

**Bureau of Development Services - Land Use Services Division**  
**Refund Request Form for Void/Withdrawn/Cancelled Application/Case/Appointments**

**PLANNER:** Complete Upper Section of this form. Submit form to Section or Division Manager for authorization.

Today's Date: 11/17/17

Intake Date: 11/8/17

To: BDS Administration Section, A/P

From: Emily Hays

(Required if case 6+ months old)

Approved by Manager: Kara Fioravanti

Digitally signed by Kara Fioravanti  
Date: 2017.11.20 08:53:55 -08'00'

Division Manager:

Case Number: LU 17-268106 DZ

**Refund of Service Bureau Fees:**

- Reviewed by Service Bureaus ☒ No (100% refund) ☐ Yes (No Refund)

\* If over \$1,000 dollars has been paid to PBOT, Section Manager check with PBOT for possible partial refund.

**Refund of Hearings Officer Fee**

- Did hearing occur? ☒ No (100% refund) ☐ Yes (No Refund)

Write an explanation on the lines provided below. Your explanation will go into TRACS. If there are concurrent reviews, and one or more are withdrawn, identify which reviews are withdrawn. **Special Refund Instructions**

Unnecessary Review - freestanding sign allowed on each arterial frontage. Applicant can proceed to sign permit without design review.

Is the case now considered inactive? ☐ No ☒ Yes If yes, please attach the case file.

**Please check the appropriate situation.**

☒ **(A) Unnecessary fees/Review** When a fee is accepted for a land use review that is later found to not be required, a full refund of all land use review fees for the unnecessary review will be given. If there are concurrent reviews, identify on reverse page which review is being withdrawn.

☐ **(B) Errors** - When an error is made in calculating a fee, overpayment will be refunded.

☐ **(C) Void Land Use Review or Final Plat** (Zoning Code Section 33.730.060.A.2.d) - The fee is non-refundable.

☐ **(D) Withdrawn Application**

Application Withdrawn:	Percent Refund of LUS Fee
<b>1. Early Assistance Appointment</b>	
<input type="checkbox"/> At least 7 days prior to the appointment.	50% of LUS fee
<b>2. Final Plat</b>	
<input type="checkbox"/> After staff sends the first redlines or plat comments to the customer.	50% of LUS fee
<input type="checkbox"/> After staff sends the second redlines or plat comments to the customer.	25% of LUS fee
<b>3. Land Use Review - Type I, II or IIX</b>	
<input type="checkbox"/> Before the Notice of Proposal is sent to P&D.	75% of LUS fee (amount retained should not be less than \$200 or more than \$1,500)
<input type="checkbox"/> After the Notice of Proposal is sent to P&D, but before staff sends the Notice of Decision to P&D.	25% of LUS fee (amount retained should not be less than \$300 or more than \$4,000)
<b>4. Land Use Review - Type III or IV</b>	
<input type="checkbox"/> Before the Request for Response is sent to the infrastructure bureaus.	75% of LUS fee (amount retained should not be less than \$400 or more than \$2,000)
<input type="checkbox"/> After the Request for Response is sent to the infrastructure bureaus, but before the Notice of Public Hearing is sent to P&D.	50% of LUS fee (amount retained should not exceed \$7,000)
<input type="checkbox"/> After the Notice of Public Hearing is sent to P&D, but before the staff recommendation is published.	30% of LUS fee (amount retained should not exceed \$10,000)

5. Pre-application Conference		
<input type="checkbox"/> Before the staff sends the conference information to the infrastructure bureaus.		75% of LUS fee
<input type="checkbox"/> After staff sends the conference information to the infrastructure bureaus, but at least 7 days prior to the conference.		50% of LUS fee
<input type="checkbox"/> Within 6 days prior to the conference.		25% of LUS fee

☐ (E) Appeal Fees

Full refund if the following are met:

1. Type III – Appellant prevailed, and no new evidence presented at appeal hearing.
2. Type II, IIx and III – Appellant prevailed by:
  - a. overturning the lower decision-maker's decision; or
  - b. persuading the appellate decision-maker to modify the lower decision-maker's decision in the appellant's favor for one or more of the reasons identified in the appeal.

*It is not necessary for the appellant to prevail on all of the issues raised. Prevailing on just one issue is sufficient.*

☐ (F) No refund (They do not qualify for any of the partial refunds provided for in D above)

1. Appeal fees are nonrefundable, except as provided for in Subsection E.

☐ (G) Letter waiving LUS Fee (fees waived by Director) Amount reduced \$\_\_\_\_\_/\_\_\_\_\_% Attached waiver letter.

☐ (H) Special Circumstances/Refund arrangements per Division Manager or Section Manager.

☐ (I) Public Registry (PR)

- ☐ LUS 100% Refund -Unnecessary fees or review
- ☐ LUS 75% Refund - Completeness check only, check sheet NOT sent or completed
- ☐ LUS 50% Refund - First checksheet sent, minimal staff time spent, bureau comments returned
- ☐ LUS 25% Refund- Second checksheet sent, comprehensive staff review

FORWARD THIS FORM TO LUS TECHS AFTER ALL FIELDS ABOVE FILLED IN AS NEEDED

**LUS TECH STAFF:** Initial and date after data entry ejd Date: 11/27/17

<b>Refunds:</b>	Fee Code <u>2518</u>	<input checked="" type="checkbox"/> Full	<input type="checkbox"/> Partial	% <u>100</u>	Refund of \$ <u>945.00</u>
	Fee Code <u>          </u>	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	% <u>          </u>	Refund of \$ <u>          </u>
	Fee Code <u>          </u>	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	% <u>          </u>	Refund of \$ <u>          </u>
	Fee Code <u>          </u>	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	% <u>          </u>	Refund of \$ <u>          </u>
	Fee Code <u>          </u>	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	% <u>          </u>	Refund of \$ <u>          </u>
	Fee Code <u>          </u>	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	% <u>          </u>	Refund of \$ <u>          </u>
	Fee Code <u>          </u>	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	% <u>          </u>	Refund of \$ <u>          </u>
	Fee Code <u>          </u>	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	% <u>          </u>	Refund of \$ <u>          </u>
	Fee Code <u>          </u>	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	% <u>          </u>	Refund of \$ <u>          </u>
	Fee Code <u>          </u>	<input type="checkbox"/> Full	<input type="checkbox"/> Partial	% <u>          </u>	Refund of \$ <u>          </u>

Please process a refund in the amount of \$ 945.00 to:

Company Name SRG PARTNERSHIP INC  
 Contact Person SAM STADLER  
 Mailing Address 621 SW MORRISON ST #200  
 City/State/Zip PORTLAND, OR 97205

**Original Payment Type**

- ☐ Check
- ☐ Cash
- ☒ Card

Email to Cashiers

Vendor #                                      Authorization #

## Hays, Emily

---

**From:** Partch, Priscilla  
**Sent:** Thursday, November 16, 2017 4:09 PM  
**To:** Hays, Emily  
**Subject:** RE: Quick Clarification - Freestanding Sign on an Arterial

Hi Emily:

As long as the sign is **not** on SW Montgomery and is going to be on SW Broadway it is good. I believe the sign on SW Harrison has already been permitted and is out the door.

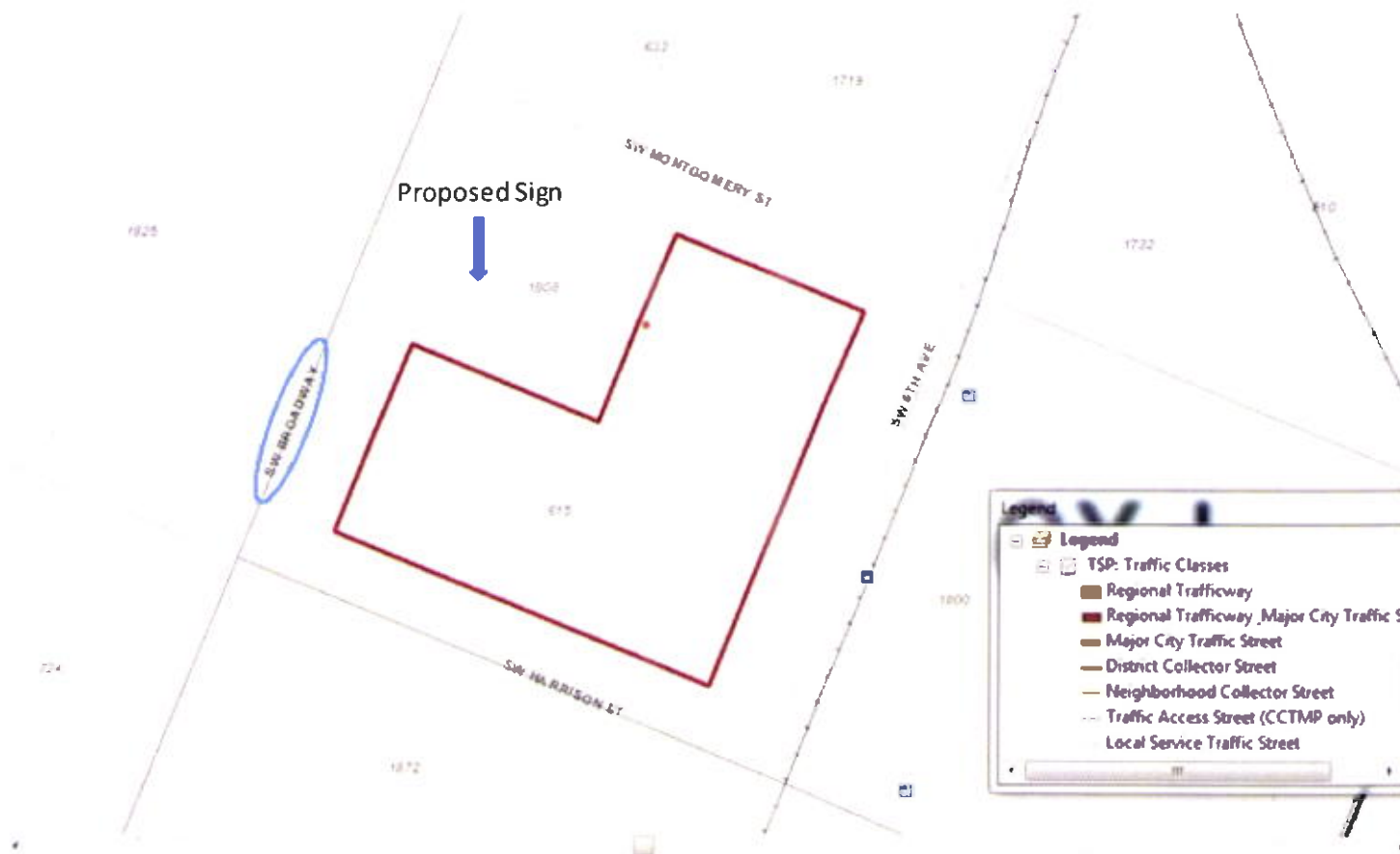
**From:** Hays, Emily  
**Sent:** Thursday, November 16, 2017 10:10 AM  
**To:** Partch, Priscilla <Priscilla.Partch@portlandoregon.gov>  
**Subject:** Quick Clarification - Freestanding Sign on an Arterial

Hi Priscilla,

I'm a planner with the Design Review Team – I'm hoping you can quickly confirm an exemption for me. I talked this through Staci Monroe and she asked that I touch base with you:

My applicant is proposing to install a **new 16 SQ FT non-illuminated freestanding sign** at the PSU Business School along SW Broadway (LU 17-268106). In the **CXd** zone, there is an allowance for one freestanding sign per arterial street frontage.

