Appendix A: City of Portland Construction Noise Regulations

Construction Noise Regulations

This sheet explains City of Portland regulations on construction noise. (Code section 18.10.060)

1. Permissible Hours And Noise Level

From 7:00 am to 6:00 pm, Monday through Saturday, the City permits a very liberal standard for construction noise (85 dBA at a 50' distance). This means that, provided your equipment is in good repair and muffled (if possible), it will be compliant.

The few kinds of equipment that cannot meet this level – (for example: jack hammers, concrete saws, and pile drivers) are exempt from the standard during this period.

2. Outside Permissible Hours

But outside of these hours, different rules apply. First, the exemptions for jackhammers and other noisy equipment do not extend to other hours. Also, most importantly, work at other hours must meet the baseline permitted decibel levels of the area in which the work is taking place. Experience has shown that although you will probably have no problems with work in an industrial zone, you will likely be in violation of the code for exterior work (e.g., clearing, grading, excavating, framing, roofing, etc.) in a residential zone or near residential use before 7:00 am, after 6:00 pm, or on Sundays and Legal Holidays recognized by the State of Oregon.

3. Complaints

When complaints are received, it is usually because of the hours of operation rather than the amount of noise. Please note that the 7:00 am start time includes noise generated by warm-up and maintenance. If we receive a complaint, we will contact you, and request that you take care of it. Most complaints stop here.

4. Possible Citations

However, if this doesn't take care of the problem, and we continue to receive legitimate complaints, then be aware that each individual or organization responsible can receive a citation and fine of $5,000 for each violation. If needed, a court-ordered stop work order can also be obtained.

5. Variances

We know there are times when work must occur outside of the 7:00 am to 6:00 pm, Monday through Saturday period. If you have an emergency, which is "…work made necessary to restore property to a safe condition following a public calamity, work to restore public utilities, or work required to protect persons or property from imminent exposure to danger.", then the noise regulations do not apply. Additionally, there may be other reasons for work outside of the permitted hours. For these situations, you may apply for a variance from the noise code. Construction noise variances may be issued if the need is valid and the impacts on people are not great. All completed applications with the exception of those being heard by the Noise Review Board must be filed ten (10) business days prior to the event. The Noise Review Board meets the second Wednesday of each month. Completed applications to be reviewed by the Noise Review Board must be filed 45 business days prior to the Noise Review Board meeting. Fees charged for review for construction activities of more than one week duration are $360 plus $120 per week up to $600; (Noise Review Board Variances start at $1,843). Accelerated application reviews triggers an increase in fees.

6. More Information Needed?

These notes cover most of the questions asked about construction noise and the noise code. If you have more questions, you may call the Noise Control Office at 503-823-7350.

Appendix B: Construction Schedule

Appendix C: Emergency Communication Plan

Emergency Communications Plan Template

Advance communication prevents community problems

Communication is the cornerstone of a successful project. Much advance work has been done on this project to inform the public of impacts they can expect during construction, and to listen to community concerns so ODOT can minimize adverse impacts as much as possible. It is important that we keep our commitments and provide advance warning to the community when impacts are expected. This is a daily commitment shared by the project office, contractor and staff from both community and public affairs. In addition, there will be times when an emergency or crisis demands a quick communications response. This plan addresses such unexpected occurrences.

A prompt and accurate response

Prompt dissemination of information ensures that people are informed of what is happening and how they might change their plans to mitigate the event's affect on them. It is also vital because if the Oregon Department of Transportation does not tell its story right away, someone else – a motorist, a witness, someone who potentially has fewer facts – will tell the story for us.

Accurate information – even when it is not good news – lends credibility to ODOT and its desire to keep the public informed. It goes hand-in-hand with timely communications in allowing the public to make decisions based on the facts available.

Coordination with other agencies before releasing information is critical. All agencies involved in an emergency – local, state, federal, and private sector partners – should communicate the same messages. Conflicting messages damage the credibility of all participating agencies. The public may not take appropriate action to protect themselves or others if they receive conflicting information.

The importance of a communications plan

A plan ensures that all pertinent information – names, phone numbers, key messages, action plan outline, time line, media strategies, etc. – are in the possession of designated emergency/crisis responders so that response can be prompt, accurate and coordinated.

This emergency communication plan is designed to provide a basic outline for how to respond to some of the emergencies or crises that may occur during the project. It gives clear and systematic directions for establishing a chain of command, prioritizing audiences, developing messages, and delivering them in an organized fashion to a variety of audiences: employees, the media, the public. It is vital that responses be coordinated so that ODOT, its contractors, subcontractors and jurisdictional partners speak with "one voice" throughout all stages of the crisis and the public does not receive conflicting messages.

Who is the audience?

During an emergency, ODOT has two primary audiences. The first group is the people who need to act to help respond to the emergency: police, fire, medical, and HAZMAT.

The second group needs information in order to protect/prepare themselves. Included in this group are local businesses, residents, motorists and the media.

Types/definitions of emergencies/crises

As stated before, an emergency is anything that has the potential to harm life, property or the environment. Erosion of the public's confidence in ODOT on this project is also considered a crisis. The OTIA bridge projects have the potential for all four. Emergencies can take many different forms and each requires a different level of response. This plan will address some of the many kinds of emergencies/crises that may occur on this project. Please remember, all emergencies/incidents, big or small require a prompt, accurate and coordinated response.

- ***Release of contaminates into the air/water***

  The accidental release of contaminates into the air/water (regardless of fault) would be considered an emergency. It has the potential to harm life (human and animal) by contaminating the environment.

- ***Unanticipated traffic or pedestrian delays or detours***

  Despite everyone's best efforts to communicate construction impacts on traffic, there will be times when lanes or ramps are closed longer than expected. Every effort must be made to avoid these situations. The traffic control plans and contract provisions for lane and ramp closures are included to prevent major traffic disruptions. In the event of an unanticipated traffic delay, it is essential that the project staff work with the contractor to reopen lanes or ramps as soon as possible. Liquidated damages may be applied against the contractor for these incidents, but ODOT needs to maintain safe traffic flow on our roadways. When these incidents occur, the public affairs and community affairs staff need to be involved early in the incident to help coordinate the flow of information through the news media and other information distribution channels.

- ***Vehicle accident/incident (non-injury)***

  Much of Oregon's highway and bridge construction takes place "under traffic." This means construction crews share roadway space with thousands of motorists every day. Work-zone wrecks (regardless of fault) would be considered an emergency.

  An incident/accident would be defined as any occurrence involving damage to private property or vehicles. This also includes any unplanned incident that delays traffic for 20 minutes or more. Please use good judgment and call if there is any doubt. A minor incident can attract the attention of the public or media.

- ***Serious vehicle accident/incident (injury/death)***

  Accidents/incidents resulting in injury/death of motorists, passengers, and construction workers would be classified as extremely serious. If such a situation occurs, prompt notification is critical.

- ***All pedestrian/bicycle incidents***

  Pedestrian facilities are defined as either formal sidewalks or informal pathways that appear to be used frequently. Incidents occurring on pedestrian facilities, bicycle lanes or the adjacent roadway (regardless of fault) would be considered an emergency that needs to be reported to the appropriate project authorities, including public and community affairs staff. Closures of pedestrian facilities must be clearly thought through, discussed with public and community affairs and with pedestrian facility authorities. All discussions of closures must include alternate/detour route considerations.

- ***Citizen Reports of Incidents***

  Depending on when an incident occurs, the District Office may be made aware of it before the inspector or construction office. This is especially true on weekends and outside of regular work hours. While the chances of a serious incident at the site drop dramatically during non-work hours, there is still the potential. Frequently, citizens report relatively simple issues like barrels or signs that have been knocked over or steel plates that have started to move. These issues are not the responsibility of the Maintenance offices and must be dealt with immediately. Once again, a prompt response is crucial.

Roles and Responsibilities

The reporting structure and roles/responsibilities are key to a successful emergency communication effort. The following briefly outlines those roles/responsibilities when an incident occurs:

ODOT's on-the-scene inspector notifies ODOT's Project Coordinator _____, who notifies Project Manager _____ and Assistant Project Manager _____, who notifies Public Affairs Manager _____ and Traffic Manager _____. Until further notified, the on-scene inspector will be the main, on-site representative, and will be considered the communication link to key ODOT personnel only. This individual will not talk to the media or general public, or discuss the situation with anyone other than key contractor personnel.

Project Manager _____ or his designee notifies Area Manager _____ and Region Manager _____. Region Manager _____ will notify ODOT District ___ Manager _____, and Maintenance/Operations Manager _____. Public Affairs Manager _____ will notify Community Affairs Manager _____. These individuals, including Public Affairs Manager _____ and Traffic Manager _____ will determine lead roles/spokesperson(s). These individuals will also determine the course of action/response to the emergency, identify key messages and further define roles and responsibilities.

Public Affairs Manager _____ will set up the information/command center. Until further notified, this center will be located at ODOT's Region 5 Headquarters, 3012 Island Avenue, La Grande, Oregon.

If deemed necessary, Public Affairs Manager _____ will identify/coordinate a second on-the-scene ODOT representative. He will notify key multi-jurisdictional communication team members as necessary/needed. He will also act as spokesperson and will coordinate any off-site or on-the-scene information/command center, if necessary. Community Affairs Manager _____ will be responsible for notifying businesses, the general public and residents who may be impacted by the incident, and will coordinate any special needs with the incident command staff.

Once a course of action has been determined, Area Manager _____ or his designee will alert the appropriate agencies:

- State and local police/fire/rescue
- Oregon Department of Fish & Wildlife
- Oregon Department of Environmental Quality
- Federal Environmental Protection Agency

The contractor and sub-contractors are employees of ODOT. They will participate in the emergency response as determined necessary by ODOT or by contractual obligation. Contract employees will not talk to the media/general public, or discuss the situation with anyone other than with key ODOT personnel.

Information Sources

Recorded ODOT highway construction information is available 24 hours a day by dialing 503-223-0066.

The project hot line number 503-_____-_____ is available 24 hours a day for crisis calls.

Appendix D: Contingency Plan Guidelines

Contingency Plan Guidelines

Explanation

A Contingency Plan includes both traffic and contractor contingency plans. The traffic contingency plan addresses specific actions that will be taken to restore or minimize effects on traffic when the congestion or delay exceeds original estimates due to unforeseen events such as work-zone accidents, higher than predicted traffic demand, or delayed lane closures. The Contractor's contingency plan addresses activities under the contactor's control in the work zone.

Documentation

Prior to construction, the Contractor is required to provide the following documentation to be kept on hand at each construction site.

1. ***Communications, Roles and Responsibilities*** – A plan for lines of communication, individual roles and responsibilities shall be developed by the Contractor. The contractor shall designate an individual (such as the Traffic Control Supervisor) as a point of contact within their organization. The Contractor's plan should clearly state lines of communication and authority within their organization as well as reference those outlined in the Emergency Communications Plan or Mobility Communications Plan as applicable.

2. ***Contractor's Contingency Plan*** – The Contractor shall develop a contingency plan for each construction site based on site specific conditions.

3. ***Contingency Plan Trigger Points*** - The following conditions or events will require a Contingency Plan to be implemented (documentation of these trigger points shall be included in the Contractor's Contingency Plan):

   Weather Conditions: _____
   _____
   Traffic Conditions (e.g. high traffic demand level): _____
   _____
   Other Events (e.g. accidents): _____
   _____

4. ***Coordination Strategy*** – The Contractor shall develop a coordination strategy. Any contracting personnel recognizing a condition that would warrant implementing a Contingency Plan shall notify the Traffic Control Supervisor or other individual that has been designated as a "Point of Contact" for the contracting organization. The contracting organization's representative shall conduct coordination efforts as outlined in the Coordination Strategy. The Coordination Strategy shall include any special agreements between individuals or agencies. Individuals to be involved in the Coordination Strategy should be included on the Project Contact Information List.

5. ***Project Contact Information*** – The Contractor shall develop and maintain a contact list of key project personnel (e.g. Traffic Control Supervisor, Resident Engineer, Maintenance Supervisor, Permit Inspector, State Patrol, other ODOT

representatives). Contact information for individuals on the Emergency Communications Plan and Mobility Communications Plan should also be included. See attached sample forms.

6. ***Traffic Contingency Plan*** – The Contractor shall develop a contingency plan to restore minimum operating capacity of the roadway.
7. ***Required Resource***s – The Contractor shall provide a list of available of stand-by equipment required for implementation of Contingency Plans. This list should include location of equipment and quantities if appropriate. Examples of items that may be included on the list are: portable changeable message signs, concrete barrier relocation equipment, etc. In addition, include the availability of local ODOT personnel for callout (normally requiring a Cooperative Agreement).

Project Contact Information

Name:
Title:
Phone:
Cell Phone:
Pager:

Name:
Title:
Phone:
Cell Phone:
Pager:

Name:
Title:
Phone:
Cell Phone:
Pager:

Name:
Title:
Phone:
Cell Phone:
Pager:

Name:
Title:
Phone:
Cell Phone:
Pager:

Sheet ___ of ___

Appendix E: Traffic Analysis

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Technical Memorandum

DATE: November 21, 2008

TO: Mony Mao, ODOT; Simon Eng, ODOT

FROM: Peter Coffey, PE; France Campbell, EIT

SUBJECT: **I-405 Preservation Project: Fremont Bridge-Marquam Bridge (KN#13704)**
I-405 Closure Traffic Analysis P#07141-006

The purpose of the I-405 Preservation Project is Interstate Maintenance preservation, with the objective of restoring ride quality through asphalt inlay/overlay of the existing continuously reinforced concrete pavement. This project will take place during the month of August 2009 and ODOT plans to close the northbound and southbound directions of I-405 in separate weekends for the I-405 Preservation Project.

This memorandum documents the process used to develop traffic volumes along I-5 and I-405 for a weekend in August 2008 and determine the amount of traffic shifted to I-5 with the I-405 SB and NB closures, which is used to calculate additional delay with the closures. The peak hour volume for a Saturday in August 2008 was used as the Design Hour Volume (DHV) for this analysis.

The following volumes for freeway segments and ramps along I-405 and I-5 were estimated based on existing data:

August 2008 Weekday ADT (2008 for I-405 and 2007 for I-5)

August 2008 Saturday Peak Hour Volume (DHV)

Traffic Counts Provided

ODOT provided 24-hour traffic counts for the month of August in 2008 at ten permanent recorder stations along the I-405 mainline and ramps. ODOT also provided 24-hour traffic count data at the remaining ramps from manual tube counts.

On I-5, 24-hour traffic counts were also provided on the Marquam Bridge and ODOT 2007 Interchange Ramp Volume Diagrams[1] were used to determine ramp volumes. Traffic volumes

[1] 2007 Interchange Ramp Volume Diagrams, http://www.oregon.gov/ODOT/TD/TDATA/tsm/tvt.shtml.

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from the Portland State University PORTAL[2], an archive of transportation data, was used to back-check data and northing changed based on PORTAL data.

Volume Calculation Procedures for I-405

The following procedures document how the August 2008 Weekend ADT volumes and Saturday Peak Hour traffic (DHV) volumes for I-405 mainline and ramp locations were determined. The volumes were used for determining the amount of traffic that would be shifted from I-405 for the closures.

1. Mainline and ramp 24-hour traffic counts from August 2008 on I-405 were provided by ODOT. The mainline count included weekday and weekend traffic counts. The ramp counts included weekday counts and some of the locations included weekend also.
2. Weekday ADT volumes were summarized for ramp and mainline locations
3. Weekday ADT volumes were factored based on the ratio of Weekend ADT divided by Weekday ADT for northbound and southbound at the ATR location on I-405 near MP 0.61 (ATR 26-005) to obtain Weekend ADT volumes for ramp and mainline locations where Weekend data was not provided.
4. ATR Data from August 2008 was used to develop a ratio to convert 2007 ADT volumes to 2008 Saturday peak hour volumes. The data used to develop the ratio are outlined in Table 1:

Table 1: 2007 AADT to 2008 Saturday Peak Hour Ratio Development

ATR Location	2007 AADT (ODOT)	2008 August Saturday Peak Hour Volume	Ratio	Avg Ratio
I-405 near 3rd Street	**98,230**	**6,170**	**0.063**	**0.066**
Marquam Bridge	**141,080**	**9,840**	**0.067**	
Fremont Bridge	114,580	6,380	0.057	-

*Bold Columns were included in average ratio used for analysis

Volume Calculation Procedures for I-5

The following procedures document how the Weekend ADT volumes and Saturday Peak Hour traffic volumes for August 2008 on the I-405 mainline and ramp locations were determined.

1. Mainline and ramp AADT volumes on I-5 were obtained from the ODOT 2007 Interchange Ramp Volume Diagrams[1]
2. The ratio developed in Step 2 for the I-405 methodology was used to convert the ODOT 2007 Interchange Ramp Volumes along I-405 to 2008 Saturday peak hour volumes.

[2] Portland Oregon Regional Transportation Archive Listing (PORTAL), http://portal.its.pdx.edu/ .

3. Traffic volumes were back checked by comparing the traffic volumes to traffic data on the PORTAL website.
4. The 1-hour METRO Weekday Midday travel demand model was used to determine traffic diversions with the northbound and southbound directions of I-405 closed[3]. This decision was based on discussions with METRO and because the Midday model best represents the travel patterns and traffic volumes present during the DHV, a Saturday peak hour.
5. Volumes diverted to I-5 due to either the northbound or southbound closures on I-405 were calculated using two methods:

   Method 1: The difference between the METRO Weekday Midday model with and without the closures were factored based on the ratio of model volumes and 2008 Saturday peak hour volumes on the Marquam Bridge to determine the amount of traffic diverted to I-5 with the northbound and southbound closures.

   Example Calculation: NB on Marquam Bridge with NB I-405 closed
   Total Traffic After Diversion= Saturday DHV + (Saurday Peak Hour Total from ATR/Base model midday peak hour)*Traffic diversion from model closure
   Total Traffic After Diversion= 4,992 + (9840/11181)*1101 = **5961 veh/hr**

   Method 2: The percent of traffic diverted from I-405 to I-5 was calculated. The percentage was multiplied by the 2008 Saturday peak hour volume on I-405, representing the amount of traffic diverted.

   Example Calculation: NB on Marquam Bridge with NB I-405 closed
   Total Traffic After Diversion= Saturday DHV on I-5 + (Percent of I-405 traffic diverted to I-5 using difference plots) *(Saturday DHV on I-405)
   Total Traffic After Diversion= 4,992 + (26.64%)*3871 = **6023 veh/hr**

6. The traffic diversion volumes for the northbound and southbound closures were added to the 2008 August Saturday peak hour volumes to estimate the amount of traffic on I-5 and ramps for each of the closures. Saturday peak hour volumes for the bottleneck locations are shown in Table 2. Volumes from Method 1 were used for the HCM bottleneck analysis because the method accounts for changes in travel patterns along I-5 mainline and ramps.

[3] I-405 northbound and southbound closures were modeled with the METRO Midday VISSUM Model by removing the respective links in the model for each of the closure scenarios. Then, volumes difference plots were created for each closure scenario by subtracting the METRO Midday Model without closures. The values from the volumes difference plots are shown in Step 4 of Table 2.

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Table 2: Volume Calculation Steps at Bottleneck Locations

Direction	Location	(Step 1) 2007 ODOT AADT[1]	(Step 2) Aug 2008 Saturday DHV	(Step 4) Volume Increase on I-5 from Metro Midday 1-hr Volume (with closures)	(Step 5) Volume Shifted to I-5		(Step 6) Saturday DHV (with closures)	
					Method 1	Method 2	Method 1	Method 2
NB	North of I-84 Interchange	69920	4593	833	733	1031	5326	5624
	Marquam Bridge	75230	4992	1101	969	1031	5961	6023
SB	North of I-84 Interchange	65320	4334	1011	890	1694	5224	6028
	Marquam Bridge	65850	4369	1102	970	1694	5339	6063

1: 2007 Interchange Ramp Volume Diagrams, http://www.oregon.gov/ODOT/TD/TDATA/tsm/tvt.shtml

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Bottleneck Analysis

This section provides a summary of the HCM analysis at the two identified bottleneck locations for the northbound and southbound directions on I-5 using HCS software. The locations were identified based on field observations and existing traffic volumes. Freeway weaving was assessed along I-5 just north of the I-84 interchange in both the northbound and southbound directions, as well as the northbound direction on the Marquam Bridge. The southbound direction of the Marquam Bridge was assessed as a freeway. The HCS analysis was conducted at all of the identified bottleneck locations for the scenarios of without I-405 closures and with I-405 closures.

The Work Zone Traffic Analysis (WZTA) website[1] was utilized to determine delay (veh/s) at the bottleneck locations before and after the closures on I-405. It is estimated that the closures on I-405 will cause approximately __ minutes of additional delay to motorist traveling on I-5.

HCS Operations Analysis Methodology

The bottleneck locations were analyzed based upon HCM analysis procedures for weaving and freeway segments using HCS software. Weaving segments are classified as segments up to 2,500 feet in length where both merge and diverge movements interact. Basic freeway segments include the portions of freeway where flow is not influenced by the diverging, merging, or weaving associated with ramp/freeway connections. The HCS analysis provided the average speeds and lead to the volume to capacity ratios (V/C) for the bottleneck locations shown in Table E1.

Table E1: Bottleneck Locations and Speeds from HCS Analysis

Direction	Location	HCS Analysis Type	Speed (mph)		V/C	
			Without I-405 Closure	Without I-405 Closure	With I-405 Closure	With I-405 Closure
NB	Marquam Bridge	Weaving	39.6	34.9	0.85	1.14
	I-5, north of I-84	Weaving	33.1	32.4	1.24	1.47
SB	Marquam Bridge	Freeway	49.5	49.5	0.75	0.92
	I-5, north of I-84	Weaving	31.3	30.2	1.34	1.67

[1] Work Zone Traffic Analysis (WZTA) Website, https://wzta.obdp.org.

HCS2000: Freeway Weaving Release 4.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	KMC
Agency/Co.:	DKS
Date Performed:	11/12/2008
Analysis Time Period:	August
Freeway/dir or Travel:	I-5 NB
Weaving Location:	Between Weidler and I-84
Jurisdiction:	ODOT
Analysis Year:	2008

Description: I-5 NB weaving between Weidler and I-84 2008 (without I-405 closure)

Inputs

Freeway free-flow speed, SFF	50	mph
Weaving number of lanes, N	3	
Weaving segment length, L	1265	ft
Terrain type	Level	
Grade		%
Length		mi
Weaving type	A	Multilane or C-D
Volume ratio, VR	0.36	
Weaving ratio, R	0.31	

Conversion to pc/h Under Base Conditions

	Non-Weaving V A-C	Non-Weaving V B-D	Weaving V A-D	Weaving V B-C	
Volume, V	2635	305	503	1150	veh/h
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	
Peak 15-min volume, v15	693	80	132	303	v
Trucks and buses	9	7	9	7	%
Recreational vehicles	0	0	0	0	%
Trucks and buses PCE, ET	1.5	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.957	0.966	0.957	0.966	
Driver population adjustment, fP	0.95	0.95	0.95	0.95	
Flow rate, v	3051	349	582	1318	pc/h

Weaving and Non-Weaving Speeds

	Weaving	Non-Weaving
Weaving intensity factor, Wi	3.20	0.53
Weaving and non-weaving speeds, Si	24.53	41.07
Number of lanes required for unconstrained operation, Nw (Exhibit 24-7)		1.44
Maximum number of lanes, Nw (max) (Exhibit 24-7)		1.40
Type of operation is		Constrained

Weaving Segment Speed, Density, Level of Service and Capacity

Weaving segment speed, S	33.07	mph
Weaving segment density, D	53.42	pc/mi/ln
Level of service, LOS	F	
Capacity for base condition, cb	4734	pc/h

Limitations on Weaving Segments

	Analyzed	If Max Exceeded Maximum	See Note Note
Weaving flow rate, Vw	1900	2800	a
Average flow rate (pcphpl)	1766		b
Volume ratio, VR	0.36	0.45	c
Weaving ratio, R	0.31	N/A	d
Weaving length (ft)	1265	2500	e

Notes:
a. Capacity constrained by maximum allowable weaving flow rate.
b. Capacity constrained by basic freeway capacity.
c. Segments do not operate well at VR's exceeding max. Poor operations and some local queuing are expected in such cases.
d. Breakdown may occur in some cases for Type C segments.
e. When length exceeds these limits, merge and diverge are treated as isolated junctions and analyzed accordingly (HCM Chapter 25, HCS Ramps.)

