shall have 5 amp fuses. Luminaires above 250 watts shall have 10 amp fuses.

39  
40 LED Roadway Luminaire housings shall be grey/silver and fabricated of aluminum. The  
41 power-door shall be fabricated from either aluminum or a UV resistant polymer. Power-  
42 door access shall be tool-less.

43  
44 LED Roadway Luminaires shall be equipped with a 7-pin NEMA Photocell Receptacle.

45  
46 Where specific luminaires are called out in the project documents, as the basis of the  
47 lighting design, the specified luminaires may be provided in accordance with the  
48 requirements of Sections 8-20 and 9-29. An alternate product may be provided for the  
49 LED Roadway Luminaire provided that the luminaire meets all the conditions of this  
50 section and meets the following conditions:

- 51
- LED Roadway Luminaires shall be one of the following products:

- 1                   o Beta/Cree – XSP Series or LEDway Series
- 2                   o Leotek – Green Cobra Series
- 3                   o GE – Evolve Series
- 4                   o American Electric Lighting/Holophane – Autobahn Series
- 5           • The total system wattage shall not exceed the total system wattage specified.
- 6           • A full electrical and photometric design shall be provided for review by the
- 7           City. Submittals shall be Type 3E and stamped and signed by a licensed
- 8           Professional Engineer. The alternate product selected shall meet or exceed
- 9           the designed product. Contact the City of Tacoma Traffic Engineering
- 10           Section for a list of design assumptions and criteria utilized in the lighting
- 11           design.
- 12           • BUG Ratings for LED Roadway Luminaires shall be in conformance with
- 13           Chapter 5 – Section 3.1 (Table 5-1) of the City of Tacoma Design Right of
- 14           Way Design Manual

15

16   **9-29.11 Control Equipment**

17

18   **9-29.11(2) Photoelectric Controls**

19   *This section is revised to read:*

20

21   The photoelectric control shall be the twistlock type and the light sensitive element shall

22   be a solid state photo diode. The control shall be designed to turn on at 2.6 foot-candles

23   (+/- 20%) and turn off at 2.6 foot-candles (+/- 20%). The lighting control shall not drift by

24   more than 1 per cent over a 10-year period.

25

26   The output control relay shall be electro-mechanical. The time delay for both turn on

27   and turn off shall be a minimum of one second and maximum of 5 seconds. The output

28   relay shall be rated 1000 watts incandescent or 15 amps inductive load. The contacts

29   shall be normally closed.

30

31   The lighting control shall have a built in metal oxide varistor (MOV) rated a minimum of

32   160 joules for lightning and transient protection. The control shall also have secondary

33   zener diode and transient filter. The relay shall be suitable for operation on 240 volt, 60

34   hertz electrical circuits.

35

36   Dimensions shall conform to ANSI specifications for twistlock photocells.

37

38   **9-29.12 Electrical Splice Materials**

39

40   **9-29.12(1) Illumination Circuit Splices**

41   *This section is revised to read:*

42

43   Splices and taps shall be made with solderless crimp connectors on underground and

44   overhead circuits to securely join the wires both mechanically and electrically.

45   Splices shall be sealed in accordance with 8-20.3(8).

46

47   **Thermoplastic Electrical Insulating Tape**

48   Electrical tape shall be made by the same manufacturer and compatible with the

49   electrical coating utilized to form a complete system that both insulates and protects the

50   splice. Electrical tape shall be based on polyvinyl chloride (PVC) and/or its copolymers

51   and have a rubber-based, pressure-sensitive adhesive. The tape shall have a voltage



1 rating of 600V (UL510). The tape shall be 7 mils thick, and be UL Listed and marked per  
2 UL Standard 510 as “Flame Retardant, Cold and Weather Resistant.” The tape shall be  
3 resistant to abrasion, moisture, alkalis, acids, corrosion, and varying weather  
4 conditions, including ultraviolet exposure. The tape must be applicable at temperatures  
5 ranging from 0°F through 100°F (–18°C through 38°C) without loss of physical  
6 properties. The tape shall have an operating temperature up to 220°F (105°C). The tape  
7 shall be classified for use in outdoor environments. The tape shall be compatible with  
8 synthetic cable insulations, jackets and splicing compounds. The tape will remain stable  
9 and will not telescope more than 0.1 inches when maintained at temperatures below  
10 120°F (50°C).

### 11 **Moisture Resistant Electrical Coating**

12 Electrical Coating shall be made by the same manufacturer and compatible with the vinyl  
13 electrical tape utilized to form a complete system that both insulates and protects the  
14 splice. Electrical Coating shall seal and bond the tape and be suitable for direct burial,  
15 direct water immersion, and above ground applications. Electrical coating shall be  
16 flexible when dry. Electrical coating shall consist of the solvents Acetone, Methyl Ethyl  
17 Ketone and Toluene and shall contain synthetic rubber and resin solids.

### 18 **9-29.12(2) Traffic Signal Splice Material**

19 *This section is revised to read:*

20 Induction loop splices and magnetometer splices shall include an uninsulated barrel-type  
21 crimped connector capable of being soldered. The insulating material shall be a heat  
22 shrink type meeting requirements of 9-29.12(1)A.

### 23 **9-29.13 Control Cabinet Assemblies**

24 *This section is revised to read:*

25 The Traffic Controller Cabinet Assembly shall be completely wired and tested to the  
26 2003 NEMA TS2 Traffic Controller Assemblies Specification with NTCIP Requirements  
27 Version 02.06, as amended by these specifications.

28 Cabinets shall be compatible with both Siemens M50 and M60 series controllers.

29 The following submittals will be required for the review and approval by the City prior to  
30 fabrication and wiring:

- 31 1. Proposed cabinet layout diagram including shelving/rack locations. In addition,  
32 detailed diagrams shall be provided for the left side, right side, and back panels.  
33 Drawings shall be clearly labeled and dimensioned.
- 34 2. Proposed cabinet wiring diagram shall be submitted for the review and approval  
35 by the City. Wiring of cabinets shall not commence prior to City approval of the  
36 cabinet wiring plan.

37 All submittal comments shall be incorporated into a final set of prints and each cabinet  
38 shall be furnished to three (3) complete sets of cabinet prints. All cabinet wiring, and

1 layout shall come on (1) E1 size sheet, multiple pages shall not be allowed. Upon  
2 request (1) CDROM or USB flash drive with AutoCAD v2008 cabinet drawing for the  
3 cabinet wiring.

4  
5  
6 **9-29.13(1) Traffic Control Cabinets**

7 Each Traffic Controller Cabinet shall meet the following general operating requirements:

- 8 1. The wired cabinet facility shall use the latest technology applicable meeting the  
9 requirements identified by these specifications.
- 10 2. The cabinet shall be designed for 16 channel operation. Load switch(s) 1-8 shall  
11 be vehicle phases 1-8; load switch(s) 9-12 shall be pedestrian phases 2, 4, 6, 8;  
12 load switch(s) 13-16 shall be overlaps A, B, C, & D; these load switch sockets  
13 shall be configured in this manor without rewiring the back side of the load-bay.  
14 BIU load switch drivers 1-16 shall be wired to appropriate load switch socket.
- 15 3. The cabinet shall be wired for (32) channels of detection and (4) channels of  
16 Opticom™ preemption.
- 17 4. The use of PC boards shall not be allowed except in detector racks and SDLC  
18 interface panels. With the exception of detection racks, the use of plug and play  
19 modules shall not be allowed
- 20 5. All cabinet 120VAC wires shall be 18AWG or greater, including controller "A" and  
21 MMU "A & B" cables.
- 22 6. All welds shall be free from burrs, cracks, blowholes or other irregularities.
- 23 7. The cabinet shall be UL listed.

24  
25  
26 **9-29.13(1)A Cabinet Enclosures**

27 All Cabinet enclosures shall meet the following requirements:

- 28 1. Controller cabinets that are not designated in the project plans and specifications  
29 as UPS Controller Cabinets shall be sized in accordance with NEMA P44  
30 Controller Cabinet standards.
- 31 2. The cabinet shall meet NEMA 3R rating for enclosures.
- 32 3. The cabinet shall be fabricated from 0.125" minimum thickness 5052 H32 ASTM  
33 B209 aluminum alloy and be of clean cut design and appearance. The Cabinet  
34 shall be supplied with a natural mill finish inside and out, unless otherwise  
35 specified.
- 36 4. All exterior seams shall be manufactured with a neatly formed continuous weld  
37 construction.
- 38 5. All external fasteners shall be stainless steel. Interior cabinet welds shall be  
39 continuous for all lap and butt welds. Intermittent welds or silicone adhesive shall  
40 not be accepted in place of a weld for weather-tight penetrations. Pop rivets  
41 shall not be allowed on any external surface.
- 42 6. The cabinet shall be designed for mounting on a concrete pad with anchor bolts  
43 and typical flanges inside the cabinet. The cabinet base shall have continuously

- 1 welded interior mounting reinforcement plates with the same anchor bolt-hole  
2 pattern as the footprint dimensions.
- 3 7. Unless otherwise approved by the Engineer, there shall be a minimum ten (10)  
4 inch vertical clearance above the front half portion of the base area to provide a  
5 clearance for conduit and cable entering the cabinet.
- 6 8. The cabinet shall be double-flanged where it contacts cabinet doors.
- 7 9. The top of the cabinet shall be sloped down 1" towards the rear to facilitate water  
8 runoff. The roof shall be sloped at a 90° angle at the front of the cabinet. Lesser  
9 slope angles are not allowed.
- 10 10. The cabinet shall be equipped with "C" channel rails welded to the interior of the  
11 cabinet such that panels may be mounted to the interior of the cabinet without  
12 drilling through the outer cabinet. The "C" channel rails shall be sufficient in  
13 strength to accommodate planned and reasonably anticipated future equipment  
14 needs. At a minimum, the cabinet shall have (2) welded on the back wall, and  
15 (4) welded on each side wall with (2) pairs on 8-inch centers. The side and back  
16 wall C channel rails shall run the entire usable height of the cabinet walls.
- 17 11. The cabinet shall come with lifting ears affixed to the upper exterior of the  
18 cabinet. The lifting ears shall utilize only one bolt such that the ears can be  
19 reoriented.

#### 20 **9-29.13(1)A1 Cabinet Enclosures for UPS Systems**

21 Controller cabinets that are designated in the project plans and specifications as UPS  
22 Controller Cabinets shall be 70" high x 44" width x 25.5" depth (nominal dimensions) and  
23 meet the footprint dimensions as specified in Section 7.3, table 7-1 of NEMA TS2  
24 standards for a Type P cabinet.

25 UPS Controller Cabinet enclosures shall meet all applicable requirements of Section 9-  
26 29.13(1)A and shall meet the following additional requirements:

- 27 1. The controller cabinet shall have (2) separate compartments. A Main  
28 compartment and a Battery Backup System (BBS) compartment.
- 29 2. The main compartment shall be accessible from the front door and shall house  
30 the cabinet load facilities and electronics. The Battery Backup System (BBS)  
31 compartment shall be accessible from the side door and shall contain the UPS  
32 system batteries.
- 33 3. The cabinet shall be designed such that when the UPS system inverter and ATS  
34 assembly are mounted in the BBS compartment, they shall be fully accessible  
35 when the front door is open.

#### 36 **9-29.13(1)B Cabinet Doors and Locks**

37 Cabinet Doors and Locks shall conform to the following:  
38

- 39 1. A hinged door shall be provided on the front of the cabinet permitting complete  
40 access to the cabinet and the equipment to be contained therein.
- 41 2. Cabinet doors shall be mounted with single continuous stainless steel piano  
42 hinges that run the length of the door. The hinges shall be attached via stainless  
43 steel tamper resistant bolts.

- 1 3. Closed-cell, neoprene gaskets shall be bonded to the inside of cabinet doors.  
2 The gaskets shall cover all areas where the doors contact the double flanged  
3 cabinet housing exterior and be thick enough to provide a watertight seal.
- 4 4. Bearing rollers shall be applied to ends of door latches to discourage metal-on-  
5 metal surfaces from rubbing.
- 6 5. All lock assemblies shall be positioned such that the door handle does not cause  
7 interference with the key when opening the door.
- 8 6. A complete set of keys shall be supplied providing access to all doors, including  
9 the front cabinet door, the cabinet side door (where applicable), the police door  
10 and the generator receptacle door.

11 The front cabinet door shall meet the following additional requirements:

- 12 1. The front door of the cabinet shall be equipped with a universal lock bracket and  
13 lock that operates with a traffic industry conventional #2 key.
- 14 2. A stiffener plate shall be welded to the inside of the front door to prevent flexing.
- 15 3. The front door shall have a two-position, three-point door stop that  
16 accommodates open-angles at 90°, 125°, and 150°.
- 17 4. The front door handle shall be ¾" round stock stainless steel bar. Door handle  
18 mechanisms shall be interchangeable and field replaceable.

19 A side door on UPS Controller Cabinets shall be provided for accessing the BBS  
20 compartment. The cabinet side door shall meet the following additional requirements:

- 21 1. The side door shall be one piece construction without any recessed  
22 compartments.
- 23 2. The side door shall have a three-position, two-point door stop that  
24 accommodates open-angles at roughly 80°, 100°, and 120°.
- 25 3. The side door shall use a recessed hexagonal socket in lieu of a door handle.

26

### 27 **9-29.13(1)C Recessed Compartments**

28 The front door shall contain (2) flush mount locking recessed compartments. The upper  
29 compartment shall house a police door and the lower compartment shall house a  
30 generator bypass receptacle.

- 31 1. The welds for the police compartment and the generator receptacle compartment  
32 shall be done on the outside of the front door.
- 33 2. The police door compartment shall come with a conventional police lock.
- 34 3. The generator bypass receptacle compartment shall have an integrated door  
35 slide mechanism that allows the door to be closed and locked after a generator  
36 has been connected to the internal receptacle.
- 37 4. The generator bypass receptacle compartment shall be equipped with a  
38 universal lock bracket and a standard traffic signal Corbin #2 tumbler series lock.
- 39 5. The locking generator bypass compartment will be used to connect a generator  
40 for operating the cabinet during loss of service line power. The generator  
41 compartment shall be capable of being closed and locked while a generator is  
42 connected. The mechanism for allowing generator cable access, while the

1 compartment is closed, shall be an integral part of the generator bypass door, via  
2 a sliding panel that will normally be in the closed position.

3

4 **9-29.13(1)D Cabinet Ventilation**

5 Cabinet ventilation shall be provided as follows:

- 6 1. A louvered air entrance shall be located at the bottom of the front cabinet door.
- 7 2. For UPS Cabinets, a louvered air entrance shall also be provided at the bottom  
8 of the side cabinet door.
- 9 3. Louvered air entrances shall satisfy NEMA rod entry test requirements for 3R  
10 ventilated enclosures. The baffle panel that holds the fan assemblies shall be  
11 sealed on the interior of the cabinet.
- 12 4. The cabinet shall come with (2) three-stage, multi-ply progressive density  
13 polyester, disposable air filter; and the filter performance shall conform to listed  
14 UL 900 Class 2 and shall conform to ASHRAE Standard 52.1. The filter shall be  
15 secured to entrance on main door by two (2) horizontally-mounted restraints.
- 16 5. The cabinet shall be provided with two (2) finger safe fans mounted on the right  
17 and left sides of the cabinet plenum, and shall be thermostatically controlled.  
18 Fans shall have a rating of 100 CFM and the thermostat setting to allow variable  
19 turn-on between 90 degrees and 140 degrees Fahrenheit. The fan motor shall  
20 use ball-bearings. This unit shall be fitted with an electrical noise suppressor.  
21 The safe touch thermostat and power terminal block(s) shall be din rail mounted  
22 on the cabinet plenum.

23

24 **9-29.13(1)E Cabinet Shelving**

25 Cabinet Shelving shall be provided as follows:

- 26 1. The cabinet shall have two (2) aluminum 0.75-inch shelves that span the width of  
27 the cabinet. Shelves shall be double beveled 10" deep and reinforced with  
28 welded V channel, fabricated from 5052-H32 0.125-inch thick aluminum with  
29 double flanged edges rolled front to back. Slotted holes shall be inserted every  
30 7" for the purpose of tying off wire bundles.
- 31 2. A slide-out computer shelf 16" length by 12" width by 2" depth shall be installed  
32 underneath the bottom equipment shelf. The shelf shall be mounted just left of  
33 center so that controller cables will not interfere with the operation of the shelf  
34 when equipment is installed. The computer shelf shall have a hinged cover that  
35 opens from the front and shall be powder-coated black. The computer shelf shall  
36 be fully retractable under the bottom equipment shelf. When fully extended, the  
37 computer shelf shall hold a minimum of 50lbs and shall automatically secure in  
38 place, mechanically, with a tool-less release mechanism.
- 39 3. For UPS Controller Cabinets, the BBS compartment shall come with (1) 14.25" x  
40 7.75" flanged shelf designed to hold the batteries. In the UPS configuration, the  
41 main cabinet shall come with a third shelf that runs the entire width of the cabinet  
42 above the BBS compartment.

43

1 **9-29.13(2) Wiring**

2 All wiring within the cabinet shall be neat and firm. All cabinet wire shall be amply rated  
3 for the function intended and shall include the use of terminal and suitable identification  
4 labels.

5  
6 Connectors and harnesses shall be provided as defined in the latest NEMA  
7 TS 2 standard. Connector A & B shall be supplied for the monitor unit. In  
8 addition to the TS 2 10-pin connector, the cabinet shall also be wired with a  
9 standard 55-pin NEMA TS 1 Connector A.

10  
11 Wire for harnesses shall conform to MIL-W-16878E Type B, and shall be  
12 rated to 600 volt, 105 degree Celsius. Wire shall be 22 gage, 19 strand.  
13 Wires shall be connected to the heads in the form of crimp-pinned  
14 connections. Solder lugs shall not be allowed. Connectors shall conform to  
15 MIL-C-26482 Series 1. Cables shall be covered with nylon expandable  
16 sleeving. Spiral wrap shall not be used. Termination points of the harnesses  
17 shall be accessible to the technician without requiring the back panel to be  
18 dropped. Unused harness wires shall be tied to the furthest location on the  
19 front of the back panel and shall be capped off.

20  
21 Wires other than harnesses for the monitor and controller shall be THHN,  
22 rated at 600 volt, 105 degree Celsius, and shall be a minimum of 22 AWG.

23  
24 Non insulated connectors shall be utilized for all connections to the Detector Input  
25 Terminal Strip.

26  
27  
28 **9-29.13(3) Electrical Design**

29  
30 **9-29.13(3)A Load Bay**

31 The design of the load-bay shall conform to NEMA TS2 Section 5, Terminals and  
32 Facilities, unless modified herein. The load bay shall be the termination point for the  
33 controller unit (CU) 10-pin TS2 MSA cable, The CU 55-pin TS1 MSA cable, and the  
34 (MMU) MSA & B cables. The terminal facilities layout shall be arranged in a manner that  
35 allows all equipment in the cabinet and all screw terminals to be readily accessible by  
36 maintenance personnel.

37  
38 The load bay shall be fully wired and meet the following requirements:

- 39 1. The load bay assembly shall be constructed of smooth finished aluminum,  
40 sufficient in size for the intended purpose, and with a minimum nominal  
41 thickness of 0.125 inches (1/8 inch). The load bay assembly shall be  
42 mounted between 7-inches and 9-inches above the bottom of the cabinet.
- 43 2. The load bay assembly (panel) shall be hinged and capable of folding down  
44 to allow full access to all wiring and connectors on the back side of the load  
45 bay. The panel shall be constructed, and wiring shall have sufficient slack,  
46 such that folding down the back panel shall not interfere with the operation of  
47 the traffic signal while in service.

- 1 (1) All wire shall enter the lower edge of the panel to facilitate folding  
2 down back panel. The controller (CU) and malfunction management  
3 (MMU) cables shall be routed through the back of the load-bay so that  
4 they will not be subject to damage during load-bay roll down.
- 5 (2) All solder terminals shall be accessible when the load-bay is folded  
6 down.
- 7 (3) The assembly shall be able to fold down without requiring other  
8 components, cables or switches to be removed.
- 9 (4) The load bay shall be designed so that all other cabinet screw  
10 terminals are accessible without removing cabinet electronics.
- 11 (5) The panel shall be able to be fully secured when in its upright position.
- 12 (6) The top of the load-bay panel shall attach directly to "C" channel  
13 spring nuts without the use of standoffs and spacers.
- 14 (7) The load bay shall be balanced such that it will not roll down when the  
15 spring nuts are removed, even when fully loaded with load switches,  
16 flashers and flash transfer relays.
- 17 3. The load-bay facility shall be wired for 16 channels.
  - 18 (1) Load switch(s) 1-8 shall be vehicle phases 1-8
  - 19 (2) Load switch(s) 9-12 shall be pedestrian phases 2, 4, 6, & 8
  - 20 (3) Load switches 13-16 shall be overlaps A, B, C & D
  - 21 (4) Load switches 1-8 & 13-16 shall be routed through a flash transfer  
22 relay.
- 23 4. The following sockets will be provided:
  - 24 (1) Minimum sixteen (16) load switch sockets for NEMA load switches.
  - 25 (2) Six (6) flash transfer relay sockets.
  - 26 (3) One (1) flasher socket.
- 27 5. Install 2K-ohm, 12 watt load resistors as indicated below. The resistors  
28 should be installed to allow good air circulation. All load resistors shall be  
29 easily accessible from the back of the load bay.
  - 30 (1) Install on green and yellow outputs of sockets 1, 3, 5, and 7
  - 31 (2) Install on yellow outputs of sockets 9, 10, 11, and 12
  - 32 (3) Install on green and yellow outputs of sockets 13, 14, 15, and 16
- 33 6. All load switches and flasher shall be supported by a bracket extending at  
34 least ½ the length of the load switch.
- 35 7. Controller Unit (CU) Wiring: Wiring for the 10-pin TS2 MSA cable and the 55-  
36 pin TS1 MSA cable shall be soldered to backside of a load bay screw-type  
37 terminal strip. All controller pins functions shall be terminated.
- 38 8. Malfunction Monitoring Unit (MMU) Wiring: MMU MSA & B cables shall be  
39 soldered to backside of a screw-type terminal strip. All MMU pin functions  
40 shall be terminated.

- 1           9. Relays:
- 2                 (1) All 24 VDC relays shall have the same base socket, but it shall be
- 3                 different from the 115VAC relays.
- 4                 (2) All 115VAC relays shall have the same base socket, but it shall be
- 5                 different from the 24VDC relays. (not applicable to flash transfer
- 6                 relays)
- 7                 (3) The load bay shall have a relay that drops +24VDC to load switches
- 8                 when the cabinet is in flash.
- 9           10. The load bay shall have terminals to access the flash circuits 1 and 2.
- 10           11. There shall be a wire between the pedestrian yellow field terminals and
- 11                 another terminal on the load bay. The MMU channel 9-12 yellows shall
- 12                 terminate next to said pedestrian yellows terminal.
- 13           12. The load-bay shall be silkscreened on both sides. Silkscreen shall be
- 14                 numbers and functions on the front side, and numbers only on the back side.
- 15           13. Field wiring terminations shall be per channel across the bottom of the load-
- 16                 bay. Each channel shall have 3 terminations corresponding to the appropriate
- 17                 vehicle phase Green, Yellow and Red. Default wiring shall be left to right
- 18                 vehicle phases 1-8, pedestrian phases 2, 4, 6, 8 and overlap channels A, B,
- 19                 C, and D following the order of the load switches. Field terminals shall be #10
- 20                 screw terminal and be rated for 600V.
- 21           14. System shall be wired to flash all vehicle channels. Flash programming shall
- 22                 be either red, yellow or no flash simply by changing wires on the front of the
- 23                 load-bay. WIG/WAG flashing operation shall alternate between the used
- 24                 vehicle phases as follows:
- 25                 (1) WIG: Phases 1, 4, 5, 8, OLA, & OLD
- 26                 (2) WAG: Phases 2, 3, 6, 7, OLB, & OLC
- 27           15. The intersection shall be capable of being placed on flashing operation by the
- 28                 conflict monitor, remote input, internal controller time clock and door switch.
- 29                 Remote and internal controller time clock flash shall be in accordance with
- 30                 MUTCD flash. Conflict flash shall be all-red.
- 31           16. All spare circuits shall be wired and terminated on a terminal strip and shown
- 32                 on the wiring diagram.
- 33           17. All cable wires shall be terminated. No tie-off of unused terminals will be
- 34                 allowed.

35 All wiring shall conform to NEMA TS2 Standards. Load bay wiring shall conform to the

36 following colors and minimum wire sizes:

37	Vehicle green load switch output	14 gauge brown
38	Vehicle yellow load switch output	14 gauge yellow
39	Vehicle red load switch output	14 gauge red
40	Pedestrian Don't Walk switch	14 gauge orange
41	Pedestrian Walk switch	14 gauge blue
42	Pedestrian Clearance load switch	14 gauge yellow
43		
44	Vehicle green load switch input	22 gauge brown



1	Vehicle yellow load switch input	22 gauge yellow
2	Vehicle red load switch input	22 gauge red
3	Pedestrian Don't Walk input	22 gauge orange
4	Pedestrian Walk input	22 gauge blue
5	Pedestrian Clearance input	22 gauge yellow
6		
7	Logic Ground	18 gauge white with red tracer
8	+24V DC	18 gauge red with white tracer
9	+12V DC	18 gauge pink
10	AC+ Line	14 gauge black
11	AC- Line	14 gauge white
12	Earth Ground	16 gauge green
13	AC line (load bay)	12/14 gauge black
14	AC neutral (load bay)	12/14 gauge white
15		
16	Controller A Cables – AC+	18 gauge black
17	Controller A Cables – AC-	18 gauge white
18	Controller A Cables – Earth Ground	18 gauge green
19	Controller A Cables – All other cables	22 gauge blue
20		
21	MMU A & B Cables – AC+	18 gauge black
22	MMU A & B Cables – AC-	18 gauge white
23	MMU A & B Cables – Earth Ground	18 gauge green
24	MMU A & B Cables – Start Delay Relay	
25	Common	18 gauge black
26	Normally Open	18 gauge black
27	Normally Closed	18 gauge black
28	MMU A & B Cables – All other cables	22 gauge orange
29		

30 The field terminal blocks shall have a screw Type No. 10 post capable of accepting no  
31 less than 3 No. 12 AWG wires fitted with spade connectors. Four (4) 12-position terminal  
32 blocks shall be provided in a single row across the bottom of the main panel. Spade lugs  
33 from internal cabinet wiring are not allowed on field terminal screws. There shall be a  
34 second row of four (4) 12-position terminal blocks with screw type #10 above the field  
35 terminal blocks. These blocks shall operate the flash program. It shall be changeable  
36 from the front of the load-bay. All load switches, flasher, and flash transfer relay sockets  
37 shall be marked and mounted with screws. Rivets and clip-mounting is unacceptable.

38  
39 The terminal block above the Pedestrian field blocks shall be tied to the Don't Walks and  
40 Walks with orange and blue 14AWG wire. This shall provide termination for pushbutton  
41 control wires without utilizing field terminals.

42  
43 The power terminal blocks shall have a screw Type No. 10 post capable of accepting no  
44 less than 3 No. 12 AWG wires fitted with spade connectors. One (1) 12-position terminal  
45 blocks shall be provided vertically on the right side of the load bay. The placement of the  
46 power terminal block on any other panel shall not be allowed.

47  
48 Wire size 16 AWG or smaller at solder joints shall be hooked or looped around the  
49 eyelet or terminal block post prior to soldering to ensure circuit integrity. All wires shall  
50 have lugs or terminal fittings when not soldered. Lap joint/tack on soldering is not  
51 acceptable. All soldered connections shall be made with 60/40 solder and non-corrosive,

1 non-conductive flux. All wiring shall be run neatly and shall use mechanical clamps and  
2 conductors shall not be spliced between terminations. Cables shall be sleeved in  
3 braided nylon mesh and wires shall not be exposed.  
4

5 All wires terminated behind the main panel or on the back side of other panels shall be  
6 SOLDERED. No pressure or solder-less connectors shall be used. Printed circuit boards  
7 shall not be allowed.  
8  
9

### 10 **9-29.13(3)B Side Panels**

11 Side panels shall be mounted on "C" channels as specified herein. All panels shall be  
12 smooth finished aluminum sufficient in size and thickness for the intended purpose and  
13 anticipated equipment required. Side panels shall be no smaller than 16 gauge and no  
14 larger than 12 gauge. Side panels shall be mounted no closer than 13" from the rear of  
15 the cabinet and no closer than 2" from bottom of cabinet.  
16

17 The Back Left (BKLT) side panel(s) shall contain the following:

- 18 1. BKLT/PSIP – Power Supply Interface Panel
  - 19 a. 12-position, double row, high barrier block with #8/32 slotted brass  
20 screws
  - 21 b. See Section 9-29.13(3)B1 for additional requirements
- 22 2. BKLT/SDLC – SDLC Interface Panel
  - 23 a. 10-port SDLC terminal
  - 24 b. See Section 9-29.13(3)B2 for additional requirements
- 25 3. Additional blank panels are not required for vacant space in the back left of  
26 the cabinet.  
27

28 The Front Left (FRLT) side panel(s) shall contain the following:

- 29 1. FRLT/VDIP – Video Detection Interface Panel
  - 30 a. See Section 9-29.13(3)B3 for requirements
- 31 2. FRLT/DP – Detection Panel
  - 32 a. Vehicle Detection: 64-position, double row, high barrier block with  
33 #8/32 slotted brass screws
  - 34 b. Emergency Vehicle Preemption: 8-position, double row, high barrier  
35 block with #8/32 slotted brass screws
  - 36 c. Pedestrian Detection: 8-position, double row, high barrier block with  
37 #8/32 slotted brass screws
  - 38 d. Pedestrian Returns: Two (2) 8-position, single row, high barrier block,  
39 with #8/32 slotted brass screws
  - 40 e. Isolated Neutral Buss: 24-position, solid copper bar with #10/32  
41 slotted brass screws.
  - 42 f. Ground Buss: 16-position (minimum), standard copper grounding  
43 buss bar suitable for #14 through #4 cu.
  - 44 g. See Section 9-29.13(3)B4 for additional requirements
- 45 3. Blank aluminum spare panels shall be installed in the available space on the  
46 front left side of the cabinet.  
47

48 The Back Right (BKRT) side panel(s) shall contain the following:

- 49 1. BKRT/PS - Power strip convenience outlets as identified by these  
50 specifications. Reference 9-29.13(3)C and 9-29.13(3)B5.

1           2. Additional blank panels are not required for vacant space in the back right  
2 side of the cabinet.

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The Front Right (FRRT) side panel(s) shall contain the following:

1. FRRT/PP - Power Panel
  - a. See Section 9-29.13(3)B5 for additional requirements
2. FRRT/CIP - Communication Interface Panel
  - a. See Section 9-29.13(3)B6 for additional requirements
3. Blank aluminum spare panels shall be installed in the available space on the front right side of the cabinet.

13 **9-29.13(3)B1 Power Supply Interface Panel**

14 The power supply interface panel shall be mounted on the upper back left wall of the  
15 cabinet above the top shelf. The power supply interface panel shall include terminations  
16 for all the cabinet power supply inputs and outputs. It shall have a protective plastic  
17 cover.

18  
19

20 **9-29.13(3)B2 SDLC Interface Panel**

21 All SDLC cables shall be terminated on both ends, securely terminated to the SDLC  
22 interface panel with screw type connection and professionally routed in the cabinet  
23 interior to easily reach the controller, malfunction management unit, BIUs. All SDLC  
24 connectors shall be fully populated with 15 pins each. SDLC cables shall be tie wrapped  
25 in a neat and orderly way.

26  
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31 **9-29.13(3)B3 Video Detection Interface Panel**

32 The video detection interface panel shall be the single point interface for video power  
33 and coax cabling. The panel shall have (6) individual 1 amp circuit breakers so that  
34 individual cameras can be replaced in the field without disrupting the entire video  
35 detection system, a (10) position terminal block with #8/32 screws to provide termination  
36 for 120VAC and camera 120AC line and copper neutral and ground buss bars with  
37 raised slotted & torque style screws.

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A coax surge arrestor shall be installed for each coax based video detection camera identified in the project plans and specifications. The coax surge arrestor shall meet or exceed the manufacturer's recommendations for the cameras installed. Surge arrestors are not required to be installed in the cabinet when a coax based detection system is not identified in the plans and specifications.

44  
45

46 **9-29.13(3)B4 Detection Panel**

47 The detection panel shall be mounted on the left side of the main cabinet compartment  
48 below the bottom shelf. The detection panel shall support (32) channels of vehicle  
49 detection, (4) channels of emergency vehicle preemption, (4) channels or pedestrian  
50 detection with (2) terminal screws per channel and (8) pedestrian returns on a single  
51 panel. The pedestrian call terminal block shall be (2) single row terminals. They shall be

1 connected by removable buss bars. The loop wires shall be a 22AWG twisted pair. One  
2 of the twisted pair wires of all colors shall have a white tracer and land on the second  
3 position terminal of each loop. The emergency preempt wires shall be color coded as  
4 follows. +24VDC orange, preempt inputs yellow and ground blue. The auxiliary vehicle  
5 preemption shall be white with a yellow tracer.  
6

7 The panel shall also include a (24) position solid copper neutral buss bar with pan head  
8 slotted screws and a (16) position minimum solid copper ground buss bar with raised  
9 slotted & torque style screws. They shall be mounted horizontally at the bottom of the  
10 panel.  
11

### 12 **9-29.13(3)B5 Power Panel**

13 The power panel shall handle all the power distribution and protection for the cabinet  
14 and shall be mounted in the bottom right side of the cabinet. All equipment shall be  
15 mounted on an appropriately sized silkscreened aluminum panel and include at a  
16 minimum the following equipment:  
17

- 18 1. A 30-amp main breaker shall be supplied. This breaker shall supply power to  
19 the load bay, load switches, controller, MMU, power supply, detector racks,  
20 power strip and auxiliary panels.
- 21 2. A 15-amp auxiliary breaker shall supply power to the fan, cabinet lights and  
22 GFI.
- 23 3. A 60-amp, 125 VAC radio interference line filter.
- 24 4. Power panel shall include a two-stage, electrically isolated transient voltage  
25 suppressor capable of dissipating a high energy surge of 20KA (8x20  
26 microsecond pulses) while clamping the output voltage to 340 volts or less.  
27 Isolation shall be provided between the neutral and ground connections.  
28 Power to all cabinet electronics equipment and power strip shall come  
29 through this surge suppression circuit. There shall be a 2-position terminal  
30 block with slotted #10/32 slotted brass screws on the power panel, between  
31 the power strip mounted in the cabinet and the transient voltage suppressor  
32 for easy replacement.
- 33 5. A normally open, solid state relay rated for 50-amp minimum for the load  
34 switch power. (No Mercury Contactors shall be allowed.)
- 35 6. One see-through Plexiglas cover on stand-offs to protect maintenance  
36 personnel from AC line voltages. This shall be removable by loosening  
37 screws but without removing screws.
- 38 7. One (1) 24-position solid copper neutral buss bar with slotted #10/32 slotted  
39 brass screws
- 40 8. Minimum 24-position, standard solid copper ground buss bars with raised  
41 slotted & torque style screw heads suitable for #14 through #4 cu.
- 42 9. Two MOVs shall be terminated on the 120AC in field terminal. One tied  
43 between line and ground, the other between neutral and ground.
- 44 10. Line side AC Power Terminal, 3-position, double row. Power Terminal shall  
45 be a dead-front type rated at a minimum of 300V, 50 amp and suitable for #6  
46 cu.
- 47 11. The neutral buss bar, the ground buss bar, and the line side power terminal  
48 shall be installed at the bottom of the power panel. The buss bars shall be  
49 installed horizontally and the terminal shall be installed with the same

1 orientation such that the wires coming into the cabinet can be easily  
2 connected from the bottom of the cabinet.

3  
4 All circuit breakers shall be Siemens, Square D, GE, Eaton/Cutler Hammer, or Engineer  
5 approved equal.

6  
7  
8 **9-29.13(3)B6 Communication Interface Panel**

9 There shall be (2) 12-position, double row, high barrier terminal blocks, with #6/32  
10 slotted brass screws on the left bottom side of the spare panel on the right side wall of  
11 the cabinet.

12  
13  
14 **9-29.13(3)B7 Fiberoptic Termination Panel**

15 The cabinet shall come with a 12 port wall mounted fiberoptic termination panel suitable  
16 for an outdoor enclosure. Dimensions shall be 10-inches wide, 5.12-inches high and  
17 3.25-inches deep. Capacity shall be two plates, up to 48 fibers. Material shall be heavy  
18 gauge steel.

19  
20 Two coupler plate connectors shall be provided meeting the following requirements:

- 21 • Connector family shall be single-mode SC
- 22 • Fibers per connector shall be Duplex
- 23 • Connector Type/Polish shall be APC
- 24 • Material shall be Metal
- 25 • Number of Couplers shall be 6 each.

26  
27 Panel shall come with appropriate compatible splice trays, and cable clamps.

28  
29  
30 **9-29.13(3)C Convenience Outlets**

31 The cabinet shall be wired with (1) 120 VAC convenience outlet with a ground fault  
32 interrupter (GFI) and (1) 120 VAC power strip without ground fault interrupters. The  
33 ground fault outlet (GFI) shall be mounted on the right side of the main compartment on  
34 or near the power panel. The power strip shall be near the top shelf of the main  
35 compartment in the upper left corner of the cabinet and the wiring shall be neatly  
36 secured. No outlets shall be mounted on the door. The non-GFI power strip shall be on  
37 a separate circuit from the GFI outlet, and provide a minimum of six (6) outlets. The  
38 power strip shall be fed through the transient voltage suppressor located on the cabinet  
39 power panel. There shall be a 2-position terminal block on the power panel, between the  
40 power strip and the transient voltage suppressor for easy replacement.

41  
42  
43 **9-29.13(3)D Cabinet Illumination**

44 Two LED light strips shall be provided for cabinet illumination. One shall be mounted to  
45 the top front of the cabinet interior, and shall be rated at a minimum of 475 lumens. A  
46 second LED light to illuminate the load bay area and shall be mounted below the rollout  
47 drawer (computer shelf), and shall be rated at a minimum of 240 lumens. The light shall  
48 be attached so that it remains stationary when the drawer is extended. A door switch  
49 shall be wired so as to allow both lights to operate only when the door is open.

1  
2 **9-29.13(3)E Generator Bypass Compartment and Cable**

3 Inside the generator compartment there shall be a silkscreened panel housing:

- 4 1. 30A / 125V flanged inlet receptacle capable of accepting a standard 30 amp  
5 generator plug. The receptacle shall be appropriate for an extra heavy duty  
6 industrial application meeting the following requirements:  
7 a. Backwired terminations for ease of installation  
8 b. NEMA L5-30P  
9 c. Listed to UL 498  
10 d. Fed Spec: W-C-596  
11 e. Certified to CSA C22.2 No. 42  
12 f. Housing/Flange: Nylon  
13 g. Terminal Retainer: Clear Polycarbonate  
14 h. Blades: Brass  
15 i. Terminal Screws: #10-32 Brass (Phillips / Slotted / Robertson)  
16 j. Terminal Clamp: Cold Rolled Steel – nickel plated  
17 k. Assembly Screws: Steel - nickel plated  
18 l. Mounting Screw: Nickel plated brass  
19 m. Electrical: Current Interrupting Certified for current interrupting at full  
20 rated current  
21 n. Dielectric Voltage: Withstands 2,000V minimum  
22 o. Mechanical: Cord Grip Accomodation #16 AWG - #8 AWG solid or  
23 stranded copper wire only.  
24 p. Terminal Identification: In accordance with UL 498  
25 q. Flammability: HB or better per UL94/CSA 22.2 No.0.17  
26 r. Moisture Resistance: IP20 Suitability  
27 s. Operating Temperatures: Maximum Continuous 75°C. Minimum -  
28 40°C (w/o impact)  
29  
30  
31  
32 2. A 50A, 2 pole, 4 contact cam switch with split 120VAC line and neutral feeds.  
33 The switch shall be a break before make type.  
34 3. (2) LED lamps with sockets. One LED shall be illuminated when the cabinet  
35 has service line power available and the other when the cabinet has  
36 generator power available. All LED's shall be field replaceable without putting  
37 the intersection in flash and shall carry a 5 year manufacturer warranty.  
38

39 All wiring to the generator bypass compartment shall be contained in a single cable  
40 bundle. The cable shall connect to the backside of the electrical components and shall  
41 only be accessible from the inside of the cabinet front door. All electrical components on  
42 the inside of the front door that carry AC voltage shall be covered by a see-through plexi-  
43 glass cover. The generator bypass cable shall terminate at the same power panel  
44 location as service line voltage.  
45

46  
47 **9-29.13(3)F Police Panel**

48 Behind the police panel door there shall be switches for use by emergency personnel.  
49 The wiring for these switches shall be accessible when the auxiliary panel is open.  
50

51 The following switches shall be included:

- 1       1. **Flash Switch:** There shall be a switch for the police that puts the cabinet into  
2 flashing operations. The switch shall have two positions, "Auto" (up) and "Flash"  
3 (down). The "Auto" position shall allow normal signal operation. The "Flash"  
4 position shall immediately cause all signal displays to flash as programmed for  
5 emergency flash and apply stop time to the controller. When the police flash  
6 switch is returned to "Auto", the controller shall restart except when the MMU has  
7 commanded flash operation. The effect shall be to disable the police panel switch  
8 when the MMU has detected a malfunction and all controller and MMU  
9 indications shall be available to the technician regardless of the position of the  
10 police flash switch. The switch shall be a general-purpose bat style toggle switch  
11 with 0.688-inch long bat.
- 12       2. **Signals On/Off Switch:** There shall be a switch that renders the field signal  
13 displays electrically dead while maintaining controller operation for purpose of  
14 monitoring controller operations. The switch shall be a general-purpose bat style  
15 toggle switch with 0.688-inch long bat.

### 16 17 **9-29.13(3)G Auxiliary Switch Panel**

18 The cabinet shall include an auxiliary switch panel mounted to the interior side of the  
19 police panel compartment on the cabinet front door. The panel shall be secured to the  
20 police panel compartment by (2) Philips head screws and shall be hinged at the bottom  
21 to allow access to the soldered side of the switches. Both sides of the panel shall be  
22 silkscreened. All of the switches shall be protected by a hinged see-through Plexiglas  
23 cover.

24  
25 The following switches shall be included:

- 26       1. **Controller ON/OFF Switch:** There shall be a switch that renders the controller  
27 and load-switching devices electrically dead while maintaining flashing  
28 operations for purpose of changing the controller or load-switching devices. The  
29 switch shall be a general-purpose bat style toggle switch with 0.688-inch long  
30 bat.
- 31       2. **Signals ON/OFF Switch:** There shall be a switch that renders the field signal  
32 displays electrically dead while maintaining controller operation for purpose of  
33 monitoring controller operations. The switch shall be a general-purpose bat style  
34 toggle switch with 0.688-inch long bat.
- 35       3. **Stop Time Switch:** There shall be a 3-position switch labeled "Normal" (up),  
36 "Off" (center), and "On" (down). With the switch in the "Normal" position, a stop  
37 timing command shall be applied to the controller by the police flash switch or the  
38 MMU (Malfunction Management Unit). When the switch is in its "Off" position,  
39 stop timing commands shall be removed from the controller. The "On" position  
40 shall cause the controller to stop time. The switch shall be a general-purpose bat  
41 style toggle switch with 0.688-inch long bat.
- 42       4. **Technician Flash Switch:** There shall be a switch that places the field signal  
43 displays in flashing operation while the controller continues to operate. This flash  
44 shall have no effect on the operation of the controller or MMU. The switch shall  
45 be a general-purpose bat style toggle switch with 0.688-inch long bat.

- 1           5. **Light Switch:** There shall be a switch that turns cabinet lighting off with the main  
2 door open. The switch shall be a general-purpose bat style toggle switch with  
3 0.688-inch long bat.

4  
5  
6 **9-29.13(4) Auxiliary Equipment**

7  
8 **9-29.13(4)A Traffic Signal Controller**

9 Traffic Signal Controller shall be a Siemens Controller, EPAC M62 with an ATC  
10 Communications Module. The CPU operating system shall be Linux. The Contractor  
11 shall contact the City of Tacoma Traffic Signal Shop at 253-491-5287 to obtain the  
12 current firmware version to be utilized.

13  
14  
15 **9-29.13(4)B Malfunction Management Unit (MMU)**

16 The cabinet shall come with a Malfunction Management Unit (MMU). The cabinet shall  
17 come with a (MMU) that meets all the requirements of NEMA TS2-2003 while remaining  
18 downward compatible with NEMA TS1. It shall have (2) high contrast LCD displays and  
19 an internal diagnostic wizard. It shall come with a 10/100 Ethernet port. It shall come  
20 with software to run flashing yellow arrow operation. The MMU shall be an Eberle  
21 Design, Inc. (EDI) model MMU2-16LEip. Contractor shall provide a compatible TS2  
22 program card onboard memory.

23  
24  
25 **9-29.13(4)C Load Switches**

26 Modular solid state relay cube-type load switching assemblies, in accordance with the  
27 latest NEMA TS 2 Standards, shall be used for opening and closing signal light circuits  
28 and shall be jack-mounted external to the controller unit. Indicator lights shall be  
29 connected to input circuits. Load switches shall be rated at fifteen (15) amps per circuit.  
30 Each cabinet shall contain twelve (12) load switches.

31  
32  
33 **9-29.13(4)D NEMA Flasher**

34 The flasher shall be solid state, two circuit with a minimum current rating of fifteen (15)  
35 amps per circuit. The flasher shall be cube type and have LED indications.

36  
37  
38 **9-29.13(4)E Flasher Transfer Relay**

39 The cabinet shall come with (6) 120V NEMA heavy duty flash transfer relays designed  
40 for use in traffic signal cabinets. Flash transfer relays shall meet the following  
41 requirements:

- 42       • Contacts
- 43           ○ Configuration: DPDT
- 44           ○ Materials: 3/8" Silver Cadmium Oxide
- 45           ○ Contact Ratings: Tungsten Load Rating 20 Amps at 120 VAC (2.4
- 46           KW)
- 47       • Coils
- 48           ○ Nominal Input Voltage: 110/120 VAC 50/60 Hz
- 49           ○ Nominal Coil Power: 7.0 VA
- 50           ○ Coil Resistance: 970 Ohms +/-10%



- 1                   ○ Coil Insulation: Molded class F
- 2                   ○ Insulation Resistance: 100 Megaohms minimum
- 3           • Operation:
- 4                   ○ Pull-In voltage: ≤ 75% of nominal voltage
- 5                   ○ Drop-Out voltage: ≥ 30% of nominal voltage
- 6                   ○ Operate Time: 20 ms. approx.
- 7                   ○ Release Time: 20 ms. approx.
- 8                   ○ Operating Temperature: Ambient: -40°C to +65°C
- 9                   ○ Expected Life:
  - 10                   ▪ Electrical: 200,000 operations min. @ rated load
  - 11                   ▪ Mechanical: 5,000,000 operations min. @ no load
- 12                   ○ Dielectric Strength:
  - 13                   ▪ Across Open Contacts: 1200 VRMS
  - 14                   ▪ Contacts to Coil: 2200 VRMS
  - 15                   ▪ Contacts to Frame: 2200 VRMS
  - 16                   ▪ Pole to Pole: 2200 VRMS
- 17           • Mechanical Data:
  - 18                   ○ Operating Position: Any
  - 19                   ○ Mounting: NEMA 8 pin socket
  - 20                   ○ Terminals: 0.250" x 0.055" (6.35 mm x 1.40 mm)
  - 21                   ○ Insulation Material: Thermoplastic 94V-2 rating
  - 22                   ○ Cover Material: Clear Polycarbonate 94V-2 Rating
  - 23                   ○ Cover Protection Category: 40 IP rating
  - 24                   ○ Expected Life:
    - 25                   ▪ Electrical at Rated Load (Min.) 100,000 Operations
    - 26                   ▪ Mechanical Life 10,000,000 Operations
  - 27                   ○ Dielectric Strength:
    - 28                   ▪ Between Contacts: 1200 VRMS, 60 Hz
    - 29                   ▪ Between Other Elements 2200 VRMS, 60 Hz

31

32 **9-29.13(4)F Loop Detector Card Rack**

33 Two (2) fully wired 8-position card racks, shall be installed. Detector racks shall be  
34 capable of using both two channel and four channel detection devices. One of the card  
35 racks shall also have the additional capacity and be fully wired for an Opticom Model  
36 760 Card. Racks shall be secured to the detector shelf as far to the right as possible  
37 within the cabinet in such a manner as to afford easy access for maintenance, without  
38 interfering with access to any of the ports. The racks shall accommodate 4.5 inch high,  
39 6.875 inch long, 1.12 inch wide two channel, two output per channel detector modules.  
40 Connectors shall be 44 contacts (22 each side) spaced on 0.156" centers. Each rack  
41 shall be provided with a bus interface unit (BIU). These shall meet all the requirements  
42 of NEMA TS-2 1988 standards. In addition, all BIUs shall provide separate front panel  
43 indicator LED's for DC power status and SDLC Port 1 transmit and receive status.

44

45 The (BIU)'s shall be Eberle Design, Inc. model BIU-700, Econolite model BIU-64, Reno  
46 A&E model BIU/2, or Engineer approved equal.

47

48 The loop cabling shall be connected via a 37 pin DB connector using spring clips. The  
49 Opticom cable shall be connected via a 24 pin connector using locking latches. The  
50 power cable shall be a 6 pin connector. All power wires shall be 18AWG. The  
51 addressing of detector racks shall be accomplished via dipperswitches mounted to the PCB.

1 There shall be the capability to turn off the TS2 status to the BIU for the uses of TS1  
2 detector equipment via dipswitches mounted to the PCB. There shall be a 34 pin  
3 connector using locking latches that breaks the output from the detector to the input of  
4 the BIU, there shall also be +24VDC and logic ground on this connector. All racks shall  
5 have space at the bottom front for labeling. All racks shall be designed for horizontal  
6 stacking. Separate racks for detection and preemption are not allowed.

7  
8  
9 **9-29.13(4)G Detector Power Supply**

10 The cabinet shall come with a shelf mounted cabinet power supply meeting at minimum  
11 NEMA TS 2-2003 (R2008) standards. It shall be a heavy duty device that provides  
12 +12VDC at 5 Amps / +24VDC at 3 Amps / 12VAC at 0.25 Amp, and line frequency  
13 reference at 50 mA. The power supply shall provide a separate front panel indicator LED  
14 for each of the four outputs. Front panel banana jack test points for 12VDC, 24VDC, and  
15 logic ground shall also be provided. The power supply shall provide 5A of power and be  
16 able to cover the load of four (4) complete detector racks.

17  
18 **9-29.13(4)H Ethernet over Copper Switch**

19 Ethernet over Copper Switch shall be Actelis ML 684D with two SFP-LC ports, unless  
20 otherwise specified. A standard 110 VAC power adapter, a DSL-Octal Cable 2xRJ45,  
21 and a minimum 6' Ethernet patch cable shall be provided with each. Two (2) SFP Optics  
22 100Base-FX SM, 1310NM, 15KM, LC fiber optic units shall be provided with each  
23 Switch.

24  
25  
26 **9-29.13(4)I Uninterruptable Power System (UPS)**

27 The cabinet shall come with a complete uninterruptable power system (UPS), also  
28 referred to as a Batter Backup System (BBS). The UPS shall include at a minimum a  
29 UPS module with SNMP, ATS assembly, batteries, battery heater mats, battery cables  
30 and a battery management system. All other ancillary equipment for a complete  
31 functioning UPS system shall be included.

32  
33 The key UPS system components are identified in the subsection below.

34  
35 **9-29.13(4)I1 UPS Module**

36 The cabinet shall come with (1) FXM 1100W uninterruptible power supply or approved  
37 equivalent that supplies clean reliable power control and management. It shall have  
38 Automatic Voltage Regulation (AVR), an Ethernet SNMP interface and a control and  
39 power connection panel that is rotatable for viewing in any vertical or horizontal  
40 orientation. It shall have nominal dimensions of 5.22" x 15.5" x 8.75" and come with  
41 mounting brackets. The UPS module shall be an Alpha model 017-201-23 or approved  
42 equivalent.

43  
44 **9-29.13(4)I2 UATS/UGTS Assembly**

45 The cabinet shall come with (1) universal automatic transfer switch and universal  
46 generator transfer switch connected between the UPS module and the batteries. It shall  
47 have surge protection, have dimensions of 3.25" x 15.5" x 6.00" and come with mounting  
48 brackets. The ATS module shall be an Alpha model 020-168-25 or approved equivalent.

1 **9-29.13(4)I3 UPS Batteries**

2 The cabinet shall come with (4) high performance Absorbed Glass Mat (AGM)  
3 AlphaCell™ batteries with 112Ah runtime. The BBS batteries shall be Alpha model  
4 240XTV or equivalent.

5  
6 **9-29.13(4)I4 UPS Battery Harness**

7 The cabinet shall come with (1) battery cable (10) foot long wired for (4) batteries. The  
8 battery harness shall be Alpha model 740-678-27 or equivalent.

9  
10 **9-29.13(4)I5 Battery Management System**

11 The cabinet shall come with AlphaGuard™ battery charge management system Alpha  
12 model 012-306-21 or approved equivalent.

13  
14  
15 **9-29.13(4)J Preemption/Priority Equipment**

16  
17 The cabinet shall come with (1) 4-channel rack mounted Opticom™ phase selector. This  
18 device shall be capable of receiving encoded signals from Opticom series 700 emitters  
19 and detectors. The Opticom™ phase selectors shall be Global Traffic Technologies  
20 model 764 or equivalent.

21  
22  
23 **9-29.13(5) Manufacturer Testing and Certification**

24 The complete cabinet assembly with electronics shall undergo complete input/output  
25 function testing by the manufacturer before being released to the City of Tacoma..  
26 Testing shall be done via service feed to the 120VAC field terminal. Service power shall  
27 be routed through the generator bypass switch, UPS inverter before being connected to  
28 the power panel so that all service load circuits are tested.

29  
30 If the cabinet specified comes with a UPS system (BBS) and batteries; the entire  
31 controller cabinet assembly shall undergo a BBS field test procedure where the cabinet  
32 is run off battery power for a minimum of one hour.

33  
34  
35 **9-29.15 Flashing Beacon Control**

36  
37 *This section is renamed and replaced with the following:*

38  
39 **9-29.15 Pedestrian Activated Crosswalk Beacons**

40  
41 Crosswalk beacons shall be with two flashing beacons, unless otherwise specified,  
42 independently aimable, with wireless control of the other beacons at the pedestrian  
43 crossing. Unit shall be one integral assembly which includes the two beacons, control  
44 circuitry and inter-beacon radio communications hardware and software. Indicator  
45 heads shall be green unless otherwise specified. All circuitry and batteries shall be  
46 contained within the indicator heads. A separate post mounted controller box shall not  
47 be acceptable.

48  
49 Beacons shall have 8 inch amber faces and meet MUTCD and ITE specifications for the  
50 intended application. Flashing modes shall include MUTCD specification ½ second on,  
51 ½ second off and high visibility strobe pattern. Variations shall include synchronized or

1 wig-wag (alternating). Flashing duration shall be variable from 5 seconds to 60 seconds.  
2 Beacons shall have inputs for activation by pedestrian pushbuttons and wirelessly  
3 transmitting the activation to the other beacons at the pedestrian crossing.

4  
5 Beacon shall incorporate inter-beacon radio communication via spread spectrum radio  
6 using ISM 902-928 Mhz. Unit shall include minimum of 8 unique addresses for multiple  
7 units in close proximity. Communication shall have a minimum range of 300 feet.

8  
9 Units shall have separate solar panels and batteries for each individual beacon. Solar  
10 panels shall be minimum 4 watt per beacon. Batteries shall be commercially available  
11 minimum 25 AH. Fully charged units shall have capacity for one month of continuous  
12 operation based on 300 20-second LED flash cycles per day.

13  
14 Mounting shall be compatible with the specified pole. Contractor shall be responsible for  
15 coordinating the mounting interface between the pole and crosswalk beacon assembly.

## 16 17 **9-29.16 Vehicular Signal Heads, Displays, and Housing**

### 18 19 **9-29.16(2)B Signal Housing**

20 *The second paragraph is supplemented with the following:*

21  
22 The door shall open a minimum of 160 degrees.

23  
24 *The third paragraph is supplemented with the following:*

25  
26 The sections shall be held firmly together by corrosion-resistant hardware in such a  
27 manner that additional sections may be added easily.

28  
29 *The fourth paragraph is supplemented with the following:*

30  
31 The terminal strip for a standard three-section head shall be a minimum five-position,  
32 ten-terminal, barrier-type strip with No. 8 screw-type fasteners. To one side of each  
33 terminal shall be attached the white, red, yellow and green signal section leads, leaving  
34 the opposite terminal for field wires. Multi-section heads shall be provided with a  
35 terminal strip located in the yellow (center) section. Lead shall be No. 18 AWG type with  
36 1/32-inch wall, 105-1/4 centigrade thermoplastic insulation.

### 37 38 **9-29.16(3) Polycarbonate Traffic Signal Heads**

39 *This section is deleted.*

## 40 41 **9-29.17 Signal Head Mounting Brackets and Fittings**

42 *This section is revised to read:*

43  
44 Vehicle and pedestrian signal heads shall be as detailed in the standard plans.

45  
46 Span wire vehicle signal hanger hardware shall consist of span wire clamp, balance  
47 adjuster, wire entrance fitting and vehicle head locking device.

### 48 49 A. Construction

- 50 1. Bronze hangers are required.

- 1           2. The minimum size of pins shall be 5/8-inch diameter. Pins shall be stainless  
2           steel.
- 3           3. The minimum size of the 'J' or 'U' cable clamps is 1/2-inch diameter. Cable  
4           clamp bolts shall be stainless steel. Clamping insert shall be used.
- 5           4. The cable saddle shall be at least 9 inches long.
- 6           5. All cotter pins shall be brass and washers shall be stainless steel.
- 7           6. All hardware shall be of stainless steel, bronze or brass materials.
- 8           7. Signal stem shall be locked with a square headed set screw 1/4-inch  
9           minimum in diameter.
- 10          8. Wire entrance shall be a minimum of 1-1/4-inch diameter and shall have a  
11          female threaded base for nipple.
- 12          9. The balance adjuster directional lock shall be of the clamping type with 1/2-  
13          inch through bolt for locking. No set screw or lock nut acceptable.
- 14          10. All stems shall be secured to signal head with proper lock fitting.

15  
16 Vehicle signal heads attached to a mast arm shall use a type M mounting bracket as  
17 detailed in the standard plans and in accordance with Section 8-20.3(14)B and Section  
18 9-29.17.

#### 19 20 **9-29.18 Vehicle Detector**

21 *This section is supplemented with the following:*

22 Unless otherwise specified in the contract plans, the vehicle detection system provided  
23 shall be a Gridsmart detection system with the performance and pedestrian modules  
24 included.

#### 25 26 27 **9-29.18(3) Gridsmart Detection System**

28 The Gridsmart system provided shall provide all necessary components required in  
29 order to fully install, setup, test, operate and maintain a fully functional detection system,  
30 including, but not limited to, the following components:

- 31
- 32           1. Gridsmart Power over Ethernet Bell Camera(s)
- 33           2. GS2 Gridsmart Processor with the following Modules:
  - 34                   (1) Performance Module
  - 35                   (2) Pedestrian Module
- 36           3. Mounting Hardware
- 37           4. Connection Cables

38 Unless otherwise identified in the project plans, one Bell Camera is required for each  
39 intersection. Additional cameras may be required, and will be identified in the project  
40 plans when two or more major arterials intersect, or where sight lines require additional  
41 cameras. Changes to the intersection layout, or camera locations may require additional  
42 cameras for proper functionality. Field adjustments to the camera location shall not be  
43 permitted without approval from the Engineer.

44 All mounting hardware and cabling shall meet the manufacturer's recommendations,  
45 unless otherwise specified herein.

46

1 **9-29.19 Pedestrian Push Buttons**

2 *This section is supplemented with the following:*

3  
4 Pushbutton systems shall be fully compliant with Accessible Pedestrian System  
5 requirements as defined by the American with Disabilities Act. Pushbutton systems shall  
6 be two wire systems (four wire systems shall not be permitted).

7  
8 Unless otherwise specified, the pedestrian push button central control unit shall be  
9 Polara shelf mount control unit capable of communication through a SDLC cable (Polara  
10 Model iCCU-S).

11  
12 Push buttons stations shall be Polara - iN2 series with the following options:

- 13 1. 9x12 Front Plate Adapter
- 14 2. 9x12 Faceplate compliant with MUTCD R10-3b
- 15 3. No braille on Face Plate
- 16 4. Custom Messages
- 17 5. Black Button Cover

18  
19 Extenders may be required for locations where the APS buttons are not within an  
20 acceptable reach. Extenders or adapters may be required to accommodate the size of  
21 the faceplates for locations where two pushbuttons are mounted to the same pole.

22  
23  
24 **9-29.20 Pedestrian Signals**

25 *This section is supplemented with the following:*

26  
27 All pedestrian signals housings shall be die-cast aluminum.

28  
29 *The Vacant Section 9-29.22 is replaced with the following:*

30  
31  
32 **9-29.22 Preemption Hardware**

33  
34 Preemption Hardware shall be Opticom TM Model 721 unless otherwise specified.

35  
36 **9-29.24 Service Cabinets**

37 *This section is supplemented with the following:*

38  
39 Service cabinets shall be pole mounted, exterior NEMA 3R Rated with a bolt on HUB for  
40 top entry. Cabinet shall be a maximum 10 inches wide, 14 inches high, and 5 inches  
41 deep.

42  
43 Load Center shall have between 100 and 150 Amps, with capacity for 6 spaces and 12  
44 circuits, or 8 spaces and 16 circuits as required by Code.

45  
46 Service panels shall be Square D – QO Series

47  
48  
49 **9-29.24(2) Electrical Circuit Breakers and Contactors**

50 *The first paragraph is supplemented with the following:*

51

- 1 Mercury relays shall not be accepted. Contactors shall be one of the following brands:  
2 1. Square D  
3 2. Siemens  
4 3. Eaton/Cutler Hammer  
5 4. Engineer Approved Equal  
6

7 *The second paragraph is deleted.*

8  
9 *The third sentence of the third paragraph is deleted.*

10  
11 *The third paragraph is supplemented with the following:*

- 12  
13 All service panel breakers shall be one of the following brands/series  
14 1. Square D – QO Series  
15 2. Siemens – Type BL  
16 3. Eaton/Cutler Hammer – Quick Lag Type BA  
17 4. Engineer approved Equal  
18

- 19 All surface mount breakers shall be one of the following Brands/Series:  
20 1. Square D (Type QOU)  
21 2. Siemens  
22 3. Eaton/Cutler Hammer  
23 4. General Electric  
24 5. Engineer approved Equal  
25

26 END OF SECTION

27  
28 **END OF SPECIAL PROVISIONS**

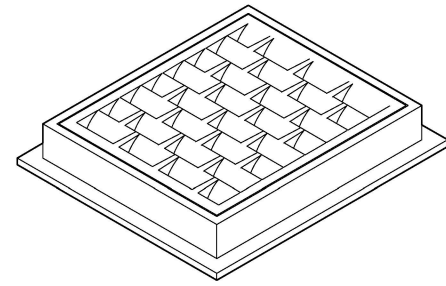
**APPENDIX A**

**CITY OF TACOMA**

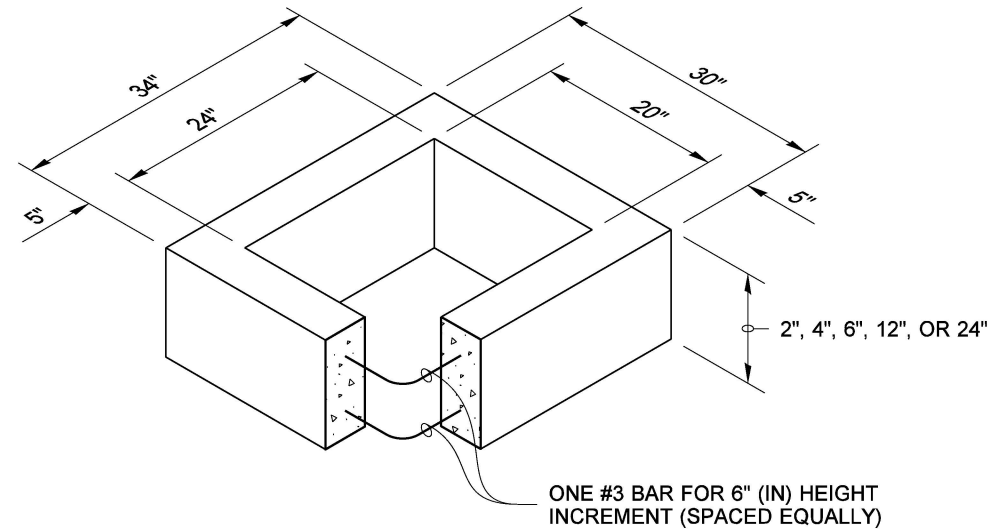
**AND**

**WSDOT STANDARD PLANS**

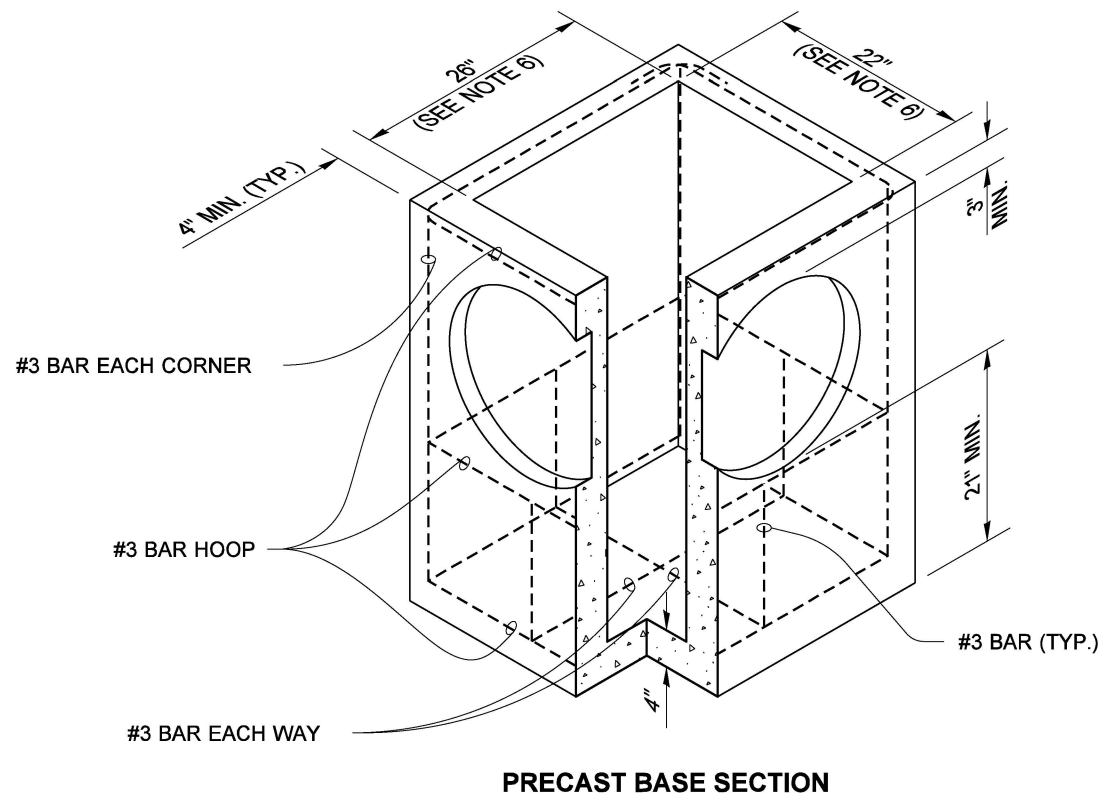




**FRAME AND VANED GRATE**



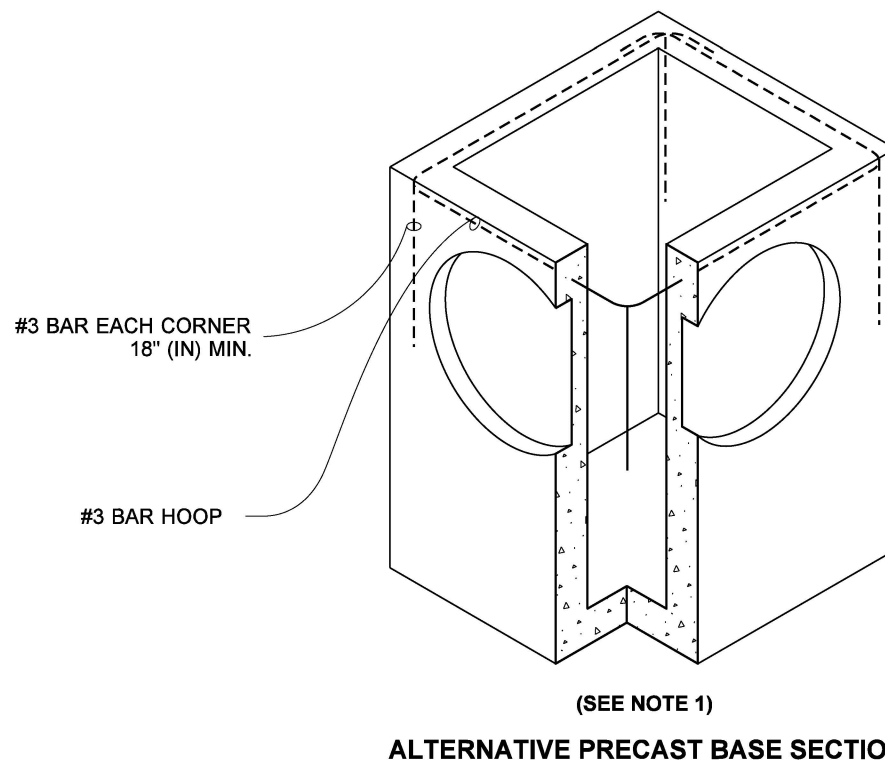
**RECTANGULAR ADJUSTMENT SECTION**



**PRECAST BASE SECTION**

PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER (INCHES)
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP * (STD. SPEC. SECT. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. SECT. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. SECT. 9-05.12(2))	15"

\* CORRUGATED POLYETHYLENE STORM SEWER PIPE



**ALTERNATIVE PRECAST BASE SECTION**

**NOTES**

1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the **ALTERNATIVE PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
2. The knockout diameter shall not be greater than 20" (in). Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
4. The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
6. The opening shall be measured at the top of the **Precast Base Section**.
7. All pickup holes shall be grouted full after the basin has been placed.



Julie Heilman  
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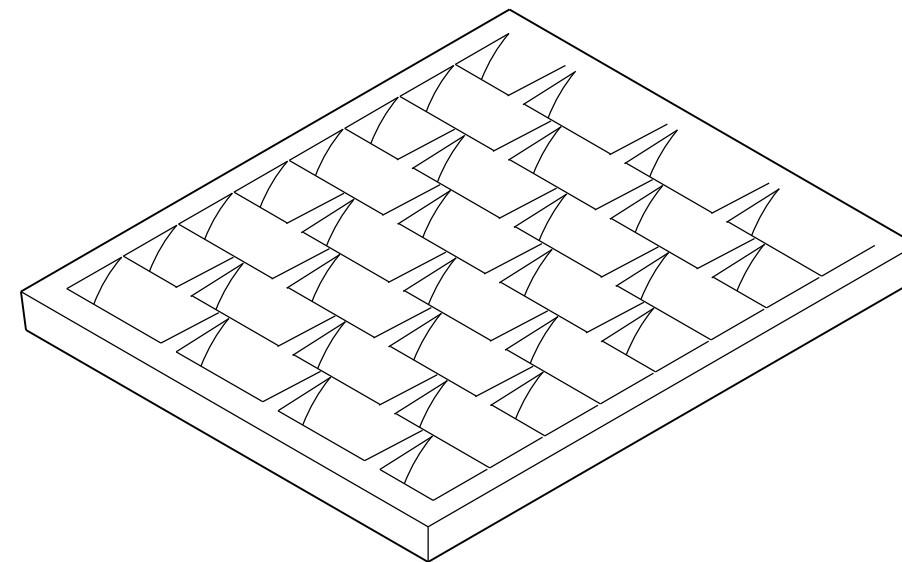
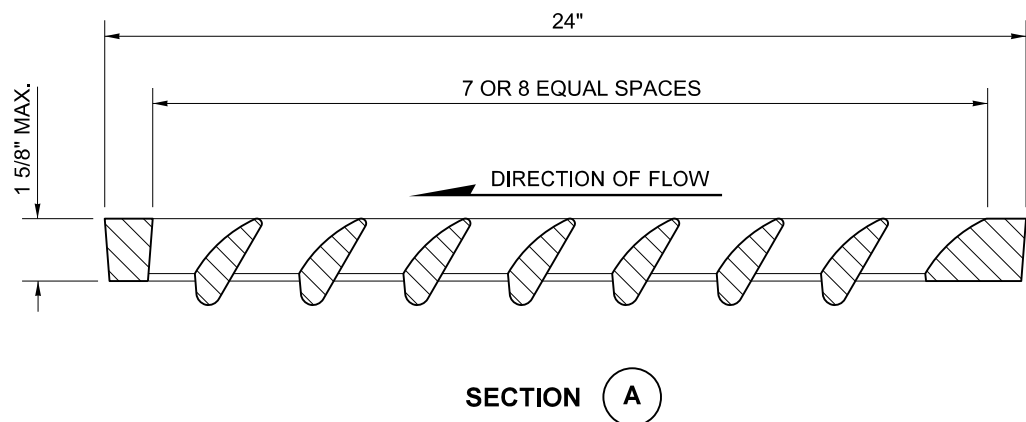
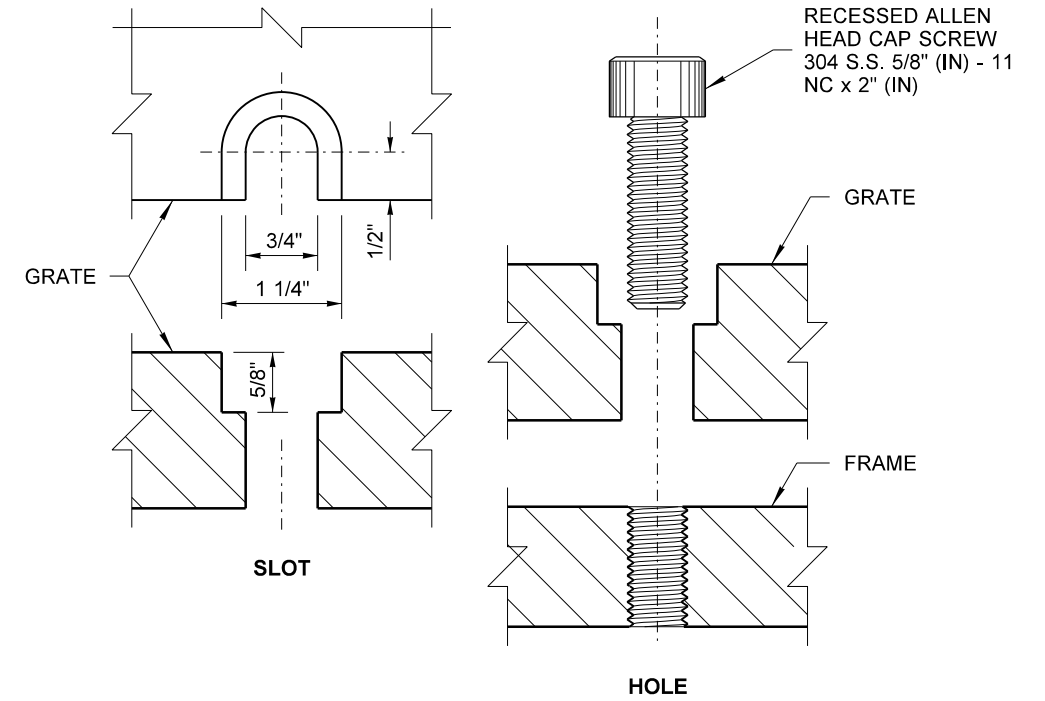
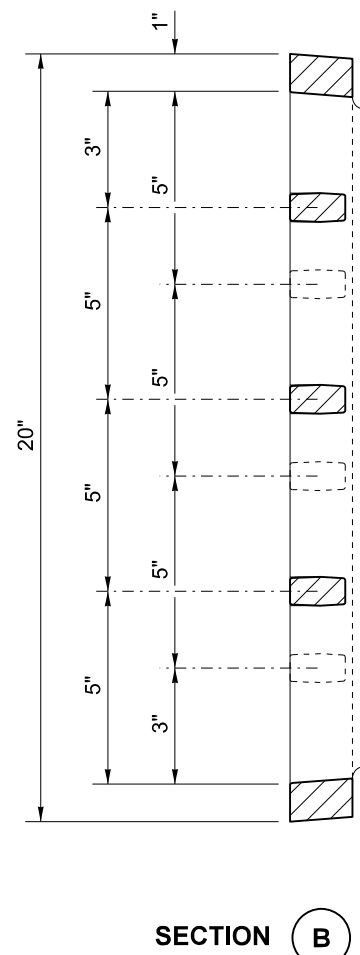
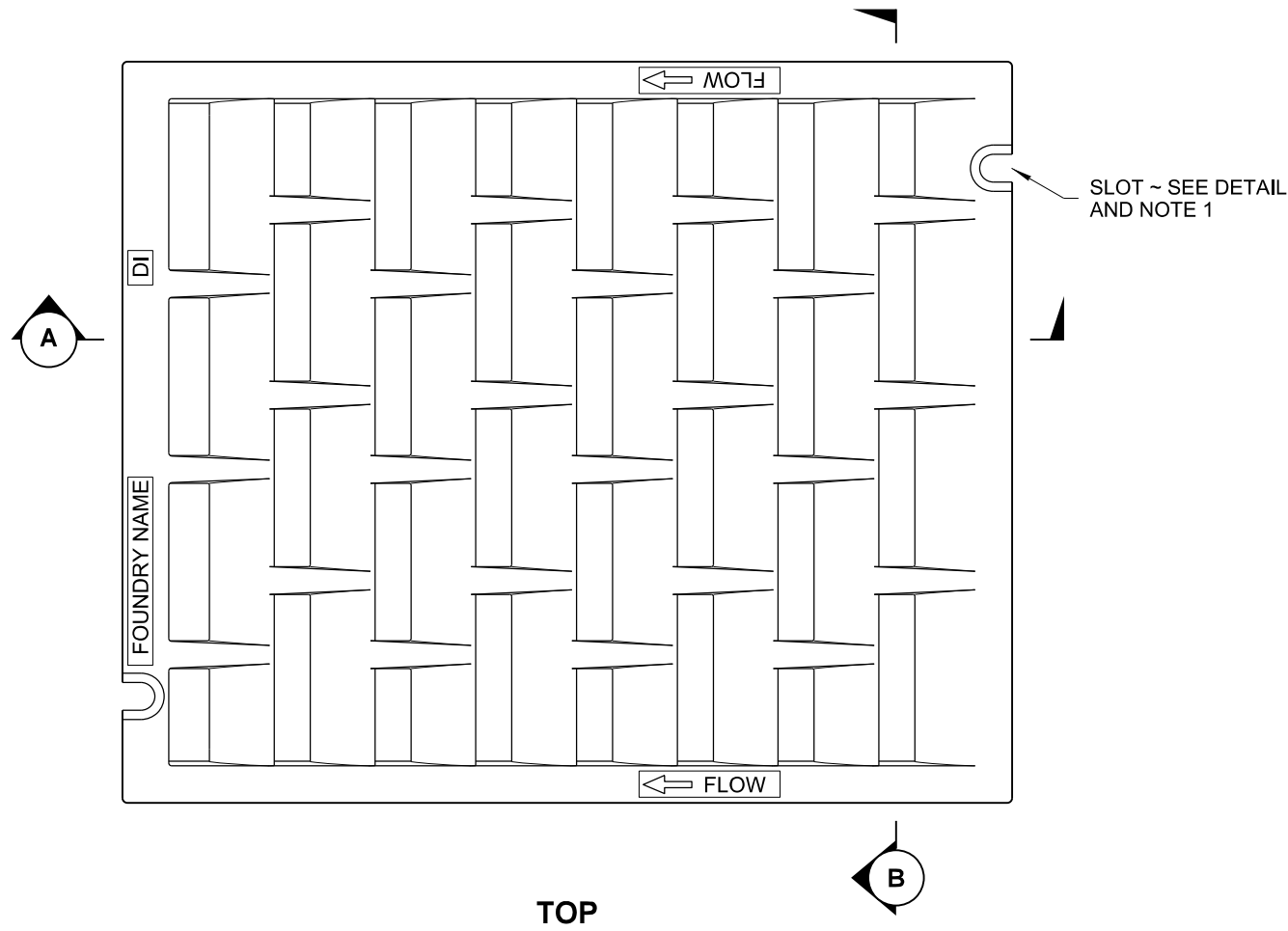
**CATCH BASIN TYPE 1**

**STANDARD PLAN B-5.20-03**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION  
**Roark, Steve** Digitally signed by Roark, Steve  
 Date: 2020.09.09 09:45:23 -07'00'  
 STATE DESIGN ENGINEER  
 Washington State Department of Transportation

DRAWN BY: FERN LIDDELL



NOTES

1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
2. Refer to **Standard Specification Section 9-05.15** and **9-05.15(2)** for additional requirements.
3. For frame details, see **Standard Plan B-30.10**.



