#### **Commissioners**

Kelly Cochran, Chair Jeff Craig, Co-Chair Karen Wilson Chris Rule Erika Bartholomew Jennifer McKinney Dan Swanson



#### **City Representation**

Scott Larson, City Administrator Kim Agfalvi, City Clerk Stefanie Hindmarch, Planner JC Hungerford, Engineer Danielle Charchenko, Acct Rec.

# City of Orting Planning Commission Agenda

Thursday, July 6th, 2022 7:00pm City Hall Council Chambers

#### If joining virtually:

Phone Dial-in - Charges may apply +1.253.215.8782

To join the meeting on a computer or mobile phone:

https://us06web.zoom.us/j/88012989497?pwd=MDI2WEdKNzI0dEISUW9UallPQmkzQT09

Meeting ID: 880 1298 9497 Password: 511940

#### A. CALL MEETING TO ORDER, PLEDGE OF ALLEGIANCE, ROLL CALL

The public may attend this meeting virtually via the platform Zoom by clicking the link above or by telephone, or in person at City Hall.

1. Is there a motion to excuse Commissioner(s) from this meeting?

#### **B. AGENDA APPROVAL**

1. Does the agenda require an addition or removal of a topic?

#### C. PUBLIC COMMENTS

Comments may be sent to the Planning Commission Acting Secretary Kimberly Agfalvi at <a href="clerk@cityoforting.org">clerk@cityoforting.org</a> by 1:00pm on the day of the meeting and will be read into the record at the meeting. In the case of a question, the chair will refer the matter to the appropriate administrative staff member. Comments that come in after the deadline will be read into the record at the next Planning Commission meeting.

#### D. ARCHITECTURAL DESIGN REVIEW

- 1. ADR 2022-05 Earthwise Pet Mike Thomas, Valley Sign.
- 2. ADR 2022-06 Glacier West Storage Mike Thomas, Valley Sign.
- 3. ADR 2022-04 Big J's D&D Construction Blake Collier.

#### **E. OLD BUSINESS**

- 1. Dumpsters.
- 2. Update on signage at Shell station and the two adult family homes north of Orting Cardinal Stadium.
- 3. Cardinal Country Signage mural permit.

#### F. GOOD OF THE ORDER

- 1. Planned Absences:
- 2. Report on Council Meetings:
- 3. Agenda setting:

#### G. ADJOURN

**NEXT PLANNING COMMISSION MEETING: MONDAY, August 1st, 2022** 

City Council Meeting: 2<sup>nd</sup> & last Wednesday of each month at 7:00pm

City Council Study Session: 3rd Wednesday of each month at 6:00pm

# **City of Orting Staff Report Planning Commission**

Earthwise Pet ADR 2022-05 Signage

#### APPLICANT / OWNER:

LOCATION OF PROPOSAL:

Alex Goodhue, Owner Mike Thomas, Valley Sign 215 Whitesell Street NW, Suite B 101

**DESCRIPTION OF PROPOSAL:** The applicant proposes new permanent signage for a new business within an existing building.

#### **STAFF REPORT:**

The property is located in the "Mixed Use – Town Center" (MUTC) zone. The proposed use of this property is subject to the regulations in OMC 13-6-7 "Architectural Design Review".

- The applicant submitted a sign design with the application; the design is attached.
- The sign dimensions are 48" x 150" x 1.75" thick.
- From the submitted pictures, it appears the applicant will use the existing lighting for the signage, which is the gooseneck fixtures previously approved by the Commission.
- The sign will be constructed of sandblasted carved and painted wood.
- The font type is indicated as Standard Helvetica style font for "Earthwise & Nutrition Center & Wellness Spa" Earthwise is 11" tall, Nutrition text is 4 3/4" tall. Pet is a custom hand drawn font that is part of their logo, it measures 12" tall. The names of the colors were not on the application. The sign has a black background with white lettering and a red accent.
- Applicant notes Valley Sign as the sign builder and the installer.

**STAFF RECOMMENDATION:** Staff recommends approval of ADR 2022-05 with the following condition:

1. The sign shall be resized so that it does not exceed 30 square feet per OMC 13-7-9(B)(2).

\*\*PLANNING COMMISSION DECISION – July 7, 2022\*\*

Kelly Cochran, Planning Commission Chair

Scott Larson, City Administrator



#### ARCHITECTURAL DESIGN REVIEW

# EXTERIOR SIGNAGE PERMIT APPLICATION

The signs shall be planned to reflect the architectural concept of the "Turn of the Century/ Western-Victorian" style. All exterior signs shall be characteristic of the early 1900's in size, material, color, lettering, location, number, and arrangement. Signs may only be illuminated by indirect lighting; internally illuminated signs are prohibited. All materials used for the indirect lighting of exterior signs shall be UL listed. In addition, the Washington State Energy Code shall be adhered to and a Washington State Department of Labor and Industry Electrical Permit and inspection shall be required.

#### FILL IN THE FOLLOWING INFORMATION

**Business Name**: Earthwise Pet Parcel #: 1200203800

Site Address: 215 Whitesell Street NW, Suite B 101

Contact Person: Alex Goodhue Phone #: 231-715-6133

**Sign Builder**: Valley Sign Phone #: 253-841-1003

**Sign Installer:** Valley Sign Phone #: 253-841-1003

- A) **Twelve (12) copies** of an accurate representation of proposed sign, including color and its relationship to the structure or building (site map showing the sign on the building or on the property in relation to the building).
- B) Dimensions of sign: 48" x 150" x 1.75" thick
- C) 1) Provide picture/drawing of lighting type proposed.
  - 2) Provide drawing to scale showing the location of proposed lighting in relation to the sign and the structure.
  - 3) Provide color samples for lighting structure(s) and/or fixture(s).

D)	Select sign type	(see OMC 10-	15-2 for c	lefinitions):		
	Parapet	Free Sta	anding	Canopy		Under-Canopy
	_X_ Wall	Reader	Board	Sandwic	h Bo	ard
E)	Is this an existing	g sign, already	in use? _	Yes _	_X	No
	If yes, provide pi	icture showing	signage a	and location.		
F)	Property frontage	,	690' 60'			
G)	Material used fo	r sign construct	iion	Sandblast o	arve	d and painted wood
Earth	Size and font of idard Helvetica st wise is 11" tall, Nu a custom hand d	yle font for "Ear utrition text is 4	rthwise & ¾" tall			•
Comr	nents:					
Pleas	e be advised tha	nt you will be r	equired	to obtain a	Build	ling Permit for
demo	lition, construct	ion, remodelin	ng and in	stallation o	f sigı	nage. In addition, all
contr	actors and sub-	contractors m	ust obtai	n a City of (	Ortin	g Business License.
	fy that I have read its herewith subm					hat the information and y knowledge.
_M	ichael Tho	mas				
6/2 Signati	4/22 ure	<del></del>			Date	е

City use only	
ADR #: Date Received:	
Fee Paid:	
Review Date:	

#### Kim Agfalvi

**From:** Mike Thomas <mike@valley-sign.com>

**Sent:** Friday, June 24, 2022 3:38 PM

**To:** Kim Agfalvi **Subject:** RE: Sign permit

**Attachments:** Earthwise Pet application.doc; Application mock up.pdf

Hi Kim,

So attached you'll find permit application number 1. This is for a new business going into the Pioneer Village shopping complex.

Mike

#### *Owner* Valley Sign

Office: (253) 841-1003 | Cell: (253) 298-1860 14504 134th St. Ct. E. Orting, WA 98360

From: Kim Agfalvi < KAgfalvi@cityoforting.org>

**Sent:** Friday, June 17, 2022 6:28 PM **To:** Mike Thomas <mike@valley-sign.com>

Subject: Re: Sign permit

Hi Mike,

Thank you for your email.

I would need the information by next Friday, the 24th. Our meeting is on Thursday, July 7th and with the holiday I want to ensure there is enough time to get it into the packet.

Thanks,

Kim

#### Kim Agfalvi, City Clerk

104 Bridge St S. Orting, WA 98360 Kagfalvi@cityoforting.org 360-893-9008

On Jun 17, 2022, at 6:26 PM, Mike Thomas <mike@valley-sign.com> wrote:

Hi there,

I sent the below message to Allison and got a response saying that she is no longer with the city. Hoping you can help with my question.

Thanks.



# *Owner* Valley Sign

Office: (253) 841-1003 | Cell: (253) 298-1860 14504 134th St. Ct. E. Orting, WA 98360

From: Mike Thomas

**Sent:** Friday, June 17, 2022 3:34 PM **To:** AWilliams@cityoforting.org

Subject: Sign permit

Hi Alison,

I'm working on putting together two proposals for new signs in town. When do I need to have them to you in order to be reviewed at next month's meeting (July)?

Mike

# Owner Valley Sign

Office: (253) 841-1003 | Cell: (253) 298-1860 14504 134th St. Ct. E. Orting, WA 98360

Total Control Panel Login

To: kagfalvi@cityoforting.org Remove this sender from my allow list

From: mike@valley-sign.com

You received this message because the sender is on your allow list.

## City of Orting Staff Report Planning Commission

Glacier West Storage ADR 2022-06 Signage

#### APPLICANT / OWNER:

**LOCATION OF PROPOSAL:** 

Jennifer Harney, Owner Mike Thomas, Valley Sign 915 Old Pioneer Way NW

**DESCRIPTION OF PROPOSAL:** The applicant proposes new permanent signage for a new business within an existing building.

#### **STAFF REPORT:**

The property is located in the "Residential – Urban Low" (RUL) zone. The proposed use of this property is subject to the regulations in OMC 13-6-7 "Architectural Design Review".

- The applicant submitted a sign design with the application; the design is attached.
- The signs will replace existing signs.
- The sign is a free-standing sign and the dimensions are as follows:
  - 1. Remove existing Pioneer Storage signs. Cut posts down to a height of 8' (96") above grade.
  - 2. Build a facade around the base of the posts out of high-density urethane (HDU) material for decorative purposes only, which will be covered on the outside with faux stacked stone material.
  - 3. Caps made of same ADU material, will be custom made to fir over the HDU and stonework.
  - 4. 2-LED reader board displays will be installed onto the existing posts. These will be single color displays like that the school are using. The display area will be 2'1" tall x 6'6" wide.
- The sign will consist of two sand blast carved and painted signs which will be mounted to existing posts above the LED reader board displays. New signs will measure 55"x89"x1.75" thick.
- The new entering cardinal country sign will be one single sided 41"x96" sandblast carved and painted wood sign what would be installed on 4 4"x4"8' posts.
- The font type is indicated as standard Helvetica style font, similar to Tahoma bold, with custom style added to text for main Glacier West sign. Main text is 6 7" tall. Website and phone is 3" tall/
- The font type is indicated as standard Helvetica style font and text is called Euphemia Display. It is very similar to Clarendon which is a very common Serif font.
- Applicant notes Valley Sign as the sign builder and the installer.

#### **STAFF RECOMMENDATION:** Staff recommends the following:

- 1. Grant a variance for the non-electronic portion of the freestanding commercial sign advertising Glacier West Storage. OMC 13-7-9 (A) states that properties that have between 200 and 300 feet of frontage along a right of way shall not have freestanding signs that exceed 5 feet in height. Based on the fact that Pioneer Way only serves local traffic and the purpose of the sign is to be visible from HWY 162, it is appropriate to grant a variance per OMC 13-7-10 (D) due to the to the limited view of the property and allow the sign height to be up to 8 feet tall based on the measurement standard prescribed in the definition of Freestanding Sign in OMC 13-7-2.
- 2. OMC 13-7-4 (L)(8) allows electronic signs in the MUTCN, MUTC and PF zones. Since the subject property is in the RUL zone an electronic sign is not permitted. The applicant has not articulated why a variance should be approved so staff do not recommend approval of the electronic sign.
- 3. The "Entering Cardinal Country" sign is a non-commercial sign and staff recommends its approval with the following variance per OMC13-7-10 (D): due to the limited view of the property a variance should

be approved to allow the top of the sign to be up to 6 feet tall based on the measurement standard prescribed in the definition of Freestanding Sign in OMC 13-7-2.