HCS2000: Freeway Weaving Release 4.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	KMC
Agency/Co.:	DKS
Date Performed:	11/12/2008
Analysis Time Period:	August
Freeway/dir or Travel:	I-5 NB
Weaving Location:	Between Weidler and I-84
Jurisdiction:	ODOT
Analysis Year:	2009

Description: I-5 NB weaving between Weidler and I-84 2009 (with I-405 closure)

Inputs

Freeway free-flow speed, SFF	50	mph
Weaving number of lanes, N	3	
Weaving segment length, L	1265	ft
Terrain type	Level	
Grade		%
Length		mi
Weaving type	A	Multilane or C-D
Volume ratio, VR	0.34	
Weaving ratio, R	0.31	

Conversion to pc/h Under Base Conditions

	Non-Weaving V A-C	Non-Weaving V B-D	Weaving V A-D	Weaving V B-C	
Volume, V	3174	335	555	1262	veh/h
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	
Peak 15-min volume, v15	835	88	146	332	v
Trucks and buses	9	7	9	7	%
Recreational vehicles	0	0	0	0	%
Trucks and buses PCE, ET	1.5	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.957	0.966	0.957	0.966	
Driver population adjustment, fP	0.95	0.95	0.95	0.95	
Flow rate, v	3675	384	642	1447	pc/h

Weaving and Non-Weaving Speeds

	Weaving	Non-Weaving
Weaving intensity factor, Wi	3.58	0.61
Weaving and non-weaving speeds, Si	23.73	39.79
Number of lanes required for unconstrained operation, Nw (Exhibit 24-7)		1.42
Maximum number of lanes, Nw (max) (Exhibit 24-7)		1.40
Type of operation is		Constrained

Weaving Segment Speed, Density, Level of Service and Capacity

Weaving segment speed, S	32.35	mph
Weaving segment density, D	63.35	pc/mi/ln
Level of service, LOS	F	
Capacity for base condition, cb	4829	pc/h

Limitations on Weaving Segments

	Analyzed	If Max Exceeded Maximum	See Note Note
Weaving flow rate, Vw	2089	2800	a
Average flow rate (pcphpl)	2049		b
Volume ratio, VR	0.34	0.45	c
Weaving ratio, R	0.31	N/A	d
Weaving length (ft)	1265	2500	e

Notes:
a. Capacity constrained by maximum allowable weaving flow rate.
b. Capacity constrained by basic freeway capacity.
c. Segments do not operate well at VR's exceeding max. Poor operations and some local queuing are expected in such cases.
d. Breakdown may occur in some cases for Type C segments.
e. When length exceeds these limits, merge and diverge are treated as isolated junctions and analyzed accordingly (HCM Chapter 25, HCS Ramps.)

HCS2000: Freeway Weaving Release 4.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	KMC
Agency/Co.:	DKS
Date Performed:	11/12/2008
Analysis Time Period:	August
Freeway/dir or Travel:	I-5 SB
Weaving Location:	Between Weidler and I-84
Jurisdiction:	ODOT
Analysis Year:	2008

Description: I-5 SB weaving between Weidler and I-84 2008 (without I-405 closure)

Inputs

Freeway free-flow speed, SFF	50	mph
Weaving number of lanes, N	3	
Weaving segment length, L	1141	ft
Terrain type	Rolling	
Grade		%
Length		mi
Weaving type	A	Multilane or C-D
Volume ratio, VR	0.38	
Weaving ratio, R	0.34	

Conversion to pc/h Under Base Conditions

	Non-Weaving V A-C	Non-Weaving V B-D	Weaving V A-D	Weaving V B-C	
Volume, V	2335	319	1111	569	veh/h
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	
Peak 15-min volume, v15	614	84	292	150	v
Trucks and buses	9	7	7	9	%
Recreational vehicles	0	0	0	0	%
Trucks and buses PCE, ET	2.5	2.5	2.5	2.5	
Recreational vehicle PCE, ER	2.0	2.0	2.0	2.0	
Heavy vehicle adjustment, fHV	0.881	0.905	0.905	0.881	
Driver population adjustment, fP	0.95	0.95	0.95	0.95	
Flow rate, v	2936	390	1360	715	pc/h

Weaving and Non-Weaving Speeds

	Weaving	Non-Weaving
Weaving intensity factor, Wi	3.69	0.64
Weaving and non-weaving speeds, Si	23.54	39.42
Number of lanes required for unconstrained operation, Nw (Exhibit 24-7)		1.49
Maximum number of lanes, Nw (max) (Exhibit 24-7)		1.40
Type of operation is		Constrained

Weaving Segment Speed, Density, Level of Service and Capacity

Weaving segment speed, S	31.30	mph
Weaving segment density, D	57.51	pc/mi/ln
Level of service, LOS	F	
Capacity for base condition, cb	4526	pc/h

Limitations on Weaving Segments

	Analyzed	If Max Exceeded Maximum	See Note Note
Weaving flow rate, Vw	2075	2800	a
Average flow rate (pcphpl)	1800		b
Volume ratio, VR	0.38	0.45	c
Weaving ratio, R	0.34	N/A	d
Weaving length (ft)	1141	2500	e

Notes:
a. Capacity constrained by maximum allowable weaving flow rate.
b. Capacity constrained by basic freeway capacity.
c. Segments do not operate well at VR's exceeding max. Poor operations and some local queuing are expected in such cases.
d. Breakdown may occur in some cases for Type C segments.
e. When length exceeds these limits, merge and diverge are treated as isolated junctions and analyzed accordingly (HCM Chapter 25, HCS Ramps.)

HCS2000: Freeway Weaving Release 4.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	KMC
Agency/Co.:	DKS
Date Performed:	11/12/2008
Analysis Time Period:	August
Freeway/dir or Travel:	I-5 SB
Weaving Location:	Between Weidler and I-84
Jurisdiction:	ODOT
Analysis Year:	2009

Description: I-5 SB weaving between Weidler and I-84, 2009 (with I-405 closure)

Inputs

Freeway free-flow speed, SFF	50	mph
Weaving number of lanes, N	3	
Weaving segment length, L	1141	ft
Terrain type	Rolling	
Grade		%
Length		mi
Weaving type	A	Multilane or C-D
Volume ratio, VR	0.37	
Weaving ratio, R	0.37	

Conversion to pc/h Under Base Conditions

	Non-Weaving V A-C	Non-Weaving V B-D	Weaving V A-D	Weaving V B-C	
Volume, V	2894	398	1223	709	veh/h
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	
Peak 15-min volume, v15	762	105	322	187	v
Trucks and buses	9	7	7	9	%
Recreational vehicles	0	0	0	0	%
Trucks and buses PCE, ET	2.5	2.5	2.5	2.5	
Recreational vehicle PCE, ER	2.0	2.0	2.0	2.0	
Heavy vehicle adjustment, fHV	0.881	0.905	0.905	0.881	
Driver population adjustment, fP	0.95	0.95	0.95	0.95	
Flow rate, v	3639	487	1497	891	pc/h

Weaving and Non-Weaving Speeds

	Weaving	Non-Weaving
Weaving intensity factor, Wi	4.30	0.77
Weaving and non-weaving speeds, Si	22.55	37.56
Number of lanes required for unconstrained operation, Nw (Exhibit 24-7)		1.49
Maximum number of lanes, Nw (max) (Exhibit 24-7)		1.40
Type of operation is		Constrained

Weaving Segment Speed, Density, Level of Service and Capacity

Weaving segment speed, S	30.19	mph
Weaving segment density, D	71.92	pc/mi/ln
Level of service, LOS	F	
Capacity for base condition, cb	4614	pc/h

Limitations on Weaving Segments

	Analyzed	If Max Exceeded Maximum	See Note Note
Weaving flow rate, Vw	2388	2800	a
Average flow rate (pcphpl)	2171		b
Volume ratio, VR	0.37	0.45	c
Weaving ratio, R	0.37	N/A	d
Weaving length (ft)	1141	2500	e

Notes:

a. Capacity constrained by maximum allowable weaving flow rate.
b. Capacity constrained by basic freeway capacity.
c. Segments do not operate well at VR's exceeding max. Poor operations and some local queuing are expected in such cases.
d. Breakdown may occur in some cases for Type C segments.
e. When length exceeds these limits, merge and diverge are treated as isolated junctions and analyzed accordingly (HCM Chapter 25, HCS Ramps.)

HCS2000: Freeway Weaving Release 4.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	KMC
Agency/Co.:	DKS
Date Performed:	11/12/2008
Analysis Time Period:	August
Freeway/dir or Travel:	NB I-5 Marquam Bridge
Weaving Location:	Between I-405 and I-84
Jurisdiction:	ODOT
Analysis Year:	2008

Description: I-5 NB Marquam Bridge weaving between I-405 and I-84, 2008 (without I-405 closure)

Inputs

Freeway free-flow speed, SFF	50	mph
Weaving number of lanes, N	4	
Weaving segment length, L	2354	ft
Terrain type	Level	
Grade		%
Length		mi
Weaving type	A	Multilane or C-D
Volume ratio, VR	0.35	
Weaving ratio, R	0.27	

Conversion to pc/h Under Base Conditions

	Non-Weaving V A-C	Non-Weaving V B-D	Weaving V A-D	Weaving V B-C	
Volume, V	1671	1582	1260	479	veh/h
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	
Peak 15-min volume, v15	440	416	332	126	v
Trucks and buses	9	7	9	7	%
Recreational vehicles	0	0	0	0	%
Trucks and buses PCE, ET	1.5	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.957	0.966	0.957	0.966	
Driver population adjustment, fP	0.95	0.95	0.95	0.95	
Flow rate, v	1934	1814	1458	549	pc/h

Weaving and Non-Weaving Speeds

	Weaving	Non-Weaving
Weaving intensity factor, Wi	1.57	0.25
Weaving and non-weaving speeds, Si	30.57	47.01
Number of lanes required for unconstrained operation, Nw (Exhibit 24-7)		2.01
Maximum number of lanes, Nw (max) (Exhibit 24-7)		1.40
Type of operation is		Constrained

Weaving Segment Speed, Density, Level of Service and Capacity

Weaving segment speed, S	39.58	mph
Weaving segment density, D	36.35	pc/mi/ln
Level of service, LOS	E	
Capacity for base condition, cb	6970	pc/h

Limitations on Weaving Segments

	Analyzed	If Max Exceeded Maximum	See Note Note
Weaving flow rate, Vw	2007	2800	a
Average flow rate (pcphpl)	1438		b
Volume ratio, VR	0.35	0.35	c
Weaving ratio, R	0.27	N/A	d
Weaving length (ft)	2354	2500	e

Notes:

a. Capacity constrained by maximum allowable weaving flow rate.
b. Capacity constrained by basic freeway capacity.
c. Segments do not operate well at VR's exceeding max. Poor operations and some local queuing are expected in such cases.
d. Breakdown may occur in some cases for Type C segments.
e. When length exceeds these limits, merge and diverge are treated as isolated junctions and analyzed accordingly (HCM Chapter 25, HCS Ramps.)

HCS2000: Freeway Weaving Release 4.1

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	KMC
Agency/Co.:	DKS
Date Performed:	11/12/2008
Analysis Time Period:	August
Freeway/dir or Travel:	NB I-5 Marquam Bridge
Weaving Location:	Between I-405 and I-84
Jurisdiction:	ODOT
Analysis Year:	2009

Description: I-5 NB Marquam Bridge weaving between I-405 and I-84, 2009 (with I-405 closure)

Inputs

Freeway free-flow speed, SFF	50	mph
Weaving number of lanes, N	4	
Weaving segment length, L	2354	ft
Terrain type	Level	
Grade		%
Length		mi
Weaving type	A	Multilane or C-D
Volume ratio, VR	0.43	
Weaving ratio, R	0.49	

Conversion to pc/h Under Base Conditions

	Non-Weaving V A-C	Non-Weaving V B-D	Weaving V A-D	Weaving V B-C	
Volume, V	1761	1608	1328	1263	veh/h
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	
Peak 15-min volume, v15	463	423	349	332	v
Trucks and buses	9	7	9	7	%
Recreational vehicles	0	0	0	0	%
Trucks and buses PCE, ET	1.5	1.5	1.5	1.5	
Recreational vehicle PCE, ER	1.2	1.2	1.2	1.2	
Heavy vehicle adjustment, fHV	0.957	0.966	0.957	0.966	
Driver population adjustment, fP	0.95	0.95	0.95	0.95	
Flow rate, v	2039	1844	1537	1448	pc/h

Weaving and Non-Weaving Speeds

	Weaving	Non-Weaving
Weaving intensity factor, Wi	2.13	0.40
Weaving and non-weaving speeds, Si	27.76	43.53
Number of lanes required for unconstrained operation, Nw (Exhibit 24-7)		2.36
Maximum number of lanes, Nw (max) (Exhibit 24-7)		1.40
Type of operation is		Constrained

Weaving Segment Speed, Density, Level of Service and Capacity

Weaving segment speed, S	34.91	mph
Weaving segment density, D	49.18	pc/mi/ln
Level of service, LOS	F	
Capacity for base condition, cb	6963	pc/h

Limitations on Weaving Segments

	Analyzed	If Max Exceeded Maximum	See Note Note
Weaving flow rate, Vw	2985	2800	a
Average flow rate (pcphpl)	1717		b
Volume ratio, VR	0.43	0.35	c
Weaving ratio, R	0.49	N/A	d
Weaving length (ft)	2354	2500	e

Notes:

a. Capacity constrained by maximum allowable weaving flow rate.
b. Capacity constrained by basic freeway capacity.
c. Segments do not operate well at VR's exceeding max. Poor operations and some local queuing are expected in such cases.
d. Breakdown may occur in some cases for Type C segments.
e. When length exceeds these limits, merge and diverge are treated as isolated junctions and analyzed accordingly (HCM Chapter 25, HCS Ramps.)

Phone: Fax:
E-mail:

Operational Analysis

Analyst: KMC
Agency or Company: DKS
Date Performed: 11/12/2008
Analysis Time Period: August
Freeway/Direction: Marquam SB
From/To: SB Marquam Bridge
Jurisdiction: ODOT
Analysis Year: 2008
Description: I-5 SB Marquam Bridge Freeway Analysis 3 lane segment, 2008 (without closure)

Flow Inputs and Adjustments

Volume, V	4369	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1150	v
Trucks and buses	9	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.957	
Driver population factor, vp	0.95	
Flow rate, vp	1686	pc/h

Speed Inputs and Adjustments

Lane width	12.0	m
Right-shoulder lateral clearance	6.0	m
Interchange density	1.00	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	2.5	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	49.5	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1686	pc/h/ln
Free-flow speed, FFS	49.5	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	3	
Density, D		pc/mi/ln
Level of service, LOS		

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst: KMC
Agency or Company: DKS
Date Performed: 11/12/2008
Analysis Time Period: August
Freeway/Direction: Marquam SB
From/To: SB Marquam Bridge
Jurisdiction: ODOT
Analysis Year: 2009
Description: I-5 SB Marquam Bridge Freeway Analysis 3 lane segment, 2009 (with closure)

Flow Inputs and Adjustments

Volume, V	5339	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1405	v
Trucks and buses	9	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.957	
Driver population factor, vp	0.95	
Flow rate, vp	2061	pc/h

Speed Inputs and Adjustments

Lane width	12.0	m
Right-shoulder lateral clearance	6.0	m
Interchange density	1.00	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	55.0	mi/h
Lane width adjustment, fLW	0.0*	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	2.5	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	49.5	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2061	pc/h/ln
Free-flow speed, FFS	49.5	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	3	
Density, D		pc/mi/ln
Level of service, LOS		

Overall results are not computed when free-flow speed is less than 55 mph.

I-405 South of 3rd - Closure Chart
Northbound - Weekday

Year of Analysis	Closure Type	Hwy #	Milepoint	Region	Roadway Type	Terrain Type	Speed Limit	# Existing Lanes (Per Direction)	% Trucks	PCE Factor	PCE Limit	Linear Growth Rate	Analysis ADT	Analysis ATR	ATR Hwy #	ATR MP	Date Issued
2008	Lane	061	0.60	1	Freeway	Level	50	4	8.43%	2.50	1,600	0.39%	98,583	26-005	061	0.60	11/19/2008

Count Name/Number: I-405 Near 3rd Ave (ATR 26-005)

Average PCEs for Monday **Count Hwy:** 61 **Count Milepoint:** 0.60 **24hour Count Volume:** 107,560

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	418	219	177	209	448	1600	3247	4102	4094	3464	3046	3117	3078	3014	3001	3180	3266	3078	2897	2144	1650	1601	1211	788
February	457	239	193	228	488	1746	3545	4479	4470	3782	3326	3404	3361	3290	3276	3473	3566	3361	3162	2341	1802	1749	1323	860
March	457	239	193	228	489	1749	3549	4483	4474	3785	3329	3407	3364	3293	3280	3477	3569	3364	3166	2344	1803	1750	1324	861
April	468	245	198	234	501	1790	3634	4591	4582	3877	3409	3489	3444	3372	3358	3560	3655	3444	3241	2400	1847	1793	1356	881
May	460	240	194	229	493	1760	3572	4512	4503	3810	3351	3429	3385	3315	3301	3499	3592	3385	3186	2359	1814	1762	1332	867
June	471	247	200	235	505	1805	3664	4628	4619	3908	3436	3517	3472	3400	3385	3588	3684	3472	3268	2419	1861	1807	1367	889
July	458	239	193	228	491	1751	3556	4492	4483	3793	3335	3414	3370	3299	3286	3482	3576	3370	3171	2348	1806	1753	1326	863
August	463	243	197	231	496	1774	3602	4549	4540	3842	3378	3458	3414	3342	3328	3527	3622	3414	3213	2378	1830	1776	1343	873
September	445	233	189	222	477	1705	3461	4371	4362	3692	3246	3322	3280	3211	3197	3390	3480	3280	3087	2285	1758	1707	1290	840
October	461	242	195	230	494	1765	3581	4524	4515	3820	3360	3438	3394	3324	3310	3508	3602	3394	3195	2365	1820	1767	1336	869
November	438	229	185	218	469	1676	3401	4297	4288	3629	3191	3265	3223	3156	3143	3331	3420	3223	3034	2247	1728	1678	1269	825
December	425	222	180	212	456	1627	3303	4172	4164	3523	3098	3171	3131	3064	3052	3236	3321	3131	2946	2181	1678	1629	1232	801

Count Name/Number: I-405 Near 3rd Ave (ATR 26-005)

Average PCEs for Tuesday **Count Hwy:** 61 **Count Milepoint:** 0.60 **24hour Count Volume:** 107,560

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	418	219	177	209	448	1600	3247	4102	4094	3464	3046	3117	3078	3014	3001	3180	3266	3078	2897	2144	1650	1601	1211	788
February	457	239	193	228	488	1746	3545	4479	4470	3782	3326	3404	3361	3290	3276	3473	3566	3361	3162	2341	1802	1749	1323	860
March	457	239	193	228	489	1749	3549	4483	4474	3785	3329	3407	3364	3293	3280	3477	3569	3364	3166	2344	1803	1750	1324	861
April	468	245	198	234	501	1790	3634	4591	4582	3877	3409	3489	3444	3372	3358	3560	3655	3444	3241	2400	1847	1793	1356	881
May	460	240	194	229	493	1760	3572	4512	4503	3810	3351	3429	3385	3315	3301	3499	3592	3385	3186	2359	1814	1762	1332	867
June	471	247	200	235	505	1805	3664	4628	4619	3908	3436	3517	3472	3400	3385	3588	3684	3472	3268	2419	1861	1807	1367	889
July	458	239	193	228	491	1751	3556	4492	4483	3793	3335	3414	3370	3299	3286	3482	3576	3370	3171	2348	1806	1753	1326	863
August	463	243	197	231	496	1774	3602	4549	4540	3842	3378	3458	3414	3342	3328	3527	3622	3414	3213	2378	1830	1776	1343	873
September	445	233	189	222	477	1705	3461	4371	4362	3692	3246	3322	3280	3211	3197	3390	3480	3280	3087	2285	1758	1707	1290	840
October	461	242	195	230	494	1765	3581	4524	4515	3820	3360	3438	3394	3324	3310	3508	3602	3394	3195	2365	1820	1767	1336	869
November	438	229	185	218	469	1676	3401	4297	4288	3629	3191	3265	3223	3156	3143	3331	3420	3223	3034	2247	1728	1678	1269	825
December	425	222	180	212	456	1627	3303	4172	4164	3523	3098	3171	3131	3064	3052	3236	3321	3131	2946	2181	1678	1629	1232	801

Count Name/Number: I-405 Near 3rd Ave (ATR 26-005)

Average PCEs for Wednesday **Count Hwy:** 61 **Count Milepoint:** 0.60 **24hour Count Volume:** 107,560

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	418	219	177	209	448	1600	3247	4102	4094	3464	3046	3117	3078	3014	3001	3180	3266	3078	2897	2144	1650	1601	1211	788
February	457	239	193	228	488	1746	3545	4479	4470	3782	3326	3404	3361	3290	3276	3473	3566	3361	3162	2341	1802	1749	1323	860
March	457	239	193	228	489	1749	3549	4483	4474	3785	3329	3407	3364	3293	3280	3477	3569	3364	3166	2344	1803	1750	1324	861
April	468	245	198	234	501	1790	3634	4591	4582	3877	3409	3489	3444	3372	3358	3560	3655	3444	3241	2400	1847	1793	1356	881
May	460	240	194	229	493	1760	3572	4512	4503	3810	3351	3429	3385	3315	3301	3499	3592	3385	3186	2359	1814	1762	1332	867
June	471	247	200	235	505	1805	3664	4628	4619	3908	3436	3517	3472	3400	3385	3588	3684	3472	3268	2419	1861	1807	1367	889
July	458	239	193	228	491	1751	3556	4492	4483	3793	3335	3414	3370	3299	3286	3482	3576	3370	3171	2348	1806	1753	1326	863
August	463	243	197	231	496	1774	3602	4549	4540	3842	3378	3458	3414	3342	3328	3527	3622	3414	3213	2378	1830	1776	1343	873
September	445	233	189	222	477	1705	3461	4371	4362	3692	3246	3322	3280	3211	3197	3390	3480	3280	3087	2285	1758	1707	1290	840
October	461	242	195	230	494	1765	3581	4524	4515	3820	3360	3438	3394	3324	3310	3508	3602	3394	3195	2365	1820	1767	1336	869
November	438	229	185	218	469	1676	3401	4297	4288	3629	3191	3265	3223	3156	3143	3331	3420	3223	3034	2247	1728	1678	1269	825
December	425	222	180	212	456	1627	3303	4172	4164	3523	3098	3171	3131	3064	3052	3236	3321	3131	2946	2181	1678	1629	1232	801

Count Name/Number: I-405 Near 3rd Ave (ATR 26-005)

Average PCEs for Thursday **Count Hwy:** 61 **Count Milepoint:** 0.60 **24hour Count Volume:** 107,560

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	418	219	177	209	448	1600	3247	4102	4094	3464	3046	3117	3078	3014	3001	3180	3266	3078	2897	2144	1650	1601	1211	788
February	457	239	193	228	488	1746	3545	4479	4470	3782	3326	3404	3361	3290	3276	3473	3566	3361	3162	2341	1802	1749	1323	860
March	457	239	193	228	489	1749	3549	4483	4474	3785	3329	3407	3364	3293	3280	3477	3569	3364	3166	2344	1803	1750	1324	861
April	468	245	198	234	501	1790	3634	4591	4582	3877	3409	3489	3444	3372	3358	3560	3655	3444	3241	2400	1847	1793	1356	881
May	460	240	194	229	493	1760	3572	4512	4503	3810	3351	3429	3385	3315	3301	3499	3592	3385	3186	2359	1814	1762	1332	867
June	471	247	200	235	505	1805	3664	4628	4619	3908	3436	3517	3472	3400	3385	3588	3684	3472	3268	2419	1861	1807	1367	889
July	458	239	193	228	491	1751	3556	4492	4483	3793	3335	3414	3370	3299	3286	3482	3576	3370	3171	2348	1806	1753	1326	863
August	463	243	197	231	496	1774	3602	4549	4540	3842	3378	3458	3414	3342	3328	3527	3622	3414	3213	2378	1830	1776	1343	873
September	445	233	189	222	477	1705	3461	4371	4362	3692	3246	3322	3280	3211	3197	3390	3480	3280	3087	2285	1758	1707	1290	840
October	461	242	195	230	494	1765	3581	4524	4515	3820	3360	3438	3394	3324	3310	3508	3602	3394	3195	2365	1820	1767	1336	869
November	438	229	185	218	469	1676	3401	4297	4288	3629	3191	3265	3223	3156	3143	3331	3420	3223	3034	2247	1728	1678	1269	825
December	425	222	180	212	456	1627	3303	4172	4164	3523	3098	3171	3131	3064	3052	3236	3321	3131	2946	2181	1678	1629	1232	801

Legend: --- No Data Available. xxxx Periods above PCE Limit

Note: Above results do not include consideration of holidays or special events.

