

Appellant's Exhibit 6

(as referenced in June 30, 2017

Appellant WPDC Cleveland LLC's Witness and Exhibit List)

Hearing Examiner Sharon A. Rice

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BEFORE THE HEARING EXAMINER
FOR THE CITY OF REDMOND

In the Matter of the SEPA Appeal of

File Nos: BLDG-2016-09802
BPLN2016-02092

WPDC CLEVELAND, LLC

DECLARATION OF MATTHEW M. WOOLSEY

of approved Building Permit BLDG-2016-09802/BPLN-2016-02092 authorizing alterations to the structure at 16390 Cleveland Street, Redmond Issued February 17, 2017.

MATTHEW M. WOOLSEY , being first duly sworn upon oath, deposes and says:

1. I am over the age of 18, and competent to testify in a court of law as to the matters asserted herein. I am the owner of The Woolsey Company, Inc. (TWC). I have personal knowledge of the facts and circumstances set out in this declaration.

2. TWC was founded in 1990. TWC provides professional cost estimating and construction management services to building owners, architects, engineers, contractors, and facility managers. Since 1990, Woolsey has estimated over one billion square feet of projects at a total cost exceeding \$750 Million. TWC is recognized as an industry leader at delivering accurate, unbiased construction consulting services in a timely manner

3. TWC’s experience encompasses a variety of project types, including new

DECLARATION OF MATTHEW M. WOOLSEY - 1

SCHWABE, WILLIAMSON & WYATT, P.C.
Attorneys at Law
1420 5th Avenue, Suite 3400
Seattle, WA 98101-4010
Telephone: 206.622.1711

PDX\131246\221725\AAL\20566114.3

1 construction and/or remodels of publicly and privately owned facilities. TWC specializes in
2 construction cost estimating at all phases of design and construction, working with owners,
3 owner's representatives, architects, engineers and contractors. TWC has estimated nearly
4 every size and type of construction project in locales through the Puget Sound region, nation
5 and world.

6 4. TWC provide three types of estimates: (1) Order of Magnitude & SF
7 Estimates (early cost estimates generally based on historical costs for the programming, pre-
8 design, and schematic phases of design); (2) Assemblies Estimates (more detailed than
9 conceptual cost estimates, compiled when the project scoping is clear enough to identify
10 particular assemblies, *i.e.* "square foot of pavement", "cubic yards of excavation and fill,"
11 but is not defined well enough to compile a full unit cost estimate); and (3) Unit Cost
12 Estimates (very detailed estimates where each scope item within the project is scoped,
13 itemized and priced and placed in the universal CSI MasterFormat for use at the design
14 development, construction documents, permit/bidding and construction administration
15 phases of design).

16 5. TWC also provides training to others in the industry on topics of estimating
17 and construction project management. TWC specializes in teaching the following estimating
18 processes: Job Order Contracting Estimating, Standardized Database Estimating, and
19 Estimating Public & Private Bid Projects.

20 6. I joined TWC in 2008, at which time I had over 15 years of experience in
21 various construction trades. Since 2008, I have led over a thousand estimating projects, large
22 and small, from conceptual stage to bid documents. Since 2014, I have been the principal in
23 charge of TWC.

24 7. On April 10, 2017, I was engaged by Kevin Wallace of WPDC Cleveland,
25 LLC to prepare a Unit Cost Estimate of the proposed Origins Tenant Improvements project
26 located at 16390 Cleveland Street, Redmond, WA 98052 ("Origins Project").

DECLARATION OF MATTHEW M. WOOLSEY - 2

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PDX\131246\221725\AAL\20566114.3

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8. To prepare my estimate, I reviewed the following documents:

- Architectural plans for Origin’s Tenant Improvements and Change of Use stamped approved by Jozanne Moe on January 25, 2017, a true and correct copy of which is attached hereto as **Exhibit A**;
- Structural plans for Origins Redmond project stamped approved by Jay Kelley on February 14, 2017,), a true and correct copy of which is attached hereto as **Exhibit B**;
- Statement of Special Instructions Structural plans for Origins Redmond project, stamped “Site Copy BLDG-2016-09802”, a true and correct copy of which is attached hereto as **Exhibit C**;
- 2015 Washington State Energy Code (WSEC) Compliance Form for Commercial Buildings – Project Summary dated December 1, 2016 (stamped “Site Copy” in red text), a true and correct copy of which is attached hereto as **Exhibit D**;
- 2015 WSEC Compliance Form for Commercial Buildings – Lighting Summary dated December 5, 2016 (stamped “Site Copy” in red text),), a true and correct copy of which is attached hereto as **Exhibit E**;
- Request for approval of non-structural interior-only demolition for the Origins Change of Use & Tenant Improvement Project , Permit # BLDG-2016-009802 attached to an email dated February 9, 2017 from Jozanne Moe of the City of Redmond to Morris Architects and Sean Miller with subject Origins demo letter 2.9.17.pdf stating “Here is the approved interior demo only letter”, a true and correct copy of which is attached hereto as **Exhibit F**;
- An email dated October 4, 2016 from Heidi Pool with subject Utility Map 16390 Cleveland Street with a color-code aerial photograph showing the location of water, sewer and storm utilities, a true and correct copy of which is attached hereto as **Exhibit G**; and
- An April 6, 2017 Memorandum from Cameron Zapata, Planner to the Design Review Board for permit LAND-2017-00290 for the project located at 16390 Cleveland Street, Redmond, WA 98052, a seven-page packet titled “Origin’s Tenant Improvement and Change of Use”, and a one page Statement of Design Intent for Origin’s Tenant Improvement and Change of Use, true and correct copies of which are attached hereto as **Exhibit H**, which are all available online on the City’s webpage for the Design Review Board for permit reference LAND-2017-00290 (<http://www.redmond.gov/cms/One.aspx?portalId=169&pageId=203913>).