PREPARED BY:	Kim Agfalvi		
**PLANNING CO	MMISSION DECISION – Jul	y 7, 2022**	
Kelly Cochran, Plani	ning Commission Chair	Scott Larson, City Administrator	r



#### ARCHITECTURAL DESIGN REVIEW

# EXTERIOR SIGNAGE PERMIT APPLICATION

The signs shall be planned to reflect the architectural concept of the "Turn of the Century/ Western-Victorian" style. All exterior signs shall be characteristic of the early 1900's in size, material, color, lettering, location, number, and arrangement. Signs may only be illuminated by indirect lighting; internally illuminated signs are prohibited. All materials used for the indirect lighting of exterior signs shall be UL listed. In addition, the Washington State Energy Code shall be adhered to and a Washington State Department of Labor and Industry Electrical Permit and inspection shall be required.

#### FILL IN THE FOLLOWING INFORMATION

**Business Name**: Glacier West Storage Parcel #: 0519306008

Site Address: 915 Old Pioneer Wy NW

Contact Person: Jennifer Harney Phone #: 425-441-1878

**Sign Builder**: Valley Sign Phone #: 253-841-1003

**Sign Installer:** Valley Sign Phone #: 253-841-1003

- A) **Twelve (12) copies** of an accurate representation of proposed sign, including color and its relationship to the structure or building (site map showing the sign on the building or on the property in relation to the building).
- B) Dimensions of sign: Several signs being proposed, please see proposals provided for reference
- C) 1) Provide picture/drawing of lighting type proposed.
  - 2) Provide drawing to scale showing the location of proposed lighting in relation to the sign and the structure.

	3)	Provide color	samples for ligh	nting str	ucture(s) and	d/or fixture(s).	
D)	Select sign type (see OMC 10-15-2 for definitions):						
	I	Parapet	_X_ Free Stand	ling	Canopy	Under-Canopy	y
	V	Vall	Reader Boa	rd	Sandwich B	oard	
E)	Is th	is an existing si	gn, already in us	se?	X Yes	_ No	
	If ye	s, provide pictu	re showing signa	age and	location.		
F)	Property frontage (lineal ft.) 287'  Building frontage (lineal ft.) Multiple buildings on property						
G) main s			gn construction untry sign, LED			ed and painted wood f I material	or
for ma	dard iin Gl dard	Helvetica style acier West sign Helvetica style	. Main text is 6 - font for "Entering	ahoma - 7" tall. g", Card	Website and inal Country	istom style added to te d phone is 3" tall. is a text called a very common Serif fo	
Comm	nents	:					
_							

Please be advised that you will be required to obtain a Building Permit for demolition, construction, remodeling and installation of signage. In addition, all contractors and sub-contractors must obtain a City of Orting Business License.

I certify that I have read the ADR Application requirements and that the information and exhibits herewith submitted are true and correct to the best of my knowledge.

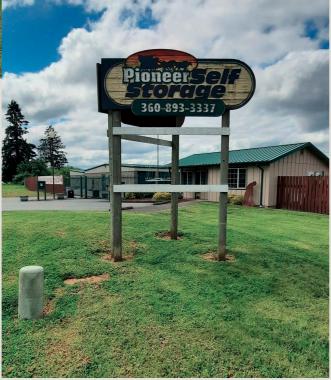
_Michael Thomas	
6/24/22	
Signature	Date

City use only	
ADR #: Date Received: Fee Paid: Review Date:	

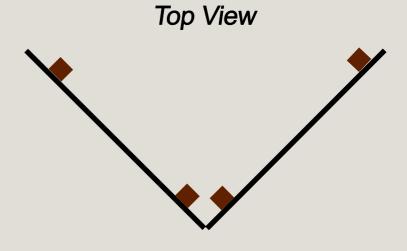
## Existing condition - Side A

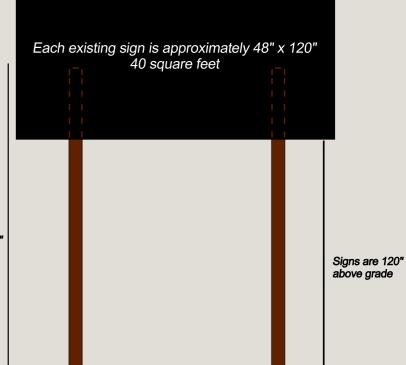


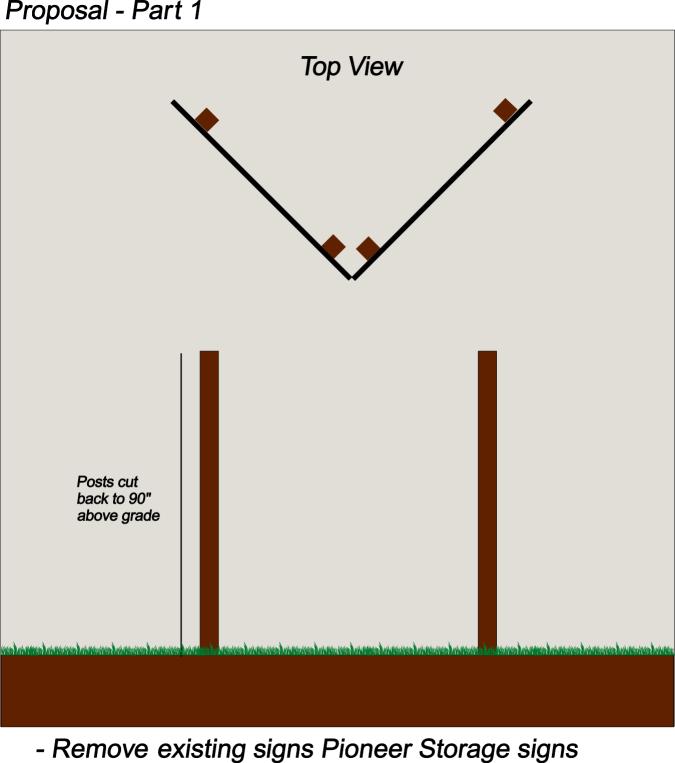
Existing condition - Side B



Posts are 151" above grade

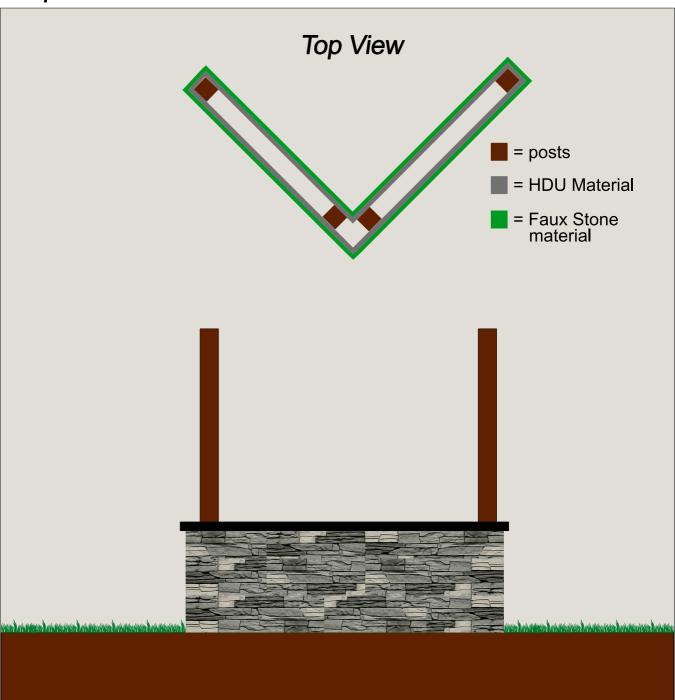




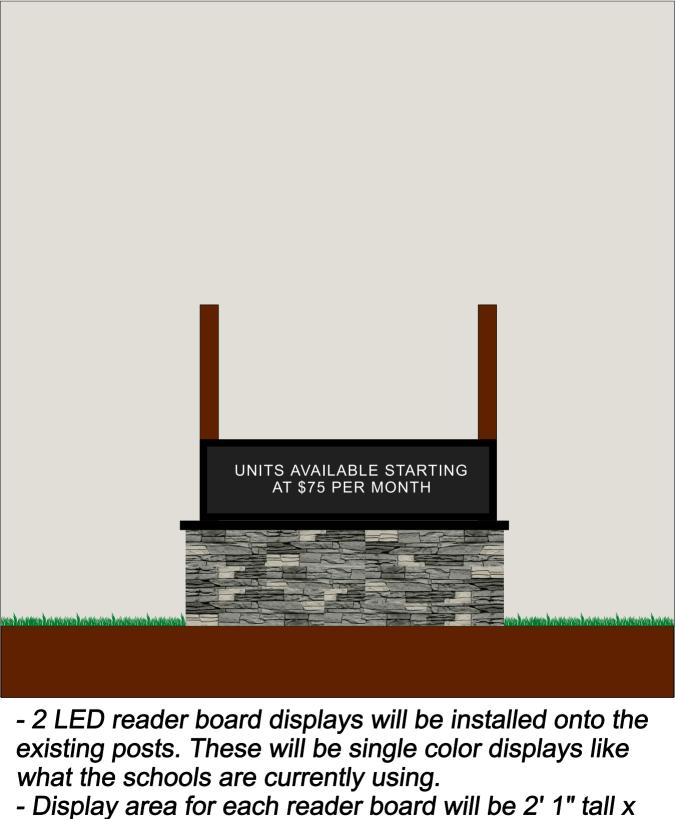


- Posts cut down to a height of 8' (96") above grade

#### Proposal - Part 2



- Build a facade around the base of the posts out of high density urethane (HDU) material. This would be decorative only and not provide any structural support. All structural support will be provided by existing posts.
- HDU material will be covered on the outside with faux stacked stone material.
- Caps, made out of same HDU material, will be custom made to fit over top the HDU and stone work.



Proposal - Part 3

6' 6" wide

# Completed look of sign area



- 2 sandblast carved and painted signs will be mounted to existing posts above the LED reader board displays.
- Signs will measure 55" x 89" x 1.75" thick.

New proposed sign One single sided 41" x 96" sandblast carved and painted wood sign that would be installed on 4 - 4" x 4" x 8' posts as shown below.



# City of Orting Staff Report Planning Commission

Big J's ADR 2022-04 Enclosed Cover, Garage Door, Loading Dock Updates

APPLICANT / OWNER

LOCATION OF PROPOSAL

D&D Construction – Big J's

107 Calistoga St. W. Orting, WA 98360

**DESCRIPTION OF PROPOSAL:** The applicant proposes to fill in the loading dock to make it flush with the existing concrete. They will build an enclosed cover and garage door to secure inventory for the store. The architectural finishes and paint will be consistent with the existing building.

#### **STAFF REPORT:**

The property is located in the "Mixed Use – Town Center" (MUTC) zone. The proposed use of this property is subject to the regulations in OMC 13-6-7 "Architectural Design Review".

- The loading dock will be filled is to make flush with existing concrete.
- A cover will be built and a garage door added to secure inventory.
- The applicant has submitted a rendering of the exterior of the building and finishes including siding, paint and roofing will be consistent with the existing structure.
  - 1. Roof Type is going to be a Taylor Metal 26 Gauge Forest Green Metal Roof to match existing finish.
  - 2. Siding Material to be beveled cedar to match existing siding.
  - 3. Paint Color to be Shewan Williams Superpaint Color Curious Beige on siding and Deep Forest Brown on garage Door.
  - 4. Trash Privacy to be made with Cedar Boards and wood framed. Painted to match garage door.
  - 5. Garage door to match style of Old City Hall building.