Analysis Prepared By: Michael Tomasini

I-405 South of 3rd - Closure Chart
Southbound - Weekday

Year of Analysis	Closure Type	Hwy #	Milepoint	Region	Roadway Type	Terrain Type	Speed Limit	# Existing Lanes (Per Direction)	% Trucks	PCE Factor	PCE Limit	Linear Growth Rate	Analysis ADT	Analysis ATR	ATR Hwy #	ATR MP	Date Issued
2008	Lane	061	0.60	1	Freeway	Level	50	4	8.43%	2.50	1,600	0.39%	98,583	26-005	061	0.60	11/19/2008

Count Name/Number: I-405 Near 3rd Ave (ATR 26-005)

Average PCEs for Monday **Count Hwy:** 61 **Count Milepoint:** 0.60 **24hour Count Volume:** 107,560

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	458	291	215	267	559	1158	2389	3266	3268	3110	3141	3345	3446	3592	3850	4146	3834	3828	3281	2592	2261	2164	1566	915
February	500	318	235	292	610	1264	2608	3566	3569	3394	3429	3651	3763	3922	4203	4527	4186	4180	3583	2830	2469	2364	1709	999
March	501	318	235	292	611	1266	2610	3569	3572	3398	3433	3655	3767	3925	4207	4531	4190	4183	3586	2832	2471	2366	1712	1000
April	512	326	240	300	626	1296	2674	3655	3658	3480	3515	3743	3857	4020	4308	4639	4291	4284	3672	2901	2531	2422	1752	1023
May	504	320	236	295	614	1273	2627	3592	3595	3420	3455	3678	3791	3951	4234	4560	4217	4210	3609	2852	2487	2382	1723	1006
June	516	328	242	302	630	1306	2695	3684	3688	3508	3544	3773	3889	4052	4343	4678	4326	4319	3702	2925	2551	2443	1767	1032
July	502	319	235	293	612	1268	2615	3576	3579	3405	3440	3661	3774	3933	4215	4539	4198	4191	3593	2838	2475	2371	1715	1002
August	507	323	238	297	620	1285	2649	3622	3625	3449	3483	3709	3823	3984	4269	4598	4252	4245	3639	2875	2508	2401	1736	1014
September	488	310	229	285	595	1234	2545	3480	3483	3313	3347	3563	3673	3827	4102	4417	4086	4079	3496	2763	2409	2307	1669	975
October	505	322	237	296	617	1277	2635	3602	3605	3429	3464	3688	3801	3962	4246	4573	4229	4222	3619	2859	2493	2387	1727	1009
November	479	305	225	281	585	1213	2502	3420	3424	3257	3290	3503	3610	3762	4032	4343	4016	4010	3436	2715	2368	2268	1641	958
December	466	297	218	272	568	1178	2430	3321	3325	3162	3195	3401	3506	3654	3915	4217	3900	3894	3337	2636	2300	2202	1593	931

Count Name/Number: I-405 Near 3rd Ave (ATR 26-005)

Average PCEs for Tuesday **Count Hwy:** 61 **Count Milepoint:** 0.60 **24hour Count Volume:** 107,560

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	458	291	215	267	559	1158	2389	3266	3268	3110	3141	3345	3446	3592	3850	4146	3834	3828	3281	2592	2261	2164	1566	915
February	500	318	235	292	610	1264	2608	3566	3569	3394	3429	3651	3763	3922	4203	4527	4186	4180	3583	2830	2469	2364	1709	999
March	501	318	235	292	611	1266	2610	3569	3572	3398	3433	3655	3767	3925	4207	4531	4190	4183	3586	2832	2471	2366	1712	1000
April	512	326	240	300	626	1296	2674	3655	3658	3480	3515	3743	3857	4020	4308	4639	4291	4284	3672	2901	2531	2422	1752	1023
May	504	320	236	295	614	1273	2627	3592	3595	3420	3455	3678	3791	3951	4234	4560	4217	4210	3609	2852	2487	2382	1723	1006
June	516	328	242	302	630	1306	2695	3684	3688	3508	3544	3773	3889	4052	4343	4678	4326	4319	3702	2925	2551	2443	1767	1032
July	502	319	235	293	612	1268	2615	3576	3579	3405	3440	3661	3774	3933	4215	4539	4198	4191	3593	2838	2475	2371	1715	1002
August	507	323	238	297	620	1285	2649	3622	3625	3449	3483	3709	3823	3984	4269	4598	4252	4245	3639	2875	2508	2401	1736	1014
September	488	310	229	285	595	1234	2545	3480	3483	3313	3347	3563	3673	3827	4102	4417	4086	4079	3496	2763	2409	2307	1669	975
October	505	322	237	296	617	1277	2635	3602	3605	3429	3464	3688	3801	3962	4246	4573	4229	4222	3619	2859	2493	2387	1727	1009
November	479	305	225	281	585	1213	2502	3420	3424	3257	3290	3503	3610	3762	4032	4343	4016	4010	3436	2715	2368	2268	1641	958
December	466	297	218	272	568	1178	2430	3321	3325	3162	3195	3401	3506	3654	3915	4217	3900	3894	3337	2636	2300	2202	1593	931

Count Name/Number: I-405 Near 3rd Ave (ATR 26-005)

Average PCEs for Wednesday **Count Hwy:** 61 **Count Milepoint:** 0.60 **24hour Count Volume:** 107,560

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	458	291	215	267	559	1158	2389	3266	3268	3110	3141	3345	3446	3592	3850	4146	3834	3828	3281	2592	2261	2164	1566	915
February	500	318	235	292	610	1264	2608	3566	3569	3394	3429	3651	3763	3922	4203	4527	4186	4180	3583	2830	2469	2364	1709	999
March	501	318	235	292	611	1266	2610	3569	3572	3398	3433	3655	3767	3925	4207	4531	4190	4183	3586	2832	2471	2366	1712	1000
April	512	326	240	300	626	1296	2674	3655	3658	3480	3515	3743	3857	4020	4308	4639	4291	4284	3672	2901	2531	2422	1752	1023
May	504	320	236	295	614	1273	2627	3592	3595	3420	3455	3678	3791	3951	4234	4560	4217	4210	3609	2852	2487	2382	1723	1006
June	516	328	242	302	630	1306	2695	3684	3688	3508	3544	3773	3889	4052	4343	4678	4326	4319	3702	2925	2551	2443	1767	1032
July	502	319	235	293	612	1268	2615	3576	3579	3405	3440	3661	3774	3933	4215	4539	4198	4191	3593	2838	2475	2371	1715	1002
August	507	323	238	297	620	1285	2649	3622	3625	3449	3483	3709	3823	3984	4269	4598	4252	4245	3639	2875	2508	2401	1736	1014
September	488	310	229	285	595	1234	2545	3480	3483	3313	3347	3563	3673	3827	4102	4417	4086	4079	3496	2763	2409	2307	1669	975
October	505	322	237	296	617	1277	2635	3602	3605	3429	3464	3688	3801	3962	4246	4573	4229	4222	3619	2859	2493	2387	1727	1009
November	479	305	225	281	585	1213	2502	3420	3424	3257	3290	3503	3610	3762	4032	4343	4016	4010	3436	2715	2368	2268	1641	958
December	466	297	218	272	568	1178	2430	3321	3325	3162	3195	3401	3506	3654	3915	4217	3900	3894	3337	2636	2300	2202	1593	931

Count Name/Number: I-405 Near 3rd Ave (ATR 26-005)

Average PCEs for Thursday **Count Hwy:** 61 **Count Milepoint:** 0.60 **24hour Count Volume:** 107,560

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	458	291	215	267	559	1158	2389	3266	3268	3110	3141	3345	3446	3592	3850	4146	3834	3828	3281	2592	2261	2164	1566	915
February	500	318	235	292	610	1264	2608	3566	3569	3394	3429	3651	3763	3922	4203	4527	4186	4180	3583	2830	2469	2364	1709	999
March	501	318	235	292	611	1266	2610	3569	3572	3398	3433	3655	3767	3925	4207	4531	4190	4183	3586	2832	2471	2366	1712	1000
April	512	326	240	300	626	1296	2674	3655	3658	3480	3515	3743	3857	4020	4308	4639	4291	4284	3672	2901	2531	2422	1752	1023
May	504	320	236	295	614	1273	2627	3592	3595	3420	3455	3678	3791	3951	4234	4560	4217	4210	3609	2852	2487	2382	1723	1006
June	516	328	242	302	630	1306	2695	3684	3688	3508	3544	3773	3889	4052	4343	4678	4326	4319	3702	2925	2551	2443	1767	1032
July	502	319	235	293	612	1268	2615	3576	3579	3405	3440	3661	3774	3933	4215	4539	4198	4191	3593	2838	2475	2371	1715	1002
August	507	323	238	297	620	1285	2649	3622	3625	3449	3483	3709	3823	3984	4269	4598	4252	4245	3639	2875	2508	2401	1736	1014
September	488	310	229	285	595	1234	2545	3480	3483	3313	3347	3563	3673	3827	4102	4417	4086	4079	3496	2763	2409	2307	1669	975
October	505	322	237	296	617	1277	2635	3602	3605	3429	3464	3688	3801	3962	4246	4573	4229	4222	3619	2859	2493	2387	1727	1009
November	479	305	225	281	585	1213	2502	3420	3424	3257	3290	3503	3610	3762	4032	4343	4016	4010	3436	2715	2368	2268	1641	958
December	466	297	218	272	568	1178	2430	3321	3325	3162	3195	3401	3506	3654	3915	4217	3900	3894	3337	2636	2300	2202	1593	931

Legend: --- No Data Available. xxxx Periods above PCE Limit

Note: Above results do not include consideration of holidays or special events.

Analysis Prepared By: Michael Tomasini

Between Burnside and Everett - Closure Chart
Northbound - Weekday

Year of Analysis	Closure Type	Hwy #	Milepoint	Region	Roadway Type	Terrain Type	Speed Limit	# Existing Lanes (Per Direction)	% Trucks	PCE Factor	PCE Limit	Linear Growth Rate	Analysis ADT	Analysis ATR	ATR Hwy #	ATR MP	Date Issued
2008	Lane	061	2.26	1	Freeway	Level	50	2	8.50%	2.50	1,600	0.04%	93,737	26-027	061	3.05	11/19/2008

Count Name/Number: Between Burnside and Everett

Average PCEs for Monday **Count Hwy:** 061 **Count Milepoint:** 2.26 **24hour Count Volume:** 72,694

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	408	212	172	202	437	1558	3162	3994	3985	3373	2966	3036	2996	2933	2922	3098	3180	2996	2822	2088	1607	1560	1180	768
February	445	233	188	221	477	1703	3457	4368	4358	3689	3243	3320	3277	3208	3195	3386	3478	3277	3085	2283	1757	1706	1290	839
March	449	235	190	224	481	1717	3486	4403	4394	3719	3269	3347	3303	3234	3222	3415	3506	3303	3110	2302	1772	1720	1301	847
April	458	240	193	228	491	1750	3554	4491	4481	3792	3335	3413	3369	3298	3285	3482	3576	3369	3172	2347	1807	1754	1326	863
May	445	233	188	221	477	1703	3457	4368	4358	3689	3243	3320	3277	3208	3195	3386	3478	3277	3085	2283	1757	1706	1290	839
June	463	242	196	231	495	1767	3589	4535	4525	3829	3367	3446	3402	3330	3318	3516	3611	3402	3203	2371	1824	1771	1340	872
July	454	237	191	226	485	1733	3521	4447	4437	3756	3302	3380	3336	3266	3253	3448	3541	3336	3141	2324	1789	1737	1314	855
August	463	242	196	231	495	1770	3593	4539	4529	3833	3369	3450	3404	3333	3320	3519	3614	3404	3206	2372	1826	1773	1341	873
September	446	233	189	221	479	1705	3463	4376	4366	3695	3249	3325	3283	3214	3201	3393	3484	3283	3091	2287	1761	1709	1293	842
October	455	237	192	226	488	1740	3533	4463	4453	3770	3314	3392	3348	3278	3265	3461	3554	3348	3152	2332	1795	1744	1319	859
November	436	227	184	217	467	1666	3382	4273	4264	3608	3172	3248	3205	3138	3125	3313	3402	3205	3018	2233	1719	1669	1262	821
December	421	220	178	209	451	1609	3268	4129	4120	3488	3066	3138	3098	3032	3021	3201	3288	3098	2916	2159	1661	1613	1220	794

Count Name/Number: Between Burnside and Everett

Average PCEs for Tuesday **Count Hwy:** 061 **Count Milepoint:** 2.26 **24hour Count Volume:** 72,694

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	408	212	172	202	437	1558	3162	3994	3985	3373	2966	3036	2996	2933	2922	3098	3180	2996	2822	2088	1607	1560	1180	768
February	445	233	188	221	477	1703	3457	4368	4358	3689	3243	3320	3277	3208	3195	3386	3478	3277	3085	2283	1757	1706	1290	839
March	449	235	190	224	481	1717	3486	4403	4394	3719	3269	3347	3303	3234	3222	3415	3506	3303	3110	2302	1772	1720	1301	847
April	458	240	193	228	491	1750	3554	4491	4481	3792	3335	3413	3369	3298	3285	3482	3576	3369	3172	2347	1807	1754	1326	863
May	445	233	188	221	477	1703	3457	4368	4358	3689	3243	3320	3277	3208	3195	3386	3478	3277	3085	2283	1757	1706	1290	839
June	463	242	196	231	495	1767	3589	4535	4525	3829	3367	3446	3402	3330	3318	3516	3611	3402	3203	2371	1824	1771	1340	872
July	454	237	191	226	485	1733	3521	4447	4437	3756	3302	3380	3336	3266	3253	3448	3541	3336	3141	2324	1789	1737	1314	855
August	463	242	196	231	495	1770	3593	4539	4529	3833	3369	3450	3404	3333	3320	3519	3614	3404	3206	2372	1826	1773	1341	873
September	446	233	189	221	479	1705	3463	4376	4366	3695	3249	3325	3283	3214	3201	3393	3484	3283	3091	2287	1761	1709	1293	842
October	455	237	192	226	488	1740	3533	4463	4453	3770	3314	3392	3348	3278	3265	3461	3554	3348	3152	2332	1795	1744	1319	859
November	436	227	184	217	467	1666	3382	4273	4264	3608	3172	3248	3205	3138	3125	3313	3402	3205	3018	2233	1719	1669	1262	821
December	421	220	178	209	451	1609	3268	4129	4120	3488	3066	3138	3098	3032	3021	3201	3288	3098	2916	2159	1661	1613	1220	794

Count Name/Number: Between Burnside and Everett

Average PCEs for Wednesday **Count Hwy:** 061 **Count Milepoint:** 2.26 **24hour Count Volume:** 72,694

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	408	212	172	202	437	1558	3162	3994	3985	3373	2966	3036	2996	2933	2922	3098	3180	2996	2822	2088	1607	1560	1180	768
February	445	233	188	221	477	1703	3457	4368	4358	3689	3243	3320	3277	3208	3195	3386	3478	3277	3085	2283	1757	1706	1290	839
March	449	235	190	224	481	1717	3486	4403	4394	3719	3269	3347	3303	3234	3222	3415	3506	3303	3110	2302	1772	1720	1301	847
April	458	240	193	228	491	1750	3554	4491	4481	3792	3335	3413	3369	3298	3285	3482	3576	3369	3172	2347	1807	1754	1326	863
May	445	233	188	221	477	1703	3457	4368	4358	3689	3243	3320	3277	3208	3195	3386	3478	3277	3085	2283	1757	1706	1290	839
June	463	242	196	231	495	1767	3589	4535	4525	3829	3367	3446	3402	3330	3318	3516	3611	3402	3203	2371	1824	1771	1340	872
July	454	237	191	226	485	1733	3521	4447	4437	3756	3302	3380	3336	3266	3253	3448	3541	3336	3141	2324	1789	1737	1314	855
August	463	242	196	231	495	1770	3593	4539	4529	3833	3369	3450	3404	3333	3320	3519	3614	3404	3206	2372	1826	1773	1341	873
September	446	233	189	221	479	1705	3463	4376	4366	3695	3249	3325	3283	3214	3201	3393	3484	3283	3091	2287	1761	1709	1293	842
October	455	237	192	226	488	1740	3533	4463	4453	3770	3314	3392	3348	3278	3265	3461	3554	3348	3152	2332	1795	1744	1319	859
November	436	227	184	217	467	1666	3382	4273	4264	3608	3172	3248	3205	3138	3125	3313	3402	3205	3018	2233	1719	1669	1262	821
December	421	220	178	209	451	1609	3268	4129	4120	3488	3066	3138	3098	3032	3021	3201	3288	3098	2916	2159	1661	1613	1220	794

Count Name/Number: Between Burnside and Everett

Average PCEs for Thursday **Count Hwy:** 061 **Count Milepoint:** 2.26 **24hour Count Volume:** 72,694

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	408	212	172	202	437	1558	3162	3994	3985	3373	2966	3036	2996	2933	2922	3098	3180	2996	2822	2088	1607	1560	1180	768
February	445	233	188	221	477	1703	3457	4368	4358	3689	3243	3320	3277	3208	3195	3386	3478	3277	3085	2283	1757	1706	1290	839
March	449	235	190	224	481	1717	3486	4403	4394	3719	3269	3347	3303	3234	3222	3415	3506	3303	3110	2302	1772	1720	1301	847
April	458	240	193	228	491	1750	3554	4491	4481	3792	3335	3413	3369	3298	3285	3482	3576	3369	3172	2347	1807	1754	1326	863
May	445	233	188	221	477	1703	3457	4368	4358	3689	3243	3320	3277	3208	3195	3386	3478	3277	3085	2283	1757	1706	1290	839
June	463	242	196	231	495	1767	3589	4535	4525	3829	3367	3446	3402	3330	3318	3516	3611	3402	3203	2371	1824	1771	1340	872
July	454	237	191	226	485	1733	3521	4447	4437	3756	3302	3380	3336	3266	3253	3448	3541	3336	3141	2324	1789	1737	1314	855
August	463	242	196	231	495	1770	3593	4539	4529	3833	3369	3450	3404	3333	3320	3519	3614	3404	3206	2372	1826	1773	1341	873
September	446	233	189	221	479	1705	3463	4376	4366	3695	3249	3325	3283	3214	3201	3393	3484	3283	3091	2287	1761	1709	1293	842
October	455	237	192	226	488	1740	3533	4463	4453	3770	3314	3392	3348	3278	3265	3461	3554	3348	3152	2332	1795	1744	1319	859
November	436	227	184	217	467	1666	3382	4273	4264	3608	3172	3248	3205	3138	3125	3313	3402	3205	3018	2233	1719	1669	1262	821
December	421	220	178	209	451	1609	3268	4129	4120	3488	3066	3138	3098	3032	3021	3201	3288	3098	2916	2159	1661	1613	1220	794

Legend: --- No Data Available. xxxx Periods above PCE Limit

Note: Above results do not include consideration of holidays or special events.