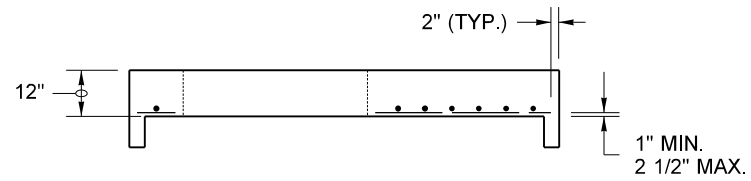
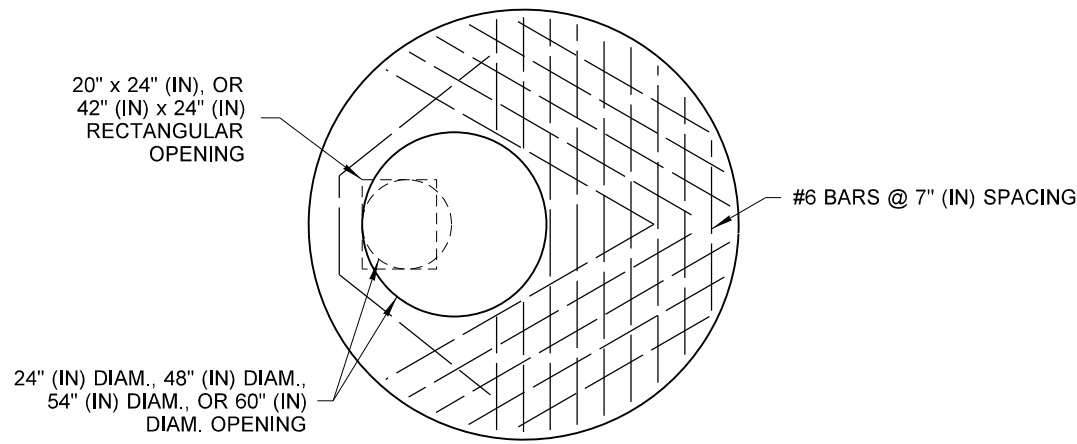
**RECTANGULAR VANED GRATE**  
**STANDARD PLAN B-30.30-03**

SHEET 1 OF 1 SHEET

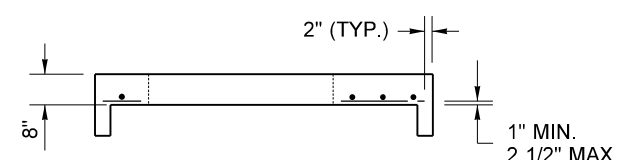
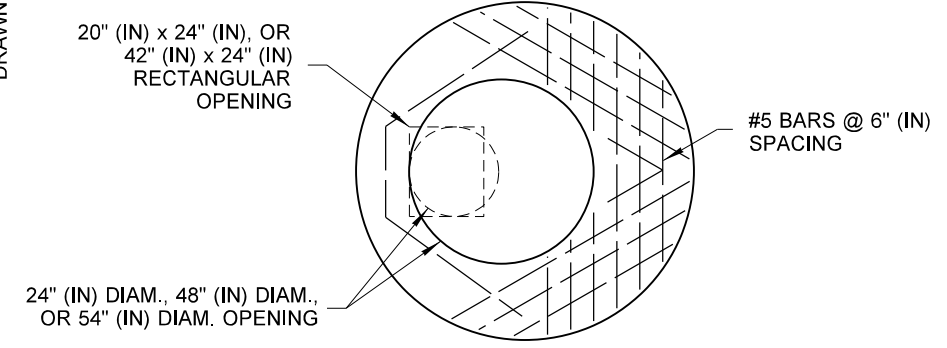
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 Washington State Department of Transportation

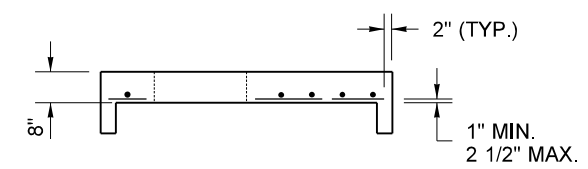
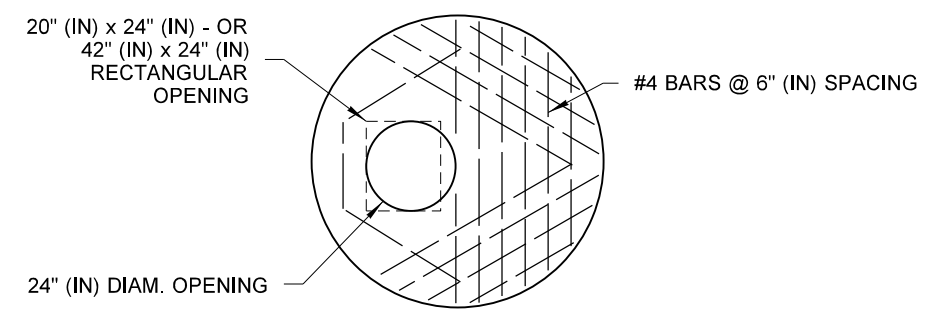
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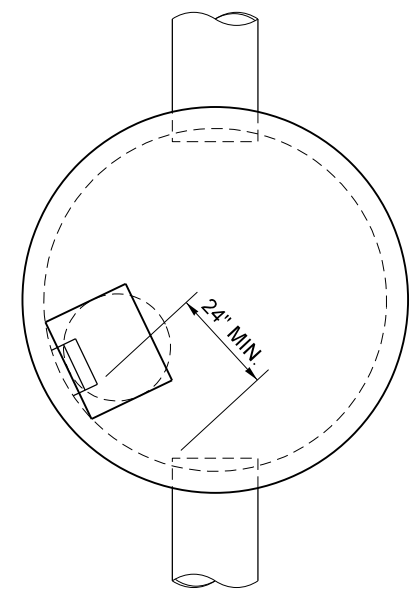
**84" (IN) or 96" (IN) FLAT SLAB TOP**



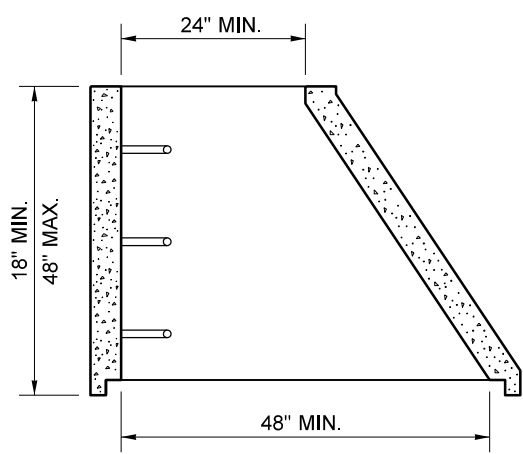
**72" (IN) FLAT SLAB TOP**



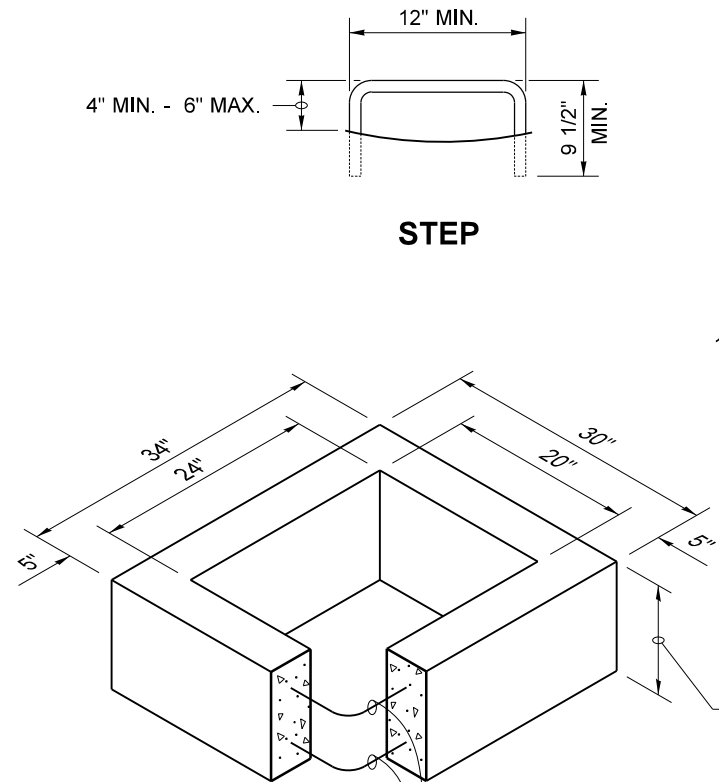
**48" (IN), 54", or 60" (IN) FLAT SLAB TOP**



**TYPICAL ORIENTATION FOR ACCESS AND STEPS**



**ECCENTRIC CONE SECTION**



**STEP**

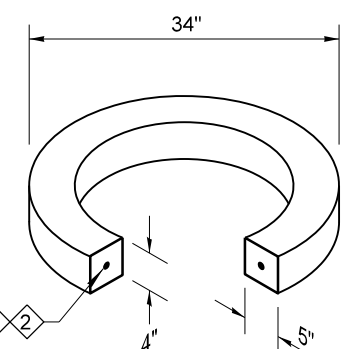
**PREFABRICATED LADDER**

**NOTE**  
1. Ladder rungs for manholes and catch basins shall meet the requirements of **AASHTO M 199**.

ONE #3 BAR HOOP FOR 2", 4", OR 6" (IN)  
TWO #3 BAR HOOPS FOR 12" (IN)  
FOUR #3 BAR HOOPS FOR 24" (IN)

**RECTANGULAR ADJUSTMENT SECTION**

- 1 As an acceptable alternative to rebar, wire mesh having a minimum area of 0.12 square inches per foot may be used for adjustment sections.
- 2 As an acceptable alternative to conventional steel reinforcement, manufacturers shall use Synthetic Structural Fibers meeting the requirements of **Standard Specification Section 9-05.50(10)**.



ONE #3 BAR HOOP FOR 2", 4", OR 6" (IN)  
TWO #3 BAR HOOPS FOR 12" (IN)

**CIRCULAR ADJUSTMENT SECTION**

For rectangular and circular adjustment sections, approved alternate material compositions are acceptable in lieu of precast concrete designs

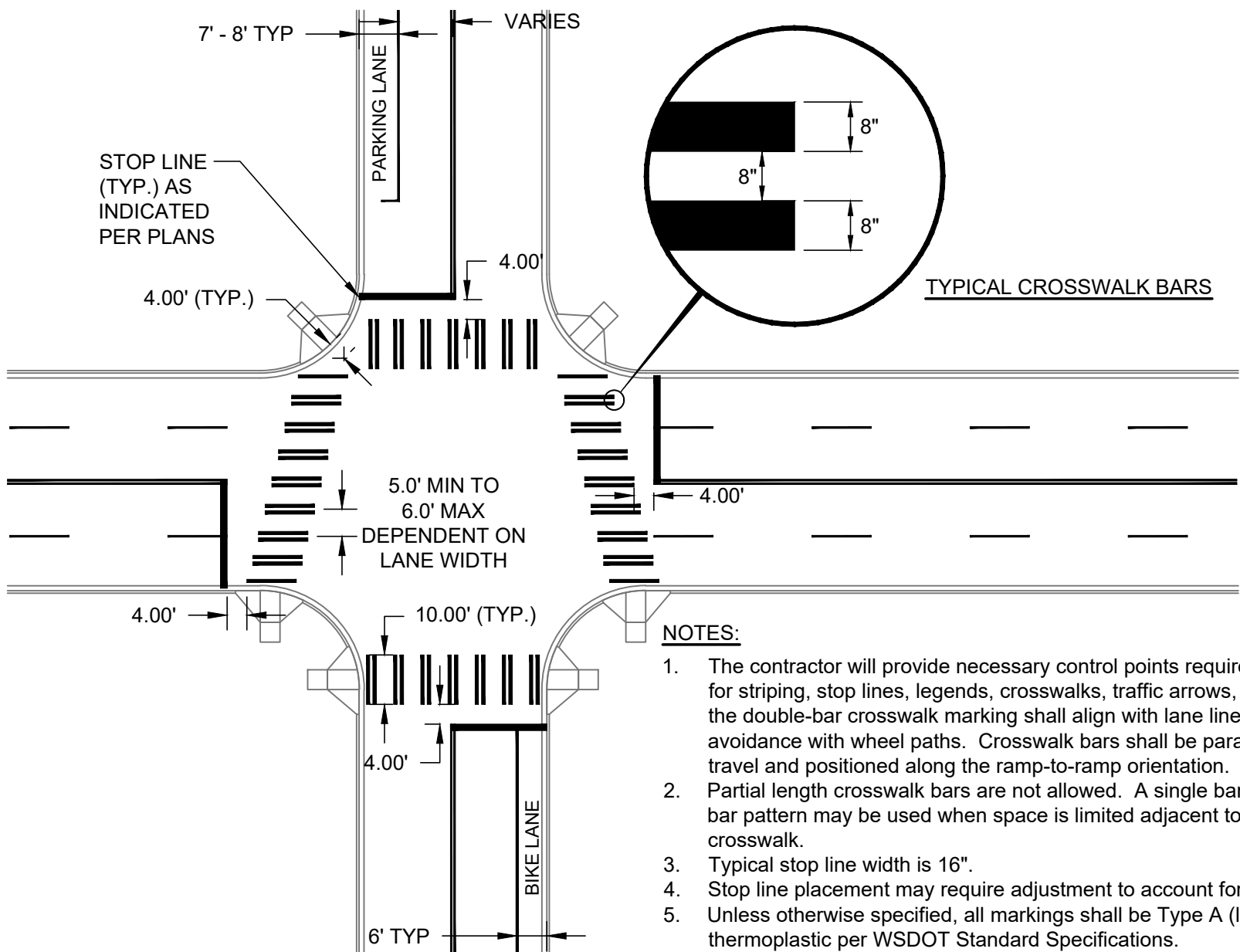


**MISCELLANEOUS DETAILS FOR DRAINAGE STRUCTURES STANDARD PLAN B-30.90-02**

SHEET 1 OF 1 SHEET

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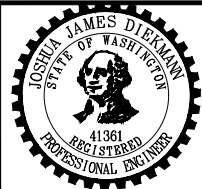
STATE DESIGN ENGINEER  
Washington State Department of Transportation



**NOTES:**

1. The contractor will provide necessary control points required during preliminary spotting for striping, stop lines, legends, crosswalks, traffic arrows, and signs. Each instance of the double-bar crosswalk marking shall align with lane lines/mid-lane, which ensures avoidance with wheel paths. Crosswalk bars shall be parallel to the lanes' direction of travel and positioned along the ramp-to-ramp orientation.
2. Partial length crosswalk bars are not allowed. A single bar, as opposed to the double bar pattern may be used when space is limited adjacent to gutter, curb or intersecting crosswalk.
3. Typical stop line width is 16".
4. Stop line placement may require adjustment to account for signal detection equipment.
5. Unless otherwise specified, all markings shall be Type A (liquid hot applied/extruded) thermoplastic per WSDOT Standard Specifications.

DS RVDR PUBLIC WORKS N/A TACOMA POWER	REVIEWED BY EW ENVIRONMENTAL SERVICES N/A TACOMA WATER
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DocuSigned by:  
  
 CITY ENGINEER

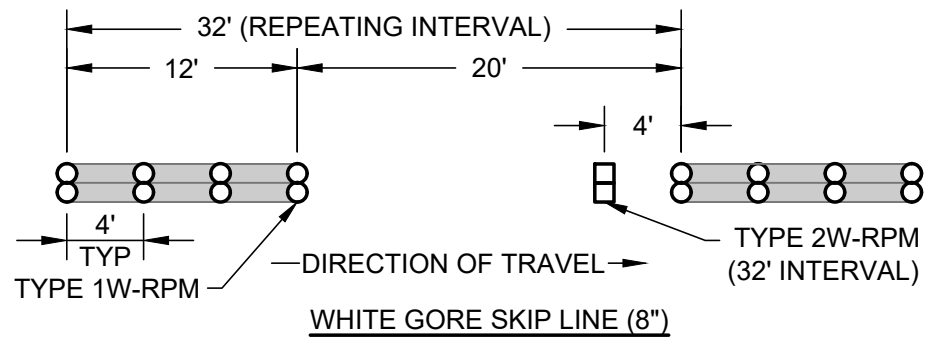
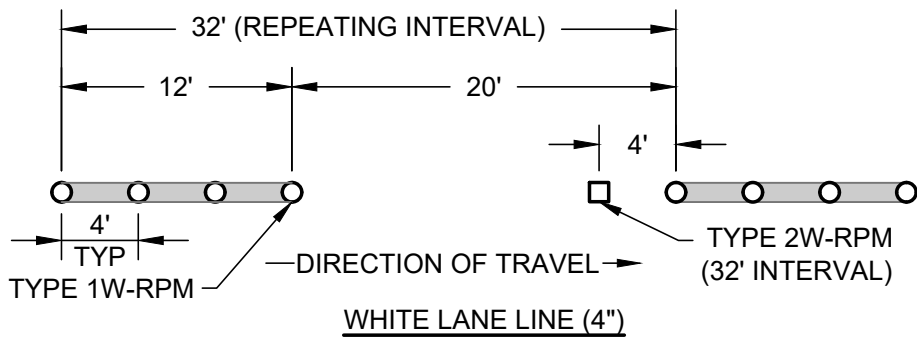
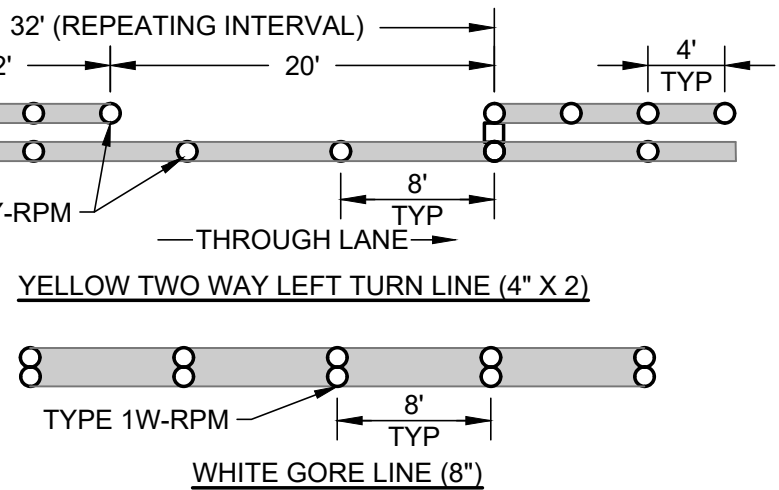
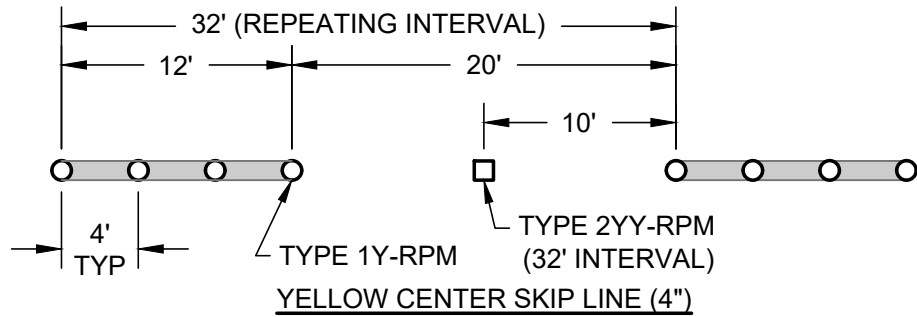
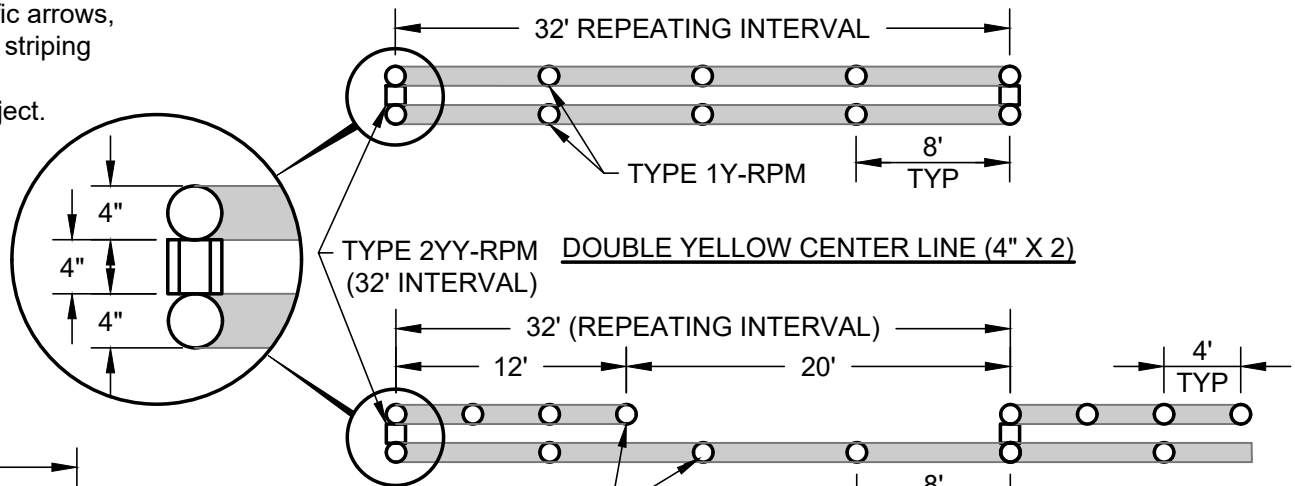
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CITY OF TACOMA  
 TYPICAL CROSSWALK AND  
 STOP LINE LAYOUT FOR  
 VARIOUS CURB RAMP COMBINATIONS

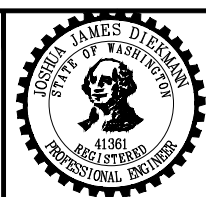
STANDARD PLAN NO. CH-02

**NOTES:**

1. The contractor will provide necessary control points for striping, stop lines, legends, crosswalks, traffic arrows, and signs. City inspection is required before striping and any associated sign installation begins.
2. Striping material is to be specified by the project. Type 1Y/W RPMs are omitted from plastic striping.
3. RPMS shall not be placed over longitudinal or transverse joints of the pavement surface.

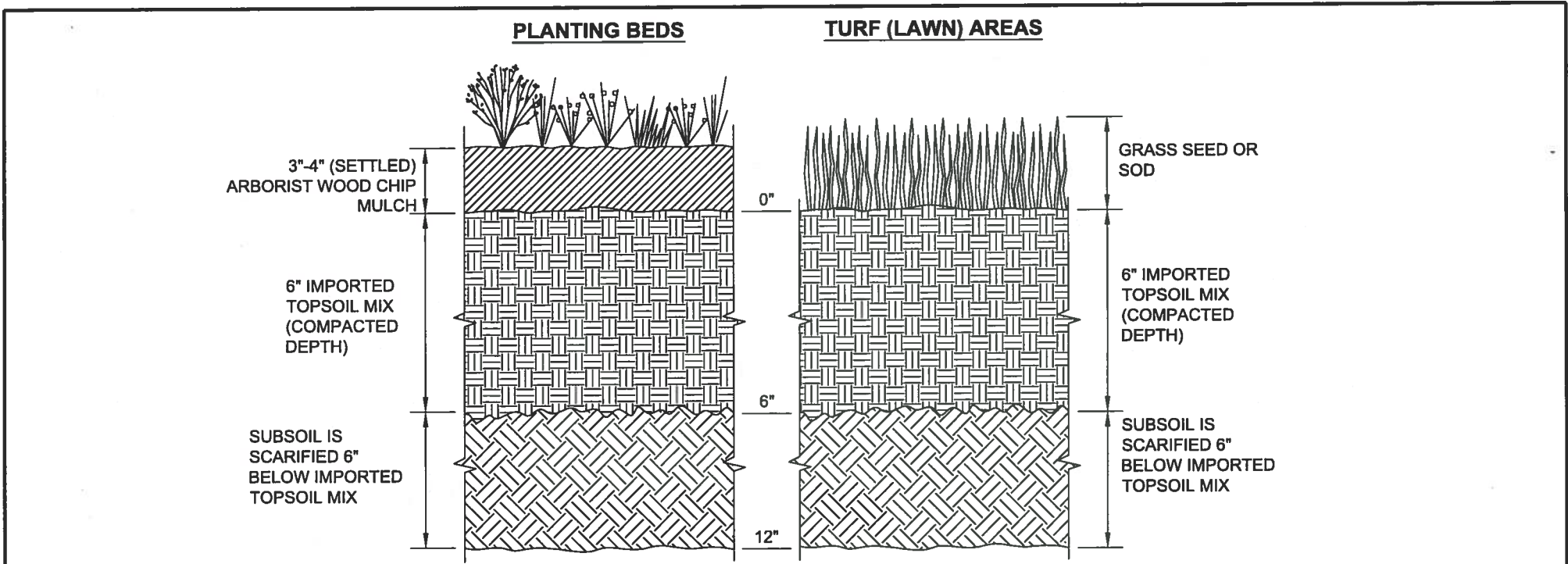


DS RVDR	REVIEWED BY EW
PUBLIC WORKS	ENVIRONMENTAL SERVICES
N/A	N/A
TACOMA POWER	TACOMA WATER



APPROVED FOR PUBLICATION	
DocuSigned by:	12/19/2022
CITY ENGINEER	DATE

CITY OF TACOMA	
LONGITUDINAL PAVEMENT MARKINGS	
STANDARD PLAN NO.	CH-03A



**OPTION 4:** Import topsoil mix of sufficient organic content and depth to meet the requirements. All soil areas disturbed or compacted during construction, and not covered by buildings or pavement, shall be restored as described below.

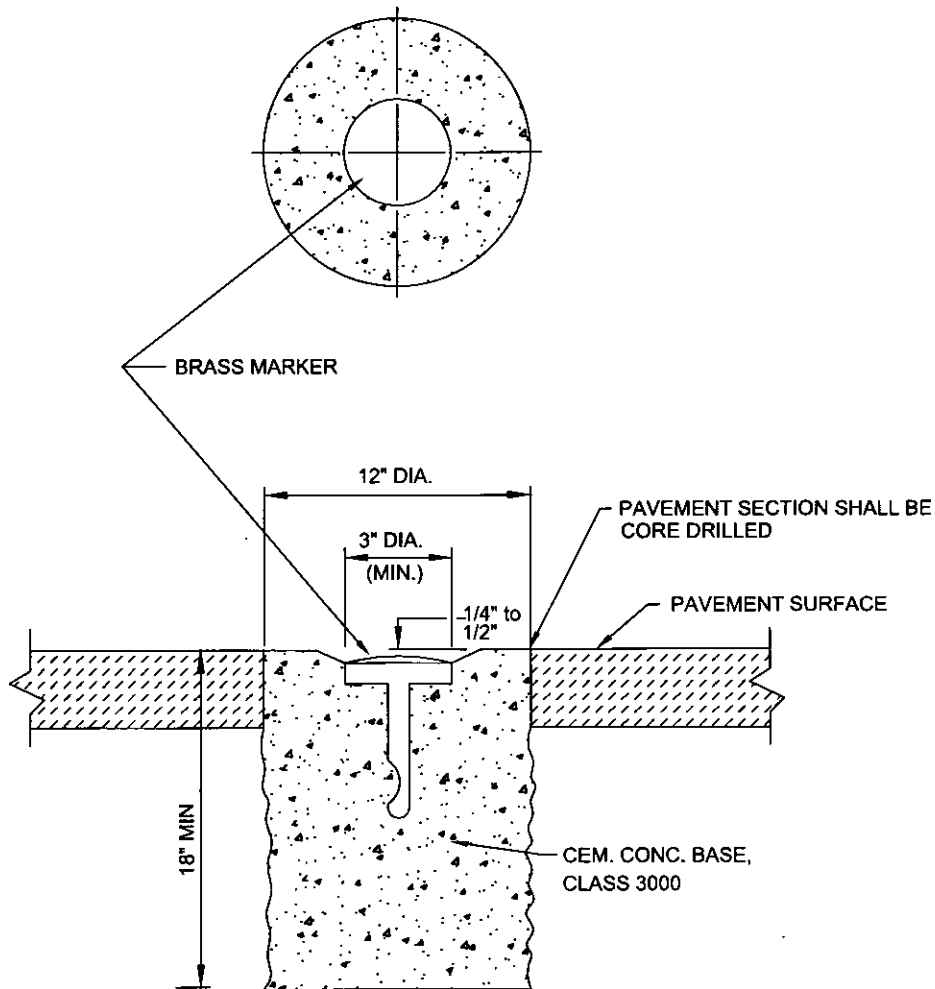
Scarification: scarify or till subgrade in two direction to 6 inches depth. Entire surface shall be disturbed by scarification. Do not scarify within drip line of existing trees to be retained.

A. Planting Beds	B. Turf (Lawn) Areas
Use imported topsoil mix containing 10% organic matter (typically around 40% compost). Soil portion must be sand or sandy loam as defined by the USDA. Place 3 inches of imported topsoil mix on surface and till into 2 inches of soil. Place 3 inches of imported topsoil mix on surface and till into 2 inches of soil. Place second lift of 3 inches topsoil mix on surface.	Use imported topsoil mix containing 5% organic matter (typically around 25% compost). Soil portion must be sand or sandy loam as defined by the USDA. Place 3 inches of imported topsoil mix on surface and till into 2 inches of soil. Place second lift of 3 inches topsoil mix on surface.
Rake beds to smooth and remove surface rocks larger than 2 inches diameter. Mulch planting beds with 3" - 4" of organic mulch or stockpiled duff.	Water or roll to compact to 85% of maximum dry density. Rake to level and remove surface rocks larger than 1 inch diameter.

Setbacks: to prevent uneven settling, do not compost-amend soils within 3 feet on center of utility infrastructure (poles, vaults, meters etc.). Within one foot of pavement edge, curbs and sidewalks; soil should be compacted to approximately 90% max. modified proctor density (ASTM D1557) to ensure a firm surface. Do not compact within tree protection zone. See Std. Plans LS-08 and LS-09.

See SWMM BMP L613 for additional information.

<p>DCS PUBLIC WORKS</p> <p>NA TACOMA POWER</p>	<p>REVIEWED BY <i>Gras</i></p> <p>ENVIRONMENTAL SERVICES</p> <p>NA TACOMA WATER</p>		<p>APPROVED FOR PUBLICATION</p> <p><i>[Signature]</i> CITY ENGINEER</p> <p><i>4/21/16</i> DATE</p>	<p>CITY OF TACOMA</p> <p>BMP L613 POST CONSTRUCTION SOIL QUALITY AND DEPTH</p> <p>OPTION 4 - IMPORTED TOPSOIL</p> <p>STANDARD PLAN NO. GSI-01d</p>
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**NOTES:**

1. Concrete base shall be poured in place. Hand mixed concrete is prohibited. Concrete base need not be formed.
2. Notice to surveyors: any monument set in the City of Tacoma must bear the land surveyor number of the surveyor setting the monument. Monuments set as part of an approved plat are exempt.
3. The surveyor is to supply the City of Tacoma with a copy of the calculations used to determine all monument positions before the monuments are set.
4. Brass marker for City of Tacoma funded projects will be supplied by the City, all other brass markers to be supplied by the contractor.
5. Monument must be magnetically locatable.
6. Prior to removing or destroying a monument, the surveyor or engineer shall apply for a permit from the Department of Natural Resources in accordance with WAC 332-120.

APPROVED FOR PUBLICATION

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

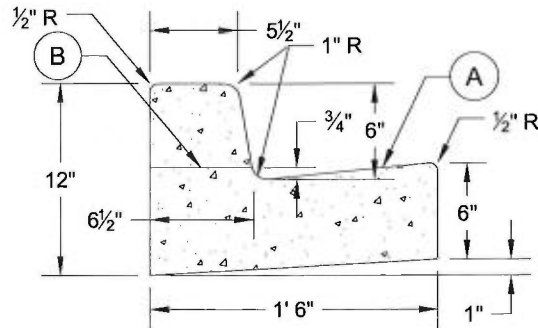
*James Parvey* 09 JUN 2009  
CITY ENGINEER DATE

POURED MONUMENT

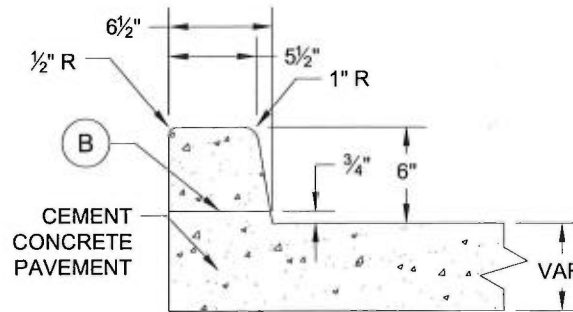
STANDARD PLAN NO. SU-01

**NOTES:**

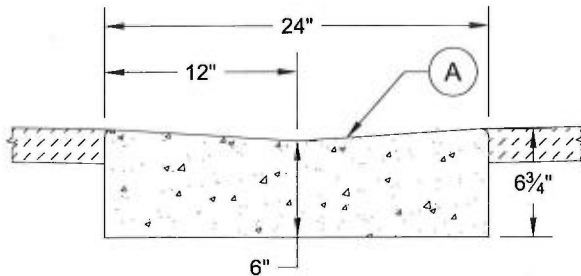
- (A) When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement. The height of the curb shall be 6", unless otherwise shown on plans.
- (B) Flush with gutter pan at curb ramp entrance or 3/4" vertical lip at driveway entrance.



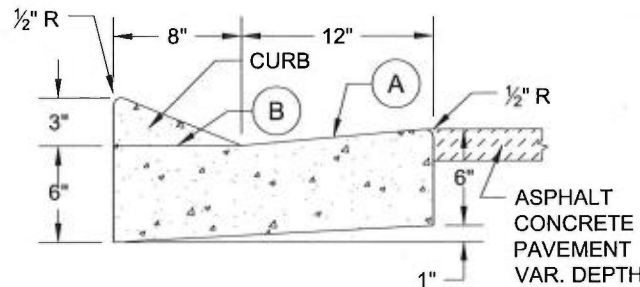
**CEMENT CONCRETE TRAFFIC CURB & GUTTER**



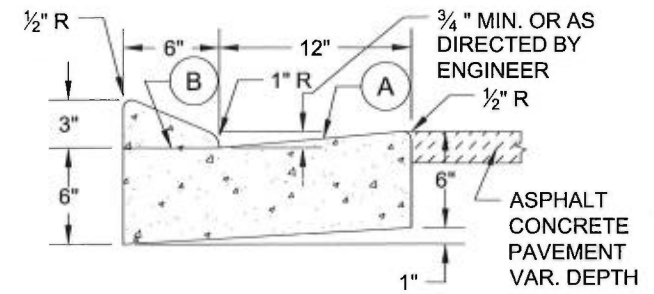
**INTEGRAL CEMENT CONCRETE TRAFFIC CURB**



**CEMENT CONCRETE VALLEY GUTTER**



**TYPE "C" MOUNTABLE CEMENT CONCRETE CURB & GUTTER**



**TYPE "D" MOUNTABLE CEMENT CONCRETE CURB & GUTTER**

**NOTES:**

1. For trench crossings, curb and gutter shall be removed to a minimum 2' cut back over undisturbed soil.
2. In all projects, any remaining sections of curb and gutter less than 5' in length between the project area and the nearest control joint shall also be removed and replaced.
3. All joints shall be saw cut full depth prior to restoration and 3/8" expansion joint installed.
4. Concrete finish shall match existing.
5. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
6. Foundations shall be fully compacted prior to form placement.
7. Unsuitable foundation shall be replaced with 5/8" crushed surfacing top course.

**DCS**  
PUBLIC WORKS  
**NA**  
TACOMA POWER

REVIEWED BY **GMS**  
ENVIRONMENTAL SERVICES  
**NA**  
TACOMA WATER



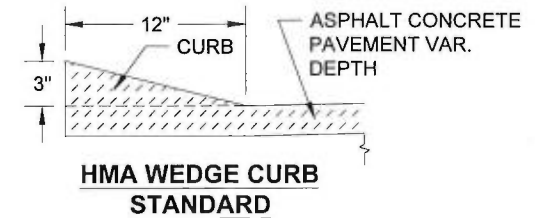
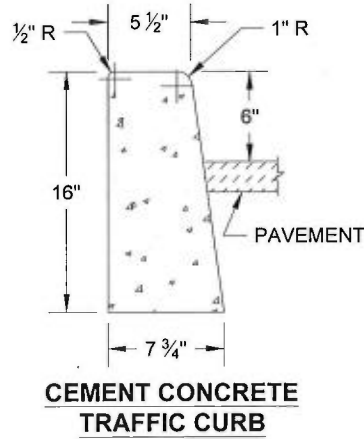
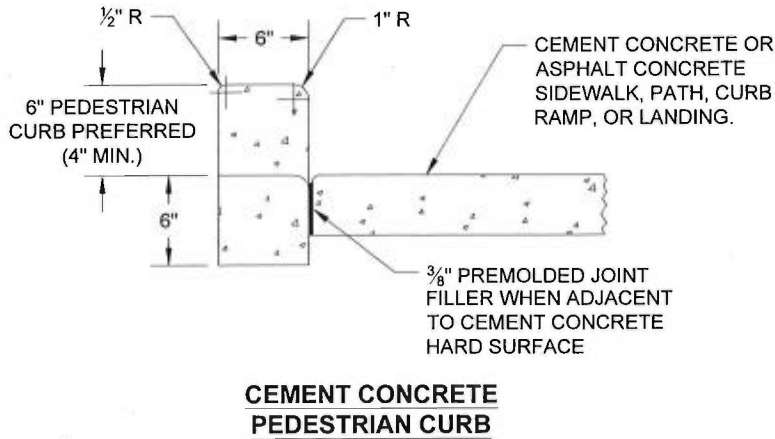
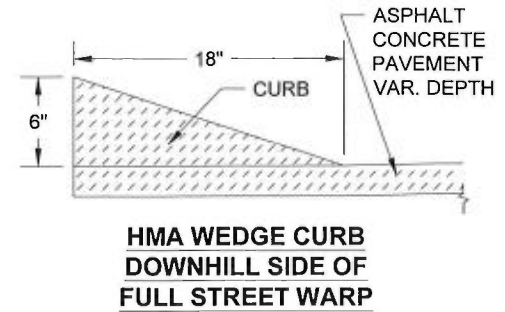
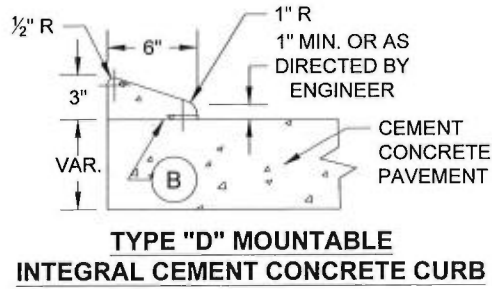
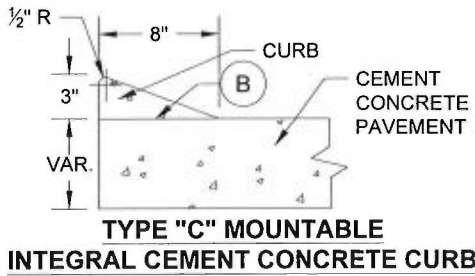
APPROVED FOR PUBLICATION  
*[Signature]* 8/16/16  
CITY ENGINEER DATE

CITY OF TACOMA  
CEMENT CONCRETE CURB AND GUTTER  
STANDARD PLAN NO. SU-03



**NOTE:**

(B) Flush with gutter pan at curb ramp entrance or  $\frac{3}{4}$ " vertical lip at driveway entrance.



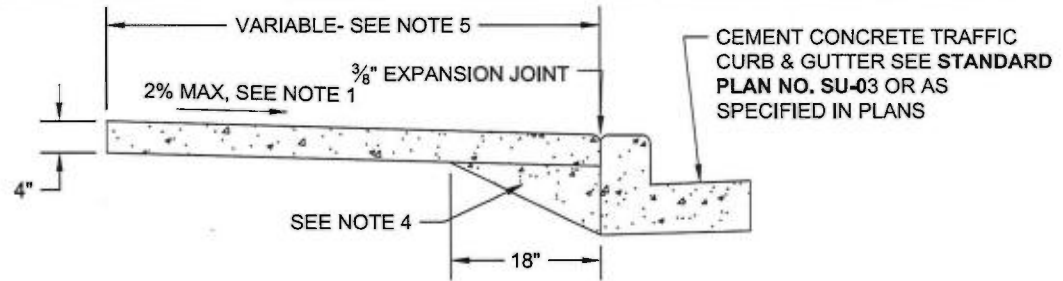
**NOTES:**

1. For trench crossings, curb and gutter shall be removed to a minimum 2' cut back over undisturbed soil.
2. In all projects, any remaining sections of curb and gutter less than 5' in length between the project area and the nearest control joint shall also be removed and replaced.
3. All joints shall be saw cut full depth prior to restoration and  $\frac{3}{8}$ " expansion joint installed.
4. Concrete finish shall match existing.
5. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
6. Foundations shall be fully compacted prior to form placement.
7. Unsuitable foundation shall be replaced with  $\frac{5}{8}$ " crushed surfacing top course.

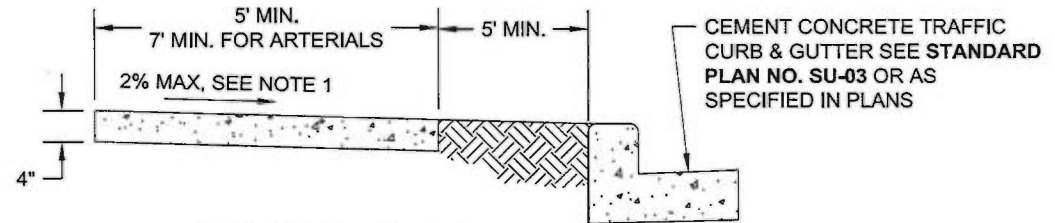
<p><b>DCS</b> PUBLIC WORKS</p> <p><b>NA</b> TACOMA POWER</p>	<p><b>REVIEWED BY GMS</b></p> <p>ENVIRONMENTAL SERVICES <b>NA</b></p> <p>TACOMA WATER</p>		<p><b>APPROVED FOR PUBLICATION</b></p> <p><i>[Signature]</i> 8/16/16</p> <p>CITY ENGINEER DATE</p>	<p><b>CITY OF TACOMA CEMENT CONCRETE CURB AND GUTTER AND ASPHALT WEDGE CURB</b></p> <p>STANDARD PLAN NO. SU-03A</p>
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**NOTES:**

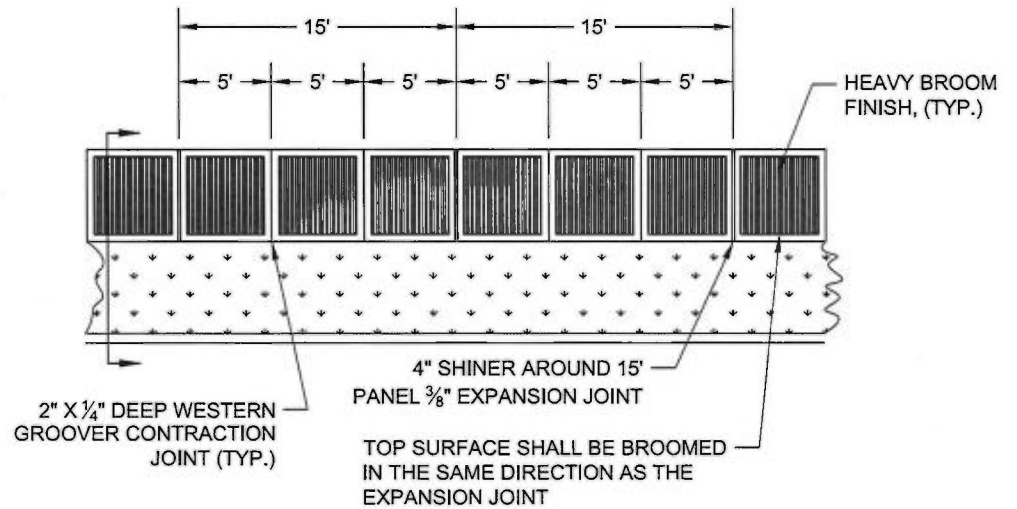
1. Sidewalks shall be designed and constructed in accordance with 2010 ADA Standards, 28 CFR, Part 35 and as supplemented by the Public Right of Way Accessibility Guidelines (PROWAG). City of Tacoma prefers sidewalk cross slopes to be designed to a maximum of 1.5% and a minimum of 1.0%
2. When placing walk adjacent to existing curb and gutter, curb and gutter will be repaired as necessary before placing concrete forms for walk.
3. Staking is required where no curb is present.
4. Thickened edge shall be constructed using cement concrete on all radii. All other locations shall be backfilled and compacted.
5. Combination walk shall be 7' min. on all commercial sites and arterial streets. Combination walk shall be a minimum of 5' on non arterial streets. Dimensions are from back of curb to back of walk. See contract plans for width and placement of sidewalk.
6. All expansion joints shall be full depth with  $\frac{3}{8}$ " premolded joint filler.
7. All joints shall be cleaned and edged. External edges shall be  $\frac{1}{2}$ " radius. Internal joints shall be  $\frac{1}{4}$ " radius.
8. All soft and yielding foundation material shall be removed and replaced with crushed surfacing top course (CSTC) per Section 9-03.9(3) of the WSDOT Standard Specifications.
9. All sidewalk shall be replaced to the nearest expansion or contraction joint. All joints shall be saw cut full depth prior to restoration and  $\frac{3}{8}$ " expansion joint installed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
10. For sidewalks within the North Slope Historical District area use Standard Plan HD-NS03. See Standard Plan HD-NS01 for North Slope Historic District site map.



**SECTION DETAIL A-A**

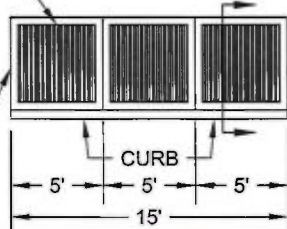


**SECTION DETAIL B-B**



TOP SURFACE SHALL BE BROOMED IN THE SAME DIRECTION AS THE EXPANSION JOINT

4" SHINER AROUND 15' PANEL  $\frac{3}{8}$ " EXPANSION JOINT



$\frac{3}{8}$ " EXPANSION JOINT TO MATCH CURB JOINTS NOT TO EXCEED 15'

2" X  $\frac{1}{4}$ " DEEP WESTERN GROOVER CONTRACTION JOINT (TYP.)

4" SHINER AROUND 15' PANEL  $\frac{3}{8}$ " EXPANSION JOINT

TOP SURFACE SHALL BE BROOMED IN THE SAME DIRECTION AS THE EXPANSION JOINT

<b>REVIEWED BY</b>	
DCS PUBLIC WORKS N/A TACOMA POWER	Gmf ENVIRONMENTAL SERVICES N/A TACOMA WATER



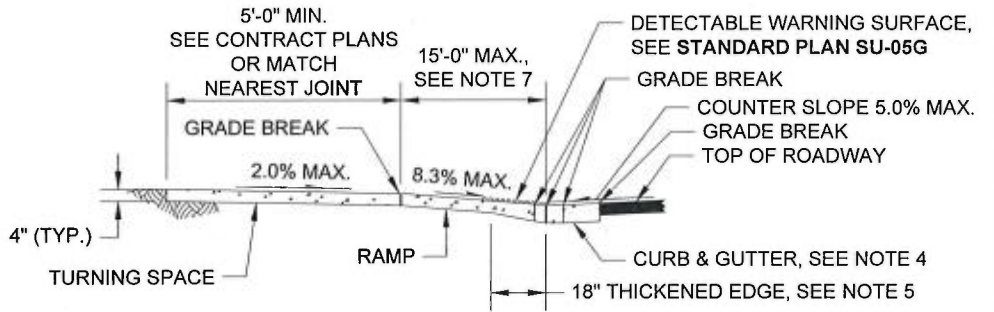
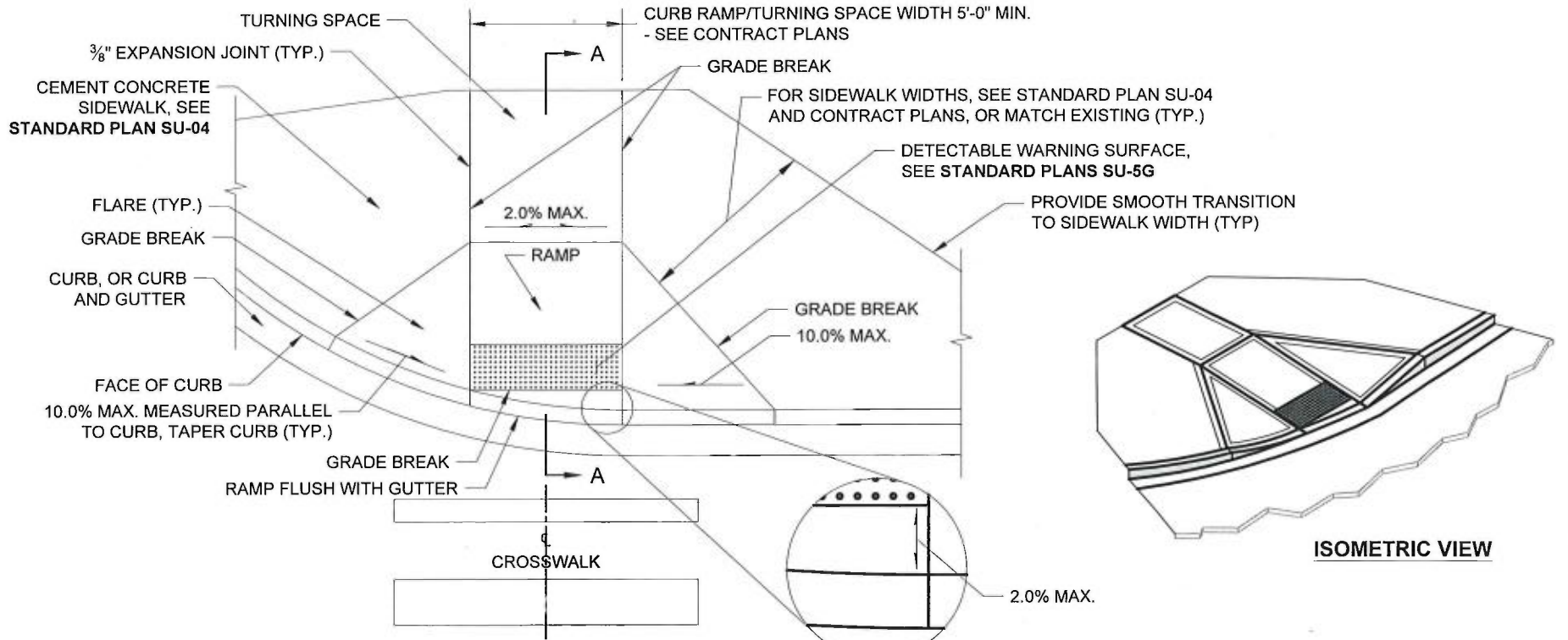
<b>APPROVED FOR PUBLICATION</b>	
[Signature] CITY ENGINEER	4/25/19 DATE

<b>CITY OF TACOMA</b>	
<b>CEMENT CONCRETE SIDEWALK</b>	
STANDARD PLAN NO.	SU-04

**GENERAL NOTES:**

1. Provide a separate directional curb ramp for each marked or unmarked crosswalk. Directional curb ramps are preferred over 45 degree ramps. Curb ramp location shall be placed within the width of the associated crosswalk, or as shown on the Contract Plans. The curb ramp centerline shall be parallel to the direction of the crossing. Forty-five (45) degree curb ramps shall be installed only after approval by the City's ADA Coordinator or the Street Operations Division Manager.
2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush and perpendicular to the direction of travel. There shall be no vertical discontinuity between the base of curb ramp and gutter line.
3. Do not place grates, junction boxes, access covers, or other appurtenances in front of the curb ramp or on any part of the curb ramp or turning space. Placement on or in front of ramp flares is allowed.
4. See Contract Plans for the curb design specified. See **Standard Plan SU-03** and **SU-03A** for Curb, and Curb and Gutter Details.
5. A thickened edge shall be constructed to full depth of adjacent curb along entire curb radius.
6. For sidewalk and curb ramps within the North Slope Historical District area see **North Slope Historic District Site Map, HD-NS01**. Apply Lamp Black 1lb. per cubic yard of cement concrete or as required for discoloration in accordance with ASTM D209-81 Standard Specifications for Lamp Black pigment.
7. The running slope of a curb ramp shall not exceed 8.3% but does not require the ramp length to exceed 15 feet to avoid chasing the slope indefinitely when connecting to steep grades.
8. Curb ramp, turning space and flares shall receive a broom finish, see **WSDOT Standard Specifications 8-14**.
9. Return curbs, (pedestrian curbs), may only be used with landscaping or railing. Return curbs, (pedestrian curbs), shall not be used to prevent pedestrians from crossing streets.
10. All curb ramp designs shall be stamped by a Washington State licensed Professional Engineer. If meeting the current design standards is not possible, curb ramps shall be constructed to the maximum extent feasible as indicated by an Engineer's note on the stamped drawings. Rationale supporting the design variance shall be provided by the Engineer and shall include a description of the scope of work, the site-specific factors affecting compliance, and the measures implemented to improve compliance.
11. Pedestrian traffic should be aligned to the receiving curb ramp. The existing curb ramps shall be evaluated using criteria in the City's Curb Ramp Installation Matrix.
12. Consult the City's Curb Ramp Installation Matrix and the Right Of Way Restoration Policy for additional requirements.
13. Conduit for APS equipment shall be installed during curb ramp construction at all signalized intersections and at intersections where signalization is anticipated within the next 6 years. Coordinate with Public Works - Engineering, Traffic Section.
14. A Pedestrian Accessibility Control Plan shall be developed in conjunction with each project-specific Temporary Traffic Control Plan for all work in the ROW.
15. Pedestrian traffic shall NOT be directed behind the stop bar.
16. Curb ramp alignment should be consistent with crosswalk alignment
17. Curb ramp shall be 5' minimum in width.
18. Catch basins shall be located upstream of curb ramps outside of flare/wing for new construction or when performing storm sewer upgrades.
19. For constructability purposes, the City recommends designing to **less than** the maximum allowable slopes.

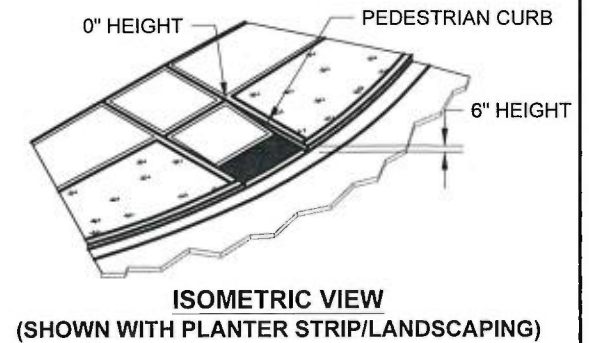
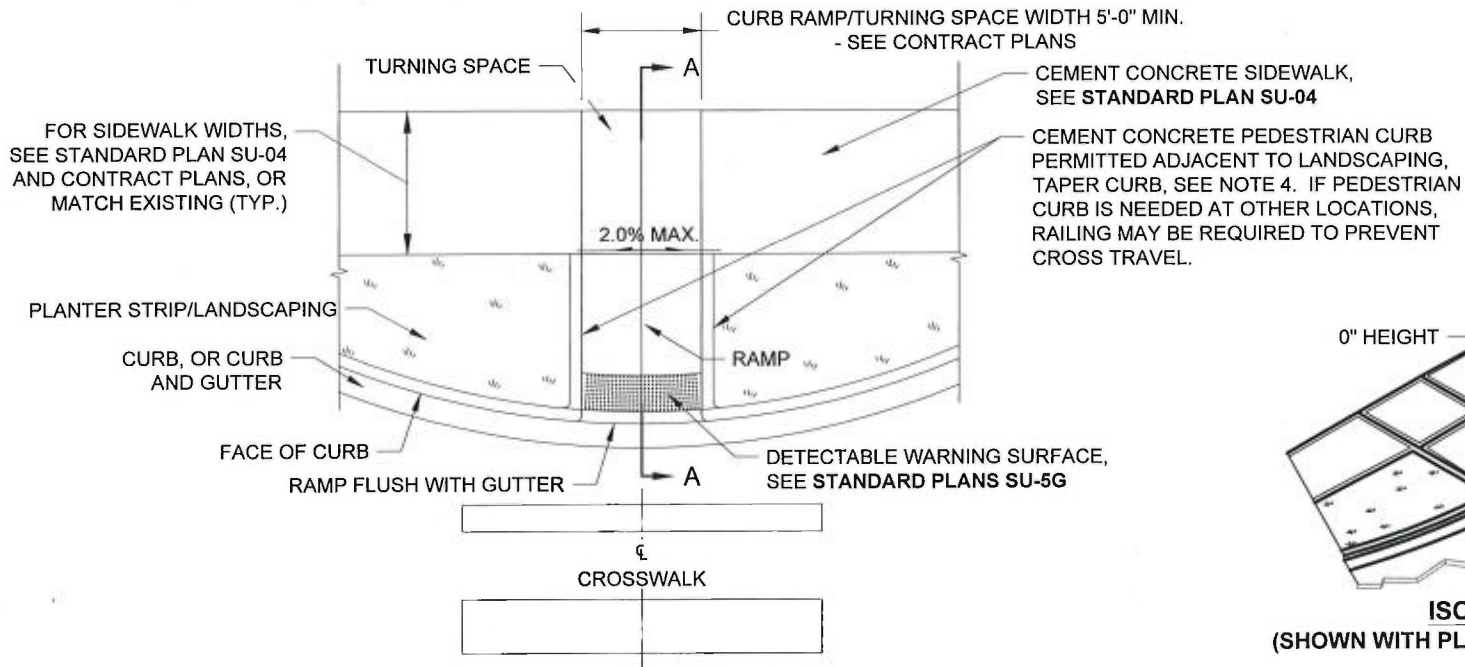
<p><u>DCS</u> PUBLIC WORKS</p> <p><u>NA</u> TACOMA POWER</p>	<p>REVIEWED BY <u>GMS</u> ENVIRONMENTAL SERVICES</p> <p><u>NA</u> TACOMA WATER</p>		<p>APPROVED FOR PUBLICATION</p> <p><i>[Signature]</i> 8/16/16 CITY ENGINEER DATE</p>	<p>CITY OF TACOMA</p> <p>CURB RAMP DETAILS GENERAL INFORMATION</p> <p>STANDARD PLAN NO. SU-05</p>
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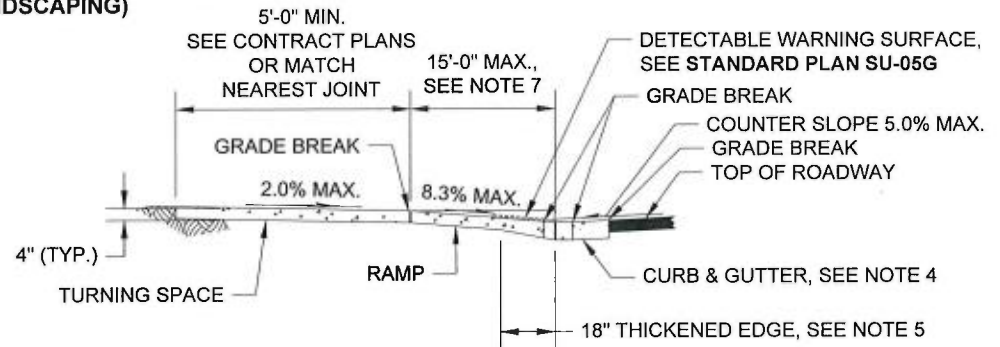
**NOTES:**  
See Standard Plan SU-05 for referenced notes

**LEGEND**  
— SLOPE IN EITHER DIRECTION

<p><b>DCS</b> PUBLIC WORKS</p> <p><b>NA</b> TACOMA POWER</p>	<p>REVIEWED BY <b>GMS</b></p> <p>ENVIRONMENTAL SERVICES</p> <p><b>NA</b></p> <p>TACOMA WATER</p>		<p>APPROVED FOR PUBLICATION</p> <p><i>[Signature]</i> 8/16/16</p> <p>CITY ENGINEER DATE</p>	<p>CITY OF TACOMA</p> <p>PERPENDICULAR CURB RAMP TYPE 'A'</p> <p>STANDARD PLAN NO. SU-05A</p>
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**PLAN VIEW**  
(SHOWN WITH PLANTER STRIP/LANDSCAPING)



**SECTION DETAIL A-A**

**NOTES:**

See **Standard Plan SU-05** for referenced notes

**LEGEND**

— SLOPE IN EITHER DIRECTION

*DCS*

REVIEWED BY

*GMS*

PUBLIC WORKS

ENVIRONMENTAL SERVICES

*NA*

*NA*

TACOMA POWER

TACOMA WATER



APPROVED FOR PUBLICATION

*[Signature]* *8/16/16*

CITY ENGINEER

DATE

CITY OF TACOMA

PERPENDICULAR CURB RAMP  
TYPE 'B'

STANDARD PLAN NO.

SU-05B

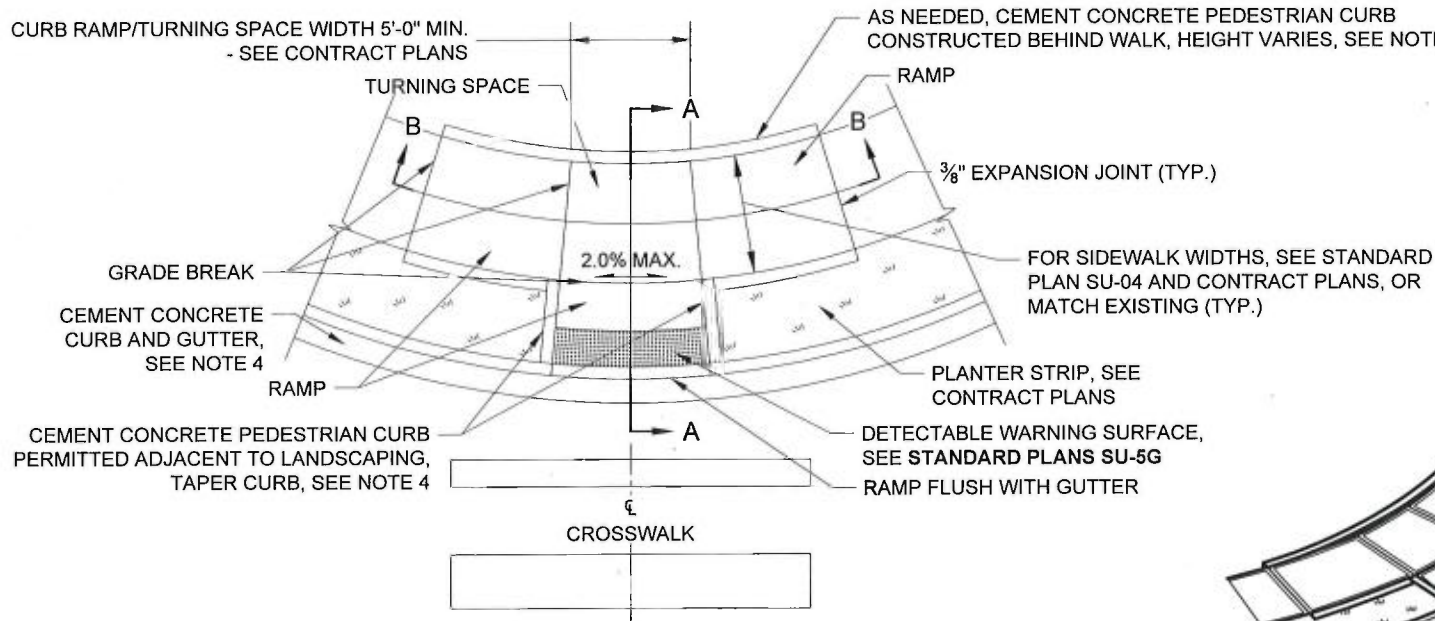
CURB RAMP/TURNING SPACE WIDTH 5'-0" MIN.  
- SEE CONTRACT PLANS

AS NEEDED, CEMENT CONCRETE PEDESTRIAN CURB  
CONSTRUCTED BEHIND WALK, HEIGHT VARIES, SEE NOTE 4

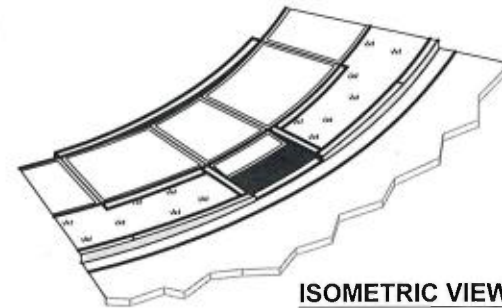
**NOTES:**  
See **Standard Plan SU-05** for  
referenced notes

**LEGEND**

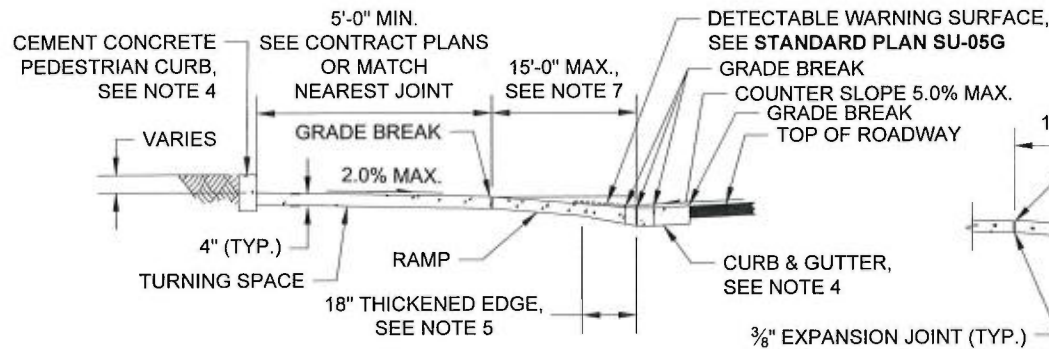
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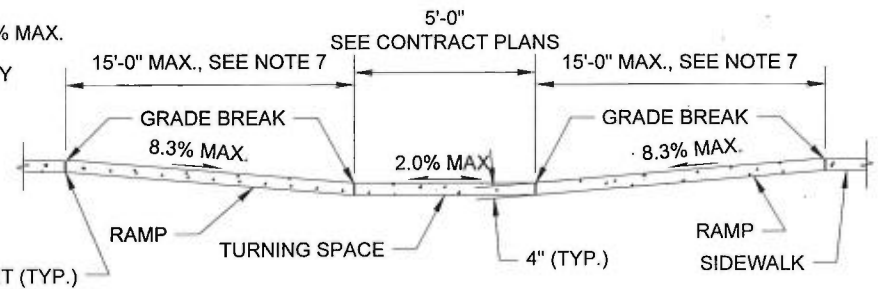
**PLAN VIEW**  
(WITH PLANTER STRIP/LANDSCAPING)



**ISOMETRIC VIEW**



**SECTION DETAIL A-A**



**SECTION DETAIL B-B**

DCS

REVIEWED BY

GMS

PUBLIC WORKS

ENVIRONMENTAL  
SERVICES

NA

NA

TACOMA POWER

TACOMA WATER



APPROVED FOR PUBLICATION

*[Signature]* 8/16/16

CITY ENGINEER

DATE

CITY OF TACOMA

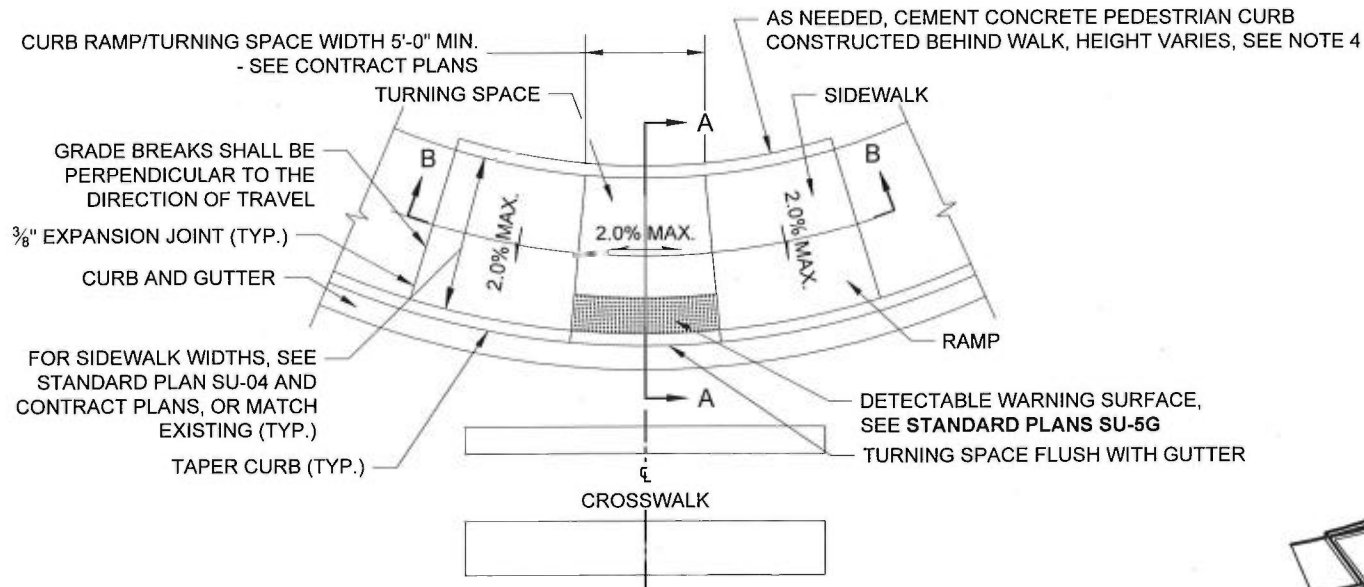
COMBINATION CURB RAMP

STANDARD PLAN NO.

SU-05C

**NOTES:**  
See **Standard Plan SU-05** for referenced notes

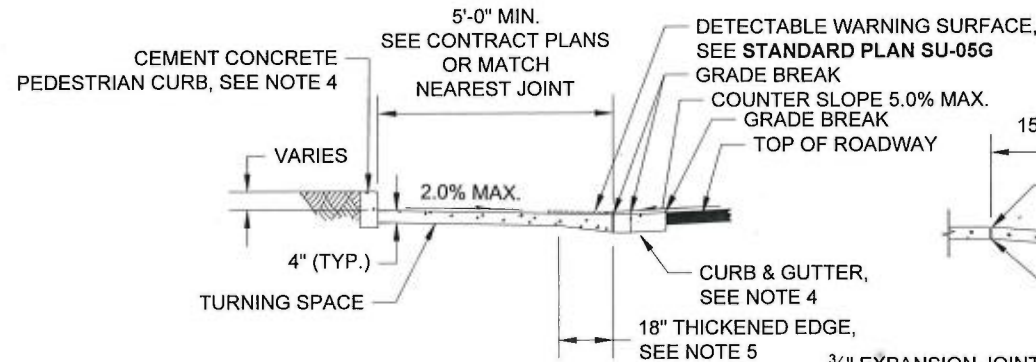
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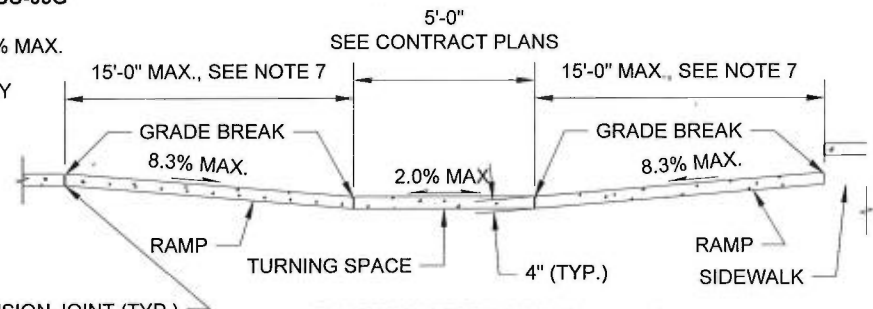
**PLAN VIEW**



**ISOMETRIC VIEW**



**SECTION DETAIL A-A**



**SECTION DETAIL B-B**

**DCS**  
PUBLIC WORKS  
**NA**  
TACOMA POWER

REVIEWED BY

**GMS**  
ENVIRONMENTAL SERVICES  
**NA**  
TACOMA WATER



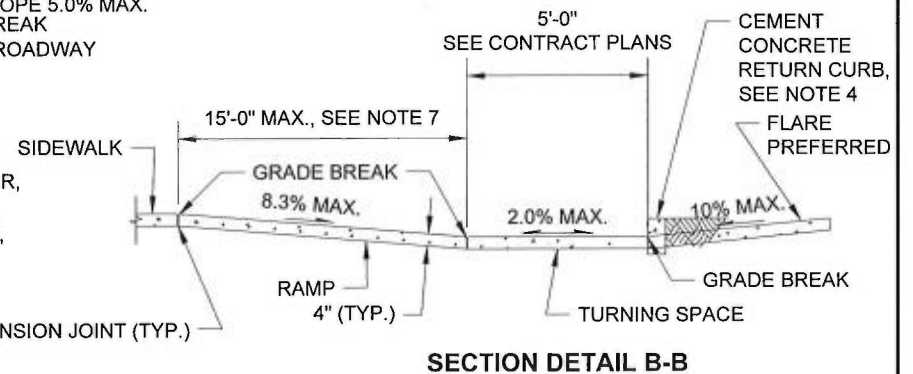
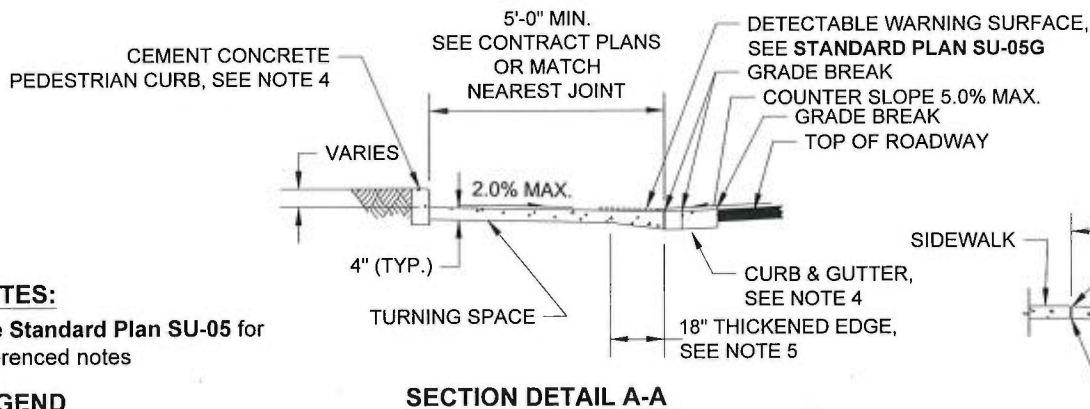
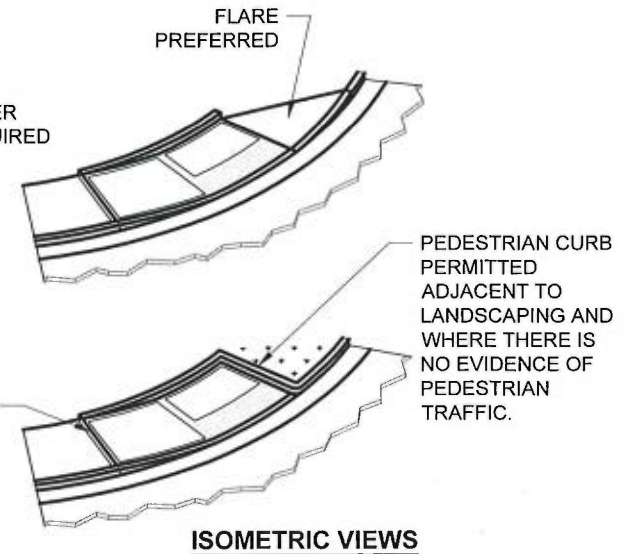
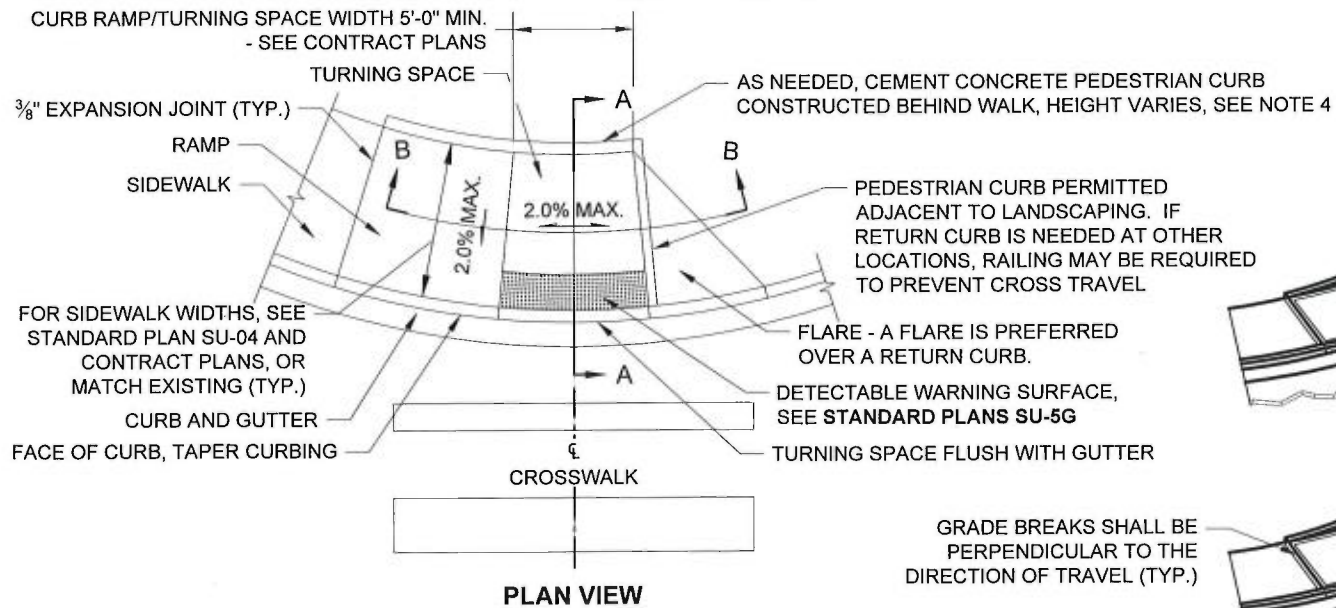
APPROVED FOR PUBLICATION

*[Signature]* 8/16/16  
CITY ENGINEER DATE

CITY OF TACOMA

PARALLEL CURB RAMP  
TYPE 'A'

STANDARD PLAN NO. SU-05D



**NOTES:**  
See Standard Plan SU-05 for referenced notes

**LEGEND**  
— SLOPE IN EITHER DIRECTION

DCS

REVIEWED BY

GMS

PUBLIC WORKS

ENVIRONMENTAL SERVICES

NA

NA

TACOMA POWER

TACOMA WATER



APPROVED FOR PUBLICATION

*[Signature]* 8/16/16

CITY ENGINEER

DATE

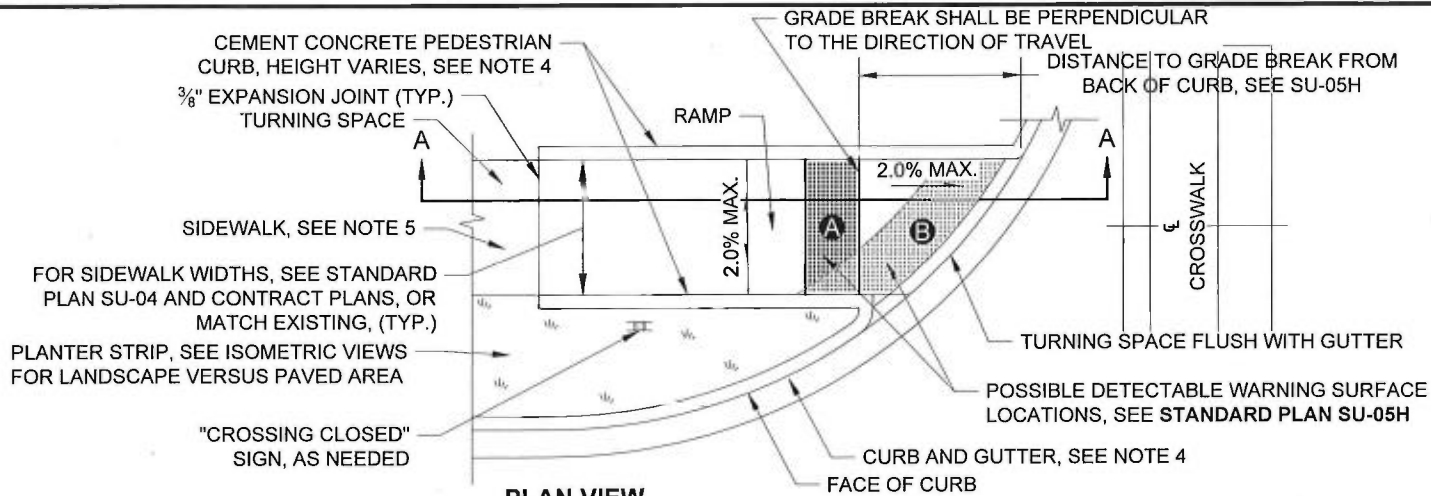
CITY OF TACOMA

PARALLEL CURB RAMP  
TYPE 'B'

STANDARD PLAN NO.