STAFF RECOMMENDATION: Staff recommends approval of the proposed design with the following conditions:

- 1. Service Area for siting of dumpster shall be outside of the right of way. City Administrator to approve final location, likely on NE side of building.
- 2. The dumpster shall be stored inside the newly constructed bay until the service area is completed.

**PREPARED BY:** Kim Agfalvi, City Clerk

**PLANNING COMMISSION	DECISION -	July 7th, 2022**
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Kelly Cochran, Planning Commission Chair	Scott Larson, City Administrator

<b>City of Orting</b> Department of Planning & Community ARCHITECTURAL DESIGN REVIEW APF	Development PLICATION FORM	File No	
Name of Project/Development:		Fee Paid \$	
APPLICANT/CONTACT PER	SON	Date Rec'd	
Name: <b>D&amp;D</b> Construction Inc.			
Address: PO Box 1133			
City: Orting State: V	<b>VA</b> Zip: <b>98360</b>	Phone: <b>253-538-9331</b>	
DESCRIPTION OF	PROPOSED ACTION		
Fill in loading dock to make flush with existing conc inventory for store. The architectural finishes & pair			
PROPERTY	DESCRIPTION		
Location of subject property: 107 Calistoga St. W	Orting, WA 98360		
Legal Description (attach additional pages as re	quired):		
Tax Parcel No. 1/4 Sec. Sec.	Twn. R	3670000181	
Size (ac./sq. ft.) 11,000 sq ft Comp. Plan designation Zone			
Current Use Retail Store			
AUTHORIZA SIGNATURE OF ALL PERSONS WI	TION TO FILE: TH AN INTEREST IN TH	HE PROPERTY	
Name	Name		
Signature	Signature		
Tax No or Lot & Subdivision	Tax No or Lot & Subd	ivision	
OwnerContract PurchaseOption Purchaser*Option Expiration DateOption Expiration DateOwners signature also requiredOwners signature =Owners =O		ate	
CERTIF	FICATION		
I certify that the information and exhibits herewit knowledge and that I am to file this application a authorization.			
Signature: Alde Collin		Date: 5/19/2022	

#### **Scott Larson**

From: Blake Collier <blake@dndconstructioninc.com>

**Sent:** Friday, July 1, 2022 12:12 PM

To: Scott Larson
Cc: Kim Agfalvi

**Subject:** Re: Big J's ADR Review Application

Scott,

Per our discussion the plan for Big Js is to move the dumpster in the area we are planning on building until we can figure out a better solution for the company and their customers that meets the city code. Any questions call me 509-945-1963.

Blake

Sent from my iPhone

```
> On Jul 1, 2022, at 10:00 AM, Scott Larson < <a href="mailto:SLarson@cityoforting.org">SLarson@cityoforting.org</a> wrote: >
```

> Good morning Blake,

>

> I took a look at what you submitted for planning commission and appreciate you working with us to get the information that the commission is seeking. There is one final item that needs to be addressed. The commission has been concerned with improperly located dumpsters in the city and we have been reaching out to business owners or addressing dumpster screening and location during ADR reviews. In the case of Big J's, their dumpster is currently sitting on the city's right of way which is not permitted. Based on my review of lot lines on GIS there is no location on Corrin that would be permissible for a dumpster to be located for Big J's. Would it be possible for you to update your drawings to site the dumpster on the opposite side of the building, to include the required screening? The planning commission will likely make this a condition of approval.

```
> Please see the following applicable code sections:
```

> >

> \* OMC 5-2-5(C) - Requirement to place and remove containers at curbside on scheduled collection day<a href="https://codelibrary.amlegal.com/codes/ortingwa/latest/orting\_wa/0-0-0-2206">https://codelibrary.amlegal.com/codes/ortingwa/latest/orting\_wa/0-0-0-2206</a>

> \* OMC 13-6-7(D)(1)(b) — Related to placement and screening of service areas<<a href="https://codelibrary.amlegal.com/codes/ortingwa/latest/ortingwa/0-0-0-7974">https://codelibrary.amlegal.com/codes/ortingwa/latest/ortingwa/0-0-0-7974</a>

> [cid:image002.jpg@01D88D31.458E57A0]

>

> Scott Larson

- > City Administrator, City of Orting
- > 104 Bridge Street South
- > PO Box 489
- > Orting, WA 98360
- > (360) 893-9006

>

- > From: Kim Agfalvi < KAgfalvi@cityoforting.org>
- > Sent: Friday, July 1, 2022 4:18 AM

VERTICAL LOADS			
	DEAD LOADS	LIVE LO	4 <i>DS</i>
ROOF <sub>H</sub> (Heated)	15 PSF	25	PSF
$ROOF_{U}$ (Unheated)	15 PSF	25	PSF
FLOOR	12 PSF	40	PSF
DECK	12 PSF	60	PSF
STORAGE	12 PSF	100	PSF
LATERAL LOADS			
IBC SEISMIC DESIGN CRITERIA		D	
IRC SEISMIC DESIGN CRITERIA		D2	
WIND SPEED, V <sub>ult</sub>		120	MPH
EXPOSURE CATEGORY		С	
SITE CONDITIONS			
SOIL BEARING CAPACITY		1500	PSF
LATERAL BEARING CAPACITY		150	PSF/FT
GROUND SNOW LOAD		30	PSF
FROST DEPTH		18	INCHES

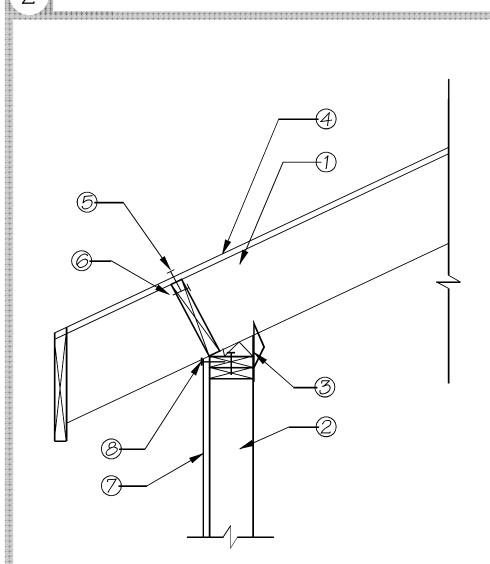
## LOADING AND SITE CONDITION TABLE

<u> </u>	Ammuning a an a							
MARK	WALL TYPE	N A	AILING SIZE AND PATTERN	NOTES	SEIS/ (PS			
Α	7/16" MIN. APA SHEATHING ONE FACE	8d	6" O.C. EDGE/12" O.C FIELD	1,2,3,4,8,11,12,13	255	357		
В	7/16" MIN. APA SHEATHING ONE FACE	8d	4" O.C. EDGE/12" O.C FIELD	1,2,3,5,8,11,12,13	395	553		
С	7/16" MIN. APA SHEATHING ONE FACE	8d	3" O.C. EDGE/12" O.C FIELD	1,2,3,6,8,9,10,11,12,13	505	707		
D	7/16" MIN. APA SHEATHING ONE FACE	8d	2" O.C. EDGE/12" O.C FIELD	1,2,3,7,8,9,10,11,12,13	670	938		
Р	PORTAL FRAME W/ HOLD-DOWNS	8d	3" O.C. ALL FRAMING	14				
G	5/8" GYPSUM WALL BOARD	6d	4" O.C. ALL FRAMING	15,16	110	110		

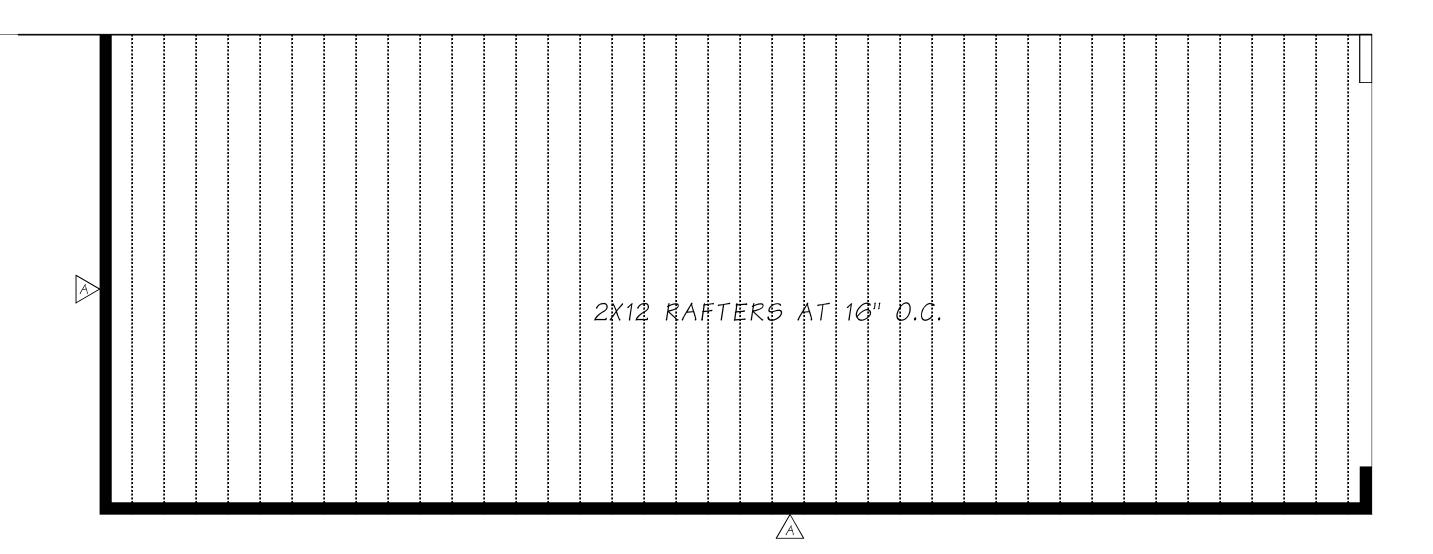
#### SHEARWALL NOTES:

- 1) Wood Panel nailing criteria and capacities based on SDPWS table 4.3A.
- 2) All sheathing edges, blocking, and intermediate framing shall be 2x or wider framing U.N.O. 3) All studs and blocking shall be HF#2 U.N.O., all top and bottom plates shall be HF#2 U.N.O.
- 4) Anchor bolts shall be 5/8" Ø, 7" embedment, and 3"x3"x1/4" square washer at 6'-0" o.c.
- 5) Anchor bolts shall be 5/8" Ø, 7" embedment, and 3"x3"x1/4" square washer at 4'-0" o.c.
- 6) Anchor bolts shall be 5/8" Ø, 7" embedment, and 3"x3"x1/4" square washer at 2'-0" o.c.
- 7) Anchor bolts shall be 5/8" Ø, 7" embedment, and 3"x3"x1/4" square washer at 1'-0" o.c.
- 8) One anchor bolt shall be provided within 12" of the end of each sill plate.
- 9) Provide nominal 3x for common members.
- 10) In lieu of 3x framing member, built up member with 16d nails at 4" o.c. staggered can be used. 11) Studs shall not be spaced more than 16" o.c.
- 12) 10d box nails may be used in lieu of 8d common nails. All nails shall have full size heads.
- 13) Hold downs and other connections may be required at the ends of any shearwall. Size and locations of these connections are indicated on the plans.
- 14) Portal Frame w/ hold-downs based on Section and Figure 2308.6.5.2 IBC.
- 15) Gypsum panel nailing criteria and capacities based on SDPWS table 4.3C.
- 16) All edges of gypsum wall board to be blocked.