Analysis Prepared By: Michael Tomasini

Between Burnside and Everett - Closure Chart
Southbound - Weekday

Year of Analysis	Closure Type	Hwy #	Milepoint	Region	Roadway Type	Terrain Type	Speed Limit	# Existing Lanes (Per Direction)	% Trucks	PCE Factor	PCE Limit	Linear Growth Rate	Analysis ADT	Analysis ATR	ATR Hwy #	ATR MP	Date Issued
2008	Lane	061	2.26	1	Freeway	Level	50	2	8.50%	2.50	1,600	0.04%	93,737	26-027	061	3.05	11/19/2008

Count Name/Number: Between Burnside and Everett

Average PCEs for Monday **Count Hwy:** 061 **Count Milepoint:** 2.26 **24hour Count Volume:** 72,694

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	439	280	206	256	536	1110	2290	3133	3135	2982	3012	3208	3306	3445	3692	3975	3677	3672	3147	2487	2168	2076	1501	878
February	481	306	225	280	586	1214	2505	3425	3428	3260	3294	3508	3615	3767	4037	4347	4021	4014	3442	2719	2371	2270	1642	960
March	484	308	227	284	590	1224	2525	3453	3456	3287	3321	3537	3645	3798	4070	4383	4054	4047	3470	2741	2390	2288	1656	968
April	494	315	231	288	603	1248	2576	3522	3525	3353	3388	3607	3717	3873	4151	4470	4135	4128	3539	2796	2437	2334	1688	987
May	481	306	225	280	586	1214	2505	3425	3428	3260	3294	3508	3615	3767	4037	4347	4021	4014	3442	2719	2371	2270	1642	960
June	499	318	233	291	608	1260	2601	3556	3559	3385	3420	3642	3754	3911	4191	4513	4175	4168	3572	2823	2461	2357	1705	996
July	489	312	229	286	597	1236	2551	3488	3491	3320	3354	3572	3681	3835	4110	4426	4094	4088	3504	2769	2413	2311	1671	977
August	499	318	234	291	608	1261	2603	3559	3562	3389	3422	3646	3756	3914	4195	4517	4179	4172	3576	2825	2463	2359	1706	997
September	481	307	225	281	587	1216	2509	3431	3435	3267	3301	3515	3622	3774	4045	4355	4028	4022	3447	2723	2375	2274	1646	961
October	491	313	229	287	598	1241	2560	3500	3504	3332	3366	3585	3694	3850	4125	4442	4109	4102	3516	2779	2422	2320	1678	980
November	470	299	220	274	573	1188	2451	3350	3354	3189	3222	3431	3536	3685	3949	4252	3933	3928	3366	2659	2319	2221	1606	939
December	454	289	212	265	554	1147	2368	3239	3241	3083	3115	3316	3418	3561	3817	4110	3801	3796	3253	2570	2241	2146	1552	907

Count Name/Number: Between Burnside and Everett

Average PCEs for Tuesday **Count Hwy:** 061 **Count Milepoint:** 2.26 **24hour Count Volume:** 72,694

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	439	280	206	256	536	1110	2290	3133	3135	2982	3012	3208	3306	3445	3692	3975	3677	3672	3147	2487	2168	2076	1501	878
February	481	306	225	280	586	1214	2505	3425	3428	3260	3294	3508	3615	3767	4037	4347	4021	4014	3442	2719	2371	2270	1642	960
March	484	308	227	284	590	1224	2525	3453	3456	3287	3321	3537	3645	3798	4070	4383	4054	4047	3470	2741	2390	2288	1656	968
April	494	315	231	288	603	1248	2576	3522	3525	3353	3388	3607	3717	3873	4151	4470	4135	4128	3539	2796	2437	2334	1688	987
May	481	306	225	280	586	1214	2505	3425	3428	3260	3294	3508	3615	3767	4037	4347	4021	4014	3442	2719	2371	2270	1642	960
June	499	318	233	291	608	1260	2601	3556	3559	3385	3420	3642	3754	3911	4191	4513	4175	4168	3572	2823	2461	2357	1705	996
July	489	312	229	286	597	1236	2551	3488	3491	3320	3354	3572	3681	3835	4110	4426	4094	4088	3504	2769	2413	2311	1671	977
August	499	318	234	291	608	1261	2603	3559	3562	3389	3422	3646	3756	3914	4195	4517	4179	4172	3576	2825	2463	2359	1706	997
September	481	307	225	281	587	1216	2509	3431	3435	3267	3301	3515	3622	3774	4045	4355	4028	4022	3447	2723	2375	2274	1646	961
October	491	313	229	287	598	1241	2560	3500	3504	3332	3366	3585	3694	3850	4125	4442	4109	4102	3516	2779	2422	2320	1678	980
November	470	299	220	274	573	1188	2451	3350	3354	3189	3222	3431	3536	3685	3949	4252	3933	3928	3366	2659	2319	2221	1606	939
December	454	289	212	265	554	1147	2368	3239	3241	3083	3115	3316	3418	3561	3817	4110	3801	3796	3253	2570	2241	2146	1552	907

Count Name/Number: Between Burnside and Everett

Average PCEs for Wednesday **Count Hwy:** 061 **Count Milepoint:** 2.26 **24hour Count Volume:** 72,694

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	439	280	206	256	536	1110	2290	3133	3135	2982	3012	3208	3306	3445	3692	3975	3677	3672	3147	2487	2168	2076	1501	878
February	481	306	225	280	586	1214	2505	3425	3428	3260	3294	3508	3615	3767	4037	4347	4021	4014	3442	2719	2371	2270	1642	960
March	484	308	227	284	590	1224	2525	3453	3456	3287	3321	3537	3645	3798	4070	4383	4054	4047	3470	2741	2390	2288	1656	968
April	494	315	231	288	603	1248	2576	3522	3525	3353	3388	3607	3717	3873	4151	4470	4135	4128	3539	2796	2437	2334	1688	987
May	481	306	225	280	586	1214	2505	3425	3428	3260	3294	3508	3615	3767	4037	4347	4021	4014	3442	2719	2371	2270	1642	960
June	499	318	233	291	608	1260	2601	3556	3559	3385	3420	3642	3754	3911	4191	4513	4175	4168	3572	2823	2461	2357	1705	996
July	489	312	229	286	597	1236	2551	3488	3491	3320	3354	3572	3681	3835	4110	4426	4094	4088	3504	2769	2413	2311	1671	977
August	499	318	234	291	608	1261	2603	3559	3562	3389	3422	3646	3756	3914	4195	4517	4179	4172	3576	2825	2463	2359	1706	997
September	481	307	225	281	587	1216	2509	3431	3435	3267	3301	3515	3622	3774	4045	4355	4028	4022	3447	2723	2375	2274	1646	961
October	491	313	229	287	598	1241	2560	3500	3504	3332	3366	3585	3694	3850	4125	4442	4109	4102	3516	2779	2422	2320	1678	980
November	470	299	220	274	573	1188	2451	3350	3354	3189	3222	3431	3536	3685	3949	4252	3933	3928	3366	2659	2319	2221	1606	939
December	454	289	212	265	554	1147	2368	3239	3241	3083	3115	3316	3418	3561	3817	4110	3801	3796	3253	2570	2241	2146	1552	907

Count Name/Number: Between Burnside and Everett

Average PCEs for Thursday **Count Hwy:** 061 **Count Milepoint:** 2.26 **24hour Count Volume:** 72,694

	12a-1a	1a-2a	2a-3a	3a-4a	4a-5a	5a-6a	6a-7a	7a-8a	8a-9a	9a-10a	10a-11a	11a-12p	12p-1p	1p-2p	2p-3p	3p-4p	4p-5p	5p-6p	6p-7p	7p-8p	8p-9p	9p-10p	10p-11p	11p-12a
January	439	280	206	256	536	1110	2290	3133	3135	2982	3012	3208	3306	3445	3692	3975	3677	3672	3147	2487	2168	2076	1501	878
February	481	306	225	280	586	1214	2505	3425	3428	3260	3294	3508	3615	3767	4037	4347	4021	4014	3442	2719	2371	2270	1642	960
March	484	308	227	284	590	1224	2525	3453	3456	3287	3321	3537	3645	3798	4070	4383	4054	4047	3470	2741	2390	2288	1656	968
April	494	315	231	288	603	1248	2576	3522	3525	3353	3388	3607	3717	3873	4151	4470	4135	4128	3539	2796	2437	2334	1688	987
May	481	306	225	280	586	1214	2505	3425	3428	3260	3294	3508	3615	3767	4037	4347	4021	4014	3442	2719	2371	2270	1642	960
June	499	318	233	291	608	1260	2601	3556	3559	3385	3420	3642	3754	3911	4191	4513	4175	4168	3572	2823	2461	2357	1705	996
July	489	312	229	286	597	1236	2551	3488	3491	3320	3354	3572	3681	3835	4110	4426	4094	4088	3504	2769	2413	2311	1671	977
August	499	318	234	291	608	1261	2603	3559	3562	3389	3422	3646	3756	3914	4195	4517	4179	4172	3576	2825	2463	2359	1706	997
September	481	307	225	281	587	1216	2509	3431	3435	3267	3301	3515	3622	3774	4045	4355	4028	4022	3447	2723	2375	2274	1646	961
October	491	313	229	287	598	1241	2560	3500	3504	3332	3366	3585	3694	3850	4125	4442	4109	4102	3516	2779	2422	2320	1678	980
November	470	299	220	274	573	1188	2451	3350	3354	3189	3222	3431	3536	3685	3949	4252	3933	3928	3366	2659	2319	2221	1606	939
December	454	289	212	265	554	1147	2368	3239	3241	3083	3115	3316	3418	3561	3817	4110	3801	3796	3253	2570	2241	2146	1552	907

Legend: --- No Data Available. xxxx Periods above PCE Limit

Note: Above results do not include consideration of holidays or special events.

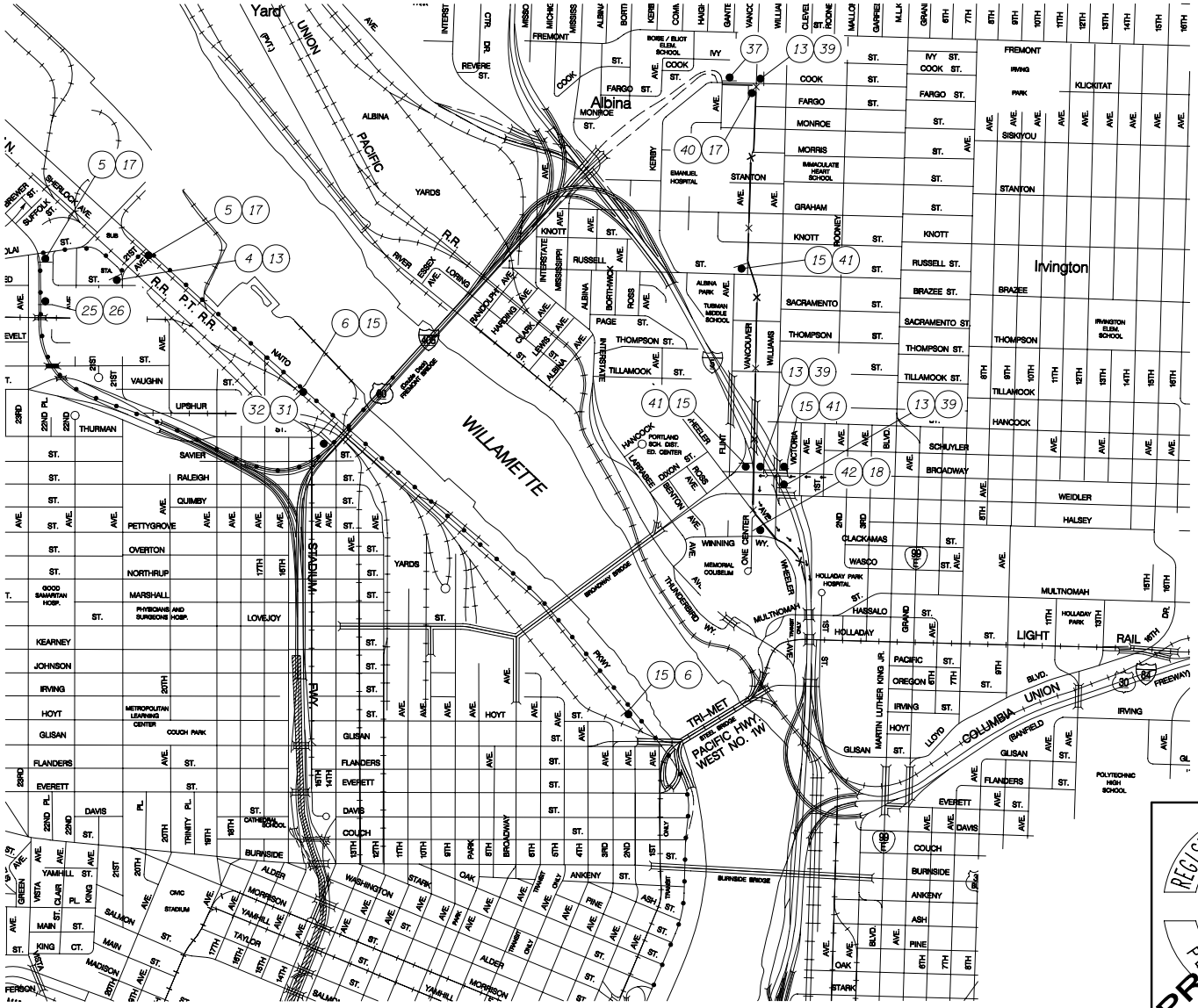
Analysis Prepared By: Michael Tomasini

Appendix F: Traffic Control

DETOUR

SOUTHBOUND I-405 RAMP CLOSURES

XXV-XX



GENERAL NOTES:

1. Accompanied by drawings TM700, TM705, TM720, TM725, TM730, TM750, TM765, TM775, and TM780.

2. Adjustments to temporary traffic control devices may be required to accomodate existing field conditions. Locations of all temporary traffic control devices shall be approved in the field by the Engineer.

L E G E N D

- Temporary sign on temporary post
- Work zone
- (X) Signing Detail, See Sheet 2C-7 and 2C-8.
- I-405 SB Kerby On-Ramp Detour to US 26 & I-405
- I-405 SB to US 26 (Continued on 2C-5)
- I-5 NB Broadway On-Ramp Detour to US 26 & I-405

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500
Portland, Oregon 97201-5502
Telephone: (503) 243-3500
Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE

STADIUM FREEWAY (I-405)

MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB CLOSURE TRAFFIC CONTROL PLAN

SHEET NO. 2C

11/21/2008

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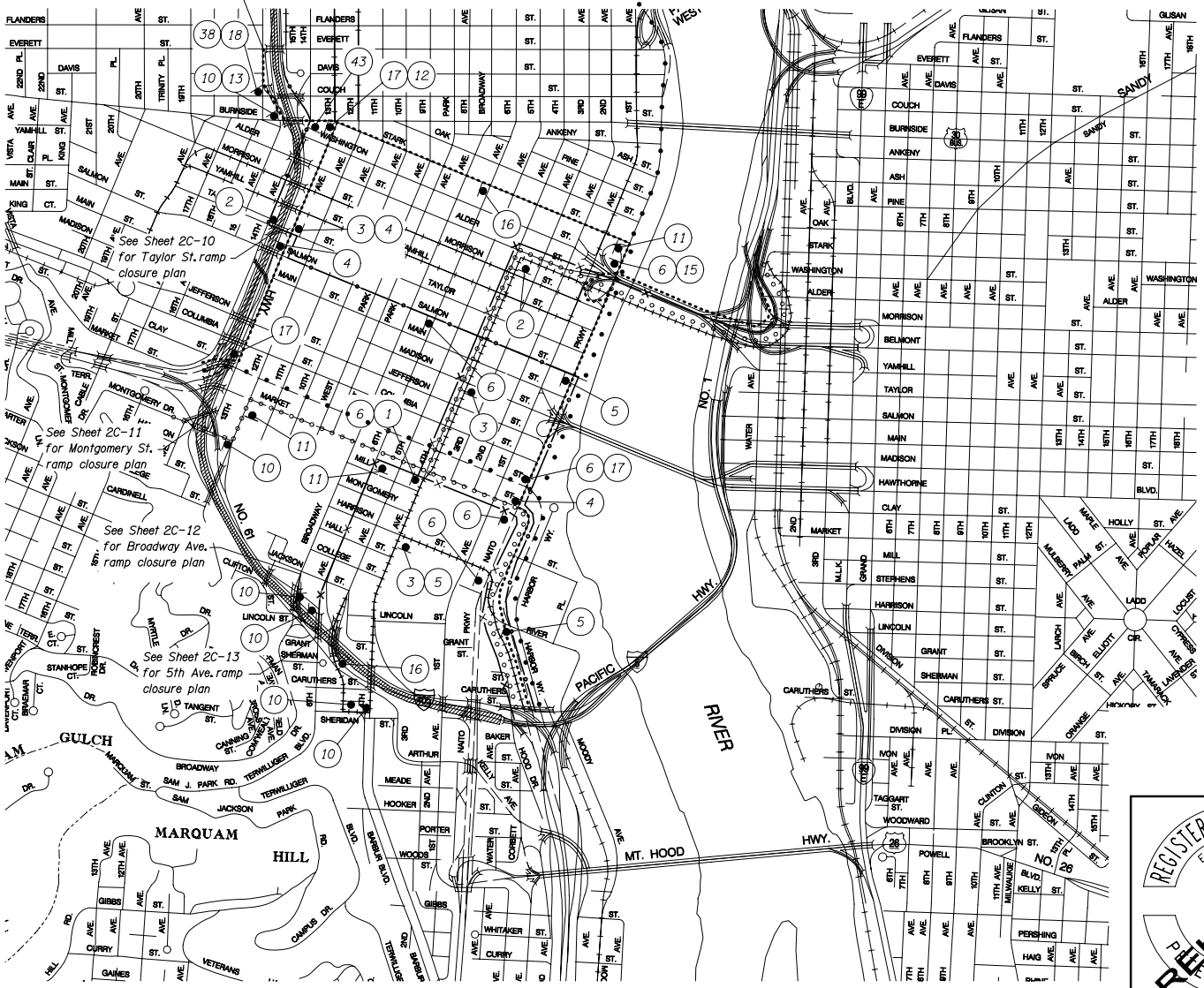
DETOUR

SOUTHBOUND I-405 RAMP CLOSURES



N

GENERAL NOTES:

1. Refer to sheet 2C for applicable standard drawings.

2. Adjustments to temporary traffic control devices may be required to accomodate existing field conditions. Locations of all temporary traffic control devices shall be approved in the field by the Engineer.

L E G E N D

- *Temporary sign on temporary post*
- *Work zone*
- *(X) Signing Detail. See Sheet 2C-7 and 2C-8.*
- *I-405 SB Everett On-Ramp Detour to US26 & I-5*
- *I-405 SB Taylor On-Ramp Detour to I-5*
- *I-405 SB Montgomery On-Ramp Detour to I-5*
- *I-405 SB Broadway On-Ramp Detour to I-5*
- *I-405 SB 5th Ave On-Ramp Detour*
- *I-405 SB to US 26 (Continued on 2C-4)*

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON PETER L. COFFEY
PRELIMINARY
EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500
Portland, Oregon 97201-5502
Telephone: (503) 243-3500
Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB CLOSURE TRAFFIC CONTROL PLAN

SHEET NO. 2C-2

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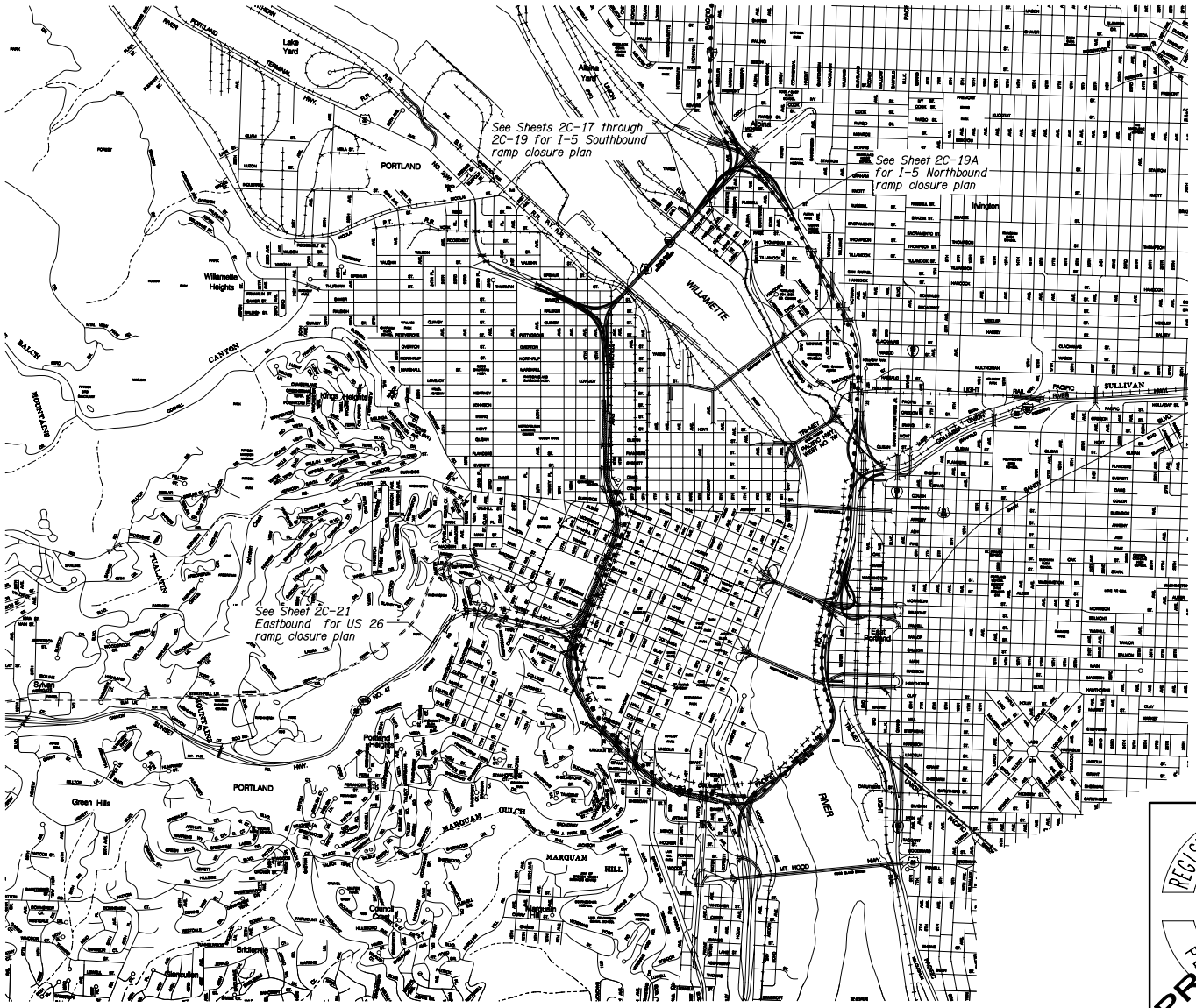
11/21/2008

DETOUR

SOUTHBOUND I-405 CLOSURE

XXV-XX

N



GENERAL NOTES:

1. Refer to sheet 2C for applicable standard drawings.

2. Adjustments to temporary traffic control devices may be required to accomodate existing field conditions. Locations of all temporary traffic control devices shall be approved in the field by the Engineer.