SU-05E

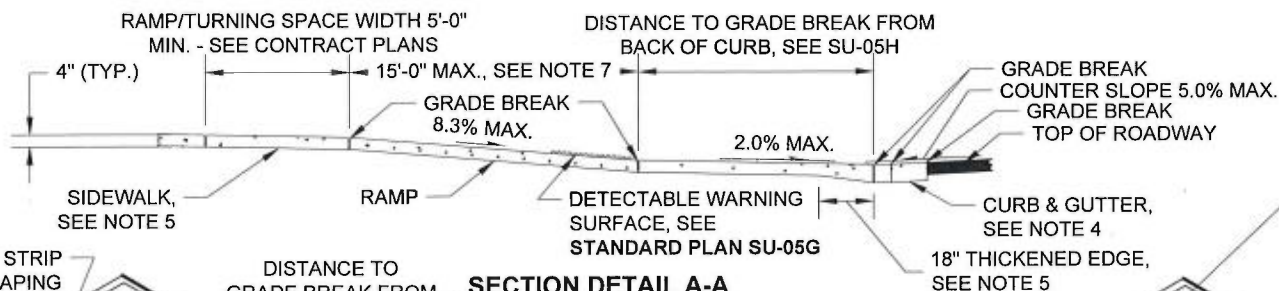




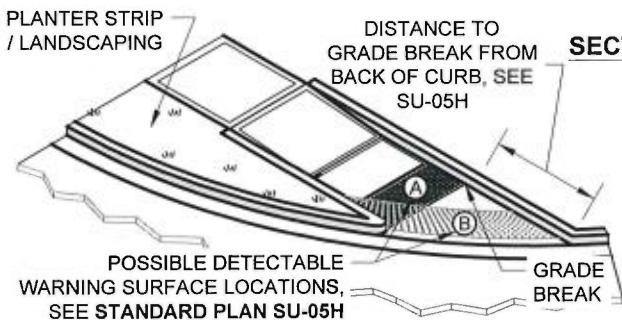
**PLAN VIEW**

**NOTES:**  
See Standard Plan SU-05 for referenced notes

**LEGEND**  
— SLOPE IN EITHER DIRECTION



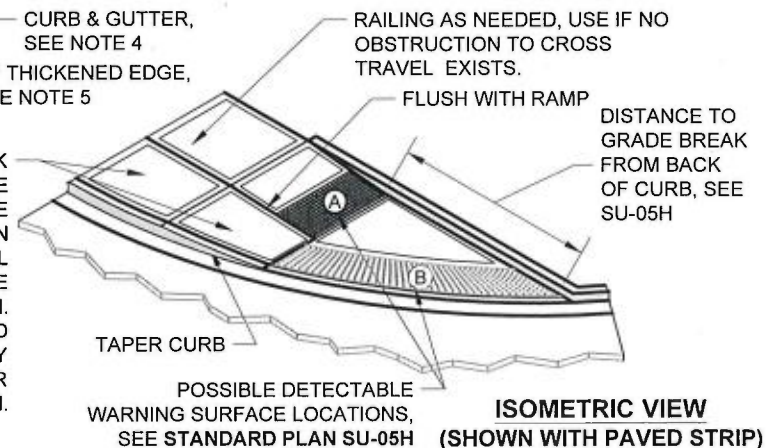
**SECTION DETAIL A-A**



**ISOMETRIC VIEW**

(SHOWN WITH PLANTER STRIP/LANDSCAPING)

HARDESCAPED BUFFER SHALL BE DARK GRAY COLORED CEMENT CONCRETE OR HAVE A PATTERN TO INDICATE THE AREA IS OUTSIDE THE PEDESTRIAN ACCESS ROUTE. THE PATTERN SHALL BE SUBMITTED AND APPROVED BY THE CITY, PRIOR TO CONSTRUCTION. ALTERNATE COLORS MAY BE USED WITH PRIOR WRITTEN APPROVAL BY THE CITY'S ADA COORDINATOR PRIOR TO CONSTRUCTION.



**ISOMETRIC VIEW**

(SHOWN WITH PAVED STRIP)

DCS

PUBLIC WORKS

NA

TACOMA POWER

REVIEWED BY

GMS

ENVIRONMENTAL SERVICES

NA

TACOMA WATER



APPROVED FOR PUBLICATION

*[Signature]* 8/16/16

CITY ENGINEER

DATE

CITY OF TACOMA

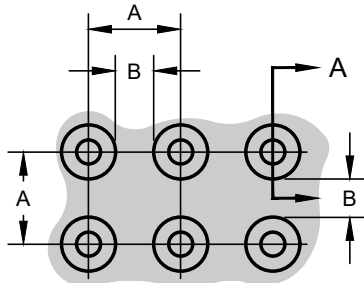
SINGLE DIRECTION CURB RAMP

STANDARD PLAN NO.

SU-05F

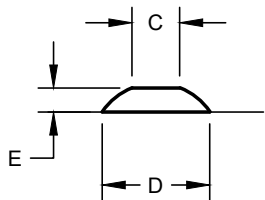
**NOTES**

1. The Detectable Warning Surface shall extend the full width of the curb ramp (exclusive of flares).
2. The rows of truncated domes in a Detectable Warning Surface shall be parallel with the direction of wheelchair travel.
3. See **Standard Plans SU-04** through **SU-05F** for sidewalk and curb ramp details.
4. If a curb is not present, place the Detectable Warning Surface at the edge of the pavement.
5. Detectable Warning Surfaces shall be either cast-in-place from Armor Tile, ADA Solutions, or an approved equal or surface applied from Vanguard or an approved equal. No detectable warning fasteners such as glue, bolts, or screws are allowed. Surface applied detectable warning surfaces may be used only when the curb ramp has associated features to deter vehicles from driving over the ramp area. Examples of such features include pedestrian curbing, utility/signal/streetlight poles, and fire hydrants.
6. Detectable warning surface shall be yellow and shall match SAE AMS Standard 595, Color 33538.
7. See **Standard Plan SU-05H** for Detectable Warning Surface placement guidelines.



**TRUNCATED DOME DETAILS**

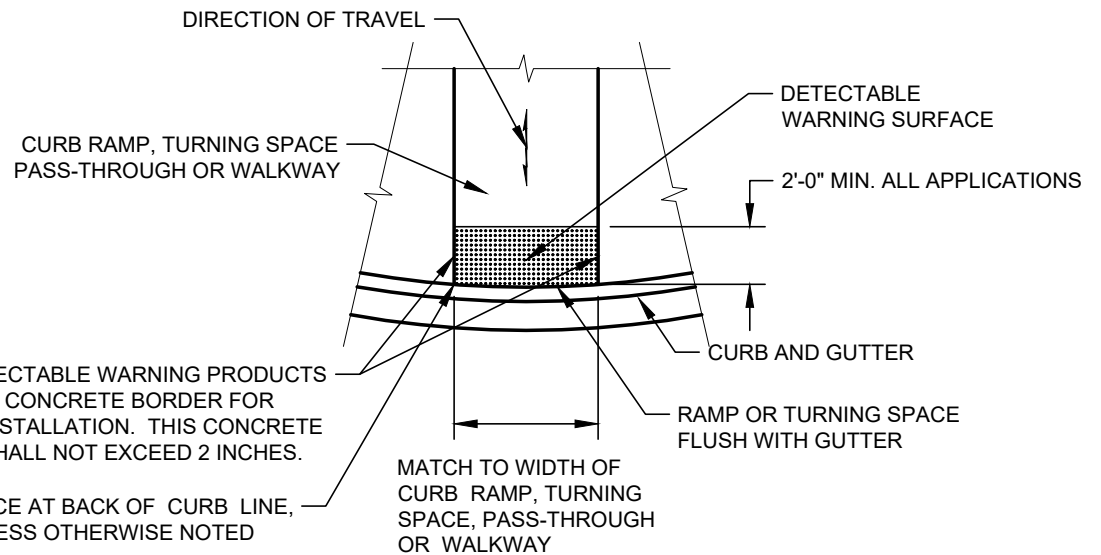
TRUNCATED DOME SPACING



	MIN.	MAX.
A	1.60"	2.40"
B	0.65"	-
C	0.45"	0.90"
D	0.90"	1.40"
E	0.20"	0.20"

**SECTION DETAIL A-A**

TRUNCATED DOME



**DETECTABLE WARNING SURFACE DETAIL**

**RVDR**

REVIEWED BY

*EW*

PUBLIC WORKS

*[Signature]*

TACOMA POWER

ENVIRONMENTAL SERVICES

*TS*

TACOMA WATER



APPROVED FOR PUBLICATION

*Kurtis Deankingsolver*

CITY ENGINEER

04/19/2021

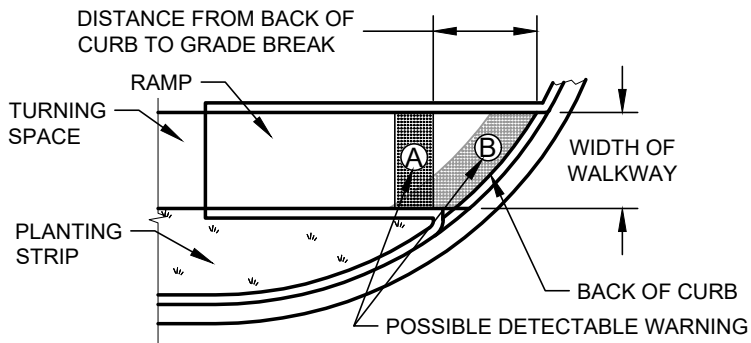
DATE

CITY OF TACOMA

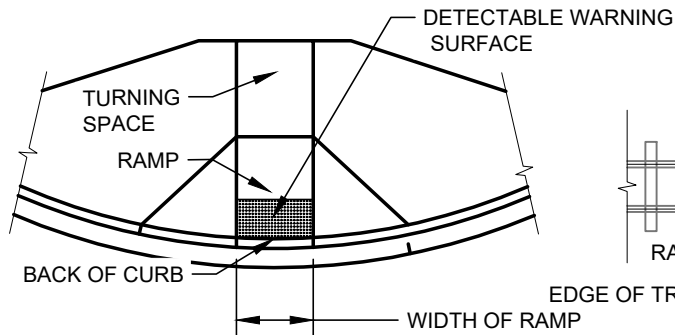
DETECTABLE WARNING SURFACE DETAILS

STANDARD PLAN NO.

SU-05G

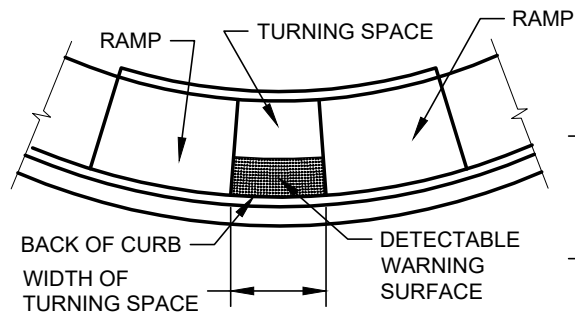


**SINGLE DIRECTION CURB RAMP**



**PERPENDICULAR CURB RAMP**

(SEE SU-05A AND SU-05B)



**PARALLEL CURB RAMP**

(SEE SU-05C, SU-05D, AND SU-05E)

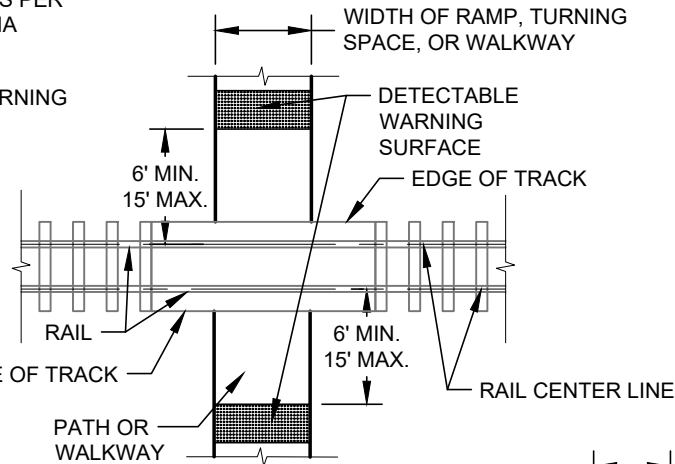
**DETECTABLE WARNING PLACEMENT CRITERIA FOR SINGLE DIRECTIONAL CURB RAMP**

USE LOCATION (A) IF DISTANCE FROM BACK OF CURB TO GRADE BREAK IS LESS THAN OR EQUAL TO 5 FT.

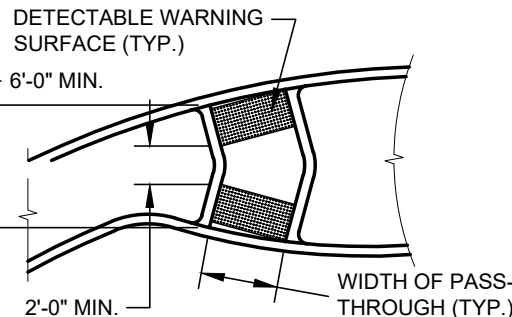
USE LOCATION (B) IF DISTANCE FROM BACK OF CURB TO GRADE BREAK IS GREATER THAN 5 FT.

**NOTES**

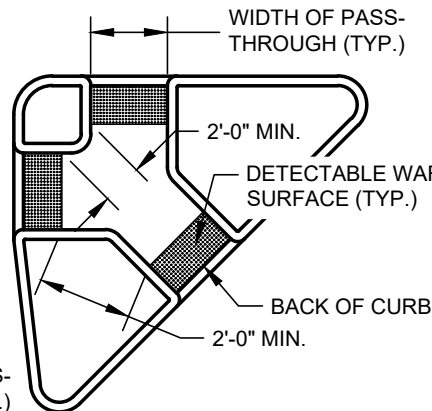
1. The Detectable Warning Surface shall extend the full width of the curb ramp (exclusive of flares).
2. The edge of the Detectable Warning Surface shall be placed along the back of the curb line unless otherwise noted.
3. The Detectable Warning Surface shall be within 2" (max.) of the edge of the ramp.
4. The rows of truncated domes in the Detectable Warning Surface shall be parallel with the direction of travel.
5. See Standard Plans for sidewalk and curb ramp details.
6. If a curb is not present, place the Detectable Warning Surface at the edge of the pavement.
7. See Standard Plan SU-05G for Detectable Warning Surface Details.



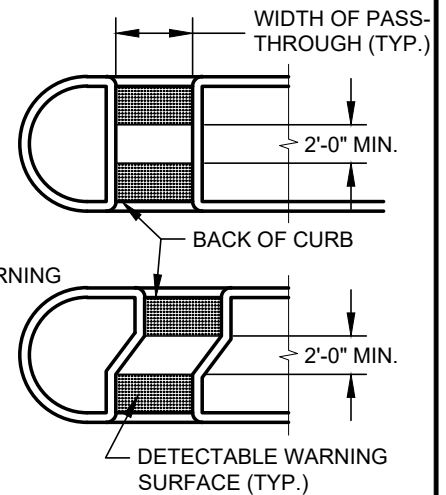
**PEDESTRIAN RAILROAD CROSSING**



**ROUNDABOUT SPLITTER ISLAND**



**ISLAND PASS-THROUGH**



**MEDIAN PASS-THROUGH**

**RVDR**

REVIEWED BY

*EW*

PUBLIC WORKS

*[Signature]*

TACOMA POWER

ENVIRONMENTAL SERVICES

*TS*

TACOMA WATER



APPROVED FOR PUBLICATION

*Kurtis Deankingsolver*

CITY ENGINEER

04/19/2021

DATE

CITY OF TACOMA

DETECTABLE WARNING SURFACE PLACEMENT GUIDELINES

STANDARD PLAN NO.

SU-05H

**R303.2.1.4 FLARES.**  
 FLARED SIDES WITH A SLOPE OF 10% MAXIMUM, MEASURED PARALLEL TO THE CURB LINE, SHALL BE PROVIDED WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP.

**ADVISORY R303.2.1.4 FLARES.**  
 SIDE OF RAMPS MAY BE RETURNED, PROVIDING USEFUL DIRECTIONAL CUES, IF PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, POLES, OR EQUIPMENT.

**NOTE:** CITY OF TACOMA PREFERS A RETURN CURB BE USED ONLY ADJACENT TO LANDSCAPING. IF RETURN CURB IS NEEDED AT OTHER LOCATIONS, RAILING MAY BE REQUIRED TO PREVENT CROSS TRAVEL.

**NOTES:**

1. CURB RAMPS SHALL BE LOCATED, CONSTRUCTED OR RETROFITTED IN ACCORDANCE WITH ADA STANDARDS FOR ACCESSIBLE DESIGN, 28 CFR, PART 35 AS SUPPLEMENTED BY THE DRAFT PUBLIC WORKS RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG), THE CITY OF TACOMA STANDARD PLANS AND THE CITY'S CURB RAMP INSTALLATION MATRIX.

2. CONDUIT FOR APS EQUIPMENT SHALL BE INSTALLED DURING CURB RAMP CONSTRUCTION AT ALL SIGNALIZED INTERSECTIONS AND AT INTERSECTIONS WHERE SIGNALIZATION IS ANTICIPATED WITHIN THE NEXT 6 YEARS. COORDINATE WITH PUBLIC WORKS - ENGINEERING, TRAFFIC SECTION.

**R303.2.2** REFERENCE TO PROWAG SECTION, 2005 DRAFT RULE (IDENTIFIED AS CURRENT BEST PRACTICE IN ACCESSIBLE PEDESTRIAN DESIGN UNDER FHWA FEDERAL AID (504) REGULATION).

 TAPER CURB

**R303.3.2 DETECTABLE WARNINGS.**

DETECTABLE WARNING SURFACES COMPLYING WITH R304 SHALL BE PROVIDED, WHERE A CURB RAMP, LANDING, OR BLENDED TRANSITION CONNECTS TO A STREET.

**R304.1.4 SIZE.**

DETECTABLE WARNING SURFACES SHALL EXTEND 24 IN. MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARES), THE LANDING OR, THE BLENDED TRANSITION.

**R304.2.1 PERPENDICULAR CURB RAMPS.**

WHERE BOTH ENDS OF THE BOTTOM GRADE BREAK COMPLYING WITH R303.3.4 ARE 5.0 FT OR LESS FROM THE BACK OF CURB, THE DETECTABLE WARNING SHALL BE LOCATED ON THE RAMP SURFACE AT THE BOTTOM GRADE BREAK. WHERE EITHER END OF THE BOTTOM GRADE BREAK IS MORE THAN 5.0 FT FROM THE BACK OF CURB, THE DETECTABLE WARNING SHALL BE LOCATED ON THE LOWER LANDING.

**R304.2.3 ALIGNMENT.**

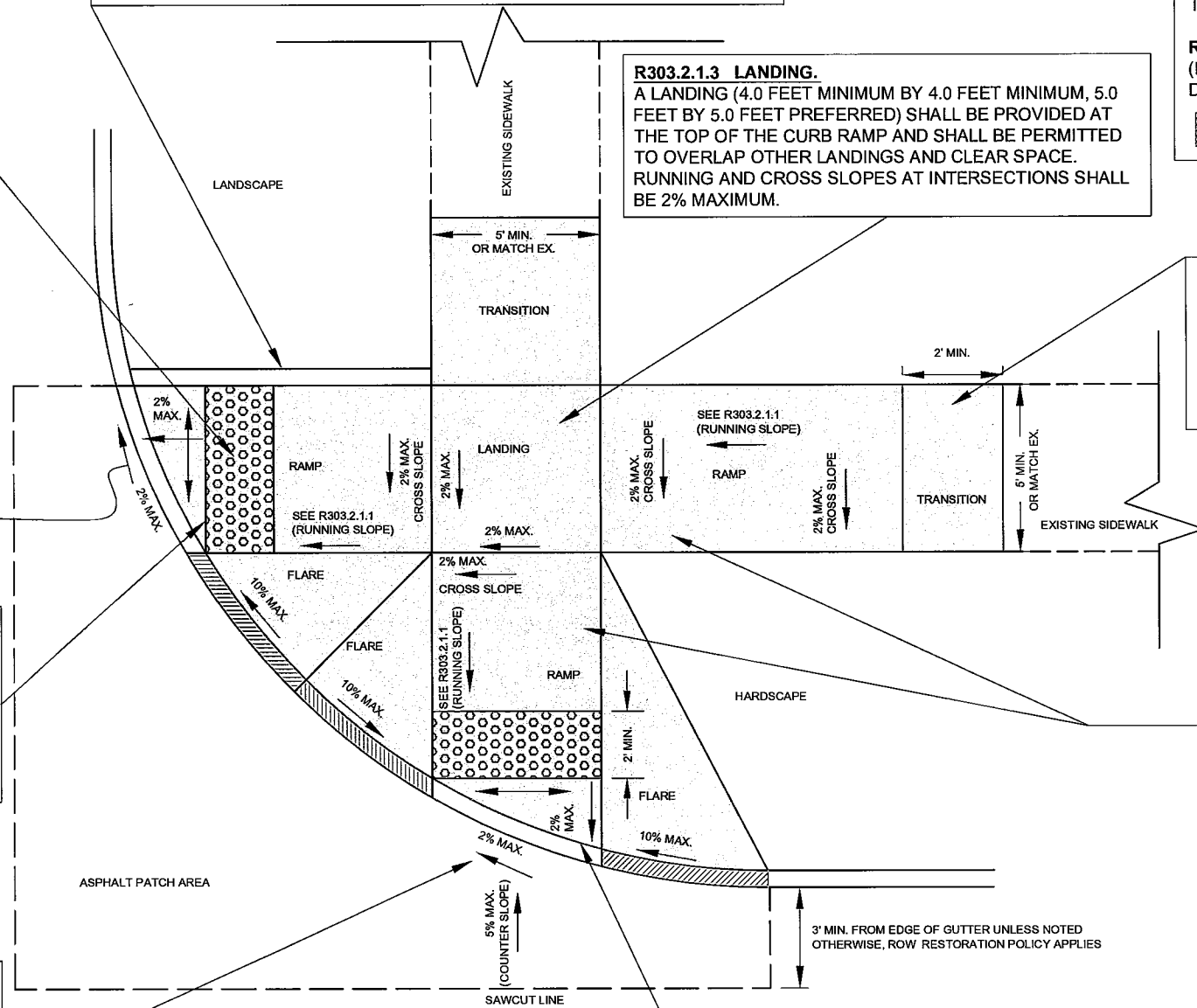
THE ROWS OF TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP, LANDING, OR BLENDED TRANSITION AND THE STREET.

**R303.2.1.3 LANDING.**

A LANDING (4.0 FEET MINIMUM BY 4.0 FEET MINIMUM, 5.0 FEET BY 5.0 FEET PREFERRED) SHALL BE PROVIDED AT THE TOP OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER LANDINGS AND CLEAR SPACE. RUNNING AND CROSS SLOPES AT INTERSECTIONS SHALL BE 2% MAXIMUM.

TRANSITION PANEL FROM RAMP TO EXISTING SIDEWALK (WHERE REQUIRED TO MATCH EXISTING SIDEWALK CROSS SLOPE). MAXIMUM GRADES ARE NOT SPECIFIED BY PROWAG. ADJUST LENGTH AS NEEDED TO PROVIDE SMOOTH TRANSITION. IF PROPOSED MATCH LINE LOCATION DOES NOT FALL ON AN EXISTING JOINT IN THE SECTION OF SIDEWALK TO REMAIN, THE EXISTING WALK SHALL BE REMOVED BACK TO THE NEXT JOINT (MINIMUM 2 FEET).

MAINTAIN POSITIVE STORM WATER DRAINAGE (TYP.)



**R303.3.4 GRADE BREAKS.**

GRADE BREAKS AT THE TOP AND BOTTOM OF PERPENDICULAR CURB RAMPS SHALL BE PERPENDICULAR TO THE DIRECTION OF RAMP RUN. AT LEAST ONE END OF THE BOTTOM GRADE BREAK SHALL BE AT THE BACK OF CURB. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMPS, BLENDED TRANSITIONS, LANDINGS, AND GUTTER AREAS WITHIN THE PEDESTRIAN ACCESS ROUTE. SURFACE SLOPES THAT MEET THE GRADE BREAKS SHALL BE FLUSH.

**R303.2.1 PERPENDICULAR CURB RAMPS.**

**R303.2.1.1 RUNNING SLOPE.**

THE RUNNING SLOPE SHALL BE 8.3% MAXIMUM BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15.0 FEET.

**R303.2.1.2 CROSS SLOPE.**

THE CROSS SLOPE SHALL BE 2% MAXIMUM.

**R303.3.1 WIDTH.**

THE CLEAR WIDTH OF LANDINGS, BLENDED TRANSITIONS, AND CURB RAMPS, EXCLUDING FLARES, SHALL BE 4.0 FEET MINIMUM.

**R303.3.3 SURFACES.**

SURFACES OF CURB RAMPS, BLENDED TRANSITIONS, AND LANDINGS SHALL COMPLY WITH R301. GRATINGS, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS, BLENDED TRANSITIONS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.

**CROSSWALK**

**R303.3.5 COUNTER SLOPES.**

THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING, OR BLENDED TRANSITION SHALL BE 5% MAXIMUM.

**R303.2.1.2 CROSS SLOPE.**

THE CROSS SLOPE AT INTERSECTIONS SHALL BE 2% MAXIMUM. THE CROSS SLOPE AT MID-BLOCK CROSSING SHALL BE PERMITTED TO BE WARPED TO MEET STREET GRADE.

GRADE BREAK AT BASE OF RAMP AND GUTTER SHALL BE FLUSH

**FOR INFORMATIONAL PURPOSES ONLY  
 DO NOT INCLUDE IN CONTRACT SPECIFICATIONS**

CITY OF TACOMA  
 DEPARTMENT OF PUBLIC WORKS

PROWAG GUIDELINES  
 TYPICAL PERPENDICULAR CURB RAMP  
 DESIGN STANDARDS

STANDARD PLAN NO. SU-051

**R303.2.2 PARALLEL CURB RAMPS.**

**R303.2.2.1 RUNNING SLOPE.**

THE RUNNING SLOPE SHALL BE 8.3% MAXIMUM BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15.0 FEET.

**R303.2.1.2 CROSS SLOPE.**

THE CROSS SLOPE SHALL BE 2% MAXIMUM.

**R303.3.1 WIDTH.**

THE CLEAR WIDTH OF LANDINGS, BLENDED TRANSITIONS, AND CURB RAMPS, EXCLUDING FLARES, SHALL BE 4.0 FEET MINIMUM.

**R303.3.3 SURFACES.**

SURFACES OF CURB RAMPS, BLENDED TRANSITIONS, AND LANDINGS SHALL COMPLY WITH R301. GRATINGS, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS, BLENDED TRANSITIONS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.

**R303.3.2 DETECTABLE WARNINGS.**

DETECTABLE WARNING SURFACES COMPLYING WITH R304 SHALL BE PROVIDED, WHERE A CURB RAMP, LANDING, OR BLENDED TRANSITION CONNECTS TO A STREET.

**R304.1.4 SIZE.**

DETECTABLE WARNING SURFACES SHALL EXTEND 24 IN. MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARES), THE LANDING OR, THE BLENDED TRANSITION.

**R304.2.3 ALIGNMENT.**

THE ROWS OF TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP, LANDING, OR BLENDED TRANSITION AND THE STREET.

**R303.3.4 GRADE BREAKS.**

GRADE BREAKS AT THE TOP AND BOTTOM OF PERPENDICULAR CURB RAMPS SHALL BE PERPENDICULAR TO THE DIRECTION OF RAMP RUN. AT LEAST ONE END OF THE BOTTOM GRADE BREAK SHALL BE AT THE BACK OF CURB. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMPS, BLENDED TRANSITIONS, LANDINGS, AND GUTTER AREAS WITHIN THE PEDESTRIAN ACCESS ROUTE. SURFACE SLOPES THAT MEET THE GRADE BREAKS SHALL BE FLUSH.

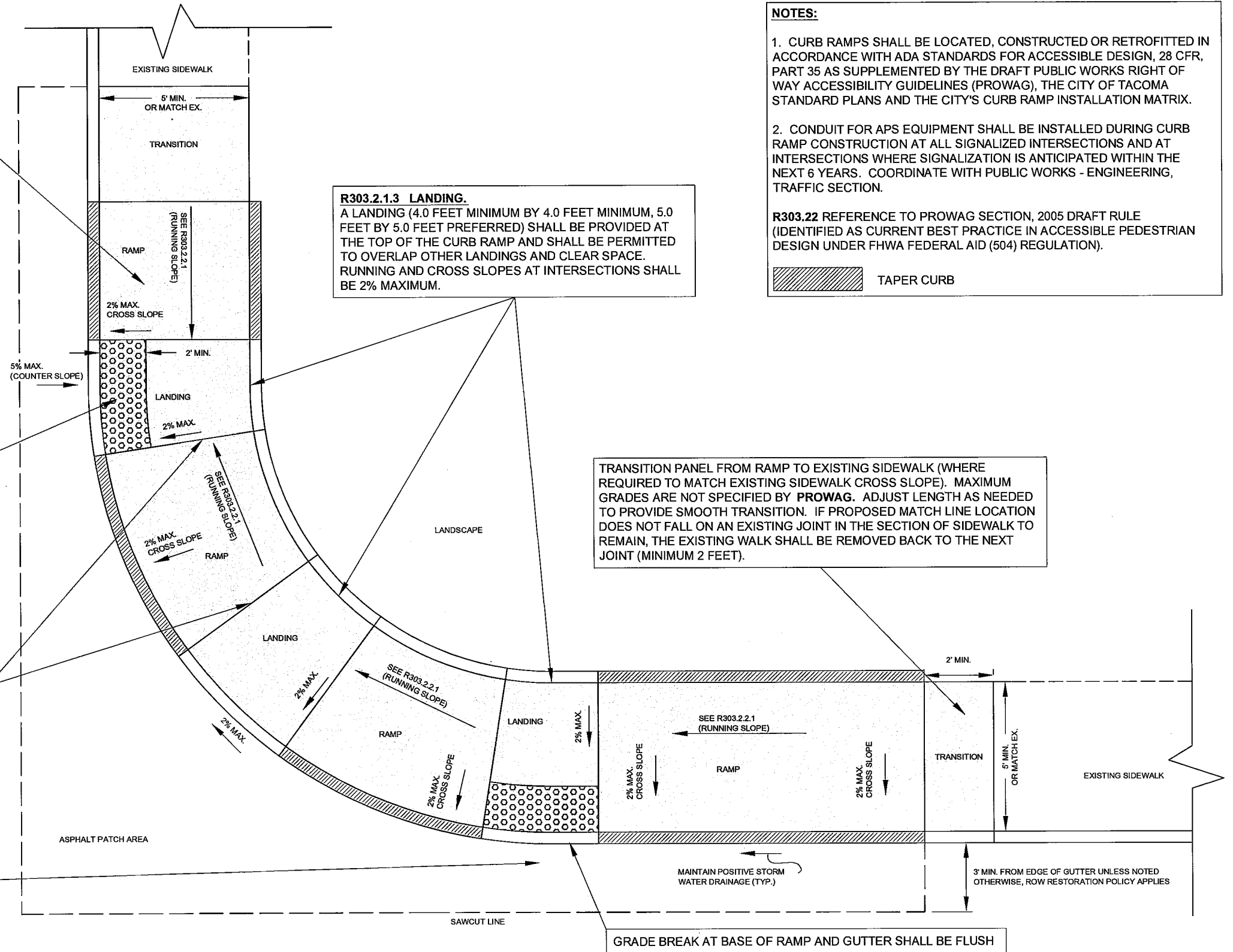
**CROSSWALK.**

**R303.3.5 COUNTER SLOPES.**

THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING, OR BLENDED TRANSITION SHALL BE 5% MAXIMUM.

**R303.2.1.2 CROSS SLOPE.**

THE CROSS SLOPE AT INTERSECTIONS SHALL BE 2% MAXIMUM. THE CROSS SLOPE AT MID-BLOCK CROSSING SHALL BE PERMITTED TO BE WARPED TO MEET STREET GRADE.



**NOTES:**

1. CURB RAMPS SHALL BE LOCATED, CONSTRUCTED OR RETROFITTED IN ACCORDANCE WITH ADA STANDARDS FOR ACCESSIBLE DESIGN, 28 CFR, PART 35 AS SUPPLEMENTED BY THE DRAFT PUBLIC WORKS RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG), THE CITY OF TACOMA STANDARD PLANS AND THE CITY'S CURB RAMP INSTALLATION MATRIX.

2. CONDUIT FOR APS EQUIPMENT SHALL BE INSTALLED DURING CURB RAMP CONSTRUCTION AT ALL SIGNALIZED INTERSECTIONS AND AT INTERSECTIONS WHERE SIGNALIZATION IS ANTICIPATED WITHIN THE NEXT 6 YEARS. COORDINATE WITH PUBLIC WORKS - ENGINEERING, TRAFFIC SECTION.

**R303.22** REFERENCE TO PROWAG SECTION, 2005 DRAFT RULE (IDENTIFIED AS CURRENT BEST PRACTICE IN ACCESSIBLE PEDESTRIAN DESIGN UNDER FHWA FEDERAL AID (504) REGULATION).

 TAPER CURB

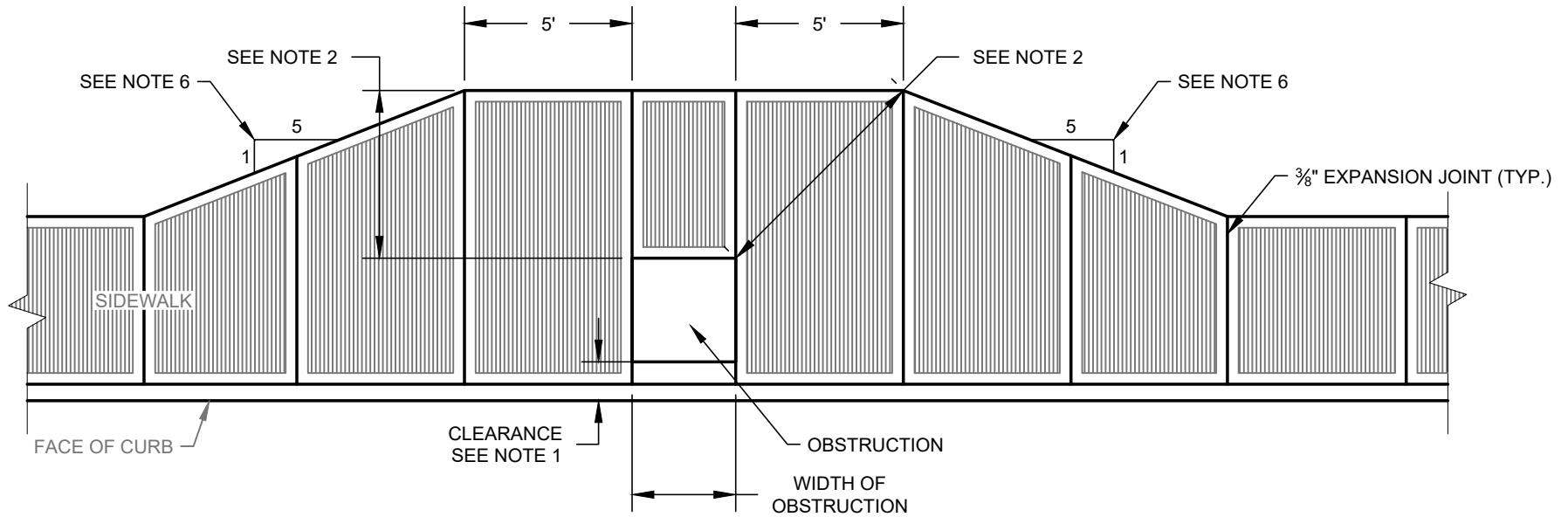
**FOR INFORMATIONAL PURPOSES ONLY  
DO NOT INCLUDE IN CONTRACT SPECIFICATIONS**

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

PROWAG GUIDELINES  
TYPICAL PARALLEL CURB RAMP  
DESIGN STANDARDS  
STANDARD PLAN NO. SU-05J

**NOTES**

1. The clearance between the face of curb and any obstruction, except mail boxes, shall be a minimum of 1'-6" and shall be in accordance with applicable standards. The front of a mail box shall be 6" to 8" from the face of curb.
2. Sidewalk cafes, artwork, poles, mailboxes, vault lids, ramps, etc., may not reduce the width of the sidewalk to less than 5' for residential streets and 7' for arterial streets and commercial areas, excluding the curb width.
3. All obstructions shall meet requirements for cane detection. See City of Tacoma Design Manual Chapter 8.
4. The following criteria shall only be used in rare circumstance when an obstruction cannot be relocated and does not allow the minimum required sidewalk width:
  - a) If the sidewalk is new or replaced and cannot meet the minimum clearance requirements due to an existing obstruction, then a maximum extent feasible (MEF) justification shall be included in the Plans. Rationale supporting the MEF shall be provided by the Engineer and shall include a description of the scope of work, the site-specific factors affecting compliance, and the measures implemented to improve compliance. The MEF shall be submitted and approved by the City of Tacoma Traffic Engineering Division and ADA Coordinator prior to requesting project bids or permit approval.
  - b) When placing a new obstruction in an existing sidewalk and the minimum clearance requirements cannot be met, a MEF shall be submitted and approved by the City of Tacoma Traffic Engineering Division and ADA Coordinator prior to requesting project bids or permit approval.
5. See Tacoma's Design Manual Chapter 8, Pedestrian Facilities, for additional information on Pedestrian Access Routes (PARs).
6. Sidewalk taper around obstructions shall be 5:1. If a 5:1 taper cannot be achieved, then an MEF justification shall be included on the Plans for review and approval by City Staff. Sidewalk shall comply with SU-04.

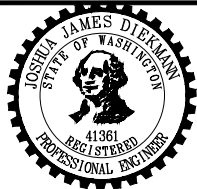


<p>DS RVDR PUBLIC WORKS TACOMA POWER</p>	<p>REVIEWED BY EW ENVIRONMENTAL SERVICES TACOMA WATER</p>	<p>APPROVED FOR PUBLICATION DocuSigned by: <i>J. Dehner</i> 41361 REGISTERED PROFESSIONAL ENGINEER</p>	<p>CITY OF TACOMA SIDEWALK CLEAR WIDTHS AND OBSTRUCTION GUIDELINES STANDARD PLAN NO. SU-06</p>
<p>10/02/2022 DATE</p>			

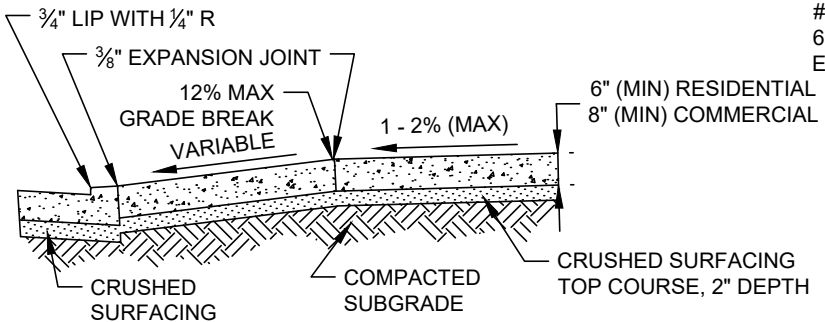
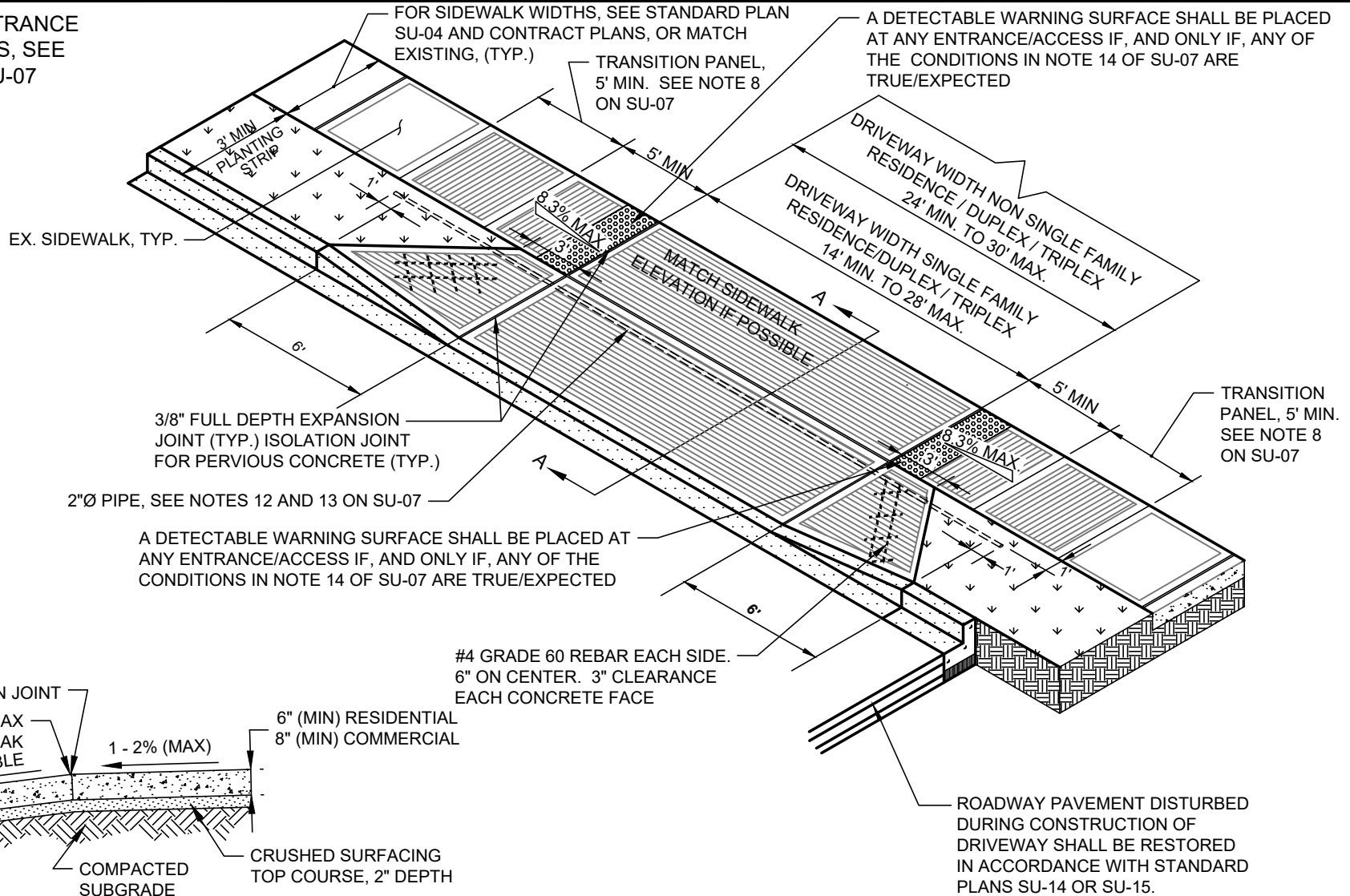
**NOTES**

1. Use the following as a guide of when each Entrance or Access Type should be used:
  - 1.a. Cement Concrete Driveway Entrances Type 1 (Entrances) or Accesses Type 1 (Accesses) shall be used at driveways where the planting strip width is 3' or greater. See Standard Plan SU-07A.
  - 1.b. Cement Concrete Driveway Entrances Type 2 (Entrances) or Access Type 2 (Accesses) shall be used at driveways and alleys where the planting strip is less than 3' wide. See Standard Plan SU-07B.
  - 1.c. Cement Concrete Alley Entrance Type 3 (Entrances) or Accesses Type 3 (Accesses) shall be used at alleys where the planting strip is 3' wide or greater. See Standard Plan SU-07C.
  - 1.d. New proposed planter widths shall be 5' min, with Type 1 Driveway Entrance or Type 3 Alley Entrance
2. Standard Concrete shall be a minimum compressive strength of 3,000 PSI.
3. Concrete Joints:
  - 3.a. All joints shall be cleaned & edged.
  - 3.b. All expansion or isolation joints shall be full depth.
  - 3.c. External joints to the driveway shall be 1/2" radius. Internal joints to the driveway shall be 1/4" radius.
  - 3.d. All joints shall be saw cut full depth prior to restoration and 3/8" expansion joint installed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification Section 5-03.
4. Entrances and Accesses wider or narrower than shown on this plan require approval of the Director of Public Works.
5. Entrances and Accesses shall have a brushed finish in a transverse direction to the center line of Entrance or Access.
6. Entrances or Accesses wider than 20' require a center line expansion joint.
7. When trenching through an Entrance or Access:
  - 7.a. If Entrance or Access is 20' or less in width, full replacement is required.
  - 7.b. If Entrance or Access is greater than 20' in width, a minimum 2' wide cut back over undisturbed soil is required and replacement shall extend to the nearest control joint.
8. Transition panels are required when a new driveway entrance or access matches into a sidewalk with a cross slope greater than 2%. Transition panels shall be a minimum of 5' in length.
9. For Entrances or Accesses within the North Slope Historical District area use Standard Plan HD-NS02. See Standard Plan HD-NS01 for map of Historical District area limits.
10. Permeable surfacing may be allowed for Entrances or Accesses. Refer to Standard Plans PD-01 and PD-02 as applicable. Do not compact subgrade for permeable surfacing and refer to APWA GSP 2-06.3(3) Subgrade for Permeable Pavements. A soils report is required and modeling may be necessary per SWMM BMP L633.
11. Geomembrane barrier required between standard and permeable sections. Refer to City of Tacoma Standard Plan GSI-18.
12. Refer to Tacoma Municipal Code 10.14, driveways for additional information.
13. A 2" Ø PVC Sch. 80 Pipe with capped ends shall be installed as shown, per TMC 10.14.070. Pipe shall be buried 24 inches below finished grade and have a pull string and location wire per WSDOT 9-29
14. A detectable warning surface shall be placed at any Entrance or Access if, and only if, any of the following are true/expected:
  - The Average Daily Traffic of the alley/driveway is greater than 700 or is reasonably expected to exceed 700 vehicles per typical day upon future development, such as alleys in regional growth centers and mixed-use centers where zoning supports significant growth.
  - It is located in a high pedestrian use area such as, a designated pedestrian street in a mixed-use center, or a school walking route.
  - A safety concern is documented by the City Traffic Engineer.
15. The detectable warning pattern, if needed, shall be placed the full width of the sidewalk in accordance with City of Tacoma Standard Plan SU-05A.
16. When an existing entrance or access does not meet current ADA standards as defined by the City of Tacoma's Design Manual, the entire entrance or access shall be replaced to current ADA standards.

<p>DS RVDR PUBLIC WORKS TACOMA POWER</p>	<p>DS REVIEWED BY <i>EW</i> ENVIRONMENTAL SERVICES TACOMA WATER</p>	<p style="text-align: center;">APPROVED FOR PUBLICATION</p> <p style="text-align: center;">DocuSigned by: <i>J. Dehner</i> PROFESSIONAL ENGINEER</p> <p style="text-align: right;">10/02/2022 DATE</p>	<p style="text-align: center;">CITY OF TACOMA NOTES FOR CEMENT CONCRETE DRIVEWAY AND ALLEY ENTRANCE OR ACCESS</p> <p style="text-align: right;">STANDARD PLAN NO. SU-07</p>
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FOR DRIVEWAY ENTRANCE AND ACCESS NOTES, SEE STANDARD PLAN SU-07



NOTE: DESIGNED SECTION REQUIRED FOR PERMEABLE SURFACING. SEE NOTES 10 AND 11 ON SU-07.

**STANDARD CONCRETE SECTION DETAIL A-A**

<p>DS <b>RVDR</b> PUBLIC WORKS DS <i>[Signature]</i> TACOMA POWER</p>	<p>NTS REVIEWED BY DS <i>[Signature]</i> ENVIRONMENTAL SERVICES DS <i>[Signature]</i> TACOMA WATER</p>		<p>APPROVED FOR PUBLICATION</p> <p>DocuSigned by: <i>[Signature]</i> DATE 10/02/2022</p>	<p>CITY OF TACOMA CEMENT CONCRETE DRIVEWAY ENTRANCE AND ACCESS TYPE 1</p> <p>STANDARD PLAN NO. SU-07A</p>
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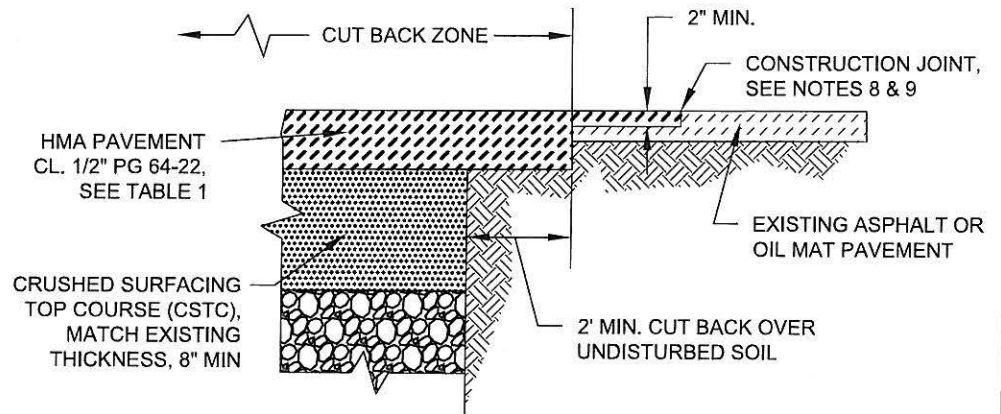
**NOTES**

1. **All pavement restoration work shall also meet the requirements of the City of Tacoma's Right of Way Restoration Policy. See Standard Plan SU-15B for any streets exempt from this policy.**
2. Temporary Surface Restoration:  
Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).  
Residential areas and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.
3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.
4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.
5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
6. Final compaction of HMA shall be 91% of maximum density.  
Isolated patches: Minimum 1 test per patch up to 150 square feet, and 1 test required every additional 300 square feet, thereafter.  
Trench patches: 1 test every 150 linear feet of trench with a minimum of 2 tests per trench.  
 Testing shall be performed by a certified independent testing laboratory or certified tester, as approved by the City's Construction Division. Tests shall be completed and reports identifying the project number submitted to the City Construction Division within 48 hours of test.
7. All joints between the new and original asphalt pavement shall be sealed with hot asphalt or asphalt emulsion and covered with dry paving sand before the asphalt solidifies. Existing surfaces shall be prepared in accordance with WSDOT Standard Specification 5-04.3(5)A prior to placing any new pavement surfaces.

8. Longitudinal construction joints shall only be located at the center or edge of affected lanes.  
 Streets and courts 20 feet or less in width and all alleys are considered one-lane streets. Non-arterial streets and courts greater than 20 feet in width with no traffic channelization are considered two-lane streets with one-lane either side of the centerline of the street.  
 Non-arterial streets greater than 32 feet in width with no traffic channelization may be considered three lane streets upon prior approval from the City Engineer.
9. Transverse construction joints terminate at the edge of the 2' cut back.
10. HMA pavement shall not be placed over CDF until approved by the City.

**TABLE 1  
PAVEMENT REPLACEMENT DEPTH  
IN CUT BACK ZONE**

	MIN.	MAX.
ARTERIALS, INDUSTRIAL AREAS & ROADS WITH BUS TRAFFIC	MATCH EXISTING +1", OR 4", WHICHEVER IS GREATER	6"
RESIDENTIALS AND ALLEYS	MATCH EXISTING +1", OR 3", WHICHEVER IS GREATER	4"



APPROVED FOR PUBLICATION

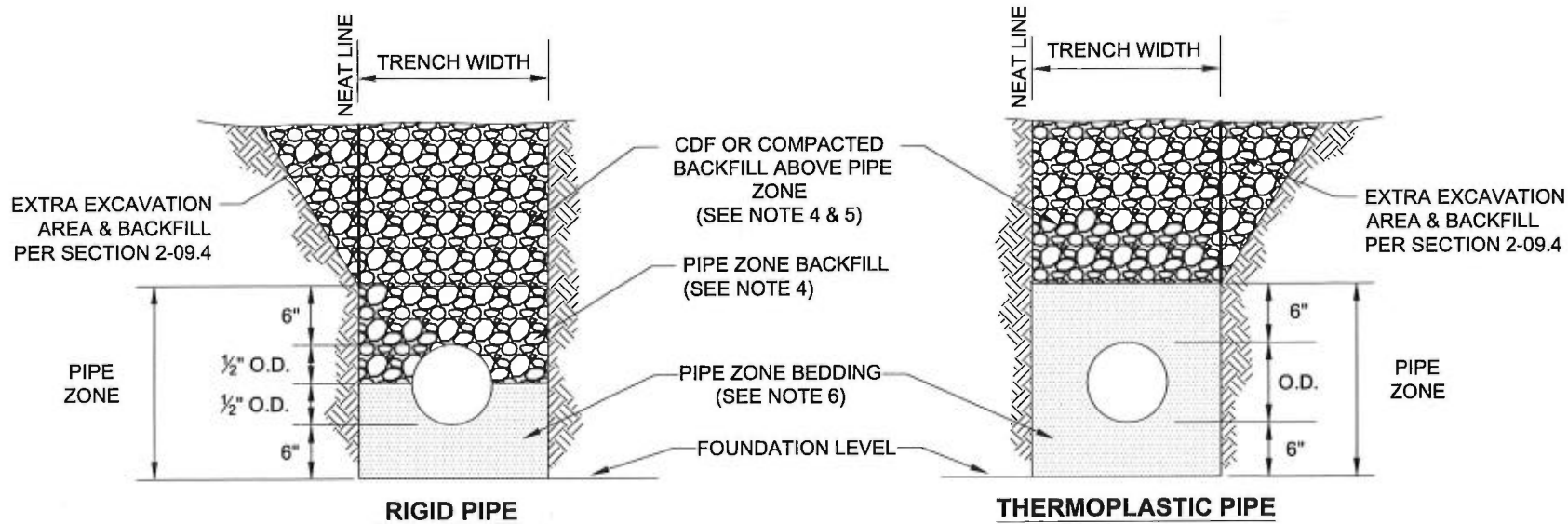
CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

*James Ramsey*  
CITY ENGINEER

12 Jun 2009  
DATE

TYPICAL PAVEMENT RESTORATION  
FOR ASPHALT CONCRETE/OIL MAT  
PAVEMENT

STANDARD PLAN NO. SU-15A



**NOTES:**

1. Provide uniform support under barrel and provide pockets in bedding for pipe bells.
2. Hand tamp under haunches.
3. Trench width shall be as specified in Section 2-09.4 of the WSDOT Standard Specifications.
4. Pipe zone backfill and backfill above pipe zone shall meet the material requirements of WSDOT Standard Specification Section 9-03.12(2) for gravel backfill for walls.
5. All trenches shall be compacted in accordance with SU-28.
6. Pipe zone bedding shall meet the material requirements of WSDOT Standard Specification Section 9-03.9(3) for crushed surfacing top course.

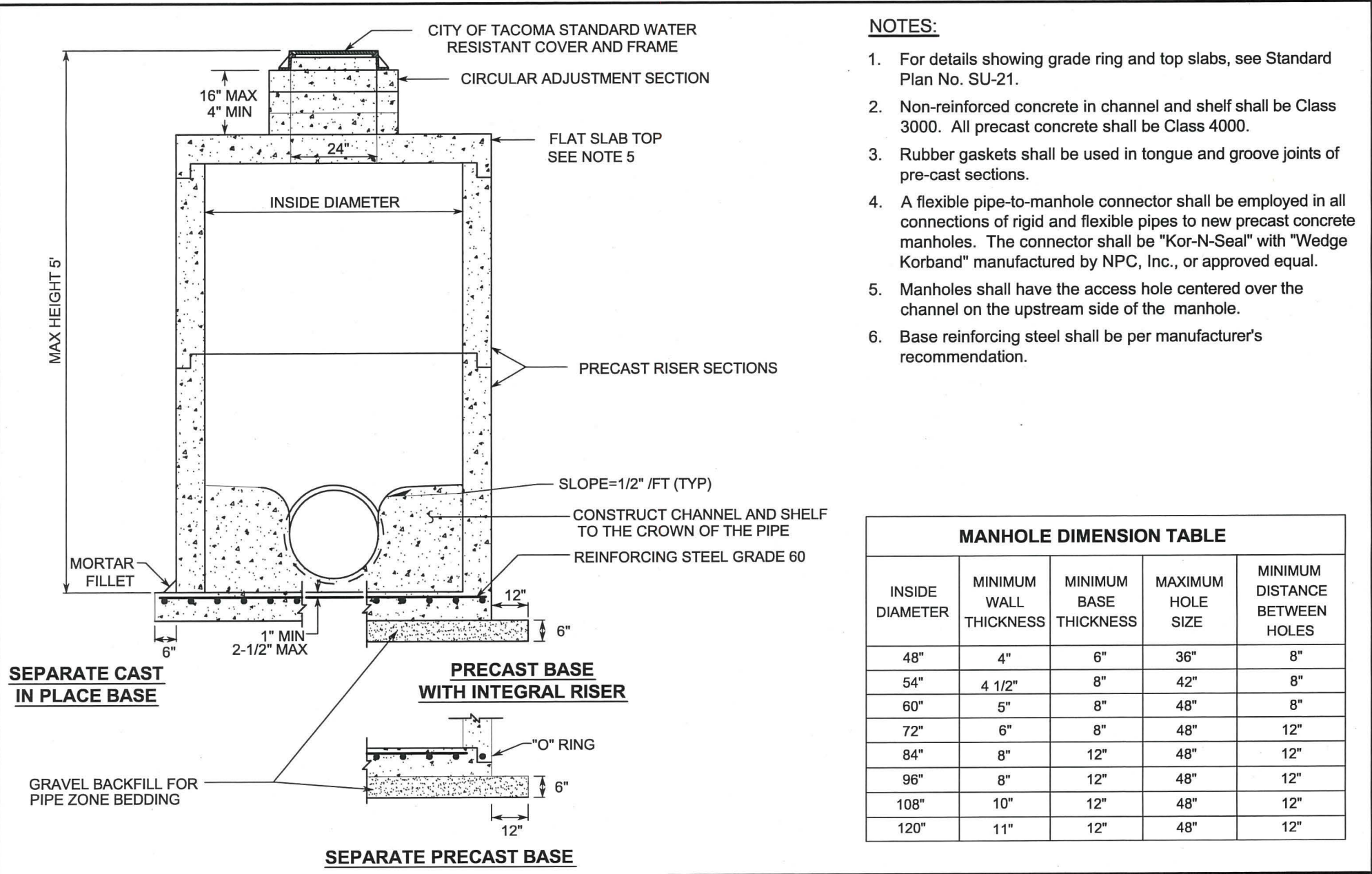
**DCS**  
PUBLIC WORKS  
  
**NA**  
TACOMA POWER

REVIEWED BY **GMS**  
ENVIRONMENTAL SERVICES  
  
**NA**  
TACOMA WATER



APPROVED FOR PUBLICATION  
  
*[Signature]*  
CITY ENGINEER  
  
8/16/16  
DATE

CITY OF TACOMA  
PIPE ZONE BEDDING AND BACKFILL  
FOR SANITARY AND STORM  
SEWERS  
  
STANDARD PLAN NO. SU-16

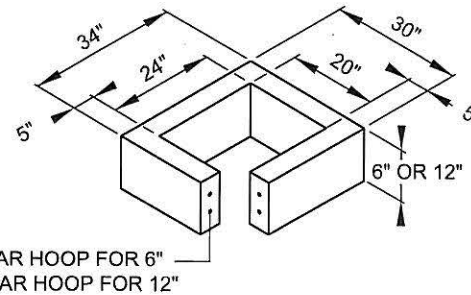
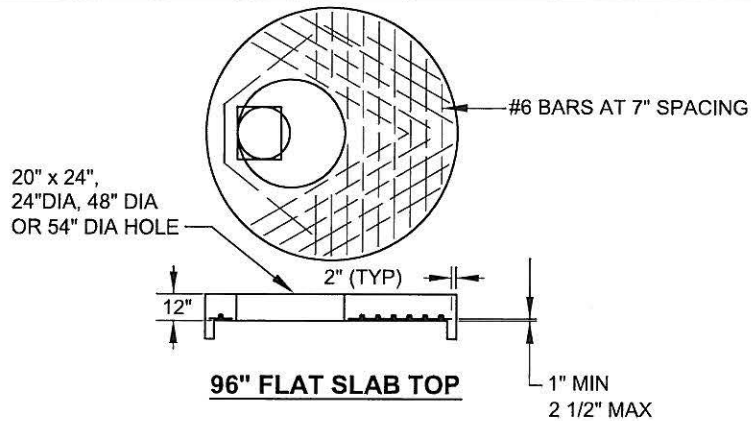


**NOTES:**

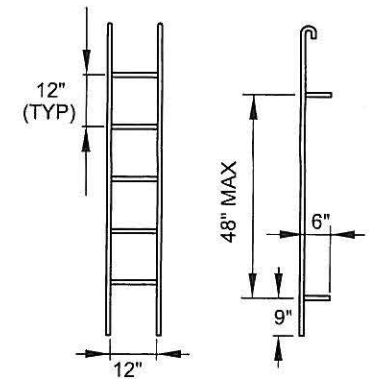
1. For details showing grade ring and top slabs, see Standard Plan No. SU-21.
2. Non-reinforced concrete in channel and shelf shall be Class 3000. All precast concrete shall be Class 4000.
3. Rubber gaskets shall be used in tongue and groove joints of pre-cast sections.
4. A flexible pipe-to-manhole connector shall be employed in all connections of rigid and flexible pipes to new precast concrete manholes. The connector shall be "Kor-N-Seal" with "Wedge Korband" manufactured by NPC, Inc., or approved equal.
5. Manholes shall have the access hole centered over the channel on the upstream side of the manhole.
6. Base reinforcing steel shall be per manufacturer's recommendation.

MANHOLE DIMENSION TABLE				
INSIDE DIAMETER	MINIMUM WALL THICKNESS	MINIMUM BASE THICKNESS	MAXIMUM HOLE SIZE	MINIMUM DISTANCE BETWEEN HOLES
48"	4"	6"	36"	8"
54"	4 1/2"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	48"	12"
84"	8"	12"	48"	12"
96"	8"	12"	48"	12"
108"	10"	12"	48"	12"
120"	11"	12"	48"	12"

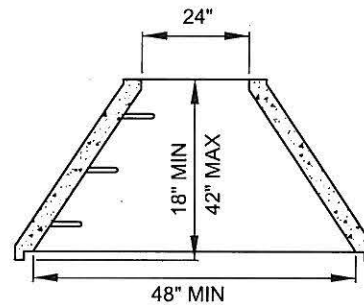
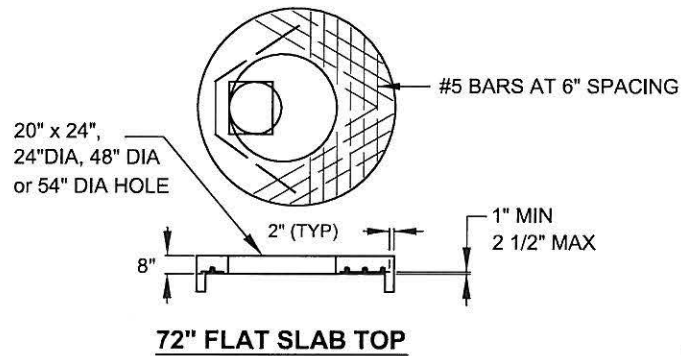
<p><b>CITY OF TACOMA</b> <b>DEPARTMENT OF PUBLIC WORKS</b></p>	<p><b>APPROVED FOR PUBLICATION</b></p> <p>CITY ENGINEER</p>	<p><b>MANHOLE TYPE 3</b> <b>5' MAXIMUM HEIGHT</b></p>
	<p>DATE <u>1/17/14</u></p>	<p><b>STANDARD PLAN NO. SU-19</b></p>



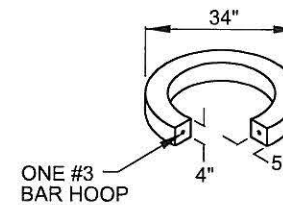
**RECTANGULAR ADJUSTMENT SECTION**



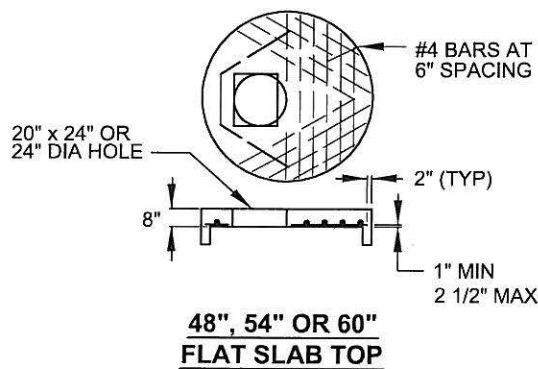
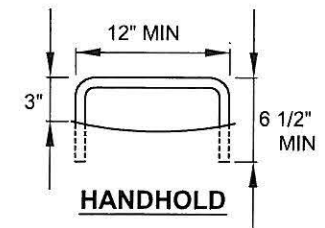
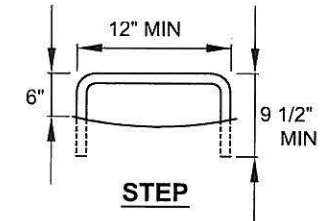
**PREFABRICATED LADDER**



**CONCENTRIC CONE SECTION**



**CIRCULAR ADJUSTMENT SECTION**



**NOTE:**

As an acceptable alternate to rebar, wire mesh having a minimum area of 0.12 square inches per foot may be used for adjustment sections.

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

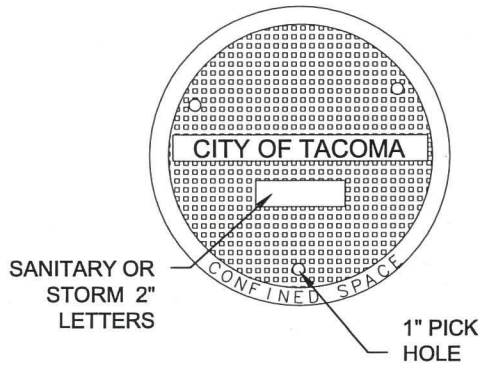
APPROVED FOR PUBLICATION

*Jane Pervey*  
CITY ENGINEER

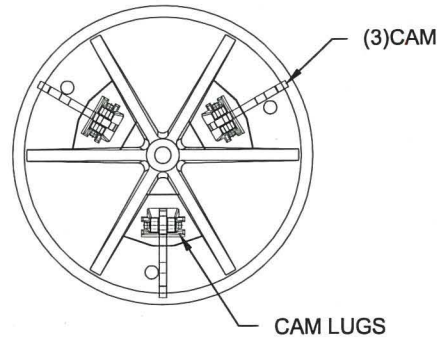
12 Jun 2009  
DATE

MISCELLANEOUS DETAILS  
FOR MANHOLES AND  
CATCH BASINS

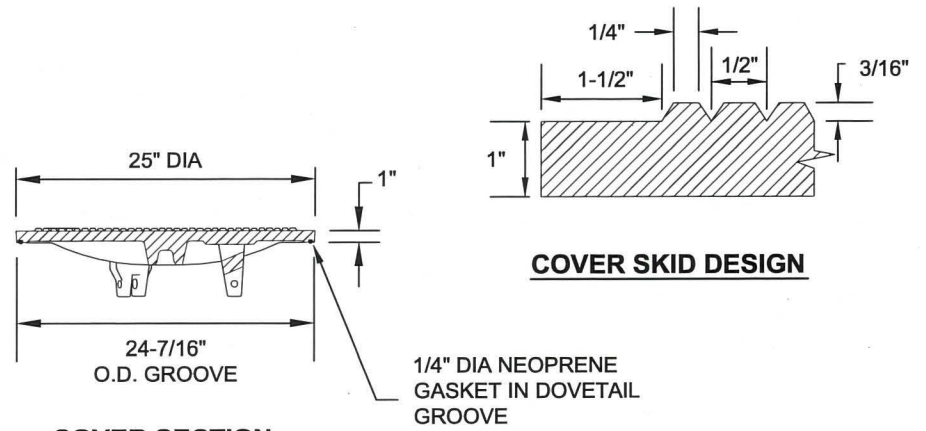
STANDARD PLAN NO. SU-21



**PLAN VIEW**

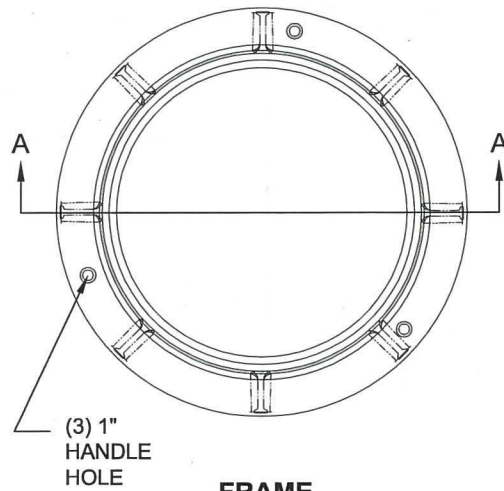


**BOTTOM VIEW**

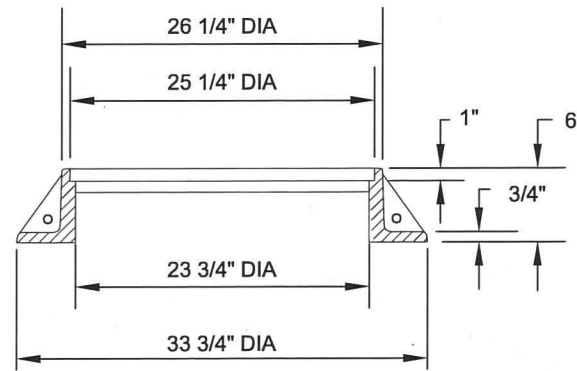


**COVER SECTION**

**COVER SKID DESIGN**



**FRAME**



**SECTION A-A**

**NOTES:**

1. Covers shall have the word "SANITARY" in 2 inch raised letters when used with sanitary sewer installations, or "STORM" when installed with storm sewers. All covers shall have the words "CITY OF TACOMA" in 1-1/2 inch raised letters and the words "CONFINED SPACE" in 1-inch raised letters.
2. Lids must be interchangeable, any lid shall fit any and all frames.
3. Frame and cover shall be designed for H-20 loading.
4. Frame shall be grey-iron conforming to the requirements of AASHTO M 105, grade 30B.
5. Covers shall be ductile iron conforming to ASTM A 536, grade 80-55-06.
6. Per WSDOT Standard Specification 9-05.15, metal castings shall not be dipped, painted, welded, plugged, or repaired.

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

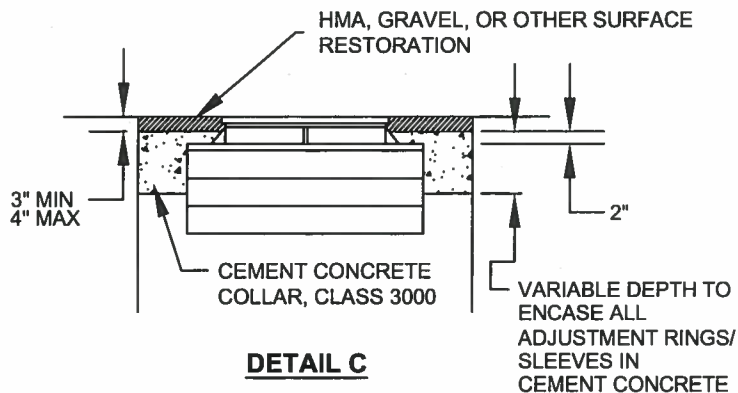
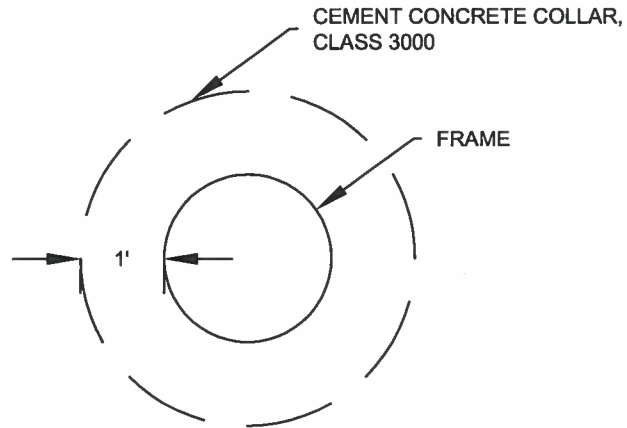
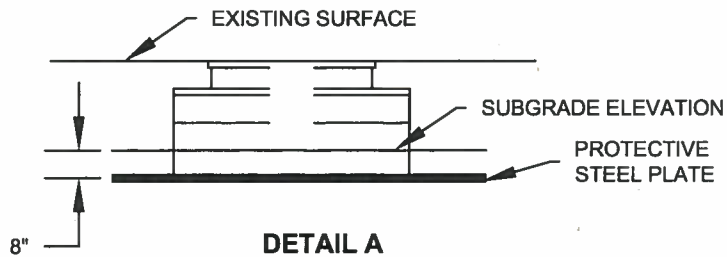
APPROVED FOR PUBLICATION

*[Signature]*  
CITY ENGINEER

*1/17/07*  
DATE

MANHOLE FRAME AND COVER

STANDARD PLAN NO. SU-22



**PROGRESSION OF WORK**

**PRIOR TO EXCAVATING OR RESURFACING:**

Contractor shall:  
Remove frame and risers to a depth 8-inches below subgrade.  
Install steel protective plate in accordance with Detail A.  
Reference the location of the utility structure.

**CONSTRUCTION OF SURFACING:**

Gravel surfacing:  
Install base materials and gravel over protective steel plate.

Asphalt surfacing:  
Install base materials and asphalt over protective steel plate.

Concrete surfacing:  
Adjust frame and grate to final grade prior to placing concrete surfacing.

**UPON COMPLETION OF SURFACING:**

The asphalt concrete pavement or gravel surfacing shall be removed in a neat circle in accordance with Detail B.

The location of the asphalt or gravel removal shall be based upon the reference location established by the Contractor.

Crushed surfacing and base materials shall be removed and disposed of to allow the removal of the steel protective plate.

The structure shall be adjusted to finish grade utilizing the same methods of construction as specified for new construction in Section 7-05.

For hot mix asphalt, the area shall then be backfilled with Class 3000 cement concrete to an elevation of 3 to 4 inches below the finished pavement surface. 24-hours after placing the concrete, HMA pavement CL. 3/8" PG 64-22 shall be placed in accordance with Standard Plan No. SU-15.

For non-paved surfaces, the area shall be backfilled with Class 3000 cement concrete to an elevation of 3 to 4 inches below the top of the casting and then backfilled with crushed surfacing top course and compacted.

**NOTE:**

All general provisions, construction and warranty requirements of the Right of Way Restoration Policy will be followed.