SHEAR WALL SCHEDULE



(1) 2×12 RAFTER (2) STUD WALL (3) BEVEL CUT TOP PLATE W/ SIMPSON H2.5 CLIP AT EACH RAFTER (4) ROOF SHEATHING PER PLAN (5) EDGE NAILING PER PLAN (6) FULL HEIGHT BLOCKING BETWEEN ALL RAFTERS W/(3) 16d NAILS PER BLOCK (7) WALL SHEATHING PER PLAN (8) WALL EDGE NAILING PER

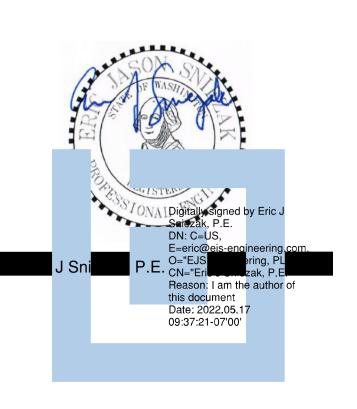


ROOF LAYOUT AND SHEAR WALLS

SCALE 1/4" = 1'-0"



ERIC J. SNIEZAK, P.E. 183 MOUNTAIN VIEW DRIVE PACKWOOD, WA 98361 (360)880-0524/(253)405-2200 eric@ejs-engineering.com



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DOCUMENT DATE: 3/8/2022

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STRUCTRUAL DETAILS





THESE DRAWINGS ARE A GRAPHICAL GUIDE FOR THE EXPERIENCED BUILDER TO USE AS REFERENCE FOR CONSTRUCTION THESE PLANS TO VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH CONSTRUCTION. THESE PLANS SHOULD NOT BE ALTERED BY OTHER THAN A QUALIFIED DESIGNER, ARCHITECT, OR STRUCTURAL ENGINEER.

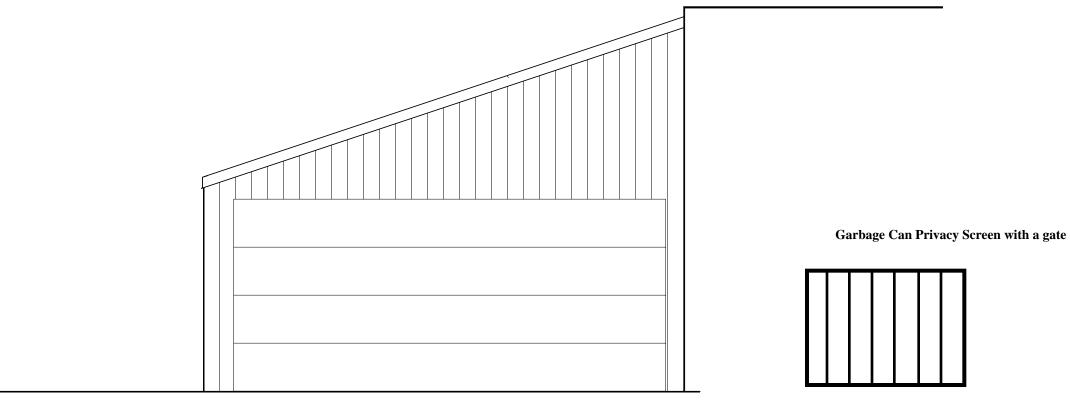
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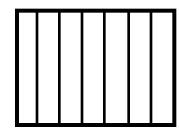
- Roof Type is going to be a Taylor Metal 26 **Guage Forest Green Metal Roof to match** existing finish.

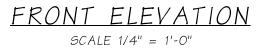
- Siding Material to be beveled cedar to match existing siding.

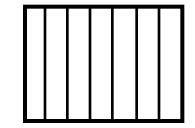
- Paint Color to be Shewan Williams Superpaint Color Curious Beige on siding and Deep Forest Brown on garage Door.

-Trash Privacy to be made with Cedar Boards and wood framed. Painted to match garage door.











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183 MOUNTAIN VIEW DRIVE

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**EJS ENGINEERING, PLLC** 

Garbage Can Privacy Screen with a gate

LEFT ELEVATION SCALE 1/4" = 1'-0"



<u>FLOORPLAN</u> SCALE 1/4" = 1'-0"

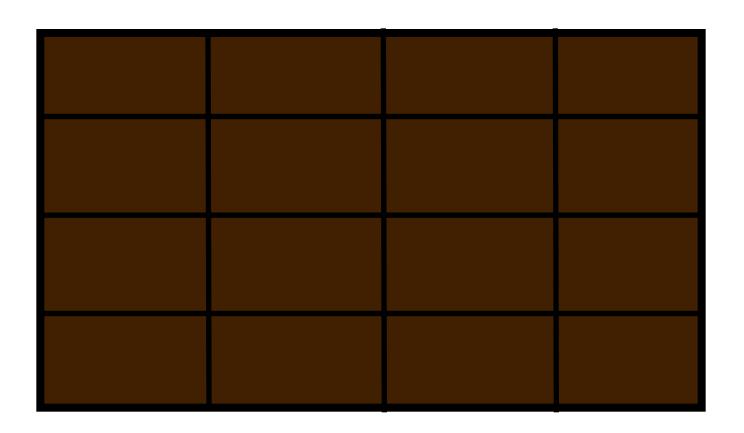
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ELEVATION AND PLAN





## **CRITERIA**

#### 1.1 BUILDING CODE

2018 International Building Code [IBC]

1,2 LOADING AND SITE CONDITIONS SEE LOADING AND SITE CONDITION TABLE 1/S1.0

#### 1.3 ABBREVIATIONS

ACI-AMERICAN CONCRETE INSTITUTE

AF&PA-ANSI/AF&PA SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC ASCE-AMERICAN SOCIETY OF CIVIL ENGINEERS

BCI-BOISE ENGINEERED WOOD PRODUCTS EOR-ENGINEER OF RECORD

GC-GENERAL CONTRACTOR GLB-GLUE LAMANINATED BEAM

IBC-INTERNATIONAL BUILDING CODE IRC-INTERNATIONAL RESIDENTIAL CODE

MAX-MAXIMUM MIN-MINIMUM

NDS-NATIONAL DESIGN SPECIFICATION-TIMBER

O.C.-ON CENTER OSB-ORIENTED STRAND BOARD

PSF-POUNDS PER SQUARE FOOT

P.T.-PRESSURE TREATED SIMPSON-SIMPSON STRONG-TIE WOOD CONSTRUCTION CONNECTORS, FASTENERS, STRONG WALLS, AND FRAMES

#### U.N.O.-UNLESS NOTED OTHERWISE 1,4 PLAN SET HIERARCHY

STRUCTURAL PLANS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL PLANS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL PLANS ARE PRIME. DISCREPANCIES FOUND AMONG PLANS, SPECIFICATIONS, THESE GENERAL NOTES, AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. WORK DONE BY THE GC AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GC'S RISK.

#### 1.5 STRUCTURAL PLAN DETAILS

PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS SET SHALL BE LOCATED BY THE ARCHITECTURAL PLANS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL PLAN SET (WALL SECTIONS, BUILDING SECTION, AND ELEVATIONS). DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWING.

#### 1.6 METHOD AND MEANS-SAFETY

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OF PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS WORK. THE EOR HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR, THE EOR OF RECORD HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

#### 1.7 TEMPORARY BRACING/FORMWORK/FALSEWORK

THE GC SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLAN SETS. CONFORM TO ASCE 37-02.

#### L8 CONTRACTOR-INITIATED CHANGES

SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND EOR FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

#### 1.9 GENERAL AND TYPICAL DETAILS

DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE EOR OF RECORD, ALL TYPICAL NOTES AND DETAILS SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE, TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE PLANS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR"S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED OR REQUEST ADDITIONAL INFORMATION, THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE EOR FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

## 1,10 FIELD CONSTRUCTED STRUCTURAL SYSTEMS

ALL STRUCTURAL SYSTEMS, WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED, SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

## 1.11 SHOP DRAWINGS

SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND EOR FOR REVIEW PRIOR TO FABRICATION:

#### -METAL DECKING -STRUCTURAL STEEL

CONTRACTOR SHALL SUBMIT WALL ELEVATION DRAWINGS OF AT LEAST 1/8" = 1'-0" SCALE INDICATING LOCATIONS OF CONNECTION EMBEDMENT AND CALL OPENINGS FOR REVIEW PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WALL ELEVATION DRAWINGS WITH REINFORCEMENT SHOP DRAWINGS. APPROVED SETS OF ALL SHOP DRAWINGS SHALL ALSO BE SUBMITTED TO THE BUILDING DEPARTMENT.

## 1.12 SHOP DRAWING REVIEW

DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE EOR, THEREFORE MUST BE VERIFIED BY THE GC. GC SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY EOR. GC SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE SAFETY, MEANS, METHODS, TECHNIQUES, SEQUENCES, OPERATIONS OF CONSTRUCTION, AND PRECAUTIONS INCIDENTAL THERETO.

# **QUALITY ASSURANCE**

## 2.1 SPECIAL INSPECTIONS

SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 1705 OF THE IBC BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT AND RETAINED BY THE BUILDING OWNER. ARCHITECT, EOR, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS.

## 2.2 PERIODIC INSPECTION

INSPECTION SHALL BE PERFORMED AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS.

## 2.3 CONTINUOUS INSPECTION

INSPECTOR SHALL BE ONSITE AND OBSERVE THE WORK REQUIRING INSPECTION AT ALL TIMES THAT WORK IS PERFORMED.

## **GEOTECHNICAL**

## 3.1 FOUNDATION NOTES

SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER, FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH OR COMPACTED STRUCTURAL FILL AT LEAST THE FROST DEPTH BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND SOIL ENGINEER.

BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

#### 3.2 EMBEDDED POLE FOUNDATIONS

POST FOUNDATION ARE LISTED PER PLANS AS SQUARE OR ROUND. REGARDLESS OF SHAPE ON PLANS SQUARE OR ROUND HOLES ARE ADEQUATE WITH THE CRITICAL DIMENSION AS THE DIAMETER (ROUND) OR DIAGONAL DISTANCE (SQUARE) HOLES. HOLE PREPARATION FOR EMBEDDED POLE FOUNDATION CAN BE ACCOMPLISHED BY EITHER EXCAVATION OR AUGER DRILLING, TYPICAL TOLERANCE FOR HOLE SIZE AND GEOMETRY IS 50% IN SIZE OR OUT OF SQUARE AND WALLS BATTER UP TO 15° FROM VERTICAL. 6" THICK CONCRETE PUNCH PAD SHALL BE PLEASED AT THE BASE OF HOLE AT THE MIN. REQUIRED SIZE U.N.O. BACKFILLING OF HOLES SHALL BE ACCOMPLISHED WITH 5/8" MINUS FILL PLACED AND COMPACTED IN 6" LIFTS OR CONCRETE BACKFILL U.N.O.

## 4.1 DEMOLITION

GC SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND, IN A MANNER, SUITABLE TO THE WORK SEQUENCES. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF.

#### 4.2 CONTRACTOR VERIFICATION

GC SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND EOR IF EXISTING CONDITIONS DETERMINED DURING WORK VARY FROM THE EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS.

## CONCRETE

#### 5,1 CONCRETE MIX AND PLACEMENT

CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED, AND PLACED IN ACCORDANCE WITH ACI 301-16, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 2,500 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF SECTION 1904 OF THE IBC. DESIGN STRENGTH IS f'c = 2,500 PSI.

#### 5.2 AIR ENTRAINMENT

ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318, TABLE 4.4.1 MODERATE EXPOSURE, F1.