L E G E N D

Work zone

I-84 WB to US 26, US 30 & I-405 NB

I-5 SB Detour to US 26, I-405 NB

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON APR. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500
Portland, Oregon 97201-5502
Telephone: (503) 243-3500
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I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB CLOSURE
TRAFFIC CONTROL PLAN

SHEET NO. 2C-3

11/21/2008

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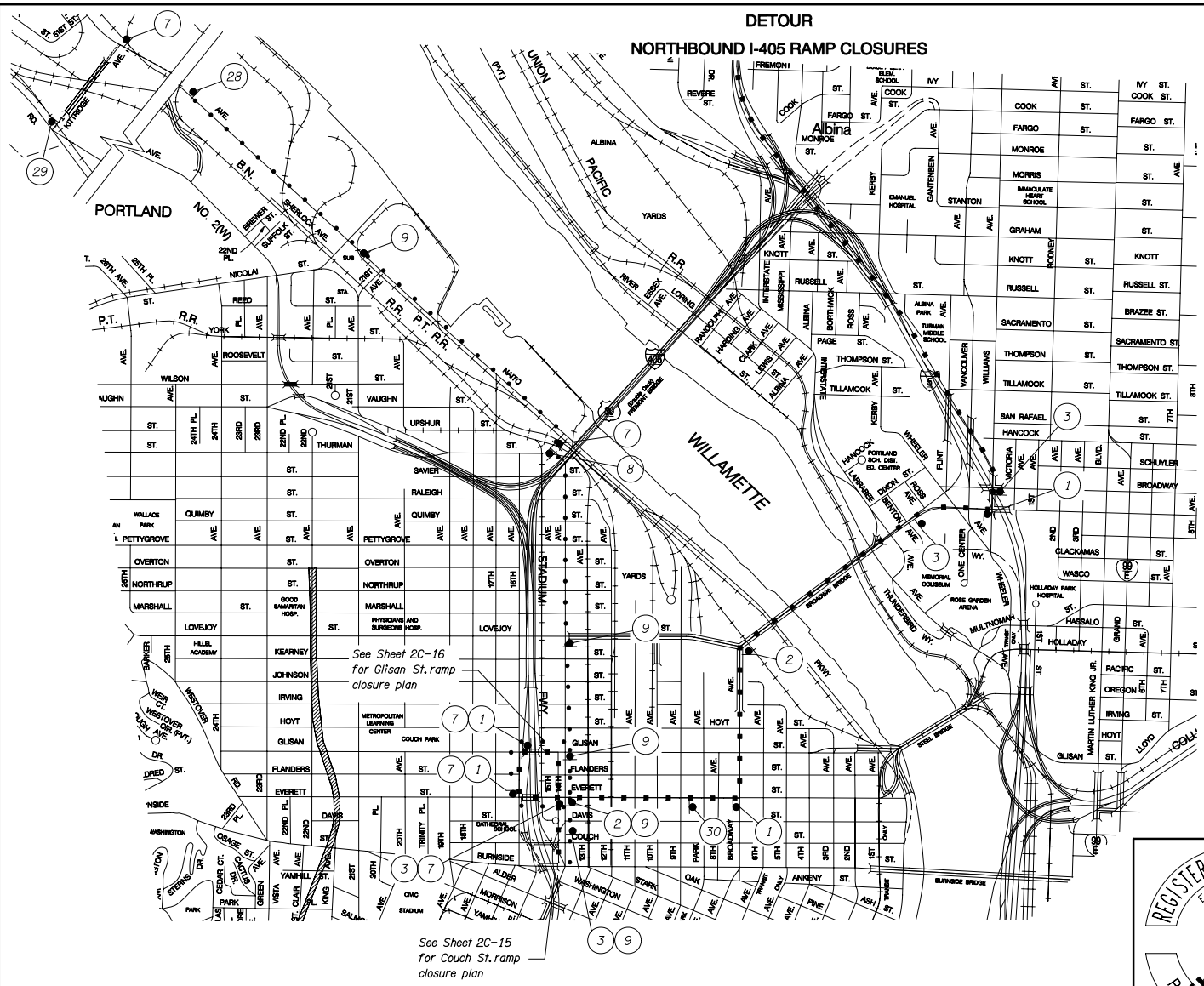
DETOUR

NORTHBOUND I-405 RAMP CLOSURES



N

GENERAL NOTES:

1. Refer to sheet 2C for applicable standard drawings.

2. Adjustments to temporary traffic control devices may be required to accomodate existing field conditions. Locations of all temporary traffic control devices shall be approved in the field by the Engineer.

L E G E N D

- Temporary sign on temporary post
- Work zone
- I-405 NB Glisan & Couch On-Ramps Detour to US 30
- I-405 NB Glisan & Couch On-Ramps Detour to US I-5 NB
- (X) Signing Detail. See Sheet 2C-7 and 2C-8.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500
Portland, Oregon 97201-5502
Telephone: (503) 243-3500
Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 NB CLOSURE TRAFFIC CONTROL PLAN

SHEET NO. 2C-4

11/21/2008

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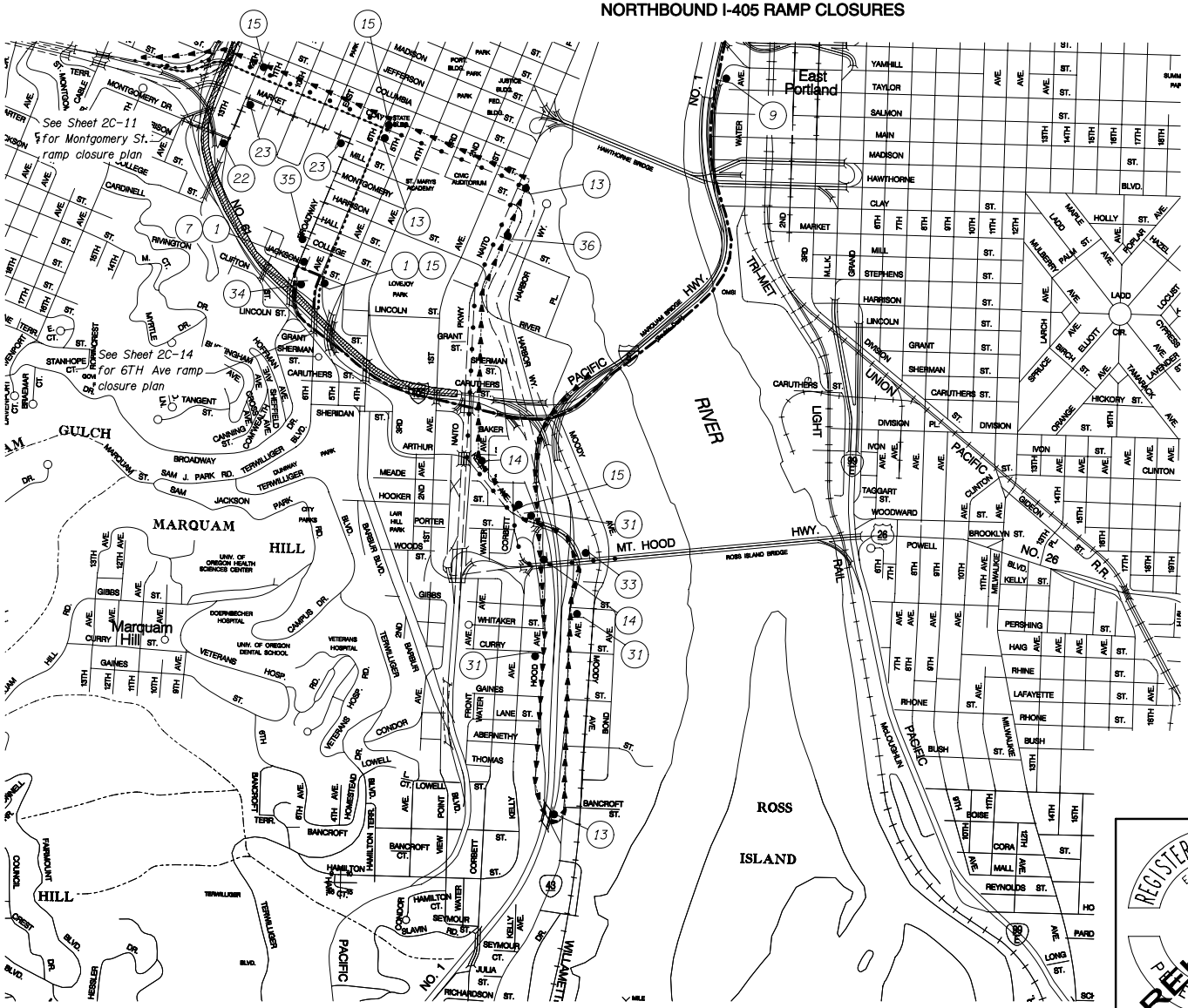
DETOUR

NORTHBOUND I-405 RAMP CLOSURES



N

GENERAL NOTES:

1. Refer to sheet 2C for applicable standard drawings.

3. Adjustments to temporary traffic control devices may be required to accomodate existing field conditions. Locations of all temporary traffic control devices shall be approved in the field by the Engineer.

L E G E N D

- Temporary sign on temporary post
- Work zone
- (X) Signing Detail. See Sheet 2C-7 and 2C-8.
- I-405 NB 6TH Ave On-Ramp Detour to US 26
- I-405 NB 6TH Ave On-Ramp Detour to I-5 NB & US 30
- US 26 WB (Ross Island Bridge) to US 26 WB
- I-405 SB. Montgomery On-Ramp Detour to I-405
- I-5 SB TO US 26

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON PETER L. COFFEY
PRELIMINARY
EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500
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Telephone: (503) 243-3500
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I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 NB CLOSURE TRAFFIC CONTROL PLAN

SHEET NO. 2C-5

11/21/2008

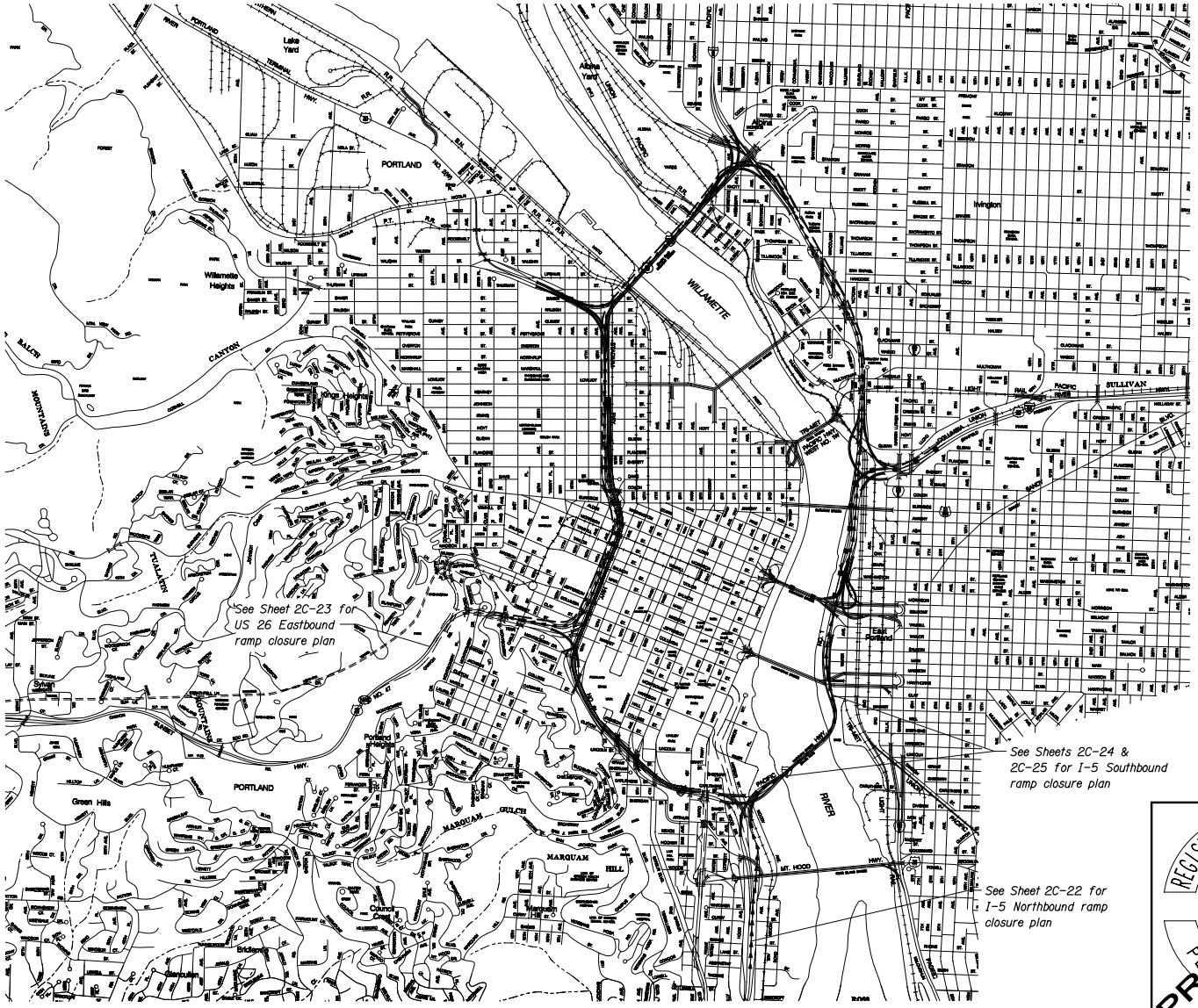
X:\projects\2007\P0141-006 (ODOT I-405)\MicroStation\137041.TP05

DETOUR

NORTHBOUND I-405 RAMP CLOSURES

XXV-XX

N



GENERAL NOTES:

1. Refer to sheet 2C for applicable standard drawings.
2. All Signs shall be type "O4" unless otherwise indicated.
3. Adjustments to temporary traffic control devices may be required to accomodate existing field conditions. Locations of all temporary traffic control devices shall be approved in the field by the Engineer.

L E G E N D

- Temporary sign on temporary post
- Work zone
- (X) Signing Detail. See Sheet 2C-7 and 2C-8.
- I-5 NB Detour to US 26, I-405 NB & US 30
- I-84 WB to US 26 & I-405
- I-84 WB to Downtown Portland

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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I-405: FREMONT BRIDGE - MARQUAM BRIDGE

STADIUM FREEWAY (I-405)

MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 NB CLOSURE TRAFFIC CONTROL PLAN

SHEET NO. 2C-6

11/21/2008

X:\projects\2007\P0141-006 (ODOT I-405)\MicroStation\137041.TP06

DETOUR SIGNING

1	DETOUR	M4-8 24"x12"
	NORTH	OM3-1 24"x12" Type "B"
	I-5	M1-1 24"x24" Type "F"
	←	M6-1L 21"x15" Type "B"
2	DETOUR	M4-8 24"x12"
	NORTH	OM3-1 24"x12" Type "B"
	I-5	M1-1 24"x24" Type "F"
	→	M6-1R 21"x15" Type "B"
3	DETOUR	M4-8 24"x12"
	NORTH	OM3-1 24"x12" Type "B"
	I-5	M1-1 24"x24" Type "F"
	↑	M6-3 21"x15" Type "B"
4	DETOUR	M4-8 24"x12"
	SOUTH	OM3-3 24"x12" Type "B"
	I-5	M1-1 24"x24" Type "F"
	←	M6-1L 21"x15" Type "B"
5	DETOUR	M4-8 24"x12"
	SOUTH	OM3-3 24"x12" Type "B"
	I-5	M1-1 24"x24" Type "F"
	→	M6-1R 21"x15" Type "B"
6	DETOUR	M4-8 24"x12"
	SOUTH	OM3-3 24"x12" Type "B"
	I-5	M1-1 24"x24" Type "F"
	↑	M6-3 21"x15" Type "B"
7	DETOUR	M4-8 24"x12"
	WEST	OM3-4 24"x12" Type "W1"
	30	M1-4 24"x24" Type "W1"
	←	M6-1L 21"x15" Type "W1"
8	DETOUR	M4-8 24"x12"
	WEST	OM3-4 24"x12" Type "W1"
	30	M1-4 24"x24" Type "W1"
	→	M6-1R 21"x15" Type "W1"
9	DETOUR	M4-8 24"x12"
	WEST	OM3-4 24"x12" Type "W1"
	30	M1-4 24"x24" Type "W1"
	↑	M6-3 21"x15" Type "W1"
10	DETOUR	M4-8 24"x12"
	I-5	M1-1 24"x24" Type "W1"
	←	M6-1L 21"x15" Type "B"
11	DETOUR	M4-8 24"x12"
	I-5	M1-1 24"x24" Type "F"
	→	M6-1R 21"x15" Type "B"
12	DETOUR	M4-8 24"x12"
	I-5	M1-1 24"x24" Type "F"
	↗	M6-2R 21"x15" Type "W1"
13	DETOUR	M4-8 24"x12"
	WEST	OM3-4 24"x12" Type "W1"
	26	M1-4 24"x24" Type "W1"
	←	M6-1L 21"x15" Type "W1"
14	DETOUR	M4-8 24"x12"
	WEST	OM3-4 24"x12" Type "W1"
	26	M1-4 24"x24" Type "W1"
	↗	M6-2R 21"x15" Type "W1"
15	DETOUR	M4-8 24"x12"
	WEST	OM3-4 24"x12" Type "W1"
	26	M1-4 24"x24" Type "W1"
	↑	M6-3 21"x15" Type "W1"
16	DETOUR	M4-8 24"x12"
	I-5	M1-1 24"x24" Type "F"
	↑	M6-3 21"x15" Type "B"
17	DETOUR	M4-8 24"x12"
	WEST	OM3-4 24"x12" Type "W1"
	26	M1-4 24"x24" Type "W1"
	→	M6-1R 21"x15" Type "W1"
18	DETOUR	M4-8 24"x12"
	WEST	OM3-4 24"x12" Type "W1"
	26	M1-4 24"x24" Type "W1"
	↖	M6-2L 21"x15" Type "W1"
19	DETOUR	M4-8 24"x12"
	NORTH	OM3-1 24"x12" Type "B"
	I-405	M1-1 30"x24" Type "F"
	←	M6-1L 21"x15" Type "B"
20	DETOUR	M4-8 24"x12"
	NORTH	OM3-1 24"x12" Type "B"
	I-405	M1-1 30"x24" Type "F"
	→	M6-1R 21"x15" Type "B"
21	DETOUR	M4-8 24"x12"
	NORTH	OM3-1 24"x12" Type "B"
	I-405	M1-1 30"x24" Type "F"
	↑	M6-3 21"x15" Type "B"
22	DETOUR	M4-8 24"x12"
	SOUTH	OM3-3 24"x12" Type "B"
	I-405	M1-1 30"x24" Type "F"
	←	M6-1L 21"x15" Type "B"
23	DETOUR	M4-8 24"x12"
	SOUTH	OM3-3 24"x12" Type "B"
	I-405	M1-1 30"x24" Type "F"
	→	M6-1R 21"x15" Type "B"
24	DETOUR	M4-8 24"x12"
	SOUTH	OM3-3 24"x12" Type "B"
	I-405	M1-1 30"x24" Type "F"
	↑	M6-3 21"x15" Type "B"
25	DETOUR	M4-8 30"x15"
	SOUTH	OM3-3 30"x15" Type "B"
	I-5	M1-1 36"x36" Type "F"
	↱	M5-1R 30"x15" Type "B"
26	DETOUR	M4-8 30"x15"
	WEST	OM3-4 30"x15" Type "W1"
	26	M1-4 36"x36" Type "W1"
	↱	M5-1R 30"x15" Type "W1"
27	DETOUR	M4-8 24"x12"
	WEST	OM3-4 24"x12" Type "B"
	I-84	M1-1 24"x24" Type "F"
	↑	M6-3 21"x15" Type "B"
28	DETOUR	M4-8 24"x12"
	WEST	OM3-4 24"x12" Type "W1"
	30	M1-4 24"x24" Type "W1"
	↰	M5-1L 21"x15" Type "W1"
29	DETOUR	M4-8 24"x18"
	30	M1-4 24"x24" Type "W1"
	↔	M6-4 21"x15" Type "W1"
30	DETOUR	M4-8 24"x12"
	NORTH	OM3-1 24"x12" Type "B"
	I-5	M1-1 24"x24" Type "F"
	↰	M5-1L 21"x15" Type "B"

GENERAL NOTES:

1. All signs to be Type "O4" unless otherwise indicated.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

DETOUR SIGNING
TRAFFIC CONTROL PLAN

SHEET NO. 2C-7

11/21/2008

X:\projects\2007\P0141-006 (ODOT I-405)\MicroStation\13704t.TP07

DETOUR SIGNING

XXV-XX

DETOUR — M4-8 30"x15"
WEST — OM3-4 30"x15" Type "W1"
26 — M1-4 36"x36" Type "W1"
M6-2R 30"x15" Type "W1"

(31)

DETOUR — M4-8 30"x15"
SOUTH — OM3-3 30"x15" Type "B"
5 — M1-1 36"x36" Type "F"
M6-2R 30"x15" Type "B"

(32)

405 NB CLOSED
USE DETOUR
TO 26 WEST

(33)

DETOUR — M4-8 24"x12"
SOUTH — OM3-3 24"x12" Type "B"
405 — M1-1 30"x24" Type "F"
M6-2L 21"x15" Type "B"

(34)

DETOUR — M4-8 24"x12"
SOUTH — OM3-3 24"x12" Type "B"
405 — M1-1 30"x24" Type "F"
M5-1L 21"x15" Type "B"

(35)

DETOUR — M4-8 24"x12"
WEST — OM3-4 24"x12" Type "W1"
26 — M1-4 24"x24" Type "W1"
M5-1L 21"x15" Type "W1"

(36)

30 WEST ONLY
USE DETOUR TO
405 AND 26 WEST

(37)

DETOUR — M4-8 24"x12"
5 — M1-1 24"x24" Type "F"
M6-2L 21"x15" Type "B"

(38)

DETOUR — M4-8 24"x12"
405 — M1-1 30"x24" Type "F"
M6-1L 21"x15" Type "B"

(39)

DETOUR — M4-8 24"x12"
405 — M1-1 30"x24" Type "F"
M6-1R 21"x15" Type "B"

(40)

DETOUR — M4-8 24"x12"
405 — M1-1 30"x24" Type "F"
M6-3 21"x15" Type "B"

(41)

DETOUR — M4-8 24"x12"
405 — M1-1 30"x24" Type "F"
M6-2L 21"x15" Type "B"

(42)

DETOUR — M4-8 24"x12"
NORTH — OM3-1 24"x12" Type "B"
5 — M1-1 24"x24" Type "F"
M6-2L 21"x15" Type "B"

(43)

GENERAL NOTES:

1. All signs to be Type "O4" unless otherwise indicated.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY
PRELIMINARY
EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

DETOUR SIGNING
TRAFFIC CONTROL PLAN

SHEET NO. 2C-8

11/21/2008

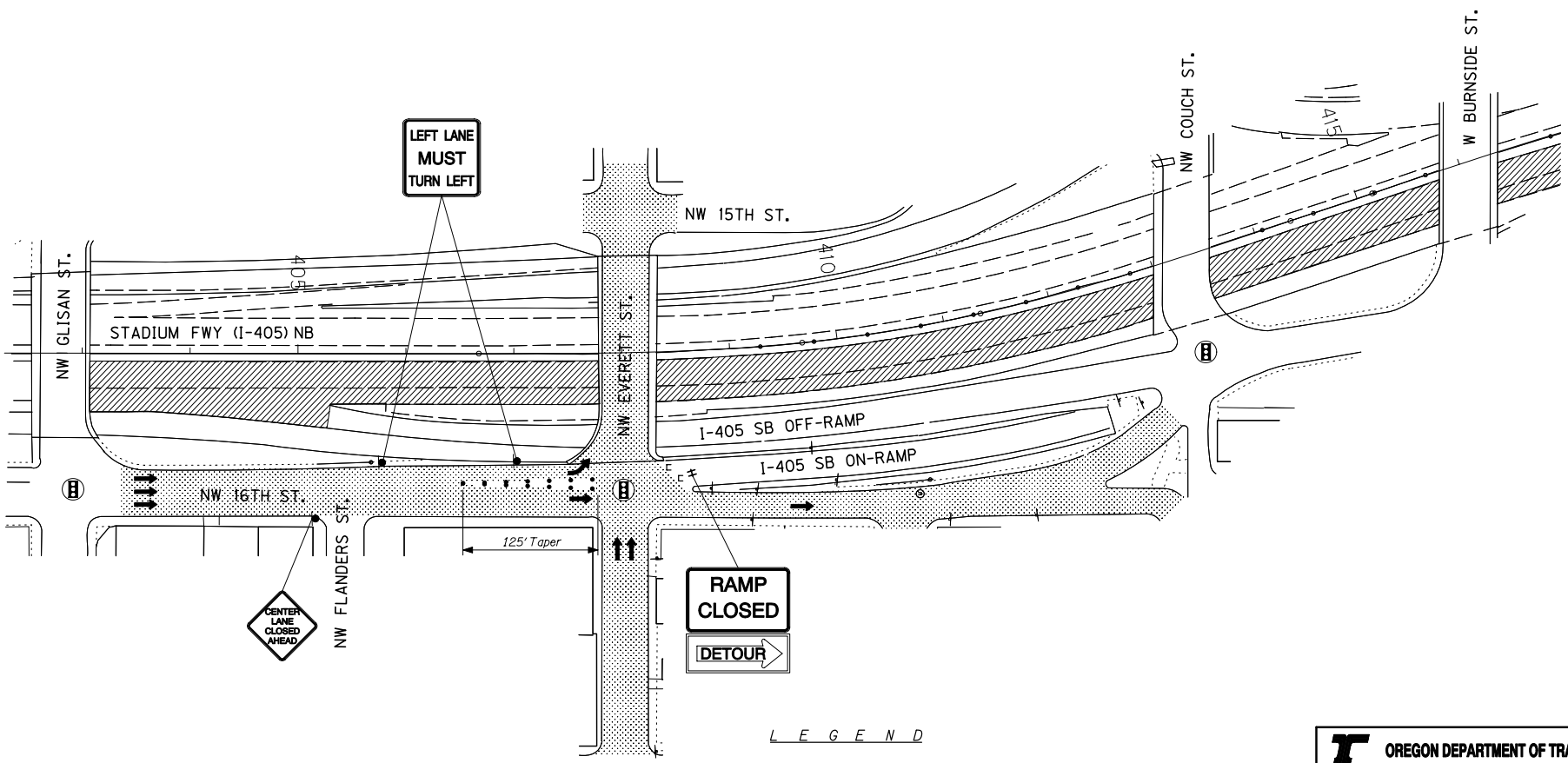
X:\projects\2007\P07141-006 (ODOT I-405)\MicroStation\13704f.TP08

RAMP CLOSURE

SOUTHBOUND I-405 ON-RAMP AT NW EVERETT ST.