**APPROVED FOR PUBLICATION**

**CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS**

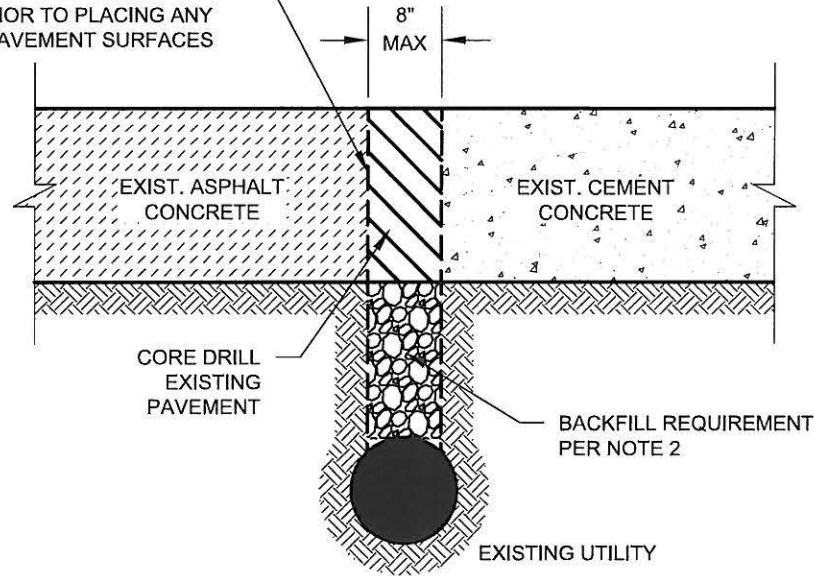
*[Signature]*  
CITY ENGINEER

4/29/14  
DATE

**UTILITY ADJUSTMENT**

**STANDARD PLAN NO. SU-25**

EXISTING SURFACES SHALL BE PREPARED IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 5-04.3(5)A PRIOR TO PLACING ANY NEW PAVEMENT SURFACES



**NOTES:**

1. The existing pavement shall be cut full depth with an eight inch diameter core drill. The subbase material shall be removed using a vacuum excavator, keeping the excavation as minimal as possible.
2. Backfill the excavation with a six inch cushion of crushed rock over the utility then place the remaining void with CDF or compacted CSTC.
3. For asphalt concrete streets, repair the cored pavement section with HMA Class ½" PG 64-22 and seal the joint.
4. For cement concrete pavement streets, replace the cored section with Class 6000 cement concrete.
5. If excavation is larger than 8" core, restoration shall comply with the Right of Way Restoration Policy.

APPROVED FOR PUBLICATION

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

*June Pervey*  
CITY ENGINEER

12 Jun 2009  
DATE

POTHOLING

STANDARD PLAN NO. SU-27

COMPACTION TESTING REQUIREMENTS <sup>A</sup>		
DEPTH	TESTING FREQUENCY <sup>C</sup>	
	VERTICAL	HORIZONTAL
SURFACE (BELOW HMA)	N/A	1 TEST EVERY 150 LINEAR FEET OF TRENCH OR MINIMUM 2 PER TRENCH
		1 TEST FOR 150 SQUARE FEET FOR ISOLATED PATCHES <sup>B</sup>
1 TO 4 FEET (OR MIN 18 IN. ABOVE PIPE)	1 EVERY 12 INCHES	SAME AS FOR SURFACE
> 4 FEET TO BOTTOM OF TRENCH	NO SPECIFIC REQUIREMENT - MAY BE REQUIRED BY COT INSPECTOR FOR VERIFICATION OF COMPACTION	

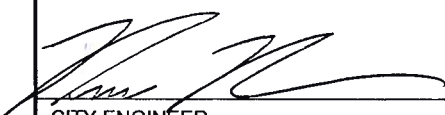
A. TESTING SHALL BE PERFORMED BY A CERTIFIED INDEPENDENT TESTING LABORATORY OR A CERTIFIED TESTOR AS APPROVED BY THE CITY'S CONSTRUCTION DIVISION. THE COST OF TESTING IS THE RESPONSIBILITY OF THE PERMITTEE. TESTS SHALL BE COMPLETED AND REPORTS IDENTIFYING THE PROJECT NUMBER SUBMITTED TO THE CONSTRUCTION DIVISION WITHIN 48 HOURS OF TESTS.

B. ONLY ONE COMPACTION TEST WILL BE REQUIRED FOR MULTIPLE TRENCHES WITHIN A 150 SF AREA PROVIDED COMPACTION PROCEDURES ARE THE SAME.

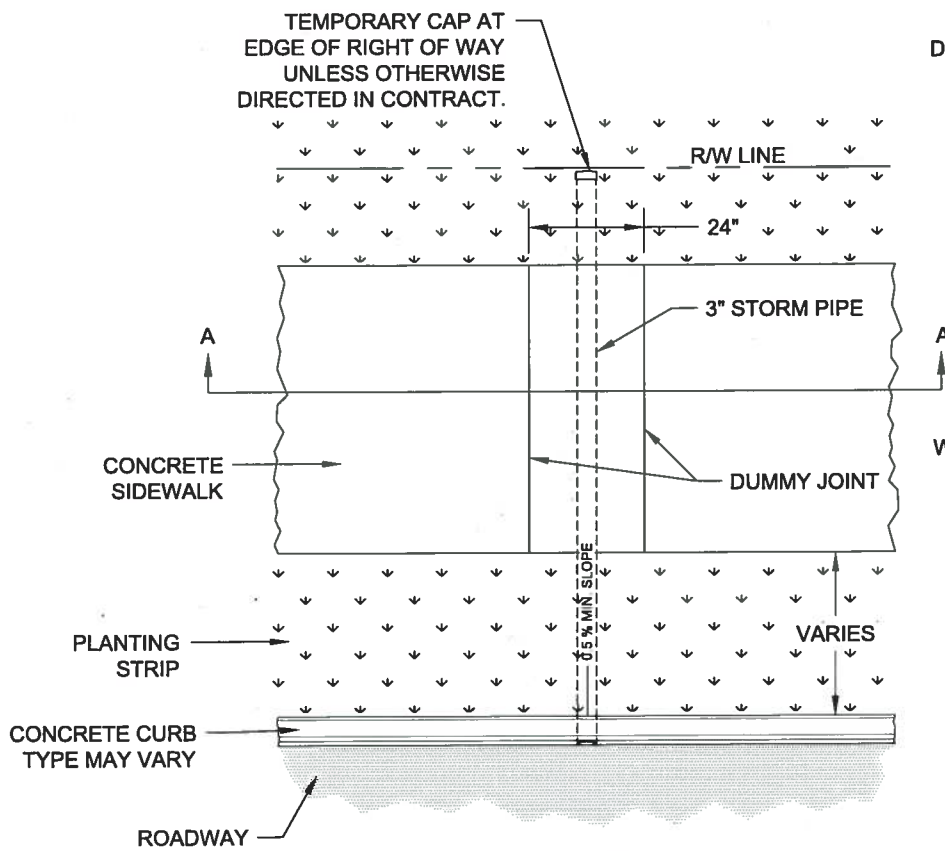
C. EACH LIFT SHALL BE COMPACTIONED TO 95% MODIFIED PROCTOR DENSITY, AS VERIFIED BY COMPACTION TESTING, BEFORE PROCEEDING TO THE NEXT LIFT. COT INSPECTOR MAY REQUIRE EXCAVATION AND REMOVAL OF SOIL WHERE COMPACTION IS IN QUESTION.

**NOTES:**

1. Compact backfill material in max. 12 in. lifts. Compact backfill material to 95% max. modified proctor density (ASTM 1557) except directly over pipe, hand tamp only.
2. Native backfill will require laboratory testing to determine max. modified proctor density. Imported backfill will require submittal of proctor test results from supplier.
3. See WSDOT Standard Specification Section 2-09.3(1)E for material requirements on "Controlled Density Fill" (CDF). CDF may be used for trenches less than 24 in. wide or as approved by the City Engineer. CDF shall be vibrated/compacted.

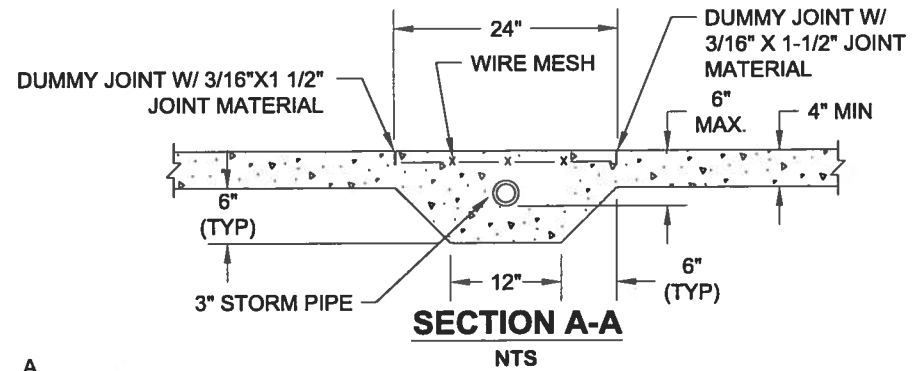
CITY OF TACOMA DEPARTMENT OF PUBLIC WORKS	APPROVED FOR PUBLICATION		TRENCH BACKFILL COMPACTION REQUIREMENTS
	 CITY ENGINEER	11/30/14 DATE	STANDARD PLAN NO. SU-28



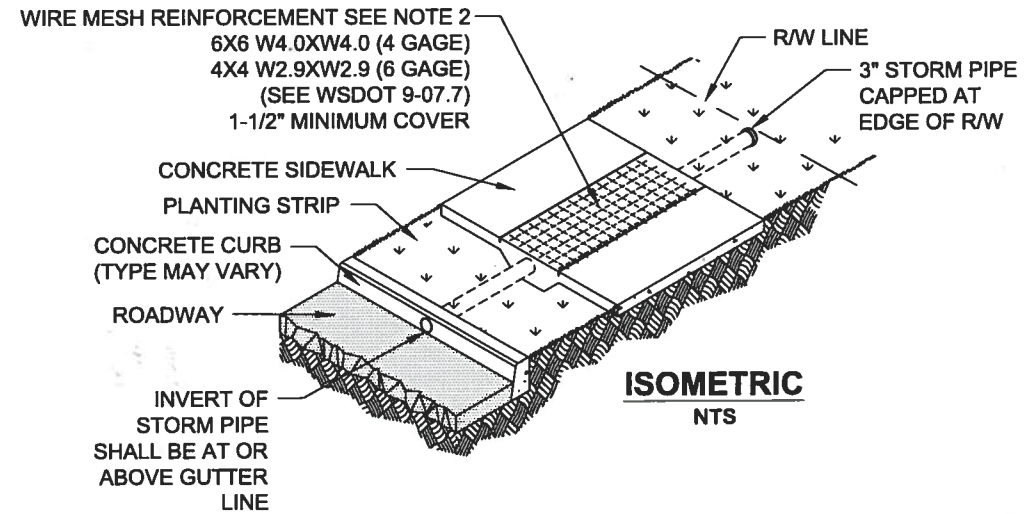


**PLAN**  
NTS

(REINFORCEMENT NOT SHOWN)



**SECTION A-A**  
NTS



**ISOMETRIC**  
NTS

WIRE MESH REINFORCEMENT SEE NOTE 2  
 6X6 W4.0XW4.0 (4 GAGE)  
 4X4 W2.9XW2.9 (6 GAGE)  
 (SEE WSDOT 9-07.7)  
 1-1/2" MINIMUM COVER

**NOTES:**

1. For new pervious concrete sidewalk, place joint directly over centerline of pipe. When placing pipe under existing pervious sidewalk, restoration with impervious concrete will be allowed.
2. No mesh reinforcement to be used for pervious sidewalks.
3. Storm pipe shall be per the City Stormwater Management Manual Volume 3 for pipes within the right-of-way.

REVIEWED BY DCS  
 PUBLIC WORKS  
NA  
 TACOMA POWER

REVIEWED BY (Signature)  
 ENVIRONMENTAL SERVICES  
NA  
 TACOMA WATER



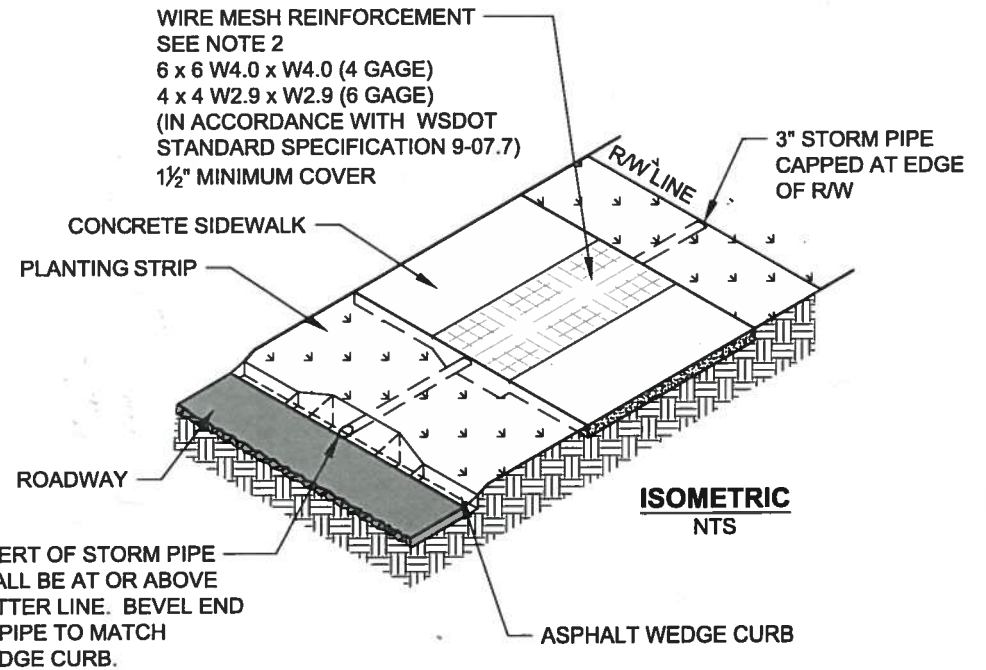
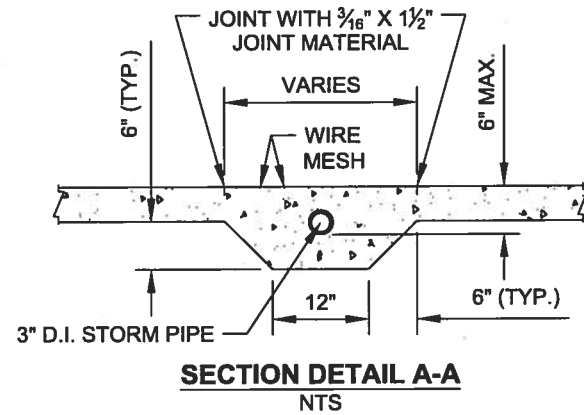
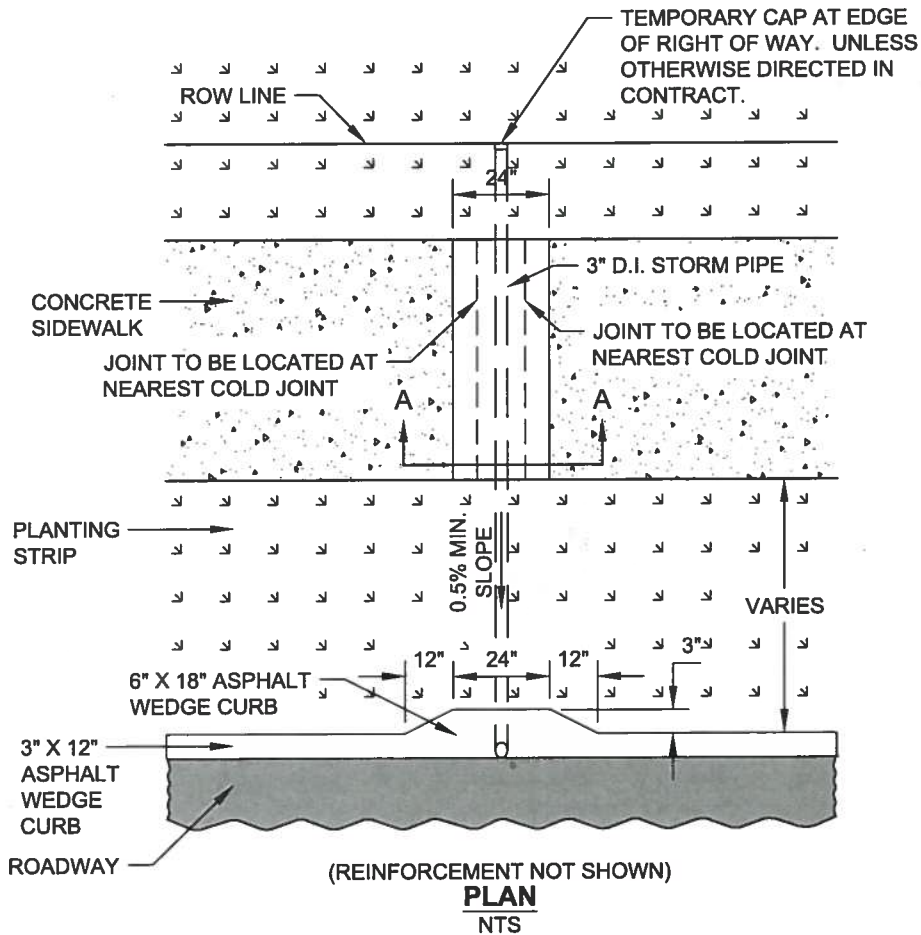
APPROVED FOR PUBLICATION

(Signature)  
 CITY ENGINEER

4/4/12  
 DATE

CITY OF TACOMA  
 STORM PIPE THROUGH  
 CONCRETE CURB

STANDARD PLAN NO. SU-29



**NOTES**

1. For new pervious concrete sidewalk, place joint directly over centerline of pipe. When placing pipe under existing pervious sidewalk, restoration with impervious concrete will be allowed.
2. No mesh reinforcement shall be used in pervious sidewalks.
3. Storm pipe material shall be ductile iron per the City Stormwater Management Manual Volume 3, for pipes within the Right-of-Way.

*DCS*  
PUBLIC WORKS  
*NA*  
TACOMA POWER

REVIEWED BY *GMS*  
ENVIRONMENTAL SERVICES  
*NA*  
TACOMA WATER



APPROVED FOR PUBLICATION

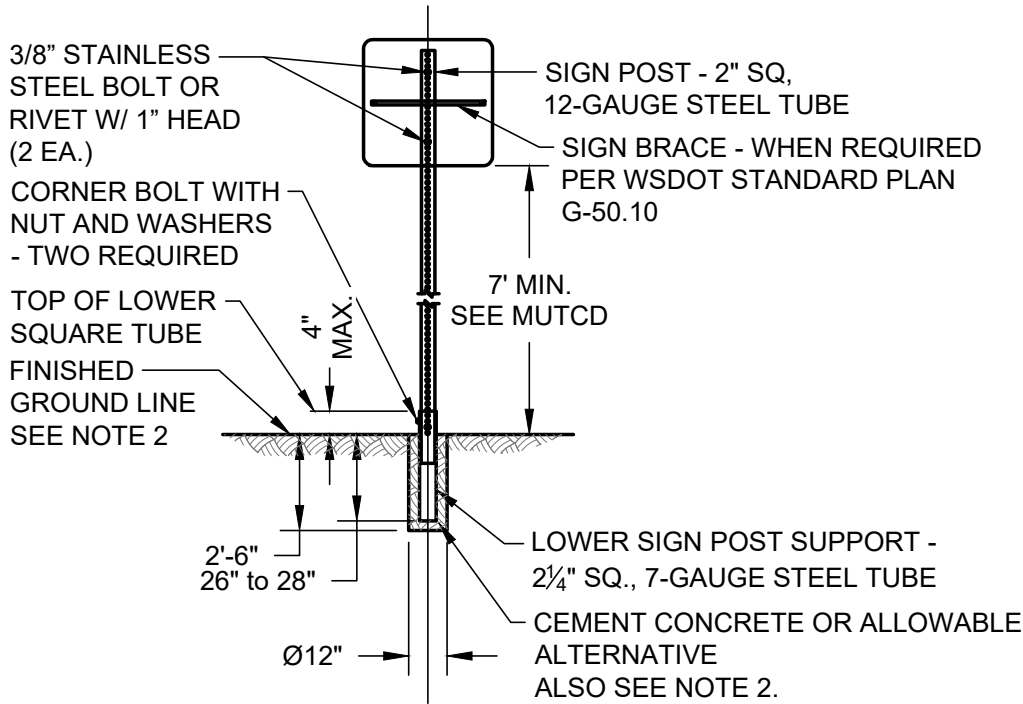
*[Signature]*  
CITY ENGINEER  
DATE *4/4/15*

CITY OF TACOMA  
STORM PIPE THROUGH  
ASPHALT WEDGE CURB  
CONNECTION

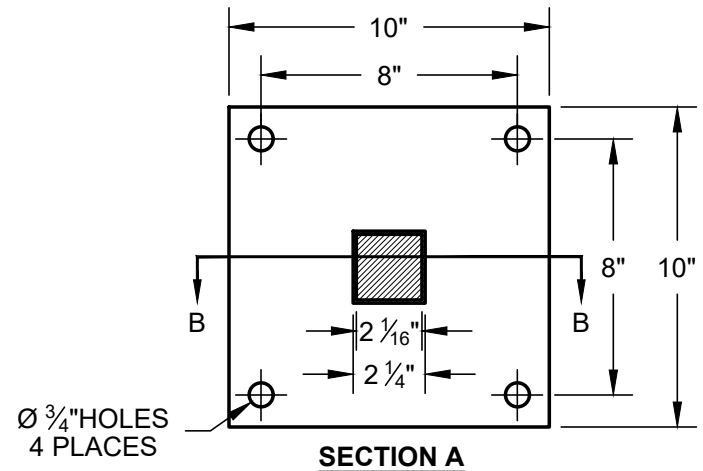
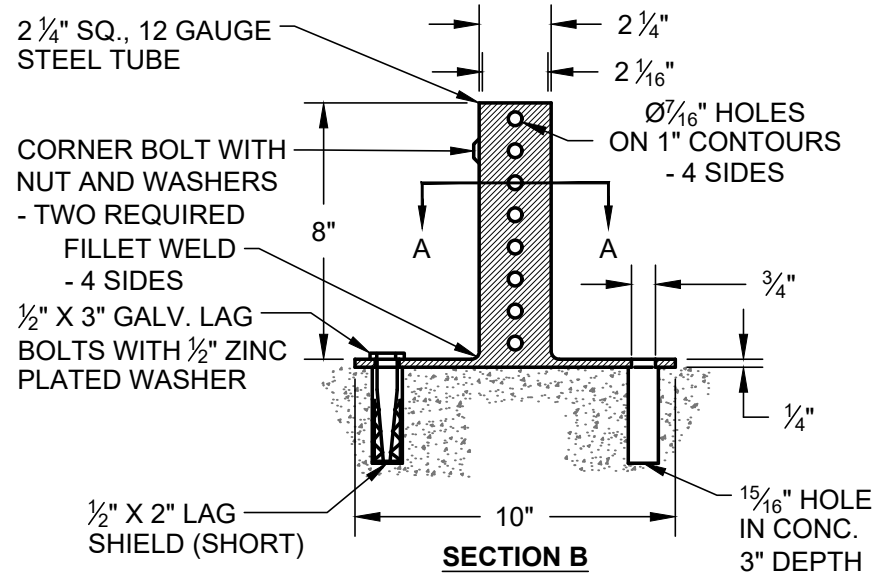
STANDARD PLAN NO. SU-29A

**NOTES:**

1. Surface mounting of sign posts, especially within traffic islands or medians, is only allowable at locations of existing hard surface with special authorization from the city's traffic engineering group, (Exception: Surface mounting of flexible post object markers within islands or medians is permitted).
2. If finished ground line is a hard surface, then the top of foundation shall be smooth, dense, and uniform to finished ground line.
3. The base for surface mounted sign shall be constructed such that the sign post will be plumb when installed.
4. Signs shall be mounted with sign face perpendicular to the adjacent roadway edge/curb face unless required to be mounted at 45-degrees towards roadway edge/curb face (and approaching traffic) per the MUTCD, such as a parking sign with an integrated arrow.

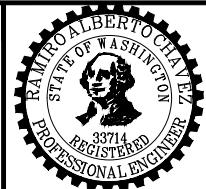


**SIGN SUPPORT DETAIL FOR STEEL SIGN POST**



**BASE PLATE DETAIL FOR STEEL SIGN POST SURFACE MOUNTING (SEE NOTE 1)**

DS <i>JD</i>	REVIEWED BY <i>EW</i>
PUBLIC WORKS	ENVIRONMENTAL SERVICES
N/A	N/A
TACOMA POWER	TACOMA WATER



APPROVED FOR PUBLICATION
DocuSigned by: <i>Ramiro Chavez</i>
04/11/2024
DATE

CITY OF TACOMA
SIGN POST INSTALLATION
STANDARD PLAN NO. SU-34

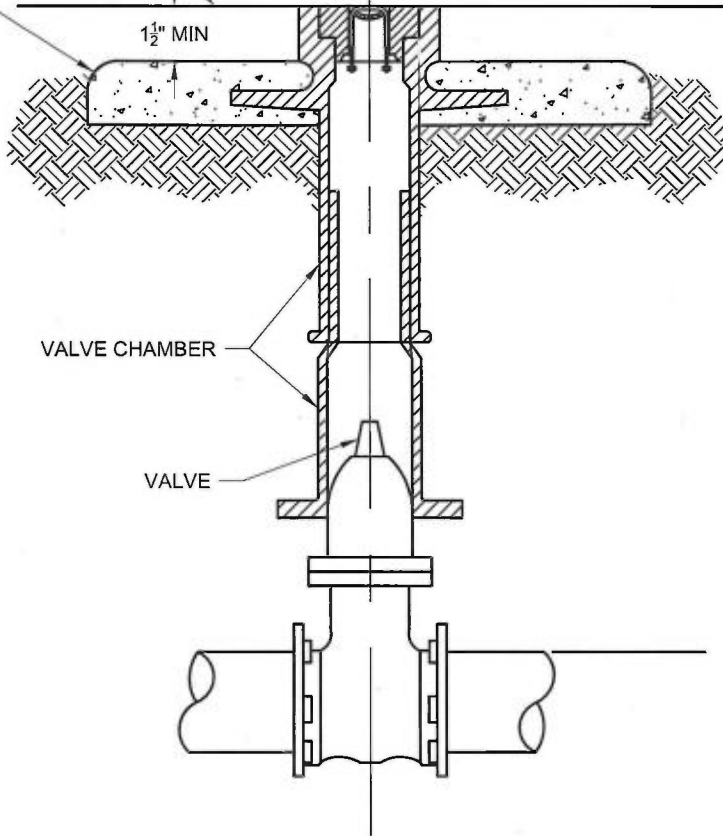
36" DIA CEMENT CONCRETE COLLAR, 6" THICK.  
(REQUIRED IN ASPHALT PAVING ONLY)

GROUND/PAVEMENT LINE

1 1/2" MIN

VALVE CHAMBER

VALVE



**NOTES:**

Class 3000 cement concrete shall be placed, 1 1/2" min, below the finished pavement surface.

24-hours after placing the cement collar, HMA Class 3/8" PG 64-22 shall be placed in accordance with Standard Plan SU-15.

If the valve chamber being adjusted belongs to Tacoma Water, the Contractor shall contact Tacoma Water, Operations, at 253-502-8742 for final inspection.

REVIEWED BY

*DCS*  
PUBLIC WORKS

*GMS*  
ENVIRONMENTAL SERVICES

*N/A*  
TACOMA POWER

*G.W.*  
TACOMA WATER



APPROVED FOR PUBLICATION

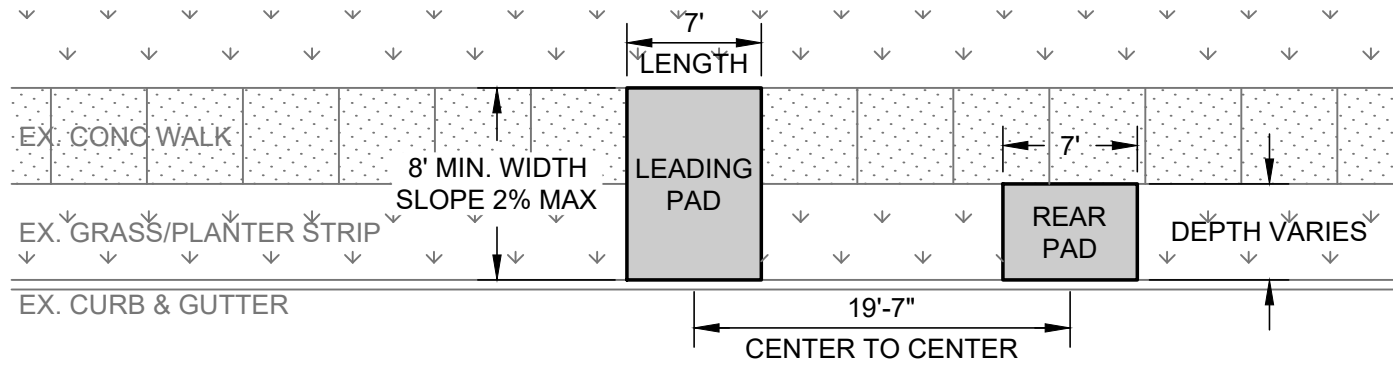
*[Signature]*  
CITY ENGINEER

*5/31/19*  
DATE

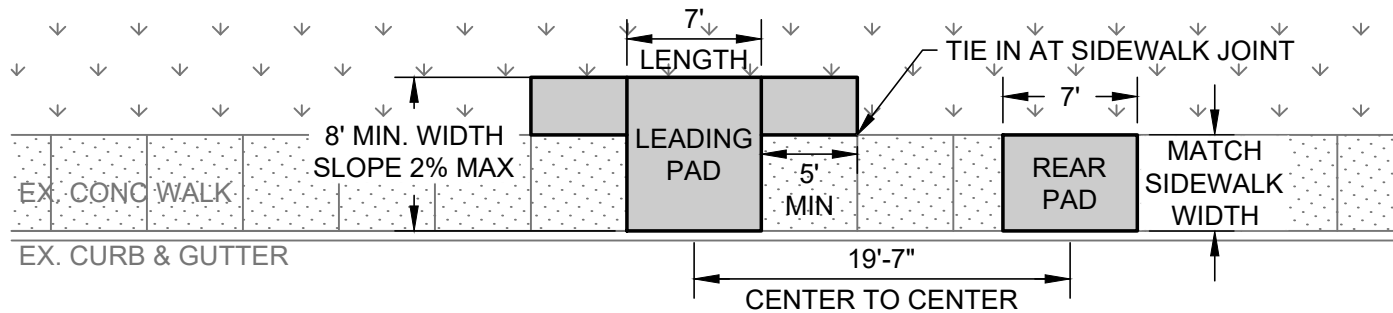
CITY OF TACOMA  
VALVE CHAMBER  
COLLAR DETAIL

STANDARD PLAN NO. SU-37

**SIDEWALK WITH PLANTER STRIP**



**COMBINATION WALK**



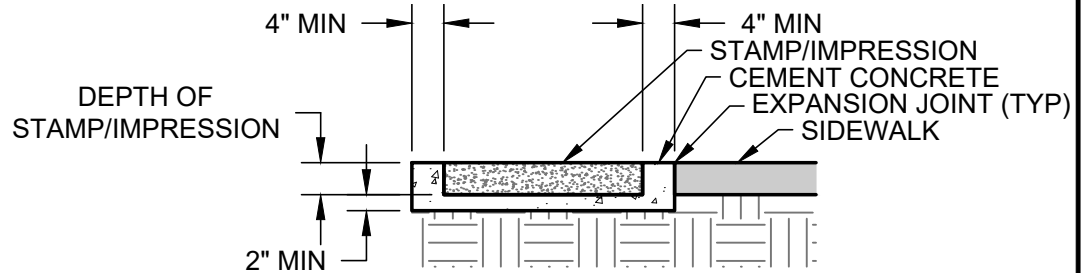
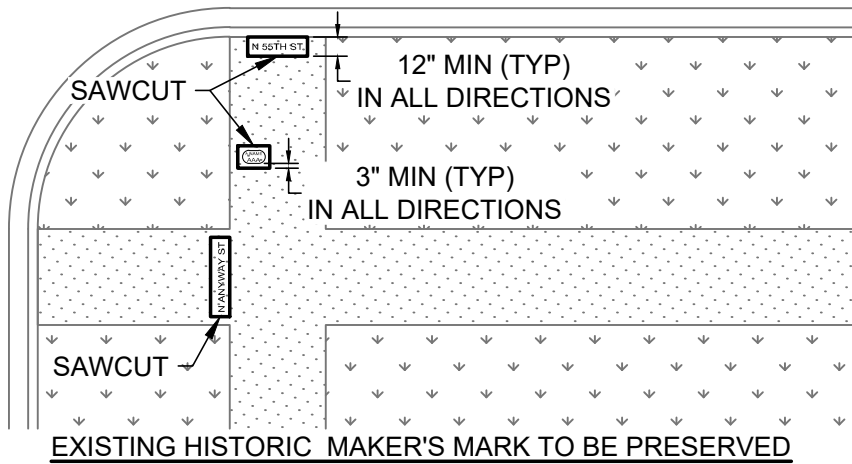
**NOTES**

1. Leading and rear pads shall have a minimum concrete thickness of 4".
2. Leading and rear pads shall be a minimum of 7' in length and leading pads shall be a minimum of 8' in width unless otherwise specified.
3. The leading and rear pads shall be connected to the nearest sidewalk by a pedestrian accessible route.
4. If there is no sidewalk present or the existing sidewalk doesn't meet current standards, connect leading and rear pads with concrete sidewalk.
5. The slope of the bus pad measured parallel to the adjacent street shall match the street grade. The slope of the bus pad, measured from the back of pad to the back of curb, shall not exceed 2%.
6. When placing concrete adjacent to existing curb and gutter, curb and gutter will be repaired as necessary before placing concrete forms for bus pad.
7. Staking is required where no curb is present.
8. All expansion joints shall be full depth with 3/8" premolded joint filler.
9. All soft and yielding foundation material shall be removed and replaced with crushed surfacing top course (CSTC) per the WSDOT Standard Specifications.
10. Refer to COT Standard Plans SU-04 series for any sidewalk replacement.
11. Bus stop pole, sign, & all amenities to be installed by Pierce Transit.
12. Contact Pierce Transit once work is complete. (253-983-2706)

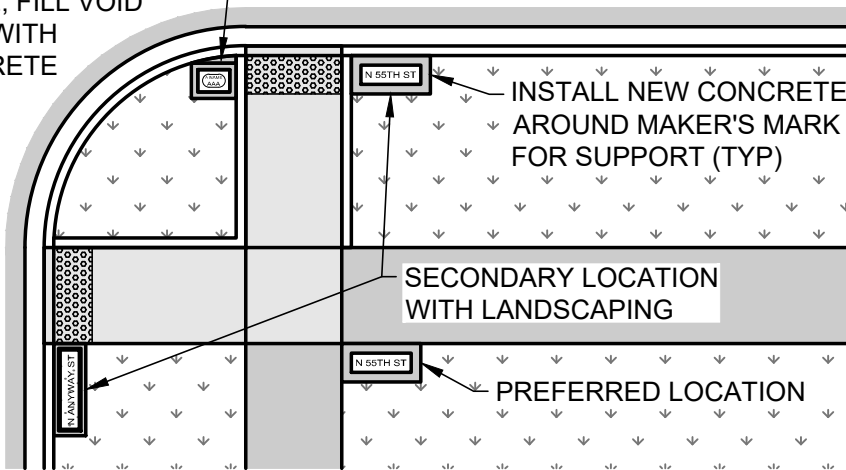
<p>DS RVDR PUBLIC WORKS DS TACOMA POWER</p>	<p>REVIEWED BY DS EW ENVIRONMENTAL SERVICES DS TS TACOMA WATER</p>	<p>APPROVED FOR PUBLICATION  DocuSigned by: <i>[Signature]</i> CEX ENGINEER</p>	<p>CITY OF TACOMA  LEADING &amp; REAR BUS BOARDING PADS  STANDARD PLAN NO. SU-38</p>
<p>12/01/2022 DATE</p>			

**NOTES**

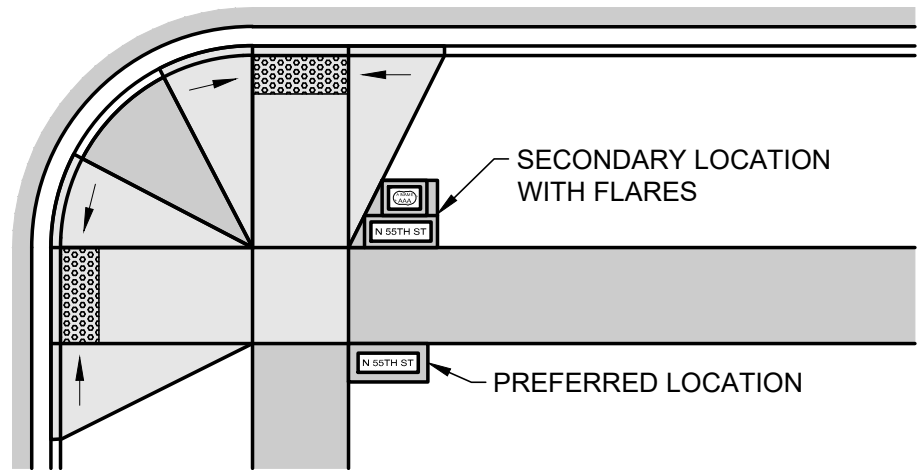
1. Single stamp/impression shall be placed in 6" of concrete with 4" border as close to the preferred location as possible. If constructed in Historic District, see Standard Plan HD-NS03 for details on applying concrete color.
2. Existing stamp/impression shall be sawcut to no less than 3" from stamp lettering or symbol and shall be no smaller than 12" in any direction.
3. Street name to be parallel with the corresponding street, and oriented to be read from the sidewalk, and as though the reader is facing the street.
4. See Standard Plan SU-05 series for details on curb ramp construction.
5. If a crack or broken section of concrete is in the existing stamped area to be cut, then the stamp shall be disposed of and not salvaged.



WHEN PLACED ADJACENT TO A CURB CURVE, FILL VOID AREA WITH CONCRETE



**MAKER'S MARK POTENTIAL NEW LOCATIONS  
CURB RAMPS WITH LANDSCAPING AND PED CURBS**



**MAKER'S MARK POTENTIAL NEW LOCATION  
CURB RAMPS WITH WINGS/FLARES AND WITH OR WITHOUT LANDSCAPING**

<p>DS RVDR PUBLIC WORKS DS TACOMA POWER</p>	<p>REVIEWED BY EW ENVIRONMENTAL SERVICES DS 75 TACOMA WATER</p>		<p>APPROVED FOR PUBLICATION DocuSigned by: <i>Josella James Diekmann</i> CITY ENGINEER 10/02/2022 DATE</p>	<p>CITY OF TACOMA HISTORIC MAKER'S MARK SIDEWALK STREET NAME IMPRINT PRESERVATION STANDARD PLAN NO. SU-40</p>
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## **APPENDIX B**

### **TRAFFIC CONTROL HANDBOOK**

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# TRAFFIC CONTROL HANDBOOK

**MUST MAINTAIN  
PEDESTRIAN AND  
DISABILITY ACCESS AT  
ALL TIMES**





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## **SURVEY CREWS**

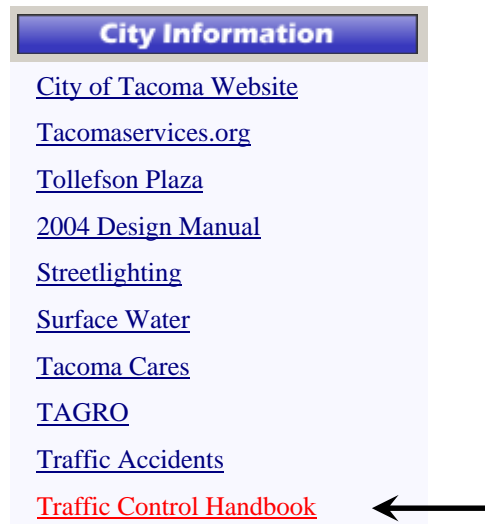
Survey Two Lane Arterial Intersection  
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## **CREATE YOUR OWN PLAN**

Blank Two Lane Road  
Blank Two Lane Road with Center Turn Lane  
Blank Two Lane Road with Two Intersections  
Blank Two Lane Road with Two Intersections and Parking  
Blank Two Lane Road with Four Intersections and Parking  
Blank Four Lane Road with Two Intersections  
Blank Four Lane Road with Two Intersections and Parking  
Blank Five Lane Road

# TRAFFIC CONTROL PLAN INSTRUCTIONS

- 1) To create a traffic control plan, go to [www.govME.com](http://www.govME.com)
- 2) At the bottom of the page, under “City Information” choose “[Traffic Control Handbook](#)”



The City of Tacoma Traffic Control Handbook will open up in a new screen.

- 3) Read “**INTRODUCTION & SPECIAL REQUIREMENTS**” Chapter. Pay particular attention to the sections regarding [\*Pedestrian and Disability access.\*](#)
- 4) Choose a plan closest to the type of traffic control you need.
  - You may need to alter an existing plan or use multiple plans
- 5) Print out the traffic control plan that you need.
- 6) On the map, identify street names and addresses of work.
- 7) Draw site specific details (work area, location of signs, cones, etc.).
- 8) Add Contractor name and contact information.
- 9) Specify type of work at the top of the page
- 10) List dates of work and desired work hours.
- 11) Contact a Permit Specialist when you are done filling in your Traffic Control Plan.
- 12) Write the permit number in the top right corner of the sheet (when obtained from the Permit Specialist).
- 13) The Traffic Control Plan is not valid until permit is acquired and paid for.
- 14) You must keep a copy of the Traffic Control Plan on your job site for Inspectors and Road Use Compliance Officers to review. Prime contractors will be responsible for any subcontractor’s traffic control unless sub goes through the above process.



## City of Tacoma Public Works Department

### INTRODUCTION

This manual is intended for use by any person, firm or corporation, public or private, when involved in construction, maintenance or any activity that alters the normal flow of traffic, vehicular or pedestrian, on any City right-of-way.

This manual shall be used in conjunction with Part VI of The Manual on Uniform Traffic Control Devices (MUTCD) for the installation of temporary traffic control and the Access Board's Guidelines for Accessible Public Rights -of-Way (2002), ([www.access-board.gov/](http://www.access-board.gov/)),

Authority to establish local rules regarding channelization and traffic control is permitted by Washington Administrative Code (WAC) 308.330.265.

Unless specifically addressed in this manual, when the term "should" is used in the MUTCD to describe a condition or method for traffic control, it means that if that suggestion is not used an equally effective method will be used. It does not eliminate the responsibility to address the situation.

This manual does not prohibit the use of additional traffic control or warning devices as long as the minimum conditions are met.

For additional information, please call the Engineering Division at (253) 591-5500.

### PERMITS

A permit must first be obtained from the Public Works Department by any person, firm or corporation working in City right-of-way that alters the normal flow of traffic or makes any public place dangerous.

Provisions for obtaining a permit are outlined in Tacoma Municipal Code Chapter 10.22.

All applications for permits must have a comprehensive traffic control plan attached for review by the Traffic Engineer. Permits will not be issued unless the Traffic Engineer has approved the traffic control plan.

### MUNICIPAL AGENCIES

Municipal agencies and Utilities are not required to obtain a permit for routine maintenance and repairs, but must notify the Traffic Engineer a minimum of 72 hours in advance if the following conditions apply:

1. Closing any street (see attached street closure requirements).
2. Altering or detouring traffic during commute hours on arterial streets (7 a.m. – 9 a.m. and 4 p.m. – 6 p.m.).
3. The activity or obstruction will be in place for more than 8 hours.
4. The activity or obstruction is during the hours of darkness.
5. The activity reduces traffic on arterial streets to less than one lane in each direction.

## GENERAL RULES

The following list of rules must be followed while involved in construction, maintenance or other activity in City right of way unless specifically addressed by the Traffic Engineer.

1. All traffic control devices must meet the requirements established by the Manual on Uniform Traffic Control Devices.
2. No activity will be placed in such a way as to detour, slow or alter traffic flow during peak commute hours. These times are generally from 7 a.m.– 9 a.m. and 3:30 p.m. – 6 p.m. The Traffic Engineer may allow an exception with prior approval.
3. An approved traffic control plan must be on-site and accessible for inspection at all times by law enforcement or inspectors.
4. Traffic control plans and activities must include the following components:
  - a. Advanced Warning Area: Signs and other devices inform drivers of what to expect.
  - b. Transition Area: Channelization devices move traffic from the normal flow to the desired path.
  - c. Activity Area: Area where the work takes place.
  - d. Buffer Space: Area used to separate traffic from the work activity area and provides recovery space for an errant vehicle.
  - e. Termination Area: Area used to return traffic to the normal path.
5. **Pedestrian and disability access** must be maintained throughout the period of time construction is underway. This does not just apply to the final product, but accessibility must be maintained during the actual construction. Safe, clearly marked routes must be maintained through or around the construction activity at all times. The use of temporary walkways with width, slope, and cross-slope compliant to the maximum extent feasible shall be incorporated on the job site. Surfaces must be firm, stable, and slip resistant. Channeling and barricading must be used to separate pedestrians from traffic. Adequate barricading must be addressed to prevent visually impaired pedestrians from entering work zones. Alternate pedestrian circulation routes with appropriate signage that can be accessed by people who use mobility aids (wheelchairs, walkers, scooters, etc.) The alternate circulation path shall have a minimum width of 5 feet and parallel the disrupted pedestrian access route when practicable. Barricades and channelizing devices shall be continuous, stable, non-flexible, and shall consist of a wall, fence, or enclosure specified in section 6F of the MUTCD. A solid toe rail should be attached such that the bottom edge is 6 inches maximum above the walkway surface. The top rail shall be parallel to the toe rail and shall be located 36 inches minimum and 42 inches maximum above the walkway surface. If drums, cones, or tubular markers are used to channelize pedestrians, they shall be located such that there are no gaps between the bases of the devices in order to create a continuous bottom, and the height of each individual device shall be no less than 36 inches.
6. Persons in charge of maintaining or establishing traffic control and channelization must have a certified flagger control card in their possession and must be on the site at all times or be represented by another knowledgeable, certified person.
7. A flagger cannot be used to direct traffic through a signalized intersection against the signal indications. When flaggers are used near signalized intersections, care will be used to clear the intersection of traffic before the signal change.
8. In some situations, Signal modifications may be used to support the traffic control plan. The traffic Signal Shop shall make all modifications, and all modifications must be approved by the Traffic Engineer.
9. A uniformed police officer is required to direct traffic through a signalized intersection against the signal indications.
10. Police officers may also be required during activities for traffic calming if speeds are high, pedestrian or vehicular traffic volume is extremely high, or during emergencies.

11. To minimize the disruption to access to adjacent properties, and to Pierce Transit operations, the lane closure area shall be limited to that area of active work and necessary for appropriate lane closure tapers. The Contractor shall stage work to maintain access to and egress from all properties at all times. An **approved traffic control plan and permit shall** be posted on the job site for review by City officials. Construction Inspectors shall ensure the approved traffic control plan is on site at all times. Any approved Traffic control plans the Contractor doesn't follow are in violation of the Standard Specifications which are included in the contract. It is the inspector's job to have them comply or Stop work. Jobs having permits only and not following the approved Traffic Control plan is a violation of Tacoma Municipal Code 10.22.080. The work can be stopped or a violation infraction can be imposed in an amount not exceeding \$500.00.
12. When parking lanes are closed due to construction, "no parking" portables will be installed at least 48 hours in advance of the closure in unrestricted areas and 24 hours in advance in time restricted areas. The message on the portables shall establish the date and hours for no parking.
13. During emergencies where life, property or public safety is in danger, conditions listed may be changed. Traffic control will be addressed along with the initial response. (See attached page for emergency contact numbers.)
14. The Traffic Engineer may allow reduced speed limits in construction area zones. Request for speed reduction must be included in the traffic control plan.
15. All signs and cones shall be removed from the right-of-way when traffic control is not in effect.
16. The contractor may be required to discontinue work if possible conflict exists with special events such as parades, sporting events, miscellaneous rallies, and large public meetings. Information concerning such events can usually be obtained from the City Clerks Office, tel. (253) 591-5171.
17. Maintenance of 2-way traffic on arterial streets at all times except on one-way streets. Additional width for facilitating traffic flow may be obtained by prohibiting on-street parking adjacent to the work zone.
18. No work shall be scheduled on streets or sidewalks within the City of Tacoma Business Districts from Thanksgiving Day through New Year's Day.
19. All traffic control devices used at night, particularly signs, barricades and channelizing devices, must have Type C steady burn lights. Requests to reduce the number of lights used on channelizing devices must be specifically detailed on the approved traffic control plan.

Failure to comply with the provisions of this manual is a traffic infraction and, notwithstanding any fines or penalties levied against the person, firm or corporation involved, if a safety hazard exists, the work may be ordered stopped and the obstruction cleared by the person, firm or corporation responsible or by the City at that responsible party's expense.

<http://www.cityoftacoma.org/>

<http://wspwit01.ci.tacoma.wa.us/govME/Admin/Inter/StartPage/default.aspx>

[http://wspwit01.ci.tacoma.wa.us/download/PDF/Traffic\\_Control\\_Handbook.pdf](http://wspwit01.ci.tacoma.wa.us/download/PDF/Traffic_Control_Handbook.pdf)

## Special Traffic Requirements

The contractor shall notify the following departments three (3) working days prior to any street closure.  
Pierce Transit requires five (5) working days prior to any route detours.

Department	Phone	Fax	Email
Traffic Engineering	591-5500	591-5533	
Tacoma Fire Department	591-5733	591-5034	kmueller@cityoftacoma.org
Tacoma Police –Ops	591-5932	594-7842	
LESA	798-4721 Opt #3	798-2708	
Sound Transit Link	206-370-5674		
Pierce Transit	581-8109	589-6364 or 589-6367	
Pierce Transit Events Coordinator	581-8001	984-8161	
Public Works/Street Ops	591-5495	591-5302	
School Trans Office	571-1853	571-1932	
Durham School Services		475-0422	
First Students		272-7799	
UWT Facilities Services		692-5705	
Off-Duty Police Officer	591-5932		TacomaPoliceEvents@cityoftacoma.org
Tacoma Refuse	591-5544	591-5547	

### Include the following information when notifying the above departments.

- Name of street to be closed & the extent of the closure (between which two roads).
- Stipulate whether or not the area is to be open to local traffic & emergency vehicles.
- State the date(s) & hour(s) the closure will be in effect.
- Give the reason for the closure.
- Provide detour information.
- State who/which firm is performing the work.
- Provide the name and telephone number of a contact person.

### Recommended Publications

As a contractor you will have many opportunities for setting up traffic control. To comply with national standards, we recommend having the **MUTCD** (Manual on Uniform Traffic Control Devices) for future reference.

To order hard copies or CD versions of the MUTCD please go to one of the links below:

American Association of State Highway Organizations at: <https://bookstore.transportation.org/>

Institute of Traffic Engineers at: <http://www.ite.org/bookstore/index.asp>

American Traffic Safety Services Association at: <http://www.atssa.com/>

### Things to Think About

Before the traffic control plan is drawn visit the site and look for special circumstances that may be unique to the area. For example work being done on the sidewalk may be a hazard if someone walks out a door into your wet cement or a tool may fall on someone's head if someone is in a lift washing windows. Call Pierce Transit if you need to do work at a bus stop. Transit requires five (5) days notice for route detours. Transit will inform citizens and move or temporarily close the stop. Keep in mind that pedestrians need 5' of unobstructed walking area. If roadwork needs to be done on an arterial street, traffic control devices shall be removed during peak hour traffic (7am to 9am and 4pm to 6pm). For further information see our TRAFFIC CONTROL HANDBOOK.

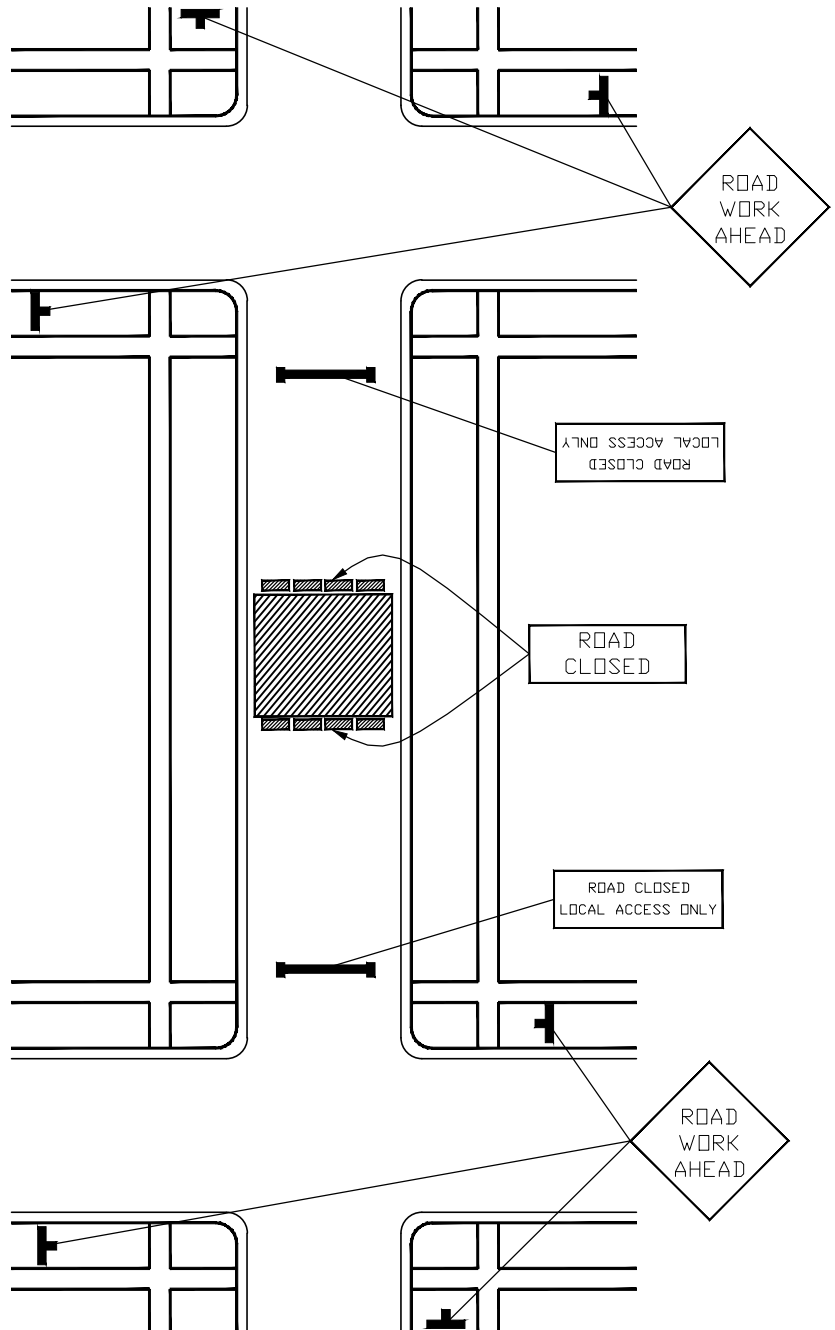
<http://www.cityoftacoma.org/>

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[http://wspwit01.ci.tacoma.wa.us/download/PDF/Traffic\\_Control\\_Handbook.pdf](http://wspwit01.ci.tacoma.wa.us/download/PDF/Traffic_Control_Handbook.pdf)

SAMPLE SETUP

Note: At night, signage and barricades must be Type C steady burn lights. A contractor may close a nonarterial street to through traffic, provided that local access is maintained at all times with a minimum of a 20' wide access lane. Road Work Ahead signs may be eliminated on non-arterial streets.



NON-ARTERIAL ROAD CLOSURES

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

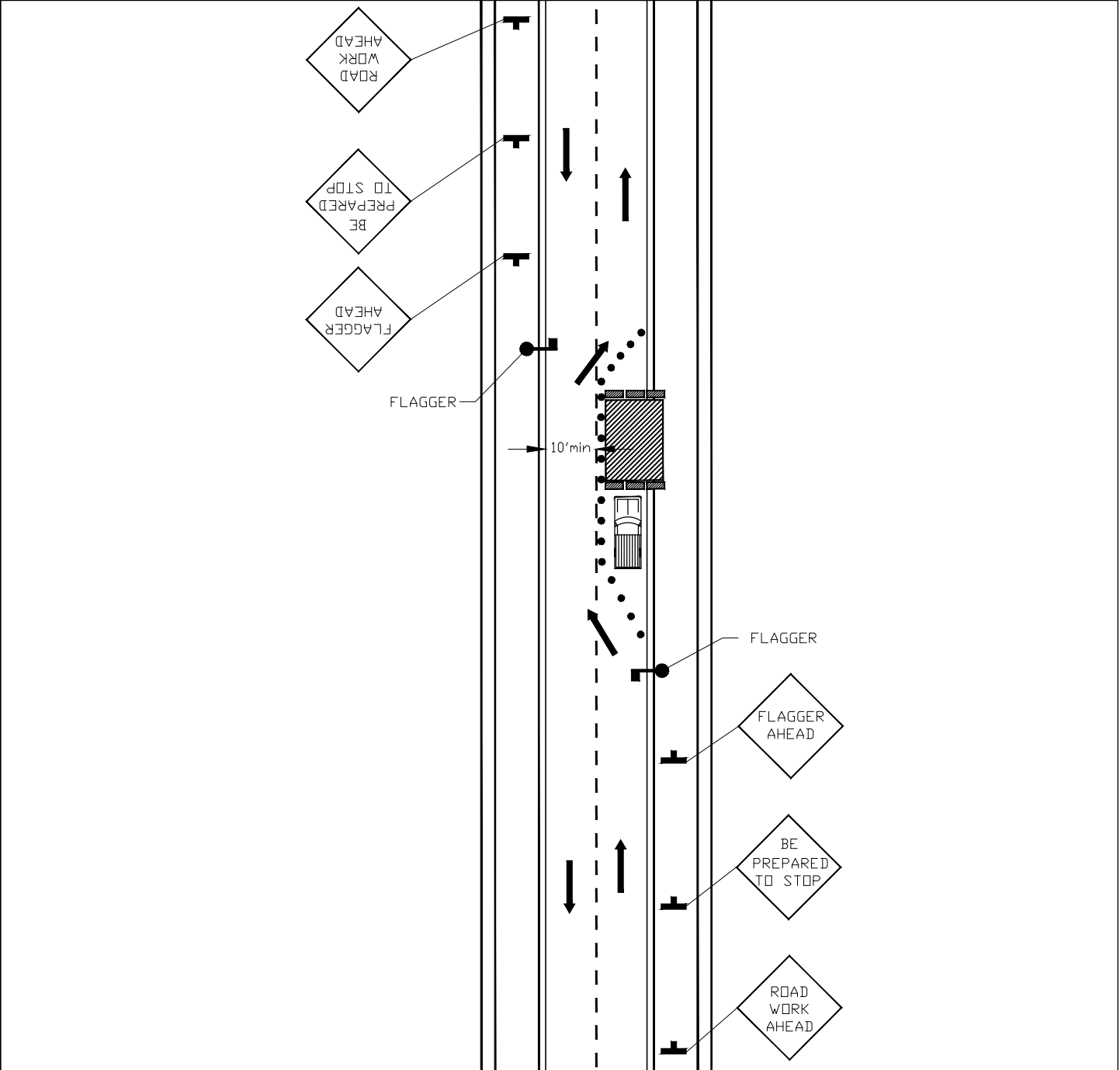
MERGING TAPER LENGTHS FOR CONE PATTERN  
 (All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

NUMBER OF CHANNELIZATION DEVICES (CONES)  
 Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.  
 NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.  
 NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



SINGLE LANE NON-ARTERIAL  
WITH  
FLAGGER

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

APPROVED BY:  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

LANE WIDTH	MPH							
	10	15	20	25	30	35	40	
8'	14	30	54	84	120	164	214	
10'	17	38	67	105	150	204	267	
12'	20	45	80	125	180	245	320	
14'	24	53	94	146	210	286	374	
16'	27	60	107	167	240	327	427	

NUMBER OF CHANNELIZATION DEVICES (CONES)  
Offset cones 1 foot maximum.

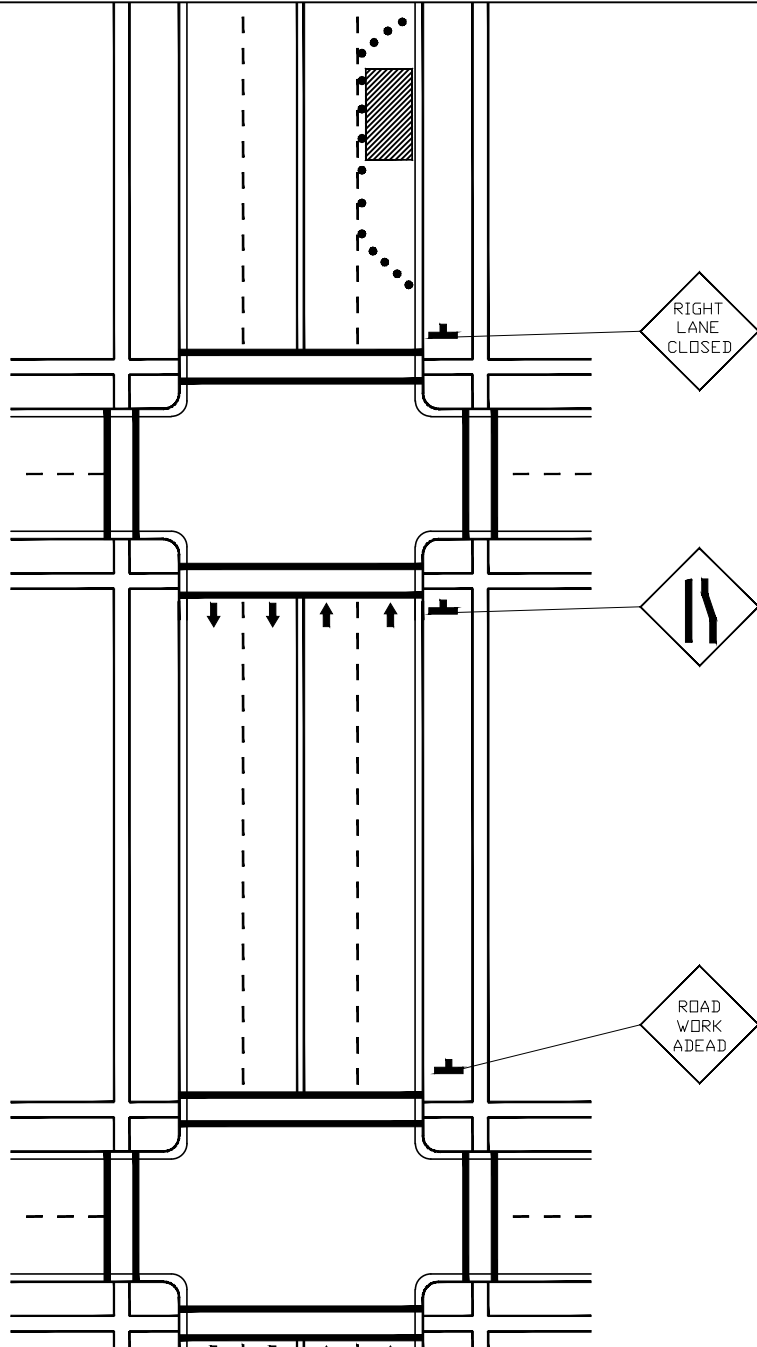
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NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.



SAMPLE SETUP



CBD  
RIGHT LANE  
CLOSURE

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

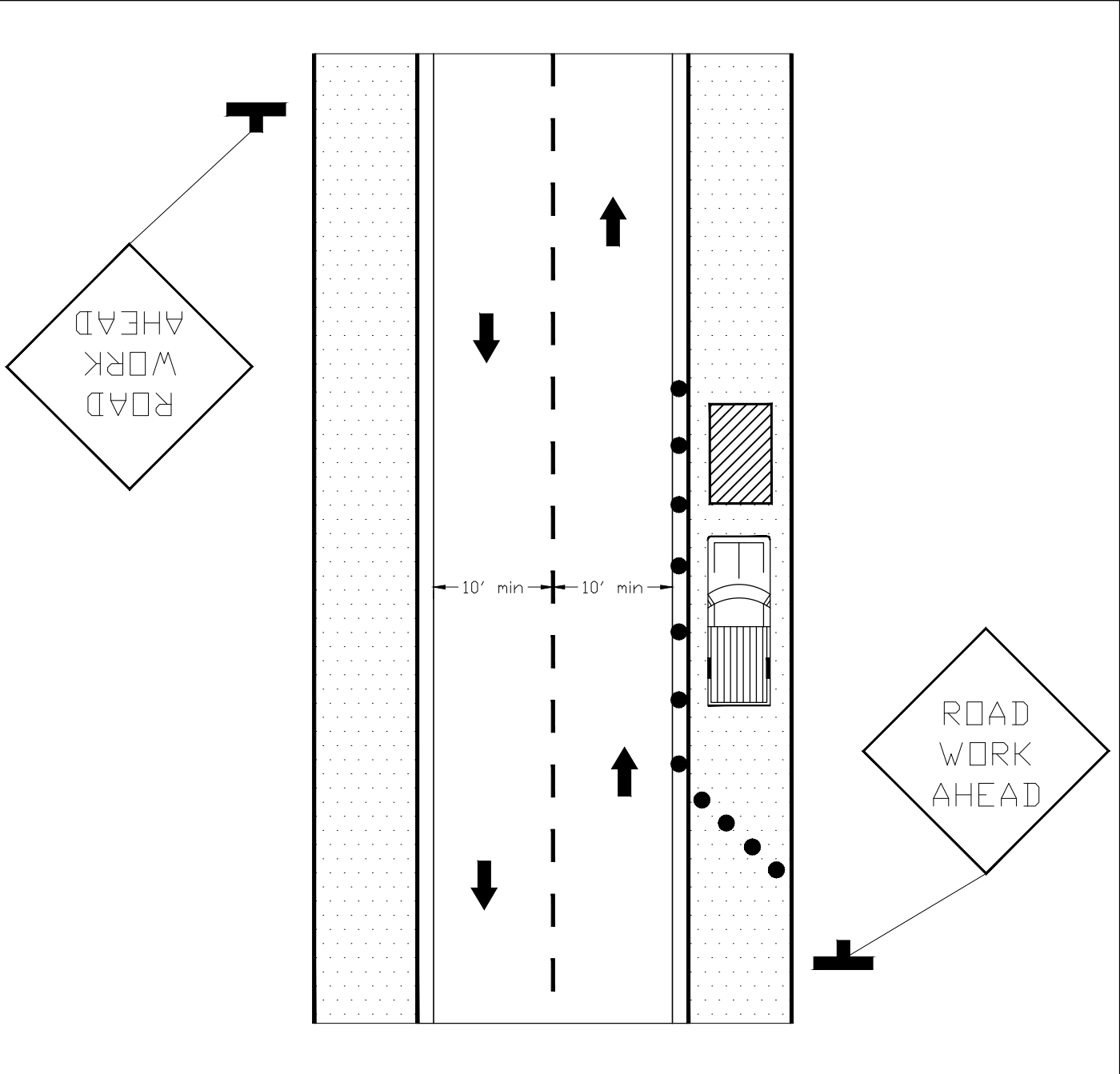
Offset cones 1 foot maximum.

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NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



SHOULDER WORK  
WITH MINOR  
ENCROACHMENT

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

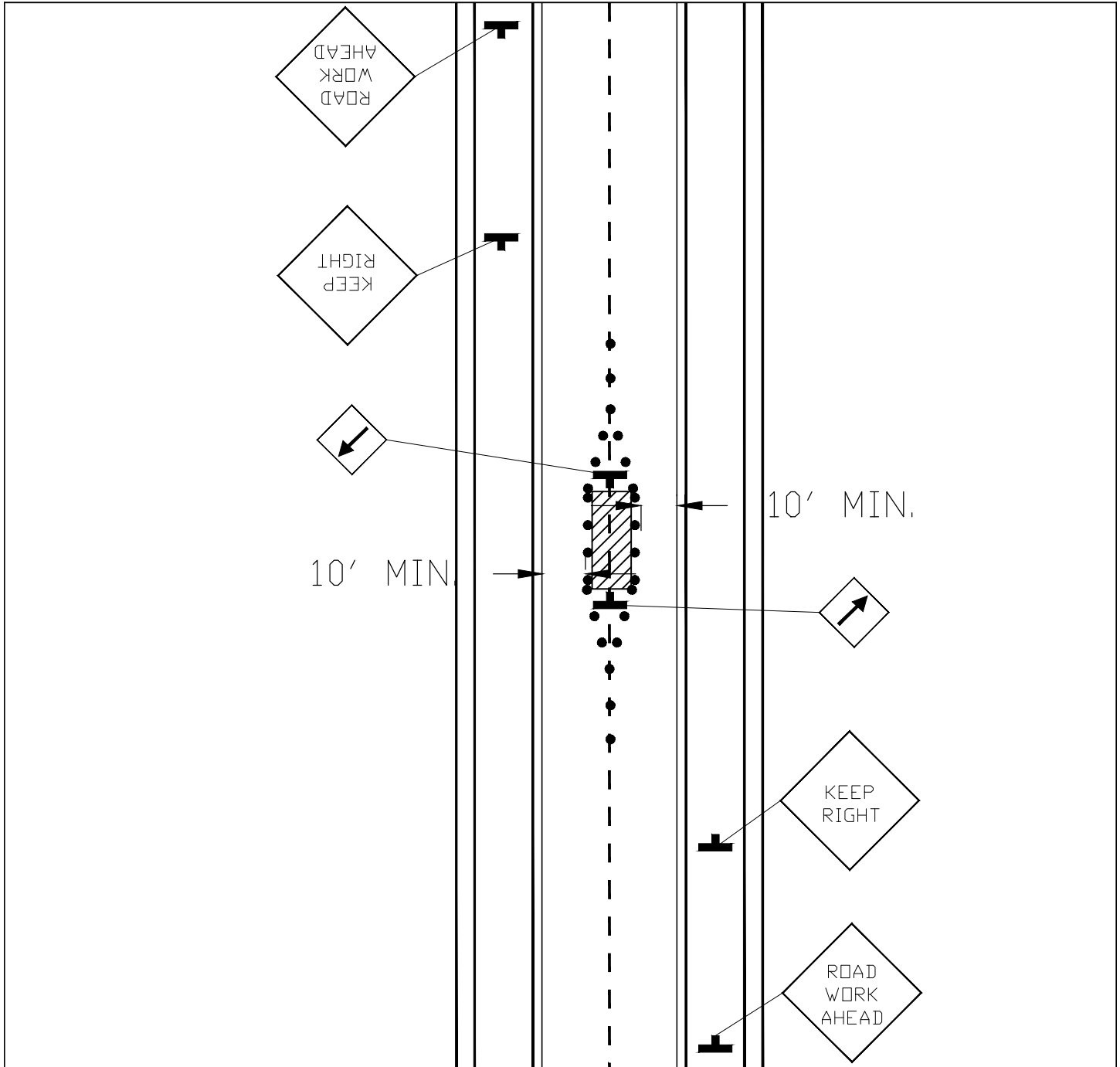
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NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



TWO LANE CENTER CLOSURE

MERGING TAPER LENGTHS FOR CONE PATTERN  
(All minimums)

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

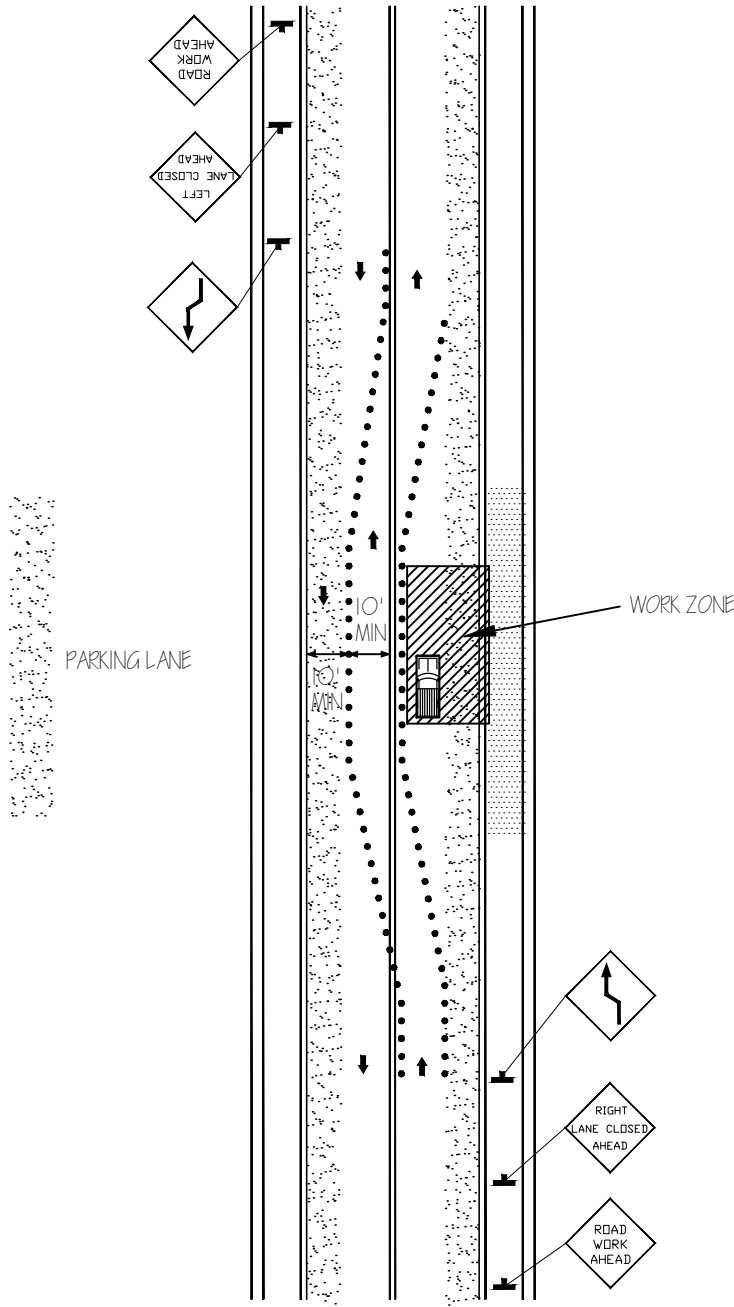
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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

# SAMPLE SETUP



## TWO WAY LANE SHIFT WITH PARKING

### MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

LANE WIDTH	MPH							
	10	15	20	25	30	35	40	
8'	14	30	54	84	120	164	214	
10'	17	38	67	105	150	204	267	
12'	20	45	80	125	180	245	320	
14'	24	53	94	146	210	286	374	
16'	27	60	107	167	240	327	427	

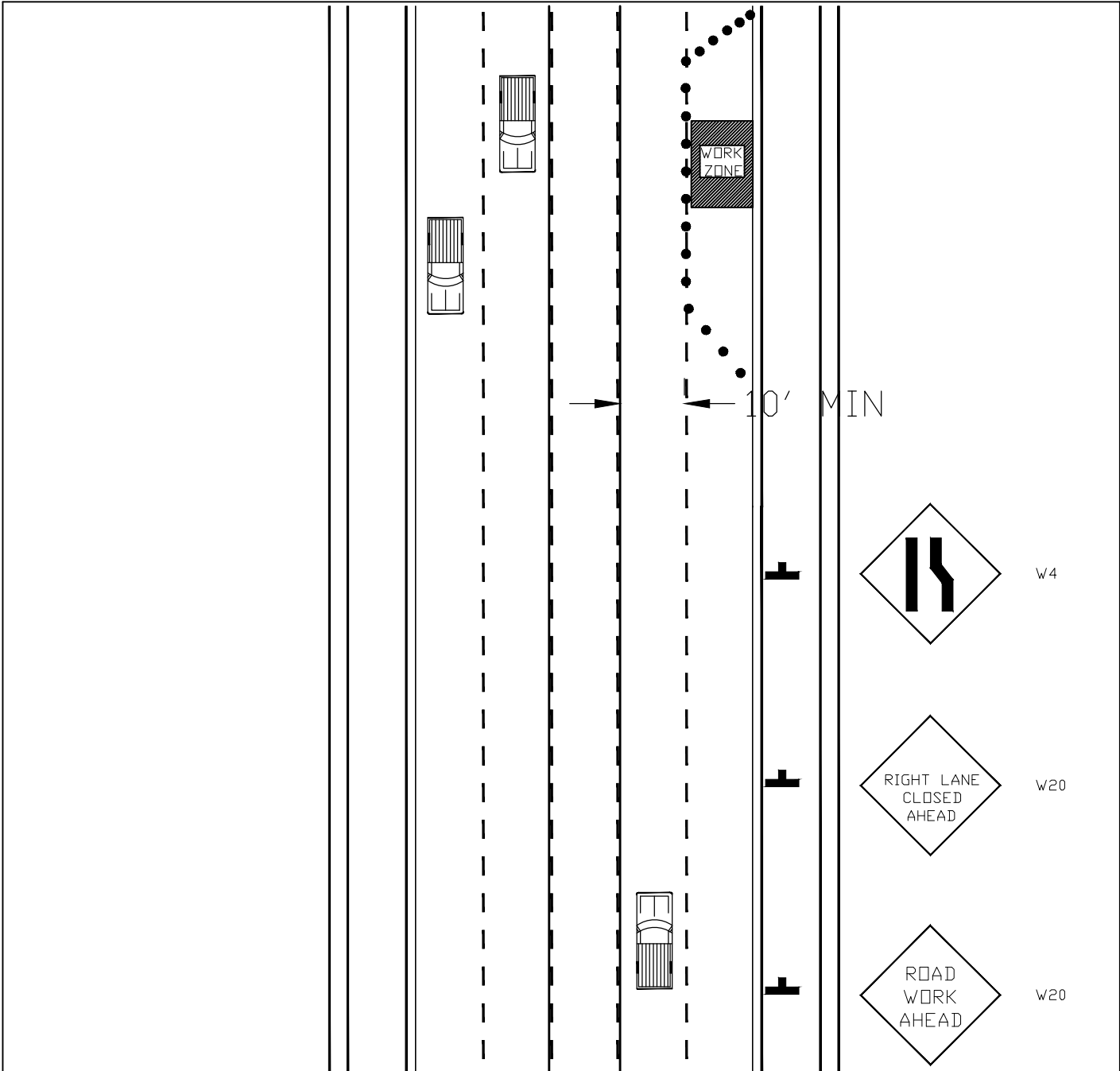
NUMBER OF CHANNELIZATION DEVICES (CONES)  
 Offset cones 1 foot maximum.