#### 5.3 SHOTCRETE PLACEMENT

CONCRETE MAY BE PLACED BY THE 'SHOTCRETE" METHOD, PROVIDED THE APPROVALS, TESTS, AND INSPECTIONS REQUIRED THE BUILDING DEPARTMENT. SHOTCRETE MATERIALS, EQUIPMENT, PROCEDURES, PROPORTIONS, BATCHING, MIXING, AND PLACEMENT SHALL BE IN ACCORDANCE WITH ACI 506R-05, ACI 506.2-95 AND THE IBC SECTION 1910. THE 'SHOTCRETE' METHOD SHALL NOT BE USED WITHOUT MAKING SPECIAL ARRANGEMENTS THROUGH OWNER AND EOR UNLESS STRUCTURAL DRAWINGS ARE SPECIFICALLY DETAILED TO ACCOMMODATE

#### SHOTCRETING. 5.4 REINFORCING STEEL

REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1). REINFORCING BARS #3 AND SMALLER, GRADE 40, FY = 40,000 PSI. REINFORCING BARS #4 AND LARGER, GRADE 60, FY = 60,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.

#### 5.5 DETAILING OF REINFORCING STEEL

REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-11, LAP ALL REINFORCEMENTS IN ACCORDANCE WITH THE REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8 INCHES AT SIDES AND ENDS. NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO

#### DETAILED OR APPROVED BY THE EOR. 5.6 CONCRETE PROTECTION

CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS: UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ...... FORMED SURFACES EXPOSED TO EARTH (#6 AND LARGER) .. FORMED SURFACES EXPOSED TO EARTH (#5 AND SMALLER) .... COLUMN TIES OR SPIRALS AND BEAM STIRRUPS ...... SLABS AND WALLS (INT. FACE)..... ......GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"

## 5.7 CAST-IN-PLACE CONCRETE

SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS, SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRE-CAST.

## 5.8 NON-SHRINK GROUT

SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3,000 PSI MINIMUM).

## 6.1 EXPANSION BOLTS

EXPANSION BOLTS INTO CONCRETE SHALL BE SIMPSON 'STRONG-BOLT 2' WEDGE ANCHORS AND INSTALLED IN STRICT CONFORMANCE TO ICC-ES REPORT NUMBER ESR-1771, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS, SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.

## 6.2 EPOXY-GROUTED ITEMS

EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING SIMPSON 'SET XP' HIGH STRENGTH EPOXY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2508. MINIMUM BASE MATERIAL TEMPERATURE IS 50 DEGREES F. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED. RODS SHALL BE ASTM A-36 GRADE STEEL U.N.O.

## 6.2 CONCRETE SCREW ANCHORS

SCREW ANCHORS ATTACHING INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE SIMPSON 'TITEN HD' HEAVY DUTY SCREW ANCHOR, INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2713 (CONCRETE), NO. ESR-1056 (CMU), INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. SCREW ANCHORS INTO CONCRETE MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION IS REQUIRED.

# 7.1 STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION

SHALL BE BASED ON:

A. AISC 360 AND SECTION 2205.2 OF THE IBC. B. APRIL 14, 2010 AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AMENDED AS

FOLLOWS: i. AS NOTED IN THE CONTRACT DOCUMENTS. ii. BY THE DELETION OF PARAGRAPH 4. 4. 1.

## iii. REVISE REFERENCE FROM "STRUCTURAL DESIGN DRAWINGS" TO "CONTRACT DOCUMENTS" IN

PARAGRAPH 3.1. C. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

## 7.2 STEEL ROLLED SHAPES

WIDE FLANGE SHAPES-SHALL CONFORM TO ASTM A992, FY = 50 KSI. OTHER ROLLED SHAPES INCLUDING PLATES-SHALL CONFORM TO ASTM A36, FY = 36 KSI. STEEL PIPES-SHALL CONFORM TO ASTM A-53, TYPE E OR S, GRADE B, Fy = 35 KSI. STRUCTURAL TUBING-SHALL CONFORM TO ASTM A500, GRADE B, FY = 42 KSI (ROUND), FY = 46 KSI (SQUARE AND RECTANGULAR). CONNECTION BOLTS-SHALL CONFORM TO ASTM A307.

#### 7.3 ARCHITECTURALLY EXPOSED STRUCTURAL STEEL

SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

#### 7.4 EXPOSED STEEL

ALL STEEL EXPOSED TO THE WEATHER OR IN CONTACT WITH GROUND SHALL BE CORROSION PROTECTED

BY GALVANIZATION OR PROVIDED WITH EXTERIOR PAINT SYSTEM, U.N.O.

7.5 SHOP PRIME ALL STEEL SHALL RECEIVE SHOP PRIME EXCEPT:

STEEL ENCASED IN CONCRETE.

#### SURFACES TO BE WELDED.

CONTACT SURFACES AT HIGH-STRENGTH BOLTS.

#### MEMBERS TO BE GALVANIZED. MEMBERS WHICH WILL BE CONCEALED BY INTERIOR FINISHES.

SURFACES TO RECEIVE SPRAYED FIREPROOFING. SURFACES TO RECEIVE OTHER SPECIAL SHOP PRIMERS.

#### 7.6 STRUCTURAL BOLTS

ALL A-325N CONNECTION BOLTS NEED ONLY BE TIGHTENED TO A SNUG TIGHT CONDITION, DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH.

#### 7,7 EMBEDDED ANCHORS

ALL ANCHORS EMBEDDED IN MASONRY OR CONCRETE SHALL BE A307 HEADED BOLTS OR A36 THREADED ROD WITH AN ASTM 563 HEAVY HEX NUT TACK WELDED ON THE EMBEDDED END.

#### 7.8 WELDING

ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREOUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE MADE WITH A FILLER MATERIAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS. AT -20 DEGREES F AND 40 FT-LBS. AT 70 DEGREES F, AT DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

#### 7.9 METAL FLOOR AND ROOF DECKING

SHALL CONFORM TO SECTION 2210.1 OF THE IBC. PROVIDE SIZE, TYPE, GAUGE, AND ATTACHMENT TO THE SUPPORTING STRUCTURE AS SHOWN ON THE PLANS. ARC SEAM AND SPOT (PUDDLE) WELDS FOR FIELD ASSEMBLY OF METAL DECK SHALL BE MADE WITH MINIMUM E60XX ELECTRODES. DECK ALTERNATES MUST BE CONNECTED ACCORDING TO PUBLISHED ICC-ES CRITERIA FOR DIAPHRAGM SHEARS SHOWN. PROVIDE TEMPORARY SHORING WHERE REQUIRED PER MANUFACTURER"S PUBLISHED CRITERIA.

SHALL BE KILN DRIED OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

CONVENTIONAL LIGHT FRAMING JOISTS (2x & 3x MEMBERS)... BEAMS (4x MEMBERS AND LARGER)..... .....DOUGLAS FIR NO. 2

#### POLE BUILDING CONSTRUCTION GIRTS AND PURLINS... ...DOUGLAS FIR NO. 2 .....HEM-FIR NO. 2

#### EMBEDDED POSTS..... 8.2 GLUED LAMINATED MEMBERS

SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA-EWS CERTIFICATE OF CONFORMANCE.

ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv =265 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2,400 PSI, Fv = 265 PSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS TO 3,500 FT RADIUS, U.N.O.

#### 8.3 MANUFACTURED LUMBER

PSL, LVL, AND LSL SHOWN ON PLAN ARE BASED ON PRODUCTS MANUFACTURED BY THE BOISE CASCADE CORPORATION IN ACCORDANCE WITH UC-ES REPORT ESR-1387. MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

# PSL: Fb = 2,900 PSI, Fv = 290 PSI, E = 2,200 KSI

LVL: Fb = 2,600 PSI, Fv = 285 PSI, E = 2,000 KSILSL: Fb = 2,325 PSI, Fv = 310 PSI, E = 1,550 KSI

ALTERNATE MANUFACTURED LUMBER MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND EOR. ALTERNATE MANUFACTURER'S PRODUCTS SHALL BE COMPATIBLE WITH THE JOIST HANGERS AND OTHER HARDWARE SPECIFIED ON PLANS, OR ALTERNATE HANGERS AND HARDWARE SHALL SUBMITTED FOR REVIEW AND APPROVAL. SUBSTITUTED ITEMS SHALL HAVE ICC-ES REPORT

APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PRESENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE

#### CONTENT EXCEEDS THIS VALUE. 8.4 PLYWOOD SHEATHING

PLYWOOD SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS1 OR PS2. OSB OF EQUIVALENT THICKNESS, EXPOSURE RATING, AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

#### ROOF SHEATHING SHALL BE 7/16" (NOMINAL) WITH SPAN RATING 24/0. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES.

FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24. ALL EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. WALL SHEATHING SHALL BE 7/16" (NOMINAL) WITH SPAN RATING 24/0.

#### PLACEMENT-ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR, WALL, AND ROOF 8.5 WOOD TO CONCRETE CONNECTION

ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

## 8.6 PRESERVATIVE

PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA

## 8.7 WOOD TREATED FOR FIRE RESISTANCE

FIRE RESISTANCE TREATMENT SHALL MEET THE REQUIREMENTS OF ASTM E 84 OR UL 723 AND HAVE A LISTED FLAME SPREAD INDEX OF 25 OR LESS. FIRE RETARDANT TREATED LUMBER AND WOOD STRUCTURAL PANELS SHALL BE LABELED IN ACCORDANCE WITH IBC 2303.2.4. WOOD TREATED FOR FIRE PROTECTION FOR USE IN INTERIOR ABOVE GROUND CONSTRUCTION AND CONTINUOUSLY PROTECTED FROM WEATHER AND OTHER SOURCES OF MOISTURE SHALL BE TREATED TO AWPA UCFA. WOOD TREATED FOR FIRE PROTECTION FOR USE IN EXTERIOR ABOVE GROUND CONSTRUCTION AND SUBJECT TO GETTING OR OTHER SOURCES OF MOISTURE SHALL BE TREATED TO AWPA UCFB.

## 8.8 FASTENERS AND TREATED LUMBER

FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE TO COMPLY WITH THE WOOD TREATMENT PROCESS. INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR SET, EXTERIOR SET, AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE

#### TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL. 8.9 TIMBER CONNECTORS

REFERENCED AND STANDARD TIMBER CONNECTORS SHALL BE STRONG-TIE TYPE BY SIMPSON AS SPECIFIED IN THEIR CATALOG NUMBER C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER FOR MAXIMUM LOAD CARRYING CAPACITY. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S

#### 8.10 FLUSH BEAM AND JOISTS

2x JOISTS SHALL BE CONNECTED WITH 'LUS" SERIES JOIST HANGERS. ALL I-JOISTS SHALL BE CONNECTED WITH 'ITS" SERIES JOIST HANGERS.

## ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED WITH 'MIT" SERIES JOIST HANGER.

8.11 TWO MEMBER CONNECTION

CONNECTOR STRAPS USED TO CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH

## 8.12 SHIMS

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

# 8,13 FASTENING SCHEDULE

FASTENERS SIZES SHALL CONFORM TO FASTENERS LISTED IN ROW TWO OF IBC TABLE 2304.10.1. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LUG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NDS WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD

#### HOLES ARE NOT REQUIRED FOR 3/8" DIAMETER AND SMALLER LAG SCREWS. 8.14 NOTCHES AND HOLES IN WOOD FRAMING

NOTCHES ON THE ENDS OF SOLID SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ONE-FOURTH THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF AND SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOIST.

NOTCHES IN EXTERIOR WALLS AND BEARING PARTITIONS ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A

NOTCHES AND HOLES IN MANUFACTURED LUMBER AND PREFABRICATED PLYWOOD WEB JOISTS SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS U.N.O.

#### 8.15 WOOD FRAMING NOTES

THE FOLLOWING APPLY U.N.O. ON THE PLANS

MINIMUM STANDARD OF WOOD DETAILS WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC, THE AITC AND THE AF&PA. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

WALL FRAMING REFERENCE ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. U.N.O.