I talked to Art Graves about a recent conversation confirming the definition of "arterial" as anything other than a "Local Service Traffic Street". SW Broadway is a "**Traffic Access Street**".



Parcel Details			
Lot Size: 30000 sqft	Building Size: 110373 sqft	Map Number: 3228	Zoning Code(s): Old
Legal Description: PORTLAND, BLOCK 190, LOT 1-6, SPLIT LEVY R677738 (R667719630)		Lot & Block: 1-6 190	Historic District:
Mailing Information: OREGON STATE OF BOARD OF HIGHER EDUCATIO PO BOX 751		Conservation District:	Jurisdiction: Portland
		Plan District: CENTRAL CITY	SubDistrict: UNIVERSITY DIST
		SubArea:	NRMP:
		LUR Case History: (21 Cases)	
		CU 098-79	
		CU 145-86	
		DZ 33-78	
		DZ 60-74	
		DZ 100-85	
		<input type="checkbox"/> Draw LURs	
		LUR Search	

The applicant previously submitted for two free standing signs on the same site. Your check sheet (LU 17-203866 SG, dated 7/20/17) indicated the need for an adjustment and the applicant opted to remove one sign from the proposal in order to move forward.

## PROJECT INFORMATION

Street Address: 631 SW HARRISON ST

Description of Work: INSTALL (1) NON-ILLUMINATED FREESTANDING SIGN, 16 SQ FT

## PLAN REVIEW

Based on the plans submitted, the items listed below appear to be missing or not in conformance with City of Portland, Title 32 Sign Code and/or other City requirements.

Item #	Location on plans	Code Section	Clarification / Correction Required				
1		32.32.020	<p>This site is zoned CXd. Per 32.32.020 Standards in the Commercial, Employment, and Industrial Zones only one freestanding sign per site is allowed. To have additional freestanding signs at this site a Land Use Adjustment will need to be applied for approved and recorded before this sign permit will be able to go forward.</p> <p>To apply for a Land Use Adjustment, please follow the link below for more information: <a href="https://www.portlandoregon.gov/bds/article/72422">https://www.portlandoregon.gov/bds/article/72422</a></p> <table><tr><td><i>Freestanding Sign</i> Maximum Number</td><td>1 per site or 1 per 300 ft. of arterial street frontage and 1 for each additional 300 ft. or fraction thereof (2)</td><td>1 per arterial street frontage (3)</td><td>1 per arterial street frontage (3)</td></tr></table>	<i>Freestanding Sign</i> Maximum Number	1 per site or 1 per 300 ft. of arterial street frontage and 1 for each additional 300 ft. or fraction thereof (2)	1 per arterial street frontage (3)	1 per arterial street frontage (3)
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My assumption is that the checksheet was written prior to conversations with Art about the definition of arterial. Given the recent definition clarification, and assuming the sign meets all other standards in Title 32, is there any reason the applicant would need a modification or adjustment for this second sign prior to permit?

I'm happy to clarify any of the information above or talk this over in person if it's easier.

Thanks,  
Emily

**Emily Hays**

Design Review | Historic Resource Review

City of Portland | Bureau of Development Services

1900 SW 4th Avenue, Suite 5000, Portland, OR 97201

p: 503.823.5676

e: [Emily.Hays@portlandoregon.gov](mailto:Emily.Hays@portlandoregon.gov)

w: [www.portlandoregon.gov/bds](http://www.portlandoregon.gov/bds)

Work Hours: M-F 8:30AM-5PM



# CITY OF PORTLAND, OREGON – BUREAU OF DEVELOPMENT SERVICES

1900 SW Fourth Avenue, Suite 5000 • Portland, Oregon 97201 • [www.portlandoregon.gov/bds](http://www.portlandoregon.gov/bds)



## SIGN REVIEW CHECKSHEET

Review Date: July 20, 2017

Application #: 17-203866-000-00-SG  
IVR #: 4051282

To:	APPLICANT	CHRIS KIRKALDIE CENTER POINTE SIGNS INC 16630 SW SHAW UNIT A BEAVERTON, OR 97078	Primary: (503) 259-8855 Fax: (503) 591-9525 Email: CHRIS@CENTERPOINTESIGNS.COM
From:	SIGN REVIEW EXAMINER	PRISCILLA PARTCH	Phone: (503) 823-1108 Email: priscilla.partch@portlandoregon.gov
cc:	OWNER	OREGON STATE OF (BOARD OF & HIGHER EDUCATION PO BOX 751 PORTLAND, OR 97207-0751	

## PROJECT INFORMATION

Street Address: 631 SW HARRISON ST

Description of Work: INSTALL (1) NON-ILLUMINATED FREESTANDING SIGN, 16 SQ FT

## PLAN REVIEW

Based on the plans submitted, the items listed below appear to be missing or not in conformance with City of Portland, Title 32 Sign Code and/or other City requirements.

Item #	Location on plans	Code Section	Clarification / Correction Required												
1		32.32.020	<p>This site is zoned CXd. Per 32.32.020 Standards in the Commercial, Employment, and Industrial Zones only one freestanding sign per site is allowed. To have additional freestanding signs at this site a Land Use Adjustment will need to be applied for approved and recorded before this sign permit will be able to go forward.</p> <p>To apply for a Land Use Adjustment, please follow the link below for more information:  <a href="https://www.portlandoregon.gov/bds/article/72422">https://www.portlandoregon.gov/bds/article/72422</a></p> <table border="1"> <thead> <tr> <th colspan="4">Freestanding Signs</th></tr> <tr> <th>Maximum Number</th><th>1 per site or 1 per 300 ft. of arterial street frontage and 1 for each additional 300 ft. or fraction thereof (2)</th><th>1 per arterial street frontage (3)</th><th>1 per arterial street frontage (3)</th></tr> </thead> <tbody> <tr> <td></td><td></td><td></td><td></td></tr> </tbody> </table>	Freestanding Signs				Maximum Number	1 per site or 1 per 300 ft. of arterial street frontage and 1 for each additional 300 ft. or fraction thereof (2)	1 per arterial street frontage (3)	1 per arterial street frontage (3)				
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Maximum Number	1 per site or 1 per 300 ft. of arterial street frontage and 1 for each additional 300 ft. or fraction thereof (2)	1 per arterial street frontage (3)	1 per arterial street frontage (3)												
2			A complete sign inventory will need to be provided to ensure the one square foot per one linear foot of signage has not been exceeded.												
3			A site plan will need to be provided that indicates the linear frontage of the proposed street(s) the freestanding sign will be located.												
4			Freestanding signs cannot be in the public right of way, the site plan provided does not clearly indicate if the sign is not in the right of way. Please provide an updated site plan and/or detail that clearly shows the freestanding sign is not on site.												

End of Checksheet

To respond to this checksheet, come to the Bureau of Development Services located at 1900 SW Fourth Ave. The Development Service Center (1st floor) and Permitting Services (2nd floor) are open Monday through Friday from 8:00 a.m. to 3:00 p.m. (close at noon on Thursday). Please update all sets of submitted drawings by either replacing the

original sheets with new sheets, or editing the originally submitted sheets. You can review "How to Update Your Plans in Response to a Checksheet" at <http://www.portlandoregon.gov/bds/article/93028>. Visit the BDS website for more helpful information and a current listing of services available in the Development Services Center.

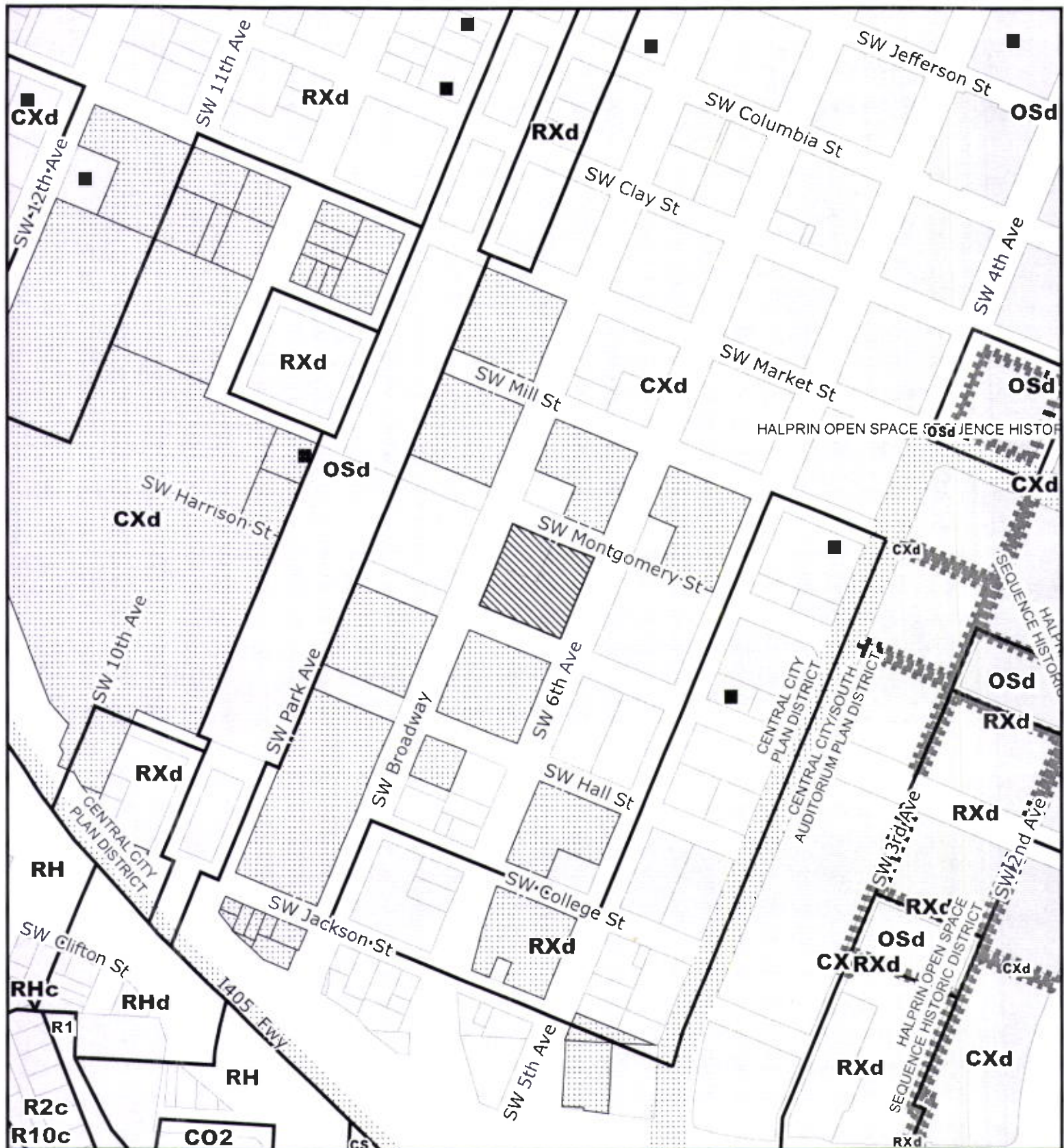
Please complete the attached Checksheet Response Form and include it with your re-submittal.

If you have specific questions concerning this Checksheet, please call me at the phone number listed above. To check the status of your project, go to <http://www.portlandonline.com/bds/index.cfm?c=34194>. Or, you may request the status to be faxed to you by calling 503-823-7000 and selecting option 4.