**NOTE 1:** MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC, AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

**NOTE 2:** NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

**NOTE 3:** SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



RIGHT LANE  
CLOSURE

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

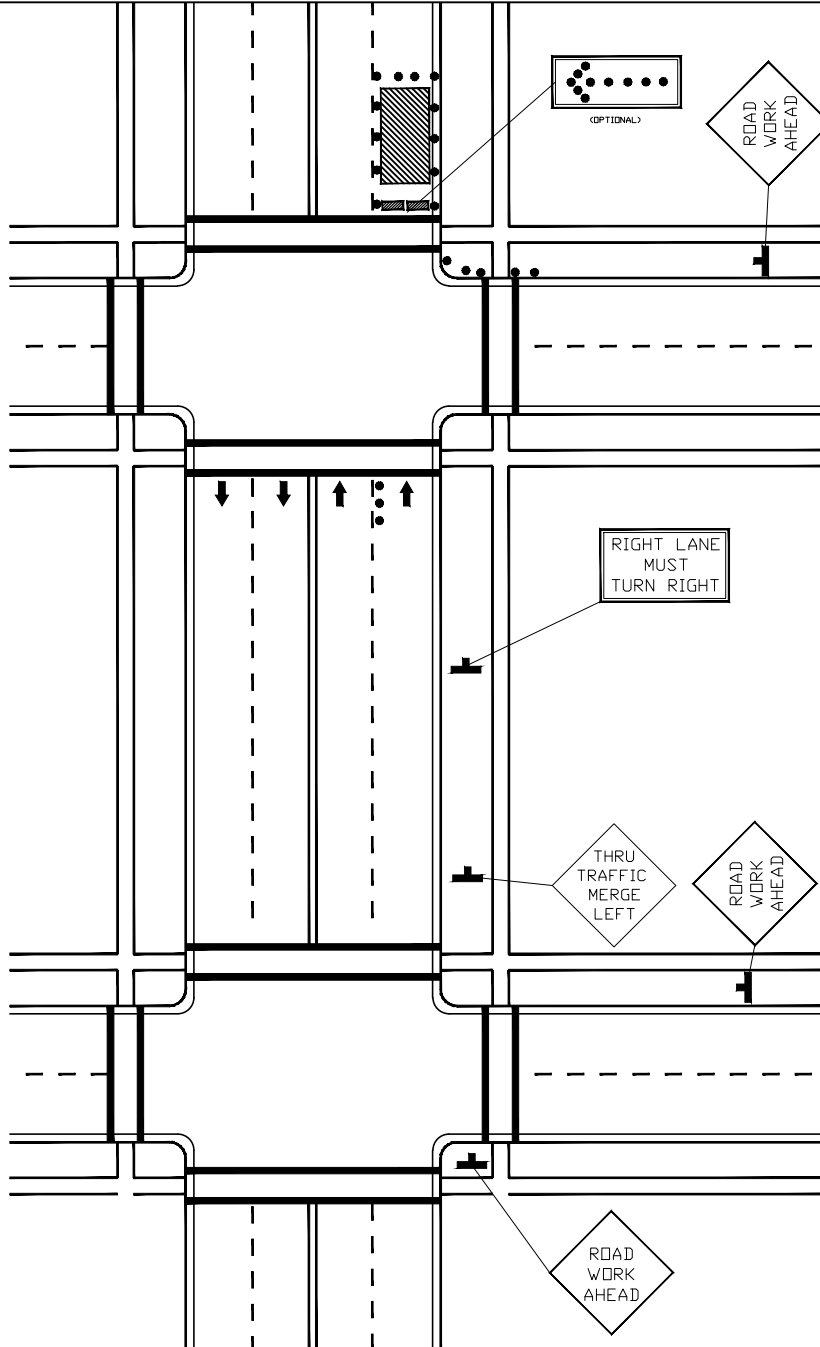
START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

NUMBER OF CHANNELIZATION DEVICES (CONES)  
 Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.  
 NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.  
 NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



RIGHT LANE  
CLOSURE  
AT INTERSECTION

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

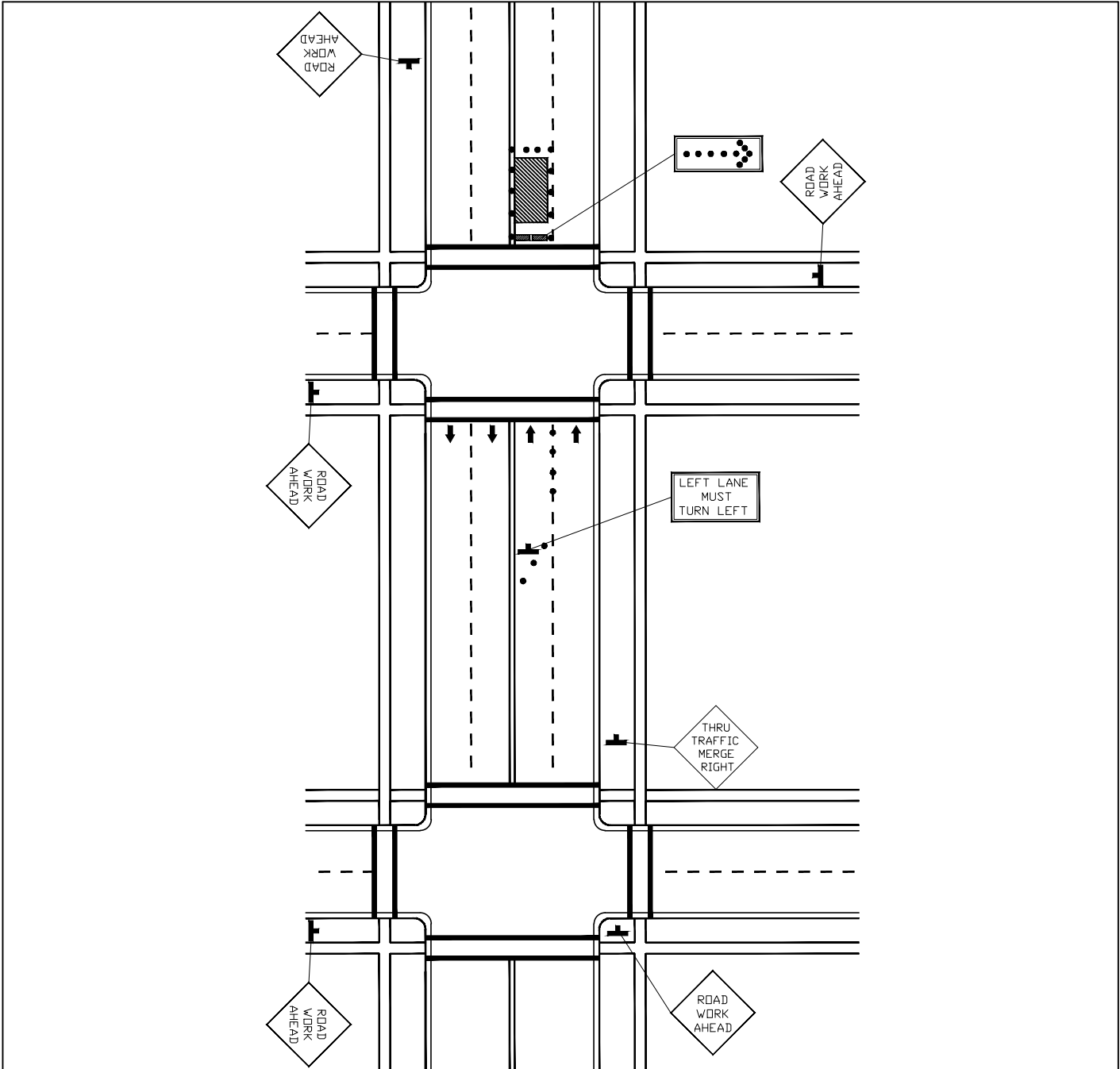
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)  
 Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.  
 NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.  
 NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



LEFT LANE  
CLOSURE  
AT INTERSECTION

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

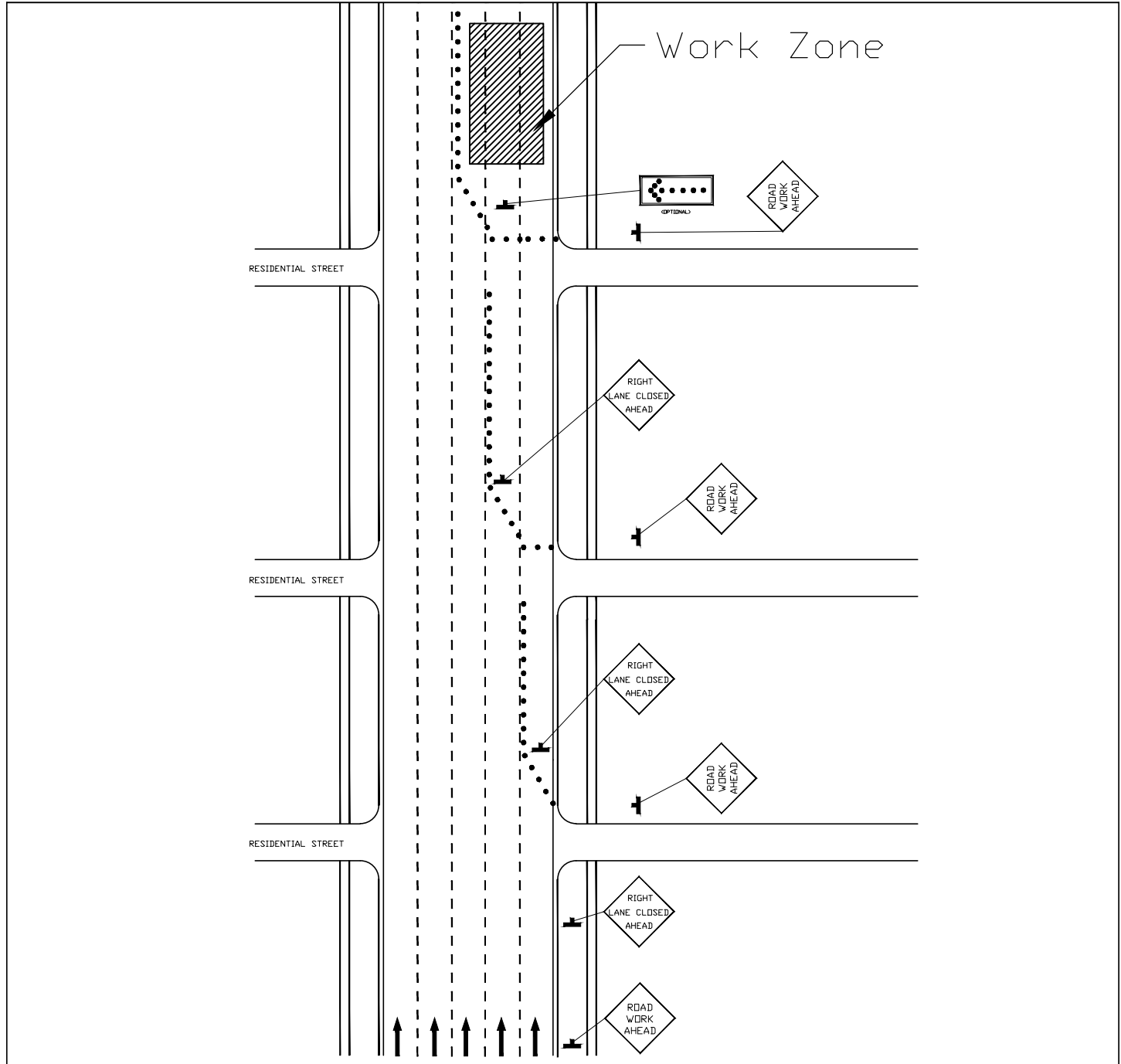
Offset cones 1 foot maximum.

**NOTE 1:** MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

**NOTE 2:** NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

**NOTE 3:** SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



ONE WAY  
MULTI-LANE  
CLOSURE

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY  
 START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

LANE WIDTH

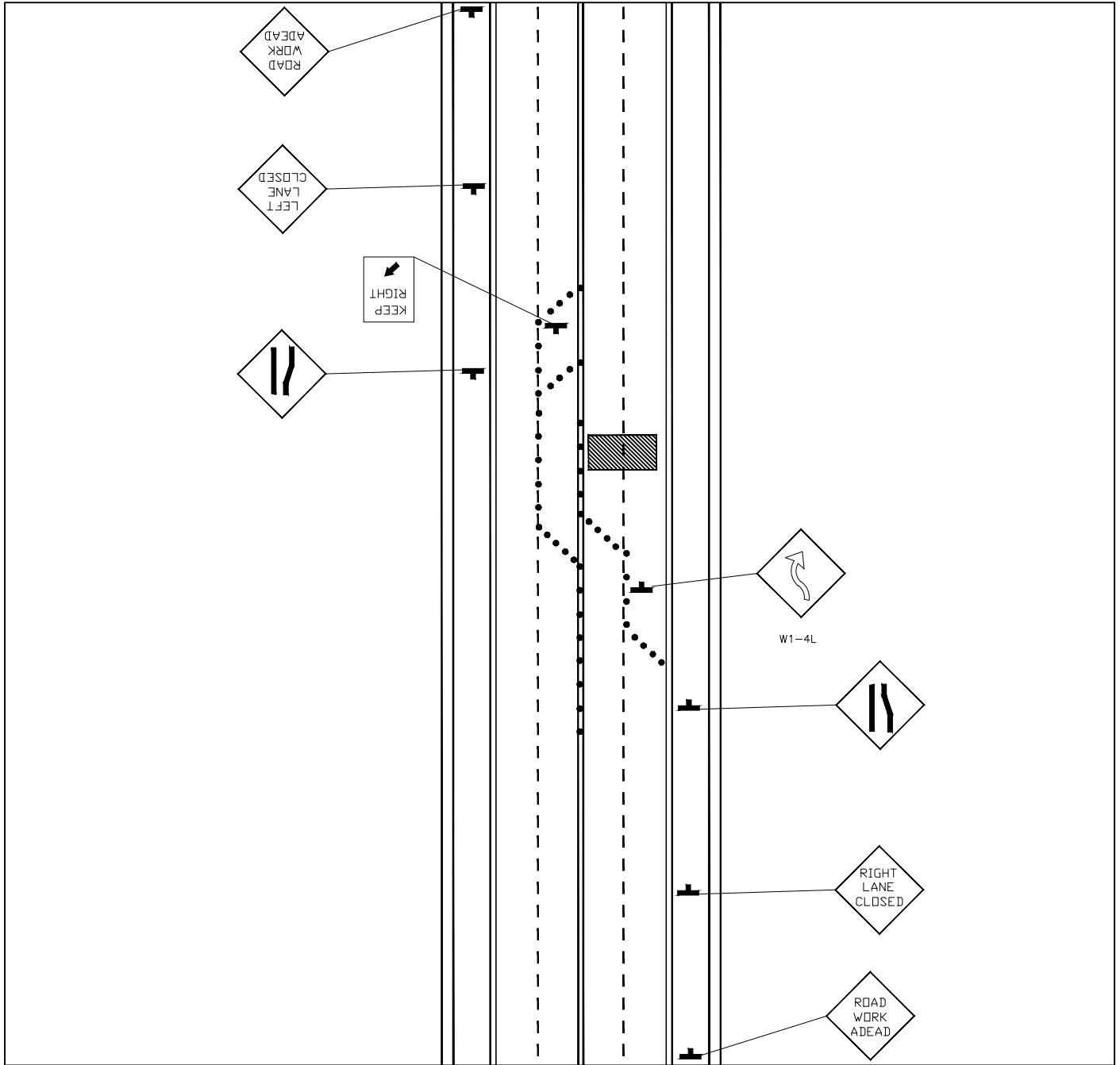
NUMBER OF CHANNELIZATION DEVICES (CONES)

Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC, AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.  
 NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.  
 NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.



SAMPLE SETUP



FOUR LANE ROAD  
TWO LANE CLOSURE  
ARTERIAL STREET

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

NUMBER OF CHANNELIZATION DEVICES (CONES)  
Offset cones 1 foot maximum.

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

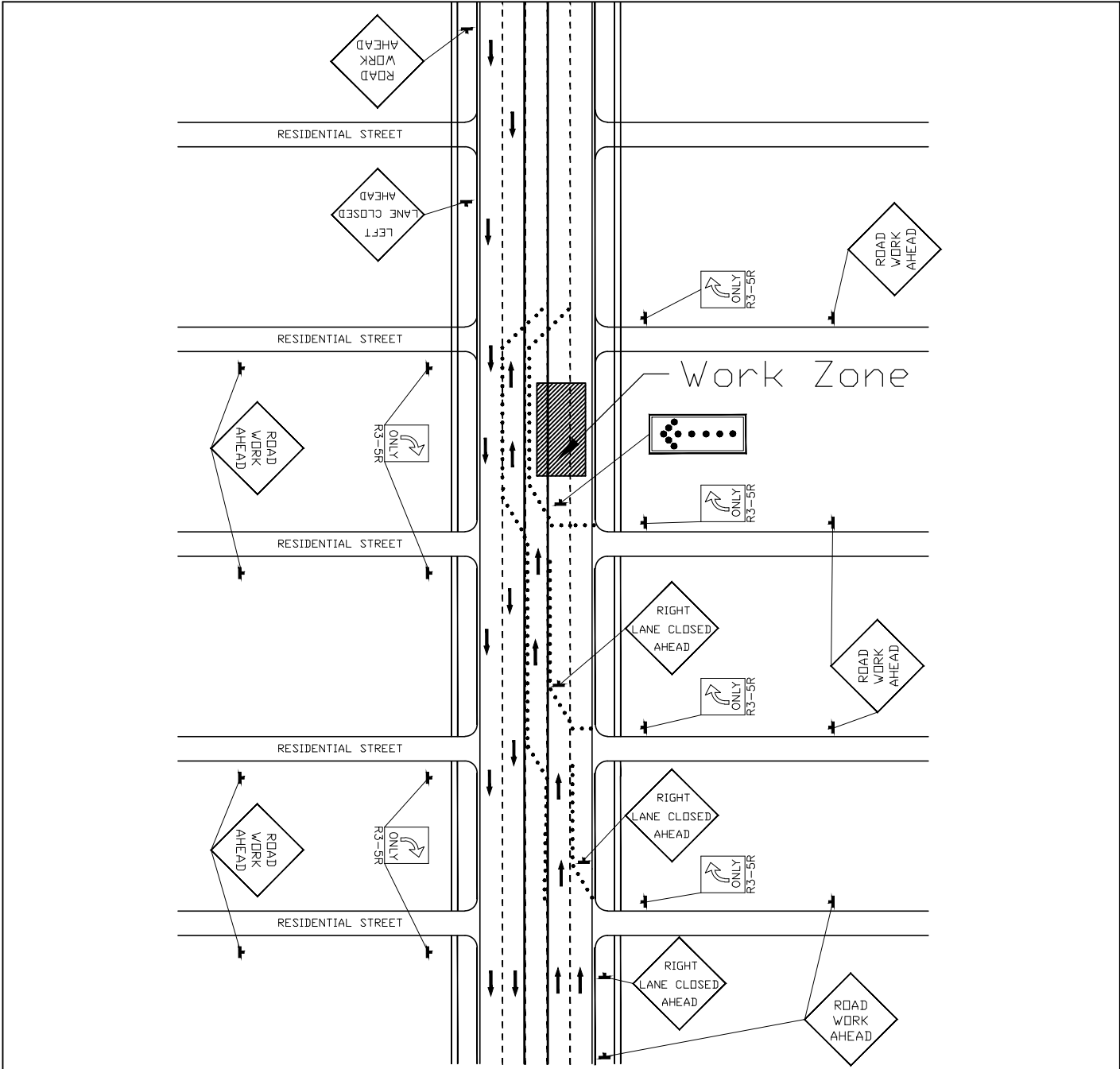
MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



FIVE LANE ROAD  
MULTI-LANE  
CLOSURE

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

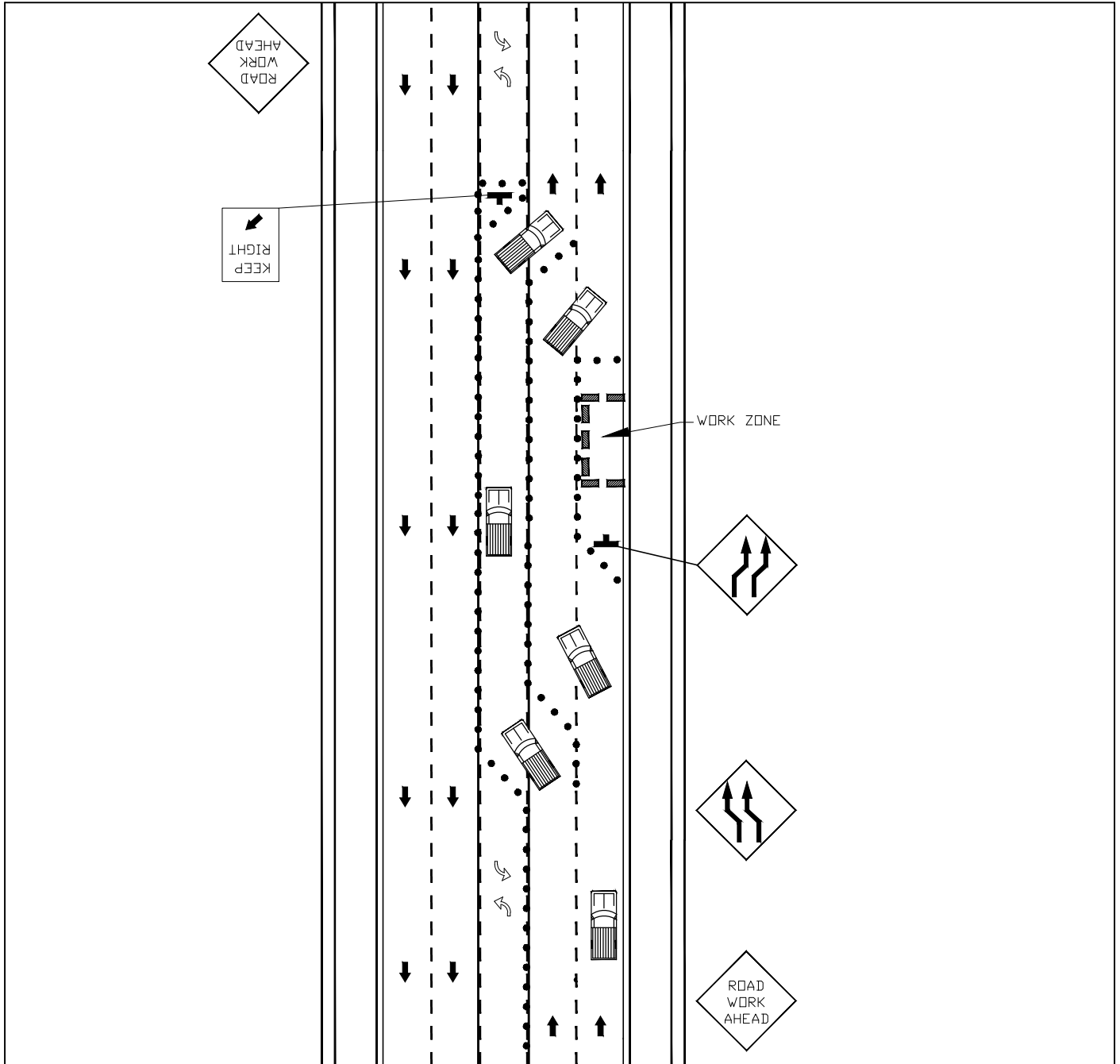
LANE WIDTH  
 NUMBER OF CHANNELIZATION DEVICES (CONES)  
 Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



TRAFFIC CONTROL  
FOR 5 LANE SHIFTING

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN

(All minimums)

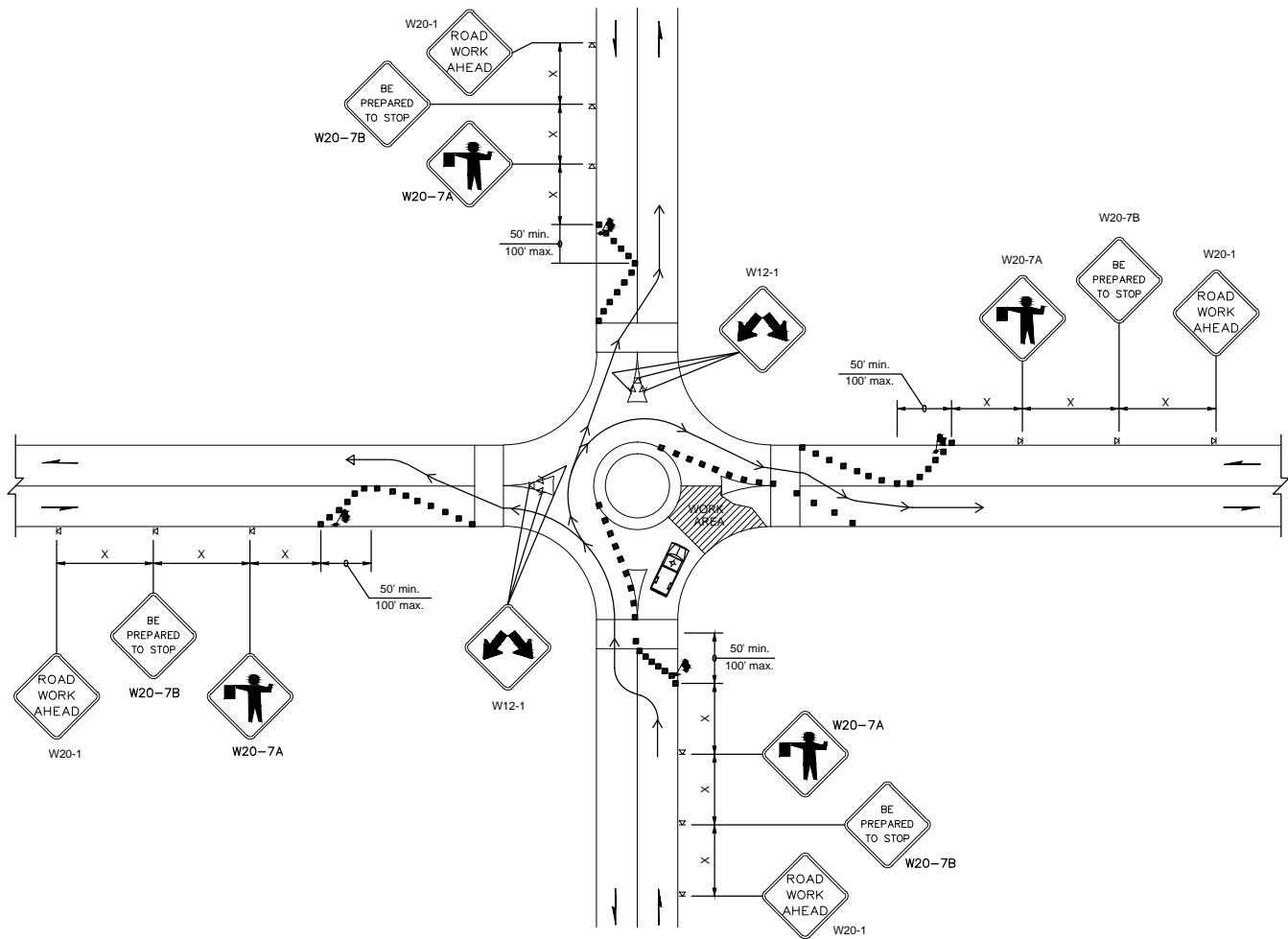
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH  
 NUMBER OF CHANNELIZATION DEVICES (CONES)  
 Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.



LEGEND

1. Night work requires additional roadway lighting at flagging stations, refer to WSDOT Standard Specifications for additional details
2. Protective vehicle recommended - may be a work vehicle.
3. Each roundabout location is unique and the traffic control must be developed to meet the specific conditions of the location and the work operation.
4. If the work and all work vehicles are off of the travel lanes and island apron, a single Road Work Ahead sign per approach is all that is required. Refer to additional guidance in the MUTCD manual for further information.
5. Consider an additional flagger in center island to assist traffic movement through roundabout or additional signing as appropriate.

LEGEND

- FLAGGING STATION
- SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE - RECOMMENDED
- VEHICLE TRAVEL PATH DURING A FLAGGING PHASE

TPYICAL ROUNDABOUT  
TRAFFIC CONTROL  
WITH FLAGGERS

APPROVED BY: \_\_\_\_\_

APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

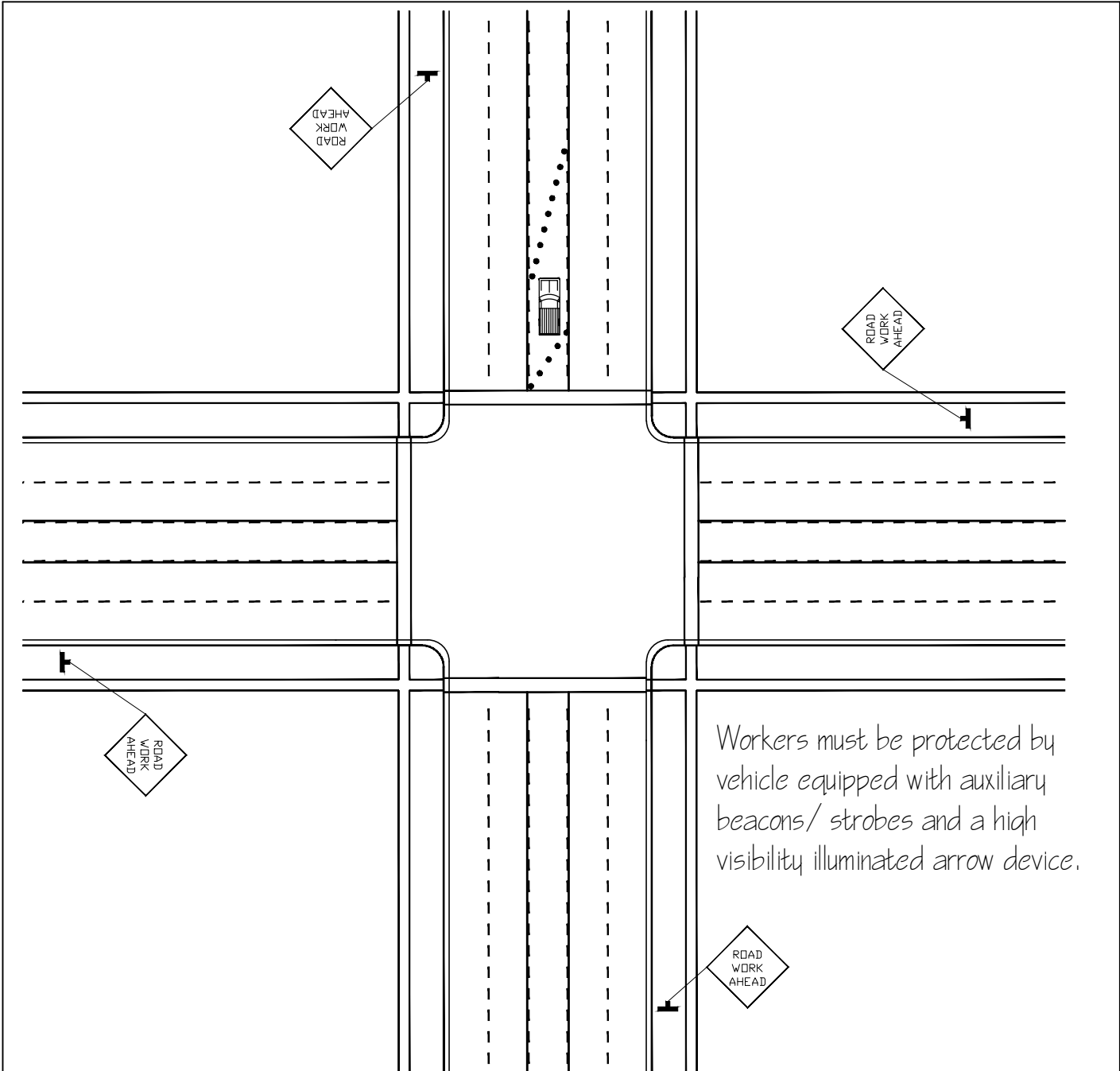
LANE WIDTH	MPH	10	15	20	25	30	35	40
	8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267	
12'	20	45	80	125	180	245	320	
14'	24	53	94	146	210	286	374	
16'	27	60	107	167	240	327	427	
NUMBER OF CHANNELIZATION DEVICES (CONES)								
Offset cones 1 foot maximum.								

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



CENTER LANE CLOSURE AT INTERSECTION UNDER 60 MINUTES

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

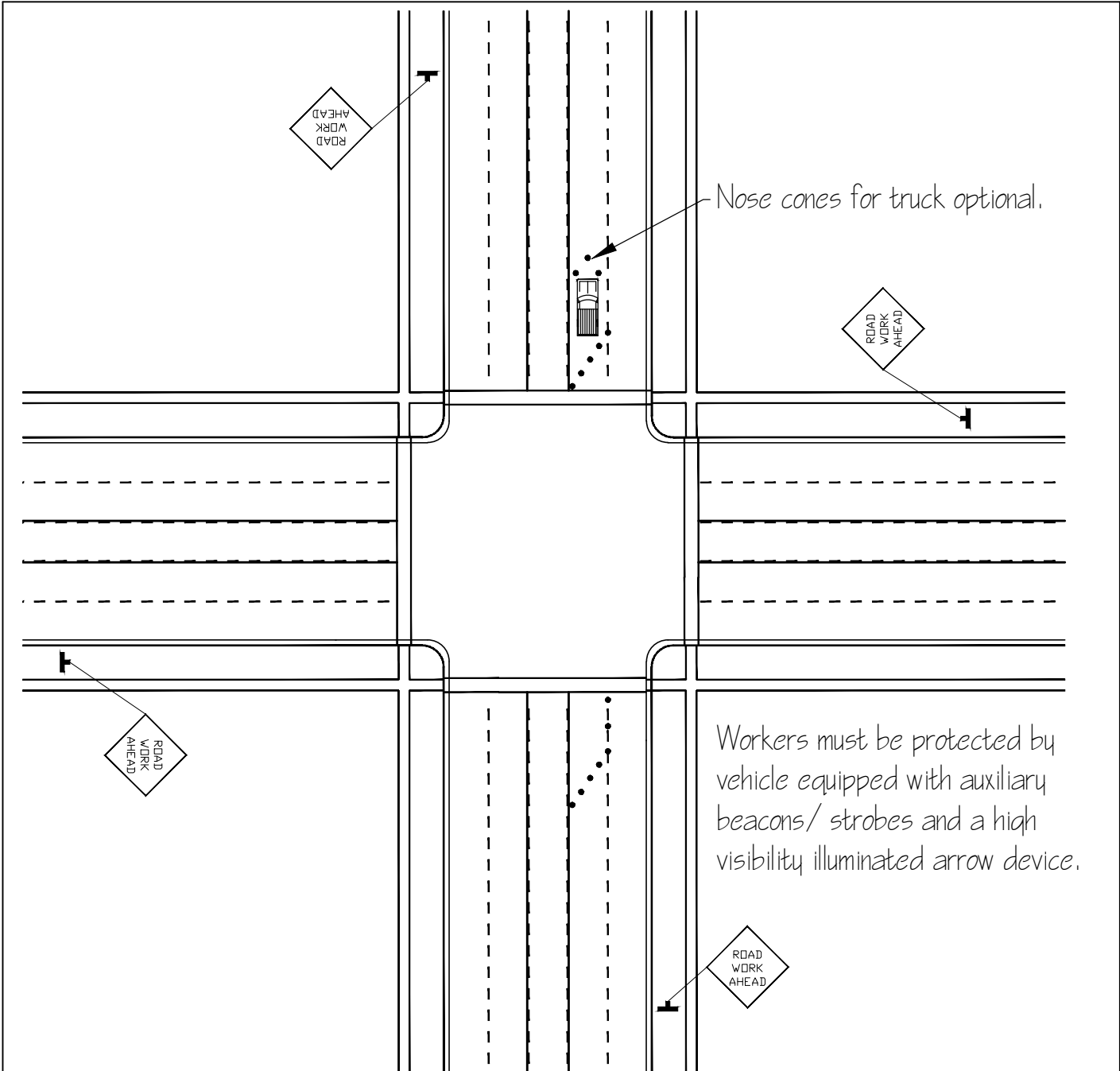
Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



INSIDE LANE CLOSURE AT INTERSECTION UNDER 60 MINUTES

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS FOR CONE PATTERN  
(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

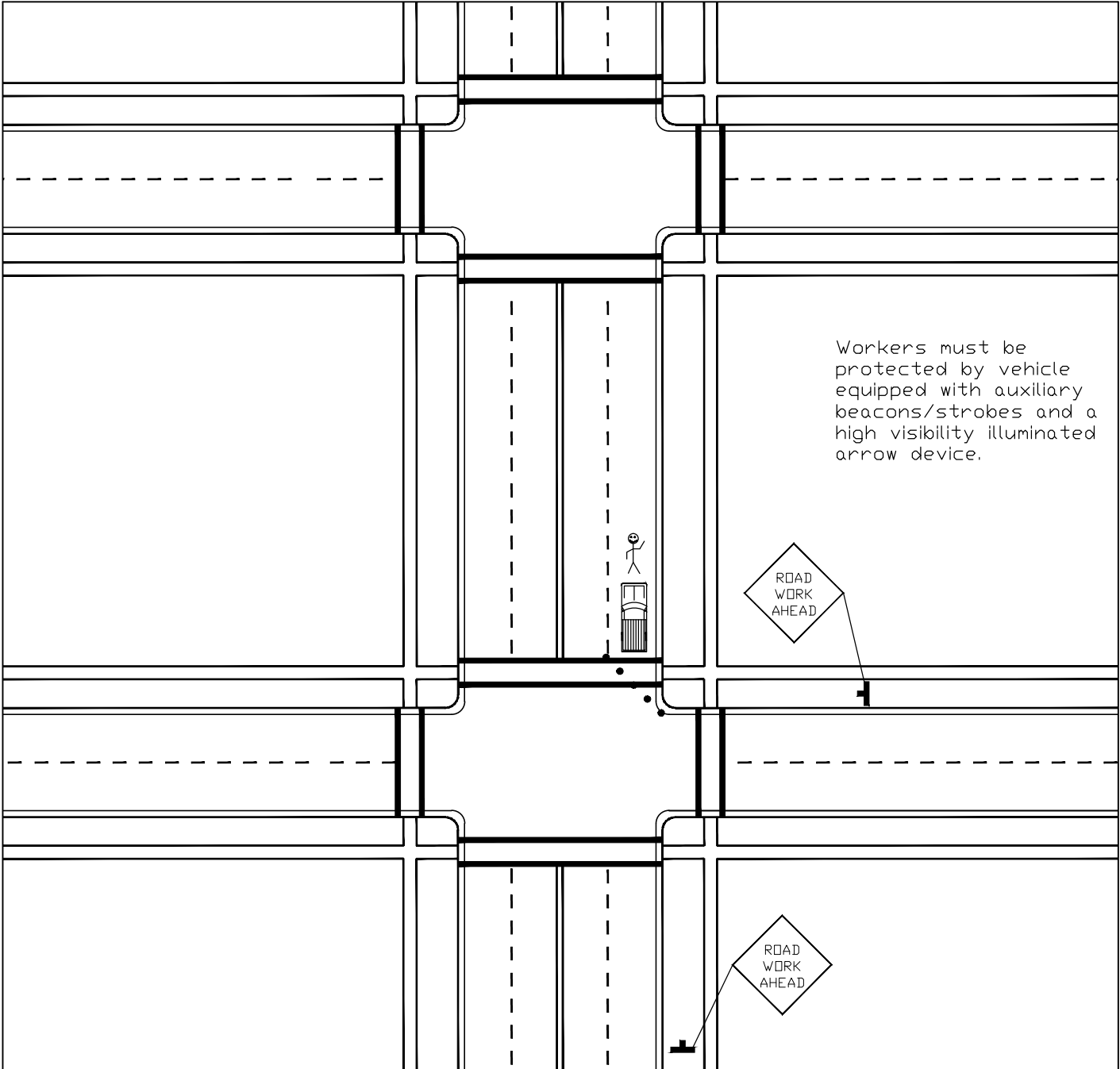
Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



LANE CLOSURE AT INTERSECTION  
UNDER 60 MINUTES

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

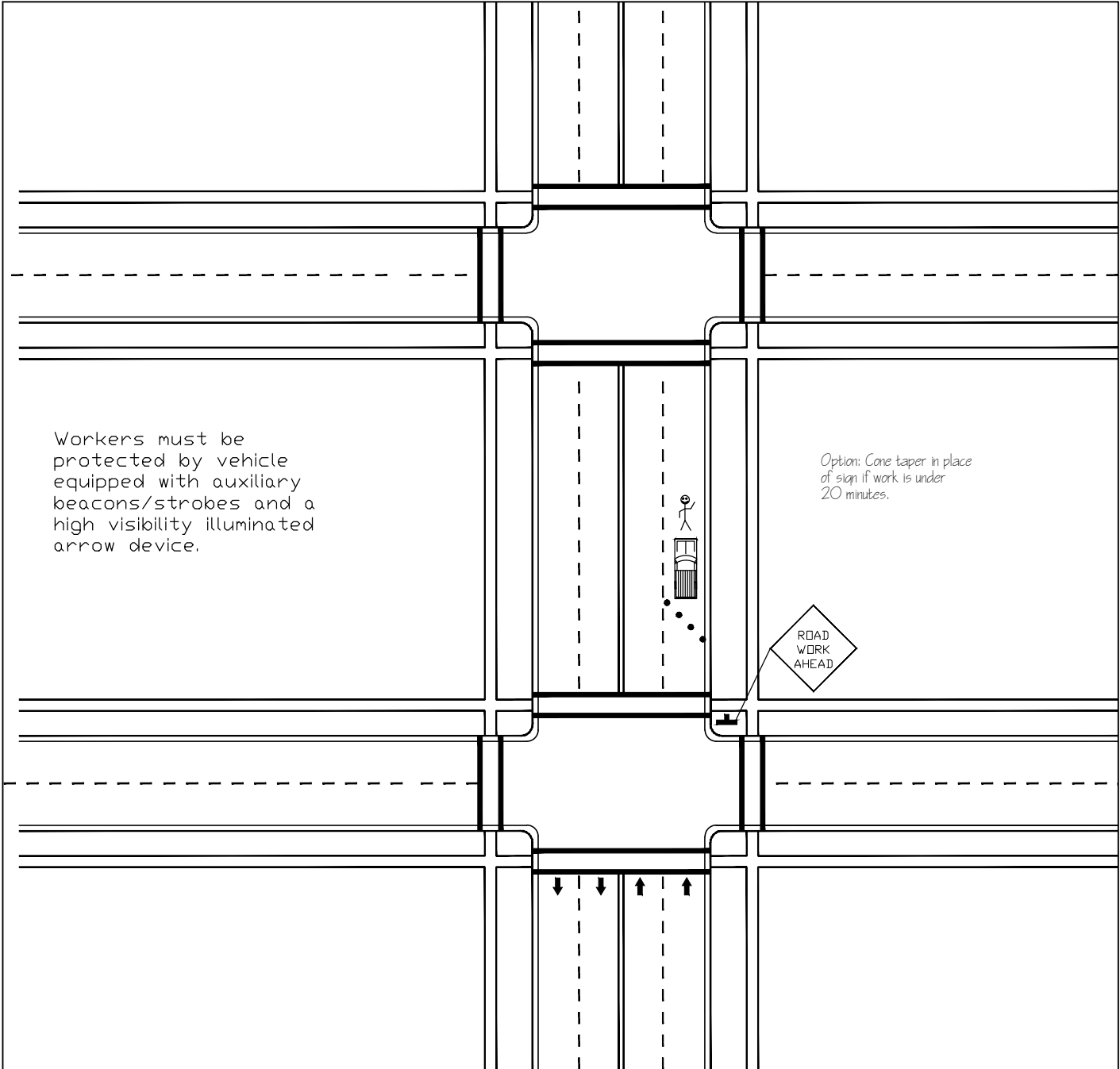
Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



MID-BLOCK LANE CLOSURE  
UNDER 60 MINUTES

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

Offset cones 1 foot maximum.

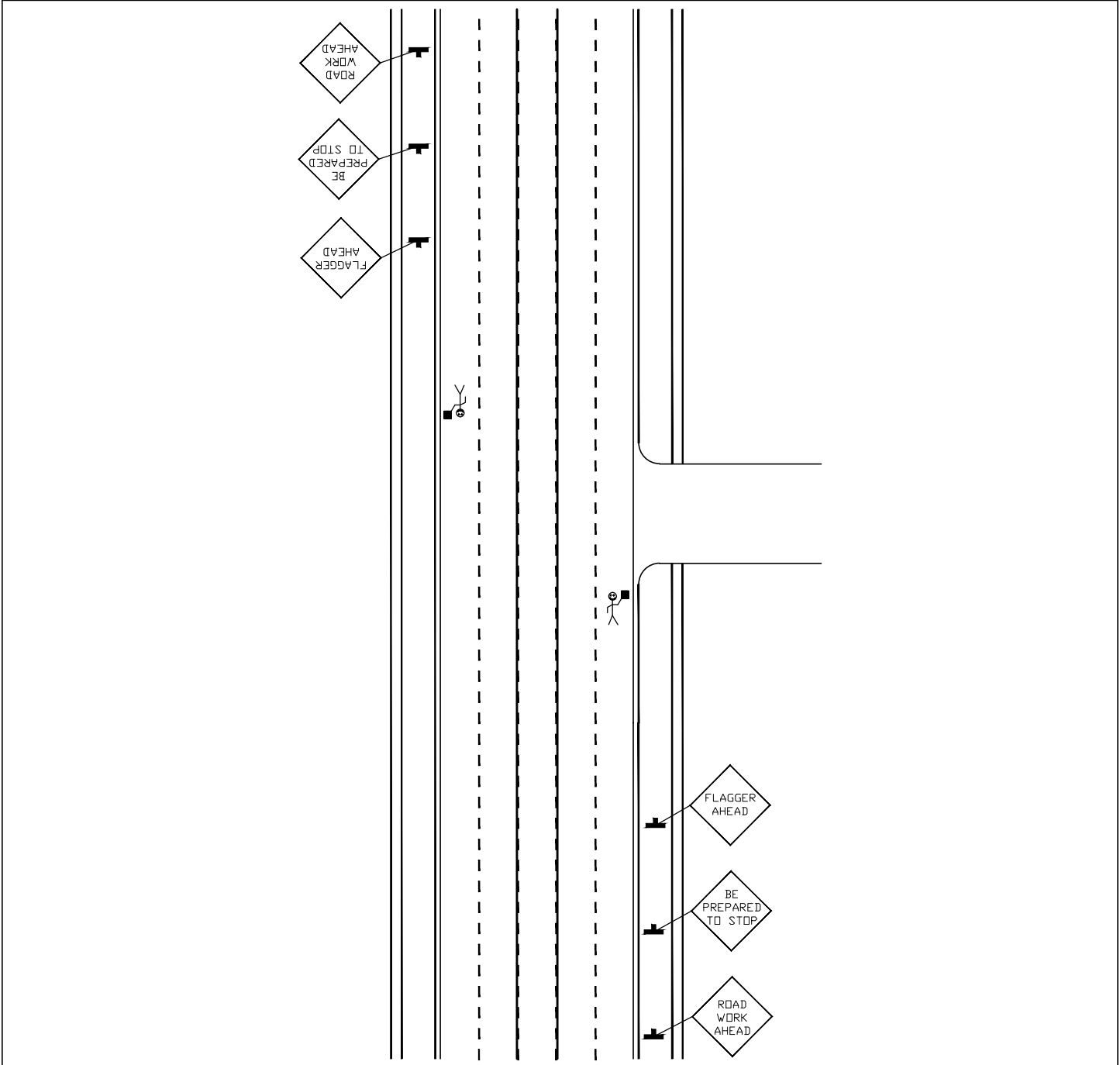
NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.



SAMPLE SETUP



TRAFFIC CONTROL  
RECOMMENDATIONS  
FOR TRUCK CROSSING

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

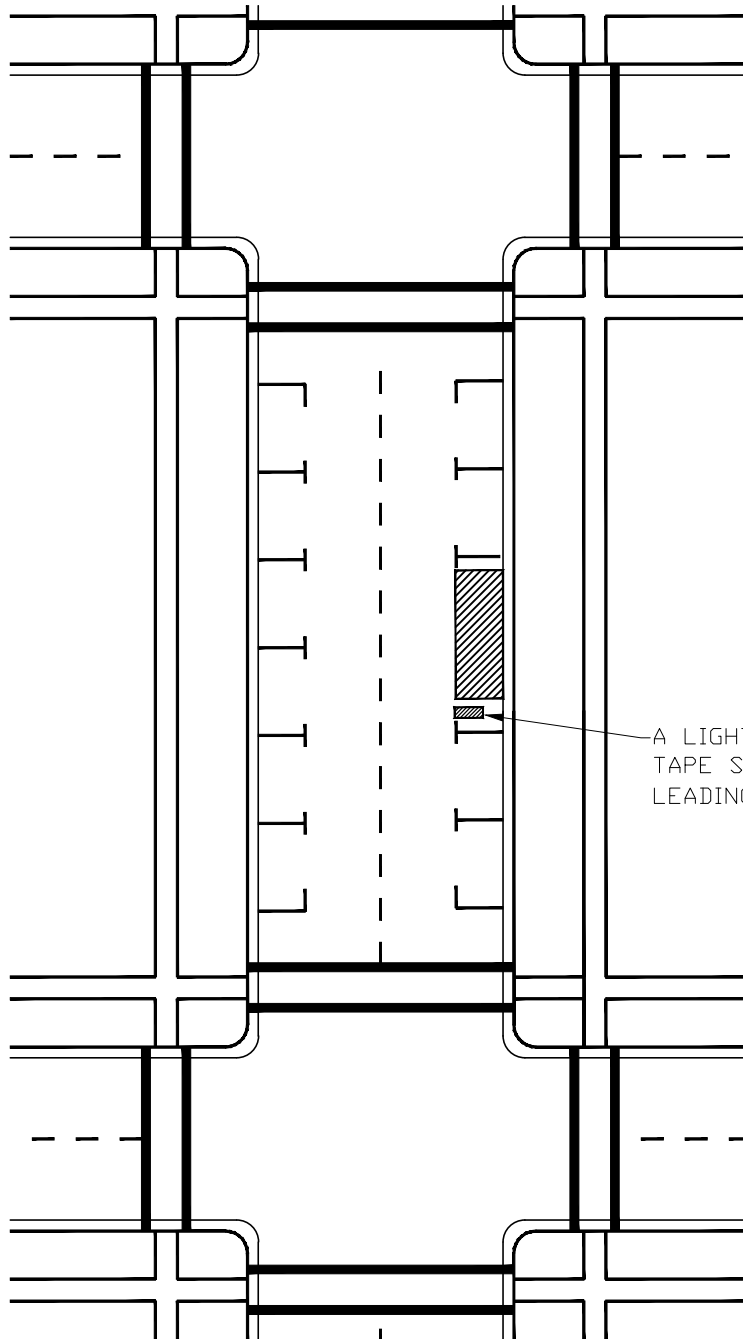
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
LANE WIDTH	NUMBER OF CHANNELIZATION DEVICES (CONES)						
	Offset cones 1 foot maximum.						

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC, AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



A LIGHTED BARRICADE OR REFLECTIVE TAPE SHALL BE INSTALLED ON THE LEADING EDGE OF THE DUMPSTER.

TRAFFIC CONTROL FOR A PORTABLE DUMPSTER

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS FOR CONE PATTERN  
 (All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

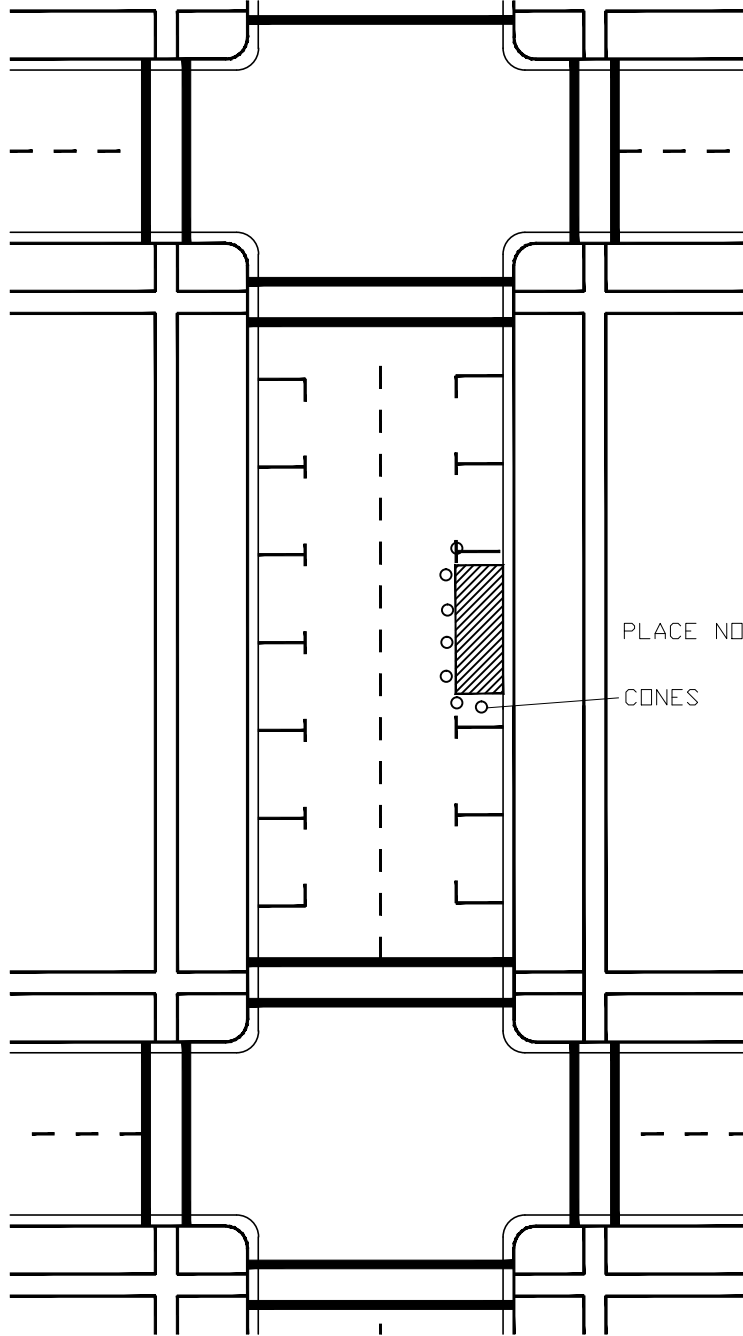
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NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



PLACE NO-PARK SIGNS 24HRS IN ADVANCE

CONES

TRAFFIC CONTROL  
FOR MOVING VAN

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
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LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

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NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC, AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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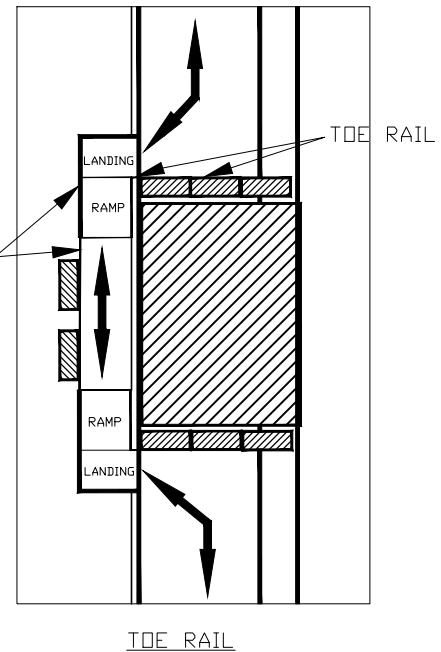
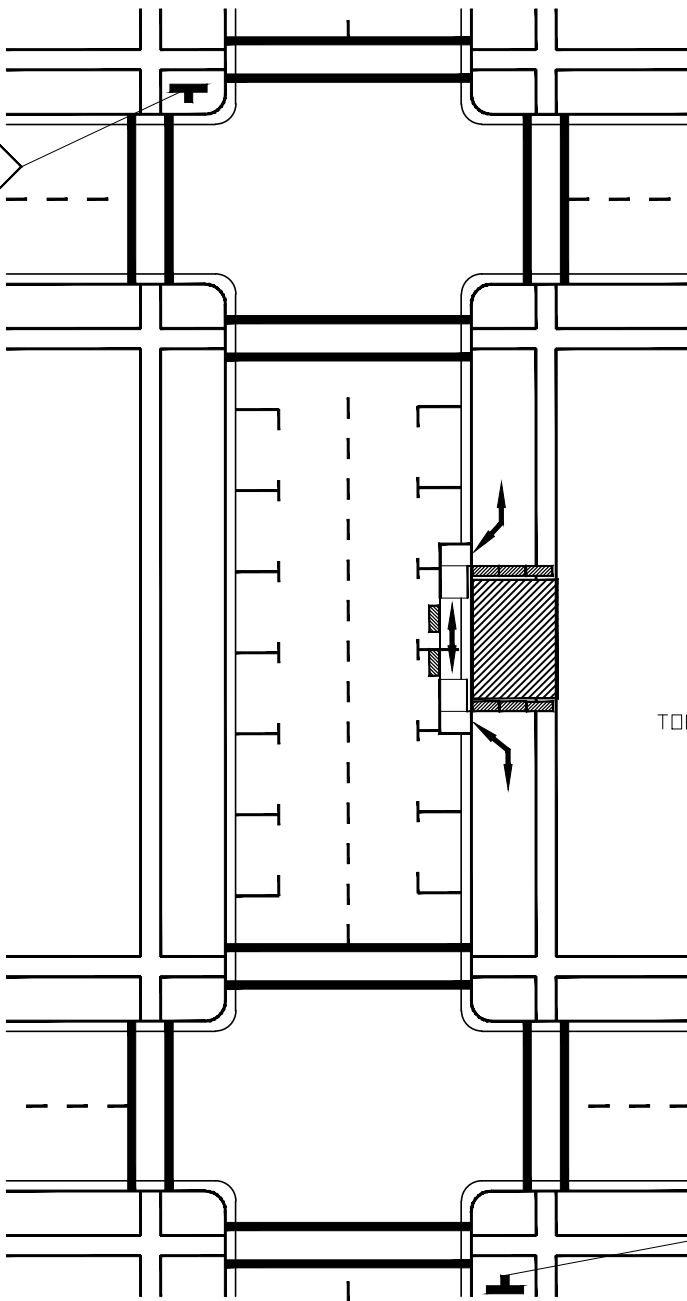
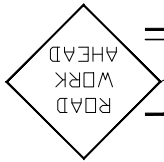
SAMPLE SETUP

NOTE:

PEDESTRIAN WALKWAYS SHALL BE A MINIMUM OF 5 FEET WIDE.

TOE RAIL ON RAMP ENTRANCE AND BARRICADE TOE RAIL SHALL HAVE NO GAPS AND BE PARALLEL.

SEE BYPASS RAMP DETAIL FOR PROPER CONSTRUCTION OF RAMP TO ALLOW FOR PEDESTRIAN AND DISABILITY ACCESS.



BYPASS  
WALKWAY FOR  
PEDESTRIANS

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
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NUMBER OF CHANNELIZATION DEVICES (CONES)

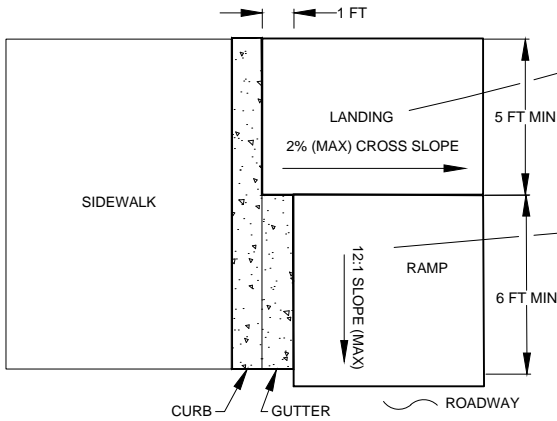
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NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



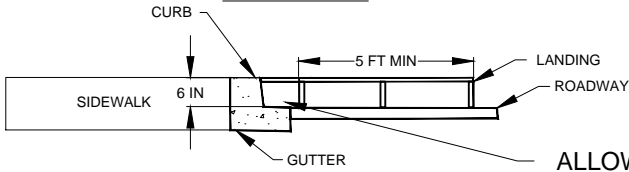
RAMP LANDING SHALL BE 1" X 5' X 5' (MIN) AND FLUSH WITH THE TOP OF THE CURB

RAMP SHALL BE 1" X 5' X 6' (MIN) AND HAVE A 600 POUND LOAD CAPACITY MIN.

NOTES:

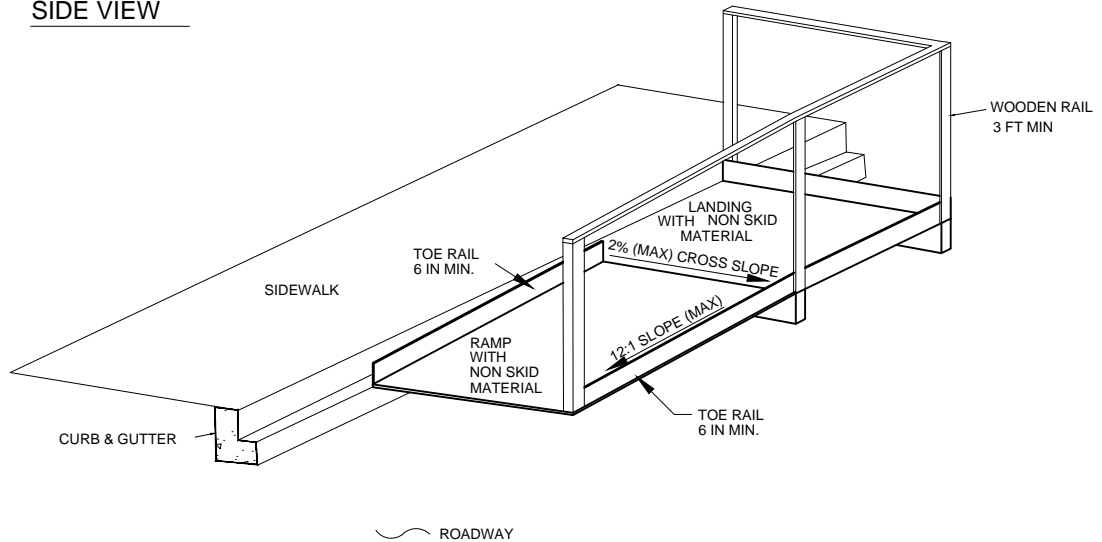
1. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
2. ADA ACCOMODATIONS MUST BE ADDRESSED AND CONSIDERED FOR ALL WORK OPERATIONS. EXISTING ADA FACILITIES MUST BE MAINTAINED.

TOP VIEW



ALLOW FOR STORM DRAINAGE IN GUTTER LINE

SIDE VIEW



PEDESTRIAN BYPASS RAMPS  
FOR TEMPORARY TRAFFIC CONTROL  
MINIMUM STANDARDS

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

Offset cones 1 foot maximum.

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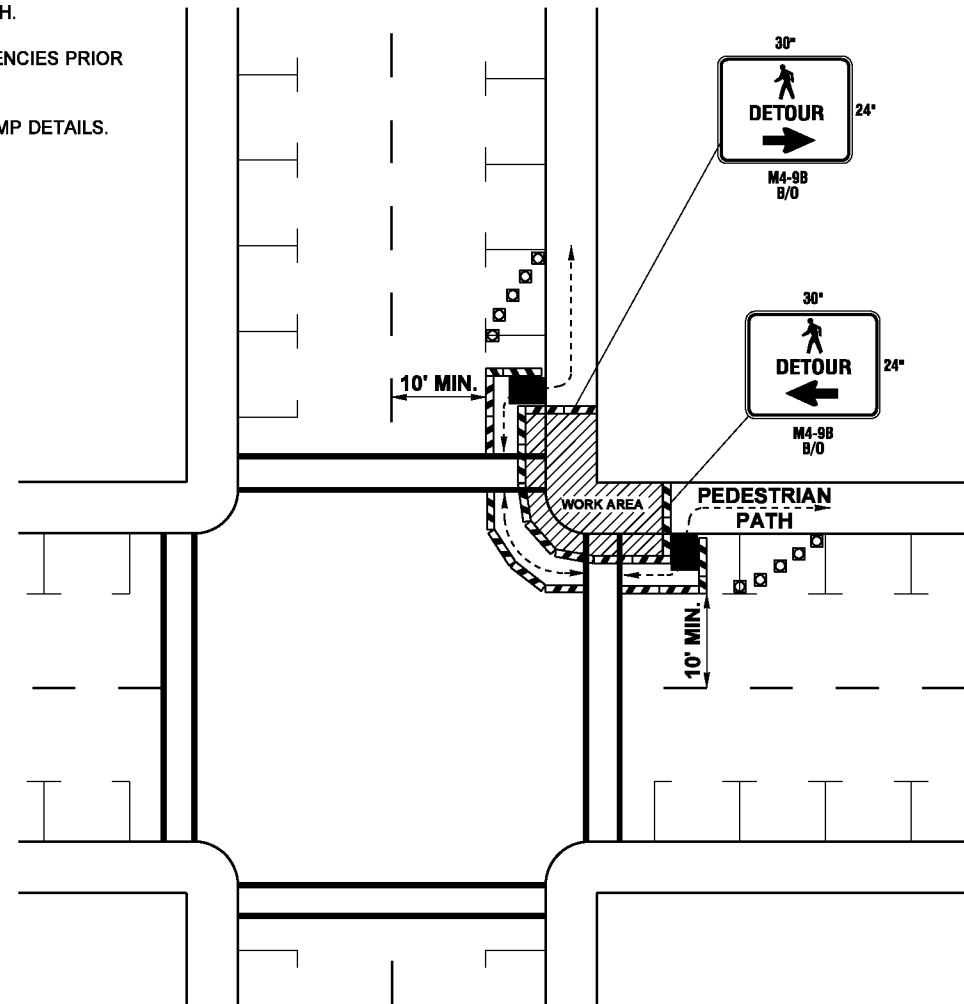
NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

**NO PARKING** R8-3  
24" x 30"  
R/W

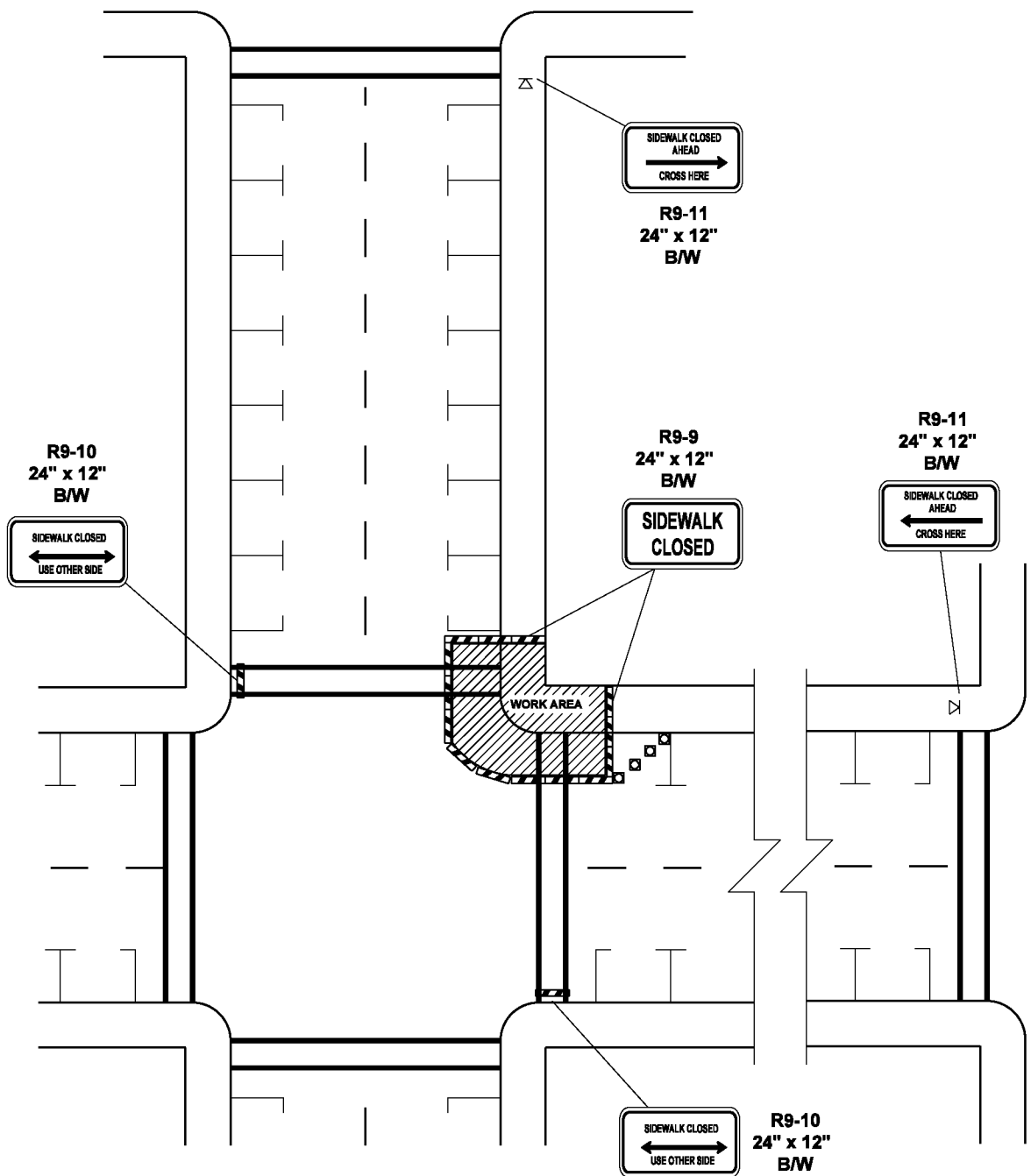
INSTALL ON TYPE 2 BARRICADES THROUGHOUT THE WORK AREA  
24 HOURS PRIOR TO IMPLEMENTING TRAFFIC CONTROL.  
PRIOR NOTIFICATION OF LOCAL LAW ENFORCEMENT REQUIRED.

**NOTES:**

1. CONTROLS SHOWN ARE FOR PEDESTRIAN TRAFFIC ONLY.
2. MAINTAIN A MINIMUM OF 48" FOR A PEDESTRIAN PATH.
3. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
4. SEE SHEET TC-52 FOR TEMPORARY PEDESTRIAN RAMP DETAILS.
5. ADA PEDESTRIAN FACILITIES MUST BE MAINTAINED.



**SIDEWALK DIVERSION**



**SIDEWALK DETOUR**

**LEGEND**

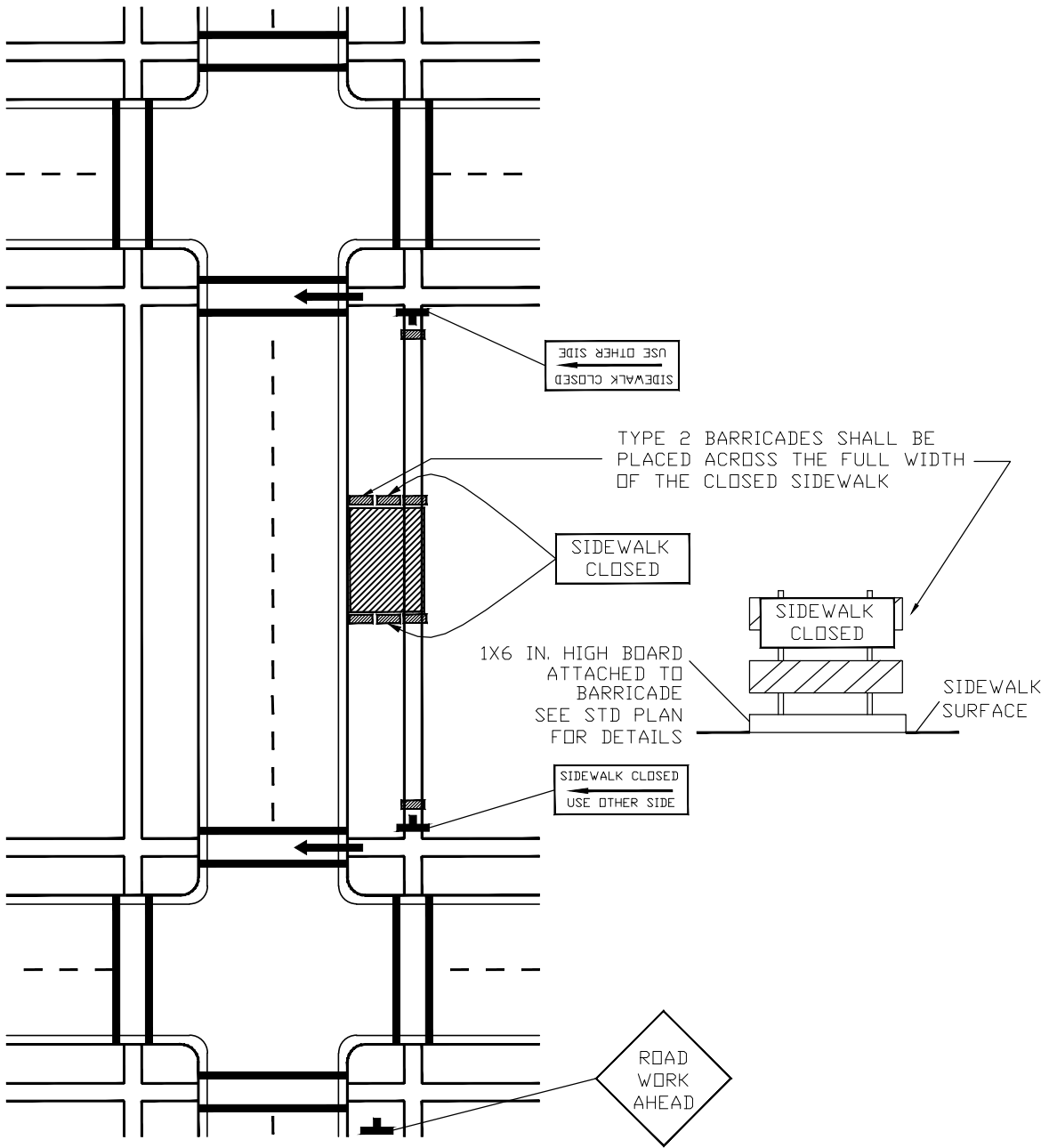
- ⊠ TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- ▨ PEDESTRIAN CHANNELIZING DEVICES
- TEMPORARY PEDESTRIAN RAMP FOR SIDEWALKS

**INTERSECTION PEDESTRIAN TRAFFIC CONTROL**

NOT TO SCALE

FILE NAME S:\Design R P& S4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-16\TC-16.dgn		REGION NO. STATE		FED.AID PROJ.NO.		Washington State Department of Transportation	TC16
TIME 9:18:30 AM	DATE 9/19/2012	10	WASH				
PLOTTED BY CyfordL		JOB NUMBER				OF	
DESIGNED BY		CONTRACT NO.		LOCATION NO.		PEDESTRIAN CONTROL AND PROTECTION	SHEETS
ENTERED BY							
CHECKED BY							
PROJ. ENGR.							
REGIONAL ADM.	REVISION	DATE	BY	P.E. STAMP BOX	DATE	P.E. STAMP BOX	

SAMPLE SETUP



SIDEWALK CLOSURE

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS FOR CONE PATTERN  
 (All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

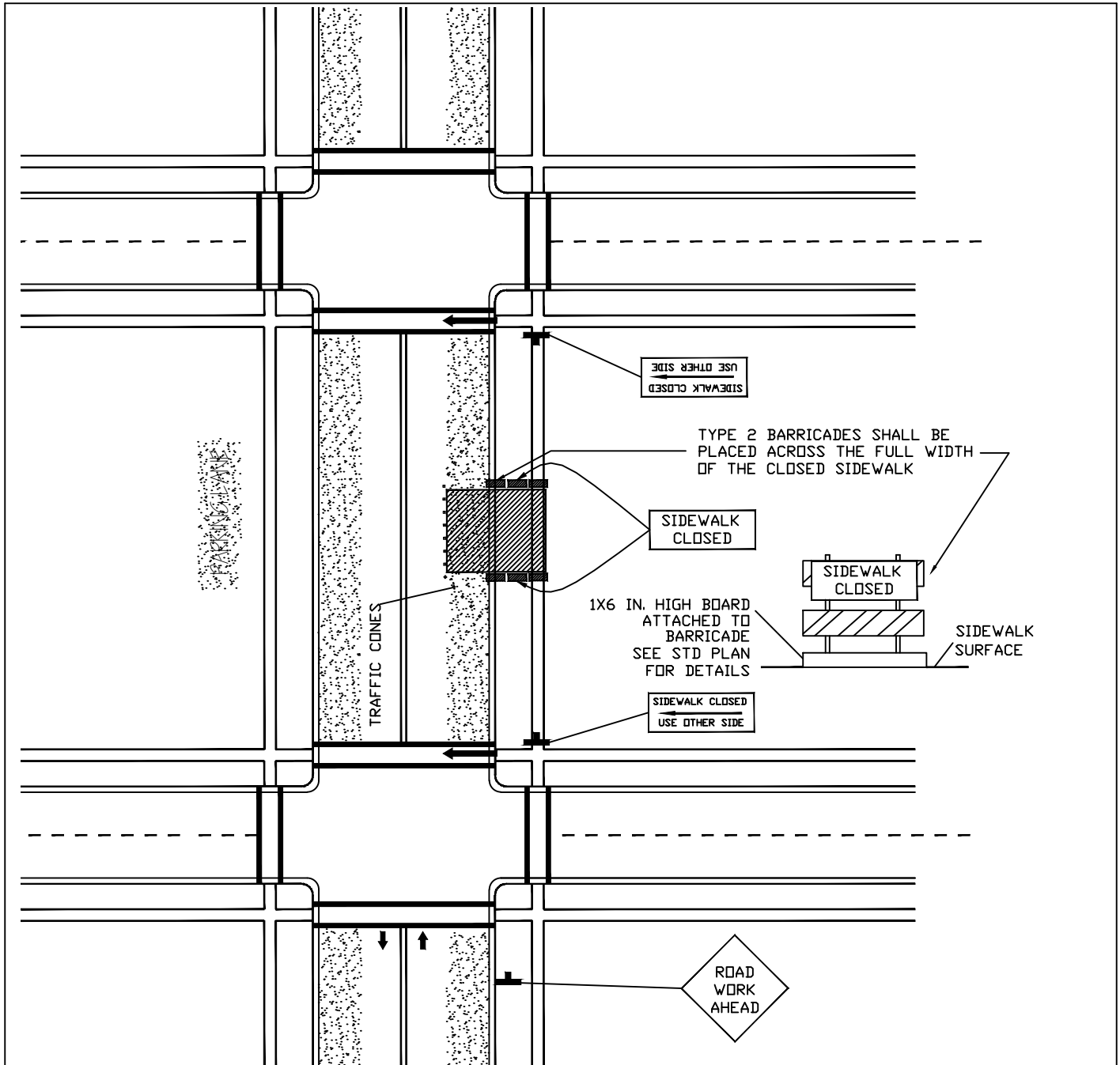
NUMBER OF CHANNELIZATION DEVICES (CONES)  
 Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



SIDEWALK / PARKING CLOSURE

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS FOR CONE PATTERN  
(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
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LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

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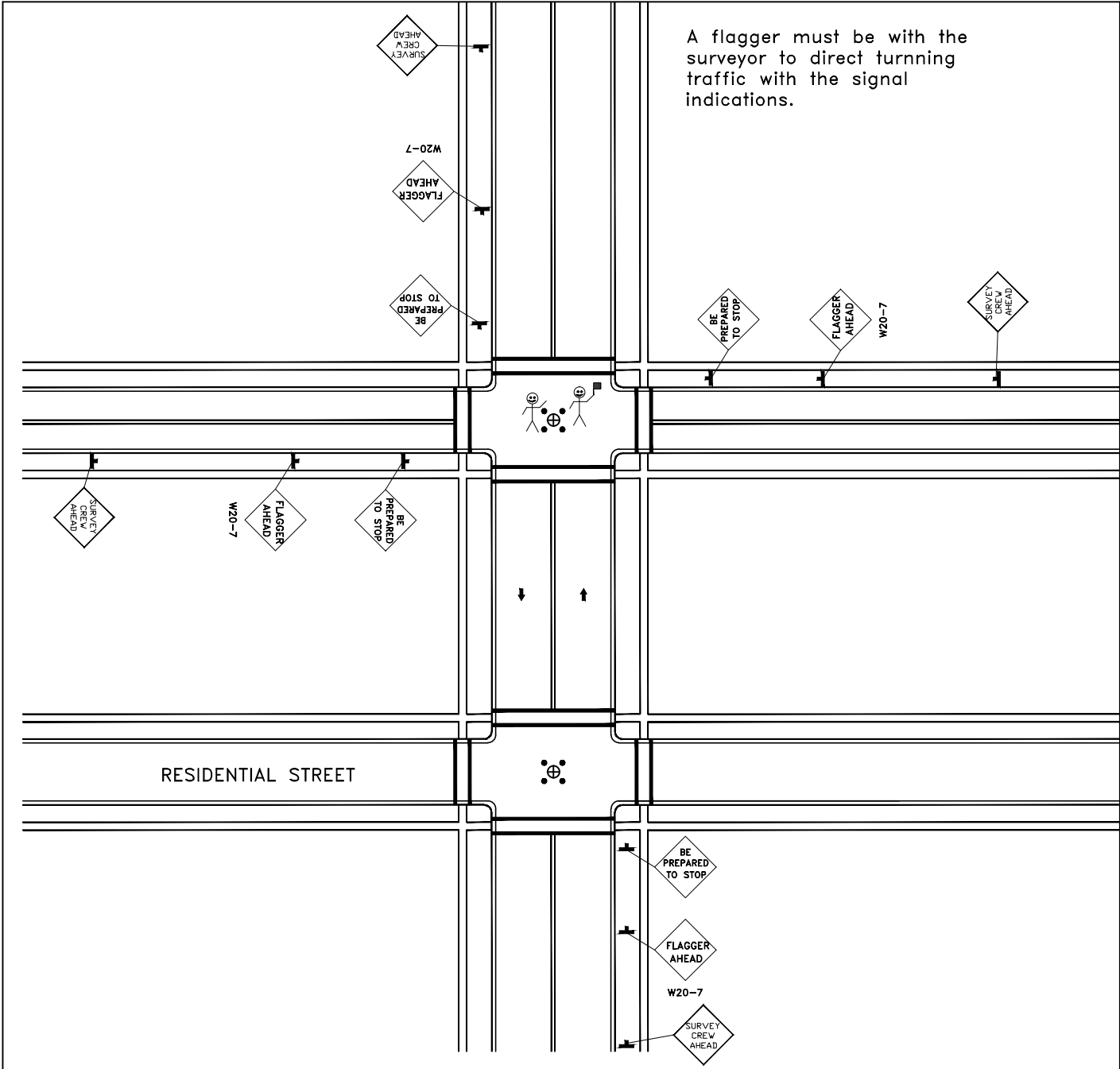
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SAMPLE SETUP



A flagger must be with the surveyor to direct turning traffic with the signal indications.