ONE KING STUD SHALL BE PROVIDED AT EACH SIDE OF ALL OPENINGS AND AT BEAM OR HEADER BEARING

LOCATIONS U.N.O. JACK STUDS SHALL BE PROVIDED AT EACH SIDE OF ALL OPENINGS. U.N.O. ONE JACK STUD PER SIDE AT OPENINGS LESS THAN 6'-0", TWO JACK STUDS FOR OPENINGS BETWEEN 6'-0" AND 8'-0", THREE JACK STUDS FOR OPENINGS GREATER THAN 8'-0" TO 16'-3", OPENINGS GREATER THAN 16'-3" SHALL HAVE JACK STUDS CALLED OUT ON PLANS.

#### 4x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS U.N.O. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW.

PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT. ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d @ 12" O. C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE EIGHT 16d NAILS @ 4"-0" O.C. EACH SIDE JOINT.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" O.C.

#### INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @ 12" O.C. U.N.O.

FLOOR AND ROOF FRAMING PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS U.N.O. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOE-NAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI JOIST BEAMS TOGETHER WITH TWO ROWS OF 16d NAILS AT 12" O.C

U.N.O. ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID WITH LONG AXIS PERPENDICULAR TO SUPPORTS AND NAILED @ 6" O.C. WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS, AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" O.C. TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED SHEATHING EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.

#### ATTACHED 2x MIN THICKNESS SILL PLATE TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS AT A MAX SPACING OF 6'-0", EMBEDDED 7" MINIMUM, U.N.O. PROVIDE 3"X3"X1/4" WASHERS UNDER HEADS AND NUTS

STRUCTURAL ENGINEER.

SILL PLATE ANCHORAGE

# **LEGAL**

9.1 TERMS OF SERVICE THESE DRAWINGS ARE A GRAPHICAL GUIDE FOR THE EXPERIENCED BUILDER TO USE AS REFERENCE FOR CONSTRUCTING THE PROJECT DESCRIBED HEREIN. IT IS THE RESPONSIBILITY OF THE BUILDER AND/ OR THE PURCHASER OF THESE PLANS TO VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH CONSTRUCTION. THESE PLANS SHOULD NOT BE ALTERED BY OTHER THAN A QUALIFIED DESIGNER, ARCHITECT, OR

## 9.2 COPYRIGHT INFORMATION

ADMINISTRATIVE SERVICE FEES).

\*THE INVALIDITY OF THE PROFESSIONAL STAMP.

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## 9,3 PAYMENT OF SERVICES

\*REMOVAL OF THE ENGINEERED DOCUMENTS FROM THE JURISDICTION.

PURCHASED. TO REPORT COPYRIGHT VIOLATIONS PLEASE CALL (360)880-0524.

\*LIEN PLACED ON THE PROPERTY ASSOCIATED WITH THE PROJECT (INCLUDING LEGAL AND

TOENAIL BLOCKING TO SUPPORTS WITH 16d @ 12" O.C. U.N.O.

UNLESS PRE-ARRANGED IN WRITING, PAYMENT FOR SERVICES ARE DUE AT DELIVERY. FAILURE TO PAY FOR SERVICES RENDERED WILL RESULT IN THE FOLLOWING:

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Eric J. Sniezak, P.E.

GENERAL STRUCTURAL NOTES

# **EJS ENGINEERING, PLLC**

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# $\mathcal{O}$ $\mathcal{M}$ O $\mathcal{O}$ 10 $\bigcirc$ $\mathcal{O} \stackrel{\sim}{\sim} \mathcal{O}$ DOCUMENT DATE:

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VERTICAL LOADS			
	DEAD LOADS	LIVE LO	4 <i>DS</i>
ROOF <sub>H</sub> (Heated)	15 PSF	25	PSF
$ROOF_{U}$ (Unheated)	15 PSF	25	PSF
FLOOR	12 PSF	40	PSF
DECK	12 PSF	60	PSF
STORAGE	12 PSF	100	PSF
LATERAL LOADS			
IBC SEISMIC DESIGN CRITERIA		D	
IRC SEISMIC DESIGN CRITERIA		D2	
WIND SPEED, V <sub>ult</sub>		120	MPH
EXPOSURE CATEGORY		С	
SITE CONDITIONS			
SOIL BEARING CAPACITY		1500	PSF
LATERAL BEARING CAPACITY		150	PSF/FT
GROUND SNOW LOAD		30	PSF
FROST DEPTH		18	INCHES

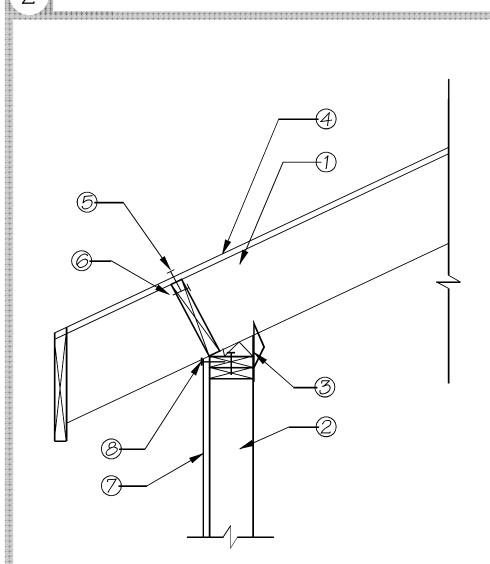
## LOADING AND SITE CONDITION TABLE

<u> </u>	_A						
MARK	WALL TYPE	N A	AILING SIZE AND PATTERN	NOTES	SEIS/WIND (PSF)		
Α	7/16" MIN. APA SHEATHING ONE FACE	8d	6" O.C. EDGE/12" O.C FIELD	1,2,3,4,8,11,12,13	255	357	
В	7/16" MIN. APA SHEATHING ONE FACE	8d	4" O.C. EDGE/12" O.C FIELD	1,2,3,5,8,11,12,13	395	553	
С	7/16" MIN. APA SHEATHING ONE FACE	8d	3" O.C. EDGE/12" O.C FIELD	1,2,3,6,8,9,10,11,12,13	505	707	
D	7/16" MIN. APA SHEATHING ONE FACE	8d	2" O.C. EDGE/12" O.C FIELD	1,2,3,7,8,9,10,11,12,13	670	938	
Р	PORTAL FRAME W/ HOLD-DOWNS	8d	3" O.C. ALL FRAMING	14			
G	5/8" GYPSUM WALL BOARD	6d	4" O.C. ALL FRAMING	15,16	110	110	

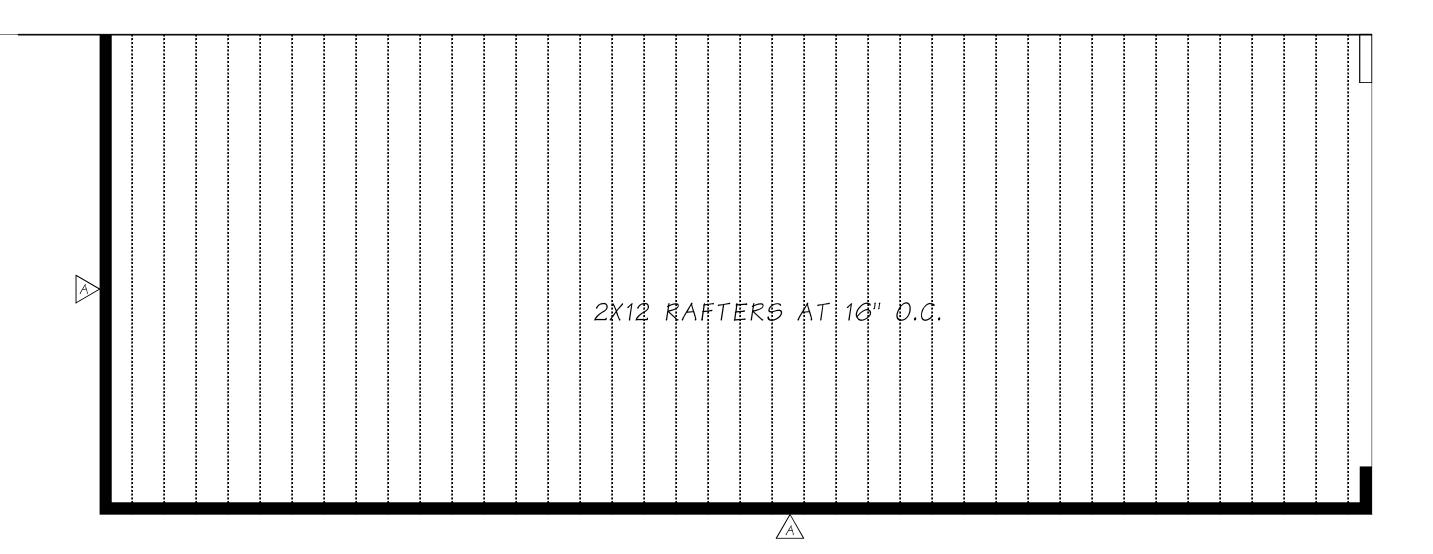
#### SHEARWALL NOTES:

- 1) Wood Panel nailing criteria and capacities based on SDPWS table 4.3A.
- 2) All sheathing edges, blocking, and intermediate framing shall be 2x or wider framing U.N.O. 3) All studs and blocking shall be HF#2 U.N.O., all top and bottom plates shall be HF#2 U.N.O.
- 4) Anchor bolts shall be 5/8" Ø, 7" embedment, and 3"x3"x1/4" square washer at 6'-0" o.c.
- 5) Anchor bolts shall be 5/8" Ø, 7" embedment, and 3"x3"x1/4" square washer at 4'-0" o.c.
- 6) Anchor bolts shall be 5/8" Ø, 7" embedment, and 3"x3"x1/4" square washer at 2'-0" o.c.
- 7) Anchor bolts shall be 5/8" Ø, 7" embedment, and 3"x3"x1/4" square washer at 1'-0" o.c.
- 8) One anchor bolt shall be provided within 12" of the end of each sill plate.
- 9) Provide nominal 3x for common members.
- 10) In lieu of 3x framing member, built up member with 16d nails at 4" o.c. staggered can be used. 11) Studs shall not be spaced more than 16" o.c.
- 12) 10d box nails may be used in lieu of 8d common nails. All nails shall have full size heads.
- 13) Hold downs and other connections may be required at the ends of any shearwall. Size and locations of these connections are indicated on the plans.
- 14) Portal Frame w/ hold-downs based on Section and Figure 2308.6.5.2 IBC.
- 15) Gypsum panel nailing criteria and capacities based on SDPWS table 4.3C.
- 16) All edges of gypsum wall board to be blocked.