XXV-XX

SCALE 0 50 100 150 200 FEET



L E G E N D

- Work zone
- Under traffic
- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- 28" Tubular markers (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post
- Signal

GENERAL NOTES:

1. See sheet 2C for applicable standard drawings.

2. All signs to be Type "04" unless otherwise indicated.

3. Adjustments to temporary traffic control devices and striping may be required to accommodate existing field conditions. Locations of all temporary traffic control devices and striping shall be approved in the field by the Engineer.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB/EVERETT ST CLOSURE
TRAFFIC CONTROL PLAN

SHEET NO. 2C-9

11/21/2008

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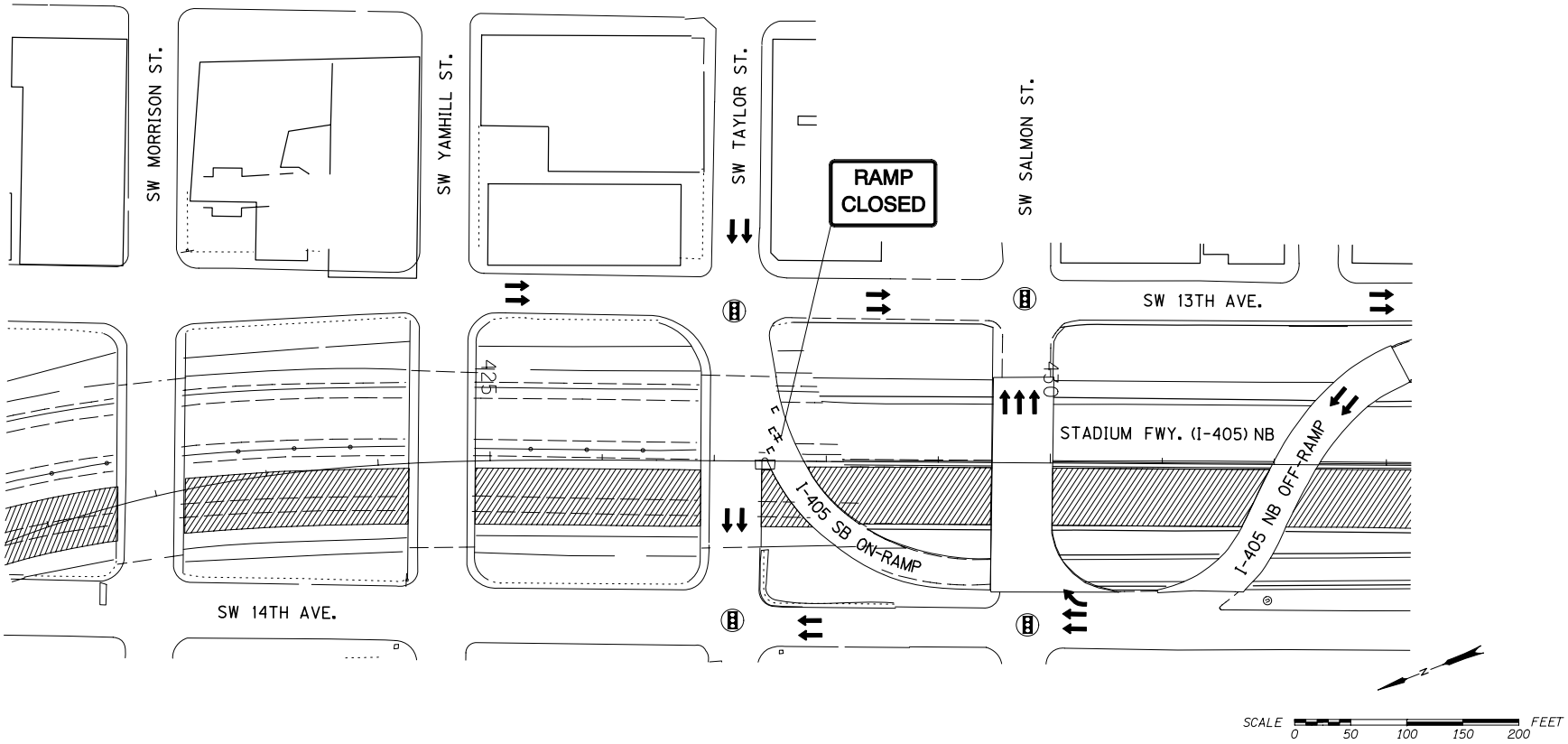
XXV-XX

RAMP CLOSURE

SOUTHBOUND I-405 ON-RAMP AT SW TAYLOR ST.



L E G E N D

- Under traffic
- Work zone
- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- Temporary sign on TSS
- Temporary sign on temporary post
- Signal

GENERAL NOTES:

1. See sheet 2C for applicable standard drawings.

2. All signs to be Type "04" unless otherwise indicated.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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I-405: FREMONT BRIDGE - MARQUAM BRIDGE

STADIUM FREEWAY (I-405)

MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB/TAYLOR ST CLOSURE TRAFFIC CONTROL PLAN

SHEET NO. 2C-10

11/21/2008

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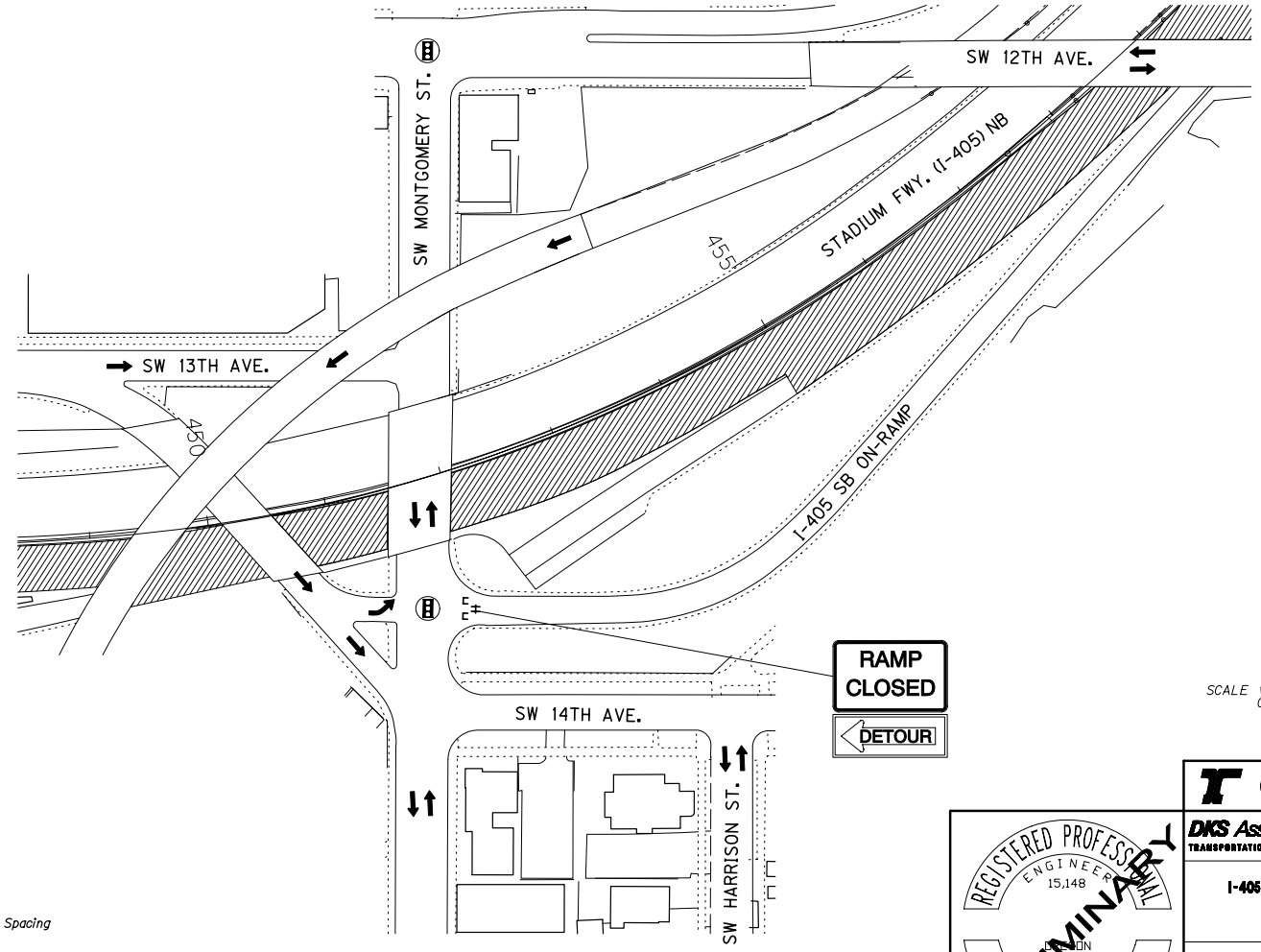
RAMP CLOSURE

SOUTHBOUND I-405 ON-RAMP AT SW MONTGOMERY ST.

GENERAL NOTES:

1. See sheet 2C for applicable standard drawings.

2. All signs to be Type "04" unless otherwise indicated.



SCALE 0 50 100 150 200 FEET

L E G E N D

- Under traffic
- Work zone
- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on TSS
- Temporary sign on temporary post
- Signal

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB/MONTGOMERY ST CLOSURE
TRAFFIC CONTROL PLAN

SHEET NO. 2C-11

11/21/2008

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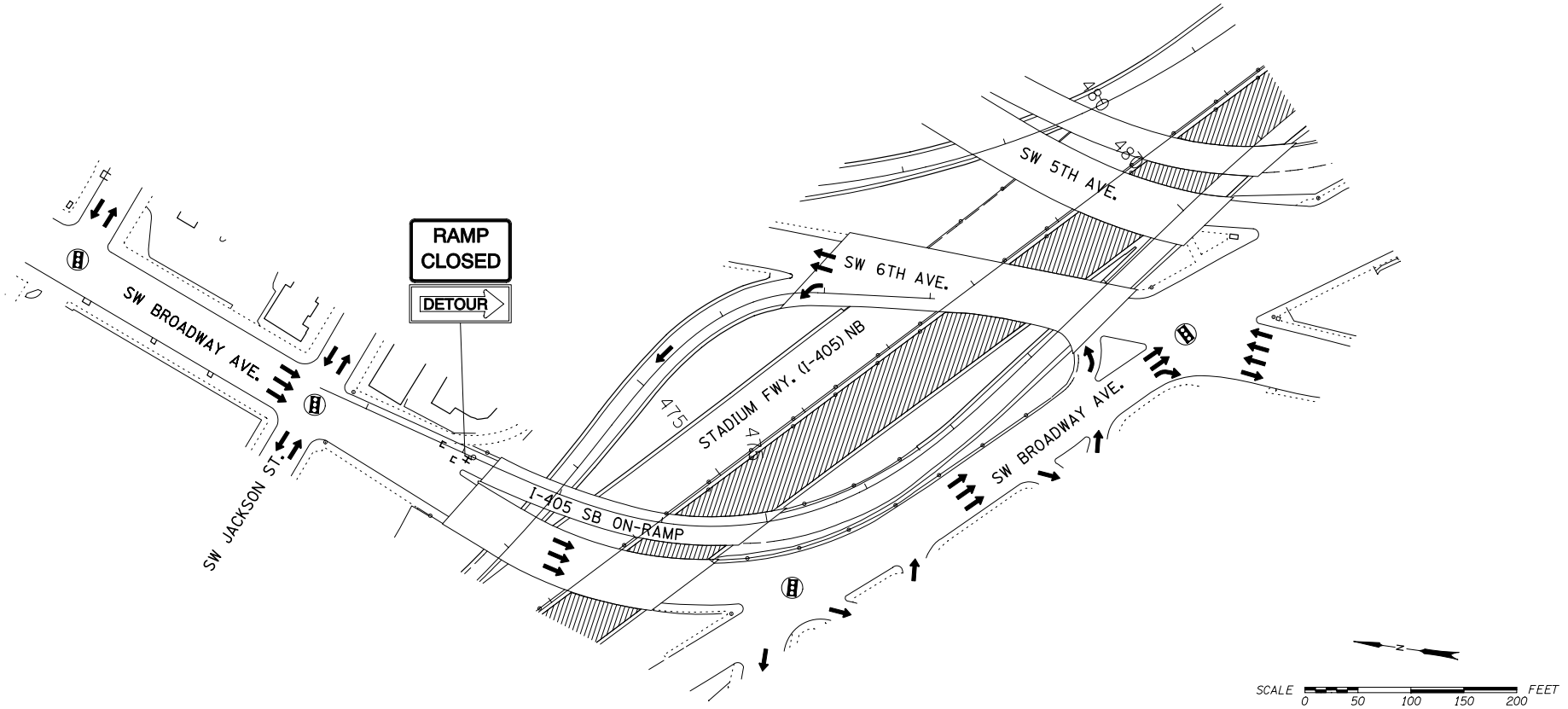
RAMP CLOSURE

SOUTHBOUND I-405 ON-RAMP AT SW BROADWAY AVE.



L E G E N D

- Under traffic
- Work zone
- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post
- Temporary sign on TSS
- Signal

GENERAL NOTES:

1. See sheet 2C for applicable standard drawings.
2. All signs to be Type "04" unless otherwise indicated.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB/BROADWAY AVE. CLOSURE TRAFFIC CONTROL PLAN

SHEET NO. 2C-12

11/21/2008

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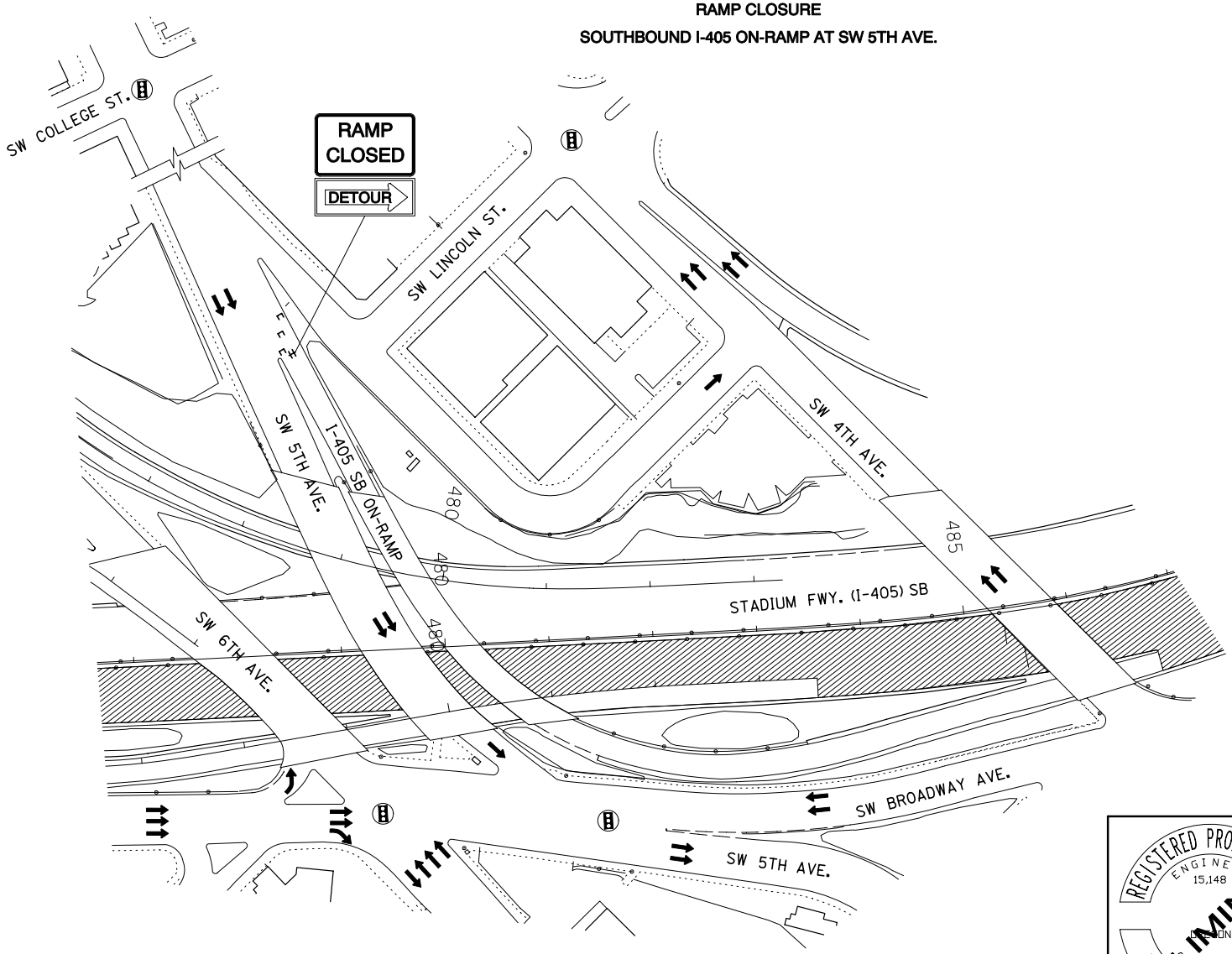
RAMP CLOSURE

SOUTHBOUND I-405 ON-RAMP AT SW 5TH AVE.



SCALE 0 50 100 150 200 FEET

GENERAL NOTES:

1. See sheet 2C for applicable standard drawings.

2. All signs to be Type "04" unless otherwise indicated.

L E G E N D

- Under traffic
- Work zone
- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post
- Temporary sign on TSS
- Signal

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

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I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB/SW 5TH AVE. CLOSURE
TRAFFIC CONTROL PLAN

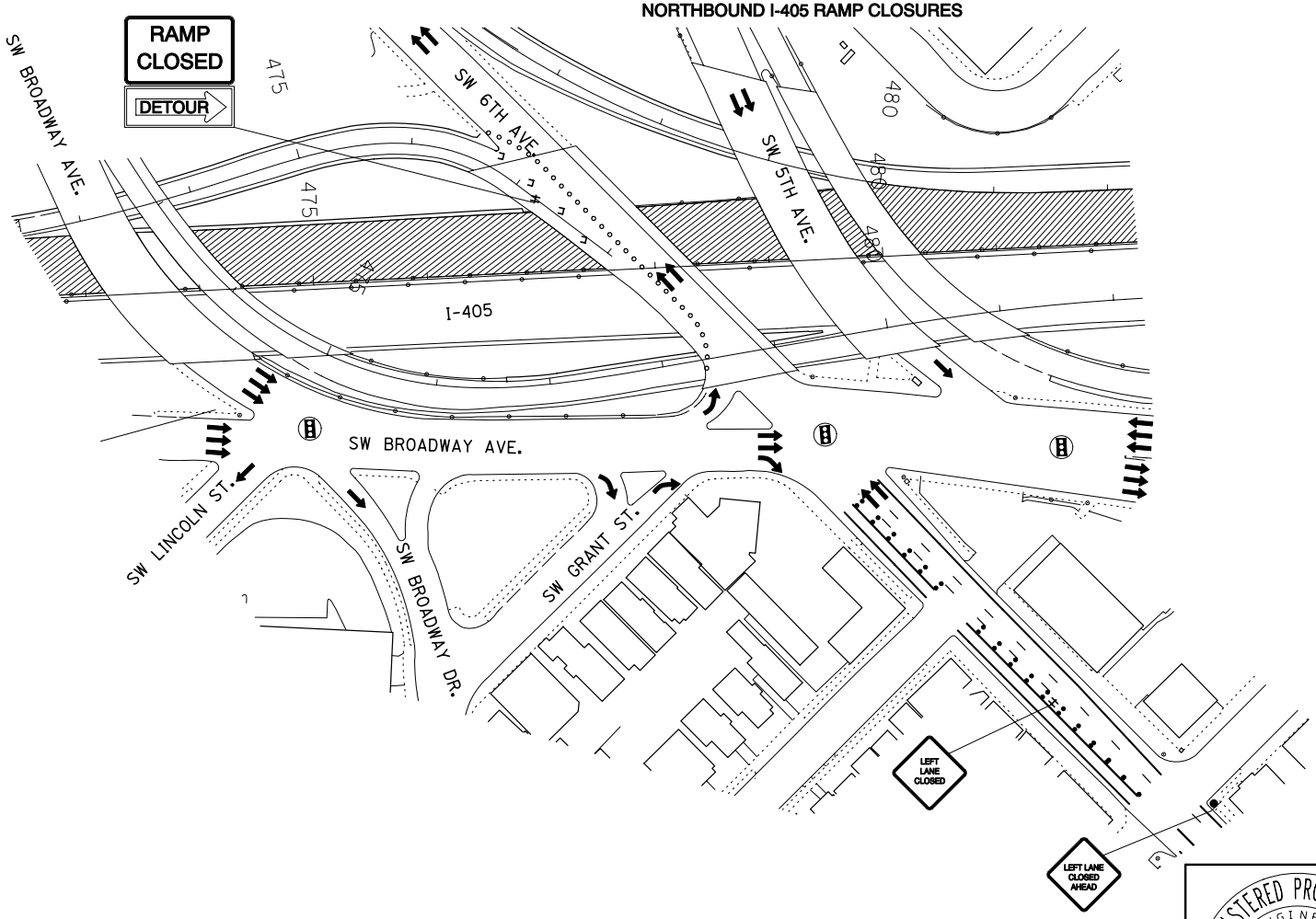
SHEET NO. 2C-13

11/21/2008

X:\projects\2007\P07141-006 (ODOT I-405)\MicroStation\137041.TP13

DETOUR

NORTHBOUND I-405 RAMP CLOSURES



SCALE 0 50 100 150 200 FEET

L E G E N D

- Under traffic
- Work zone
- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- 28" Tubular markers (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post