RESIDENTIAL STREET

SURVEY  
TWO LANE ARTERIAL  
INTERSECTION

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
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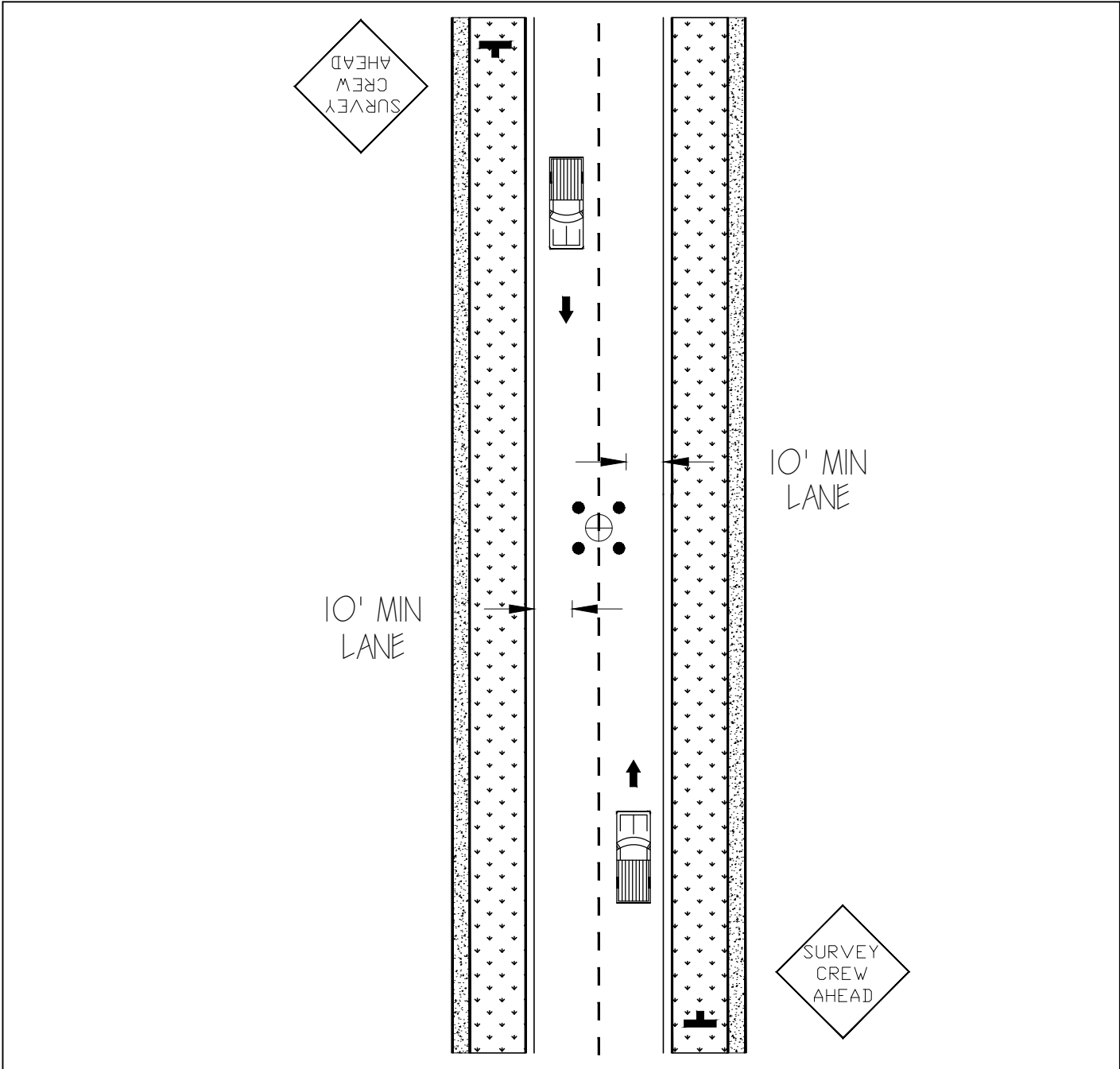
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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



SURVEY  
TWO LANE ARTERIAL  
MID-BLOCK

APPROVED BY: \_\_\_\_\_  
 APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS  
 MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_  
 MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
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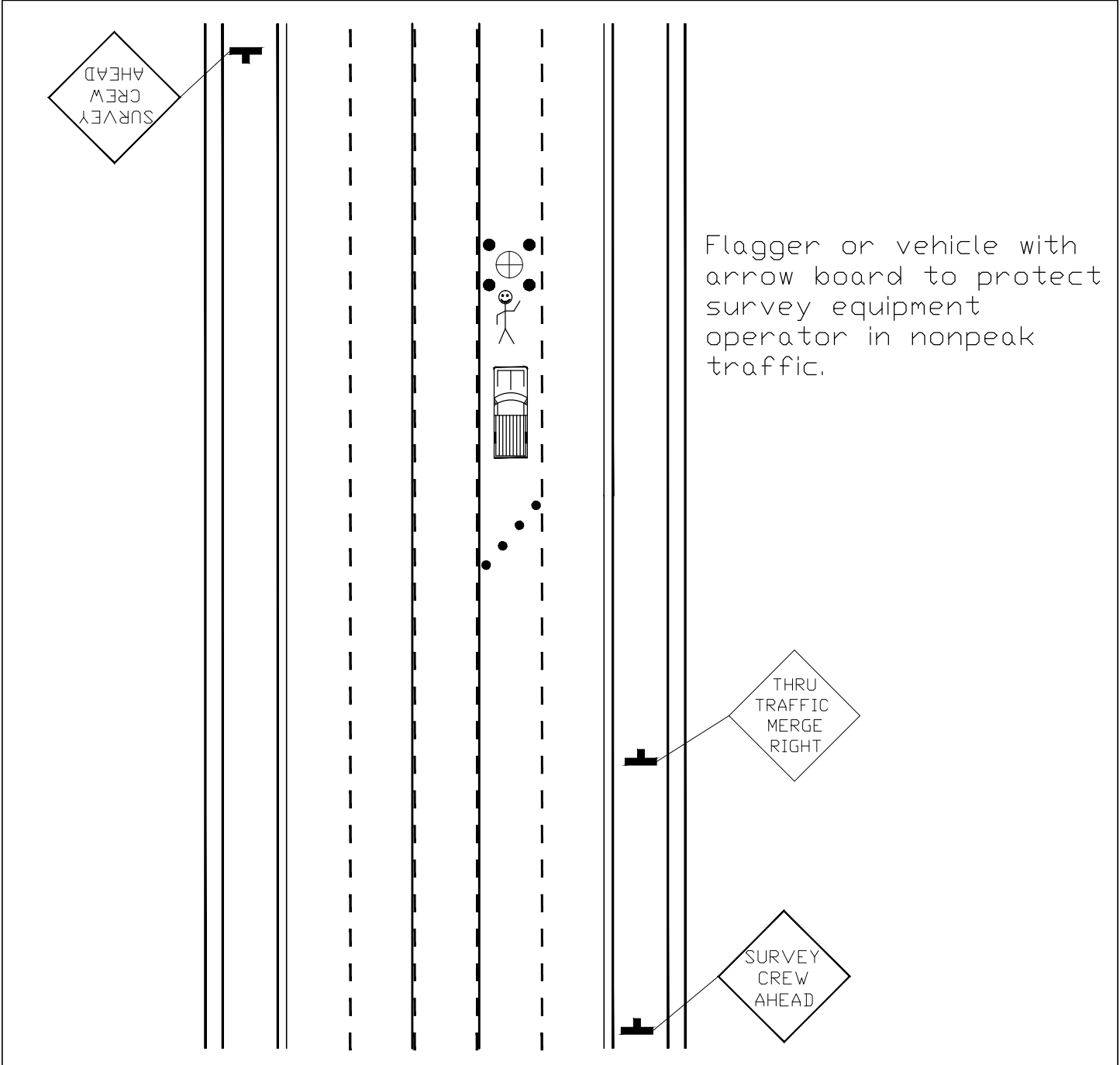
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SAMPLE SETUP



Flagger or vehicle with arrow board to protect survey equipment operator in nonpeak traffic.

SURVEY  
MULTI-LANE  
ARTERIAL

MERGING TAPER LENGTHS  
FOR CONE PATTERN  
(All minimums)

APPROVED BY: \_\_\_\_\_

APPROVED WITH CONDITIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

START TRAFFIC CONTROL SET UP DATE: \_\_\_\_\_ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: \_\_\_\_\_ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: \_\_\_\_\_

MUST BE OUT OF THE ROAD BY DATE & TIME: \_\_\_\_\_

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
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LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

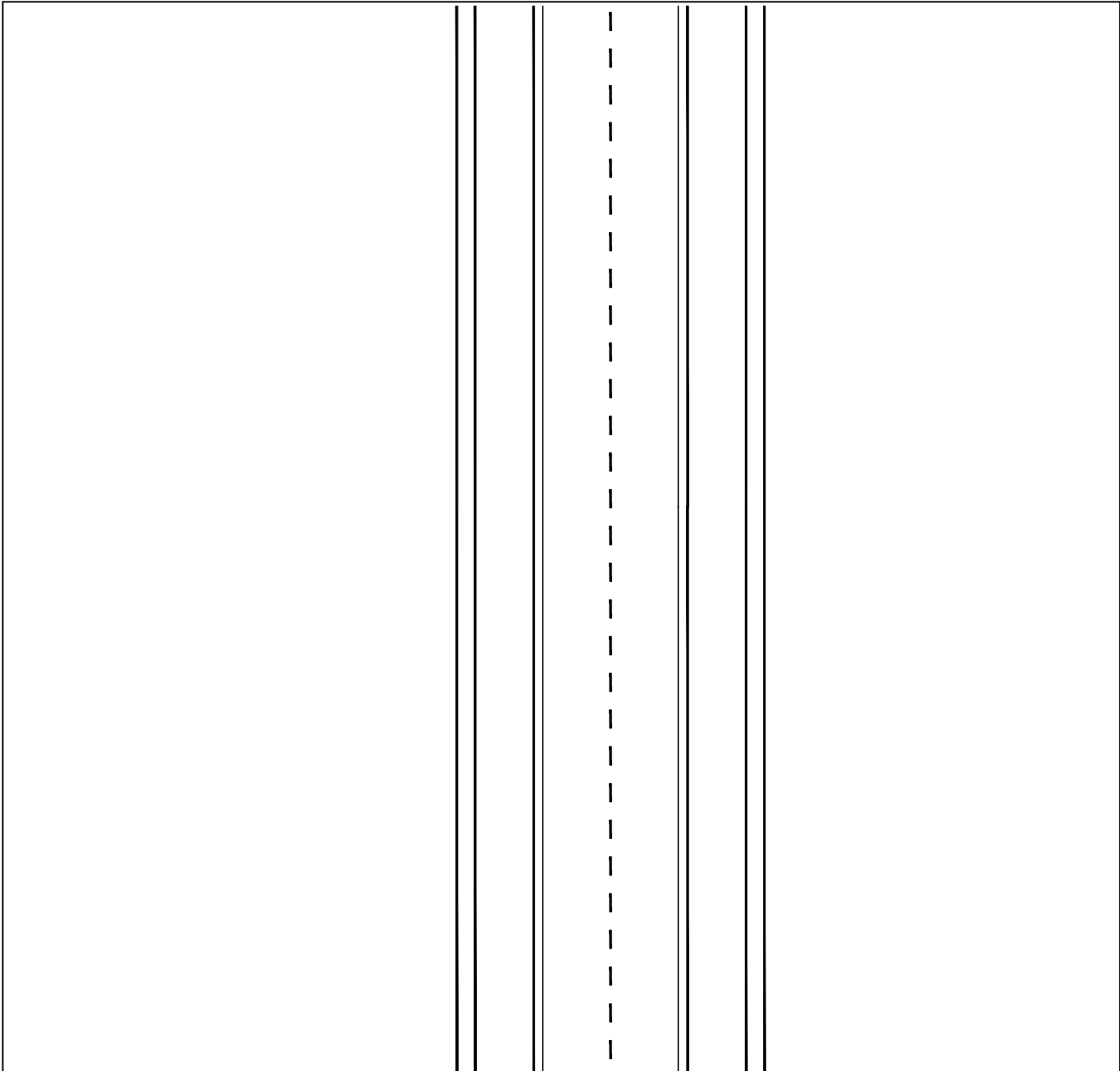
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SAMPLE SETUP



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RECOMMENDATIONS

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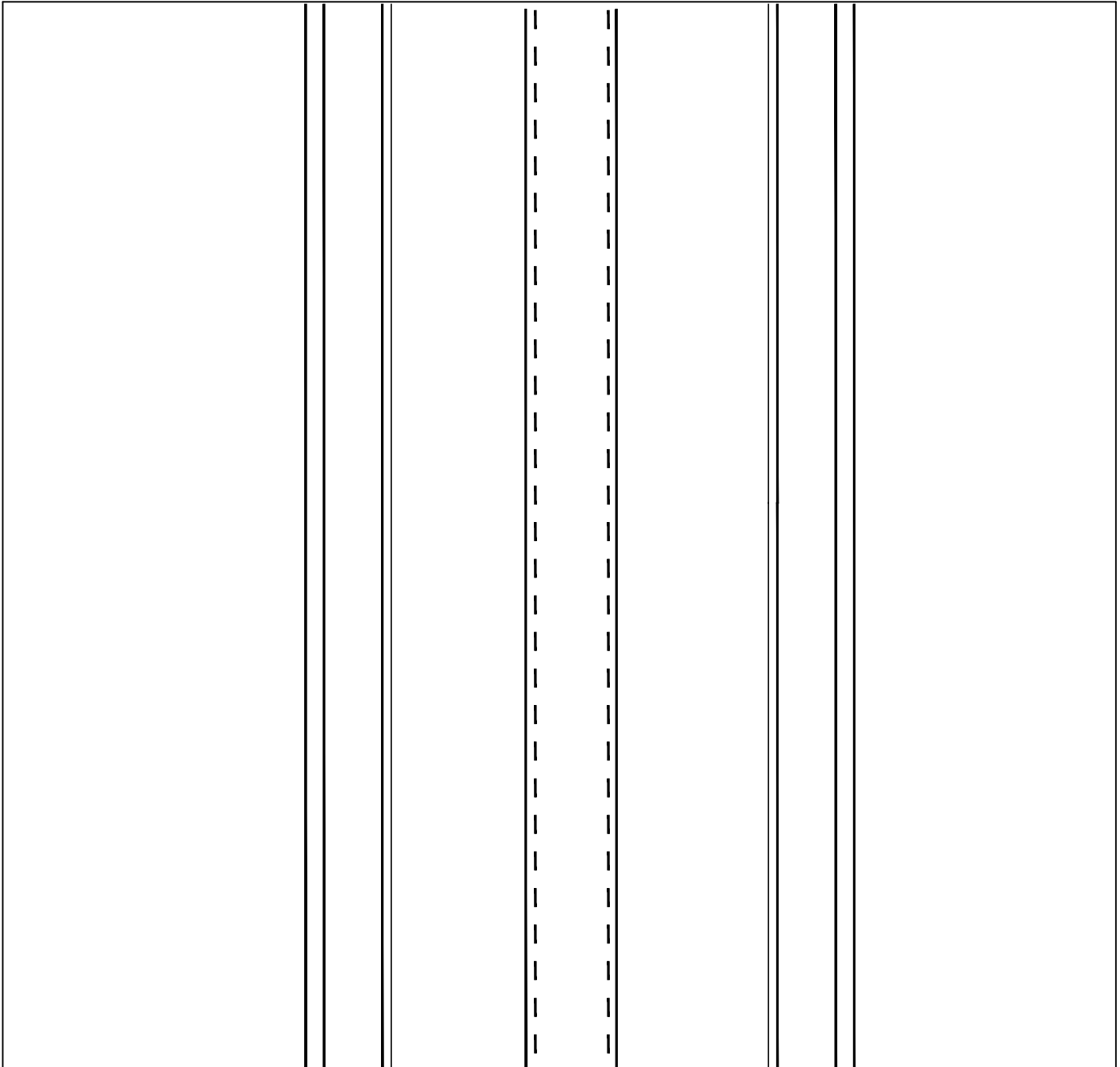
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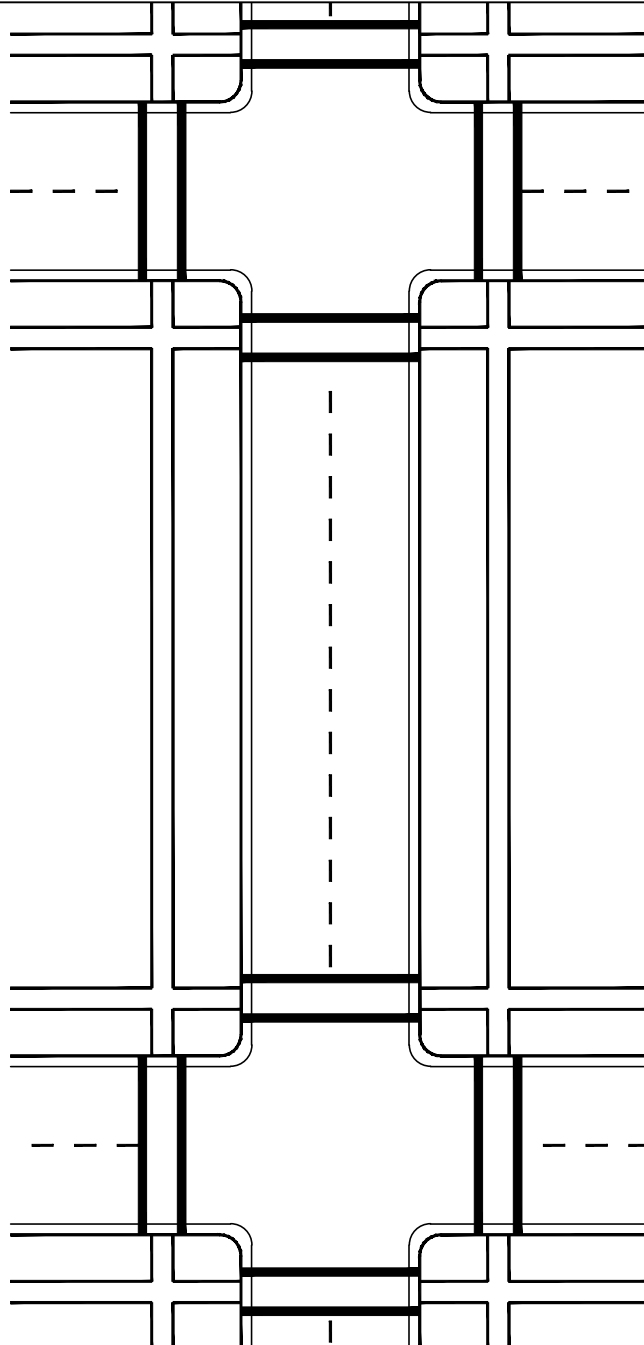
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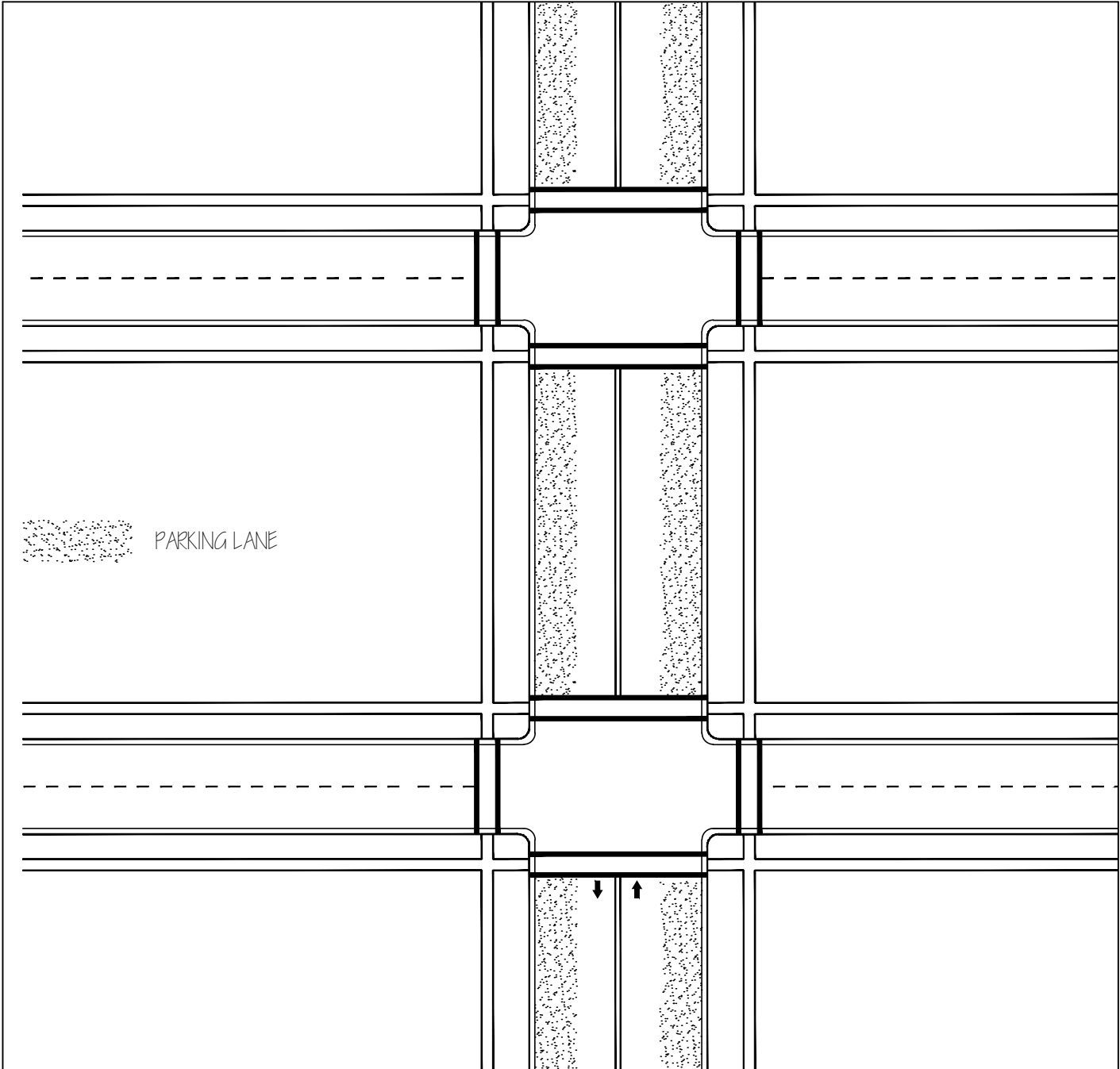
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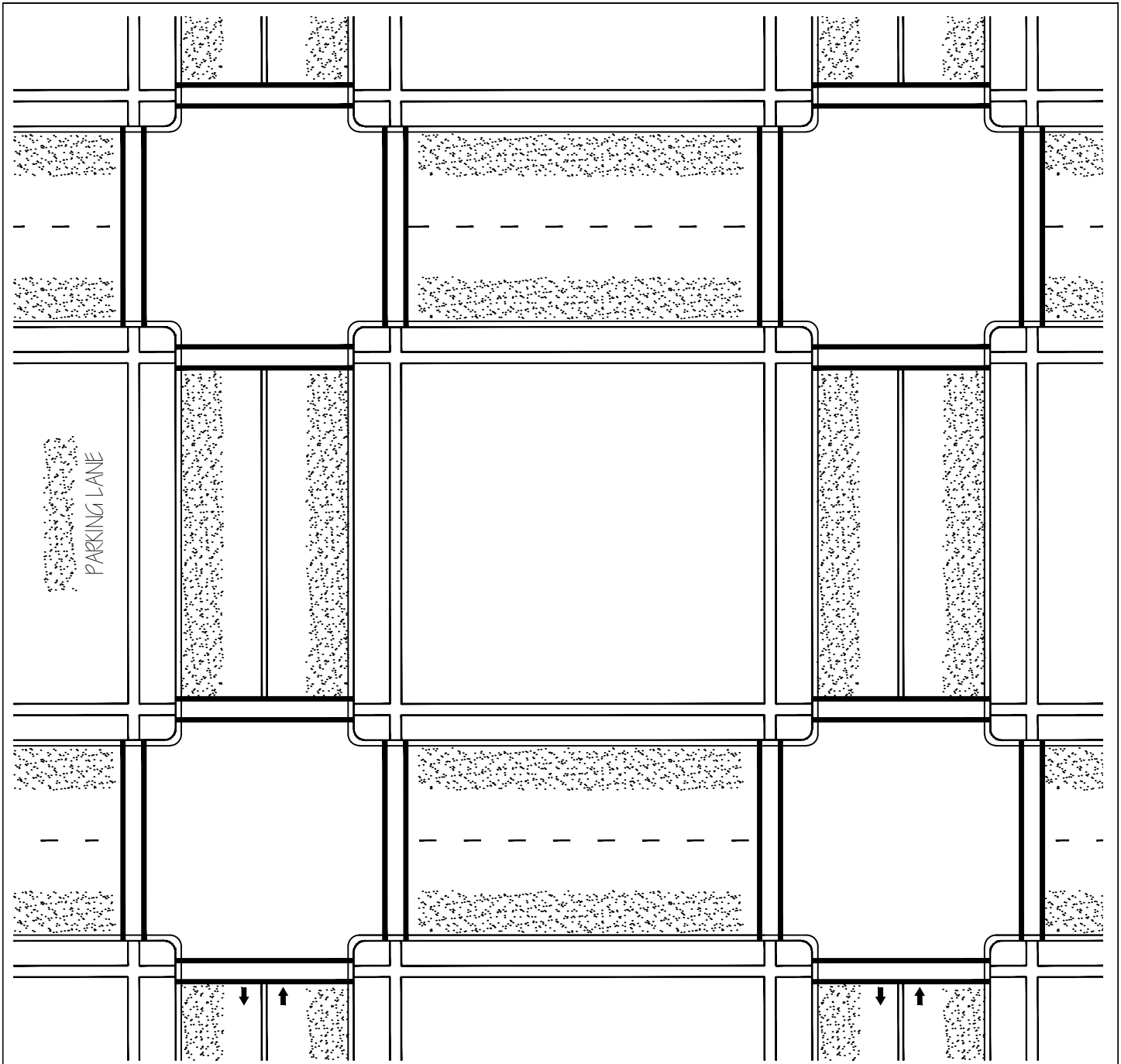
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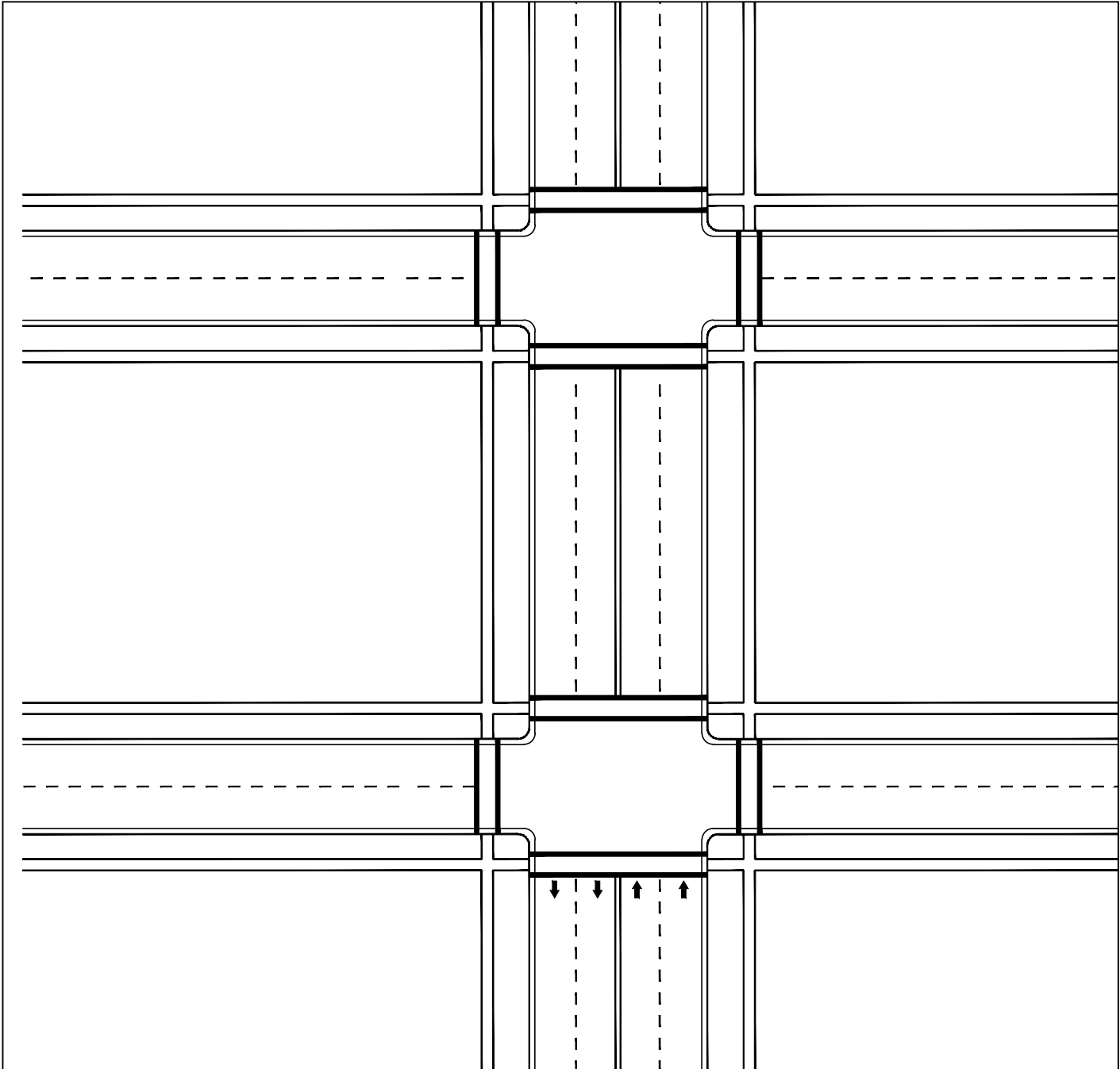
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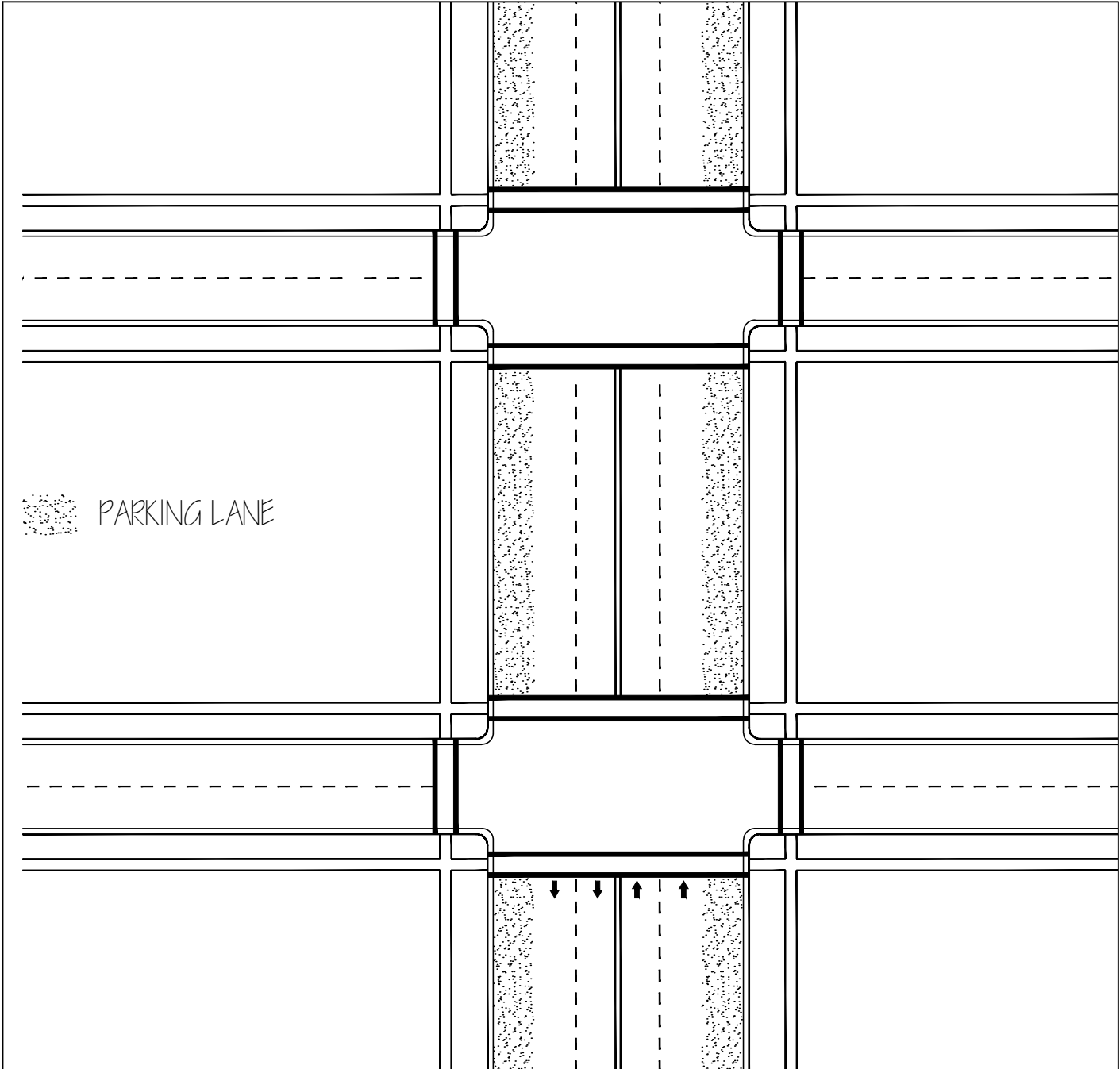
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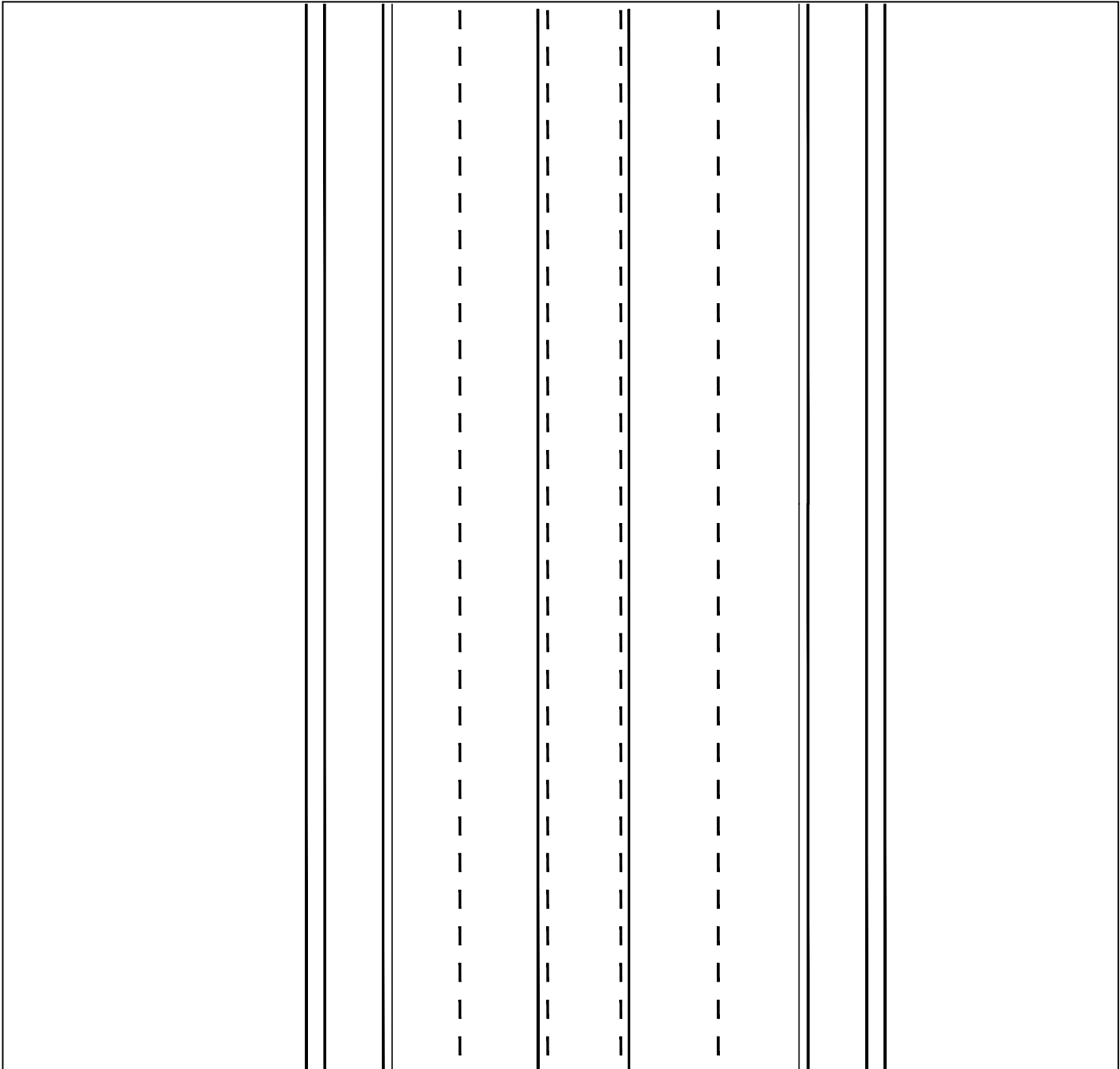
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**APPENDIX C**

**COMBINED STORMWATER SITE PLAN (SSP) AND  
CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN  
REPORT SHORT FORM**



# City Combined Stormwater Site Plan (SSP) and Construction Stormwater Pollution Prevention Plan Report

Pedestrian Accessibility District 10

### Prepared For

PWK-G0065

### Project Location

S 70th St & S I St, S 70th St & S K St, S 68th St & S I St, S 70th St & S Thompson Ave, S 70th St & S J St, S, 54th & S K st, 68th & S L St, S 59th & S I St, S 54th & S J st, S 52nd & I st, S 64th & S L, S 68th & S K St, S 68th & S J St, S 68th & S Thompson St, S 78th St & S Fawcett Ave, E 43rd & E McKinley Ave , S 46th & S J St, E McDacer & E Tanglewood Ave, S 54<sup>th</sup> St & S I St, E L & E 35th St, S 62nd & S Bell St

### Stormwater Site Plan Prepared By

Name	Department	Contact Telephone Number	Email Address
Harrison Jastrzembski	Public Works	253.677.0116	hjastrzembsk@cityoftacoma.org

### Date Prepared

05/09/2024



05/20/2024

(Insert Professional Engineer Certification and Stamp, if necessary).

## Notes for Preparer:

When completing the Combined Stormwater Site Plan (SSP) and Construction Stormwater Pollution Prevention Plan Report Short Form provide all required information in the textbox forms under each section and delete any sections from the report and appendices that are not applicable to the proposed project. Further information and guidance on the information required can be found in the comment bubbles to the right of each section. Once the report has been completed delete all comment bubbles and grey highlighted instructions.

### 1. Project Information

#### A. Project Contacts

See Title Page for Stormwater Site Plan Development Team

#### B. Project Manager

Name	Organization	Mailing Address	Contact Telephone Number	Email Address
Clara Dubow	Public Works	NA	253-591-5055	CDubow@cityoftacoma.org

#### C. Associated Permits

i) Associated Federal, State, or Local Associated Permit Types and Numbers

NA

#### D. Vesting

i) City of Tacoma Stormwater Management Manual Edition Used

2021 Stormwater Management Manual (SWMM)

ii) If using a manual other than the most current version, provide vesting justification:

NA

## **2. Project Overview**

### **A. Provide a brief description of the proposed project.**

Curb ramp and sidewalk replacement and improvements at various intersections.

### **3. Existing Project Site Conditions**

**A. Answer the following questions, provide additional description, and provide figures (if necessary) to describe the existing site conditions.**

- i) Describe in one or two sentences the existing project site use:

City of Tacoma pedestrian accessibility/transportation.

- ii) Describe in words or show on a figure the stormwater runoff patterns (natural and artificial) and the points where stormwater enters and exits the project site.

See Figure 1 below, which shows the individual construction locations –green flags represent the areas where individual downstream flowpath traces started.

Stormwater runoff patterns will not be altered from existing conditions.



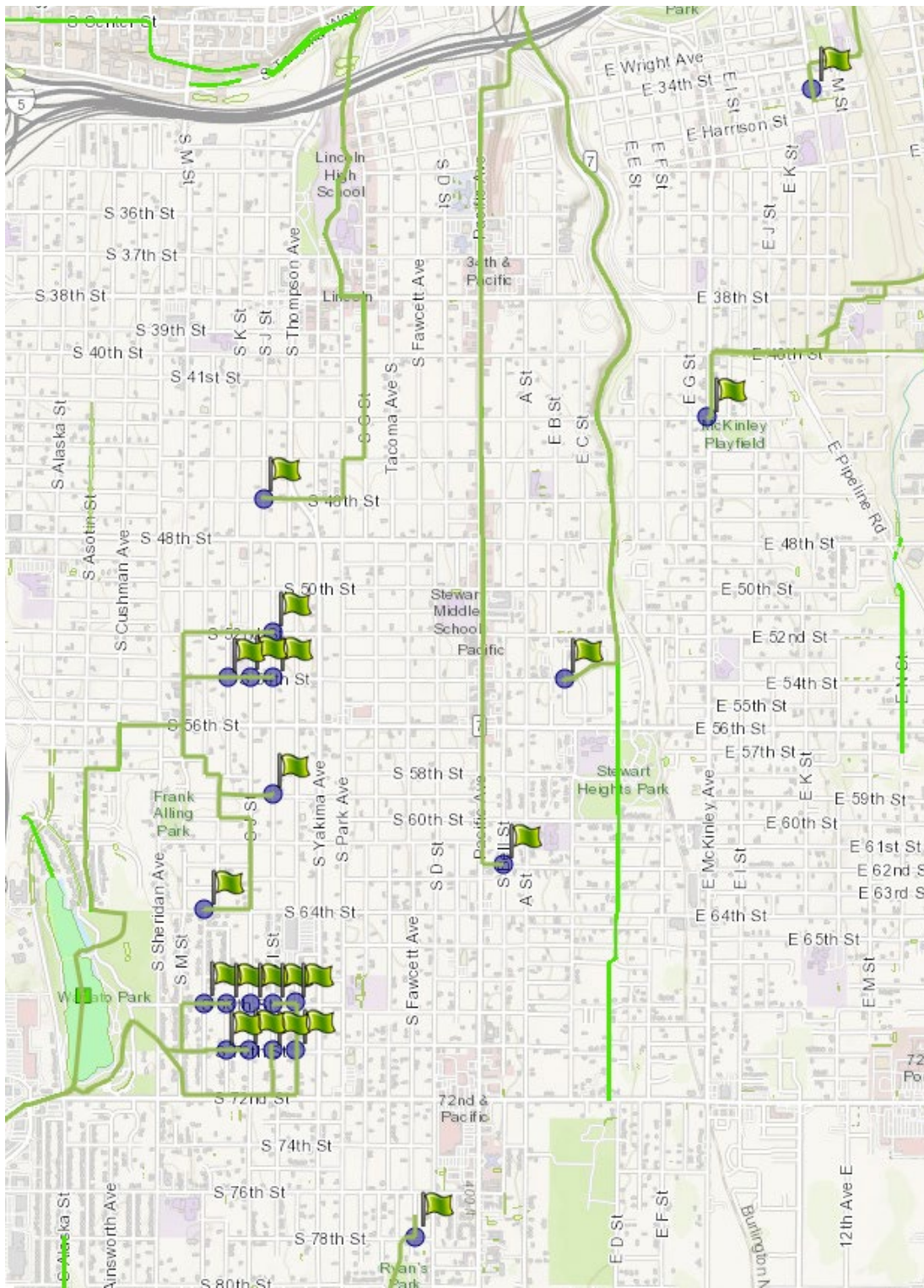


Figure 1 - Project Locations

- iii) Answer the following questions to help describe the existing site conditions. If Answer is Yes, include an associated figure(s) that shows location. Answers must be based upon site reconnaissance and readily available mapping data. See SWMM – Volume 2, Chapter 3 for resources.

Questions	Answer
Are groundwater protection areas located on the project site or within 500 feet of the project site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Are wetlands and/or their buffers located on the project site or within 500 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are steep slopes located on the project site or within 500 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are floodplains located on the project site or within 500 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are streams located on the project site or within 500 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are creeks located on the project site or within 500 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are ravines located on the project site or within 500 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are springs located on the project site or within 500 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are any other sensitive areas or critical areas located on the project site or within 500 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are any structures located on the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are any fuel tanks or other storage tanks (above or below-ground) located on the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are any groundwater wells located on the project site or within 100 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are any septic systems located on the project site or within 100 feet of the project site?	<input type="checkbox"/> Yes

	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are any Superfund sites located on the project site or within 100 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are any Flood Hazard Areas located on the project site or within 100 feet of the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Is the project located in the South Tacoma Groundwater Protection District?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are any public or private easements located on the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown

iii) Additional Information

Ramp improvements at S 68<sup>th</sup> St. & S L St. are within 500 feet of an aquifer recharge area, as indicated by City of Tacoma GIS.

Insert associated figure(s) (if applicable) below.

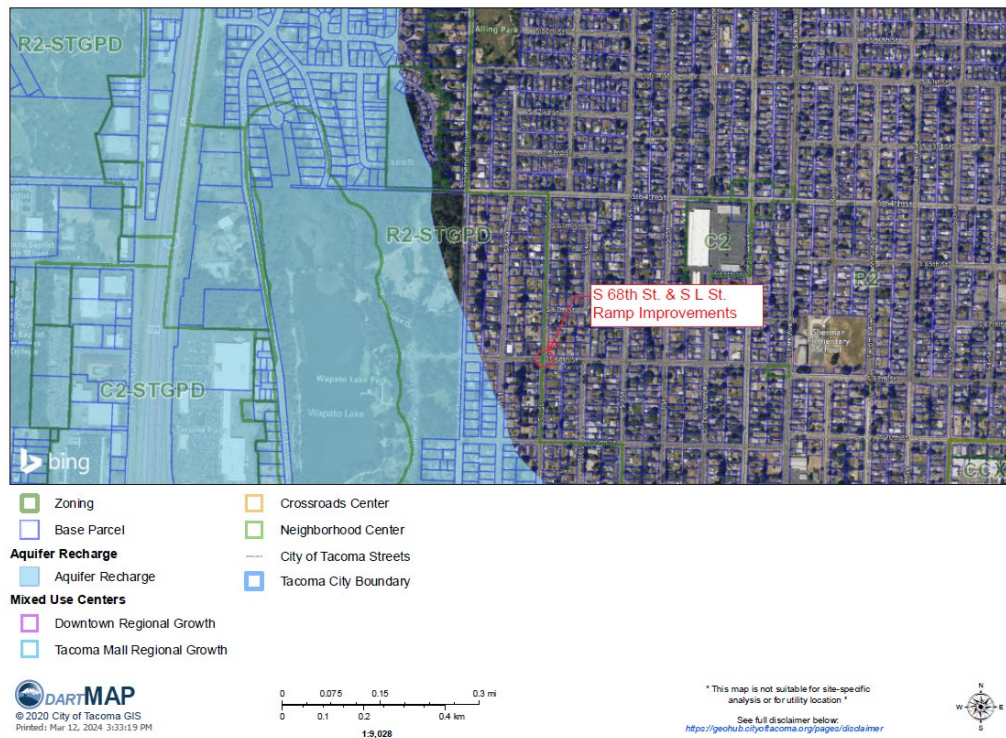


Figure 2 – Aquifer Recharge

## **B. Existing Project Site Condition Basin Map**

- i. Provide an existing conditions basin map

See Figure 1 for project location. Also see associated plan set that shows existing and proposed conditions.

### C. Downstream Flowpath

Provide a map showing the downstream flowpath from the project site to the Puget Sound – including all receiving waterbodies along the flowpath. Assume that stormwater does not infiltrate along the flowpath and will ultimately reach the Puget Sound.

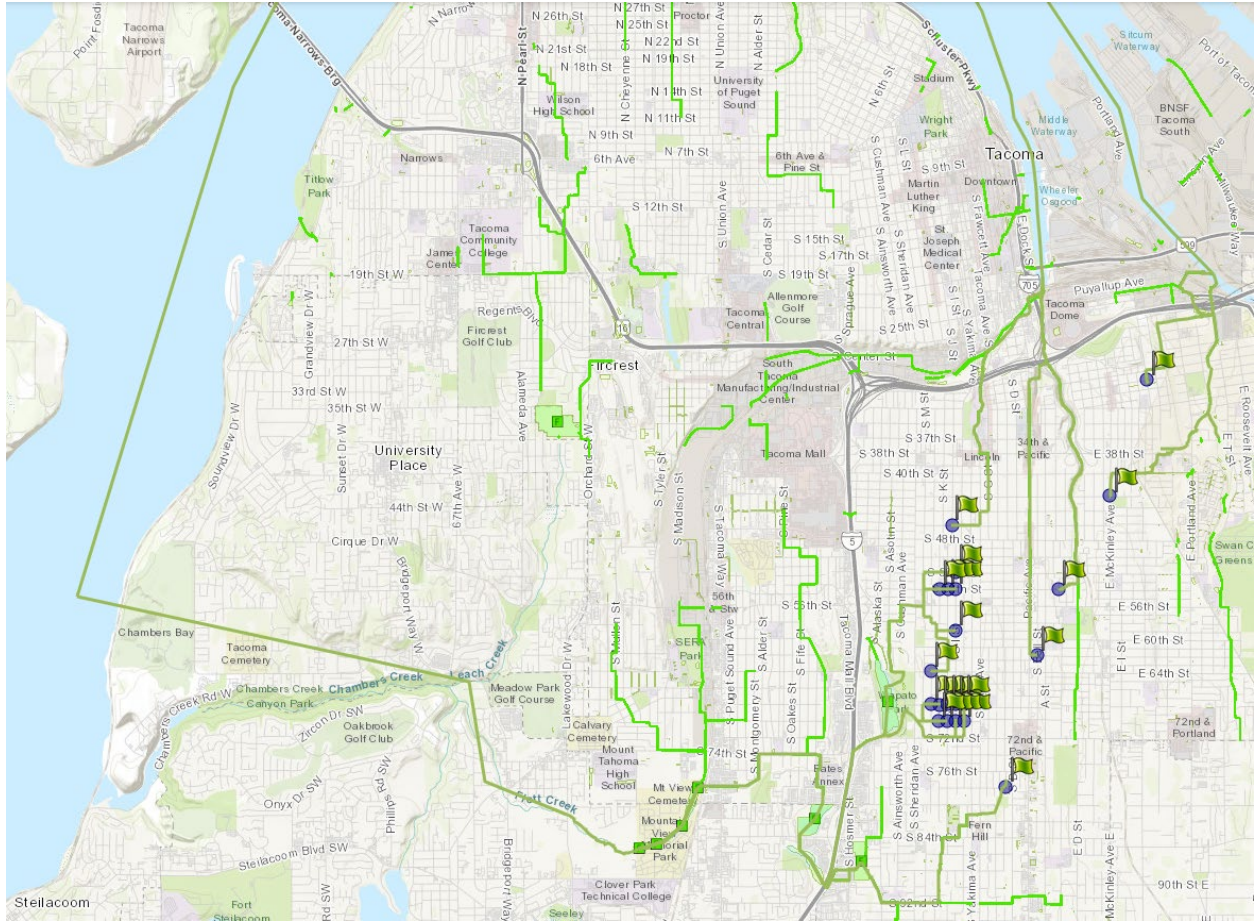


Figure 2 - Downstream Flowpath

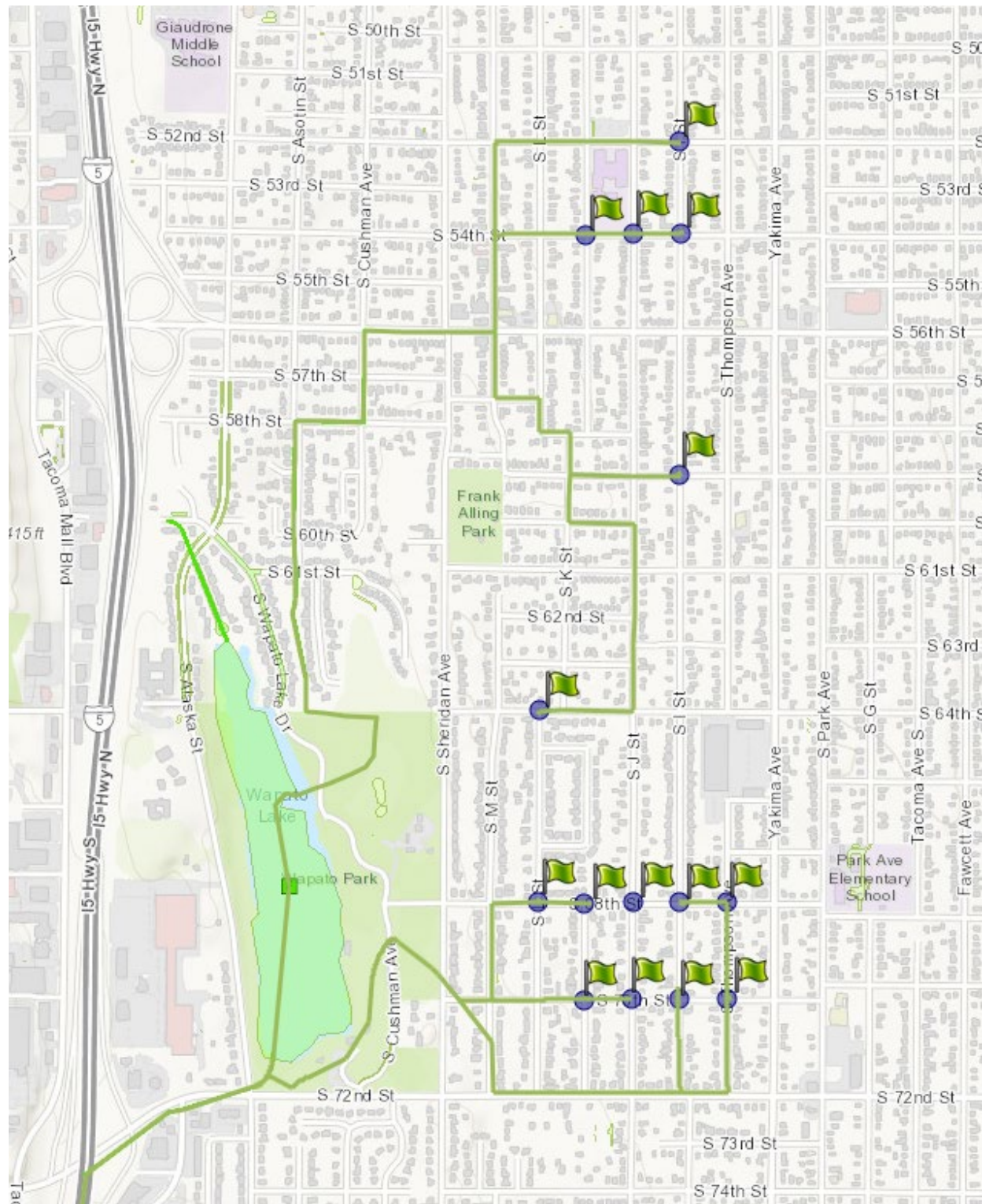


Figure 4 - Downstream Flowpath – Wapato Lake

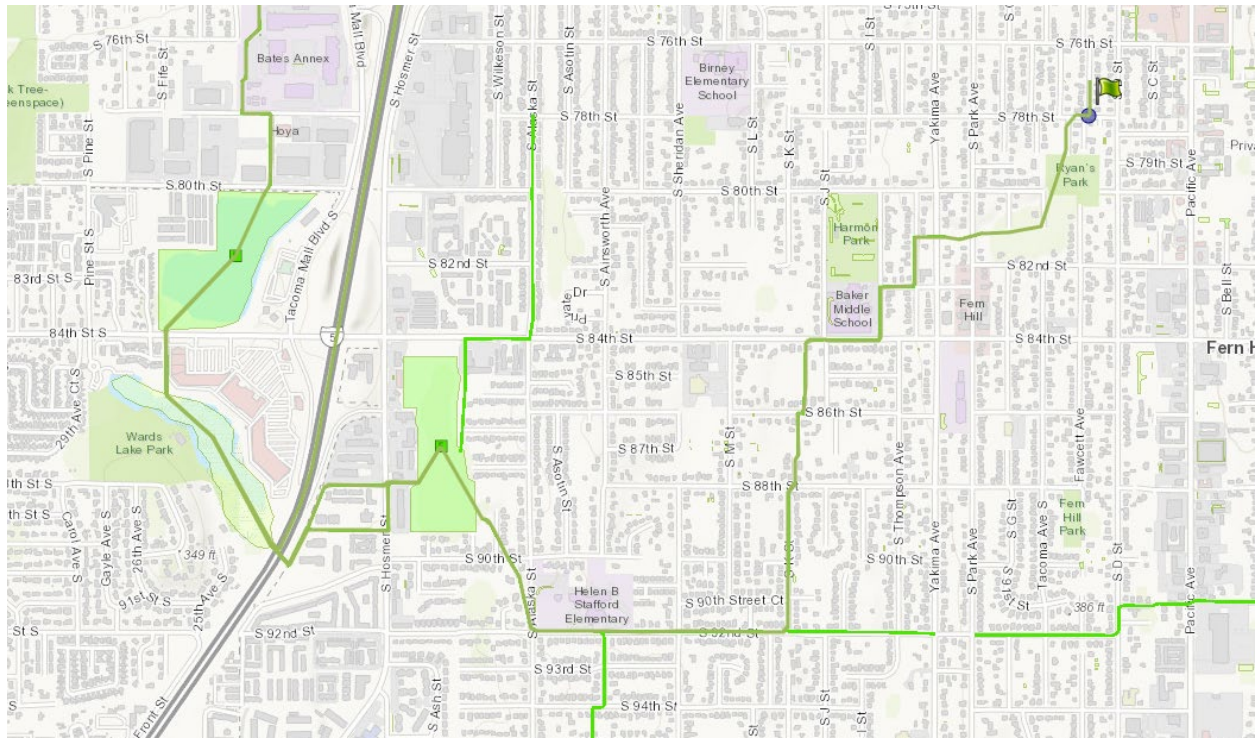


Figure 5 - Downstream Flowpath – Wards Lake

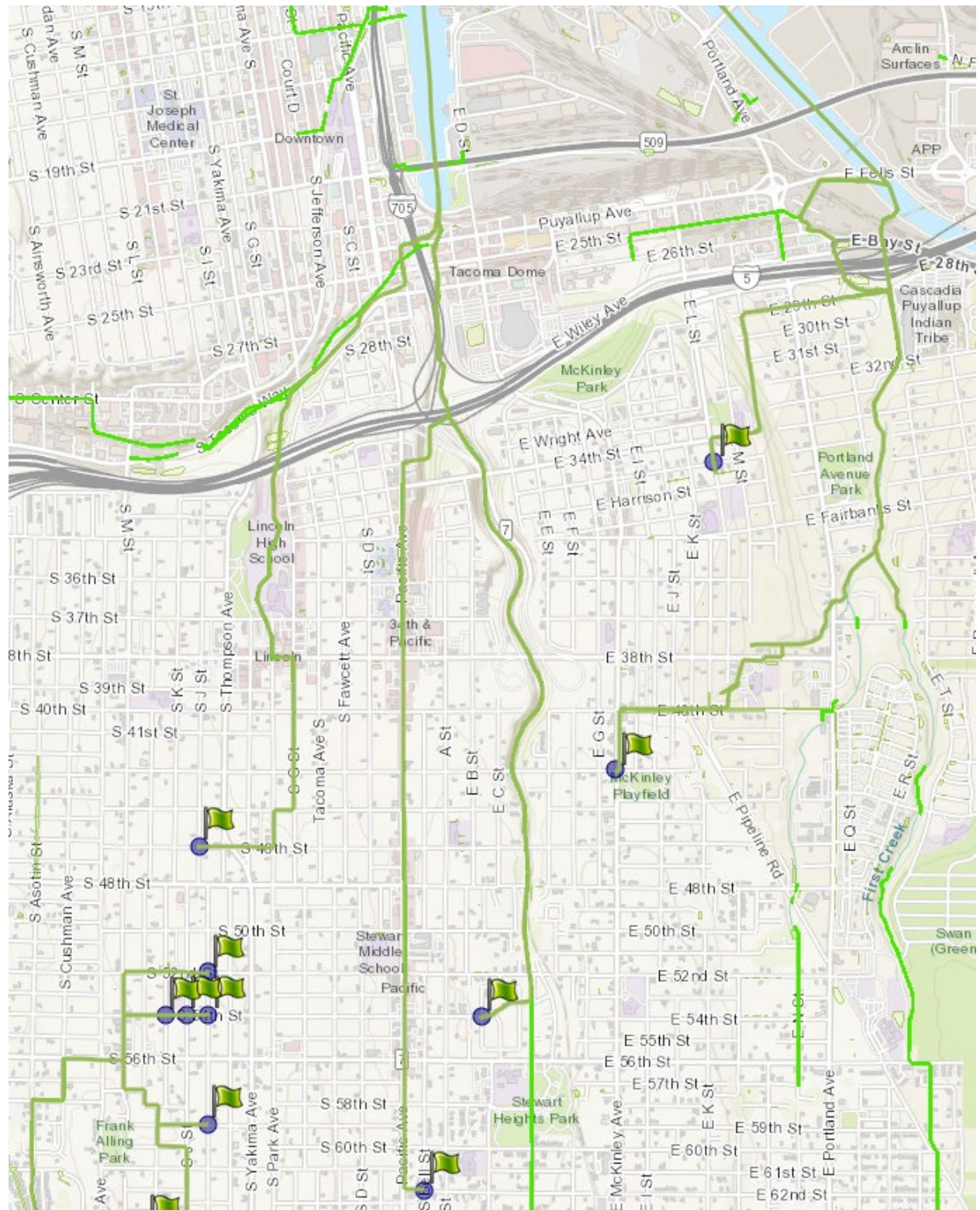


Figure 6 - Downstream Flowpath – Puget Sound



## **4. Proposed Project Site Conditions**

### **A. Describe in words and provide figure(s) or drawing(s) that describe the proposed project site conditions.**

- i) Describe in one or two sentences the proposed project site use:

Accessible sidewalk & streets.

- ii) Describe in words or show on a figure the stormwater runoff patterns (natural and artificial) and the points where stormwater enters and exits the project site.

See Figures 3-6 above.

- iii) Additional Information

Removal and replacement of hard surface sidewalk/curb ramps at all 21 intersections.

New missing link sidewalk extensions replacing existing vegetation added to S 68<sup>th</sup> & S J, S 68<sup>th</sup> & S Thompson.

New bus stop pads replacing existing vegetation added to E 43<sup>rd</sup> & E Mckinley.

Refer to Table 1 below.



## 5. Minimum Requirement Determination

### A. Project Thresholds

Complete the following project threshold table.

Project Location	Replaced Hard (SF)	New Hard Replacing Vegetation (SF)	Description of Work	TDA
S 70th St & S I St	800		Curb Ramp Replacement	1 (Wapato)
S 70th St & S K St	2000		Curb Ramp Replacement	1 (Wapato)
S 68th St & S I St	1600		Curb Ramp Replacement	1 (Wapato)
S 70th St & S Thompson Ave	1450		Curb Ramp Replacement	1 (Wapato)
S 70th St & S J St	800		Curb Ramp Replacement	1 (Wapato)
S 54th & S K st	1475		Curb Ramp Replacement	1 (Wapato)
68th & S L St	1600		Curb Ramp Replacement	1 (Wapato)
S 59th & S I St	600		Curb Ramp Replacement	1 (Wapato)
S 54th & S J st	1800		Curb Ramp Replacement	1 (Wapato)
S 54th & S I st	1550		Curb Ramp Replacement	1 (Wapato)
S 52nd & I st	1600		Curb Ramp Replacement	1 (Wapato)
S 64th & S L	1250		Curb Ramp Replacement	1 (Wapato)
S 68th & S K St	1200		Curb Ramp Replacement	1 (Wapato)
S 68th & S J St	1550	300	Curb Ramp Replacement, New Sidewalk Extension	1 (Wapato)
S 68th & S Thompson St	1700	300	Curb Ramp Replacement, New Sidewalk Extension	1 (Wapato)
S 78th St & S Fawcett Ave	750		Curb Ramp Replacement	2 (Wards)
E 43rd & E McKinley Ave	3250	250	Curb Ramp Replacement, New Bus Stop Pads	3 (Puget Sound)
S 46th & S J St	1650		Curb Ramp Replacement	4 (Puget Sound)
E McDacer & E Tanglewood Ave	2315		Curb Ramp Replacement	5 (Puget Sound)
E L & E 35th St	2200		Curb Ramp Replacement	6 (Puget Sound)
S 62nd & S Bell St	1500		Curb Ramp Replacement	7 (Puget Sound)
<b>PROJECT SUM</b>	<b>32640</b>	<b>850</b>		

Table 1 – Project Threshold, Description, TDA

**B. Receiving Waterbody Table**

<b>Project Location</b>	<b>TDA</b>	<b>Receiving Waterbodies</b>
S 70th St & S I St	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 70th St & S K St	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 68th St & S I St	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 70th St & S Thompson Ave	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 70th St & S J St	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 54th & S K st	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
68th & S L St	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 59th & S I St	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 54th & S J st	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 54th & S I st	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 52nd & I st	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 64th & S L	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 68th & S K St	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 68th & S J St	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 68th & S Thompson St	1	Wapato Lake, Wards Lake, Flett Creek, Puget Sound
S 78th St & S Fawcett Ave	2	Wards Lake, Flett Creek, Puget Sound
E 43rd & E McKinley Ave	3	Puget Sound
S 46th & S J St	4	Puget Sound
E McDacer & E Tanglewood Ave	5	Puget Sound
E L & E 35th St	6	Puget Sound
S 62nd & S Bell St	7	Puget Sound

**C. Minimum Requirements Required**

Minimum Requirement #1-5 for all new & replaced hard surface area. See Road-Related Redevelopment Flowchart below.

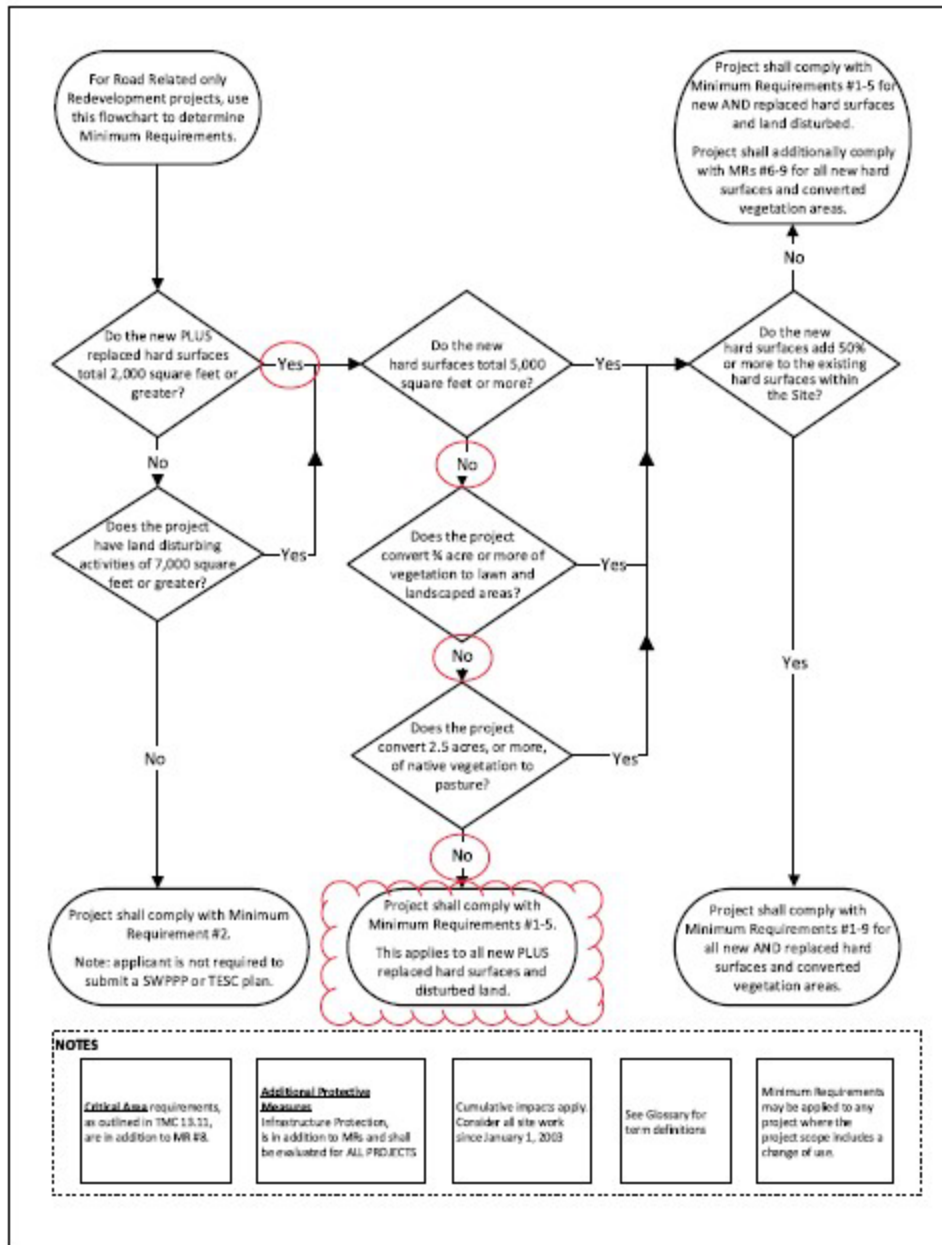


Figure 1 - 3: Road-Related Redevelopment Flowchart



## 6. Discussion of Minimum Requirements

### A. Minimum Requirement #1 – Preparation of a Stormwater Site Plan

This Stormwater Site Plan Report and the associated Site Plans and Building Permit Drawings are being used to meet Minimum Requirement #1.

#### Description of Site Appropriate Development Principles

Where practicable, projects shall use the following site appropriate development principles. Put a checkmark next to the principles that will be used for the project. Project design is not required to be changed in order to accommodate site appropriate development principles, but where feasible, these principles must be used. If none of the site development principles are feasible, place a checkmark next to that box below.

- Minimization of land disturbance by fitting development to the natural terrain.
- Minimization of land disturbance by confining construction to the smallest area feasible and away from critical areas.
- Preservation of natural vegetation.
- Locating impervious surfaces over less permeable soils.
- Clustering buildings.
- Minimizing impervious surfaces.
- Site appropriate development principles are not practicable because of project design.

### B. Minimum Requirement #2 – Construction Stormwater Pollution Prevention Plan

The Construction Stormwater Pollution Prevention Plan is available in this document before the appendices.

### C. Minimum Requirement #3 – Source Control

#### i. Description of Final Site Use

City of Tacoma Roads, Curb Ramps, Sidewalk

#### ii. Source Control BMPs

- For roadway projects, comply with all Source Control BMPs Applicable to All Sites (Volume 6, Chapter 1), BMP S135: Streets, BMP S136: Utility Corridors, BMP S137:

Maintenance of Ditches and Culverts, and BMP S139: Stormwater System Maintenance, as applicable to the project. Also, any other BMPs as necessary shall be utilized depending upon the project extent.

**D. Minimum Requirement #4 – Preserving Drainage Patterns and Outfalls**

ii. Description of Drainage Patterns and Outfalls

All boxes should be checked for this Minimum Requirement. If all boxes cannot be checked an Exception or Adjustment to the Minimum Requirement may be required per Volume 1 of the SWMM.

- The natural (or existing) drainage patterns are maintained to the maximum extent feasible.
- Discharges from the project site occur at the natural (or existing) location to the maximum extent feasible.
- Discharge from the project site will not cause adverse impacts to downstream receiving waters and downgradient properties.

**E. Minimum Requirement #5 – Onsite Stormwater Management**

i. The List Approach.

This project will utilize The List Approach.

The List Approach requires applicants to complete a feasibility analysis of several BMPs. If those BMPs are considered feasible, they must be used. The types of BMPs that must be analyzed (and used when feasible) depends upon the receiving waterbody into which the project first discharges. If that first waterbody is saltwater (i.e. the Puget Sound) or the Puyallup River – the project is discharging into a flow control exempt waterbody. If the project stormwater discharges into any other receiving waterbody before reaching a saltwater body or the Puyallup River that project is not flow control exempt. Complete the table below for each surface type.

If a BMP is considered to be feasible it must be used. Include the applicable completed facility sizing sheet and show the location of the BMP on the plan set.

If a BMP is not considered to be feasible, insert infeasibility checklist below this table.

<b>Surface Type: Roofs</b>			
<input checked="" type="checkbox"/> <b>NA – No Roofs are Proposed for this Project</b>			
<b>Not Flow Control Exempt – All Areas will be Analyzed for this for ease.</b>		<b>Flow Control Exempt</b>	
Analyze Each BMP in the order listed below. Where there is more than one BMP listed, put a checkmark next to the one analyzed. If a BMP is feasible, that BMP must be used and it is not	Is BMP Feasible?	Analyze each BMP in the order listed below. If a BMP is feasible, that BMP must be used and it is not necessary to analyze other BMPs for feasibility.	Is BMP Feasible?

necessary to analyze other BMPs for feasibility.			
1. Choose One: <input type="checkbox"/> BMP L614: Full Dispersion <u>or</u> <input type="checkbox"/> BMP L602: Downspout Full Infiltration	<input type="checkbox"/> Yes <input type="checkbox"/> No	1. BMP L602: Downspout Full Infiltration	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Choose One: <input type="checkbox"/> BMP L601: Rain Gardens <u>or</u> <input type="checkbox"/> BMP L630: Bioretention	<input type="checkbox"/> Yes <input type="checkbox"/> No	2. BMP L603: Downspout Dispersion	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. BMP L603: Downspout Dispersion	<input type="checkbox"/> Yes <input type="checkbox"/> No	3. BMP L604: Perforated Stub-Out Connections	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. BMP L604: Perforated Stub-Out Connection	<input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>Surface Type: Other Hard Surfaces</b>			
<b>Not Flow Control Exempt</b>		<b>Flow Control Exempt</b>	
Analyze Each BMP in the order listed below. Where there is more than one BMP listed, put a checkmark next to the one analyzed. If a BMP is feasible, that BMP must be used and it is not necessary to analyze other BMPs for feasibility.	Is BMP Feasible?	Analyze Each BMP in the order listed below. Where there is more than one BMP listed, put a checkmark next to the one analyzed. If a BMP is feasible, that BMP must be used and it is not necessary to analyze other BMPs for feasibility.	Is BMP Feasible?
1. BMP L614: Full Dispersion	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Choose One: <input type="checkbox"/> BMP L612: Sheet Flow Dispersion, <u>or</u> <input type="checkbox"/> BMP L611: Concentrated Flow Dispersion	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Choose One: <input type="checkbox"/> BMP L633: Permeable Pavement, <u>or</u> <input type="checkbox"/> BMP T1050: Compost-Amended Vegetated Filter Strip (CAVFS), <u>or</u> <input type="checkbox"/> BMP L601: Rain Gardens, <u>or</u> <input checked="" type="checkbox"/> BMP L630: Bioretention	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
3. Choose One: <input checked="" type="checkbox"/> BMP L612: Sheet Flow Dispersion, <u>or</u> <input type="checkbox"/> BMP L611: Concentrated Flow Dispersion	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

<b>Surface Type: Lawn/Landscaped Areas</b>			
<input type="checkbox"/> <b>NA – No Disturbed Areas that will be Lawn/Landscaped in the Final Condition</b>			
<b>Not Flow Control Exempt</b>		<b>Flow Control Exempt</b>	
Analyze the BMP below for feasibility. If the BMP is feasible it must be used.	Is BMP Feasible?	Analyze the BMP below for feasibility. If the BMP is feasible it must be used.	Is BMP Feasible?
BMP L613: Post-Construction Soil Quality and Depth	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	BMP L613: Post-Construction Soil Quality and Depth	<input type="checkbox"/> Yes <input type="checkbox"/> No

ii. Minimum Requirement #5 – Infeasibility Checklists and BMP Sizing Sheets

Insert completed Infeasibility Checklists and Sizing Sheets directly below before Section F.