SHEAR WALL SCHEDULE



(1) 2×12 RAFTER (2) STUD WALL (3) BEVEL CUT TOP PLATE W/ SIMPSON H2.5 CLIP AT EACH RAFTER (4) ROOF SHEATHING PER PLAN (5) EDGE NAILING PER PLAN (6) FULL HEIGHT BLOCKING BETWEEN ALL RAFTERS W/(3) 16d NAILS PER BLOCK (7) WALL SHEATHING PER PLAN (8) WALL EDGE NAILING PER

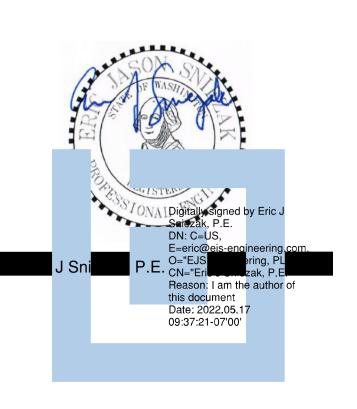


ROOF LAYOUT AND SHEAR WALLS

SCALE 1/4" = 1'-0"



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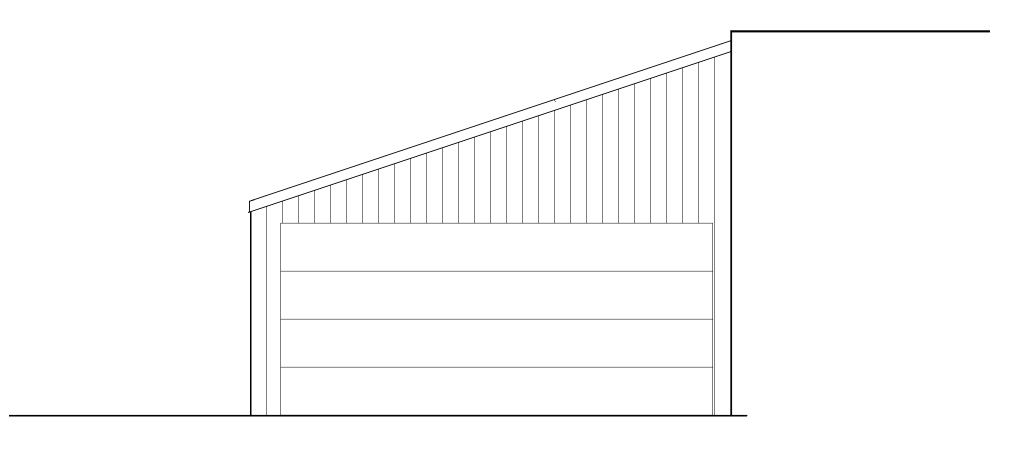
STRUCTRUAL DETAILS





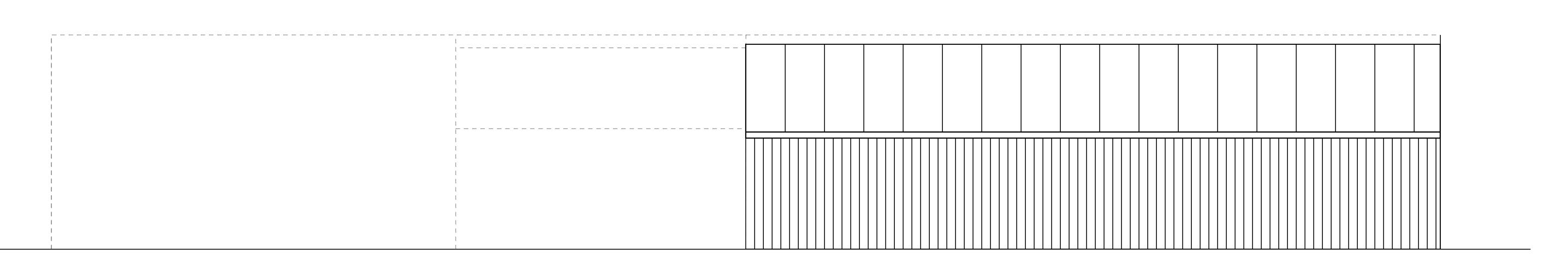
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FRONT ELEVATION

SCALE 1/4" = 1'-0"



LEFT ELEVATION

SCALE 1/4" = 1'-0"



<u>FLOORPLAN</u> SCALE 1/4" = 1'-0"



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ELEVATION AND PLAN



## **CRITERIA**

#### 1.1 BUILDING CODE

2018 International Building Code [IBC]

1,2 LOADING AND SITE CONDITIONS SEE LOADING AND SITE CONDITION TABLE 1/S1.0

#### 1.3 ABBREVIATIONS

ACI-AMERICAN CONCRETE INSTITUTE

AF&PA-ANSI/AF&PA SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC ASCE-AMERICAN SOCIETY OF CIVIL ENGINEERS

BCI-BOISE ENGINEERED WOOD PRODUCTS EOR-ENGINEER OF RECORD

GC-GENERAL CONTRACTOR GLB-GLUE LAMANINATED BEAM

IBC-INTERNATIONAL BUILDING CODE IRC-INTERNATIONAL RESIDENTIAL CODE

MAX-MAXIMUM MIN-MINIMUM

NDS-NATIONAL DESIGN SPECIFICATION-TIMBER

O.C.-ON CENTER OSB-ORIENTED STRAND BOARD

PSF-POUNDS PER SQUARE FOOT

P.T.-PRESSURE TREATED SIMPSON-SIMPSON STRONG-TIE WOOD CONSTRUCTION CONNECTORS, FASTENERS, STRONG WALLS, AND FRAMES

#### U.N.O.-UNLESS NOTED OTHERWISE 1,4 PLAN SET HIERARCHY

STRUCTURAL PLANS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL PLANS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL PLANS ARE PRIME. DISCREPANCIES FOUND AMONG PLANS, SPECIFICATIONS, THESE GENERAL NOTES, AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. WORK DONE BY THE GC AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GC'S RISK.

#### 1.5 STRUCTURAL PLAN DETAILS

PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS SET SHALL BE LOCATED BY THE ARCHITECTURAL PLANS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL PLAN SET (WALL SECTIONS, BUILDING SECTION, AND ELEVATIONS). DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWING.

#### 1.6 METHOD AND MEANS-SAFETY

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OF PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS WORK. THE EOR HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR, THE EOR OF RECORD HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

#### 1.7 TEMPORARY BRACING/FORMWORK/FALSEWORK

THE GC SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLAN SETS. CONFORM TO ASCE 37-02.

#### L8 CONTRACTOR-INITIATED CHANGES

SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND EOR FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

#### 1.9 GENERAL AND TYPICAL DETAILS

DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE EOR OF RECORD, ALL TYPICAL NOTES AND DETAILS SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE, TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE PLANS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR"S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED OR REQUEST ADDITIONAL INFORMATION, THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE EOR FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

## 1,10 FIELD CONSTRUCTED STRUCTURAL SYSTEMS

ALL STRUCTURAL SYSTEMS, WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED, SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

## 1.11 SHOP DRAWINGS

SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND EOR FOR REVIEW PRIOR TO FABRICATION:

#### -METAL DECKING -STRUCTURAL STEEL

CONTRACTOR SHALL SUBMIT WALL ELEVATION DRAWINGS OF AT LEAST 1/8" = 1'-0" SCALE INDICATING LOCATIONS OF CONNECTION EMBEDMENT AND CALL OPENINGS FOR REVIEW PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WALL ELEVATION DRAWINGS WITH REINFORCEMENT SHOP DRAWINGS. APPROVED SETS OF ALL SHOP DRAWINGS SHALL ALSO BE SUBMITTED TO THE BUILDING DEPARTMENT.

## 1.12 SHOP DRAWING REVIEW

DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE EOR, THEREFORE MUST BE VERIFIED BY THE GC. GC SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY EOR. GC SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE SAFETY, MEANS, METHODS, TECHNIQUES, SEQUENCES, OPERATIONS OF CONSTRUCTION, AND PRECAUTIONS INCIDENTAL THERETO.

# **QUALITY ASSURANCE**

## 2.1 SPECIAL INSPECTIONS

SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 1705 OF THE IBC BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT AND RETAINED BY THE BUILDING OWNER. ARCHITECT, EOR, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS.

## 2.2 PERIODIC INSPECTION

INSPECTION SHALL BE PERFORMED AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS.

## 2.3 CONTINUOUS INSPECTION

INSPECTOR SHALL BE ONSITE AND OBSERVE THE WORK REQUIRING INSPECTION AT ALL TIMES THAT WORK IS PERFORMED.

## **GEOTECHNICAL**

## 3.1 FOUNDATION NOTES

SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER, FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH OR COMPACTED STRUCTURAL FILL AT LEAST THE FROST DEPTH BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND SOIL ENGINEER.

BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

#### 3.2 EMBEDDED POLE FOUNDATIONS

POST FOUNDATION ARE LISTED PER PLANS AS SQUARE OR ROUND. REGARDLESS OF SHAPE ON PLANS SQUARE OR ROUND HOLES ARE ADEQUATE WITH THE CRITICAL DIMENSION AS THE DIAMETER (ROUND) OR DIAGONAL DISTANCE (SQUARE) HOLES. HOLE PREPARATION FOR EMBEDDED POLE FOUNDATION CAN BE ACCOMPLISHED BY EITHER EXCAVATION OR AUGER DRILLING, TYPICAL TOLERANCE FOR HOLE SIZE AND GEOMETRY IS 50% IN SIZE OR OUT OF SQUARE AND WALLS BATTER UP TO 15° FROM VERTICAL. 6" THICK CONCRETE PUNCH PAD SHALL BE PLEASED AT THE BASE OF HOLE AT THE MIN. REQUIRED SIZE U.N.O. BACKFILLING OF HOLES SHALL BE ACCOMPLISHED WITH 5/8" MINUS FILL PLACED AND COMPACTED IN 6" LIFTS OR CONCRETE BACKFILL U.N.O.

#### 4.1 DEMOLITION

GC SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND, IN A MANNER, SUITABLE TO THE WORK SEQUENCES. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF.

#### 4.2 CONTRACTOR VERIFICATION

GC SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND EOR IF EXISTING CONDITIONS DETERMINED DURING WORK VARY FROM THE EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS.

## CONCRETE

#### 5,1 CONCRETE MIX AND PLACEMENT

CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED, AND PLACED IN ACCORDANCE WITH ACI 301-16, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 2,500 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF SECTION 1904 OF THE IBC. DESIGN STRENGTH IS f'c = 2,500 PSI.

#### 5.2 AIR ENTRAINMENT

ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318, TABLE 4.4.1 MODERATE EXPOSURE, F1.

#### 5.3 SHOTCRETE PLACEMENT

CONCRETE MAY BE PLACED BY THE 'SHOTCRETE" METHOD, PROVIDED THE APPROVALS, TESTS, AND INSPECTIONS REQUIRED THE BUILDING DEPARTMENT. SHOTCRETE MATERIALS, EQUIPMENT, PROCEDURES, PROPORTIONS, BATCHING, MIXING, AND PLACEMENT SHALL BE IN ACCORDANCE WITH ACI 506R-05, ACI 506.2-95 AND THE IBC SECTION 1910. THE 'SHOTCRETE' METHOD SHALL NOT BE USED WITHOUT MAKING SPECIAL ARRANGEMENTS THROUGH OWNER AND EOR UNLESS STRUCTURAL DRAWINGS ARE SPECIFICALLY DETAILED TO ACCOMMODATE

#### SHOTCRETING. 5.4 REINFORCING STEEL

REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1). REINFORCING BARS #3 AND SMALLER, GRADE 40, FY = 40,000 PSI. REINFORCING BARS #4 AND LARGER, GRADE 60, FY = 60,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.

#### 5.5 DETAILING OF REINFORCING STEEL

REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-11, LAP ALL REINFORCEMENTS IN ACCORDANCE WITH THE REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8 INCHES AT SIDES AND ENDS. NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO

#### DETAILED OR APPROVED BY THE EOR. 5.6 CONCRETE PROTECTION

CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS: UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ...... FORMED SURFACES EXPOSED TO EARTH (#6 AND LARGER) .. FORMED SURFACES EXPOSED TO EARTH (#5 AND SMALLER) .... COLUMN TIES OR SPIRALS AND BEAM STIRRUPS ...... SLABS AND WALLS (INT. FACE)..... ......GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"

## 5.7 CAST-IN-PLACE CONCRETE

SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS, SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRE-CAST.

## 5.8 NON-SHRINK GROUT

SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3,000 PSI MINIMUM).