GENERAL NOTES:

1. See sheet 2C for applicable standard drawings.
2. All signs to be Type "04" unless otherwise indicated.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY
PRELIMINARY
EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 NB/SW 6TH AVE. CLOSURE
TRAFFIC CONTROL PLAN

SHEET NO. 2C-14

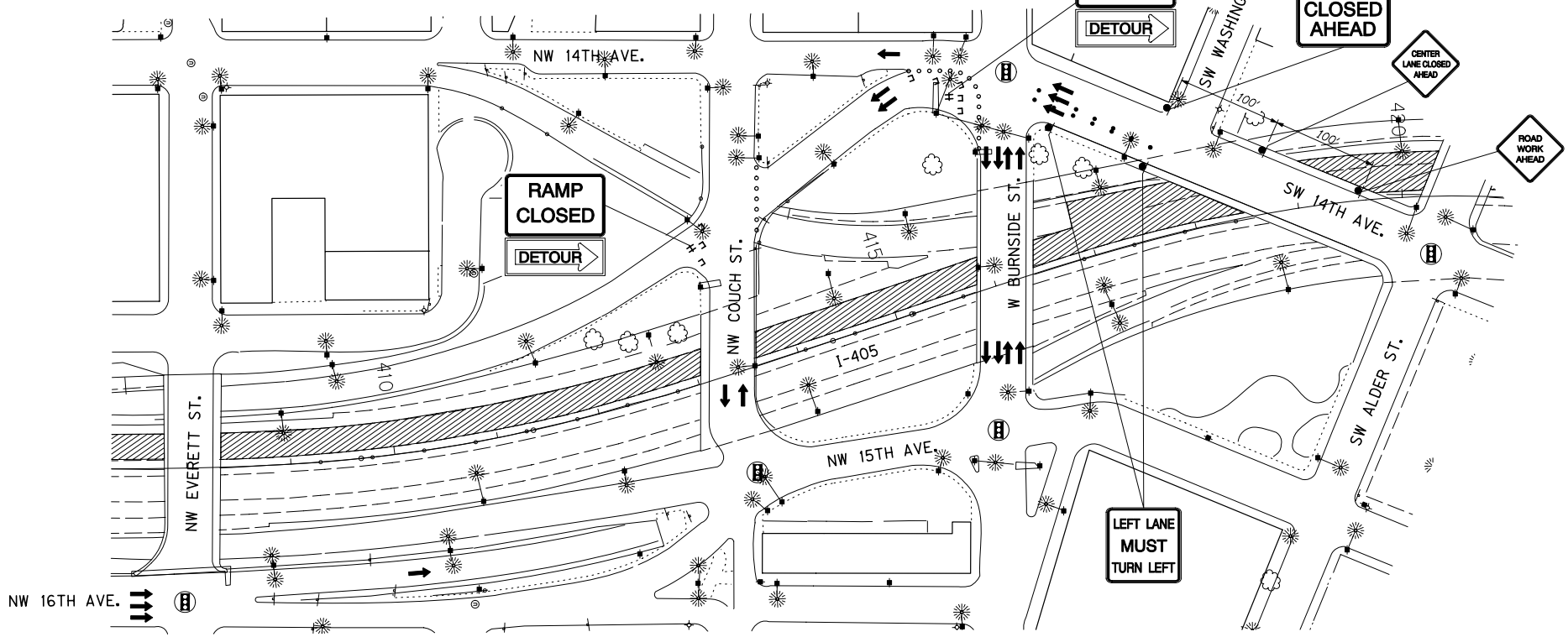
11/21/2008

X:\projects\2007\P07141-006 (ODOT I-405)\MicroStation\13704f.TP4

XXV-XX

DETOUR

NORTHBOUND I-405 RAMP CLOSURES



L E G E N D

- Under traffic
- Work zone
- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- 28" Tubular markers (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post
- Temporary sign on TSS

GENERAL NOTES:

1. See sheet 2C for applicable standard drawings.
2. All signs to be Type "O4" unless otherwise indicated.

SCALE 0 50 100 150 200 FEET

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500
Portland, Oregon 97201-5502
Telephone: (503) 243-3500
Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 NB/NW COUCH ST. CLOSURE TRAFFIC CONTROL PLAN

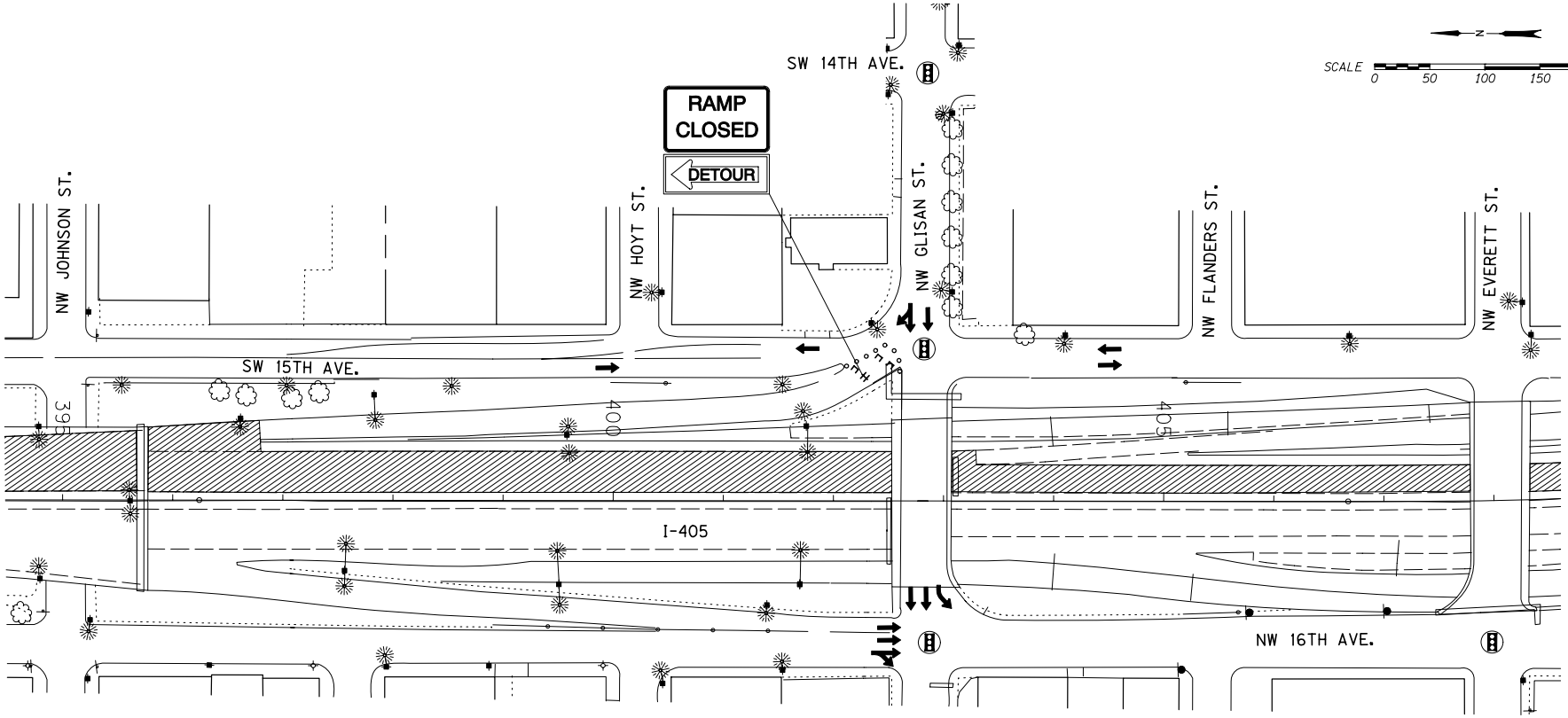
SHEET NO. 2C-15

11/21/2008

X:\projects\2007\P0141-006 (ODOT I-405)\MicroStation\13704f.TP15

DETOUR

NORTHBOUND I-405 RAMP CLOSURES



L E G E N D

- Under traffic
- Work zone
- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post
- Temporary sign on TSS

GENERAL NOTES:

1. See sheet 2C for applicable standard drawings.
2. All signs to be Type "04" unless otherwise indicated.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500
Portland, Oregon 97201-5502
Telephone: (503) 243-3500
Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 NB/NW GLISAN ST. CLOSURE TRAFFIC CONTROL PLAN

SHEET NO. 2C-16

11/21/2008

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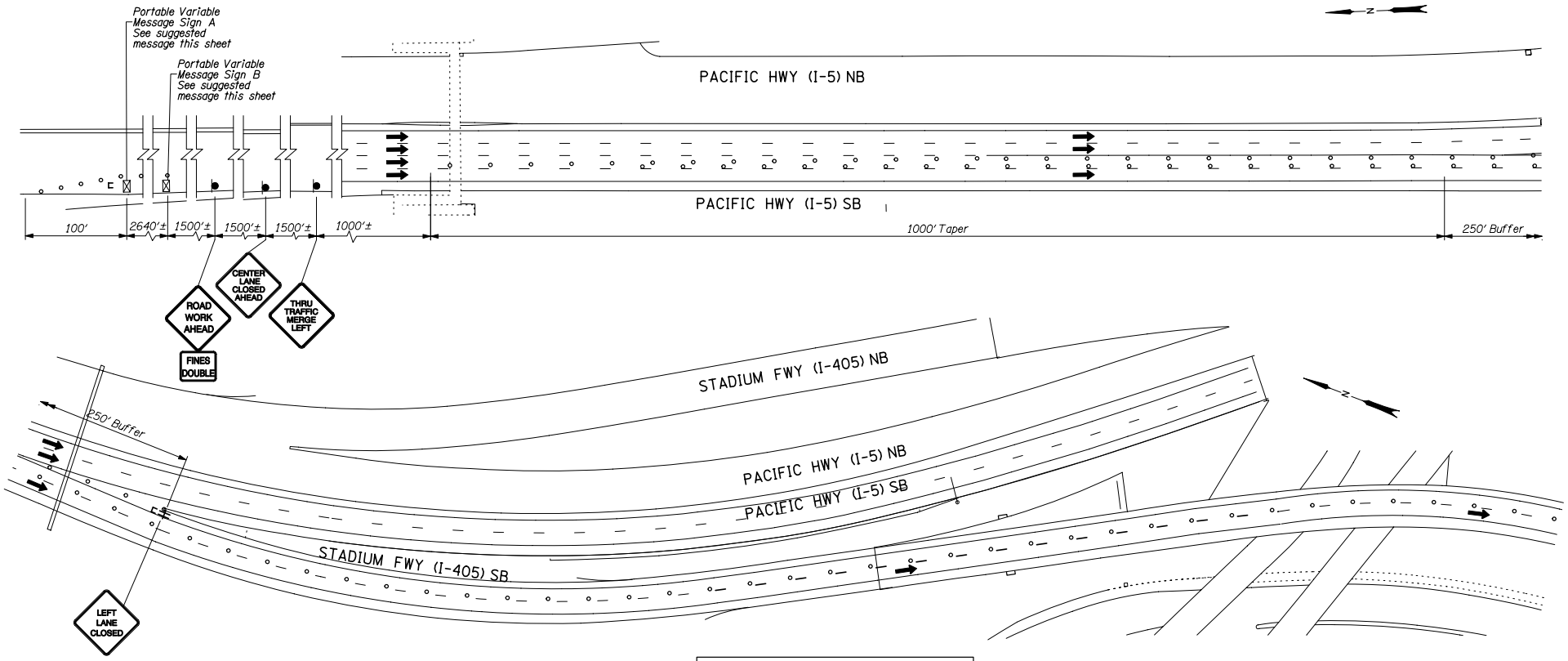
INTERSTATE RAMP CLOSURE

XXV-XX

SOUTHBOUND I-405 CLOSURE AT NORTH I-5/I-405 INTERCHANGE (1 of 3)



PORTABLE CHANGEABLE MESSAGE SIGN A
Suggested Message As Directed By Engineer

I-405 SB CLOSED	RT LANE US30 ONLY

PORTABLE CHANGEABLE MESSAGE SIGN B
Suggested Message As Directed By Engineer

I-405 SB CLOSED	DETOUR LT LANES

L E G E N D

- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post
- Temporary sign on TSS
- Portable Changeable Message Sign

GENERAL NOTES:

1. See Sheet 2C for applicable standard drawings.
2. All signs to be Type "04" unless otherwise indicated.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY

PRELIMINARY

EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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1400 SW Fifth Avenue, Suite 500
Portland, Oregon 97201-5502
Telephone: (503) 243-3500
Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB
TRAFFIC CONTROL PLAN

SHEET NO. 2C-17

11/21/2008

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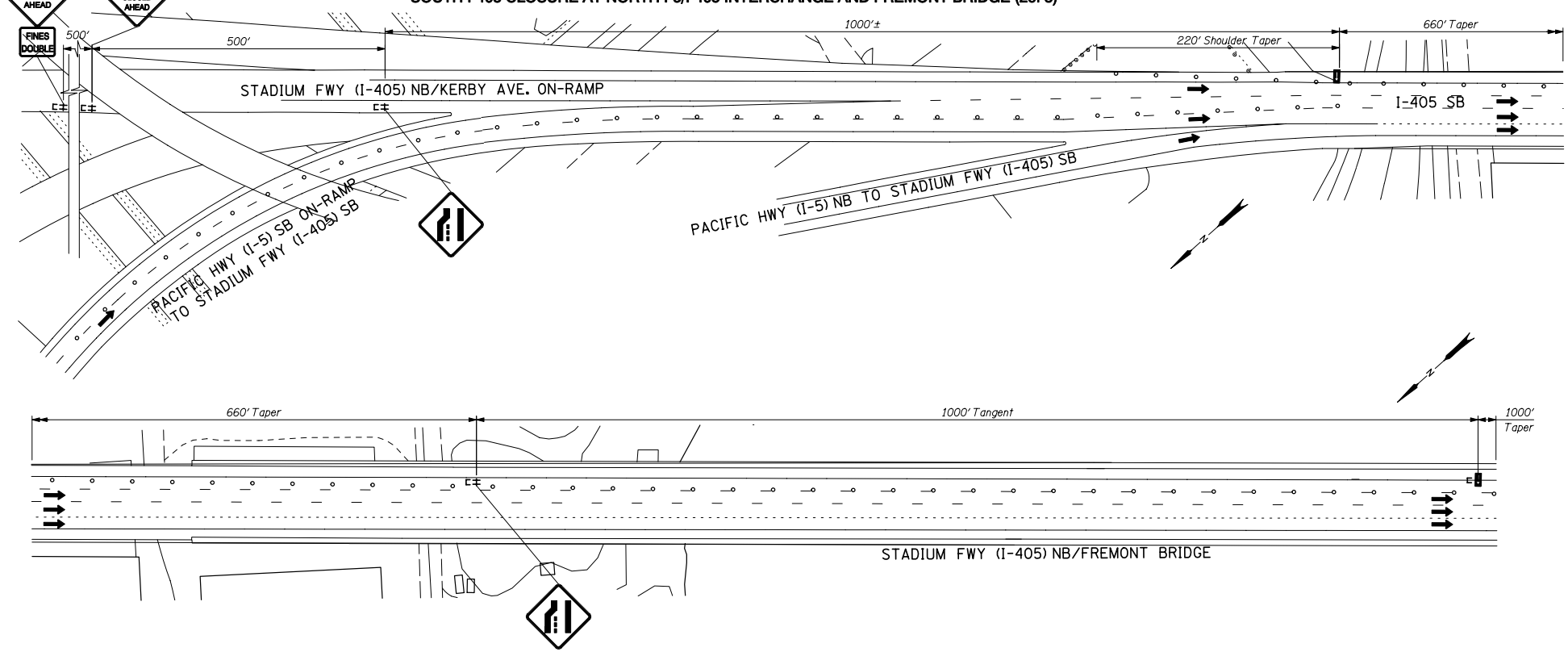
INTERSTATE RAMP CLOSURE

SOUTH I-405 CLOSURE AT NORTH I-5/I-405 INTERCHANGE AND FREMONT BRIDGE (2of 3)



L E G E N D

- Direction of traffic
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- 8' Type (III) (R, L, or LR) barricade
- Temporary sign on TSS
- Sequential Arrow

GENERAL NOTES:

1. See Sheet 2C for applicable standard drawings.
2. All signs to be Type "04" unless otherwise indicated.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY
PRELIMINARY
EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500
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Telephone: (503) 243-3500
Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB
TRAFFIC CONTROL PLAN

SHEET NO. 2C-18

11/21/2008

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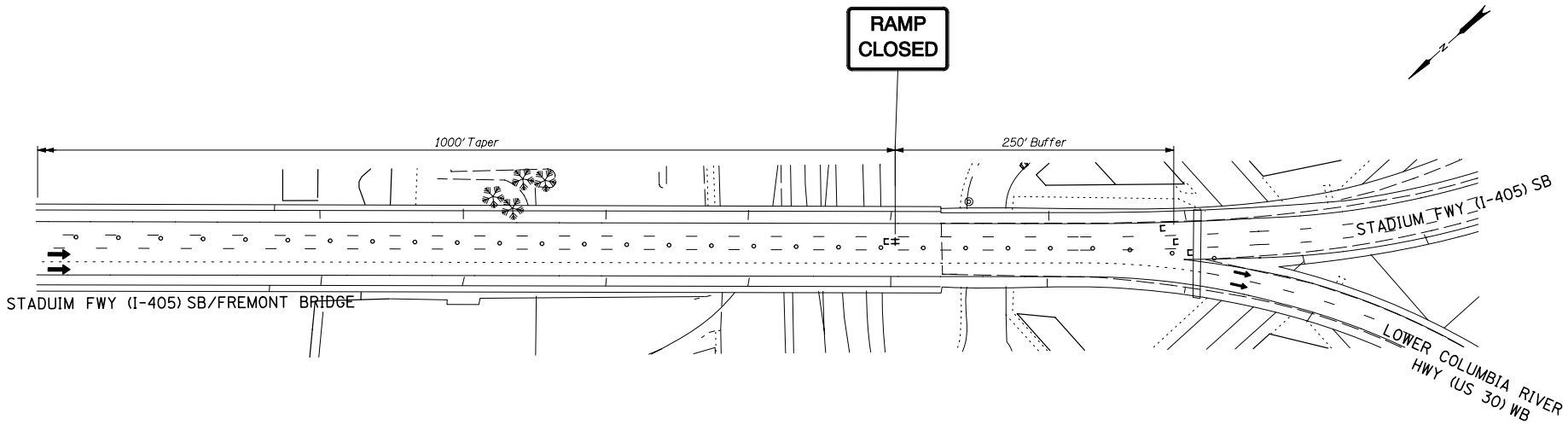
INTERSTATE RAMP CLOSURE

SOUTHBOUND I-405 CLOSURE AT FREMONT BRIDGE (3of 3)



L E G E N D

- ← Direction of traffic
- ° ° ° Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- ⊏ 8' Type (III) (R, L, or LR) barricade
- ‡ Temporary sign on TSS

GENERAL NOTES:

1. See Sheet 2C for applicable standard drawing.
2. All signs to be Type "04" unless otherwise indicated.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY
PRELIMINARY
EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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Portland, Oregon 97201-5502
Telephone: (503) 243-3500
Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB
TRAFFIC CONTROL PLAN

SHEET NO. 2C-19

11/21/2008
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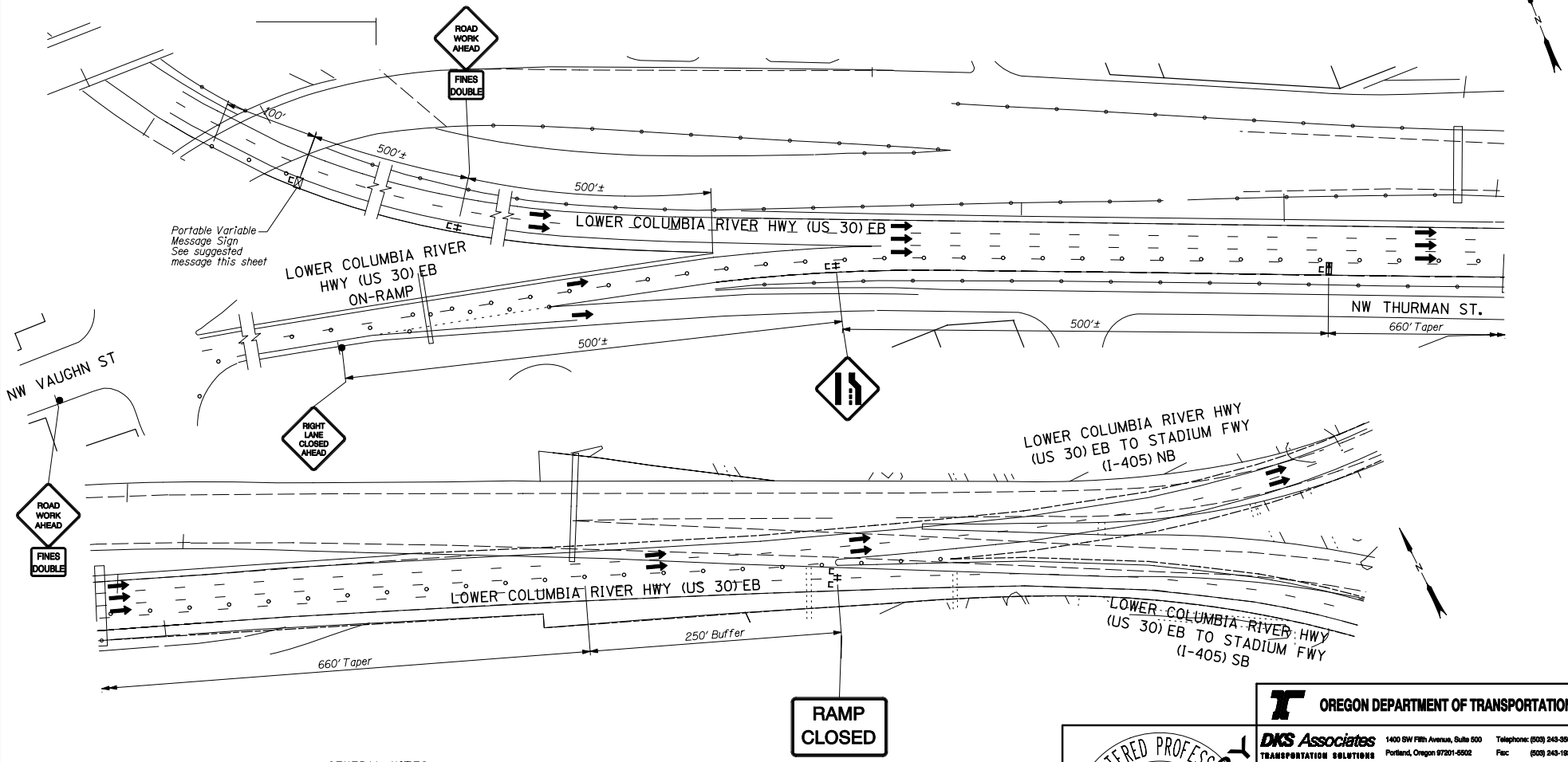
INTERSTATE RAMP CLOSURE