<h2 style="margin: 0;">City of Tacoma Stormwater Management Manual – Infeasibility Checklist</h2> <h3 style="margin: 0;">Surface Type: Roofs and Other Hard Surfaces</h3> <p style="margin: 0;">BMP L614: Full Dispersion</p> <p style="text-align: right; margin: 0;">Version: 07/01/2021</p> <p style="margin: 0;"><i>It is not necessary to answer all questions when determining if a BMP is feasible for Minimum Requirement #5 – The List Approach. Unless otherwise noted, a single answer of No means the BMP is considered infeasible for meeting Minimum Requirement #5 – The List Approach. Applicant may choose which questions to answer when determining feasibility.</i></p> <p style="margin: 0;">Questions #1-9 relate to infeasibility criteria that are based on conditions such as topography and distances to predetermined boundaries and certain design criteria.</p>				
Question Number	Question	Yes	No	NA
1	Can the flow spreader and dispersion areas be placed 10 feet or more from any building structure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Can the flow spreader and dispersion areas be placed 5 feet or more from any other structure or property line?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Can the dispersion areas be placed 50 feet or more from the top of any slope 15% or greater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Can the dispersion areas be placed 50 feet or more from geologically hazardous areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Can the dispersion area be located outside of critical areas, critical area buffers, streams, or lakes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



6	Can the flow spreader and dispersion area maintain setbacks from Onsite Sewage Systems per WAC 246-272A-0210?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Will installing a full dispersion system cause conflicts with any of the following? (An answer of yes means this BMP is infeasible.) Place a checkmark next to the applicable item (8a-8e).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8a	Requirements of the Historic Preservation Laws and Archeology Laws, Federal Superfund or Washington State Model Toxics Control Act, Federal Aviation Administration requirements for airports, or Americans with Disability Act	<input type="checkbox"/>		
8b	Special zoning district design criteria adopted and being implemented through any City of Tacoma planning efforts	<input type="checkbox"/>		
8c	Public health and safety standards	<input type="checkbox"/>		
8d	Transportation regulations to maintain the option for future expansion or multi-modal use of public rights-of-way	<input type="checkbox"/>		
8e	Critical Area Preservation Ordinance	<input type="checkbox"/>		
9	Can the design standards in BMP L614 be met?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9a	Describe the design standard that cannot be met:			
<b>Questions #10 require evaluation of site specific conditions and a written recommendation from an appropriate Washington State Licensed Professional (e.g., Professional Engineer, Professional Geologist, Professional Hydrogeologist).</b>				
10	Will the use of a full dispersion cause erosion or flooding problems onsite or on adjacent properties? (An answer of yes means this BMP is not feasible).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# City of Tacoma Stormwater Management Manual – Infeasibility Checklist

## Surface Type: Other Hard Surfaces

BMP L612: Sheet Flow Dispersion

Version: 07/01/2021

*It is not necessary to answer all questions when determining if a BMP is feasible for Minimum Requirement #5 – The List Approach. Unless otherwise noted, a single answer of No means the BMP is considered infeasible for meeting Minimum Requirement #5 – The List Approach. Applicant may choose which questions to answer when determining feasibility.*

Questions #1-9 relate to infeasibility criteria that are based on conditions such as topography and distances to predetermined boundaries and certain design criteria.

Question Number	Question	Yes	No	NA
1	Can the sheet flow dispersion system be placed 10 feet or more from any building structure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Can the sheet flow dispersion system be placed 5 feet or more from any other structure or property line?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Can the sheet flow dispersion system be placed 50 feet or more from the top of any slope 15% or greater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Can the sheet flow dispersion system be placed 50 feet or more from geologically hazardous areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Can the sheet flow dispersion system maintain setbacks from Onsite Sewage Systems per WAC 246-272A-0210?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Is it possible to provide a vegetated flowpath width of 10 feet or greater for up to 20 feet of width of paved or impervious surface?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	For paved or impervious surfaces widths 20 feet or greater, is it possible to provide a vegetated flowpath width of 20 feet or greater (additional 10 feet of width must be added for each increment of 20 feet or more in width)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Will installing sheet flow dispersion cause conflicts with any of the following? (An answer of yes means this BMP is infeasible.) Place a checkmark next to the applicable item (8a-8e).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# City of Tacoma Stormwater Management Manual – Infeasibility Checklist

## Surface Type: Roofs or Other Hard Surface BMP L630: Bioretention

Version: 07/01/2021

*It is not necessary to answer all questions when determining if a BMP is feasible for Minimum Requirement #5 – The List Approach. Unless otherwise noted, a single answer of No means the BMP is considered infeasible for meeting Minimum Requirement #5 – The List Approach. Applicant may choose which questions to answer when determining feasibility.*

Questions #1-18 relate to infeasibility criteria that are based on conditions such as topography and distances to predetermined boundaries. Citation of the following do not need site-specific written recommendations from a Washington State Licensed Professional Engineer or Washington State Licensed Professional Geologist though some criteria may require professional services to determine if the infeasibility criteria apply.

Question Number	Question	Yes	No	NA
1	Can the bioretention facility be placed 10 feet or more from any building structure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### F. Minimum Requirement #6 – Stormwater Treatment

#### i. Description of Compliance Need

Minimum Requirement #6 is not required for this project because the project adds less than 5,000 square feet of new hard surface, converts less than ¾ acre of vegetation to lawn or landscape, and converts less than 2.5 acres of native vegetation to pasture.

### G. Minimum Requirement #7 – Flow Control

#### i. Description of Compliance Need

Minimum Requirement #7 is not required for this project because the project adds less than 5,000 square feet of new hard surface, converts less than ¾ acre of vegetation to lawn or landscape, and converts less than 2.5 acres of native vegetation to pasture.

### H. Minimum Requirement #8 – Wetlands Protection

#### i. Description of Compliance Need

Minimum Requirement #8 is not required for this project because the project adds less than 5,000 square feet of new hard surface, converts less than ¾ acre of vegetation to lawn or landscape, and converts less than 2.5 acres of native vegetation to pasture.

**I. Minimum Requirement #9 – Operation and Maintenance**

Pick the statement or statements below that apply to this project.

This project does not propose to install any permanent stormwater facilities. An Operation and Maintenance Manual is not required.

The Operation and Maintenance Manual is available as a stand-alone document as part of the Permit submittal.

For facilities to be maintained by the City of Tacoma (facilities located in the City Right-of-Way designed to manage stormwater from the City Right-of-Way) include the following language: The City of Tacoma is responsible for creating and keeping an Operation and Maintenance Manual for all facilities to be maintained by the City of Tacoma.

**J. Additional Protective Measure – Infrastructure Protection**

i. Description of Compliance Need

A quantitative downstream analysis is not required because the project is not increasing the surface area contributing to the downstream system by 5,000 square feet or more and is not increasing the surface area converted from pervious to impervious contributing to the downstream system by 5,000 square feet or more.

# Construction Stormwater Pollution Prevention Plan (SWPPP) Report

## Erosion and Sediment Control Lead

Name	Organization	Contact Telephone Number	Email Address	CESCL/CPESC Number (if applicable)
Harrison Jastrzembki	Public Works	253-677-0116	hjastrzembki@cityoftacoma.org	(Insert Certification Number)

### 1. Proposed Construction Schedule

- i. Proposed Start Date: October 2024
- ii. Proposed End Date: April 2025
- iii. Describe proposed phasing or sequencing (if any): None

### 2. 13 Elements of Construction Stormwater Pollution Prevention

Below the 13 Elements of Construction Stormwater Pollution Prevention are provided. For each element, place a checkmark next to the BMP that will be used to satisfy the element. If Other is checked describe how the element will be addressed in detail. If an element is not required, justification for why that element is not required must be included. Volume 3, Table 3-1: Construction Stormwater BMPs by SWPP Element is a guide that can be used to help determine appropriate BMPs to address each Element.

#### A. Element #1: Preserve Vegetation and Mark Clearing Limits

- Before beginning any land disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area to prevent damage and offsite impacts. Mark clearing limits both in the field and on the plans.
- Retain the duff layer, native topsoil, and natural vegetation in an undisturbed state to the maximum degree practicable. If it is not practicable to retain the duff layer in place, stockpile it onsite, cover it to prevent erosion, and replace it immediately upon completion of the ground-disturbing activities.
- Plastic, metal, fabric fence, or other physical barriers may be used to mark the clearing limits.

The BMP(s) proposed to meet this element are:

- Other: Field applied spray paint will be used to delineate construction area.
- This Element is not required for this project because: (Insert justification as to why Element is not required)

**B. Element #2: Establish Construction Access**

- Limit construction vehicle ingress and egress to one route, if possible.
- Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs to minimize tracking of sediment.
- Locate wheel wash or tire baths onsite if other measures fail to control sediment from leaving the site.
- No tracking of sediment offsite is allowed. If sediment is tracked offsite, offsite areas (including roadways) shall be thoroughly and immediately cleaned by shoveling or pickup sweeping. Transport sediment to a controlled sediment disposal area.
- Keep streets clean at ALL times. Clean tracked sediment immediately.
- Washing of sediment to the stormwater system is not allowed.

The BMP(s) proposed to meet this element are:

- Other: Street sweeping will be used as the primary means of temporary erosion and sediment control. Access is limited to the street section that will be worked on.
- This Element is not required for this project because: (Insert justification as to why Element is not required)

**C. Element #3: Control Flow Rates**

- Protect downstream properties, receiving waters, and conveyance systems from erosion and other damage due to increases in the velocity and peak volumetric flowrate of stormwater from the project site. A quantitative downstream analysis may be required to ensure no damage to the downstream conveyance system during construction. See Additional Protective Measure - Infrastructure Protection.
- Where necessary, construct flow control facilities as one of the first steps in grading.
- Flow control facilities shall be functional prior to construction of site improvements (e.g. impervious surfaces). It may be necessary to install temporary flow control facilities to meet flow control requirements during construction.
- Control structures designed for permanent flow control BMPs are not appropriate for use during construction without modification. If used during construction, modify the control structure to allow for long-term storage of runoff and enable sediments to settle. Verify that the BMP is sized appropriately for this purpose. Restore BMPs to their original design dimensions, remove sediment, and install a final control structure at completion of the project.
- Velocity of water leaving the site shall not exceed 3 feet/second if the discharge is to a stream or ditch.
- Permanent infiltration facilities shall not be used for flow control during construction unless lined. The bottom of the facility shall be scarified to ensure any compaction that occurred during construction is mitigated.

The BMP(s) proposed to meet this element are:

This Element is not required for this project because: flowrates are not likely to increase due to the project type (hard surface remain fairly consistent between existing and proposed conditions).

**D. Element #4: Install Sediment Controls**

- Design, install, and maintain effective erosion controls and sediment control to minimize the discharge of pollutants.
- Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater, and soil characteristics, including the range of soil particle sizes expected to be present on the site.
- Prior to leaving a construction site or prior to discharge to an infiltration facility, stormwater from disturbed areas shall pass through a sediment removal BMP.
- Construct sediment control BMPs as one of the first steps in grading. These BMPs shall be functional before other land disturbing activities take place.
- Locate BMPs in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or conveyance channels.
- Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize infiltration, where feasible.
- Seed and mulch earthen structures such as dams, dikes, and diversions according to the timing indicated in Element #5.
- Design outlet structures to withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column. If installing a floating pump structure, include a stopper to prevent the pump basket from hitting the bottom of the pond.
- Full stabilization includes concrete or asphalt paving; quarry spalls used as ditch lining; or the use of rolled erosion products, a bonded fiber matrix product, or vegetative cover in a manner that will fully prevent soil erosion.

The BMP(s) proposed to meet this element are:

- BMP C235: Wattles
- Other: Street sweeping and stormwater inlet protection will be the main means of ensuring sediment does not enter the stormwater system.
- This Element is not required for this project because: (Insert justification as to why Element is not required)

**E. Element #5: Stabilize Soils**

- Stabilize exposed and unworked soils by application of effective BMPs that prevent erosion.
- From October 1 through April 30, no soils shall remain exposed and unworked for more than 2 days. From May 1 to September 30, no soils shall remain exposed and unworked for more

than 7 days. This stabilization requirement applies to all soils onsite, whether at final grade or not.

- Stabilize soils at the end of the shift, before a holiday or weekend, if needed, based on the weather forecast.
- Select appropriate soil stabilization measures for the time of year, site conditions, estimated duration of use, and the potential water quality impacts that stabilization agents may have on downstream waters or groundwater.
- Stabilize soil stockpiles from erosion, protect stockpiles with sediment trapping measures, and where possible, locate piles away from stormwater system inlets, waterways, and conveyance channels.
- Control stormwater volume and velocity within the site to minimize soil erosion.
- Control stormwater discharges, including peak volumetric flowrates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.
- Minimize the amount of soil exposed during construction activity.
- Minimize the disturbance of steep slopes.
- Minimize soil compaction and, unless infeasible, preserve topsoil.
- Ensure the gravel base used for stabilization is clean and does not contain fines or sediment.

The BMP(s) proposed to meet this element are:

- BMP C120: Temporary and Permanent Seeding
- BMP C121: Mulching
- BMP C123: Plastic Covering
- BMP C125: Compost
- BMP C140: Dust Control
- Other: (Insert description of how element will be addressed)
- This Element is not required for this project because:

#### **F. Element #6: Protect Slopes**

- Design and construct cut-and-fill slopes in a manner to minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (for example, track walking).
- Divert offsite stormwater (sometimes called run-on) or groundwater away from slopes and disturbed areas with interceptor dikes and/or swales. Manage offsite stormwater separately from stormwater generated on the site.
- At the top of the slopes, collect stormwater in pipe slope drains or protected channels to prevent erosion. Size temporary pipe slope drains to convey either:
  - The peak volumetric flowrate calculated using a 10-minute time step from a Type 1A, 10-year, 24-hour frequency storm using a single event model, or
  - The 10-year return period flowrate, indicated by an Ecology-approved continuous simulation model, using a 15-minute time step.



- Use the existing land cover condition for predicting flowrates from tributary areas outside the project limits. For tributary areas on the project site, use the temporary or permanent project land cover condition, whichever will produce the highest flowrate. If using a continuous simulation model, model bare soils as landscaped areas.
- Provide temporary or permanent conveyance to remove groundwater seepage from the slope surface of exposed soil areas.
- Place excavated material on the uphill side of trenches, consistent with safety and space considerations.
- Place check dams at regular intervals within channels that are cut down a slope.
- Stabilize soils on slopes, as specified in Element #5.

The BMP(s) proposed to meet this element are:

- BMP C120: Temporary and Permanent Seeding
- BMP C121: Mulching
- BMP C122: Nets and Blankets
- BMP C123: Plastic Covering
- Other: (Insert description of how element will be addressed)
- This Element is not required for this project because: There are no slopes that will be disturbed as part of this project.

**G. Element #7: Protect Stormwater System Inlets**

- Protect all stormwater system inlets that are operable during construction so that stormwater does not enter the conveyance system without first being filtered or treated to remove sediment.
- Clean or remove and replace inlet protection devices when sediment has filled 1/3 of the available storage (unless a different standard is specified by the product manufacturer).
- Keep all approach roads clean. Do not allow sediment to enter the stormwater system.
- Inspect inlets weekly at a minimum and daily during storm events.

The BMP(s) proposed to meet this element are:

- BMP C220: Stormwater System Inlet Protection
- Other: (Insert description of how element will be addressed)
- This Element is not required for this project because: (Insert justification as to why Element is not required)

**H. Element #8: Stabilize Channels and Outlets**

- Design, construct, and stabilize all temporary onsite conveyance channels to prevent erosion from either:
  - The peak volumetric flowrate calculated using a 10-minute time step from a Type 1A, 10-year, 24-hour frequency storm using a single event model, or
  - The 10-year return period flowrate, indicated by an Ecology-approved continuous simulation model, using a 15-minute time step.

- Use the existing land cover condition for predicting flowrates from tributary areas outside the project limits. For tributary areas on the project site, use the temporary or permanent project land cover condition, whichever will produce the highest flowrate. If using a continuous simulation model, model bare soils as landscaped areas.
- Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches at the outlets of all conveyance systems.

The BMP(s) proposed to meet this element are:

- Other: (Insert description of how element will be addressed)
- This Element is not required for this project because: Temporary channels and outlets are not proposed for this project. No permanent channels or outlets are proposed for this project either.

### **I. Element #9: Control Pollutants**

- Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants.
- All discharges to the City of Tacoma wastewater system require City approval. Some discharges to the City of Tacoma stormwater system require City approval. The approval may include a separate Special Approved Discharge (SAD) permit. Visit [https://www.cityoftacoma.org/government/city\\_departments/environmentalservices/wastewater/wastewater\\_permits\\_and\\_manuals](https://www.cityoftacoma.org/government/city_departments/environmentalservices/wastewater/wastewater_permits_and_manuals) for additional information about SAD Permits.
- Handle and dispose of all pollutants, including waste materials and demolition debris that occur on site in a manner that does not cause contamination of stormwater.
- Provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health and the environment. Provide secondary containment for tanks holding pollutants including onsite fueling tanks. Secondary containment means placing tanks or containers within an impervious structure capable of containing 110% of the volume contained in the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment.
- Conduct maintenance, fueling, and repair of heavy equipment and vehicles using spill prevention and control measures. Clean contaminated surfaces immediately following any spill incident.
- Conduct oil changes, hydraulic system drain down, solvent and degreasing cleaning operations, fuel tank drain down and removal, and other activities, which may result in discharge or spillage of pollutants to the ground or into stormwater using spill prevention measures, such as drip pans.
- Discharge wheel wash or tire bath wastewater to a separate onsite treatment system that prevents discharge to surface water. Alternatively, discharge wheel wash or tire bath wastewater to the wastewater system (only allowed with SAD Permit approval).
- Apply fertilizers and pesticides in a manner and at application rates that will not result in loss of chemicals to stormwater. Follow manufacturers' recommendations for application rates and procedures.

- Use BMPs to prevent or treat contamination of stormwater by pH modifying sources. These sources include, but are not limited to, recycled concrete stockpiles, bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, dewatering concrete vaults, and concrete pumping and mixer washout waters.
- Adjust the pH of stormwater if necessary to prevent violations of water quality standards.
- Manage concrete washout appropriately.
  - Washout concrete truck drums or concrete handling equipment in onsite or offsite designated concrete washout areas only.
    - Do not washout concrete truck drums or concrete handling equipment to streets, the stormwater system, receiving waterbodies, or the ground.
  - Washout of small concrete handling equipment may be disposed of in a formed areas awaiting concrete where it will not contaminate stormwater and surface water or groundwater.
  - Do not use upland land applications for discharging wastewater from concrete washout areas.
  - Do not dump excess concrete onsite, except in designated concrete washout areas.
  - Do not washout anything contaminated with concrete into formed areas awaiting infiltration BMPs.
  - Concrete spillage or concrete discharge directly to groundwater or surface waters of the State is prohibited.
- Written approval from the Department of Ecology is required prior to using chemical treatment other than CO<sub>2</sub>, dry ice, or food grade vinegar to adjust pH.
- Clean contaminated surfaces immediately following any discharge or spill incident.
- Uncontaminated water from water-only based shaft drilling for construction of building, road, and bridge foundations may be infiltrated provided the wastewater is managed in a way that prohibits discharge to surface waters. Prior to infiltration, water from water-only based shaft drilling that comes into contact with curing concrete must be neutralized until pH is in the range of 6.5 to 8.5.

The BMP(s) proposed to meet this element are:

- BMP C151: Concrete Handling
- BMP C152: Sawcutting and Surface Pollution Prevention
- BMP C153: Material Delivery, Storage and Containment
- BMP C154: Concrete Washout Area
- Other: (Insert description of how element will be addressed)
- This Element is not required for this project because: (Insert justification as to why Element is not required)

**J. Element #10: Dewatering**

- Dewatering discharges to the City of Tacoma stormwater conveyance system or the City of Tacoma wastewater system may require City approval through a Special Approved Discharge (SAD) Permit. See

[https://www.cityoftacoma.org/government/city\\_departments/environmentalservices/wastewater/wastewater\\_permits\\_and\\_manuals](https://www.cityoftacoma.org/government/city_departments/environmentalservices/wastewater/wastewater_permits_and_manuals) for more information on the SAD Permit Process.

- Discharge foundation, vault, and trench dewatering water that has similar characteristics to site stormwater into a controlled conveyance system prior to discharge to a sediment trap or sediment pond. Stabilize channels as specified in Element #8.
- Clean, non-turbid dewatering water, such as well-point groundwater, can be discharged to systems tributary to state surface waters, as specified in Element #8, provided the dewatering flow does not cause erosion or flooding of receiving waters. Do not route clean dewatering water through TESC BMPs.
- Handle highly turbid or contaminated dewatering water separately from stormwater at the site.
- Other disposal options, depending on site constraints, may include:
  - Infiltration
  - Transport offsite in vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters
  - Ecology approved onsite chemical treatment or other suitable treatment technologies
  - Use of a sedimentation bag that discharges to a ditch or swale for small volumes of localized dewatering

The BMP(s) proposed to meet this element are:

This Element is not required for this project because: Due to proximity of work to the surface, it is unlikely that dewatering will be required.

**K. Element #11: Maintain BMPs**

- Maintain and repair as needed all temporary and permanent erosion and sediment control BMPs to assure continued performance of their intended function. Conduct maintenance and repairs in accordance with BMP specifications.
- Remove temporary erosion and sediment control BMPs within 30 days after final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment shall be removed or stabilized onsite. Permanently stabilize disturbed soil resulting from removal of BMPs or vegetation.

The BMP(s) proposed to meet this element are:

- BMP C150: Materials on Hand
- BMP C160: Erosion and Sediment Control Lead
- Other: (Insert description of how element will be addressed)
- This Element is not required for this project because: (Insert justification as to why Element is not required)

**L. Element #12: Manage the Project**

- *Phasing of Construction* – Phase development projects in order to prevent soil erosion and the transport of sediment from the project site during construction, unless the Erosion and

Sediment Control Lead can demonstrate that construction phasing is infeasible. Revegetation of exposed areas and maintenance of that vegetation shall be an integral part of the clearing activities for any phase.

- *Seasonal Work Limitations* – From October 1 through April 30, clearing, grading, and other soil disturbing activities shall only be permitted if shown to the satisfaction of the City that silt-laden stormwater will be prevented from leaving the site through a combination of the following:
  - Site conditions including existing vegetative coverage, slope, soil type, and proximity to receiving waters;
  - Limitations on activities and the extent of disturbed areas; and
  - Proposed erosion and sediment control measures.

Based on the information provided and local weather conditions, the City may expand or restrict the seasonal limitation onsite disturbance. The following activities are exempt from the seasonal clearing and grading limitations:

- Routine maintenance and necessary repair of erosion and sediment control BMPs
- Routine maintenance of public facilities or existing utility structures that do not expose the soil or result in the removal of the vegetative cover to soil
- Activities where there is one hundred percent infiltration of stormwater within the site in approved and installed erosion and sediment control facilities
- *Inspection and Monitoring*
  - a. Inspect, maintain, and repair all BMPs as needed to assure continued performance of their intended function. Projects regulated under the Construction Stormwater General Permit (CSWGP) must conduct site inspections and monitoring in accordance with Special Condition S4 of the CSWGP.
  - b. Projects that disturb one or more acres must have site inspections conducted by a Certified Erosion and Sediment Control Lead (CESCL) or Certified Professional in Erosion and Sediment Control (CPESC).
  - c. Projects disturbing less than one acre must have an Erosion Sediment Control Lead (ESC) conduct inspections. The ESC Lead does not have to have CESCL or CPESC certification.
  - d. The CESCL, CPESC, or ESC Lead shall be identified in the SWPPP and shall be onsite or on-call at all times.
  - e. The CESCL, CPESC, or ESC Lead must examine stormwater visually for the presence of suspended sediment, turbidity, discoloration, and oil sheen and evaluate the effectiveness of BMPs to determine if it is necessary to install, maintain, or repair BMPs.
  - f. The CESCL, CPESC, or ESC Lead must inspect all areas disturbed by construction activities, all BMPs, and all locations where stormwater leaves the site at least once every calendar week and within 24 hours of any discharge from the site. (Individual discharge events that last more than one day do not require daily inspections). The CESCL, CPESC, or ESC Lead may reduce the inspection frequency for temporary stabilized, inactive sites to once every calendar month.
  - g. Construction site operators must correct any problems identified by the CESCL, CPESC, or ESC Lead by:
    - Reviewing the SWPPP for compliance with the 13 construction SWPPP elements and making appropriate revisions within 7 days of the inspection.

- Fully implementing and maintaining appropriate source control and/or treatment BMPs as soon as possible but correcting the problem within 10 days.
- Documenting BMP implementation and maintenance in the site log book. (Required for sites larger than 1 acre but recommended for all sites).

Sampling and analysis of the stormwater discharges from a construction site may be necessary on a case-by-case basis to ensure compliance with standards. Ecology or the City will establish these monitoring and associated reporting requirements.

- *Responsible Party* – For all projects, a 24-hour responsible party shall be listed in the SWPPP, along with that person’s telephone number and email address.
- *Maintenance of the Construction SWPPP* – Keep the Construction SWPPP onsite or within reasonable access to the site. Modify the SWPPP whenever there is a change in the design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the state. Modify the SWPPP if, during inspections or investigations conducted by the owner/operator, City staff, or by local or state officials, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. Modify the SWPPP as necessary to include additional or modified BMPs designed to correct problems identified. Complete revisions to the SWPPP within seven (7) days following the inspection. City of Tacoma Environment Services (review staff or inspector) may require that a modification to the SWPPP go through additional City review.

The BMP(s) proposed to meet this element are:

- BMP C150: Materials on Hand
- BMP C160: Erosion and Sediment Control Lead
- BMP C162: Scheduling
- Other: (Insert description of how element will be addressed)
- This Element is not required for this project because: (Insert justification as to why Element is not required)

**M. Element #13: Protect Permanent Stormwater BMPs**

- Protect all permanent stormwater BMPs from sedimentation through installation and maintenance of erosion and sediment control BMPs on portions of the site that drain into the BMPs. Restore all BMPs to their fully functioning condition if they accumulate sediment during construction. Sediment impacting Best Management Practices shall be removed before system start-up. Restoring the BMP shall include removal of all sediment and full replacement of treatment media.
- Prevent compacting infiltration facilities by excluding construction equipment and foot traffic.
- Keep all heavy equipment off native soils under infiltration BMPs that have been excavated to final grade to retain the infiltration rate of the soils.
- Protect lawn and landscaped areas from compaction due to construction equipment and material stockpiles.
- Do not allow muddy construction equipment on the base material of permeable pavement or on the permeable pavement section.

- Do not allow sediment laden runoff onto permeable pavements or base materials of permeable pavements.
- Permeable pavements fouled with sediment or that can no longer pass an initial infiltration test must be cleaned prior to final acceptance.

The BMP(s) proposed to meet this element are:

- Other: (Insert description of how element will be addressed)
- This Element is not required for this project because: There are no permanent stormwater facilities that need to be protected within 500 feet downstream of the project site.

### **3. Temporary Erosion and Sediment Control BMPs**

Attach below only those BMPs (include the entirety of the BMP language) from Volume 3 of the SWMM that will be utilized onsite.





## 1.18 BMP C150: Materials On Hand

### 1.18.1 Purpose

Quantities of erosion prevention and sediment control materials should be kept on the project site at all times to be used for regular maintenance and emergency situations such as unexpected heavy summer rains. Having these materials onsite reduces the time needed to implement BMPs when inspections indicate that existing BMPs are not meeting the Construction SWPPP requirements.

### 1.18.2 Conditions of Use

Construction projects of any size or type can benefit from having materials on hand. A small commercial development project could have a roll of plastic and some gravel available for immediate protection of bare soil and temporary berm construction. A large earthwork project, such as highway construction, might have several tons of straw, several rolls of plastic, flexible pipe, sandbags, geotextile fabric, and steel "T" posts.

- Materials are stockpiled and readily available before any site clearing, grubbing, or earthwork begins. A large contractor or developer could keep a stockpile of materials that are available to be used on several projects.
- If storage space at the project site is at a premium, the contractor could maintain the materials at a location less than one hour from the project site.

### 1.18.3 Design and Installation Specifications

Depending on project type, size, complexity, and length, materials and quantities will vary. Table 3 - 10: Materials on Hand, provides a good minimum that will cover numerous situations.

**Table 3 - 10: Materials on Hand**

Material	Measure	Quantity
Clear Plastic, 6 mil	100 foot roll	1-2
Drain Pipe, 6 or 8 inch diameter	25 foot section	4-6
Sandbags, filled	each	25-50
Quarry Spalls	ton	2-4
Washed Gravel	cubic yard	2-4
Geotextile Fabric	100 foot roll	1-2
Catch Basin Inserts	each	2-4
Steel "T" Posts	each	12-24

### 1.18.4 Maintenance Standards

- All materials with the exception of the quarry spalls, steel "T" posts, and gravel should be kept covered and out of both sun and rain.
- Re-stock materials used as needed.

## **1.19 BMP C151: Concrete Handling**

### **1.19.1 Purpose**

Concrete work can generate process water and slurry that contain fine particles and high pH, both of which can violate water quality standards in the receiving water. Concrete spillage or concrete discharge to waters of the State is prohibited. Use this BMP to minimize and eliminate concrete, concrete process water, and concrete slurry from entering waters of the State.

### **1.19.2 Conditions of Use**

Utilize these management practices any time concrete is used.

Concrete construction projects include, but are not limited to, the following:

- Curbs
- Sidewalks
- Roads
- Bridges
- Foundations
- Floors
- Runways

Disposal options for concrete, in order of preference are:

1. Offsite disposal
2. Concrete washout areas
3. De minimus washout to formed areas awaiting concrete

### **1.19.3 Design and Installation Specifications**

- Wash concrete truck drums at an approved offsite location or in designated concrete washout areas only.
  - Return unused concrete remaining in the truck and pump to the originating batch plant for recycling. Do not dump excess concrete onsite, except in designated concrete washout areas as allowed in BMP C154: Concrete Washout Area.
- Do not wash out concrete trucks onto the ground (including formed areas awaiting concrete), or into the stormwater conveyance system, open ditches, streets, or streams.
- Wash small concrete handling equipment (e.g. hand tools, screeds, shovels, rakes, floats, trowels, and wheelbarrows) into designated concrete washout areas or into formed areas awaiting concrete pour.
- At no time shall concrete be washed off into the footprint of an area where an infiltration feature will be installed.
- Wash equipment difficult to move, such as concrete paving machines, in areas that do not directly drain to natural or constructed stormwater conveyance or potential infiltration areas.

- Do not allow washwater from areas, such as concrete aggregate driveways, to discharge directly (without detention or treatment) to natural or constructed stormwater conveyances.
- Contain washwater and leftover product in a lined container when no designated concrete washout areas (or formed areas, allowed as described above) are available. Dispose of contained concrete and concrete washwater (process water) properly. Always use forms or solid barriers for concrete pours within 15-feet of surface waters.
- Refer to BMP C252: Treating and Disposing of High pH Water and BMP C253: Portable Sediment Tank for pH adjustment requirements.
- Refer to the Construction Stormwater General Permit for pH monitoring requirements if the project involves one of the following activities:
  - Significant concrete work (as defined in the Construction Stormwater General Permit).
  - The use of engineered soils amended with (but not limited to) Portland cement-treated base, cement kiln dust or fly ash.
  - Discharging stormwater to segments of water bodies on the 303(d) list (Category 5) for high pH.

#### **1.19.4 Maintenance Standards**

Containers shall be checked for holes in the liner daily during concrete pours and repaired the same day.

## **1.20 BMP C152: Sawcutting and Surfacing Pollution Prevention**

### **1.20.1 Purpose**

Sawcutting and surfacing operations generate slurry and process water that contains fine particles and high pH (concrete cutting), both of which can violate water quality standards in the receiving water. This BMP is intended to minimize and eliminate process water and slurry from entering waters of the State

### **1.20.2 Conditions of Use**

Anytime sawcutting or surfacing operations take place, use these management practices. Sawcutting and surfacing operations include, but are not limited to, the following:

- Sawing
- Coring
- Grinding
- Roughening
- Hydro-demolition
- Bridge and road surfacing

### **1.20.3 Design and Installation Specifications**

- Vacuum slurry and cuttings during cutting and surfacing operations.
- Do not leave slurry and cuttings on permanent concrete or asphalt pavement overnight.
- Do not allow slurry and cuttings to enter any natural or constructed conveyance system.
- Dispose of collected slurry and cuttings in a manner that does not violate groundwater or surface water quality standards.
- Do not allow process water that is generated during hydro-demolition, surface roughening, or similar operations to enter any natural or constructed conveyance system. Dispose of process water in a manner that does not violate groundwater or surface water quality standards.
- Handle and dispose of cleaning waste material and demolition debris in a manner that does not cause contamination of water. If the area is swept with a pick-up sweeper, haul the material out of the area to an appropriate disposal site.

### **1.20.4 Maintenance Standards**

Continually monitor operations to determine whether slurry, cuttings, or process water could enter waters of the state. If inspections show that a violation of water quality standards could occur, stop operations and immediately implement preventive measures such as berms, barriers, secondary containment, and vacuum trucks.

## **1.21 BMP C153: Material Delivery, Storage and Containment**

### **1.21.1 Purpose**

Prevent, reduce, or eliminate the discharge of pollutants from material delivery and storage to the stormwater system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in a designated area, and installing secondary containment.

### **1.21.2 Conditions of Use**

These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Petroleum products such as fuel, oil, and grease
- Soil stabilizers and binders (e.g. Polyacrylamide)
- Fertilizers, pesticides, and herbicides
- Detergents
- Asphalt and concrete compounds
- Hazardous chemicals such as acids, lime, adhesives, paints, solvents, and curing compounds
- Any other material that may be detrimental if released to the environment

### **1.21.3 Design and Installation Specifications**

The following steps should be taken to minimize risk:

- Locate temporary storage area away from vehicular traffic, near the construction entrance(s), and away from conveyance systems and receiving waterbodies.
- Supply Material Safety Data Sheets (MSDS) for all materials stored. Keep chemicals in their original labeled containers.
- Surrounding materials with earth berms is an option for temporary secondary containment.
- Minimize hazardous material storage onsite.
- Handle hazardous materials as infrequently as possible.
- During the wet weather season (October 1 through April 30), consider storing materials in a covered area.
- Store materials in secondary containment, such as an earthen dike, a horse trough, or a children's wading pool for non-reactive materials such as detergents, oil, grease, and paints. "Bus boy" trays or concrete mixing trays may be used as secondary containment for small amounts of material.
- Do not store chemicals, drums, or bagged materials directly on the ground. Place these items on a pallet and, when possible, in secondary containment.
- If drums cannot be stored under a roof, domed plastic covers are inexpensive and snap to the top of drums, preventing water from collecting.

**1.21.4 Material Storage Areas and Secondary Containment Practices:**

- Store liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 in approved containers and drums and do not overfill the containers or drums. Store containers and drums in temporary secondary containment facilities.
- Temporary secondary containment facilities shall provide for a spill containment volume able to contain precipitation from a 25 year, 24 hour storm event plus 10% of the total enclosed container volume of all containers, or 110% of the capacity of the largest container within its boundary, whichever is greater.
- Secondary containment facilities shall be impervious to the materials stored therein for a minimum contact time of 72 hours.
- Secondary containment facilities shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks, collect accumulated rainwater and spills and place into drums. Handle these liquids as hazardous waste unless testing determines them to be non-hazardous. Dispose of all wastes properly.
- Provide sufficient separation between stored containers to allow for spill cleanup and emergency response access.
- During the wet weather season (October 1 through April 30), cover each secondary containment facility during non-working days, prior to and during rain events.
- Keep material storage areas clean, organized, and equipped with an ample supply of appropriate spill clean-up material.
- The spill kit should include, at a minimum:
  - 1 water resistant nylon bag
  - 3 oil absorbent socks (3-inches by 4-feet)
  - 2 oil absorbent socks (3-inches by 10-feet)
  - 12 oil absorbent pads (17-inches by 19-inches)
  - 1 pair splash resistant goggles
  - 3 pairs nitrile gloves
  - 10 disposable bags with ties
- Instructions

**1.21.5 Maintenance Standards**

Any stormwater within the material storage area shall be pumped or otherwise discharged after each rain event. Before pumping, the stormwater must be evaluated to determine if it must go to treatment or can be discharged without treatment. If stormwater is contaminated, direct the discharge to appropriate treatment.

Restock spill kit materials as needed.

## **1.23 BMP C160: Erosion and Sediment Control Lead**

### **1.23.1 Purpose**

The project proponent must designate at least one person as the responsible representative in charge of erosion and sediment control (ESC) and water quality protection. The designated person shall be the erosion and sediment control (ESC) lead, who is responsible for ensuring compliance with all local, state, and federal erosion and sediment control and water quality requirements.

### **1.23.2 Conditions of Use**

- An erosion and sediment control contact is required for all project sites.
- A certified erosion and sediment control lead (CESCL) or certified professional in erosion and sediment control (CPESC) is required on projects that include, but are not limited to:
  - Construction activity that disturbs one acre of land or more.
- Projects disturbing less than one acre must have an Erosion Sediment Control Lead (ESC) conduct inspections. The ESC Lead does not have to have CESCL or CPESC certification.
- The CESCL, CPESC, or ESC Lead shall be identified in the SWPPP and shall be onsite or on-call at all times.
- The CESCL, CPESC, or ESC Lead must be knowledgeable in the principles and practices of erosion and sediment control and have the skills to assess:
  - Site conditions and construction activities that could impact the quality of stormwater.
  - Effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges.

### **1.23.3 Specifications**

- The CESCL lead shall:
  - Have a current certified erosion and sediment control lead (CESCL) certificate proving attendance in an erosion and sediment control training course that meets the minimum ESC training and certification requirements established by Ecology.
- For additional information concerning the Certified Professional in Erosion and Sediment Control program please go to <https://envirocertintl.org/cpesc/>.
- The ESC lead shall have authority to act on behalf of the contractor or developer and shall be available, on call, 24 hours per day throughout the period of construction.
- The Construction SWPPP shall include the name, telephone number, email, and address of the designated ESC lead.
- An ESC lead may provide inspection and compliance services for multiple construction projects in the same geographic region.
- Duties and responsibilities of the ESC lead shall include, but are not limited to, the following:
  - Inspecting all areas disturbed by construction activities, all BMPs and all locations where runoff leaves the site at least once every calendar week and within 24 hours of

any discharge from the site. The ESC lead may reduce the inspection frequency for temporary stabilized, inactive sites to monthly.

- Examining stormwater visually for the presence of suspended sediment, turbidity, discoloration, and oil sheen.
- Evaluating the effectiveness of BMPs.
- Maintaining a permit file onsite at all times which includes the SWPPP and any associated permits and plans.
- Directing BMP installation, inspection, maintenance, modification, and removal.
- Updating all project drawings and the Construction SWPPP with changes made.
- Keeping daily logs and inspection reports. Inspection reports should include:
  - Inspection date/time.
  - Weather information, general conditions during inspection, and approximate amount of precipitation since the last inspection.
  - A summary or list of all BMPs implemented, including observations of all erosion/sediment control structures or practices. The following shall be noted:
    - Locations of BMPs inspected,
    - Locations of BMPs that need maintenance,
    - Locations of BMPs that failed to operate as designed or intended, and
    - Locations where additional or different BMPs are required.
  - Visual monitoring results, including a description of discharged stormwater. The presence of suspended sediment, turbid water, discoloration, and oil sheen shall be noted, as applicable.
  - Any water quality monitoring performed during inspection.
  - General comments and notes, including a brief description of any BMP repairs, maintenance, or installations made as a result of the inspection.
- Facilitate, participate in, and take corrective actions resulting from inspections performed by outside agencies or the owner.
- Keep an inventory of equipment onsite.



## **1.24 BMP C162: Scheduling**

### **1.24.1 Purpose**

Sequencing a construction project reduces the amount and duration of soil exposed to erosion.

### **1.24.2 Conditions of Use**

The construction sequence schedule is an orderly listing of all major land-disturbing activities together with the necessary erosion and sediment control measures planned for the project. This type of schedule guides the contractor on work to be done before other work is started so serious erosion and sedimentation problems can be avoided.

Following a specified work schedule that coordinates the timing of land-disturbing activities and the installation of control measures is perhaps the most cost-effective way of controlling erosion during construction. The removal of surface ground cover leaves a site vulnerable to accelerated erosion. Construction procedures that limit land clearing, provide timely installation of erosion and sedimentation controls, and restore protective cover quickly can significantly reduce the erosion potential of a site.

### **1.24.3 Design Considerations**

- Minimize construction during rainy periods.
- Schedule projects to disturb only small portions of the site at any one time. Complete grading as soon as possible. Immediately stabilize the disturbed portion before grading the next portion. Practice staged seeding in order to revegetate cut and fill slopes as the work progresses.

### 1.35 BMP C220: Stormwater System Inlet Protection

#### 1.35.1 Purpose

To prevent coarse sediment from entering stormwater systems prior to permanent stabilization of the disturbed area.

#### 1.35.2 Conditions of Use

- Use where inlets are to be made operational before permanent stabilization of the disturbed area.
- Provide protection for all stormwater system inlets downslope and within 500 feet of a disturbed or construction area, unless those inlets are preceded by another sediment trapping device.
- Table 3 - 11: Stormwater System Inlet Protection lists several options for inlet protection. All of the methods for stormwater system inlet protection are prone to plugging and require a high frequency of maintenance. Contributing areas should be limited to 1 acre or less. Emergency overflows may be required where stormwater ponding would cause a hazard. If an emergency overflow is provided, additional end-of-pipe treatment may be required.

**Table 3 - 11: Stormwater System Inlet Protection**

Type of Inlet Protection	Emergency Overflow	Applicable for Paved/ Earthen Surfaces	Conditions of Use
Excavated drop inlet protection	Yes, temporary flooding will occur	Earthen	Applicable for heavy flows. Easy to maintain. Large area requirement: 30' x 30' per acre.
Block and gravel drop filter	Yes	Paved or earthen	Applicable for heavy concentrated flows. Will not pond.
Gravel and mesh filter	No	Paved	Applicable for heavy concentrated flows. Will pond. Can withstand traffic.
Catch basin filters	Yes	Paved or earthen	Frequent maintenance required.
Curb inlet protection with a wooden weir	Small capacity overflow	Paved	Used for sturdy, more compact installation.
Block and gravel curb inlet protection	Yes	Earthen	Sturdy, but limited filtration.
Culvert inlet sediment trap			18-month expected life.

#### 1.35.3 Design and Installation Specifications

##### *Excavated Drop Inlet Protection*

- An excavated impoundment around the inlet. Sediment settles out of the stormwater prior to entering the stormwater conveyance system..

- Provide depth of 1 to 2 feet, as measured from the crest of the inlet structure.
- Slope sides of excavation no steeper than 2H:1V.
- Minimum volume of excavation 35 cubic yards.
- Shape excavation to fit site with longest dimension oriented toward the longest inflow area.
- Install provisions for collection and conveyance to prevent standing water problems.
- Clear the area of all debris.
- Grade the approach to the inlet uniformly.
- Drill weep holes into the side of the inlet.
- Protect weep holes with screen wire and washed aggregate.
- Seal weep holes when removing structure and stabilizing area.
- It may be necessary to build a temporary dike to the down slope side of the structure to prevent bypass flow.

#### ***Block and Gravel Filter***

- A block and gravel filter is a barrier formed around the stormwater system inlet with standard concrete blocks and gravel. See Figure 3 - 17: Drop Inlet with Block and Gravel Filter.
- Provide a height 1 to 2 feet above inlet.
- Recess the first row 2 inches into the ground for stability.
- Support subsequent courses by placing a piece of 2x4 lumber through the block opening.
- Do not use mortar.
- Lay some blocks in the bottom row on their side for dewatering the pool.
- Place hardware cloth or comparable wire mesh with ½-inch openings over all block openings.
- Place gravel just below the top of blocks on slopes of 2H:1V or flatter.
- An alternative design is a gravel berm surrounding the inlet with the following characteristics:
  - Provide an inlet slope of 3H:1V.
  - Provide an outlet slope of 2H:1V.
  - Provide a 1-foot wide level stone area between the structure and the inlet.
  - Use inlet slope stones 3 inches in diameter or larger.
  - For outlet slope use gravel ½- to ¾-inch at a minimum thickness of 1-foot.

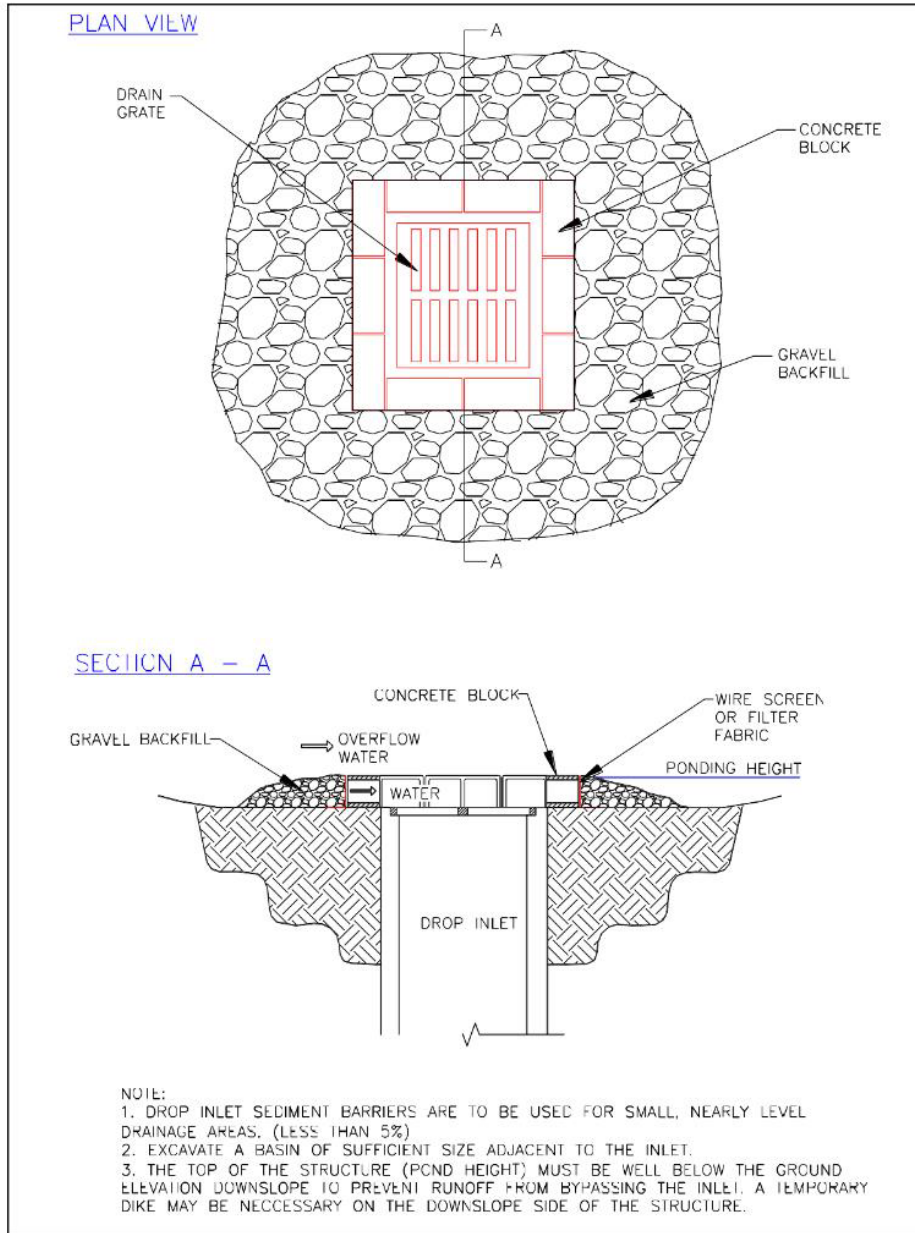
#### ***Gravel and Wire Mesh Filter***

- A gravel and wire mesh filter is a gravel barrier placed over the top of the inlet (see ). This structure does not provide an overflow.
- Use a hardware cloth or comparable wire mesh with 1/2-inch openings.

- Place wire mesh over the drop inlet so that the wire extends a minimum of 1-foot beyond each side of the inlet structure.
- Overlap the strips if more than one strip of mesh is necessary.
- Place coarse aggregate over the wire mesh.
  - Provide at least a 12-inch depth of aggregate over the entire inlet opening and extend at least 18-inches on all sides.

**Catch Basin Filters**

- Inserts (Figure 3 - 19: Catch Basin Filter) shall be designed by the manufacturer for use at construction sites. The limited sediment storage capacity increases the frequency of inspection and maintenance required, which may be daily for heavy sediment loads. The maintenance requirements can be reduced by combining a catch basin filter with another type of inlet protection. This type of inlet protection provides flow bypass without overflow and therefore may be a better method for inlets located along active rights-of-way.
- Provide a minimum of 5 cubic feet of storage.
- Requires dewatering provisions.
- Provide a high-flow bypass that will not clog under normal use at a construction site.
- The catch basin filter is inserted in the catch basin just below the grating.



**Figure 3 - 17: Drop Inlet with Block and Gravel Filter**

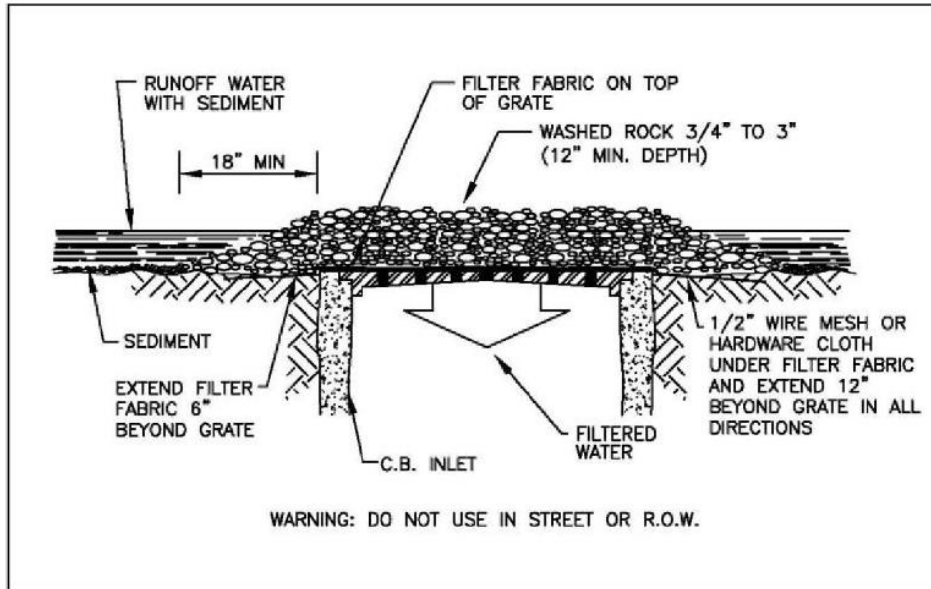


Figure 3 - 18: Gravel and Wire Mesh Filter

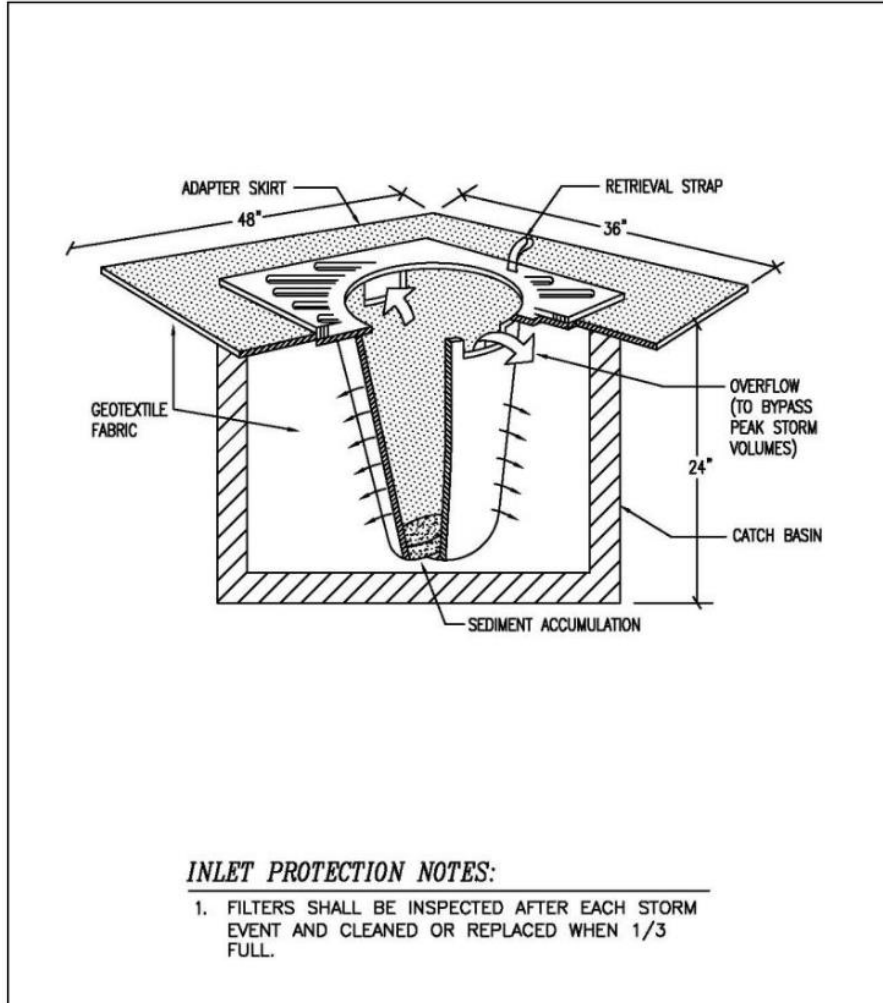


Figure 3 - 19: Catch Basin Filter

***Curb Inlet Protection with Wooden Weir***

Barrier formed around a curb inlet with a wooden frame and gravel.

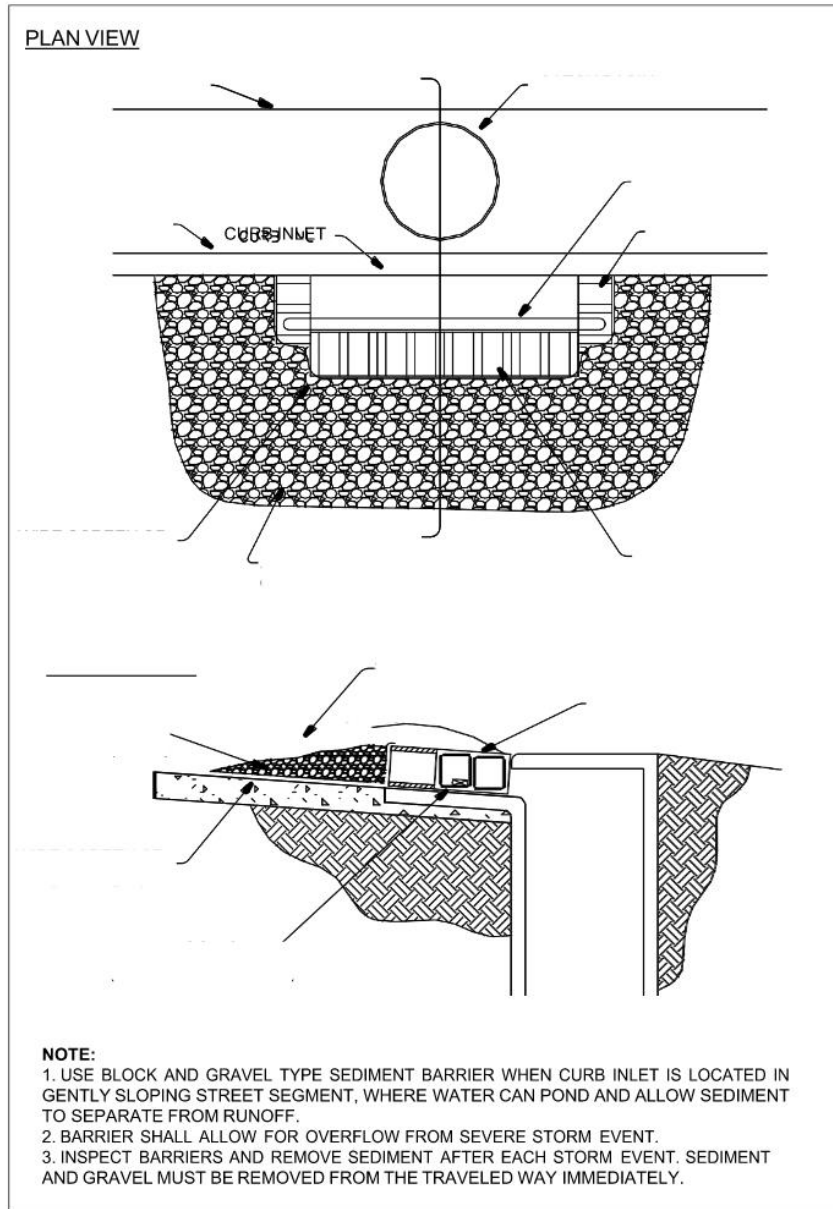
- Use wire mesh with ½-inch openings.
- Use extra strength filter cloth.
- Construct a frame.
- Attach the wire and filter fabric to the frame.
- Pile coarse washed aggregate against the wire and fabric.
- Place weight on frame anchors.

***Block and Gravel Curb Inlet Protection***

Barrier formed around an inlet with concrete blocks and gravel. See Figure 3 - 20: Block and Gravel Curb Inlet Protection.

- Use wire mesh with ½-inch openings.
- Place two concrete blocks on their sides abutting the curb at either side of the inlet opening. These are spacer blocks.
- Place a 2x4 stud through the outer holes of each spacer block to align the front blocks.
- Place blocks on their sides across the front of the inlet and abutting the spacer blocks.
- Place wire mesh over the outside vertical face.
- Pile coarse aggregate against the wire to the top of the barrier.





**Figure 3 - 20: Block and Gravel Curb Inlet Protection**

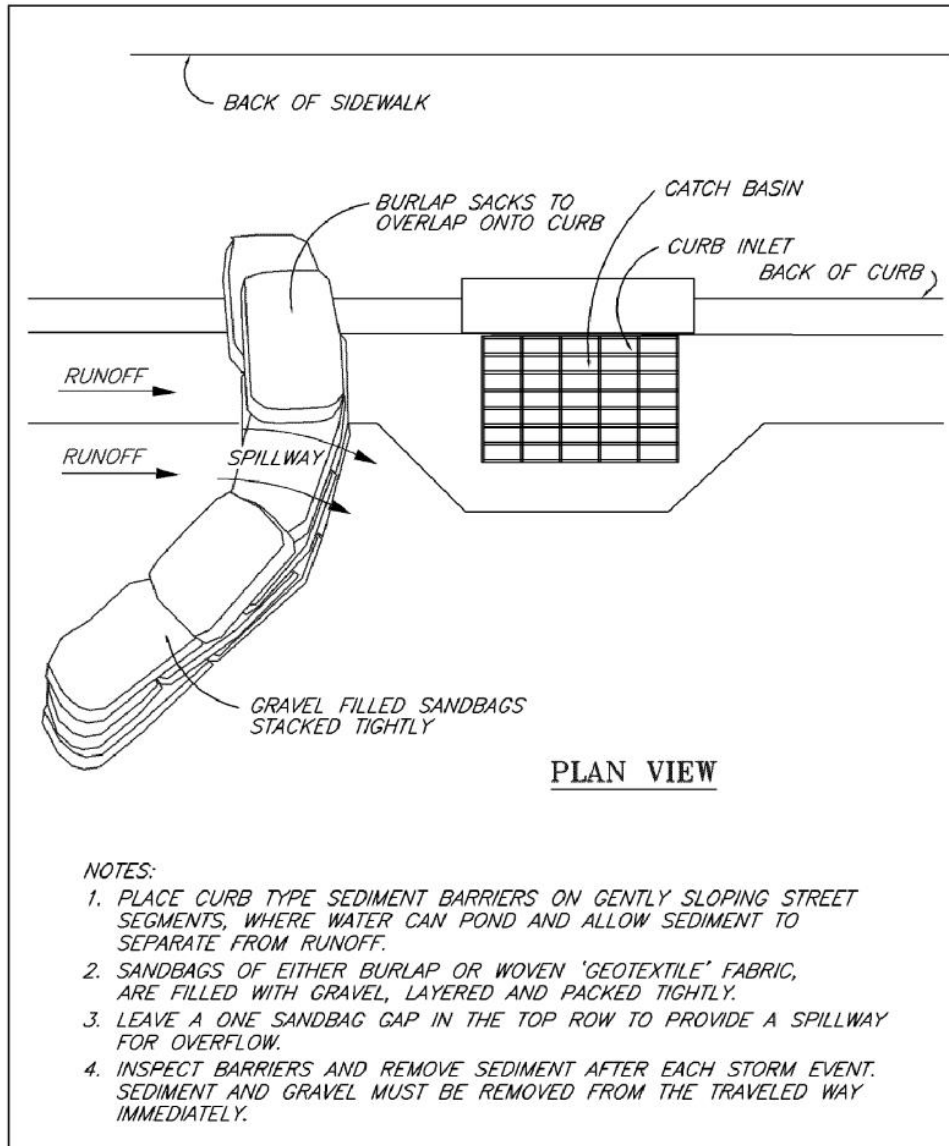
***Curb and Gutter Sediment Barrier***

Sandbag or rock berm (riprap and aggregate) 3 feet high and 3 feet wide in a horseshoe shape. See Figure 3 - 21: Curb and Gutter Sediment Barrier.

- Construct a horseshoe shaped berm, faced with coarse aggregate if using riprap, 3 feet high and 3 feet wide, at least 2 feet from the inlet.
- Construct a horseshoe shaped sedimentation trap on the outside of the berm sized to sediment trap standards for protecting a culvert inlet.

**1.35.4 Maintenance Standards**

- Inspect inlet protection frequently, especially after storm events. If the insert becomes clogged, clean or replace it.
- For systems using stone filters: If the stone filter becomes clogged with sediment, the stones must be pulled away from the inlet and cleaned or replaced. Since cleaning of gravel at a construction site may be difficult, an alternative approach would be to use the clogged stone as fill and put fresh stone around the inlet.
- Do not wash sediment into the stormwater system while cleaning. Spread all excavated material evenly over the surrounding land area or stockpile and stabilize as appropriate.
- Do not allow accumulated sediment to enter the stormwater system.
- Inlet protection shall be removed when area is fully stabilized and erosion and sediment controls are no longer needed.



**Figure 3 - 21: Curb and Gutter Sediment Barrier**

## **1.7 BMP C120: Temporary and Permanent Seeding**

### **1.7.1 Purpose**

Seeding reduces erosion by stabilizing exposed soils. A well-established vegetative cover is one of the most effective methods of reducing erosion.

### **1.7.2 Conditions of Use**

- Seeding may be used throughout the project on disturbed areas that have reached final grade or that will remain unworked.
- Channels that will be vegetated should be installed before major earthwork and hydroseeded with a Bonded Fiber Matrix. The vegetation should be well established (i.e., 75 percent cover) before water is allowed to flow in the ditch. With channels that will have high flows, install erosion control blankets over the hydroseed. If vegetation cannot be established from seed before water is allowed in the ditch, sod should be installed in the bottom of the ditch over hydromulch and blankets.
- Seed detention ponds as required.
- Mulch is required at all times because it protects seeds from heat, moisture loss, and transport due to runoff.  
Mulch can be applied on top of the seed or simultaneously by hydroseeding. See BMP C121: Mulching for specifications.
- All disturbed areas shall be reviewed in late August to early September and all seeding shall be completed by the end of September. Otherwise, vegetation will not establish itself enough to provide more than average protection.
- At final site stabilization, seed and mulch all disturbed areas not otherwise vegetated or stabilized.

### **1.7.3 Design and Installation Specifications**

- Seed during seasons most conducive to plant growth.
  - The optimum seeding windows for western Washington are April 1 through June 30 and September 1 through October 1.
  - Seeding that occurs between July 1 and August 30 will require irrigation until 75 percent grass cover is established.
  - Seeding that occurs between October 1 and March 30 will require a mulch or an erosion control blanket until 75 percent grass cover is established.
- To prevent seed from being washed away, confirm that all required surface water control measures have been installed.
- The seedbed should be firm and rough. All soil should be roughened no matter what the slope. If compaction is required for engineering purposes, track walk slopes before seeding. Backblading or smoothing of slopes greater than 4:1 is not allowed if they are to be seeded.
- New and more effective restoration-based landscape practices rely on deeper incorporation than that provided by a simple single-pass rototilling treatment. Wherever practical, the subgrade should be initially ripped to improve long-term permeability, infiltration, and water inflow qualities. At a minimum for permanent areas, use soil

amendments to achieve organic matter and permeability performance defined in engineered soil/landscape systems. For systems that are deeper than 8 inches, complete the rototilling process in multiple lifts, or prepare the soil system properly and then place it to achieve the specified depth.

- The use of fertilizers is discouraged. Fertilizers should only be used where necessary to ensure growth. Amending soils per BMP L613: Post-Construction Soil Quality and Depth should be considered (and may be required for permanent lawn and landscaped areas) as the first measure for ensuring vegetation growth. If fertilization is necessary, naturally-derived fertilizers should be chosen over chemically-derived fertilizers. Apply fertilizers per manufacturer's direction. Always use slow-release fertilizers.
- Hydroseed applications shall include a minimum of 1,500 pounds per acre of mulch with 3 percent tackifier. See BMP C121: Mulching for specifications.
- On steep slopes, Bonded Fiber Matrix (BFM) or Mechanically Bonded Fiber Matrix (MBFM) products should be used. BFM/MBFM products are applied at a minimum rate of 3,000 pounds per acre of mulch with approximately 10 percent tackifier. Application is made so that a minimum of 95 percent soil coverage is achieved. Numerous products are available commercially and should be installed per manufacturer's instructions. Most products require 24-36 hours to cure before a rainfall and cannot be installed on wet or saturated soils. Generally, these products come in 40-50 pound bags and include all necessary ingredients except for seed and fertilizer.
- BFM and MBFM have some advantages over blankets:
  - No surface preparation required;
  - Can be installed via helicopter in remote areas;
  - On slopes steeper than 2.5:1, blanket installers may need to be roped and harnessed for safety;
- In most cases, the shear strength of blankets is not a factor when used on slopes, only when used in channels. BFM and MBFM are good alternatives to blankets in most situations where vegetation establishment is the goal.
- When installing seed via hydroseeding operations, only about 1/3 of the seed actually ends up in contact with the soil surface. This reduces the ability to establish a good stand of grass quickly. One way to overcome this is to increase seed quantities by up to 50 percent.
- Vegetation establishment can also be enhanced by dividing the hydromulch operation into two phases:
  - Phase 1- Install all seed and fertilizer with 25-30 percent mulch and tackifier onto soil in the first lift;
  - Phase 2- Install the rest of the mulch and tackifier over the first lift.
- An alternative is to install the mulch, seed, fertilizer, and tackifier in one lift. Then, spread or blow straw over the top of the hydromulch at a rate of about 800-1000 pounds per acre. Hold straw in place with a standard tackifier. Both of these approaches will increase cost moderately but will greatly improve and enhance vegetative establishment. The increased cost may be offset by the reduced need for:
  - Irrigation
  - Reapplication of mulch
  - Repair of failed slope surfaces

- This technique works with standard hydromulch (1,500 pounds per acre minimum) and BFM/MBFMs (3,000 pounds per acre minimum).
- Provide a healthy topsoil to areas to be permanently landscaped. This will reduce the need for fertilizers, improve overall topsoil quality, provide for better vegetal health and vitality, improve hydrologic characteristics, and reduce the need for irrigation. See the Post-Construction Soil Quality and Depth BMP in Volume 4 for more information. Compost shall meet specification in A900: Compost. City of Tacoma Tagro Potting Soil can be used as an alternative to the compost component. Areas that will be seeded only and not landscaped may need compost or meal-based mulch included in the hydroseed in order to establish vegetation. Replace native topsoil on the disturbed soil surface before application.
- Seed that is installed as a temporary measure may be installed by hand if it will be covered by straw, mulch, or topsoil. Seed that is installed as a permanent measure may be installed by hand on small areas (usually less than 1 acre) that will be covered with mulch, topsoil, or erosion blankets.
- Unless otherwise stated, seed mixes shall be applied at a rate of 120 pounds per acre. This rate may be reduced is soil amendments of slow-release fertilizers are used.
- See Table 3 - 2: Standard Temporary Erosion Control Seed Mix to Table 3 - 8: Native Wet Biofiltration Swale Seed Mix for recommended seed mixes. Seed mixes are also shown in A1000: Vegetation. Seed mix should be chosen based upon location, exposure, soil type, slope, and expected foot traffic. Alternative seed mixes may be used provided justification is provided for their use.
  - Table 3 - 2: Standard Temporary Erosion Control Seed Mix is a standard mix where only temporary vegetative cover is required.

**Table 3 - 2: Standard Temporary Erosion Control Seed Mix**

Scientific Name	Common Name	Percent By Weight
<i>Festuca rubra var. commutata</i>	Chewings fescue	40
<i>Lolium perenne</i>	perennial rye	40
<i>Agrostis capillaris</i>	colonial bentgrass	10
<i>Trifolium repens</i>	white Dutch clover	10

- Table 3 - 3: Native Temporary Erosion Control Seed Mix is a mix made from native species that can be used where only temporary vegetative cover is required.

**Table 3 - 3: Native Temporary Erosion Control Seed Mix**

Scientific Name	Common Name	Percent By Weight
<i>Bromus carinatus</i>	California brome	25
<i>Deschampsia caespitosa</i>	Tufted hairgrass	15
<i>Festuca rubra</i>	native red fescue	20
<i>Hordeum brachyantherum</i>	meadow barley	40

- Table 3 - 4: Landscaping Seed Mix is a mix appropriate as a final vegetative cover for lawn areas.

**Table 3 - 4: Landscaping Seed Mix**

Scientific Name	Common Name	Percent By Weight
<i>Lolium perenne</i>	perennial rye	70
<i>Festuca rubra var. commutata</i>	Chewings fescue	30

- Table 3 - 5: Low Growing Turf Seed Mix is a mix appropriate for dry situations and requires little maintenance once established.

**Table 3 - 5: Low Growing Turf Seed Mix**

Scientific Name	Common Name	Percent By Weight
<i>Festuca arundinaceae</i>	dwarf tall fescue	45
<i>Lolium perenne var. barclay</i>	dwarf perennial rye	30
<i>Festuca rubra</i>	red fescue	20
<i>Agrostis capillaris</i>	colonial bentgrass	5

- Table 3 - 6: Native Meadow Seed Mix is a mix recommended for areas that will be maintained infrequently or not at all and where native plant colonization is desirable.

**Table 3 - 6: Native Meadow Seed Mix**

Scientific Name	Common Name	Percent By Weight
<b>grasses</b>		
<i>Bromus carinatus</i>	California brome	30
<i>Deschampsia caespitosa</i>	tufted hairgrass	10
<i>Elymus glaucus</i>	blue wildrye	10
<i>Festuca roemerii</i>	Roemer's fescue	20
<b>perennials</b>		
<i>Achillea millefolium</i>	yarrow	5
<i>Eriophyllum lanatum</i>	Oregon sunshine	5
<i>Eschscholzia californica</i>	California poppy	3
<i>Lupinus bicolor</i>	bicolor lupine	6
<i>Solidago canadensis</i>	Canada goldenrod	3
<b>annuals</b>		
<i>Clarkia amoena</i>	farewell to spring	5
<i>Gilia capitata</i>	globe gilia	3

- Table 3 - 7: Native Basic Biofiltration Swale Seed Mix represents a mix appropriate for intermittently wet areas.

**Table 3 - 7: Native Basic Biofiltration Swale Seed Mix**

Scientific Name	Common Name	Percent by Weight
<i>Beckmannia syzigachne</i>	American slough grass	5
<i>Danthonia californica</i>	California oat grass	5
<i>Deschampsia caespitosa</i>	tufted hairgrass	15
<i>Elymus glaucus</i>	blue wildrye	30
<i>Glyceria occidentalis</i>	western mannagrass	15
<i>Hordeum brachyantherum</i>	meadow barley	30

- Table 3 - 8: Native Wet Biofiltration Swale Seed Mix represents a mix appropriate for wet areas that are not regulated wetlands.
  - Apply this mix at a rate of 60 pounds per acre.

**Table 3 - 8: Native Wet Biofiltration Swale Seed Mix**

Scientific Name	Common Name	Percent by Weight
<i>Beckmannia syzigachne</i>	American slough grass	10
<i>Carex obnupta</i>	lough sledge	40
<i>Carex stipata</i>	beaked sedge	5
<i>Eleocharis palustris</i>	common spikerush	5
<i>Glyceria occidentalis</i>	western mannagrass	20
<i>Juncus patens</i>	spreading rush	15
<i>Scirpus microcarpus</i>	small-fruited bullrush	5

#### 1.7.4 Maintenance Standards

- Reseed any seeded areas that fail to establish at least 75 percent cover within 6 weeks from the initial seeding (100 percent cover for areas that receive sheet or concentrated flows). If reseeding is ineffective, use an alternate method, such as sodding, mulching, or nets/blankets. If winter weather prevents adequate grass growth, this time limit may be relaxed at the discretion of the City.
- After adequate cover is achieved, reseed and protect with mulch any areas that experience erosion. If the erosion problem is stormwater and surface water related, the problem shall be fixed and the eroded area reseeded and protected by mulch.
- Water seeded areas if necessary. Watering shall not cause runoff.



## **1.8 BMP C121: Mulching**

### **1.8.1 Purpose**

The purpose of mulching soils is to provide immediate temporary protection from erosion. Mulch also enhances plant establishment by conserving moisture, holding fertilizer, seed, and topsoil in place, and moderating soil temperatures. Only the most common types are discussed in this section.

### **1.8.2 Conditions of Use**

As a temporary cover measure, mulch should be used:

- On disturbed areas that require cover measures for less than 30 days.
- As a cover for seed.
- During the wet season on slopes steeper than 3H:1V with more than 10 feet of vertical relief.
- Mulch may be applied at any time of the year and must be refreshed periodically.
- Tackifiers shall be plant-based, such as guar or alpha plantago, or chemical-based such as poly-acrylamide or polymers.
- Install mulch or tackifier products per manufacturer's recommendations.

### **1.8.3 Design and Installation Specifications**

- Mulch shall be compost, chipped site vegetation, hydro-mulch, wood-based mulch or wood straw, wood strand mulch, or straw. See Table 3 - 9: Mulch Standards and Guidelines for specifications, application rates, and additional information.
- A minimum of 2" of mulch is required. Increase the mulch thickness until the ground is 95% covered (not visible under the mulch). Thickness may need to increase for disturbed areas in or near sensitive or other areas susceptible to erosion.
- Mulch used within the ordinary high-water mark of surface waters should be selected to minimize potential flotation of organic matter. Compost has a higher specific gravities (densities) than straw, wood, or chipped material.

### **1.8.4 Maintenance Standards**

- The thickness of the cover must be maintained.
- Remulch and/or protect with a net or blanket any areas that experience erosion. If the erosion problem is stormwater and surface water related, then fix the problem and remulch the eroded area.

**Table 3 - 9: Mulch Standards and Guidelines**

Compost											
<ul style="list-style-type: none"> <li>• Compost shall:                             <ul style="list-style-type: none"> <li>- Meet the definition for "composted material" per WAC 173-350-100 and comply with standards in WAC 173-350-220, except the feedstock may contain biosolids or manure feedstocks.</li> <li>- Be coarse compost meeting the following size gradations (by dry weight) when tested in accordance with the U.S. Composting Council "Test Methods for the Examination of Compost and Composting" (TMECC) Test Method 02.02-B.</li> </ul> </li> </ul>											
<table border="1"> <thead> <tr> <th>Sieve Size</th> <th>Minimum Percent Passing</th> </tr> </thead> <tbody> <tr> <td>3"</td> <td>100</td> </tr> <tr> <td>1"</td> <td>90</td> </tr> <tr> <td>3/4"</td> <td>70</td> </tr> <tr> <td>1/4"</td> <td>40</td> </tr> </tbody> </table>		Sieve Size	Minimum Percent Passing	3"	100	1"	90	3/4"	70	1/4"	40
Sieve Size	Minimum Percent Passing										
3"	100										
1"	90										
3/4"	70										
1/4"	40										
<ul style="list-style-type: none"> <li>- Have no visible water or dust during handling.</li> <li>- Have soil organic matter content of 40% to 65%.</li> <li>- Have a carbon to nitrogen ratio below 25:1. Carbon to nitrogen ratio may be as high as 35:1 for plantings composed entirely of plants native to the Puget Sound Lowlands region.</li> <li>- Be applied a minimum of 2" thick (~100 tons/acre) though thicker application rates may provide more effective control.</li> </ul> <ul style="list-style-type: none"> <li>• Do not use near wetlands or phosphorus impaired waterbodies.</li> <li>• Compost can be later tilled into soils to help meet the requirements of BMP L613: Post-Construction Soil Quality and Depth as required per Minimum Requirement #5.</li> </ul> <p>Compost specifications are also contained in A900: Compost.</p>											
Chipped Site Vegetation											
<ul style="list-style-type: none"> <li>• Chipped site vegetation shall:                             <ul style="list-style-type: none"> <li>- Have an average size of 2-4" with gradations from fine to 6" in length for texture, variation, and interlocking properties.</li> <li>- Be applied a minimum of 2" thick.</li> </ul> </li> <li>• Do not apply on slopes greater than 10%.</li> <li>• Do not use within 200 feet of surface waterbodies.</li> </ul> <p>Using chipped site vegetation is a cost-effective way to dispose of debris associated with clearing and grubbing material. The decomposition of the chipped vegetation may help impart nutrients for grass establishment.</p>											

**Table 3 - 9: Mulch Standards and Guidelines**

Hydro-mulch
<ul style="list-style-type: none"> <li>• Hydro-mulch shall:                             <ul style="list-style-type: none"> <li>- Be applied with seed and tackifier.                                     <ul style="list-style-type: none"> <li>• May be applied without seed and tackifier if application rate is doubled.</li> </ul> </li> <li>- Have no growth inhibiting factors.</li> <li>- Have fibers less than ¼" in length to ensure machinery does not clog.</li> </ul> </li> </ul> <p>Be applied at 35-45 pounds per 1,000 sf or 1500-2000 pounds per acre with a hydromulcher.</p>
Wood-based Mulch or Wood Straw
<ul style="list-style-type: none"> <li>• Wood-based mulch or straw mulch shall:                             <ul style="list-style-type: none"> <li>- Have no visible water or dust during handling.</li> <li>- Be purchased from a supplier with a Solid Waste Handling Permit or a supplier that is exempt from solid waste regulations.</li> <li>- Be applied 2" thick (~100 tons/acre)</li> </ul> </li> <li>• Wood-based mulch or wood straw is often called "hog" or "hogged fuel".</li> </ul> <p>The preparation of wood-based mulch typically does not account for weed seed control so the inclusion of weed plants or seeds should be monitored and minimized or prevented during application.</p>
Wood Strand Mulch
<ul style="list-style-type: none"> <li>• Wood strand mulch shall be:                             <ul style="list-style-type: none"> <li>- A blend of loose long, thin wood pieces derived from native conifers or deciduous trees with high length-width ratio.</li> <li>- A minimum of 95% of the wood strand shall have lengths between 2" and 10" with a width and thickness between 1/16" and 3/8".</li> <li>- Free of resin, tannin, or other compounds that are detrimental to plant establishment and growth.</li> <li>- Applied 2" thick.</li> </ul> </li> </ul> <p>Do not use sawdust or wood shavings.</p>
Straw
<ul style="list-style-type: none"> <li>• Straw shall be:                             <ul style="list-style-type: none"> <li>- Air-dried.</li> <li>- Free from undesirable seed and coarse material.</li> <li>- Applied 2"-3" thick (5 bales per 1000 ft<sup>2</sup> or 2-3 tons per acre)                                     <ul style="list-style-type: none"> <li>• Thickness may be reduced by half when used with seeding.</li> <li>• Hand-application requires a greater thickness than blown straw to ensure required coverage.</li> </ul> </li> <li>- Held in place by crimping, using a tackifier, or covering with netting. Blown straw shall be held in place using a tackifier.</li> </ul> </li> <li>• Although straw can be cost-effect, straw can introduce and/or encourage weed species and has no long-term benefits so should only be used when other materials are unavailable.</li> </ul> <p>Do not used within the ordinary high-water elevation of surface waters (due to flotation).</p>

## **1.10 BMP C123: Plastic Covering**

### **1.10.1 Purpose**

Plastic covering provides immediate, short-term erosion protection to slopes and disturbed areas.

### **1.10.2 Conditions of Use**

- Plastic covering may be used on disturbed areas that require cover measures for less than 30 days, except as stated below.
- Plastic is particularly useful for protecting cut and fill slopes and stockpiles.
- The relatively rapid breakdown of most polyethylene sheeting makes it unsuitable for long-term (greater than six months) applications.
- Due to rapid runoff caused by plastic covering, this method shall not be used upslope of areas that might be adversely impacted by concentrated runoff. Such areas include steep and/or unstable slopes.
- Whenever plastic is used to protect slopes, water collection measures must be installed at the base of the slope. These measures include plastic-covered berms, channels, and pipes used to convey clean rainwater away from bare soil and disturbed areas. At no time is clean runoff from a plastic covered slope to be mixed with dirty runoff from a project.
- Other uses for plastic include:
  - Temporary ditch liner;
  - Pond liner in temporary sediment pond;
  - Liner for bermed temporary fuel storage area if plastic is not reactive to the type of fuel being stored;
  - Emergency slope protection during heavy rains; and
  - Temporary conveyance used to direct stormwater and surface water.