You may receive separate Checksheets from other City reviewers/agencies that will require separate responses.

**Appeals:** Pursuant to City Code Chapters 24.10, 25.07, 26.03, 27.02, and 28.03, you may appeal any code provision cited in this Checksheet to the BDS Administrative Board of Appeal within 180 calendar days of the review date. For information on the appeals process and costs, including forms, appeal fee, payment methods and fee waivers, go to [www.portlandoregon.gov/bds/appeals](http://www.portlandoregon.gov/bds/appeals), call (503) 823-7300 or come in to the Development Services Center. Permit application expiration will not be extended pending resolution of any administrative appeal.





# ZONING



THIS SITE LIES WITHIN THE:  
CENTRAL CITY PLAN DISTRICT  
UNIVERSITY DIST SUBDISTRICT



Site



Also Owned Parcels



Historic Landmark

File No.	LU 17-268106 DZ
1/4 Section	3228
Scale	1 inch = 300 feet
State ID	1S1E04DA 5400
Exhibit	B Nov 13, 2017





# City of Portland, Oregon - Bureau of Development Services

1900 SW Fourth Avenue - Portland, Oregon 97201 | 503-823-7300 | www.portlandoregon.gov/bds



## Land Use Review Application

File Number: 17-268106

### FOR INTAKE, STAFF USE ONLY

Date Rec 11/8/2017 by L. DAME

☐ Type I ☐ Type IX ☒ Type II ☐ Type IIX ☐ Type III ☐ Type IV

LU Reviews D2 (sign)

[Y] ☒ Unincorporated MC

[Y] ☒ Flood Hazard Area (LD & PD only)

[Y] ☒ Potential Landslide Hazard Area (LD & PD only)

[Y] ☒ 100-year Flood Plain

[Y] ☒ DOGAMI

Qtr Sec Map(s) 3228 Zoning CXd

Plan District Central City University

Historic and/or Design District CC

Neighborhood Portland Downtown

District Coalition WNWWS

Business Assoc

Related File # 15-129978

**APPLICANT: Complete all sections below that apply to the proposal. Please print legibly.**

Development Site  
Address or Location 631 SW Harrison

Cross Street Broadway Sq. ft./Acreage 40,000

Site tax account number(s)

~~R 246 353~~

~~R 246 354~~

R 677758

~~R 246 355~~

246351

~~R 246 356~~

~~R 246 358~~

~~R 246 359~~

Adjacent property (in same ownership) tax account number(s)

R

R

R

**Describe project (attach additional page if necessary)**

The Portland State Karl Miller Center (School of Business) is Substantially Complete and occupied. As the landscape was being installed, the subcontractor submitted a deferred submittal for the two exterior flag signs that we had planned for the project. The design team was unaware that only one sign was going to be allowed per City guidelines. Currently we have one exterior flag sign installed on the NE plaza. We are proposing to add an additional sign in the NW plaza along Broadway

**Describe proposed stormwater disposal methods**

Stormwater has been approved and is installed and complete. Water is treated on site via greenroofs and stormwater planters prior to discharge into City system.

**Identify requested land use reviews**

Type II Land Use Review with Modification (DZM)

• **Design & Historic Reviews** - For new development, provide project valuation.

For renovation, provide exterior alteration value.

AND provide total project valuation.

\$

\$

\$

• **Land Divisions** - Identify number of lots (include lots for existing development).

New street (public or private)?

☐ yes ☒ no

• **Affordable Housing** - For buildings containing five or more dwelling units, will 50% or more of the units be affordable to households with incomes equal to or less than 60% of the median family income for the county or state, whichever is greater?

☐ yes ☒ no ☐ N/A

continued / over

## Applicant Information

- Identify the primary contact person, applicant, property owner and contract purchaser. Include any person that has an interest in your property or anyone you want to be notified. Information provided, including telephone numbers and e-mail addresses, will be included in public notices.
- For all reviews, the applicant must sign the Responsibility Statement.
- For land divisions, all property owners must sign the application.

### PRIMARY CONTACT:

Name Sam Stadler Signature 

Company/Organization SRG Partnership

Mailing Address 621 SW Morrison St, Suite 200

City Portland State OR Zip Code 97205

Day Phone 503-548-9450 FAX \_\_\_\_\_ email sstadler@srgpartnership.com

Check all that apply ☒ Applicant ☐ Owner ☐ Other \_\_\_\_\_

Name Ron Blaj Signature 

Company/Organization PSU

Mailing Address University Services Building 302, 617 Montgomery St, Suite 200

City Portland State OR Zip Code 97201

Day Phone 503-725-4308 FAX \_\_\_\_\_ email rblaj@pdx.edu

Check all that apply ☐ Applicant ☒ Owner ☐ Other \_\_\_\_\_

Name \_\_\_\_\_ Signature \_\_\_\_\_

Company/Organization \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Day Phone \_\_\_\_\_ FAX \_\_\_\_\_ email \_\_\_\_\_

Check all that apply ☐ Applicant ☐ Owner ☐ Other \_\_\_\_\_

Name \_\_\_\_\_ Signature \_\_\_\_\_

Company/Organization \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Day Phone \_\_\_\_\_ FAX \_\_\_\_\_ email \_\_\_\_\_

Check all that apply ☐ Applicant ☐ Owner ☐ Other \_\_\_\_\_

**Responsibility Statement** As the applicant submitting this application for a land use review, I am responsible for the accuracy of the information submitted. The information being submitted includes a description of the site conditions. I am also responsible for gaining the permission of the owner(s) of the property listed above in order to apply for this review and for reviewing the responsibility statement with them. If the proposal is approved, the decision and any conditions of the approval must be recorded in the County Deed Records for the property. The City of Portland is not liable if any of these actions are taken without the consent of the owner(s) of the property. In order to process this review, City staff may visit the site, photograph the property, or otherwise document the site as part of the review. I understand that the completeness of this application is determined by the Director. By my signature, I indicate my understanding and agreement to the Responsibility Statement.

Print name of person submitting this application Sam Stadler

Signature 

Phone number 503-548-9450 Date 11/3/17 11/0/2017



CITY OF  
**PORTLAND, OREGON**  
BUREAU OF DEVELOPMENT SERVICES  
1900 SW 4th Ave., Suite 5000  
Portland, OR 97201



RECEIPT #: 2052083

11/8/2017

Site Address: 615 SW HARRISON ST

IVR Number: 4116667

PSU- SCHOOL OF BUSINESS ADMINISTRATION

Permit Number: 17-268106-000-00-LU

Land Use Review

**APPLICANT** SRG Partnership Inc. \*Sam Stadler\*

Phone: (503) 222-1917

Fee Code	Fee Description	Fee Amount	Paid to Date	Balance	This Transaction	New Balance
2518	Design / Historic Review Type A	\$945.00				
Bill #4218229	Sub Total	\$945.00	\$0.00	\$945.00	\$945.00	\$0.00
TOTAL		\$945.00	\$0.00	\$945.00	\$945.00	\$0.00

Shaded items indicate fees not yet calculated.

\* Fees marked with an asterisk are due at application.

**PAYOR** SRG PARTNERSHIP INC. \*SAM STADLER\*

Phone: (503) 222-1917

Payment #: 2052083

Method of Payment: 01168D VISA SAM STADLER

Receipt By: Carmen Adkins

**CITY CONTACT**

Phone:

E-Mail:

Fax: (503) 823-4172

**Notice:** This document is not a permit. This document may not represent all fees owing for this permit. All fees are subject to change based on new or corrected information. For more information, consult your City of Portland Contact listed above.





CITY OF  
**PORTLAND, OREGON**  
BUREAU OF DEVELOPMENT SERVICES  
1900 SW 4th Ave., Suite 5000  
Portland, OR 97201



**SIGN PERMIT**

**17-203866-000-00-SG**

**Site Address:** 615 SW HARRISON ST  
PORTLAND STATE UNIVERSITY

**Issued:** 10/10/17

<b>PROJECT INFORMATION</b>		Occ. Group	Const. Type
Freestanding Sign	New Sign/Awning		
Project Description: INSTALL (1) NON-ILLUMINATED FREESTANDING SIGN, 16 SQ FT			

<b>APPLICANT</b>	CENTER POINTE SIGNS INC *CHRIS KIRKALDIE*	Phone (503) 259-8855
<b>PROPERTY OWNER</b>	OREGON STATE OF BOARD OF & HIGHER EDUCATION	Phone
<b>CONTRACTOR</b>	CENTER POINTE SIGNS INC *CHRIS KIRKALDIE*	Phone

Project Details		Project Details	
Document Services - Bin Number	fc - file	Sign Area (sf)	16
Sign Height (sign only)	6.5	Sign Width	1
Zoning Enforcement Agency	Portland		

DESIGN TEAM PROPOSES TO ADD AN ADDITIONAL SIGN TO THE ONE APPROVED AND INSTALLED. ADDITIONAL SIGN LOCATION IS SHOWN IN THE FOLLOWING DOCUMENTS

**This permit expires if, at any time, 180 days pass without an approved inspection. If you are not able to obtain an inspection approval within 180 days, you may request a one-time only extension of 180 days by calling 503-823-7304.**

**BEFORE  
YOU DIG**

ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 852-001-0010 through OAR 852-001-0080. You may obtain copies of the rules by calling the center. (Note: the telephone number for the Oregon Utility Notification Center is 1-800-332-2344).

**CITY CONTACT**

E-Mail:

Phone:

Fax: (503) 823-4172

**INSPECTION REQUEST  
PHONE NUMBERS**

**Building/Trade Inspections - Call Before 6:00 AM:**

**(503) 823-7000**

**TDD: (503) 823-6868**

**IVR Inspection Request  
Number:**

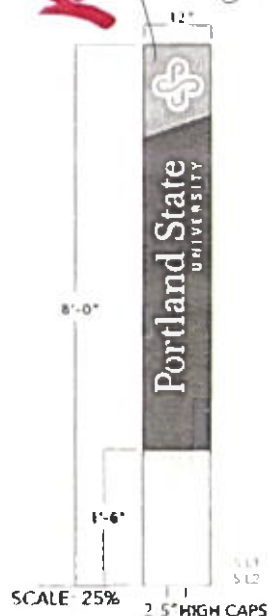
**4051282**

LU 17-268106 DZ

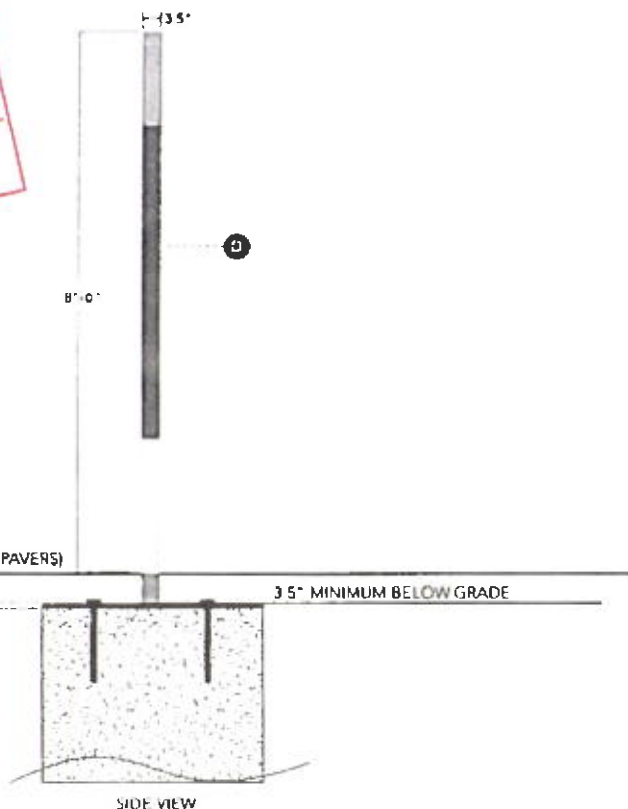


**Approved**

City of Portland  
REVIEWED FOR CODE  
COMPLIANCE  
SEP 28 2017  
Permit Number

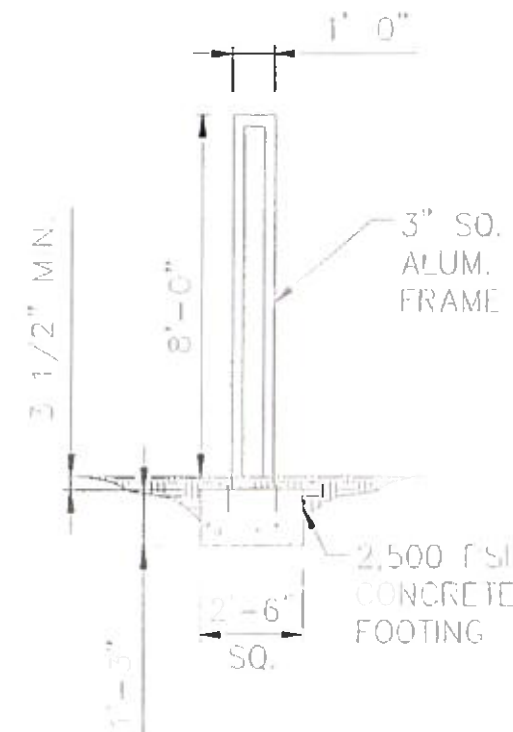


FINISHED GRADE (PAVERS)  
SCALE 25%



QTY 1  
SIGN TYPE E/A - PSU SCHOOL OF BUSINESS - EXTERIOR FREESTANDING CAMPUS ID  
1/4\"/>

1/2\"/>



center point signs

16630 sw snow wale d  
beaverton, or 97078  
p 503 259 8855  
f 503 591 9525  
cclw# 169268



Portland  
State  
UNIVERSITY

**SRG**

**SKANSKA**



ANDERSON KRYGIER, INC.

SIGN DRAWING

**E/A**

These drawings are property  
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May 2017

**RECEIVED**  
SEP 1 2017

**BDS  
DOCUMENT SERVICES**

**17.203869 SH**  
**17.203866 SH**

17-268106 D3

DESIGN TEAM PROPOSES TO KEEP EXTERIOR SIGN IN THIS LOCATION. SIGN WAS ELIMINATED DURING THE DEFERRED SUBMITTAL.

City of Portland  
REVIEWED FOR CODE COMPLIANCE  
SEP 28 2017  
Permit Number

**KEY TO SIGN LOCATIONS**

See previous versions of sign text.

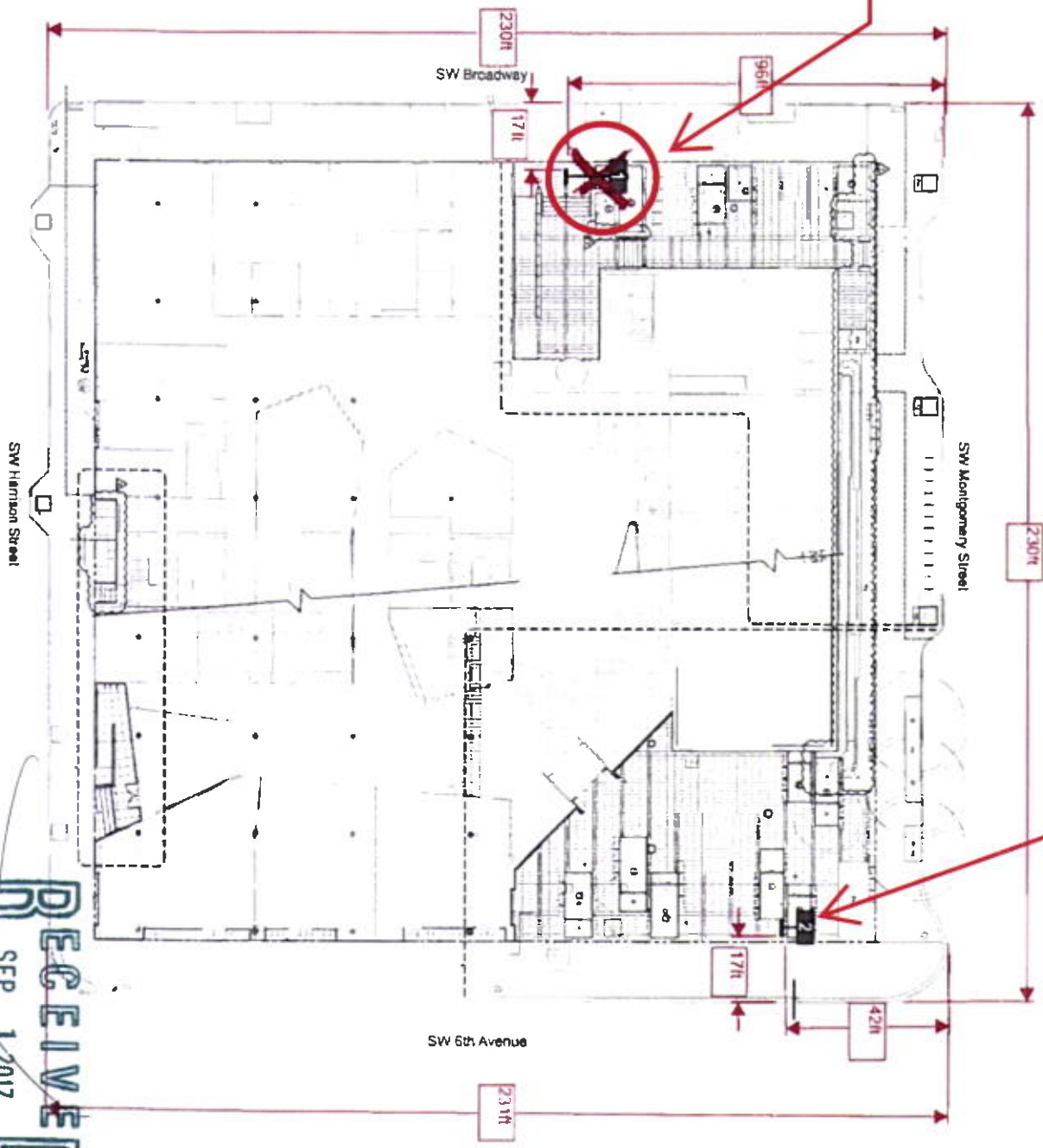
Light fixture number -  
Assigned to message outline

Basic Location Indicator

West Mount View

Indicates sign location  
and applies to sign

Close Mount View



THIS SIGN IS CURRENTLY INSTALLED

**RECEIVED**  
SEP 1 2017  
BDS  
DOCUMENT SERVICES

LY 17-26810602

**Site**

**LOCATION PLAN**

**SKANSKA**

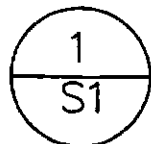
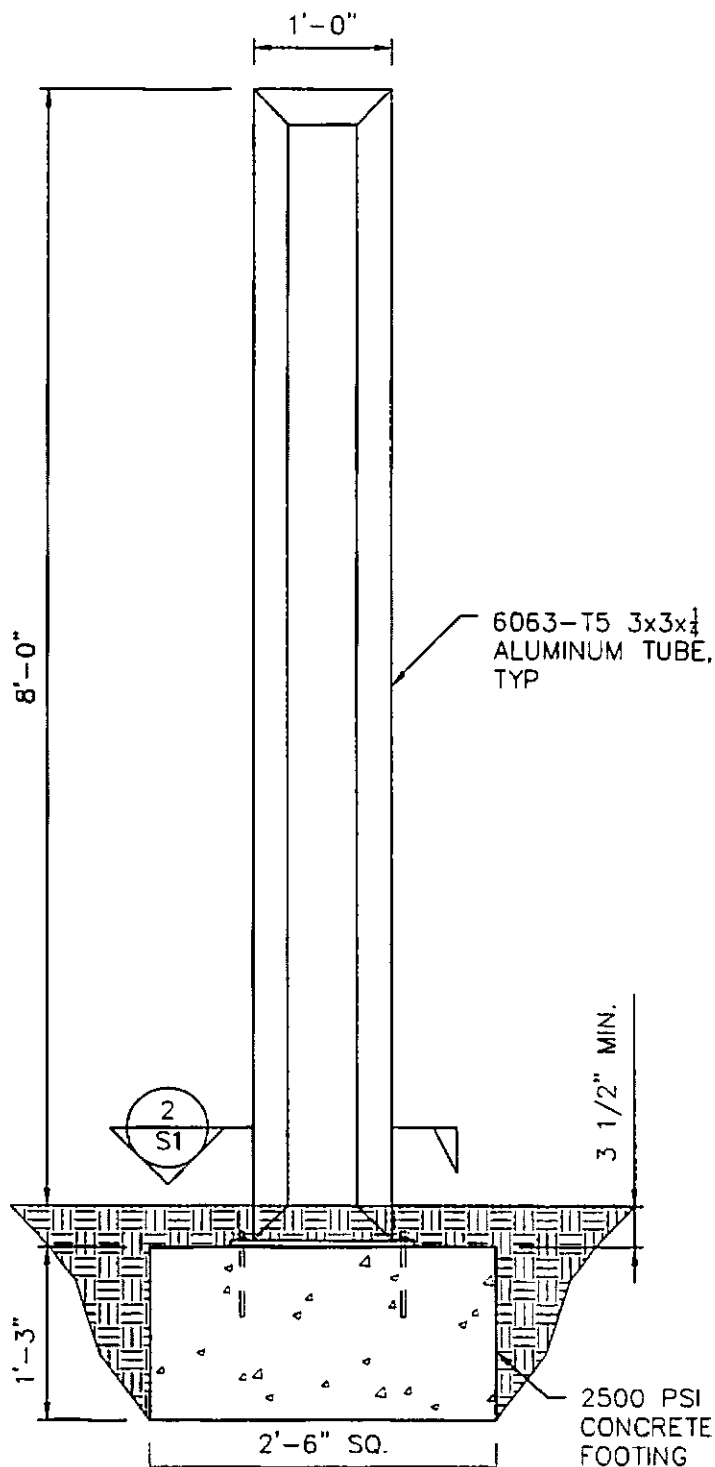
**SRG**

Portland State University

Center Pointe Signs

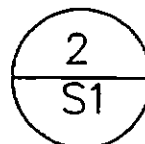
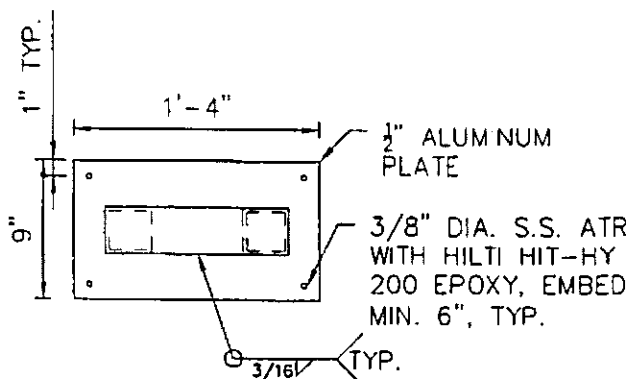
16330 NW Brown, Suite 10  
Beaverton, OR 97008  
P 503.239.8833  
F 503.291.9325  
CDD # 169768