SOUTHBOUND I-405 CLOSURE AT I-405/US30 INTERCHANGE

XXV-XX



L E G E N D

- 8' Type (III) (R, L, or LR) barricade
- Direction of traffic
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post
- Sequential arrow

GENERAL NOTES:

1. See Sheeet 2C for applicable standard drawings.
2. All signs to be Type "04" unless otherwise indicated.

PORTABLE CHANGEABLE MESSAGE SIGN
Suggested Message As Directed By Engineer

I-405 SB CLOSED	FOLLOW DETOUR

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY
EXPIRES: DEC. 31, 2009
PRELIMINARY

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500
Portland, Oregon 97201-5502
Telephone: (503) 243-3500
Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB
TRAFFIC CONTROL PLAN

SHEET NO. 2C-20

11/21/2008

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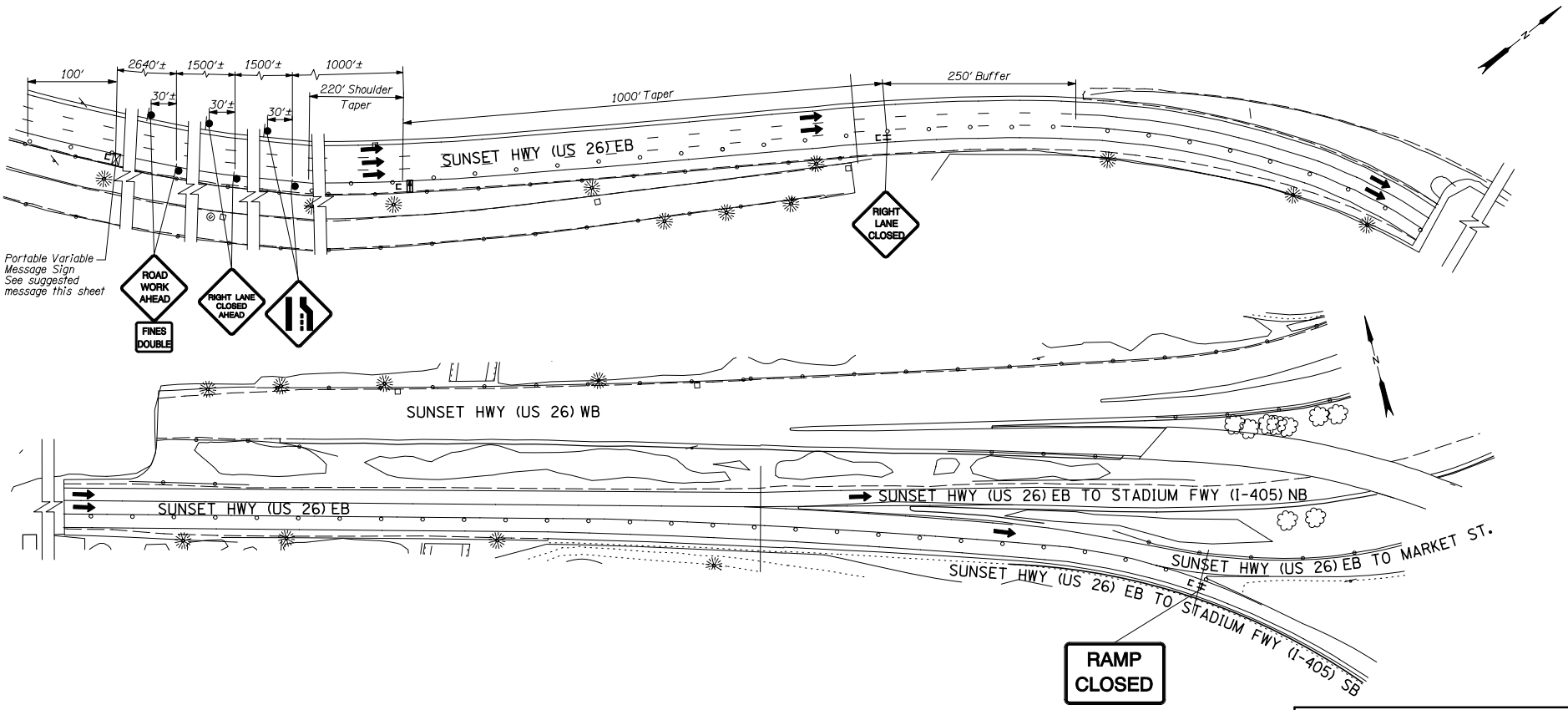
INTERSTATE RAMP CLOSURE

SOUTHBOUND I-405 CLOSURE AT I-405/US26 INTERCHANGE



L E G E N D

- Direction of traffic
- 8' Type (III) (R.L. or LR) barricade
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post
- Temporary sign on TSS
- Portable Changeable Message Sign
- Sequential arrow

GENERAL NOTES:

1. See Sheet 2C for applicable standard drawings.
3. All signs to be Type "04" unless otherwise indicated.

PORTABLE CHANGEABLE MESSAGE SIGN
Suggested Message As Directed By Engineer

I-405 SB CLOSED	FOLLOW DETOUR

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY
PRELIMINARY
EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500 Portland, Oregon 97201-5502
Telephone: (503) 243-3500 Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 SB
TRAFFIC CONTROL PLAN

SHEET NO. 2C-21

11/21/2008

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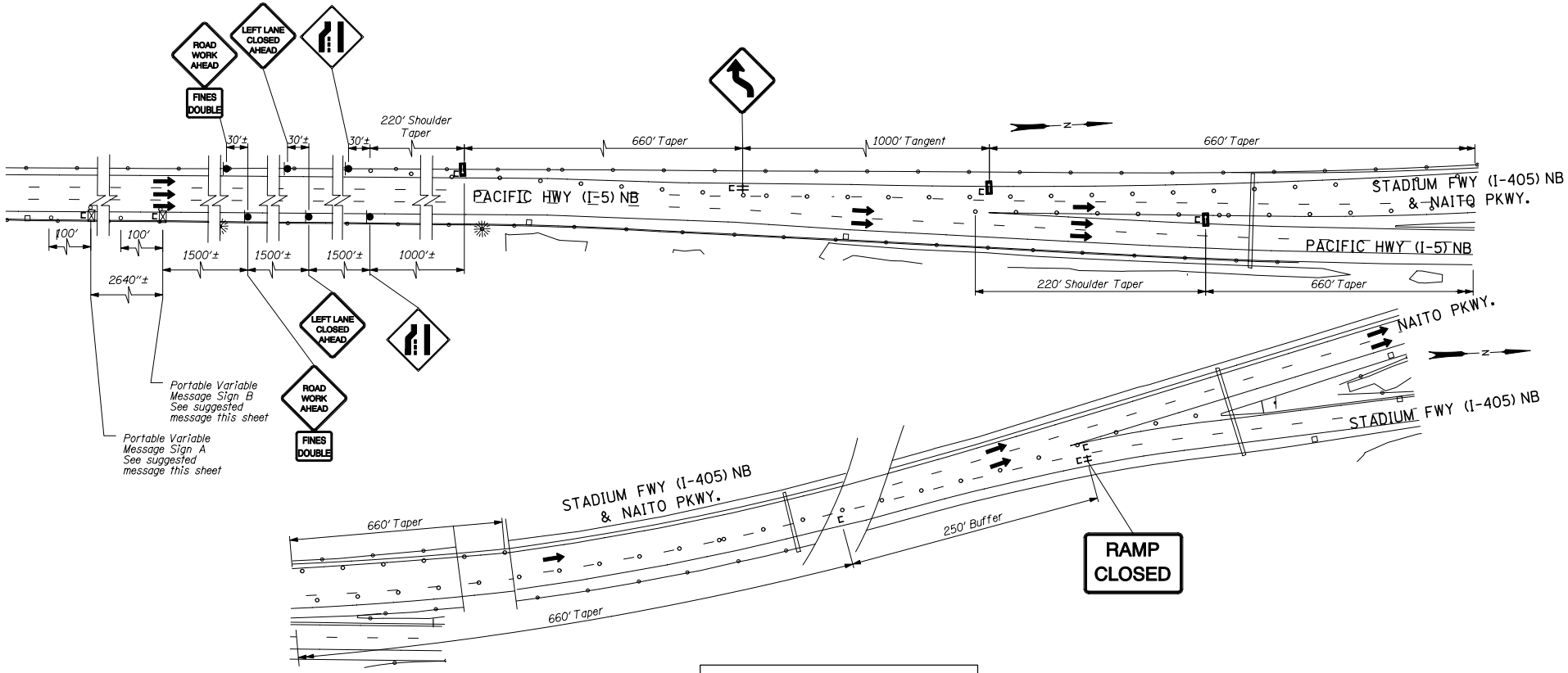
INTERSTATE RAMP CLOSURE

NORTHBOUND I-405 CLOSURE AT SOUTH I-5/I-405 INTERCHANGE



PORTABLE CHANGEABLE MESSAGE SIGN B
Suggested Message As Directed By Engineer

I-405 NB CLOSED	DETOUR RT LANES

PORTABLE CHANGEABLE MESSAGE SIGN A
Suggested Message As Directed By Engineer

I-405 NB CLOSED	CITY CTR LEFT LANE

L E G E N D

- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- 28" Tubular markers (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post
- Portable Changeable Message Sign
- Sequential arrow

GENERAL NOTES:

1. See Sheet 2C for applicable standard drawing.

3. All signs to be Type "04" unless otherwise indicated.

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY
PRELIMINARY
EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

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I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 NB TRAFFIC CONTROL PLAN

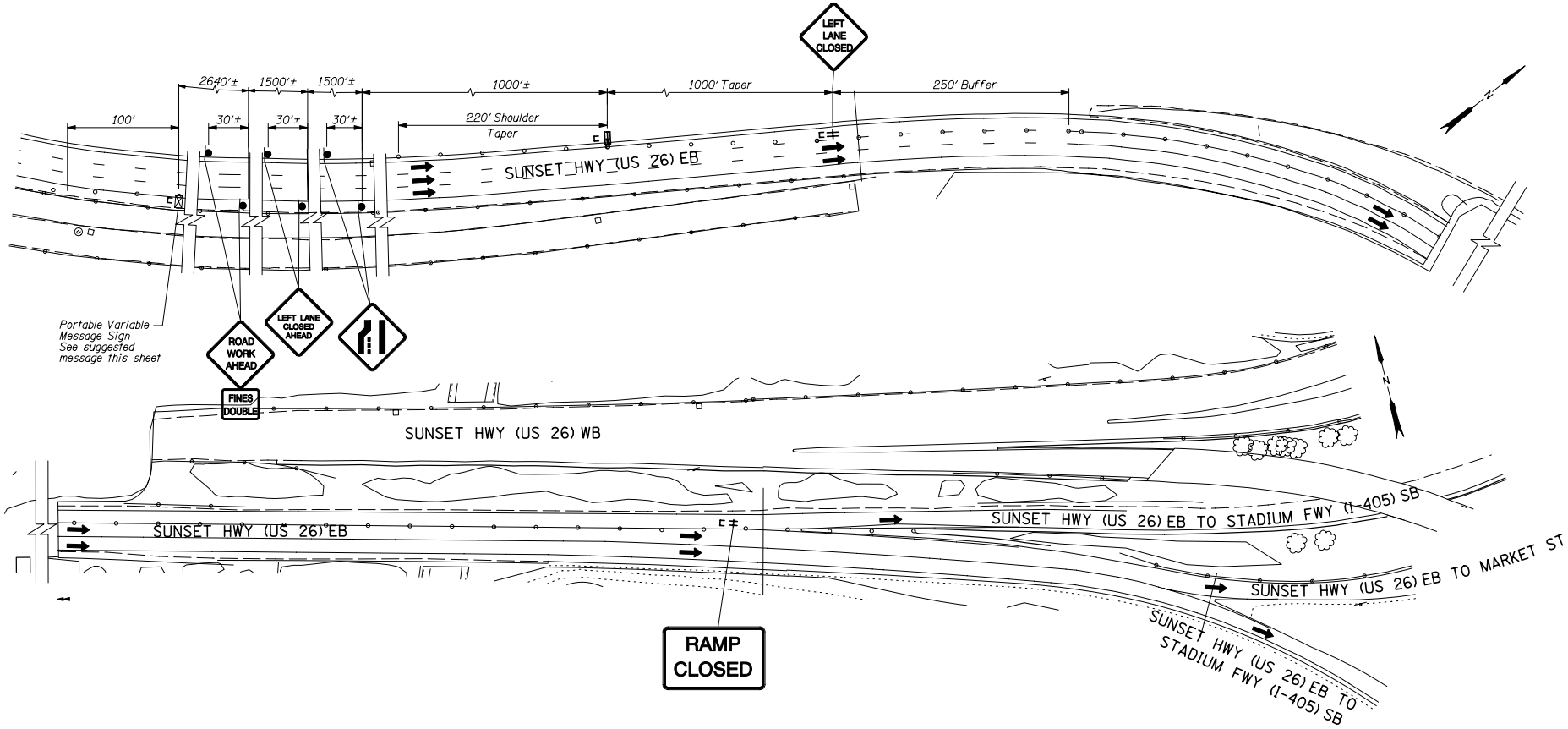
SHEET NO. 2C-22

11/21/2008
X:\projects\2007\P0141-006 (ODOT I-405)\MicroStation\13704t.TP22

XXV-XX

INTERSTATE RAMP CLOSURE

NORTHBOUND I-405 CLOSURE AT I-405/US26 INTERCHANGE



L E G E N D

- Direction of traffic
- 8' Type (III) (R, L, or LR) barricade
- Temporary plastic drums (See TCD Spacing Table on TM700 for max. spacing)
- Temporary sign on temporary post
- Portable Changeable Message Sign

GENERAL NOTES:

1. See Sheet 2C for applicable standard drawings.
2. All signs to be Type "04" unless otherwise indicated.

PORTABLE CHANGEABLE MESSAGE SIGN
Suggested Message As Directed By Engineer

I-405 NB CLOSED	FOLLOW DETOUR

REGISTERED PROFESSIONAL ENGINEER 15,148 OREGON OCT. 2, 1990 PETER L. COFFEY
PRELIMINARY
EXPIRES: DEC. 31, 2009

OREGON DEPARTMENT OF TRANSPORTATION

DKS Associates TRANSPORTATION SOLUTIONS
1400 SW Fifth Avenue, Suite 500
Portland, Oregon 97201-5502
Telephone: (503) 243-3500
Fax: (503) 243-1934

I-405: FREMONT BRIDGE - MARQUAM BRIDGE
STADIUM FREEWAY (I-405)
MULTNOMAH COUNTY

Design Team Leader - Peter L. Coffey
Designed By - Colette T. Snuffin
Drafted By - DKS CAD

I-405 NB
TRAFFIC CONTROL PLAN

SHEET NO. 2C-23

11/21/2008

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Appendix G: Additional Stakeholders List

I-405 Stakeholder List

Neighbhorhood Associations

Coalitions

Neighbors West/Northwest (NWNW)	Anne Dufay, Deputy Director Frank Bird, coalition board chair/president	www.nwnw.org	2257 NW Raleigh	Portland	OR	97210	503.823.4288	coalition@nwnw.org anne@nwnw.org frankbird@aol.com
Southwest Neighborhoods (SWNI)	Ginny Stromer, operations manager Brian Russell, coalition board chair/president	www.swni.org	7688 SW Capitol Highway	Portland	OR	97219	503.823.4592	ginny@swni.org ginny@swni.org barusse@hotmail.com

Individual Associations

Forest Park Neighborhood Association	Jim Emerson, chair/president Clark Hansen, Transportation	www.nwnw.org/forestpark.html					503.988.3322 503.292.4004	opecheelake@hotmail.com clark@clarkhansen.com
Goosehollow Foothills League	Alan Beard,chair/president George Don, transportation	www.ghfl.net					503.224.9656 503.553.5457	alan@gbdarchitects.com gdon@msn.com
Lloyd District Community Association	Justin Zeulner, chair/president	www.lloyddistrict.org	One Center Court, Ste. 150	Portland	OR	97227	503.797.9922	justin.zeulner@rosequarter.com
Northwest District Association	Juliet Hyams, Chair/Co-Chair/President Kim Carlson, Transportation	www.northwestdistrictassociation.org	2257 NW Raleigh	Portland	OR	97210	503.916.9748 (h) 503.294.0181 (h)	juliet@easystreet.net kcarlso@gmail.com
Northwest Heights Neighborhood Association	Charles Clark, Chair/Co-Chair/President Mark Sieber	www.nwnw.org/northwestheights.html					no # 503.823.4212	nwhnamail@bigplanet.com
Northwest Industrial Neighborhood Association	Leah Goldstone-Schuller, Chair/Co-Chair/President Barbara Clark, communications	www.ninapdx.org	2257 NW Raleigh	Portland	OR	97210	503.224.3511 503.220.1242	leahg@e-c-co.com barbara_clark@kindermorgan.com
Old Town Chinatown Neighborhood Association	Alexander Mace, Chair/Co-Chair/President Carol McCreary, Finance	www.odltownchinatown.com	115 SW Ash, Ste. 400G	Portland	OR	97204	503.702.5840 (h) 503.984.4081 (h)	chair@oldtownchinatown.com carolmccreary@comcast.net
Pearl District Neighborhood Association	Joan Pendergast, Chair/Co-Chair/President Ben Andrews, communications	www.pearldistrict.org	1314 NW Irving, #311	Portland	OR	97209	503.226.0612 (h) 503.290.4191 (h)	jpenderx@mac.com ben@pearldistrict.com
Portland Downtown Neighborhood Association	Steve Trujillo, Chair/Co-Chair/President Valerie DePan, communications	www.dnaportland.org	P.O. Box 1534	Portland	OR	97207	971.230.0030 503.254.7484 (h)	stevetru@gmail.com vkdink@aolcom
Sylvan-Highlands Neighborhood Association	Rich Grant, Vice-Chair/Vice-President	www.nwnw.org/sylvanhighlands.html	1433 SW Highland Road	Portland	OR	97221	503.229.5560 (h)	richaandmeg@msn.com

Business Groups

Sandra	McDonough	Portland Business Alliance	President, CEO	200 S.W. Market Street, Suite 1770	Portland	OR	97201	503.224.8684	
Jean	Baker	Alliance of Portland Neighborhood Business Associations	Business Assoc. President	4039 SE Grant Court	Portland	OR	97214	5032347642	mjeanbaker@peoplepc.com
Galadriel	Breezy	Alliance of Portland Neighborhood Business Associations	Business Assoc. staff	107 SE Washington, Suite 244	Portland	OR	97214	5034779648	gbreezy@apnba.com
Gregg	Weston	Columbia Corridor Association	Business Assoc. President	PO Box 20487	Portland	OR	97294	5032878686	info@columbiacorridor.org
Stephen	Pirkl	Downtown Retail Council	Business Assoc. President	111 SW Columbia	Portland	OR	97201	5032747682	svjewelers@hotmail.com
Angela	Crawford	Goose Hollow Business Association	Business Assoc. President	2153 SW Main St., #102	Portland	OR	97205	5032236376	meso@teleport.com
Justin	Zeulner	Lloyd District Community Association	Business Assoc. President	One Center Court, Ste. 150	Portland	OR	97227	5037979922	justin.zeulner@rosequarter.com
William	Ruff	Lloyd District Community Association	Business Assoc. Land Use Chair	720 NW Davis, St 300	Portland	OR	97209	5032211121	bruff@lrsarchitects.com
Kay	Wolfe	Nob Hill Business Association	Business Assoc. President	22 NW 23rd Ave.	Portland	OR	97210	5032270898	kay.wolfe@homestreetbank.com
Leah	Goldstone-Schuller	Northwest Industrial Neighborhood Association	Business Assoc. President	2121 NW Thurman	Portland	OR	97210	5032243511	leahg@e-c-cd.com
Ann	Gardner	Northwest Industrial Neighborhood Association	Business Assoc. APNBA Delegate	PO Box 10047	Portland	OR	97296	5035938114	agardner@schninv.com
Dorian	Yee	Old Town Chinatown Business Association	Business Assoc. President	419 NW Broadway	Portland	OR	97209	5032247066	dyee@bankofthewest.com
Gary	Boehm	St. John's Business Boosters	Business Assoc. President	7325 N Alta	Portland	OR	97203	5032861312	cpjazz@spiritone.com
Dave	Panchot	Swan Island Business Association	Business Assoc. President	PO Box 4773	Portland	OR	97208	5077458100	davepanchot@freightliner.com
Lenny	Anderson	Swan Island Business Association	Business Assoc. staff	4567 N Channel Ave.	Portland	OR	97217	5037456563	sitma@teleport.com
James	Posey	National Association of Minority Contractors	President	10350 NE Vancouver Way, Suite 102	Portland	OR	97217	503.936.6898	info@namc-oregon.org
Faye	Burch	"	Vice President						
Sam	Brooks	Oregon Association of Minority Entrepreneurs	President	4134 N. Vancouver Avenue	Portland	OR	97217	503-249-7744	oame@oame.org
Gale	Castillo	Hispanic Metropolitan Chamber	President	PO Box 1837	Portland	OR	97207	503.222.0280	info@hmccoregon.com
David	Wang	Asian American Business Alliance	Treasurer	PO Box 40371	Portland	OR	97240		

Electeds

CITY								
Tom	Potter	Mayor	1221 SW 4th Avenue, Room 340	Portland	OR	97204	(503)823-4120	mayorpotter@ci.portland.or.us
Sam	Adams	Commissioner/Mayor-Elect	1221 SW 4th Avenue, Room 220	Portland	OR	97204	(503)823-3008	commissionersam@ci.portland.or.us
Nick	Fish	Commissioner	1221 SW 4th Avenue, Room 240	Portland	OR	97204	(503) 823-3589	Nick@ci.portland.or.us
Randy	Leonard	Commissioner	1221 SW 4th Avenue, Room 210	Portland	OR	97204	(503)823-4682	randy@ci.portland.or.us
Dan	Saltzman	Commissioner	1221 SW 4th Avenue, Room 230	Portland	OR	97204	(503)823-4151	dsaltzman@ci.portland.or.us
STATE HOUSE REP								
Mary	Nolan	State representative	900 Court St. NE., H-486	Salem	OR	97301	503-986-1436	rep.marynolan@state.or.us
STATE SENATOR								
Ginny	Burdick	State senator	900 Court St. NE., S-317	Salem	OR	97301	503-986-1718	sen.ginnyburdick@state.or.us
MULTNOMAH COUNTY								
Jeff	Cogen	commissioner	501 SE Hawthorne Blvd.	Portland	OR	97214	(503) 988-5219	district2@co.multnomah.or.us
Deborah	Kafoury	commissioner	501 SE Hawthorne Blvd.	Portland	OR	97214	TBD	TBD