### **1.10.3 Design and Installation Specifications**

Plastic slope cover must be installed as follows:

- Run plastic up and down slope, not across slope.
- Plastic may be installed perpendicular to a slope if the slope length is less than 10 feet.
- Minimum of 8-inch overlap at seams.
- On long or wide slopes, or slopes subject to wind, all seams should be taped.
- Place plastic into a small (12-inch wide by 6-inch deep) slot trench at the top of the slope and backfill with soil to keep water from flowing underneath.
- Place sand filled burlap or geotextile bags every 3 to 6 feet along seams and pound a wooden stake through each to hold them in place. Alternative options for holding plastic in place exist and may be considered with COT approval.
- Inspect plastic for rips, tears, and open seams regularly and repair immediately. This prevents high velocity runoff from contacting bare soil, which causes extreme erosion;
- Plastic sheeting shall have a minimum thickness of 6 mil.

- If erosion at the toe of a slope is likely, a gravel berm, riprap, or other suitable protection shall be installed at the toe of the slope in order to reduce the velocity of runoff.

**1.10.4 Maintenance Standards**

- Torn sheets must be replaced and open seams repaired.
- If the plastic begins to deteriorate due to ultraviolet radiation, it must be completely removed and replaced.
- When the plastic is no longer needed, it shall be completely removed.
- Properly dispose of products used to weigh down covering.

## **APPENDIX D**

### **ARBORIST REPORT**

# SUF

SOUND URBAN FORESTRY, LLC

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Appraisals ~ Site Planning ~ Urban Landscape Design and Management  
Environmental Restoration ~ Tree Risk Assessment ~ Tree Protection Plans

2/21/2024

City of Tacoma Public Works Engineering  
Clara Dubow, Engineering Project Manager  
747 Market Street, Room 544  
Tacoma, Washington 98402

**RE: Pedestrian Accessibility District 10 Arborist Assessment**

Ms. Dubow:

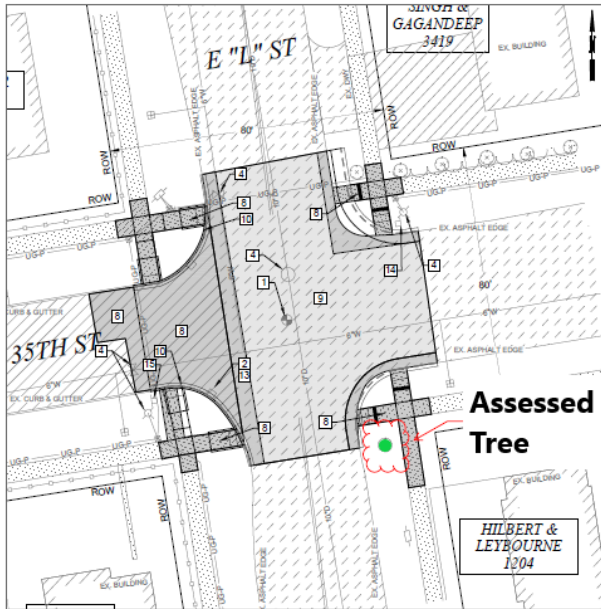
Upon your request, I have conducted an assessment of six trees located adjacent to upcoming intersection improvement projects within the City of Tacoma. The project will focus on sidewalks and ADA compliant curbs and may have impacts on the nearby trees. I visited the sites on February 15, 2024.

## Findings

### 35<sup>th</sup> ST & E “L” ST

The identified tree is located at the southeast corner of the intersection within a 9’ wide planting strip. It is a 26” diameter black locust (*Robinia pseudoacacia*) with an approximate height of 52’. It is in poor condition with a high number of dead branches, some of large diameter, throughout the canopy. It was previously topped at 10’ and again at 20’. The roots are causing a slight lift to the sidewalk panels. Communication lines run through the canopy.

Considering the number of dead branches and high use potential targets, this tree is “High-Risk” and I would recommend it be removed. The impacts from the sidewalk replacement would likely be detrimental and it is not worth the extra measures of protection. It is considered an invasive by the City and not eligible for retained tree credit.

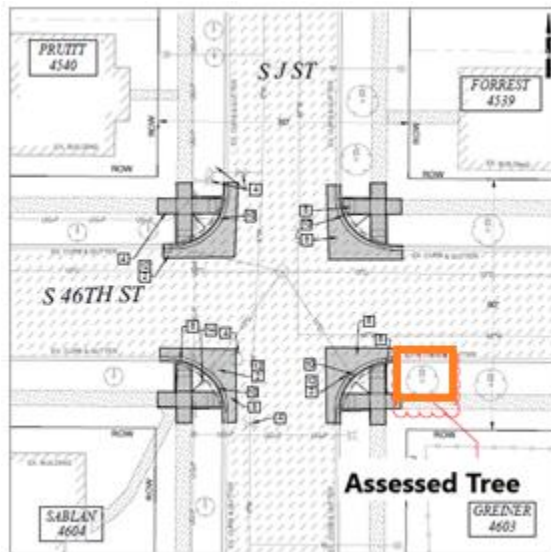




## S 46<sup>th</sup> ST & S “J” ST

The identified tree is located at the southeast corner of the intersection within a 9' wide planting strip. It is a 28" diameter red maple (*Acer rubrum*) with an approximate height of 50'. It is in overall fair condition and was previously topped at 30' and again at 40'. Decay is present in a few of the scaffold branches, likely associated with the past topping. The roots are lifting the sidewalk along 46<sup>th</sup> ST by as much as 6".

I have determined this tree can be retained and the adjacent project will not be detrimental to the health or stability if properly protected. Root pruning guidelines should be followed and I am also recommending tree protection fencing (shown in orange in the diagram below) that meets the City's standards.



## S 54<sup>th</sup> ST & S “J” ST

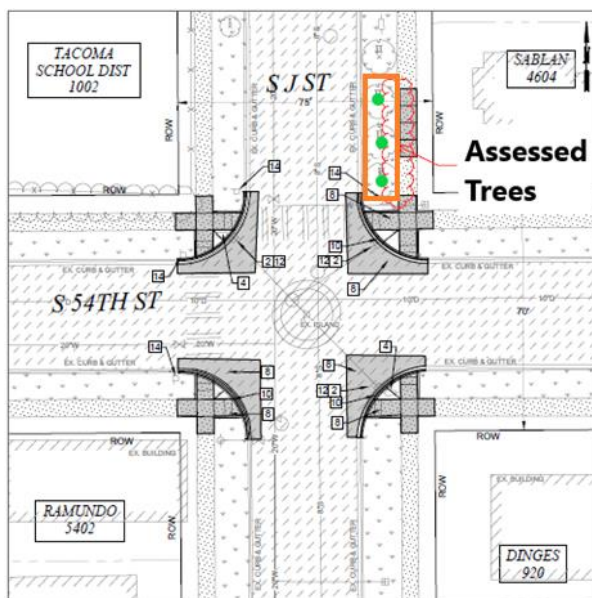
This location involves three trees, located in a 11’ wide planting strip at the northwest corner of the intersection, along S “J” ST.

*Tree #1:* 21” Sweetgum (*Liquidambar styraciflua*). Approximate height of 50’ in fair condition. There are indications of a previous co-dominant stem failure at 22’, typical of the species. The roots are lifting the sidewalk panels by 5” and also damaging the curb and street. A communication line runs through the canopy.

*Tree #2:* 22” Sweetgum. Approximate height of 55’ in good condition. The roots are lifting the sidewalk panels by 5” and also damaging the curb and street. A communication line runs through the canopy.

*Tree #3:* 22” Sweetgum. Approximate height of 50’ in good condition. The roots are lifting the sidewalk panels and curb. A communication line and two service drops run through the canopy.

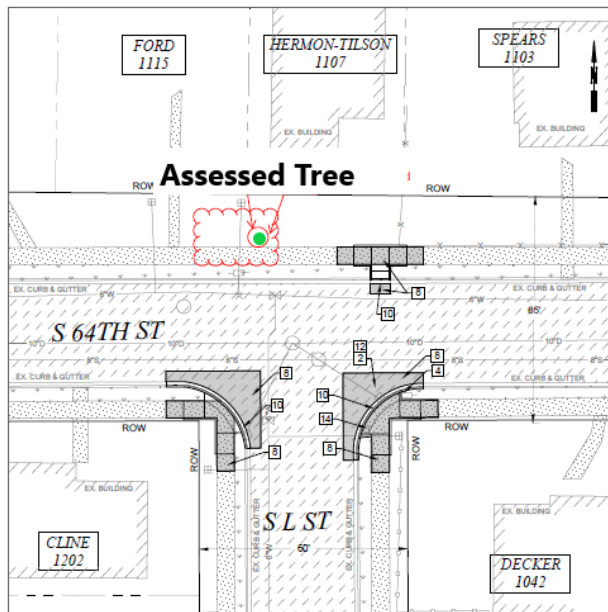
I believe these three trees can be safely retained with the proposed project if the attached root pruning guidelines are followed. It is likely that roots will be encountered and the root pruning will be necessary but it will not be detrimental to the health or stability of the trees. There will also likely be the need for canopy clearance pruning as there are several low growing branches. This needs to be done selectively since the removal of the larger branches would take too high a percentage of the canopy. Pruning should follow the attached guidelines and be either applied or overseen by an ISA Certified Arborist. I am also recommending tree protection fencing (shown in orange in the diagram below) that meets the City’s standards.



## S 64<sup>th</sup> St & S “L” ST

The identified tree is a 65” giant sequoia (*Sequoiadendron giganteum*) located behind the sidewalk. It is in poor condition due to repeated topping for utility line clearance. The roots are lifting the sidewalk panels by 2-3’ and are also lifting the curb and street asphalt.

Taking into consideration the current condition of the tree, the overhead utilities, the extent of sidewalk lifting and the impacts that would occur in order to repair the sidewalk, I recommend this tree be removed. Without a substantial bump-out, I do not believe it would be possible to repair the sidewalk to meet City standards without removing a detrimental amount of the root flare and critical root zone.





## Root Pruning Guidelines

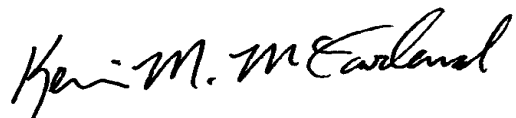
The following guidelines should be followed if any roots are encountered while working adjacent to the trees described above.

- Roots that measure 3" in diameter or less should be cleanly cut using hand pruners or a saw along the edge of the project area.
- If roots greater than 3" are exposed within a tree's critical root zone (defined within the City of Tacoma's Urban Forest Manual as a radius of 1' for every 1" of trunk diameter), then an on-site assessment by a Certified Arborist should be required prior to any root cutting. The removal of roots of this size from within the CRZ can be detrimental to the health and stability of a tree and additional measures may be necessary.
- If roots measuring greater than 3" are exposed outside of any tree's critical root zone, they should be shaved down by 1/3 of the diameter to obtain the acceptable clearance depth for the subgrade and overlay. This can be achieved by using a hand or portable circular saw and cutting perpendicular to the root down to a depth of 1/3 the diameter at 2" intervals. Then a chisel can be used to remove the 2" sections.

## Canopy Pruning Guidelines

- Pruning cuts should not damage the branch bark ridge or collar and not leave a stub.
- Large limbs should be pre-cut to avoid tearing the bark.
- When removing a leader or co-dominant stem, the cut should bisect the angle between the branch bark ridge and an imaginary line perpendicular to the leader or stem.
- Directional pruning should be applied where necessary.
- Topping or stub cuts are not acceptable.
- Reduction cuts should be made to a live lateral branch or co-dominant stem. The remaining lateral branch should typically be at least one-third the diameter of the stem or branch being removed.
- A branch removal cut removes the smaller of two branches at a union, or parent stem, without cutting into the branch bark ridge or collar.
- Pruning operations should remove no more living material than what is necessary to achieve specified objectives.

Respectfully Submitted

A handwritten signature in black ink that reads "Kevin M. McFarland". The signature is written in a cursive, flowing style.

Kevin M. McFarland, SUF  
Consulting Urban Forester/ISA Certified Arborist & Tree Risk Assessment Qualified

**PART III**

**CITY OF TACOMA**

**EQUITY IN CONTRACTING**

**PROGRAM**



City of Tacoma  
Community & Economic Development  
747 Market Street, Rm 900  
Tacoma WA 98402

## CITY OF TACOMA EQUITY IN CONTRACTING (EIC) PROGRAM

### Bidders Special Instructions

As part of the City of Tacoma's ongoing work to address past disparities and to increase the City's contracting with and utilization of historically underutilized businesses, the Equity in Contracting (EIC) Program places requirements on City contracts for utilization of businesses certified by the Washington State Office of Minority and Women's Business Enterprise (OMWBE) and approved by the Equity in Contracting Program ("Certified Businesses"). The EIC Program also provides guidance and technical assistance to Certified Businesses who are interested in providing supplies, services and public works to the City of Tacoma.

The EIC Program requirements are contained in [Tacoma Municipal Code Chapter 1.07](#).

Contractors bidding on City of Tacoma projects are required to meet the stated EIC requirements. Bids will be evaluated on an individual basis to determine EIC compliance. **A contractor who fails to meet the stated EIC requirements will be considered non-responsible.** Bidders are also subject to the City's Equal Employment Opportunity policies prohibiting discrimination.

The stated EIC requirements may be met by the contractor or by identified subcontractors. All EIC Requirements may be met by using MBEs, WBEs, DBEs or SBEs from the OMWBE certified list ([OMWBE website](#)). It is the bidder's responsibility to ensure that their firm or identified subcontractors are certified by OMWBE and approved by the City of Tacoma EIC Program **at the time of bid submittal**. Business certification may be verified by contacting the EIC Office\*.

*For the OMWBE list, be sure to look for businesses in Pierce, King, Lewis, Mason, Grays Harbor, Thurston, or any counties adjacent to the county in which the work is performed per 1.07.050(2)(b-c). Contact the EIC Office\* if you have any questions.*

**The Equity in Contracting (EIC) forms included in these bid documents must be fully completed (including attachments) and included with bid submittals. Failure to include the required forms will result in the submittal being rejected as nonresponsive.**

#### **Post-Award Important Information**

**For all contracts that have requirements related to the EIC policy, the City of Tacoma is utilizing a cloud-based software system:**

**B2Gnow** - Contractors and subcontractors must report payment information in the B2Gnow System on a monthly basis. The EIC Staff will monitor/audit that retainage is paid by the prime contractor to the subcontractor(s) within 10 [working] days after the subcontractors' work is satisfactorily completed. This will be monitored/audited using the B2Gnow System.

The system is monitored/audited by EIC staff to ensure contract compliance, proactively identify potential issues, and track contract progress.

**\*EIC STAFF Contact Information**

**For questions regarding Certifications, EIC Compliance and B2GNow support, contact EIC Staff:**

- Call EIC Office at (253) 591-5630 or (253) 591-5826
- Email EIC Office at [EICOffice@cityoftacoma.org](mailto:EICOffice@cityoftacoma.org)



# EQUITY IN CONTRACTING (EIC) UTILIZATION FORM



**STOP! READ Instructions to Bidders/Proposers for completing EIC Utilization Form.**

Failure to complete all sections of this form according to the instructions provided or failure to submit this form shall render the bid or proposal non-responsive. (If necessary, use additional forms to list the requirements of Columns A-D). City reserves the right to make minor, non-material corrections to completed Forms, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.

**Please note: Certified Businesses MUST be certified at time of or prior to bid opening.**

<b>1. Bidder Name:</b>					
<b>2. Project Title:</b>				<b>3. SPEC #:</b>	
<b>4. Base Bid – No Sales Tax (Must match Bid Proposal amount)</b>	\$				
Column A. Certified Business Name	Column B. Business Cert. Type			Column C. Bid Item(s) Number(s) performed by the Certified Business(es)	Column D. Subcontract Amount <small>If Material supplier, only 20% of the subcontract amount can be counted towards the EIC Requirements</small>
	MBE	WBE	SBE/DBE		
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	

\* For EIC Requirements on this Project, refer to \*EIC Requirements (EIC Reqs) Memo in the Bid Package

# EQUITY IN CONTRACTING (EIC) UTILIZATION FORM



**STOP! READ Instructions to Bidders/Proposers for completing EIC Utilization Form.**

Failure to complete all sections of this form according to the instructions provided or failure to submit this form shall render the bid or proposal non-responsive. (If necessary, use additional forms to list the requirements of Columns A-D). City reserves the right to make minor, non-material corrections to completed Forms, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.

**Please note: Certified Businesses MUST be certified at time of or prior to bid opening.**

## Example of a COMPLETED EIC UTILIZATION FORM

**Initial Information:**

<b>1. Bidder Name:</b>	ABC Construction, Inc.			<b>3. SPEC #:</b>	PW23-0011F
<b>2. Project Title:</b>	Downtown Restoration and Street Maintenance Project				
<b>4. Base Bid – No Sales Tax (Must match Bid Proposal amount)</b>	\$359,670.00				
Column A. Certified Business Name	Column B. Business Cert. Type			Column C. Bid Item(s) Number(s) performed by the Certified Business(es)	Column D. Subcontract Amount <small>If Material supplier, only 20% of the subcontract amount can be counted towards the EIC Requirements</small>
	MBE	WBE	SBE/DBE		
Traffic ABC <small>Representative Name &amp; Contact # below: Beth Bell – (253) 555-3333</small>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Bid Item #4- Pedestrian Traffic Control</b> <small>What is the Certified Firm Project Role? Subcontractor <input checked="" type="checkbox"/> Material Supplier (20%) <input type="checkbox"/></small>	<b>\$30,000</b>
Survey 101, Inc. <small>Representative Name &amp; Contact # below: John Doe – (253) 111-2233</small>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Bid Item #1 – Roadway Surveying</b> <small>What is the Certified Firm Project Role? Subcontractor <input checked="" type="checkbox"/> Material Supplier (20%) <input type="checkbox"/></small>	<b>\$9,500.00</b>
Hello Manufacturer <small>Representative Name &amp; Contact # below: Sam Jam – (253) 555-7899</small>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Bid Item #66- Green Durable Product</b> <small>What is the Certified Firm Project Role? Subcontractor <input type="checkbox"/> Material Supplier (20%) <input checked="" type="checkbox"/></small>	<b>\$10,000</b> <small>(In this example, Total subcontract amount is \$10,000- Only 20% of total will be applied towards *EIC Reqs)</small>
<small>Representative Name &amp; Contact # below:</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<small>What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/></small>	

\* For EIC Requirements on this Project, refer to \*EIC Requirements (EIC Reqs) Memo in the Bid Package

# INSTRUCTIONS TO BIDDERS FOR COMPLETING THE EQUITY IN CONTRACTING (EIC) UTILIZATION FORM

## Complete Initial Information Section:

1. Enter Bidder firm name
2. Enter Project Title as it appears on the Specification
3. Enter Spec # as it appears on the Specification
4. State the Base Bid, which is the Bidder's bid amount, plus any alternates, additives, and deductive selected by the City. Do not include sales tax.

**Complete Column "A":** List all Certified Businesses with whom you will execute a subcontract if you are the successful Bidder. Provide a contact person for the Certified Business and the contact phone number.

**Complete Column "B":** State if the identified Certified Business is certified as an MBE, WBE, and/or SBE/DBE. **Note:** One Certified Business may count towards multiple requirements; check all applicable certifications

**Complete Column "C":** Specify the role of each listed Certified Business by checking Subcontractor or Material Supplier. **Note:** Each role counts differently towards EIC Utilization Requirements.

- Subcontractor: 100% of subcontract amount counts towards the EIC Utilization Requirement
- Material Supplier: 20% of supply expenditure amount counts towards the EIC Utilization Requirement
- **EXAMPLE** Material cost = \$100,000 equates to  $(\$100,000 \times 20\%) = \$20,000$  to be applied towards the EIC Requirements

Provide a description of the scope of work, services, or materials/supplies planned to be provided by each listed Certified Business.

**Note:** The work description for each Certified Business listed on the EIC Utilization form must match the Certified Business's OMWBE Profile. This ensures that the Certified Business is able to perform the work scope or role for which they have been listed.

**Complete Column "D":** Enter the subcontract amount for each Certified Business listed. This amount is the price that Bidder and Certified Business have agreed upon **prior to submittal**.

## ADDITIONAL IMPORTANT INSTRUCTIONS:

- Bidders must contact and solicit bids from Certified Businesses prior to listing them on the EIC Utilization Form. EIC staff will contact all listed Certified Businesses to verify that they have been contacted by Bidder regarding participation and subcontract amounts **prior to being listed on this form**. If the listed Certified Businesses have not been contacted prior to being listed on this form, Bidders will be deemed non-responsive.
- Include the completed EIC Utilization form with bid submittal. Incomplete, incorrect, or missing forms will render a bid nonresponsive.
- If awarded the Contract from the Specification bidders must execute subcontracts or supply agreements with Certified Businesses listed on the EIC Utilization Form. Failure to enter into an agreement with the Certified Businesses listed in Column A for at least the corresponding dollar amount listed in Column D, may result in penalties authorized by the Tacoma Municipal Code (TMC) 1.07.110.

# **CITY OF TACOMA**

## **EQUITY IN CONTRACTING (EIC) PROGRAM REGULATIONS**

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## I. Introduction

Tacoma Municipal Code (TMC) Chapter 1.07 authorizes the City of Tacoma’s Equity in Contracting (EIC) Program (Program) to address the historical underutilization and lack of participation of small, women and minority owned businesses in City contracts for supplies, services, and public works. TMC 1.07.040 authorizes the Community and Economic Development Department (CEDD) Director to adopt these administrative EIC Program Regulations (Regulations).

For questions, observations or recommendations related to these Regulations, please contact the EIC office at (253) 591-5826 or by email at [EICoffice@cityoftacoma.org](mailto:EICoffice@cityoftacoma.org).

## II. Objectives, Applicability and Overall Annual EIC Goal

The purpose of the EIC Program and of these Regulations is to advance the policy set forth in TMC 1.07.010: to “facilitate a substantial procurement, education, and mentorship program designed to promote equitable participation by historically underutilized businesses in the provision of supplies, services, and public works to the City.” These Regulations are intended to aid and guide City staff, Certified Businesses, Contractors and Suppliers and other stakeholders, to ensure the Program is implemented clearly and consistently and to encourage, facilitate and assist the participation of Certified Businesses in City of Tacoma contracts.

The current annual EIC goal is 20%, which was reached by utilizing [the City of Tacoma’s most recent disparity study](#) to determine the level of Certified Business participation in City Contracts expected in the absence of persistent effects of discrimination. The dollar value of all contracts awarded to or performed by Certified Businesses shall be counted toward the annual EIC goal. The EIC goal may be updated or changed in alignment with future disparity studies.

Currently the EIC Program is requiring participation by Certified Businesses only on contracts for public works. The Program is intended to apply to all City contracts for supplies, services, and public works (other than those contracts subject to exemption, exception, or waiver) and these Regulations will be updated as the City develops specific requirements and processes for Certified Business participation in contracts for supplies and services.

### III. Definitions

Terms used in these Regulations shall have the following meanings unless defined differently in Tacoma Municipal Code Chapter 1.07, in which case the definition contained in TMC controls

**“B2Gnow”** is the system utilized by the City of Tacoma Equity in Contracting (EIC) Staff to track payments to Contractors and all Subcontractors on all Public Works and Improvements projects including Equity in Contracting (EIC) Requirements.

**“Bid”** means an offer submitted by a Respondent to furnish Supplies, Services, and/or Public Works in conformity with the Specifications and any other written terms and conditions included in a City request for such offer.

**“Bidder”** means an entity or individual who submits a Bid, Proposal or Quote. See also “Respondent.”

**“Certified Business”** means an entity that has been certified as a Disadvantaged Business Enterprise (“DBE”), Small Business Enterprise (“SBE”), Minority Business Enterprise (“MBE”), Women Business Enterprise (“WBE”), or Minority and Women’s Business Enterprise (“MWBE”) by the Washington State Office of Minority and Women’s Business Enterprise.

**“City”** means all Departments, Divisions, and agencies of the City of Tacoma.

**“Change Order”** means a reduction or change to the contracted scope of work potentially affecting the Equity in Contracting Requirements initially set on a project.

**“Contract”** means any type of legally binding agreement regardless of form or title that governs the terms and conditions for procurement and performance of Public Works and Improvements and/or Non-Public Works and Improvements, Supplies and Services.

**“Contractor” or “Supplier” or “Bidder”** means any Person that presents a Submittal to the City, enters into a Contract with the City, and/or performs all or any part of a Contract awarded by the City, for the provision of Public Works, or Non-Public Works and Improvements, Supplies or Services.

**“Disparity Study”** is a study that determines whether a government entity, either in the past or currently, engages in exclusionary practices in the solicitation and award of contracts to small, minority, women-owned, and disadvantaged business enterprises. The primary goal of the study is to assess, quantify, and evaluate the prevalence, significance (degree and weight) and scope of discrimination in the marketplace.

**“Exception” or “Exemption”** means the limited circumstances in which EIC Requirements do not apply or will not be applied to a Contract.

**“EIC Manager”** is the individual authorized by TMC to administer the Equity in Contracting Program.

**“EIC Requirements” or “Contract Requirements”** are the specified Requirements for Certified Business participation applied to a Contract using the EIC Requirements Setting Methodology.

**“EIC Requirement Setting Methodology”** is as defined in Appendix No. 1 to these Regulations.

**“EIC Staff”** means Equity in Contracting Program staff.

**“Exception Request”** means a request that no EIC requirements be applied to a Contract. See Appendix No. 3 to these Regulations.

**“Goal”** means the annual level of participation by Certified Businesses in City Contracts as established in The Tacoma Municipal Code TMC 1.07.020G, the Program Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations.

**“LCPtracker”** is the system used by the Local Employment and Apprenticeship Program (LEAP) Staff to monitor compliance with LEAP workforce utilization requirements and prevailing wage law.

**“Non-Public Works and Improvements”** means procurement of and contracting for Supplies and/or Services not solicited as Public Works.

**“Notice of physical completion”** means all physical work is done and the contractor has left the site. However, there may still be some outstanding paperwork or documentation remaining.

**“Notice of substantial completion”** means all physical work is complete except for punch list items. Only minor incidental work remains, such as minor corrections or repairs.

**“Person”** means individuals, companies, corporations, partnerships, associations, cooperatives, any other legally recognized business entity, legal representative, trustee, or receivers.

**“Program Manager”** means the individual appointed by the City’s Community and Economic Development Director to administer the Program and these Regulations.

**“Program Regulations” or “Regulations”** means these Regulations.

**“Project Delivery Team”** refers to the City of Tacoma personnel working on the project from the Department or Division awarding and administering the Contract.

**“Proposal”** means a written offer to furnish Supplies or Services in response to a Request for Proposals. This term may be further defined in the Purchasing Policy Manual and/or in competitive solicitations issued by the City.

**“Public Works (or “Public Works and Improvements)”** means all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the City, or that is by law a lien or charge on any property therein, as is defined in RCW Chapter 39.04 and as may be hereinafter amended. This term includes all Supplies, materials, tools, and equipment to be furnished in accordance with the Contract for such work, construction, alteration, repair, or improvement.

**“Responsive or Responsible Bidder”** is as defined within the City of Tacoma Purchasing Policy.

**“Quote”** means a competitively solicited written offer to furnish Supplies or Services by a method of procurement that is less formalized than a Bid or a Proposal.

**“Respondent”** means any entity or Person that provides a Submittal in response to a Request for Bids, Request for Proposals, Request for Qualifications, Request for Quotes or other request for information, as such terms are defined in TMC Chapter 1.06 and in Purchasing Policy and Procedures.



**“Requirements”** means the level of required participation by Certified Businesses in City Contracts as established by TMC Chapter 1.07, the Program Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations.

**“Services”** means non-Public Works and Improvements services and includes professional services, personal services, and purchased services, as such terms are defined in Chapter 1.06. TMC and in Purchasing Policy and Procedures.

**“Specification”** means the document and any subsequent addenda, including terms and conditions that describes the physical or functional characteristics, or the nature of the required Supplies, Services, or Public Works; commonly referred to as the Bid document or Bid Specification.

**“Submittal”** means Bids, Proposals, Quotes, Qualifications, or other information submitted in response to Requests for Bids, Requests for Proposals, Requests for Qualifications, Requests for Quotations, or other City requests for information, as such terms are defined in Chapter 1.06 TMC and in Purchasing Policy and Procedures.

**“Supplies”** means materials, supplies, and other products that are procured and contracted for by the City.

**“Tacoma Public Utilities Service Area”** means any ZIP code in which Tacoma Public Utilities maintains infrastructure or provides retail services.

**“Undue hardship”** means an action that places a significant burden on a business.

**“Waiver”, with regards to the Post-Bid EIC Waiver Process,** means a discretionary decision made by the City after Bids are received that EIC Requirements, in whole or in part, will not be applied to a Contract or Contracts.

## IV. Exemptions or Exceptions to EIC Program Requirements

### A. Contracts that are not competitively solicited by the City of Tacoma.

No EIC Requirements will apply to contracts awarded in the manners listed below. These contracts are exempt from EIC Requirements, and no Exception Request is needed to be completed:

1. **Emergency** (TMC 1.06.257.C). Situations where breakage or loss of equipment has or is about to interrupt necessary services, where public health or safety may be jeopardized, or when required by regulatory agency, or state law. If the supplies, services, or public works must be provided with such immediacy that neither the City nor the contractor can comply with the EIC Requirements, none will be applied. Such emergency will be deemed

documented whenever a waiver of competitive solicitation for emergency situations is authorized under Tacoma Municipal Code Chapter 1.06.257 or as may be hereinafter amended.

2. **Sole Source** (TMC 1.06.257.A and 1.06.258). If the supplies, services, or public works are available from only one feasible source, and subcontracting possibilities do not reasonably exist as documented by the Department or Division awarding the Contract. Such circumstance is documented by the approval of the Procurement and Payables Division Manager or delegee and for Contracts where the estimated cost is over \$500,000 (excluding sales tax) by the approval of the Contracts and Awards (C&A) Board.
3. **Not Practicable to Bid** (TMC 1.06.257.B). An immediate and important need for proposed construction, installation, repair, materials, supplies, equipment, or services where the delay that would result from following competitive solicitation process would cause financial loss to the City or an interruption of vital services to the public. Such circumstance is documented by the approval of the Procurement and Payables Division Manager or delegee and for Contracts where the estimated cost is over \$500,000 (excluding sales tax) by the approval of the C&A Board.
4. **Direct Solicitation and Negotiation** (1.06.256.B). Contracts for Professional or Personal Services, excluding architectural and engineering services. When City Manager or Director of Utilities or their delegees determine use of direct solicitation and negotiation process to be in the best interests of the City no EIC requirements will be applied to the resulting contract.
5. **Government or Cooperative Purchasing.**  
The Contract is the result of a federal, state, or inter-local government purchasing agreement and the use of such agreement in lieu of a bid solicitation conducted by the City is in accordance with TMC Chapter 1.06 and Purchasing Policy and Procedures.

## B. Lack of Certified Businesses

If it is determined there are an insufficient number of Certified Businesses to perform the work scopes listed in the Contract, no EIC Requirement will be applied. The process for requesting and approving an exception for lack of Certified Businesses is as follows:

1. If after Program review of a project using the established EIC Requirement setting methodology, it is determined by EIC Staff that there will be an insufficient number (3 or less) of Certified Business available to meet the requirement, EIC Staff sends an Exception Request to EIC Manager for review and approval.

2. If, after EIC Staff has set EIC Requirements on a project, the Project Delivery Team determines that additional information justifies an exception for lack of Certified Business, the Project Delivery Team sends an Exception Request via email to the EIC Team who will then forward it to the EIC Program Manager with necessary project background information for final review and approval.

## C. Public Works and Improvement Projects with a Value of \$150,000 or Less

EIC Requirements will not be set on public works and improvement projects with an engineer's estimate value of \$150,000 or less. However, EIC Staff will collaborate with the Project Delivery Team to proactively outreach to Certified Businesses and provide technical assistance to encourage participation.

## D. Documentation of Granted Exceptions

All exceptions must be documented in the Program's reporting and goal spreadsheet database. Analysis will be done by the EIC Manager to understand what measures the City can take to ensure that exceptions to the EIC Requirements occur only when necessary.

# V. EIC Requirements for Contracts for Public Work

All City contracts for Public Work – except for projects with an engineer's estimate value of \$150,000 or less – are subject to EIC Requirements. In no case will EIC Requirements exceed a total of 20 percent (20%) of the Engineer's estimate. If a contract is federally funded, any federal program supersedes the Equity in Contracting Program and these regulations.

## A. EIC Pre-Award Process

### 1. EIC Contract Requirements Set

Using the EIC Requirements Setting Methodology contained in Appendix No. 1 to these Regulations, EIC Staff will set requirements for the use of Certified Businesses using two potential options.

**Option 1:** EIC Staff applies three (3) separate requirements (MBE, WBE, SBE) in accordance with the EIC Requirements Setting Methodology. Each stated Requirement must be fulfilled by using the specified category of Certified Business.

**Option 2:** If after setting the EIC Requirements, reviewing the OMWBE directory, and discussing with the Project Delivery Team, it is determined that fulfilling each requirement separately might present undue hardship for contractors, EIC staff will apply an overall EIC Requirement. The overall EIC Requirement is the sum of the 3 separate requirements initially established as a result of using the EIC Requirement Setting Methodology. Under Option 2 Bidders can use any combination of MBEs, WBEs, SBEs or DBEs to fulfill the overall EIC Requirement.

Staff guidance for determining if an overall EIC Requirement Option 2 is appropriate can be found in Appendix No. 2 to these Regulations.

After utilizing Option 1 or Option 2 to set the EIC Requirements, EIC staff will send an EIC Memo to the Project Delivery Team informing of the EIC Requirements for the project.

## B. EIC Bid Review Process

Contracts for Public Work must be awarded to the lowest responsive and responsible Bidder. EIC Program Staff conducts a review of Submittals for EIC compliance.

### 1. Review for Bidder Responsiveness

- i. Bids must list Certified Businesses. If a listed business is not certified with OMWBE as of the date of bid opening the bid will be recommended to be rejected as non-responsive.
- ii. All sections of the EIC Utilization form located in Appendix No. 3 to these Regulations must be completed according to the stated instructions and the properly completed form must be included with bid submittal.
- iii. Submittals that do not include a properly completed EIC Utilization form will be recommended by EIC Staff to be rejected as non-responsive bids. To be considered “completed”, the required forms must be filled out with all the information required to be provided. No fields should be left incomplete or designated N/A or otherwise lacking a required response. EIC Staff reserves the right to make minor non-material corrections to the form, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.
- iv. The work description for each Certified Business listed on the EIC Utilization form must match the Certified Business’s OMWBE Profile. This ensures that the Certified Business is able to complete the work scope or role for which they have been listed.
- v. Bidder must contact and solicit bids from Certified Businesses prior to listing them on the EIC Utilization Form and prior to bid submittal. EIC Staff will contact all listed Certified Businesses. If a listed Certified Business has not been contacted by the Bidder prior to being listed, the bid will be rejected as non-responsive.

## 2. Review for Bidder Responsibility

- i. The EIC Utilization Form must demonstrate that the bidder has obtained enough EIC participation to meet or exceed the EIC Requirements for that contract. Submittals that do not meet or exceed the stated requirements will be recommended to be rejected as non-responsible bids.

## 3. Self-Performing Bidders

Bidders who are themselves Certified Businesses can meet the EIC requirements by self-performance. When a Certified Business is the prime bidder, an adjustment may be made to the EIC Requirements. In such cases, the self-performing Certified Business can be found to be a responsible bidder even if the bid did not satisfy all three stated EIC Requirements (SBE, MBE and WBE). For example, if a bidder is certified as an MBE and an SBE, the WBE Requirements may be deemed waived since the Contractor's self-performance as an MBE and an SBE achieves the total Requirement.

## 4. EIC Recommendation

- i. If the apparent low bidder is deemed non-responsive or non-responsible, EIC Staff will review the next lowest bidder's submittal.
- ii. Once EIC Staff has reviewed the EIC portion of the submittal, a bid review memo is sent to the Project Delivery Team to notify them of the status of the apparent low bidder and will include any recommendation to reject submittals as non-responsive or non-responsible.

## VI. Post-Bid EIC Waiver Requests Process

Per TMC 1.07.060 (C), if, after receipt of submittals but prior to Contract award, it is determined that due to unforeseen circumstances (which may be demonstrated by bidder(s) failure to meet the stated Requirements) waiver of the stated EIC Requirements in whole or in part for the project is in the best interest of the City, the Director or Superintendent of the Project Delivery Team may request the stated EIC Requirements be waived in full or in part.

The waiver request must be made using the EIC Waiver Request Form shown in Appendix No. 4 to these Regulations and initiated by the applicable Director or Superintendent of the Project Delivery Team. The form is then forwarded to the Procurement and Payables Division Manager for review and signature,

followed by the City Manager or the Director of Utilities for review and signature. EIC Staff notifies the Project Team of the decision made.

If the Waiver Request is approved by the City Manager or Utilities Director, any new EIC Requirements will be equal to the EIC Utilization percentage listed on the successful bidder's EIC Utilization form (which could be zero).

If the Waiver Request is not approved by the City Manager or Utilities Director, the Project Delivery Team must re-bid the project or award to the next lowest bidder who has satisfied the stated EIC Requirements.

In all instances where a Waiver is approved by the City Manager or Utilities Director, analysis will be done by the EIC Manager to understand what measures the City can take to ensure that waivers of the EIC requirements are granted only when absolutely necessary.

## VII. EIC Contract Monitoring and Compliance

All contracts will be monitored by the Program to ensure compliance with the stated EIC Requirements throughout the term of the Contract including as follows:

### A. Coordination between Project Delivery Team and Program

During the term of the contract, the Project Delivery Team will include EIC Staff in the pre-bid, pre-construction, and progress meetings. Additionally, the Project Delivery Staff will send Contract & Award (C&A) Letters, Notice to Proceed and Notice of Physical Completion to EIC Staff.

### B. Utilization of B2Gnow System

1. Once EIC Staff receives the Notice to Proceed, the Project is created in B2Gnow.
2. Once the Project has been created in B2Gnow by EIC Staff, a letter is automatically sent from B2Gnow to the Contractor and all Certified Businesses included in the project to notify them of the new project and what is expected of them in the B2Gnow System.
3. Contractors must utilize B2Gnow by entering their monthly payment reports in the system. EIC Staff tracks EIC utilization by ensuring all payment reports are entered monthly by the Project Delivery Team and the Contractor and payments are confirmed by the Subcontractors.

## C. B2Gnow Monitoring

### 1. Prompt Payment

For the full lifecycle of the project, on a monthly basis, EIC Staff must ensure the following actions have occurred in the B2Gnow system:

- a. The Department/Division in charge of the contract has entered payment submitted to the Contractor.
- b. The Contractor has entered payments submitted to all Certified Businesses.
- c. The Certified Businesses have confirmed prompt receipt of payments from the Contractor for work performed. In compliance with the WA State Legislature Revised Code of WA (RCW) 39.04.250 (1) \*, EIC Staff will verify that subcontractors are paid no later than 10 days after the Prime receives payment from the City of Tacoma Department/Division in charge of the contract.

\*RCW 39.04.250 (1) "When payment is received by a contractor or subcontractor for work performed on a public work, the contractor or subcontractor shall pay to any subcontractor not later than ten days after the receipt of the payment, amounts allowed the contractor on account of the work performed by the subcontractor, to the extent of each subcontractor's interest therein.

2. If the above actions have not taken place or if there are any discrepancies in the system, EIC Staff will reach out to the parties involved via a notice generated from the B2Gnow System, via email or via phone call to address any discrepancies. Any notes related to the projects will be entered in the B2Gnow system.
3. For support using B2GNow, please contact EIC Staff at (253) 591-5826 or email at [EICoffice@cityoftacoma.org](mailto:EICoffice@cityoftacoma.org).

## D. Contractor Request for Certified Business Termination and Substitution

A Contractor's noncompliance by failure to utilize a Certified Business required by the Contract can be excused if Contractor has properly requested to terminate, reduce, or substitute the participation of a Certified Business on an awarded Contract and such request has been approved by the EIC Program consistent with TMC 1.07.080 A. The process for termination and substitution request and approval is initiated by the Contractor following the instructions outlined in the EIC Certified Business Termination and Substitution Form located in Appendix No. 5 to these Regulations.

Upon receipt of the completed EIC Certified Business Termination and Substitution Form, the Project Delivery Team will forward the request to EIC Staff along with supporting documentation received from the Contractor.

**1. EIC Staff will proceed with the following steps:**

- a. Review the request, including any response or objection from the Certified Business, to determine if the grounds for termination (or substitution) contained in TMC 1.07.080 A 1 (Certified Business refusal to execute necessary agreements with Contractor, Certified Business defaults on agreements with Contractor or other reasonable excuse) and the process required by these Regulations have been satisfied. EIC staff review will utilize the criteria for reasonable excuse contained in these Regulations.
- b. Contact the Certified Business(es) proposed to be terminated as well as the Certified Business(es) proposed to be substituted.
- c. If Contractor has indicated on the Certified Business Termination and Substitution Form that it does not have a substitution plan, EIC staff will review the Contractor's explanation for not proposing a substitute Certified Business according to the criteria in TMC 1.07.080 A 2. Where it is shown by Contractor that no other Certified Business is available as a substitute and that failure to secure participation by the Certified Business identified in the solicitation is not the fault of the Contractor, EIC staff will approve substitution with a non-Certified Business; provided, that, the substitution does not increase the dollar amount of the bid.
- d. If EIC staff determines that the process has been followed and that one or more of the grounds in TMC 1.07.080 have been satisfied to allow termination and substitution, the Contractor will be notified of the approval.
- e. Contractor has 3 business days of receipt of the approved termination request to confirm to EIC Staff that it has substituted with another Certified Business, or with a non-Certified Business if the EIC Program has approved.

If the Termination and Substitution Request submitted by the Contractor is denied, the Contractor must utilize the Certified Business on the project as initially listed on the EIC Utilization form or be found in noncompliance.

**2. Reasonable justifications for Termination**

For purpose of the EIC Program, reasonable justifications for termination are included in this list below but not limited to:

- a. The listed Certified Business refuses or fails to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that reasonable excuse does not exist if the failure of the Certified Business to perform its work on the subcontract results from the bad faith or discriminatory action of the Contractor.
- b. Failure or refusal of the Certified Business to perform work for reasons other than contract term or pricing disputes.



- c. The listed Certified Business fails or refuses to meet the Contractor's reasonable, nondiscriminatory bond requirements.
- d. The listed Certified Business is ineligible to work on City of Tacoma projects because of suspension or debarment.
- e. The listed Certified Business voluntarily withdraws from the project and provides The City of Tacoma written notice of its withdrawal.
- f. Death or disability of the principal of the Certified Business rendering it unable to perform the work.
- g. Dissolution of the Certified Business.
- h. A change in scope of the contract requested by the City which removes the work scope for the Certified Business from the project.
- i. The Certified Business does not execute an offered contract that reflects the terms and pricing agreed upon as a condition of participation in the project. The Contractor must provide evidence that the Certified Business failed to execute a contract offered which reflected such agreements, after the Certified Business was given adequate time to execute the offered contract.

### **3. Decertification**

When a Certified Business is "decertified" by OMWBE the participation of that Certified Business shall continue to count as EIC participation so long as the subcontract with the Certified Business was executed prior to the effective date of decertification.

If the Certified Business did not have an executed contract with the Contractor at effective date of decertification, the Contractor must demonstrate to the satisfaction of the Project Delivery team and to the EIC Program that it has substituted a different Certified Business.

## VIII. NON-COMPLIANCE: FINDING OF VIOLATION AND PENALTIES

### A. Circumstances for finding a Contractor in Violation

The following circumstances, if found by the EIC Program Manager, are grounds for a determination by the Community and Economic Development Department (CEDD) Director of Contractor violation and a recommendation by the CED Director to the City Manager or the Director of Utilities that a penalty be imposed consistent with TMC 1.07.010:

1. A Contractor's failure to utilize a Certified Business required by an awarded Contract (unless the Certified Business participation is properly terminated or substituted by application of the process contained in these Regulations) for at least the corresponding dollar amount listed on the submitted EIC Utilization Form.
2. A Contractor's failure to utilize the B2Gnow system in the manner required by these Regulations. Before a violation will be found for Contractor's failure to utilize B2Gnow the following process steps will be taken:
  - a. If a Contractor does not report payment in the B2Gnow system within the first 2 months of the start of the project, EIC Staff will give the Contractor a verbal notice, followed by an email offering assistance with B2Gnow if needed.
  - b. If in the third month following the start of the project Contractor still does not report payment in the B2Gnow system EIC Staff will send a second notice via email with a copy to the Project Delivery Team.
  - c. If the Contractor has failed to report payment in the B2Gnow system within 14 days of the second notice, a third notice will be sent with a copy to the Project Delivery Team.
  - d. If after three notices, Contractor fails to report payment in the B2Gnow system, EIC Staff will notify the Project Delivery Team that the EIC Staff intends to recommend to the City Manager or Utilities Director that a violation be found, and a penalty imposed.
3. A Contractor's failure to pay their subcontractor within 10 days after receipt of payment per RCW 39.04.250 (1)
  - i. If a contractor fails to pay their subcontractor within 10 days, EIC Staff will send 3 notices (via email).

- ii. If after three notices Contractor fails to pay their subcontractor, EIC Staff will notify the Project Delivery Team that the EIC Staff intends to recommend to the City Manager or Utilities Director that a violation be found, and a penalty imposed.

## B. Contractor Non-Compliance, Finding of Violation and Enforcement

If the EIC Program Manager, in collaboration with the Project Delivery Team, determines a Contractor is non-compliant with the EIC Requirements of the Contract or any other requirements contained in TMC Chapter 1.07 or these Regulations and therefore in violation of the EIC Program requirements, the following process for enforcement will be followed:

1. EIC Staff will send a Notice of Violation to the Contractor via USPS Certified Mail®, with a courtesy copy sent to Contractor via email and with a copy to the Project Delivery Team. The Notice of Violation will specify the non-compliance that is the basis for the finding of violation and will state the City's intent to exercise all applicable remedies, including penalties authorized by TMC 1.07.110.
2. The Notice of Violation will specify that the Contractor can appeal the finding of Violation to the Hearing Examiner pursuant to Chapter 1.23 TMC and will state that, unless appealed or remedied, each specified violation becomes final on the 10th business day from the day the Notice has been received by the Contractor.
3. The Notice of Violation will inform the Contractor that the Violation may be remedied, and no penalty will be sought, if, within 10 business days of the date of the Notice of Violation, the Contractor achieves compliance or submits a plan to achieve compliance and receives EIC Staff approval of the plan. A document for guidance on how to achieve compliance can be located in Appendix No. 6 to these Regulations.
4. Compliance plans shall be submitted to EIC Staff and reviewed by EIC Staff and the Project Delivery Team. EIC Staff will recommend valid compliance plans to the CEDD Director for approval.
5. If the Contractor does not respond to the notice by achieving compliance or by appealing the violation within 10 days or if Contractor's timely submitted compliance plan is not approved, the EIC Program Manager in collaboration with the CEDD Director and the Project Delivery Team will request the City Manager or Director of Utilities to impose one or more of the following penalties contained in TMC 1.07.110 A.
  - a. Publish notice of the contractor's noncompliance on the [City of Tacoma Equity in Contracting webpage](#).
  - b. Cancel, terminate, or suspend the contractor's contract, or portion thereof.
  - c. Withhold funds due contractor until compliance is achieved; and/or

- d. Disqualification of eligibility for future contract awards by the City (debarment) per Section 1.06.279 TMC.
  - e. Other appropriate recommended penalty
6. Approval of City Manager or Director of Utilities to Impose Penalties
- a. The EIC Program Manager and CEDD Director will utilize the Prime Contractor Sanction Request Form found in Appendix No. 6 to these Regulations to inform the City Manager or the Director of Utilities that a Notice of Violation has become final (not appealed, not remedied by compliance or an approved compliance plan) and request the City Manager or Director of Utilities to approve the recommended penalty authorized by TMC 1.07.110 and/or to impose any different or additional appropriate penalty.
  - b. If the request for penalty is approved, the EIC Staff will notify the Contractor and the Project Delivery Team of the imposition of the penalty by sending the Prime Contractor Notice of Violation form contained in Appendix No. 7 to these Regulations to the Contractor by US Mail and with a courtesy copy sent by email. The Notice of Penalty form will inform the Contractor that the stated penalty becomes effective on the tenth business day following receipt of the Notice of Penalty unless Contractor appeals the penalty to the Hearing Examiner pursuant to Chapter 1.23 TMC or achieves compliance.

7. Publication of Contractor's Non-Compliance

If the penalty of publication of notice of Contractor's noncompliance (TMC 1.07.110 A 2) is imposed, the non-compliant Contractor's firm name and the nature of the violation will be posted on the City of Tacoma Equity in Contracting Program website [Equity in Contracting – City of Tacoma](#).

8. Cancellation of Penalty upon approved Contractor's Correction of Violation

- a. A Contractor has 10 business days from receipt of a Notice of Penalty to achieve compliance or submit a plan to achieve compliance. EIC Staff in consultation with the Project Delivery Team will determine if compliance is achieved or if the compliance plan is recommended for approval by the CEDD Director.
- b. If it is determined that the Contractor has come into compliance with the EIC Requirements, or has an approved plan to achieve compliance, the penalty may be cancelled at the discretion of the CEDD Director.
- c. If a penalty is cancelled, other applicable steps will follow. For example, if the Contract had been suspended, it will be resumed. If notice of Contractor's violation has been published, the notice will be removed from City's website. If funds have been withheld, payments will be resumed etc.

- d. If Contractor's compliance plan is not approved, the penalty will remain in place, however, EIC Staff will continue to work with Contractor and Project Delivery Team to attempt to achieve compliance.

## IX. EIC Project Closeout Process

Upon receipt of notice from the Project Delivery Team that the project is physically completed, EIC Staff will:

- A. Run B2Gnow Contract Summary Report to ensure that EIC Contract Requirements have been satisfied.
- B. Check with Local Employment & Apprenticeship Training Program (LEAP) Staff to ensure LEAP Requirements have been satisfied and the project is ready to close on LCPtracker.
- C. If EIC Contract Requirements are not met, EIC Staff will contact the Contractor via email with copy to the Project Delivery Team and request the Contractor provide an explanation in writing of the discrepancy between EIC Contract Requirements and the final outcomes via email to the Project Delivery Team and to EIC Staff at [EICOffice@cityoftacoma.org](mailto:EICOffice@cityoftacoma.org). EIC Staff and the Project Delivery Team will review and file explanation in B2Gnow files.
- D. If Contract Requirements are not met by the final outcomes and Contractor's explanation for the discrepancy is not satisfactory EIC Staff and the Project Delivery Team may recommend a violation be found and penalty requested.
- E. If Contract Requirements are met, send email to Contractor from [EICOffice@cityoftacoma.org](mailto:EICOffice@cityoftacoma.org) with a copy to the Project Delivery Team.

## X. Certified Business Complaint Process

- A. A Certified Business may submit a complaint regarding any EIC related issues utilizing three options listed below:
  - By sending an email to the EIC Staff at [EICoffice@cityoftacoma.org](mailto:EICoffice@cityoftacoma.org).
  - By filling out the EIC Complaint Form available on [The City of Tacoma Equity in Contracting webpage](#). See EIC Complaint Form as shown at Appendix No. 9 to these Regulations.
  - By calling the EIC Office line at (253) 591-5630

When a complaint has been received, EIC Staff will take the following steps:

- Record the complaint in the EIC Complaint log Database
- Send a message to the complainant acknowledging the receipt and recording of the complaint and informing complainant that an investigation will take place.
- As deemed appropriate, perform an investigation
- If an investigation is conducted, a report will be produced including a timeline of events and findings.
- Submit any final report to the EIC Program Manager for action as appropriate.

# **APPENDICES**

Available upon request to [EICOffice@cityoftacoma.org](mailto:EICOffice@cityoftacoma.org)

- 1. EIC Requirement Setting Methodology**
- 2. Guidance on selecting Option 2: EIC overall Requirements**
- 3. EIC Utilization Form**
- 4. EIC Post Submittal Waiver Request Form**
- 5. EIC Certified Business Termination and Substitution Request**
- 6. EIC Guidance on Compliance Achievement Plan**
- 7. Notice of Contractor's Violation Form**
- 8. EIC Sanction(s) Request Form**
- 9. Subcontractor Complaint Form**

# **TITLE 1**

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## **Administration and Personnel**

## CHAPTER 1.07 EQUITY IN CONTRACTING

### Sections:

- 1.07.010 Policy and purpose.
- 1.07.020 Definitions.
- 1.07.030 Discrimination prohibited.
- 1.07.040 Program administration.
- 1.07.050 *Repealed.*
- 1.07.060 Program requirements.
- 1.07.070 Evaluation of submittals.
- 1.07.080 Contract compliance.
- 1.07.090 Program monitoring.
- 1.07.100 Enforcement.
- 1.07.110 Remedies.
- 1.07.120 Unlawful acts.
- 1.07.130 Severability.
- 1.07.140 Review of program.

### **1.07.010 Policy and purpose.**

It is the policy of the City of Tacoma that citizens be afforded an opportunity for full participation in our free enterprise system and that historically underutilized business enterprises shall have an equitable opportunity to participate in the performance of City contracts. The City finds that in its contracting for supplies, services and public works, there has been historical underutilization of small and minority-owned businesses located in certain geographically and economically disfavored locations and that this underutilization has had a deleterious impact on the economic well-being of the City. The purpose of this chapter is to remedy the effects of such underutilization through use of narrowly tailored contracting requirements to increase opportunities for historically underutilized businesses to participate in City contracts. It is the goal of this chapter to facilitate a substantial procurement, education, and mentorship program designed to promote equitable participation by historically underutilized businesses in the provision of supplies, services, and public works to the City. It is not the purpose of this chapter to provide any person or entity with any right, privilege, or claim, not shared by the public, generally, and this chapter shall not be construed to do so. This chapter is adopted in accordance with Chapter 35.22 RCW and RCW 49.60.400.

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.020 Definitions.**

Terms used in this chapter shall have the following meanings unless defined elsewhere in the Tacoma Municipal Code (“TMC”), or unless the context in which they are used clearly indicates a different meaning.

#### 1.07.020.B

A. “Bid” means an offer submitted by a Respondent to furnish Supplies, Services, and/or Public Works in conformity with the Specifications and any other written terms and conditions included in a City request for such offer.

B. “Bidder” means an entity or individual who submits a Bid, Proposal or Quote. See also “Respondent.”

#### 1.07.020.C

“Certified Business” means an entity that has been certified as a Disadvantaged Business Enterprise (“DBE”), Small Business Enterprise (“SBE”), Minority Business Enterprise (“MBE”), Women Business Enterprise (“WBE”), or Minority and Women’s Business Enterprise (“MWBE”) by the Washington State Office of Minority and Women’s Business Enterprise.

“City” means all Departments, Divisions and agencies of the City of Tacoma.

“Contract” means any type of legally binding agreement regardless of form or title that governs the terms and conditions for provision of supplies, services, or public works to the City. Contracts include the terms and conditions found in Specifications, Bidder or Respondent Submittals, and purchase orders issued by the City.

“Contractor” means any Person that presents a Submittal to the City, enters into a Contract with the City, and/or performs all or any part of a Contract awarded by the City, for the provision of Public Works, or Non-Public Works and Improvements, Supplies or Services.



1.07.020.G

“Goals” means the annual level of participation by Certified Businesses in City Contracts as established in this chapter, the Program Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations. Goals or requirements for individual Contracts may be adjusted as provided for in this chapter or in regulations and shall not be construed as a minimum for any particular Contract or for any particular geographical area.

1.07.020.N

*Reserved.*

1.07.020.P

“Person” means individuals, companies, corporations, partnerships, associations, cooperatives, any other legally recognized business entity, legal representative, trustee, or receivers.

“Program Manager” means the individual appointed, from time to time, by the City’s Community and Economic Development Director to administer the Program Regulations.

“Program Regulations” means the written regulations and procedures adopted pursuant to this chapter for procurement of Supplies, Services and Public Works.

“Proposal” means a written offer to furnish Supplies or Services in response to a Request for Proposals. This term may be further defined in the Purchasing Policy Manual and/or in competitive solicitations issued by the City.

“Public Works (or “Public Works and Improvements)” means all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the City, or that is by law a lien or charge on any property therein. This term includes all Supplies, materials, tools, and equipment to be furnished in accordance with the Contract for such work, construction, alteration, repair, or improvement.

1.07.020.Q

“Quote” means a competitively solicited written offer to furnish Supplies or Services by a method of procurement that is less formalized than a Bid or a Proposal. This term may be further defined in the Purchasing Policy Manual.

1.07.020.R

“Respondent” means any entity or Person, other than a City employee, that provides a Submittal in response to a request for Bids, Request for Proposals, Request for Qualifications, request for quotes or other request for information, as such terms are defined in Section 1.06.251 TMC. This term includes any such entity or Person whether designated as a supplier, seller, vendor, proposer, Bidder, Contractor, consultant, merchant, or service provider that; (1) assumes a contractual responsibility to the City for provision of Supplies, Services, and/or Public Works; (2) is recognized by its industry as a provider of such Supplies, Services, and/or Public works; (3) has facilities similar to those commonly used by Persons engaged in the same or similar business; and/or (4) distributes, delivers, sells, or services a product or performs a Commercially Useful Function.

1.07.020.S

“Services” means non-Public Works and Improvements services and includes professional services, personal services, and purchased services, as such terms are defined in Section 1.06.251 TMC and/or the City’s Purchasing Policy Manual.

“Submittal” means Bids, Proposals, Quotes, qualifications or other information submitted in response to requests for Bids, Requests for Proposals, Requests for Qualifications, requests for Quotations, or other City requests for information, as such terms are defined in Section 1.06.251 TMC.

“Supplies” means materials, Supplies, and other products that are procured by the City through a competitive process for either Public Works procurement or Non-Public Works and Improvements procurement unless an approved waiver has been granted by the appropriate authority.

1.07.020.T

“Tacoma Public Utilities Service Area” means any ZIP code in which Tacoma Public Utilities maintains infrastructure or provides retail services.

1.07.020.W

“Waiver” means a discretionary decision by the City that the one or more requirements of this chapter will not be applied to a Contract or Contracts.

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28766 Ex. A; passed June. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28274 Ex. A; passed Dec. 16, 2014; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.030 Discrimination prohibited.**

A. No person that is engaged in the construction of public works for the City, engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services to the City, shall discriminate against any other person on the basis of race, religion, color, national origin or ancestry, sex, gender identity, sexual orientation, age, marital status, familial status, or the presence of any sensory, mental or physical disability, or “pregnancy outcomes” under TMC 1.29.040, in employment. Such discrimination includes the unfair treatment or denial of normal privileges to a person as manifested in employment upgrades, demotions, transfers, layoffs, termination, rates of pay, recruitment of employees, or advertisement for employment.

B. The violation of the terms of RCW 49.60 or Chapter 1.29 TMC by any person that is engaged in the construction of public works for the City, is engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services shall result in the rebuttable presumption that the terms of this chapter have also been violated. Such violation may result in termination of any City contract the violator may have with the City and/or the violator’s ineligibility for further City Contracts.

(Ord. 28859 Ex. A; passed Nov. 22, 2022; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.040 Program administration.**

A. The Community and Economic Development Director, or their designated Program Manager, shall be responsible for administering this chapter and obtaining compliance with respect to contracts entered into by the City and/or its contractors. It shall be the duty of the Director to pursue the objectives of this chapter by conference, conciliation, persuasion, investigation, or enforcement action, as may be necessary under the circumstances. The Director is authorized to implement an administrative and compliance program to meet these responsibilities and objectives.

B. The Director is hereby authorized to adopt and to amend administrative regulations known as the Program Regulations, to properly implement and administer the provisions of this chapter. The Program Regulations shall be in conformance with City of Tacoma policies and state and federal laws and be designed to encourage achievement of the Goals set forth herein.

(Ord. 28766 Ex. A; passed June. 8, 2021; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.050 Repealed by Ordinance No. 28931. Approval as a Certified Business.**

(Repealed by Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28766 Ex. A; passed June. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28274 Ex. A; passed Dec. 16, 2014; Ord. 28147 Ex. A; passed May 7, 2013; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.060 Program requirements.**

A. The program shall meet the following requirements:

1. Establishment of Annual Goals.

The Program Regulations adopted pursuant to this chapter shall state reasonably achievable cumulative annual goals for utilization of Certified Businesses in the provision of supplies, services, and public works procured by the City. Cumulative annual goals for the participation of Certified Businesses in City contracts shall be based on the number of qualified Certified Businesses operating within the Tacoma Public Utilities Service Area. The dollar value of all contracts awarded by the City to Certified Businesses in the procurement of supplies, services, and public works shall be counted toward the accomplishment of the applicable goal.

2. Application to Contracts.

The Program Manager shall establish department/division specific requirements for Certified Business participation in City contracts in accordance with this chapter and the Program Regulations.

B. Exceptions:

City departments/divisions or the Program Manager may request an exception to one or more of the requirements of this chapter as they apply to a particular Contract or Contracts. Exceptions may be granted in any one or more of the following circumstances:

1. Emergency:

The supplies, services and/or public works must be provided with such immediacy that neither the City nor the contractor can comply with the requirements herein. Such emergency will be deemed documented whenever a waiver of competitive solicitation for emergency situations is authorized under Tacoma Municipal Code Chapter 1.06.257 or as may be hereinafter amended.

**2. Not Practicable:**

The Contract involves special facilities or market conditions or specially tailored or performance criteria-based products, such that compliance with the requirements of this chapter would cause financial loss to the City or an interruption of vital services to the public. Such circumstances must be documented by the department/division awarding the Contract and approved by the senior financial manager or, for Contracts where the estimated cost is over \$500,000 (excluding sales tax), approved by the Board of Contracts and Awards (“C&A Board”).

**3. Sole source:**

The supplies, services, and/or public works are available from only one feasible source, and subcontracting possibilities do not reasonably exist as documented by the department/division awarding the Contract and approved by the senior financial manager or, for Contracts where the estimated cost is over \$500,000 (excluding sales tax), approved by the C&A Board.

**4. Government purchasing.**

The Contract or Contracts are the result of a federal, state or inter-local government purchasing agreement and the use of such agreement in lieu of a bid solicitation conducted by the City is approved by the senior financial manager.

**5. Lack of Certified Businesses:**

An insufficient number of qualified contractors exist to create any utilization opportunities as documented by the Program Manager.

**C. Waiver:**

If, after receipt of Submittals but prior to Contract award, it is determined that due to unforeseen circumstances, a full or partial waiver of requirements is in the best interests of the City, the Director or Superintendent of the department/division awarding the Contract may request in writing that the City Manager or designee, on behalf of General Government, or the Director of Utilities or designee, on behalf of the Department of Public Utilities, approve such waiver..

Waivers may be granted only after determination by the City Manager or Director of Utilities that compliance with the requirements of this chapter would impose unwarranted economic burden on, or risk to, the City of Tacoma as compared with the degree to which the purposes and policies of this chapter would be furthered by requiring compliance.

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28766 Ex. A; passed June. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.070 Evaluation of submittals.**

A. All submittals for supplies, services, or public works and improvements contracts shall be evaluated for attainment of the Certified Business requirements established for that contract in accordance with this chapter and the Program Regulations.

B. The determination of Certified Business usage and the calculation of Certified Business requirements per this section shall include the following considerations:

**1. General.**

The dollar value of the Contract awarded by the City to a Certified Business in the procurement of supplies, services, or public works shall be counted toward achievement of the annual goal.

**2. Supplies.**

A Contractor may receive credit toward attainment of the Certified Business requirement(s) applicable to the Contract for expenditures for supplies obtained from a Certified Business; provided such Certified Business assumes the actual and contractual responsibility for delivering the supplies with its resources. The contractor may also receive credit toward attainment of the Certified Business goal for the amount of the commission paid to a Certified Business resulting from a supplies contract with the City; provided the Certified Business performs a commercially useful function in the process.

**3. Services and Public Works subcontracts.**

Any Contract awarded to a Certified Business or a bidder that utilizes a Certified Business as a subcontractor shall receive credit toward attainment of the Certified Business requirement(s) applicable to the Contract based on the percentage of

Certified Business usage stated in the bid. A contractor that utilizes a Certified Business as a subcontractor to provide services or public works shall receive a credit toward the contractor's attainment of the Certified Business requirement applicable to the contract based on the value of the subcontract with the Certified Business.

C. Evaluation of competitively solicited submittals for public works and improvements and for services when a requirement has been established for the contract to be awarded shall be as follows:

1. When contract award is based on price.

The lowest priced bid submitted by a responsive and responsible bidder will be reviewed to determine if it meets the requirement. Certified Businesses may self-count utilization or self-performance on such bids if they will perform the work for the scope the requirement is based upon. The Program Regulations may establish further requirements and procedures for self-utilization or self-performance by a bidder who is a Certified Business.

a. If the low bidder meets the stated Certified Business requirements, the bid shall be presumed the lowest and best responsible bid for contract award.

b. Any bidder that does not meet the stated Certified Business requirements shall be considered a non-responsible bidder unless a waiver of one or more of the requirements of this chapter is granted, in the City's sole discretion, pursuant to the criteria and processes in Tacoma Municipal Code 1.07.060.C.

2. When contract award is based on qualifications or other performance criteria in addition to price, solicitations shall utilize a scoring system that promotes participation by certified contractors. The Program Regulations may establish further requirements and procedures for final selection and contract award, including:

a. Evaluation of solicitations for Architectural and Engineering (A&E) services;

b. Evaluation and selection of submittals in response to requests for proposals; and

c. Selection of contractors from pre-qualified roster(s).

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28766 Ex. A; passed Jun. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.080 Contract compliance.**

A. The contractor awarded a contract based on Certified Business participation shall, during the term of the contract, comply with the requirements established in said contract. To ensure compliance with this requirement following contract award, the following provisions apply:

1. Any substitutions for or failure to utilize or termination of Certified Businesses projected to be used must be approved in advance by the Program Manager. Substitution of one Certified Business with another shall be allowed where there has been a refusal to execute necessary agreements by the original Certified Business, a default on agreements previously made or other reasonable excuse; provided that the substitution does not increase the dollar amount of the bid.

2. Where it is shown that no other Certified Business is available as a substitute and that failure to secure participation by the Certified Business identified in the solicitation is not the fault of the respondent, substitution with a non-Certified Business shall be allowed; provided, that, the substitution does not increase the dollar amount of the bid.

3. If the Program Manager determines that the contractor has not reasonably and actively pursued the use of replacement Certified Business, such contractor shall be deemed to be in non-compliance.

B. Record Keeping.

All contracts shall require contractors to maintain relevant records and information necessary to document compliance with this chapter and the contractor's utilization of Certified Businesses, and shall include the right of the City to inspect such records.

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28766 Ex. A; passed Jun. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.090 Program monitoring.**

A. An Advisory Committee shall monitor compliance with all provisions of this chapter and the related Regulations. The Program Manager shall establish procedures to collect data and monitor the effect of the provisions of this chapter to assure, insofar as is practical, that the remedies set forth herein do not disproportionately favor one or more racial, gender, ethnic, or other protected groups, and that the remedies do not remain in effect beyond the point that they are required to eliminate the

effects of under utilization in City contracting, unless such provisions are supported by a Disparity Study. The Program Manager shall have the authority to obtain from City departments/divisions, respondents, and contractors such relevant records, documents, and other information as is reasonably necessary to determine compliance.

B. The Program Manager shall submit an annual report to the Community and Economic Development Director, Director of Utilities, and the City Manager detailing performance of the program. The report shall document Certified Business utilization levels, waivers, proposed modifications to the program, and such other matters as may be specified in the Program Regulations.

(Ord. 28766 Ex. A; passed Jun. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.100 Enforcement.**

The Director, or designee, may investigate the employment practices of contractors to determine whether or not the requirements of this chapter have been violated. Such investigation shall be conducted in accordance with the procedures established in the Program Regulations.

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.110 Penalties.**

A. Upon receipt of a determination of contractor violation by the Program Manager, the City Manager or Director of Utilities, as appropriate, may take the following actions, singly or together, as appropriate:

1. Forfeit the contractor's bid bond and/or performance bond;
2. Publish notice of the contractor's noncompliance;
3. Cancel, terminate, or suspend the contractor's contract, or portion thereof;
4. Withhold funds due contractor until compliance is achieved;
5. Recommend disqualification of eligibility for future contract awards by the City (debarment) per Section 1.06.279 TMC; and/or
6. Any other appropriate action, including a monetary penalty as such penalties may be specified in Program Regulations.

B. Prior to imposing of any of the foregoing penalties, the City shall provide written notice to the contractor specifying the violation and the City's intent to exercise such remedy or remedies. The notice shall provide that each specified remedy becomes effective within ten business days of receipt unless the contractor appeals said action to the Hearing Examiner pursuant to Chapter 1.23 TMC.

C. When non-compliance with this chapter or the Program Regulations has occurred, the Program Manager and the department/division responsible for enforcement of the contract may allow continuation of the contract upon the contractor's development of a plan for compliance acceptable to the Director.

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.120 Unlawful acts.**

It shall be unlawful for any Person to willfully prevent or attempt to prevent, by intimidation, threats, coercion, or otherwise, any Person from complying with the provisions of this chapter.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.130 Severability.**

If any section of this chapter or its application to any Person or circumstance is held invalid by a court of competent jurisdiction, then the remaining sections of this chapter, or the application of the provisions to other Persons or circumstances, shall not be affected.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.140 Review of program.**

This chapter shall be in effect until such point in time that the City Council shall determine, after third party analyses, whether substantial effects or lack of opportunity of Certified Businesses remain true in the relevant market and whether, and for how long, some or all of the requirements of this chapter should remain in effect.

The Department Director or their designee shall review this chapter with City Council standing committee on a biennial basis in order to determine whether adjustments or revisions are required and present those proposals to the City Council for approval.

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28274 Ex. A; passed Dec. 16, 2014; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**PART IV**

**LOCAL EMPLOYMENT**

**AND**

**APRENTICESHIP**

**TRAINING PROGRAM (LEAP)**

**REGULATIONS**

**FOR**

**PUBLIC WORKS CONTRACTS**

# **LEAP REQUIREMENT FORM**

## **Local Employment and Apprenticeship Training Program Requirements**

### Tacoma Municipal Code section 1.09

There is no LEAP requirement on this solicitation. However, the City of Tacoma is committed to equality in employment for WA-State approved Apprentices, City of Tacoma residents, and residents of local economically distressed areas. Please contact the LEAP Office for assistance in locating qualified employees. Please visit the LEAP website for more information.



**PART V**

**STATE PREVAILING**

**WAGE RATES**

## PREVAILING WAGE RATES

This project requires prevailing wages under chapter 39.12 RCW. Any worker, laborer, or mechanic employed in the performance of any part of the work shall be paid not less than the applicable prevailing rate of wage.

The project site is located in Pierce County.

The effective date for prevailing wages on this project will be the **submittal deadline** with these exceptions:

- a. If the project is not awarded within six months of the submittal deadline, the award date is the effective date.
- b. If the project is not awarded pursuant to a competitive solicitation, the date the contract is executed is the effective date.
- c. Janitorial contracts follow WAC 296-127-023.

Except for janitorial contracts, these rates shall apply for the duration of the contract unless otherwise noted in the solicitation.

Look up prevailing rates of pay, benefits, and overtime codes from this link:

<http://www.lni.wa.gov/TradesLicensing/PrevWage/WageRates/default.asp>

## REQUIRED DOCUMENTS

The Contractor shall submit to the City the following Department of Labor and Industries (L&I) forms for itself and for each firm covered under [39.12 RCW](#) that provided work and materials for the Contract:

1. A copy of an approved Statement of Intent to Pay Prevailing Wages, L&I form number [F700-029-000](#). The City will make no payment under this Contract for the Work performed until this statement has been approved by L&I and a copy of the approved form has been submitted to the City.
2. A copy of an approved Affidavit of Prevailing Wages Paid, L&I form number [F700-007-000](#). The Contracting Agency will not grant completion or release retainage held under chapter 60.28 RCW until all approved Affidavit of Wages paid for Contractor and all Subcontractors have been received by the City.

## **PART VI**

### **INSURANCE REQUIREMENTS**



# CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

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This Insurance Requirements shall serve as an attachment and/or exhibit form to the Contract. The Agency entering a Contract with City of Tacoma, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise referred to as "Contractor".

## 1. GENERAL REQUIREMENTS

The following General Requirements apply to Contractor and to Subcontractor(s) performing services and/or activities pursuant to the terms of this Contract. Contractor acknowledges and agrees to the following insurance requirements:

- 1.1. Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the City of Tacoma.
- 1.2. Contractor shall keep in force during the entire term of the Contract, at no expense to the City of Tacoma, the insurance coverage and limits of liability listed below and for Thirty (30) calendar days after completion of all work required by the Contract, unless otherwise provided herein.
- 1.3. Liability insurance policies, except for Professional Liability and Workers' Compensation, shall:
  - 1.3.1. Name the City of Tacoma and its officers, elected officials, employees, and agents as **additional insured**
  - 1.3.2. Be considered primary and non-contributory for all claims with any insurance or self-insurance or limits of liability maintained by the City of Tacoma
  - 1.3.3. Contain a "Waiver of Subrogation" clause in favor of City of Tacoma
  - 1.3.4. Include a "Separation of Insureds" clause that applies coverage separately to each insured and additional insured
  - 1.3.5. Name the "City of Tacoma" on certificates of insurance and endorsements and not a specific person or department
  - 1.3.6. Be for both ongoing and completed operations using Insurance Services Office (ISO) form CG 20 10 04 13 and CG 20 37 04 13 or the equivalent
  - 1.3.7. Be satisfied by a single primary limit or by a combination of a primary policy and a separate excess umbrella
- 1.4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements below. Verification of coverage shall include:
  - 1.4.1. An ACORD certificate or equivalent
  - 1.4.2. Copies of requested endorsements
- 1.5. Contractor shall provide to City of Tacoma Procurement & Payable Division, prior to the execution of the Contract, Certificate(s) of Insurance and endorsements from the insurer certifying the coverage of all insurance required herein. Contract or Permit number and the City of Tacoma Department must be shown on the Certificate of Insurance.
- 1.6. A renewal Certificate of Insurance shall be provided electronically prior to coverage



# CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

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expiration via email sent annually to [coi@cityoftacoma.org](mailto:coi@cityoftacoma.org).

- 1.7. Contractor shall send a notice of cancellation or non-renewal of this required insurance within Thirty (30) calendar days to [coi@cityoftacoma.org](mailto:coi@cityoftacoma.org).
- 1.8. "Claims-Made" coverages, except for pollution coverage, shall be maintained for a minimum of three years following the expiration or earlier termination of the Contract. Pollution coverage shall be maintained for six years following the expiration of the Contract. The retroactive date shall be prior to or coincident with the effective date of the Contract.
- 1.9. Each insurance policy must be written by companies licensed or authorized (or issued as surplus line by Washington surplus line broker) in the State of Washington pursuant to RCW 48 with an (A-) VII or higher in the A.M. Best key rating guide.
- 1.10. Contractor shall not allow any insurance to be cancelled, voided, suspended, or reduced in coverage/limits, or lapse during any term of this Contract. Otherwise, it shall constitute a material breach of the Contract.
- 1.11. Contractor shall be responsible for the payment of all premiums, deductibles and self-insured retentions, and shall indemnify and hold the City of Tacoma harmless to the extent such a deductible or self-insured retained limit may apply to the City of Tacoma as an additional insured. Any deductible or self-insured retained limits in excess of Twenty Five Thousand Dollars (\$25,000) must be disclosed and approved by City of Tacoma Risk Manager and shown on the Certificate of Insurance.
- 1.12. City of Tacoma reserves the right to review insurance requirements during any term of the Contract and to require that Contractor make reasonable adjustments when the scope of services changes.
- 1.13. All costs for insurance are included in the initial Contract and no additional payment will be made by City of Tacoma to Contractor.
- 1.14. Insurance coverages specified in this Contract are not intended and will not be interpreted to limit the responsibility or liability of Contractor or Subcontractor(s).
- 1.15. Failure by City of Tacoma to identify a deficiency in the insurance documentation or to verify coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- 1.16. If Contractor is a government agency or self-insured for any of the above insurance requirements, Contractor shall be liable for any self-insured retention or deductible portion of any claim for which insurance is required. A certification of self-insurance shall be attached and incorporated by reference and shall constitute compliance with this Section.

## 2. SUBCONTRACTORS



# CITY OF TACOMA

## INSURANCE REQUIREMENTS FOR CONTRACTS

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It is Contractor's responsibility to ensure that each subcontractor obtain and maintain adequate liability insurance coverage that applies to the service provided. Contractor shall provide evidence of such insurance upon City of Tacoma's request. Failure of any subcontractor to comply with insurance requirements does not limit Contractor's liability or responsibility.

### 3. REQUIRED INSURANCE AND LIMITS

The insurance policies shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve Contractor from liability in excess of such limits.

#### 3.1 Commercial General Liability Insurance

Contractor shall maintain Commercial General Liability Insurance policy with limits not less than One Million Dollars (\$1,000,000) each occurrence and Two Million Dollars (\$2,000,000) annual aggregate. This policy shall be written on ISO form CG 00 01 04 13 or its equivalent and shall include product liability especially when a Contract is solely for purchasing supplies. It includes Products and Completed Operations for three years following the completion of work related to performing construction services. It shall be endorsed to include: A per project aggregate policy limit (using ISO form CG 25 03 05 09 or equivalent endorsement)

#### 3.2 Workers' Compensation

Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington, as well as any other similar coverage required for this work by applicable federal laws of other states. Contractor must comply with their domicile State Industrial Insurance laws if it is outside the State of Washington.

#### 3.3 Employers' Liability Insurance

Contractor shall maintain Employers' Liability coverage with limits not less than One Million Dollars (\$1,000,000) each employee, One Million Dollars (\$1,000,000) each accident, and One Million Dollars (\$1,000,000) policy limit.

#### 3.4 Professional Liability Insurance or Errors and Omissions

For contracts with professional licensing, design, or engineering services. Contractor and/or its subcontractor shall maintain Professional Liability or Errors and Omissions with limits of One Million Dollars (\$1,000,000) per claim and Two Million Dollars (\$2,000,000) in the aggregate covering acts, errors and omissions arising out of the professional services under this Contract. Contractor shall maintain this coverage for Two Million Dollars (\$2,000,000) if the policy limit includes the payment of claims or defense costs, from the policy limit. If the scope of such design-related professional services includes work related to pollution conditions, the Professional Liability policy shall include Pollution Liability coverage.

#### 3.5 Excess or Umbrella Liability Insurance

Contractor shall provide Excess or Umbrella Liability Insurance with limits not less than Ten Million Dollars (\$10,000,000) per occurrence and in the aggregate. This coverage shall apply, at a minimum, in excess of primary underlying Commercial General Liability, Employer's Liability, Pollution Liability, Marine General Liability, Protection and Indemnity, and Automobile Liability if required herein.

#### 3.6 Other Insurance

Other insurance may be deemed appropriate to cover risks and exposures related to the scope of work or changes to the scope of work required by City of Tacoma. The costs of such necessary and appropriate Insurance coverage shall be borne by Contractor.