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SIGN ELEVATION

3/4" = 1'-0"



BASE PLATE

1" = 1'-0"

- NOTES:
- SCOPE OF WORK IS FOR THE DESIGN OF THE SIGN POLE(S), FOUNDATION, AND ANCHORAGE TO FOUNDATION
  - SEE FOLLOWING PAGES FOR STRUCTURAL NOTES



EXPIRES: 12-31-2018



MILLER  
CONSULTING  
ENGINEERS

9570 SW Barbur Blvd  
Suite One Hundred  
Portland, OR 97219

Phone 503.246.1250  
Fax 503.246.1395  
www.miller-se.com

Project Name Portland State University Monument Sign Project # 170586

Location 1825 SW Broadway, Portland, Oregon

Client Center Pointe Signs

By KEG Chk'd CM Date 5/8/17 Page 1 of 3

LU 17-268106 DZ

## GENERAL

THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND CORRELATION OF ALL ITEMS AND WORK NECESSARY FOR COMPLETION OF THE PROJECT AS INDICATED BY THE CONTRACT DOCUMENTS. SHOULD ANY QUESTION ARISE REGARDING THE CONTRACT DOCUMENTS OR SITE CONDITIONS, THE CONTRACTOR SHALL REQUEST INTERPRETATION AND CLARIFICATION FROM THE ENGINEER BEFORE BEGINNING THE PROJECT. THE ABSENCE OF SUCH REQUEST SHALL SIGNIFY THAT THE CONTRACTOR HAS REVIEWED AND FAMILIARIZED HIMSELF WITH ALL ASPECTS OF THE PROJECT AND HAS COMPLETE COMPREHENSION THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL SAFETY REGULATIONS DURING CONSTRUCTION.

THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE SPECIFICALLY NOTED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION OR CONSTRUCTION LOADS. ONLY THE CONTRACTOR SHALL PROVIDE ALL METHODS, DIRECTION AND RELATED EQUIPMENT NECESSARY TO PROTECT THE STRUCTURE, WORKMEN AND OTHER PERSONS AND PROPERTY DURING CONSTRUCTION. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED AND INSPECT SAME IN THE FIELD. ANY MATERIAL NOT AS SPECIFIED OR IMPROPER MATERIAL INSTALLATION OR WORKMANSHIP SHALL BE REMOVED AND REPLACED WITH SPECIFIED MATERIAL IN A WORKMANLIKE MANNER AT THE CONTRACTOR'S EXPENSE.

THESE PLANS, SPECIFICATIONS, ENGINEERING AND DESIGN WORK ARE INTENDED SOLELY FOR THE PROJECT SPECIFIED HEREIN. MILLER CONSULTING ENGINEERS DISCLAIMS ALL LIABILITY IF THESE PLANS AND SPECIFICATIONS OR THE DESIGN, ADVICE AND INSTRUCTIONS ATTENDANT THERETO ARE USED ON ANY PROJECT OR AT ANY LOCATION OTHER THAN THE PROJECT AND LOCATION SPECIFIED HEREIN. OBSERVATION VISITS TO THE JOB SITE AND SPECIAL INSPECTIONS ARE NOT PART OF THE STRUCTURAL ENGINEER'S RESPONSIBILITY UNLESS THE CONTRACT DOCUMENTS SPECIFY OTHERWISE.

NON STRUCTURAL PORTIONS OF PROJECT, INCLUDING BUT NOT LIMITED TO PLUMBING, FIRE PROTECTION, LAND USE, SITE PLANNING, EROSION CONTROL, ELECTRICAL, MECHANICAL, FLASHING AND WATER-PROOFING ARE BEYOND THE SCOPE OF THESE DRAWINGS AND ARE PROVIDED BY OTHERS. EXISTING STRUCTURAL ELEMENTS ARE DESIGNED BY OTHERS.

SPECIAL INSPECTION OF WELDS AND POST INSTALLED ANCHORS ARE TO BE PROVIDED BY A SPECIAL INSPECTION AGENCY AS REQUIRED BY THE BUILDING OFFICIAL FOR ELEMENTS OF THE PROJECT THAT DO NOT MEET THE APPROVAL OF CONSTRUCTION OF A MINOR NATURE OR AS WARRANTED BY CONDITIONS IN THE JURISDICTION (SECTION 1704.2, EXCEPTION 1).

CONTRACTOR TO VERIFY ALL CONDITIONS PRIOR TO FABRICATION OR INSTALLATION. ENGINEER OF RECORD FOR THE PROJECT IS TO BE NOTIFIED IF CONDITIONS DIFFER FROM WHAT IS SHOWN ON THE DRAWINGS.

### BUILDING CODE

ALL PHASES OF THE WORK SHALL CONFORM TO THE 2014 OREGON STRUCTURAL SPECIALTY CODE, BASED ON THE 2012 INTERNATIONAL BUILDING CODE, INCLUDING ALL REFERENCE STANDARDS, UNLESS NOTED OTHERWISE.

### CONCRETE

MIXING, PLACING AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE, ACI 318 AND IBC CHAPTER 19. CONCRETE SHALL BE 2500 POUNDS PER SQUARE INCH (PSI) MINIMUM AT 28 DAYS.



**MILLER**  
CONSULTING  
ENGINEERS

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Suite One Hundred  
Portland, OR 97219

Phone 503.246.1250  
Fax 503.246.1395  
www.miller-se.com

Project Name Portland State University Monument Sign Project # 170586

Location 1825 SW Broadway, Portland, Oregon

Client Center Pointe Signs

By KEG Ck'd CJM Date 5/8/17 Page 2 of 3

LU 17-268106 DZ



## DESIGN LOADS

THE FOLLOWING ARE THE DESIGN REQUIREMENTS

STRUCTURAL DESIGN CRITERIA	
RISK CATEGORY	II
WIND DESIGN DATA	
BASIC WIND SPEED (3 SEC GUST)	120 MPH
EXPOSURE	B

## FOOTINGS

### FOUNDATION CRITERIA

CONTRACTOR SHALL VERIFY SOIL CONDITIONS AT THE FOOTINGS AND MAKE ANY NECESSARY CORRECTIONS TO PLACE THEM ON FIRM NATIVE SOIL OR STRUCTURAL FILL COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT PER AMERICAN SOCIETY FOR TESTING AND MATERIALS, ASTM D698 (STANDARD PROCTOR), OR ASTM D1557 (MODIFIED PROCTOR). THE COMPACTION SHALL BE VERIFIED BY A QUALIFIED INSPECTOR APPROVED BY THE BUILDING OFFICIAL. COMPACTED STRUCTURAL FILL FOR DEPTHS GREATER THAN 12 INCHES SHALL COMPLY WITH PROVISIONS OF AN APPROVED GEOTECHNICAL REPORT. ASSUMED SOIL BEARING PRESSURE 1500 POUNDS PER SQUARE FOOT (PSF).

## POST-INSTALLED ANCHORS

### ANCHORAGE

ANCHORS SHALL BE AS SPECIFIED ON THE DRAWINGS. ANCHORS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S INSTALLATION CRITERIA AND PER THE CURRENT ICC EVALUATION REPORT FOR THE ANCHOR. ANCHORS ARE NOT TO CUT THROUGH ANY EXISTING STEEL REINFORCING.

## ALUMINUM

ALL STRUCTURAL ALUMINUM SHAPES AND PLATES TO BE 6063-T5. ALL WELDS TO USE 4043 ALUMINUM FILLER ALLOY. A PROTECTIVE BARRIER SHALL BE PROVIDED BETWEEN ALL STEEL AND ALUMINUM TO PREVENT CORROSION. ALL WELDING TO CONFORM TO AMERICAN WELDING SOCIETY (AWS) D1.2. WELD LENGTHS SHOWN ARE EFFECTIVE AS SPECIFIED PER THE ALUMINUM DESIGN MANUAL. WELDING SHALL BE BY AWS CERTIFIED WELDERS FOR WELD TYPES SPECIFIED. WHERE WELD LENGTHS ARE NOT SHOWN, THE WELD SHALL BE FULL LENGTH OF MEMBERS BEING JOINED. ALL BUTT WELDS SHALL BE FULL PENETRATION WELDS UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS. ALL WELDS TO RECEIVE THE SAME FINISH COAT AS THE MEMBER BEING WELDED. ALL FASTENERS IN CONTACT WITH ALUMINUM TO BE TYPE 304 STAINLESS STEEL WITH MATCHING NUTS OR HAVE A PROTECTIVE BARRIER TO PREVENT CORROSION. NUTS SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION.



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Portland, OR 97219

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Fax 503.246.1395  
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Project Name Portland State University Monument Sign Project # 170586  
Location 1825 SW Broadway, Portland, Oregon  
Client Center Pointe Signs  
By KEG Ck'd CJM Date 5/8/17 Page 3 of 3

LU 17-268106 DZ

Company: Miller Consulting Engineers  
 Specifier: KEG  
 Address: 9570 SW Barbur Blvd Suite 100  
 Phone / Fax: 503-246-1250 |  
 E-Mail: kylean@miller-se.com

Page: 1  
 Project:  
 Sub-Project / Pos. No.:  
 Date: 5/8/2017

### Specifier's comments:

### 1 Input data

Anchor type and diameter: HIT-HY 200 + HAS 3/8

Effective embedment depth:  $h_{ef,act} = 6.000$  in. ( $h_{ef,trans} = -$  in.)

Material: 5.8

Evaluation Service Report: ESR-3187

Issued / Valid: 6/1/2016 | 3/1/2018

Proof: Design method ACI 318-08 / Chem

Stand-off installation:  $e_a = 0.000$  in. (no stand-off);  $t = 0.500$  in.

Anchor plate:  $E = 0$  psi;  $f_{yk} = 35998$  psi;  $\gamma_{Ms} = 1.100$   
 $l_x \times l_y \times t = 9.000$  in.  $\times$   $16.000$  in.  $\times$   $0.500$  in.; (Recommended plate thickness: calculated (0.039 in.))