## 6.1 EXPANSION BOLTS

EXPANSION BOLTS INTO CONCRETE SHALL BE SIMPSON 'STRONG-BOLT 2' WEDGE ANCHORS AND INSTALLED IN STRICT CONFORMANCE TO ICC-ES REPORT NUMBER ESR-1771, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS, SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.

## 6.2 EPOXY-GROUTED ITEMS

EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING SIMPSON 'SET XP' HIGH STRENGTH EPOXY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2508. MINIMUM BASE MATERIAL TEMPERATURE IS 50 DEGREES F. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED. RODS SHALL BE ASTM A-36 GRADE STEEL U.N.O.

## 6.2 CONCRETE SCREW ANCHORS

SCREW ANCHORS ATTACHING INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE SIMPSON 'TITEN HD' HEAVY DUTY SCREW ANCHOR, INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2713 (CONCRETE), NO. ESR-1056 (CMU), INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. SCREW ANCHORS INTO CONCRETE MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION IS REQUIRED.

# 7.1 STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION

SHALL BE BASED ON:

A. AISC 360 AND SECTION 2205.2 OF THE IBC. B. APRIL 14, 2010 AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AMENDED AS

FOLLOWS:

CONNECTION BOLTS-SHALL CONFORM TO ASTM A307.

i. AS NOTED IN THE CONTRACT DOCUMENTS. ii. BY THE DELETION OF PARAGRAPH 4. 4. 1. iii. REVISE REFERENCE FROM "STRUCTURAL DESIGN DRAWINGS" TO "CONTRACT DOCUMENTS" IN

#### C. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. 7.2 STEEL ROLLED SHAPES

PARAGRAPH 3.1.

WIDE FLANGE SHAPES-SHALL CONFORM TO ASTM A992, FY = 50 KSI. OTHER ROLLED SHAPES INCLUDING PLATES-SHALL CONFORM TO ASTM A36, FY = 36 KSI. STEEL PIPES-SHALL CONFORM TO ASTM A-53, TYPE E OR S, GRADE B, Fy = 35 KSI. STRUCTURAL TUBING-SHALL CONFORM TO ASTM A500, GRADE B, FY = 42 KSI (ROUND), FY = 46 KSI (SQUARE AND RECTANGULAR).

#### 7.3 ARCHITECTURALLY EXPOSED STRUCTURAL STEEL

SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

#### 7.4 EXPOSED STEEL

ALL STEEL EXPOSED TO THE WEATHER OR IN CONTACT WITH GROUND SHALL BE CORROSION PROTECTED

BY GALVANIZATION OR PROVIDED WITH EXTERIOR PAINT SYSTEM, U.N.O.

7.5 SHOP PRIME

## ALL STEEL SHALL RECEIVE SHOP PRIME EXCEPT:

#### STEEL ENCASED IN CONCRETE.

SURFACES TO BE WELDED.

#### CONTACT SURFACES AT HIGH-STRENGTH BOLTS. MEMBERS TO BE GALVANIZED.

SURFACES TO RECEIVE SPRAYED FIREPROOFING. SURFACES TO RECEIVE OTHER SPECIAL SHOP PRIMERS.

MEMBERS WHICH WILL BE CONCEALED BY INTERIOR FINISHES.

#### 7.6 STRUCTURAL BOLTS

ALL A-325N CONNECTION BOLTS NEED ONLY BE TIGHTENED TO A SNUG TIGHT CONDITION, DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY

#### SPUD WRENCH. 7,7 EMBEDDED ANCHORS

ALL ANCHORS EMBEDDED IN MASONRY OR CONCRETE SHALL BE A307 HEADED BOLTS OR A36 THREADED ROD WITH AN ASTM 563 HEAVY HEX NUT TACK WELDED ON THE EMBEDDED END.

## 7.8 WELDING

ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREOUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE MADE WITH A FILLER MATERIAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS. AT -20 DEGREES F AND 40 FT-LBS. AT 70 DEGREES F, AT DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

#### 7.9 METAL FLOOR AND ROOF DECKING

SHALL CONFORM TO SECTION 2210.1 OF THE IBC. PROVIDE SIZE, TYPE, GAUGE, AND ATTACHMENT TO THE SUPPORTING STRUCTURE AS SHOWN ON THE PLANS. ARC SEAM AND SPOT (PUDDLE) WELDS FOR FIELD ASSEMBLY OF METAL DECK SHALL BE MADE WITH MINIMUM E60XX ELECTRODES. DECK ALTERNATES MUST BE CONNECTED ACCORDING TO PUBLISHED ICC-ES CRITERIA FOR DIAPHRAGM SHEARS SHOWN. PROVIDE TEMPORARY SHORING WHERE REQUIRED PER MANUFACTURER"S PUBLISHED CRITERIA.

SHALL BE KILN DRIED OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

CONVENTIONAL LIGHT FRAMING JOISTS (2x & 3x MEMBERS)... BEAMS (4x MEMBERS AND LARGER)..... .....DOUGLAS FIR NO. 2

#### POLE BUILDING CONSTRUCTION GIRTS AND PURLINS... ...DOUGLAS FIR NO. 2 .....HEM-FIR NO. 2

#### EMBEDDED POSTS..... 8.2 GLUED LAMINATED MEMBERS

SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA-EWS CERTIFICATE OF CONFORMANCE.

ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv =265 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2,400 PSI, Fv = 265 PSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS TO 3,500 FT RADIUS, U.N.O.

#### 8.3 MANUFACTURED LUMBER

PSL, LVL, AND LSL SHOWN ON PLAN ARE BASED ON PRODUCTS MANUFACTURED BY THE BOISE CASCADE CORPORATION IN ACCORDANCE WITH UC-ES REPORT ESR-1387. MEMBERS SHALL HAVE THE FOLLOWING

MINIMUM PROPERTIES: PSL: Fb = 2,900 PSI, Fv = 290 PSI, E = 2,200 KSI

LVL: Fb = 2,600 PSI, Fv = 285 PSI, E = 2,000 KSILSL: Fb = 2,325 PSI, Fv = 310 PSI, E = 1,550 KSI

ALTERNATE MANUFACTURED LUMBER MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND EOR. ALTERNATE MANUFACTURER'S PRODUCTS SHALL BE COMPATIBLE WITH THE JOIST HANGERS AND OTHER HARDWARE SPECIFIED ON PLANS, OR ALTERNATE HANGERS AND HARDWARE SHALL SUBMITTED FOR REVIEW AND APPROVAL. SUBSTITUTED ITEMS SHALL HAVE ICC-ES REPORT APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES.

MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PRESENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE

#### CONTENT EXCEEDS THIS VALUE. 8.4 PLYWOOD SHEATHING

PLYWOOD SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS1 OR PS2. OSB OF EQUIVALENT THICKNESS, EXPOSURE RATING, AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

ROOF SHEATHING SHALL BE 7/16" (NOMINAL) WITH SPAN RATING 24/0. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES.

FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24. ALL EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. WALL SHEATHING SHALL BE 7/16" (NOMINAL) WITH SPAN RATING 24/0.

#### PLACEMENT-ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR, WALL, AND ROOF 8.5 WOOD TO CONCRETE CONNECTION

ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

## 8.6 PRESERVATIVE

PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA

## 8.7 WOOD TREATED FOR FIRE RESISTANCE

FIRE RESISTANCE TREATMENT SHALL MEET THE REQUIREMENTS OF ASTM E 84 OR UL 723 AND HAVE A LISTED FLAME SPREAD INDEX OF 25 OR LESS. FIRE RETARDANT TREATED LUMBER AND WOOD STRUCTURAL PANELS SHALL BE LABELED IN ACCORDANCE WITH IBC 2303.2.4. WOOD TREATED FOR FIRE PROTECTION FOR USE IN INTERIOR ABOVE GROUND CONSTRUCTION AND CONTINUOUSLY PROTECTED FROM WEATHER AND OTHER SOURCES OF MOISTURE SHALL BE TREATED TO AWPA UCFA. WOOD TREATED FOR FIRE PROTECTION FOR USE IN EXTERIOR ABOVE GROUND CONSTRUCTION AND SUBJECT TO GETTING OR OTHER SOURCES OF MOISTURE SHALL BE TREATED TO AWPA UCFB.

## 8.8 FASTENERS AND TREATED LUMBER

FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE TO COMPLY WITH THE WOOD TREATMENT PROCESS. INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR SET, EXTERIOR SET, AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL.

## 8.9 TIMBER CONNECTORS

REFERENCED AND STANDARD TIMBER CONNECTORS SHALL BE STRONG-TIE TYPE BY SIMPSON AS SPECIFIED IN THEIR CATALOG NUMBER C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER FOR MAXIMUM LOAD CARRYING CAPACITY. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S

#### 8.10 FLUSH BEAM AND JOISTS

2x JOISTS SHALL BE CONNECTED WITH 'LUS" SERIES JOIST HANGERS. ALL I-JOISTS SHALL BE CONNECTED WITH 'ITS" SERIES JOIST HANGERS.

## ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED WITH 'MIT" SERIES JOIST HANGER.

8.11 TWO MEMBER CONNECTION CONNECTOR STRAPS USED TO CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH

8.12 SHIMS

#### ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. 8,13 FASTENING SCHEDULE

FASTENERS SIZES SHALL CONFORM TO FASTENERS LISTED IN ROW TWO OF IBC TABLE 2304.10.1. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LUG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NDS WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" DIAMETER AND SMALLER LAG SCREWS.

#### 8.14 NOTCHES AND HOLES IN WOOD FRAMING

NOTCHES ON THE ENDS OF SOLID SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ONE-FOURTH THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF AND SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOIST.

NOTCHES IN EXTERIOR WALLS AND BEARING PARTITIONS ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A

NOTCHES AND HOLES IN MANUFACTURED LUMBER AND PREFABRICATED PLYWOOD WEB JOISTS SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS U.N.O.

#### 8.15 WOOD FRAMING NOTES

THE FOLLOWING APPLY U.N.O. ON THE PLANS

MINIMUM STANDARD OF WOOD DETAILS WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC, THE AITC AND THE AF&PA. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

WALL FRAMING REFERENCE ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. U.N.O.

ONE KING STUD SHALL BE PROVIDED AT EACH SIDE OF ALL OPENINGS AND AT BEAM OR HEADER BEARING LOCATIONS U.N.O. JACK STUDS SHALL BE PROVIDED AT EACH SIDE OF ALL OPENINGS. U.N.O. ONE JACK STUD PER SIDE AT OPENINGS LESS THAN 6'-0", TWO JACK STUDS FOR OPENINGS BETWEEN 6'-0" AND 8'-0", THREE JACK STUDS FOR OPENINGS GREATER THAN 8'-0" TO 16'-3", OPENINGS GREATER THAN 16'-3" SHALL HAVE JACK STUDS CALLED OUT ON PLANS.

#### 4x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS U.N.O.

SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT. ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d @ 12" O. C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE EIGHT 16d NAILS @ 4"-0" O.C. EACH SIDE JOINT.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" O.C.

#### INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @ 12" O.C. U.N.O. FLOOR AND ROOF FRAMING

PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS U.N.O. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOE-NAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI JOIST BEAMS TOGETHER WITH TWO ROWS OF 16d NAILS AT 12" O.C U.N.O. ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID WITH LONG AXIS PERPENDICULAR TO

WALLS AS SHOWN ON PLANS AND @ 12" O.C. TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED SHEATHING EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d @ 12" O.C. U.N.O. SILL PLATE ANCHORAGE

ATTACHED 2x MIN THICKNESS SILL PLATE TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS AT A MAX

SPACING OF 6'-0", EMBEDDED 7" MINIMUM, U.N.O. PROVIDE 3"X3"X1/4" WASHERS UNDER HEADS AND NUTS

SUPPORTS AND NAILED @ 6" O.C. WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS, AND OVER STUD

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