Profile: no profile

Base material: cracked concrete, 2500,  $f_c' = 2500$  psi;  $h = 12.000$  in., Temp. short/long 32/32 °F

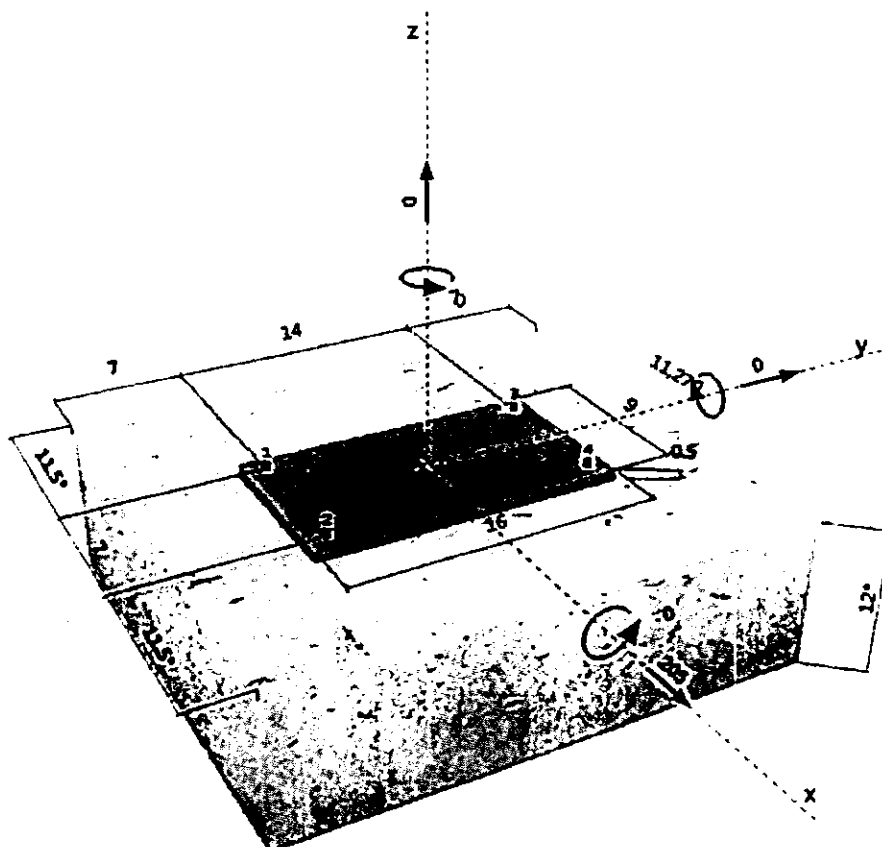
Installation: hammer drilled hole, installation condition: Dry

Reinforcement: tension: condition B, shear: condition B, no supplemental splitting reinforcement present  
 edge reinforcement: none or < No. 4 bar

Seismic loads (cat. C, D, E, or F): no



### Geometry [in.] & Loading [lb, in.lb]



Scope of work is for the design of the sign pole and the foundation.

# LOADING:

WIND: ASCE7-10 120 MPH, EXP B MAXIMUM HEIGHT (h) = 8.33 ft  
(3 second gust) GUST FACTOR (G) = 0.85

K1 = 0.00 (ASCE 7-10 Figure 26.8-1)

K2 = 1.00 (ASCE 7-10 Figure 26.8-1)

K3 = 1.00 (ASCE 7-10 Figure 26.8-1)

Kzt = 1.00 (ASCE Eqn. 26.8-1)

Kd = 0.85 (ASCE 7-10 Table 26.6-1)

Cf = 1.69 (ASCE 7-10 Figure 29.4-1)

s = 8.33 ft s/h = 1.00

B = 1.00 ft B/s = 0.12

0.2\*B = 0.20 ft (code offset, for wind load)

offset = 0.00 ft (horizontal cabinet offset)

# FORCES:

Width	Height to bottom (ft)	Height to top (ft)	Area (sq. ft.)	Wind load (psf)	Force (lbs)	Height to center (ft)	Moment (ft-lb)
1.00	0.00	8.33	8.3	15.4	128	4.58	587
					$\Sigma = 128$		$\Sigma = 587$

# SIGN POLE: (Single Pole)

Try a 6063-T5 3x3x1/4 Aluminum Tube

Mx = 587 ft-lb

Vx = 128 lb

Use a 6063-T5 3x3x1/4 Aluminum Tube, see next page

# FOUNDATION CHECK:

Mnet = 0.00 k-ft = (587)/1000-1.59ft-k

P = 0.128 k Applied lateral force

h (effective) = 0.00 ft distance from ground surface to P

q = 300 psf/ft allowable soil-brg., q=2(150)=300\*

Footings shape: Rectangular \* Allowable w/ 1/2" movement at groundline

b = 2.5 ft (in the plane of the page)

L = 2.5 ft (into the page)

b' = 3.54 ft diagonal dimension of a 2.5' sq. footing

d (estimated) = 1.25 ft Estimated embedment

# Unconstrained Condition

S<sub>1</sub> = 125 psf q\*d<sub>est</sub> / 3

A = 0.68 ft 2.34\*P\*1000/(S<sub>1</sub>\*b)

d = 0.68 ft A/2\*(1+(1+4.36\*h/A)<sup>0.5</sup>)

0.68 < 1.25' OK

maximum resistive moment available based on soil bearing, M<sub>ss</sub> =

volume of concrete = 0.3 yd

footing wt = 1.2 k

sign wt = 0.50 k

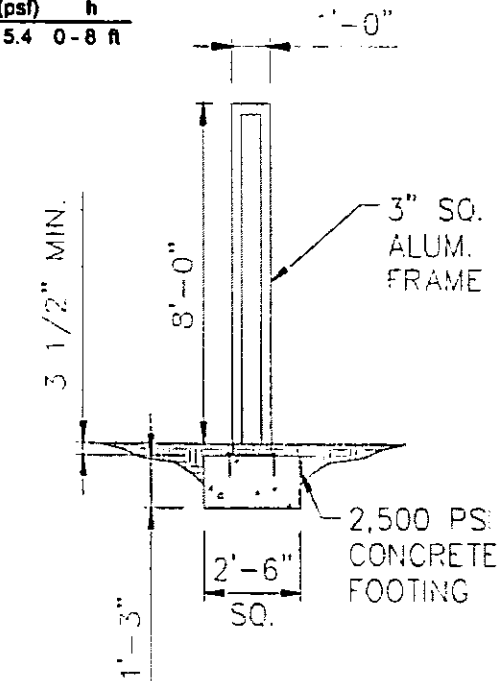
Total wt (DL) = 1.67 k

eccentricity of load to reaction (e) = 0.95 ft = 1.59/1.67

ft-k

Use 2' - 6" square x 1' - 3" deep

2500 psi concrete footing



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9570 SW Barbur Blvd  
Suite One Hundred  
Portland, OR 97219

Phone 503.246.1250  
Fax 503.248.1395  
www.miller-se.com

Project Name Portland State University Monument Sign Project # 170586

Location 1825 SW Broadway, Portland, Oregon

Client Center Pointe Signs

By KEG Ck'd LJM Date 5/8/17 Page 1 of 5

LU 17-268106 DZ



CITY OF  
**PORTLAND, OREGON**  
BUREAU OF DEVELOPMENT SERVICES  
1900 SW 4th Ave., Suite 5000  
Portland, OR 97201



**SIGN PERMIT**

**17-190535-000-00-SG**

**Site Address:** 615 SW HARRISON ST  
631 SW HARRISON ST

**Issued: 10/10/17**

<b>PROJECT INFORMATION</b>		<b>Occ. Group</b>	<b>Const. Type</b>
<b>Freestanding Sign</b>	<b>New Sign/Awning</b>		
<b>Project Description:</b> NEW NON ILLUMINATED FREESTANDING SIGN AT PSU SCHOOL OF BUSINESS BUILDING			

<b>APPLICANT</b>	CENTER POINTE SIGNS INC "CHRIS KIRKALDIE"	Phone (503) 259-8855
<b>PROPERTY OWNER</b>	OREGON STATE OF (BOARD OF & HIGHER EDUCATION	Phone
<b>CONTRACTOR</b>	CENTER POINTE SIGNS INC "CHRIS KIRKALDIE"	Phone

Project Details		Project Details	
Sign Area (sf)	16	Sign Height (sign only)	6.5
Sign Width	1	Zoning Enforcement Agency	Portland

This permit expires if, at any time, 180 days pass without an approved inspection. If you are not able to obtain an inspection approval within 180 days, you may request a one-time only extension of 180 days by calling 503-823-7304.

**BEFORE  
YOU DIG**

**ATTENTION:** Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 852-001-0010 through OAR 852-001-0030. You may obtain copies of the rules by calling the center. (Note: the telephone number for the Oregon Utility Notification Center is 1-800-333-2344).

**CITY CONTACT**

E-Mail:

Phone:

Fax: (503) 823-4172

**INSPECTION REQUEST  
PHONE NUMBERS**

TDD: (503) 823-6868

**IVR Inspection Request  
Number:**

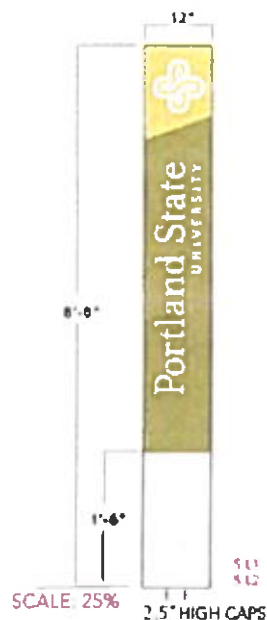
4037714

**Building/Trade Inspections - Call Before 6:00 AM:**

(503) 823-7000

LU 17-26810602





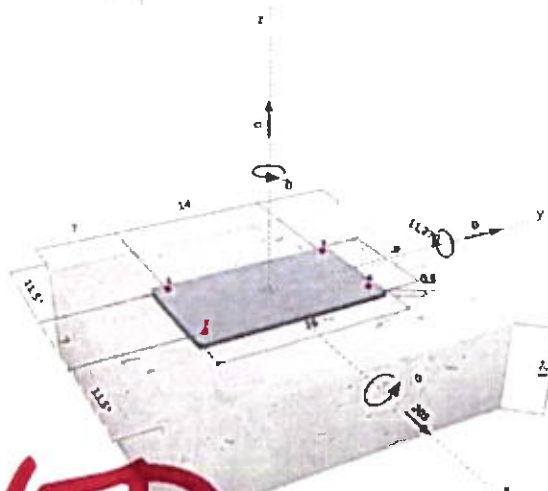
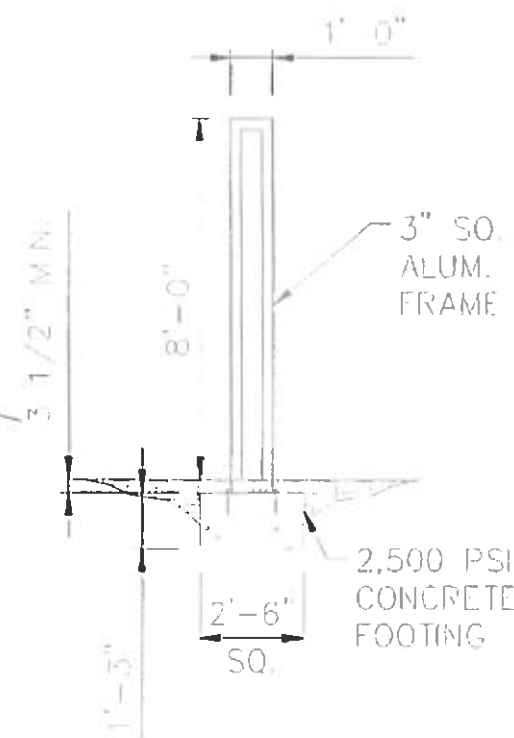
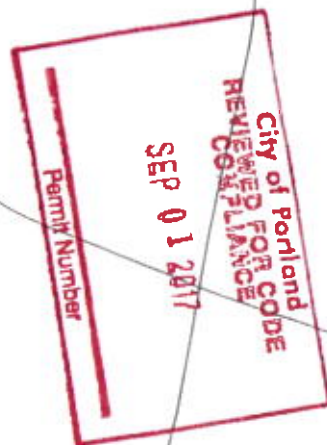
FINISHED GRADE (PAVERS)

SCALE 25%

0.5'

3.5" MINIMUM BELOW GRADE

SIDE VIEW



QTY 2

SIGN TYPE E/A - PSU SCHOOL OF BUSINESS - EXTERIOR FREESTANDING CAMPUS ID  
1/4" ALUMINUM PANELS (8' X 12") APPLIED TO BOTH SIDES OF  
3" (1/4" THICK) WELDED RECTANGULAR ALUMINUM FRAME ALL SEAMS WELDED AND GROUND SMOOTH  
UPPER PORTION SURFACE AND EDGES PAINTED MP (PMS 583U) PSU ACCENT GREEN  
CENTER PORTION SURFACE AND EDGES PAINTED MP (PMS 7496U) PSU GREEN  
LOWER PORTION SURFACE AND EDGES PAINTED MP18076 SILVER (METALLIC)  
TEXT AND GRAPHICS ARE SILKSCREENED WHITE

1/2" ALUMINUM BASEPLATE WELDED TO BOTTOM OF FRAME

4 (1/4") HAMMER DRILLED MOUNTING HOLES IN BASEPLATE FOR CONCRETE MOUNT

**APPROVED**

17-19053556

LU 17-268106 DE



center point signs

16630 SW Shaw, Suite 2  
Beaverton, OR 97008  
p 503.757.8855  
f 503.591.9525  
ccb# 169268



Portland State  
UNIVERSITY

**SRG**

**SKANSKA**



SIGN DRAWING

**E/A**

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May 2017

2017-26810672




Relocated to this wall per Behnisch KOCHER.


Relocated to this wall per Behnisch KOCHER.


City of Portland  
REVIEWED FOR CODE  
COMPLIANCE  
SEP 01 2017  
Permit Number


**KEY TO SIGN LOCATIONS**

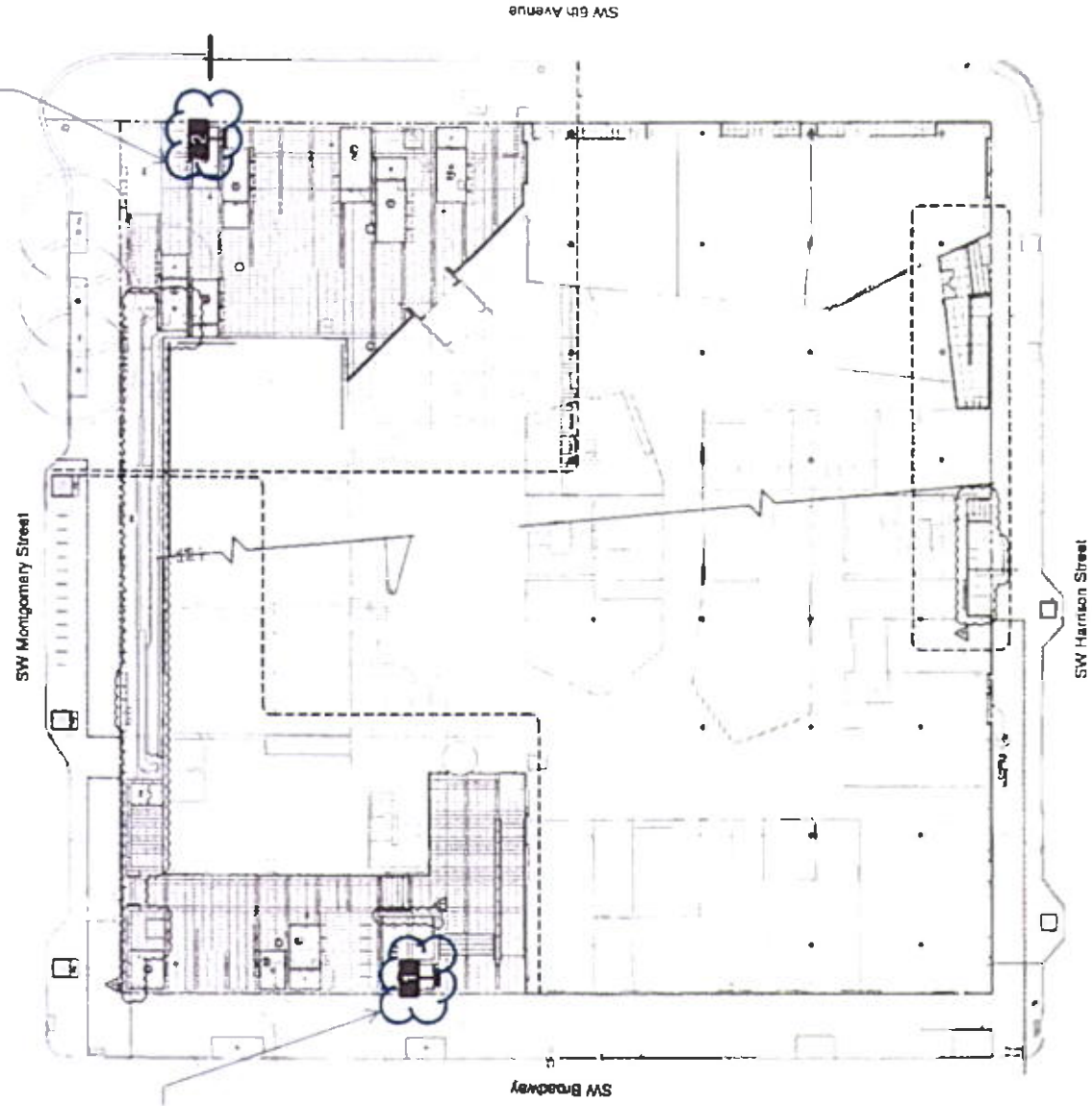
See legend for location of sign face  
Sign location number -  
corresponds to schedule schedule

 Basic Location Indicator

 Vertical Sign

 Indicates only interior signs applied to glass

 Other Sign



  
center points signs

16630 NW Shaw, Suite A  
Beaverton, OR 97008  
P 503.259.8845  
F 503.591.9325  
CDS# 165708

 Portland State University

 SRG

 SKANSKA

 ANDERSON KRYGER, INC.

LOCATION PLAN

# Site

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May 2017



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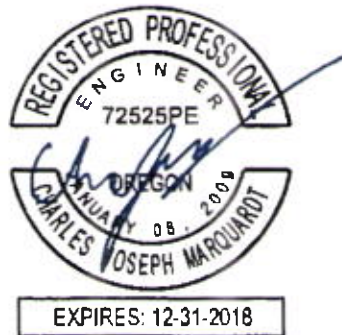
### STRUCTURAL CALCULATIONS

Portland State University Monument Sign  
1825 SW Broadway, Portland, Oregon  
Center Pointe Signs

May 8, 2017  
Project No. 170586

5 pages

Principal Checked: LPT



### \*\*\* LIMITATIONS \*\*\*

Miller Consulting Engineers, Inc. was retained in a limited capacity for this project. This design is based upon information provided by the client, who is solely responsible for accuracy of same. No responsibility and or liability is assumed by or is to be assigned to the engineer for items beyond that shown on these sheets.

Scope of work is for the design of the sign pole and the foundation.

# LOADING:

WIND: ASCE7-10 **120** MPH, EXP **B** MAXIMUM HEIGHT (h) = **8.33** ft  
(3 second gust) GUST FACTOR (G) = **0.85**

K1 = **0.00** (ASCE 7-10 Figure 26.8-1)  
K2 = **1.00** (ASCE 7-10 Figure 26.8-1)  
K3 = **1.00** (ASCE 7-10 Figure 26.8-1)  
Kzt = **1.00** (ASCE Eqn. 26.8-1)  
Kd = **0.85** (ASCE 7-10 Table 26.6-1)  
Cf = **1.69** (ASCE 7-10 Figure 29.4-1)  
s = **8.33** ft s/h = **1.00**  
B = **1.00** ft B/s = **0.12**  
0.2\*B = **0.20** ft (code offset, for wind load)  
offset = **0.00** ft (horizontal cabinet offset)

$$F = qz \cdot G \cdot Cf \cdot 0.8: (allowable)$$

Kz	qz	F(psf)	h
0.57	17.86	=	15.4 0 - 8 ft

# FORCES:

w/ 1/2"H

Width	Height to bottom (ft)	Height to top (ft)	Area (sq. ft.)	Wind load (psf)	Force (lbs)	Height to center (ft)	Moment (ft-lb)
1.00	0.00	8.33	8.3	15.4	128	4.58	587
					$\Sigma = 128$	$\Sigma = 587$	

# SIGN POLE:

(Single Pole)

Try a 6063-T5 3x3x1/4 Aluminum Tube

Mx = **587** ft-lb  
Vx = **128** lb

Use a 6063-T5 3x3x1/4 Aluminum Tube, see next page

# FOUNDATION CHECK:

Mnet = **0.00** k-ft = (587)/1000=1.59ft-k  
P = **0.128** k Applied lateral force  
h (effective) = **0.00** ft distance from ground surface to P  
q = **300** psf/ft allowable soil-brg., q=2(150)=300\*  
Footings shape Rectangular \* Allowable w/ 1/2" movement at groundline  
b = **2.5** ft (in the plane of the page)  
L = **2.5** ft (into the page)  
b' = **3.54** ft diagonal dimension of a 2.5' sq. footing  
d (estimated) = **1.25** ft Estimated embedment

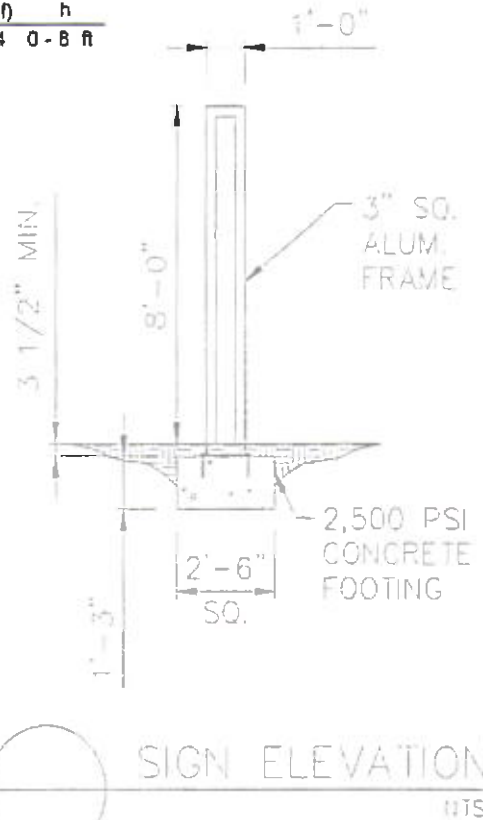
# Unconstrained Condition

S<sub>1</sub> = **125** psf q\*d<sub>est</sub> / 3  
A = **0.68** ft 2.34\*P\*1000/(S<sub>1</sub>\*b)  
d = **0.68** ft A/2\*(1+(1+4.36\*h/A)<sup>0.5</sup>)

0.68 < 1.25 OK

volume of concrete = **0.3** yd  
footing wt = **1.2** k  
sign wt = **0.50** k  
Total wt (DL) = **1.67** k  
eccentricity of load to reaction (e) = **0.95** ft = 1.59/1.67  
maximum resistive moment available based on soil bearing, M<sub>res</sub> = **1.59** ft-k

Use 2' - 6" square x 1' - 3" deep  
2500 psi concrete footing



SIGN ELEVATION

ITS



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CONSULTING  
ENGINEERS

9570 SW Barbur Blvd  
Suite One Hundred  
Portland, OR 97219

Phone 503.246.1250  
Fax 503.246.1395  
www.miller-se.com

Project Name **Portland State University Monument Sign** Project # **170586**

Location **1825 SW Broadway, Portland, Oregon**

Client **Center Pointe Signs**

By **KEG** Ck'd **CJM** Date **5/8/17** Page **1 of 5**

LU 17-268106 02



**SIGN POLE****Aluminum Tube Design:****Section Properties**

b =	3	in
d =	3	in
I =	0.25	in <sup>4</sup>
Scx =	2.330	in <sup>3</sup>
Scy =	2.330	in <sup>3</sup>
A =	2.75	in <sup>2</sup>
ae <sub>x</sub> =	1.5	in
ae <sub>y</sub> =	1.5	in
rx =	1.127	in
ry =	1.127	in
I <sub>x</sub> =	3.495	in <sup>4</sup>
I <sub>y</sub> =	3.495	in <sup>4</sup>
J =	6.990	in <sup>4</sup>

$$= 3'0" 25'2"$$

$$= 3'0" 25'2"$$

$$= \text{SQRT}(3.495/2.75)$$

$$= \text{SQRT}(3.495/2.75)$$

**Material Properties**

Aluminum Grade 6063-T5  
Weld Filler Alloy 4043

reaction does occur within 1" from welded area

E =	10100	ksi
F <sub>cy</sub> =	8	ksi
F <sub>ty</sub> =	8	ksi
Weld shear cap. =	5641	psi (based on base metal strength)

ny =	1.65
nu =	1.95
Cb =	1
k1 =	0.35
k2 =	2.27

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Bs =	5.45	ksi
Ds =	0.01	
Cs =	176.57	
Bc =	8.48	ksi
Dc =	0.02	
Cc =	141.52	
Bp =	9.40	ksi
Dp =	0.03	

**Bending:**

M <sub>x</sub> =	587	ft-lb
L <sub>b</sub> =	96.00	in
Slenderness S =	91	= (96*2.33)/(0.5*SQRT(3.495*6.99))
F <sub>b</sub> =	4848	psi
f <sub>b</sub> =	3023	psi = 587*12/2.33
	62.36%	
M <sub>y</sub> =	0	ft-lb
L <sub>b</sub> =	96.00	in
Slenderness S =	91	= (96*2.33)/(0.5*SQRT(3.495*6.99))
F <sub>b</sub> =	4848	psi
f <sub>b</sub> =	0	psi = 0*12/2.33
	0.00%	

**Compression in Beams, extreme fiber (3.4.14)****Slenderness Limitations**

S1	S2
147	7824
156	8299

**Strong Axis****Stresses, psi**

S<S1	S1<S<S2	S2<S
4848	N/A	N/A

**Weak Axis****Stresses, psi**

S<S1	S1<S<S2	S2<S
4848	N/A	N/A

**Shear:**

V <sub>x</sub> =	128	lb
h =	2.5	in = 3-2'0.25
Slenderness h/t =	10	
F <sub>v</sub> =	5547	psi
f <sub>v</sub> =	85	psi = 128/1.5
	1.53%	
V <sub>y</sub> =	0	lb
h =	2.5	in = 3-2'0.25
Slenderness, h/t =	10	
F <sub>v</sub> =	5547	psi
f <sub>v</sub> =	0	psi = 0/1.5
	0.00%	
Torsion =	0	ft-lb
A <sub>m</sub> =	8	in <sup>2</sup> = (3-0.25)*(3-0.25)
f <sub>v</sub> =	0	psi = 0*12/(2'0.25*(3-0.25)*(3-0.25))
F <sub>v</sub> =	5547	psi
	0.00%	

**Shear in Elements: (3.4.20)****Slenderness Limitations (h/t)**

S1	S2
52	141

**Strong Axis****Stresses, psi**

h/t<S1	S1<h/t<S2	S2<h/t
5547	N/A	N/A

**Weak Axis****Stresses, psi**

h/t<S1	S1<h/t<S2	S2<h/t
5547	N/A	N/A

**Combined Forces:**

$$0.62 < 1.00 \text{ OK}$$

Use 6063-T5 3x3x0.25 aluminum tube



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Project Name Portland State University Monument Sign Project # 170586

Location 1825 SW Broadway, Portland, Oregon

Client Center Pointe Signs

By KEG Ck'd CJM Date 5/8/17

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LU 17-268106 DZ

**BASE CONNECTIONS:**

Anchor Bolts:

$$\begin{aligned} \text{Mu} &= 11270 \text{ in-lb} = 587 \times 1.6 \times 12 \\ \text{Vu} &= 205 \text{ lb} = 128 \times 1.6 \end{aligned}$$

Use anchor bolts specified on the next page

Base Plate Check:

$$\begin{aligned} M &= 587 \text{ ft-lb} \\ \text{No. of tension bolts} &= 2 \\ \text{dist. btwn. bolts} &= 7 \text{ in} \\ T &= 503 \text{ lb per bolt} = 587 / (7 / 12) / (2 \text{ bolts}) \\ \text{arm} &= 2.25 \text{ in} \\ t &= 0.5 \text{ in} \\ b &= 8 \text{ in} \\ \text{Moment} &= 1132 \text{ in-lb} = 503 \times 2.25 \\ S &= 0.333 \text{ in}^3 = 0.5 \times 2 \times 8 / 6 \\ \text{Mc} &= 3996 \text{ in-lb} \\ 1132 &< 3996 \text{ OK} \end{aligned}$$

Use 0.5" thick aluminum plate

Base Weld Check:

$$\begin{aligned} \text{Arm Shape} &: \text{rectangular} \\ \text{Weld size (w)} &= 3/16 \text{ in} \\ \text{Width of arm, b1} &= 3 \text{ in} \\ \text{Depth of arm, d1} &= 3 \text{ in} \\ b &= 3.27 \text{ in} = 3 + (2 \times 0.707 \times 0.1875) \\ d &= 3.27 \text{ in} = 3 + (2 \times 0.707 \times 0.1875) \\ A &= 1.69 \text{ in}^2 = 3.27 \times 3.27 - 3 \times 3 \\ I &= 2.78 \text{ in}^4 = (3.27 \times 3.27^3 - 3 \times 3^3) / 12 \\ S &= 1.7 \text{ in}^3 = 2.78 / (3.27 / 2) \\ f_b &= 4144 \text{ psi} = (587) \times 12 / (1.7) \\ f_v &= 76 \text{ psi} = 128 / 1.69 \\ f_w &= 4219 \text{ psi} \\ \text{Fw} &= 5641 \text{ psi} \quad \text{Allowable weld stress} \\ 4219 &< 5641 \text{ OK} \end{aligned}$$

Use 0.1875" fillet weld all around from arm to base plate



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By KEG Ck'd LJM Date 5/8/17 Page 3 of 5

LU 17-268106 DZ

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 Specifier: KEG  
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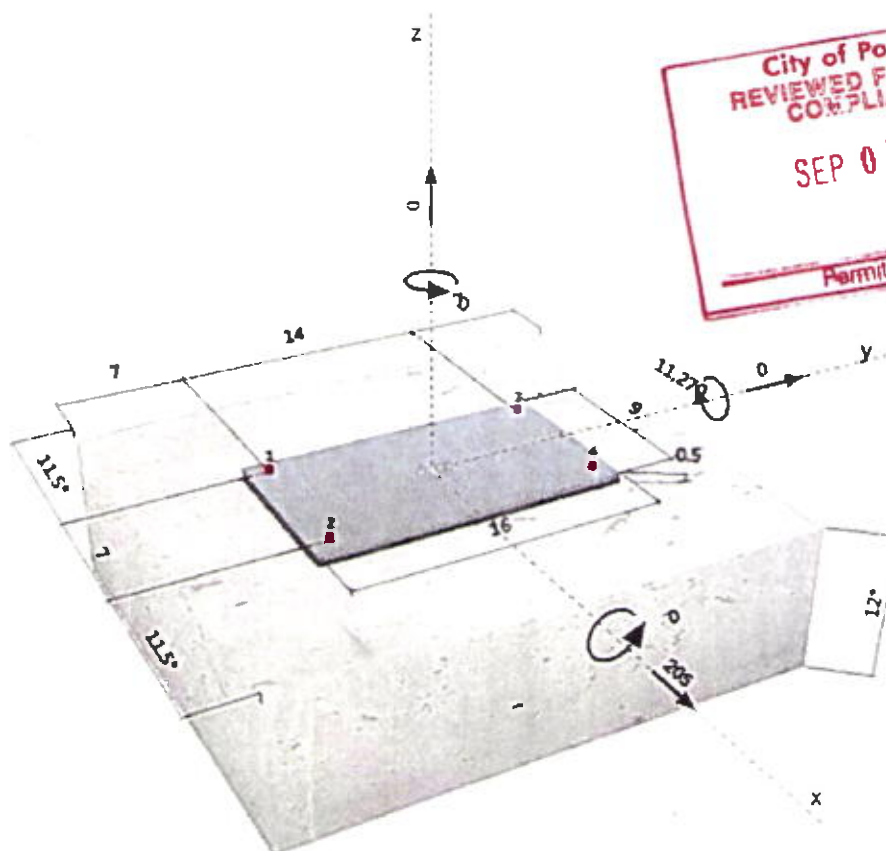
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Specifier's comments:

### 1 Input data

**Anchor type and diameter:** HIT-HY 200 + HAS 3/8  
**Effective embedment depth:**  $h_{ef,act} = 6.000$  in. ( $h_{ef,reqd} = -$  in.)  
**Material:** 5.8  
**Evaluation Service Report:** ESR-3187  
**Issued / Valid:** 6/1/2016 / 3/1/2018  
**Proof:** Design method ACI 318-08 / Chem  
**Stand-off installation:**  $e_o = 0.000$  in. (no stand-off);  $t = 0.500$  in.  
**Anchor plate:** ;  $E = 0$  psi,  $f_{yk} = 35998$  psi;  $\gamma_{Ms} = 1.100$   
 $l_x \times l_y \times t = 9.000$  in.  $\times$   $16.000$  in.  $\times$   $0.500$  in.; (Recommended plate thickness: calculated (0.039 in.))  
**Profile:** no profile  
**Base material:** cracked concrete, 2500,  $f_c' = 2500$  psi;  $h = 12.000$  in., Temp. short/long: 32/32 °F  
**Installation:** hammer drilled hole, Installation condition: Dry  
**Reinforcement:** tension: condition B, shear: condition B, no supplemental splitting reinforcement present  
 edge reinforcement: none or  $\leq$  No. 4 bar  
**Seismic loads (cat. C, D, E, or F):** no

### Geometry [in.] & Loading [lb, in./lb]



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## 2 Proof / Utilization (Governing Cases)

Loading	Proof	Design values [lb]		Utilization	
		Load	Capacity	$\beta_n / \beta_v$ [%]	Status
Tension	Steel Strength	733	3653	21 / -	OK
Shear	Steel Strength	51	1686	- / 4	OK

Loading	$\beta_n$	$\beta_v$	$\xi$	Utilization $\beta_{n,v}$ [%]	Status
Combined tension and shear loads	0.201	0.039	5/3	8	OK

## 3 Warnings

- Please consider all details and hints/warnings given in the detailed report!  
 Recommended plate thickness: 0.039 in.

**Fastening meets the design criteria!**

## 4 Remarks; Your Cooperation Duties

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