9. Using standard and accepted practices within the construction estimating profession, I prepared an Opinion of Probable Cost in the form of a Unit Cost Estimate for the Origins Project, dated April 17, 2016, a true and correct copy of which is attached hereto as **Exhibit I**.

10. My Unit Cost Estimate for the Origins Project is based on published cost data

DECLARATION OF MATTHEW M. WOOLSEY - 3

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Telephone: 206.622.1711

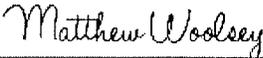
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1 or market research. In preparing the estimate, I eliminated the "Connections & Fittings" line
2 and removed or reduced several "Soft Cost" mark-ups (for example, I would usually use
3 15% for General Contractor Overhead & Profit OHP in this market but instead used 8% and
4 would usually carry between 5%-10% in contingency and instead carried 0%).
5 In my professional opinion, the cost of the Origins Project is at least \$545,603. I believe this
6 to be a conservative estimate.

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I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct to the best of my knowledge and belief.

DATED this __25__ day of May, 2017 at Bellingham, Washington.

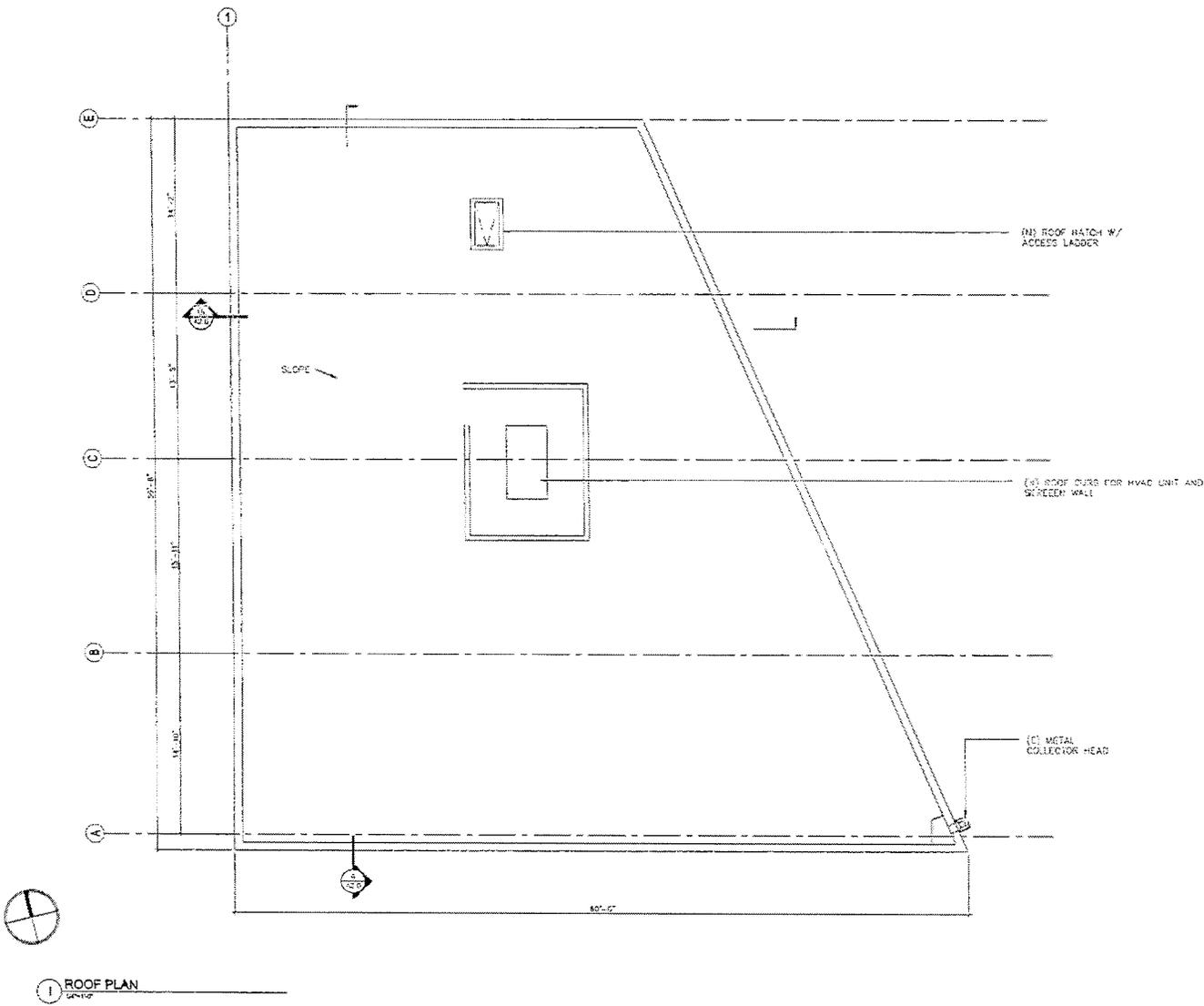

Matthew M. Woolsey

DECLARATION OF MATTHEW M. WOOLSEY - 4

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1420 5th Avenue, Suite 3400
Seattle, WA 98101-4010
Telephone: 206.622.1711

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EXHIBIT A



MORRIS
 ARCHITECTS, INC. PA
 1000 N. 1st St. #2
 Suite 200
 Redmond, WA 98053
 Phone: 509.882.2000
 Fax: 509.882.2001
 www.morrisarch.com

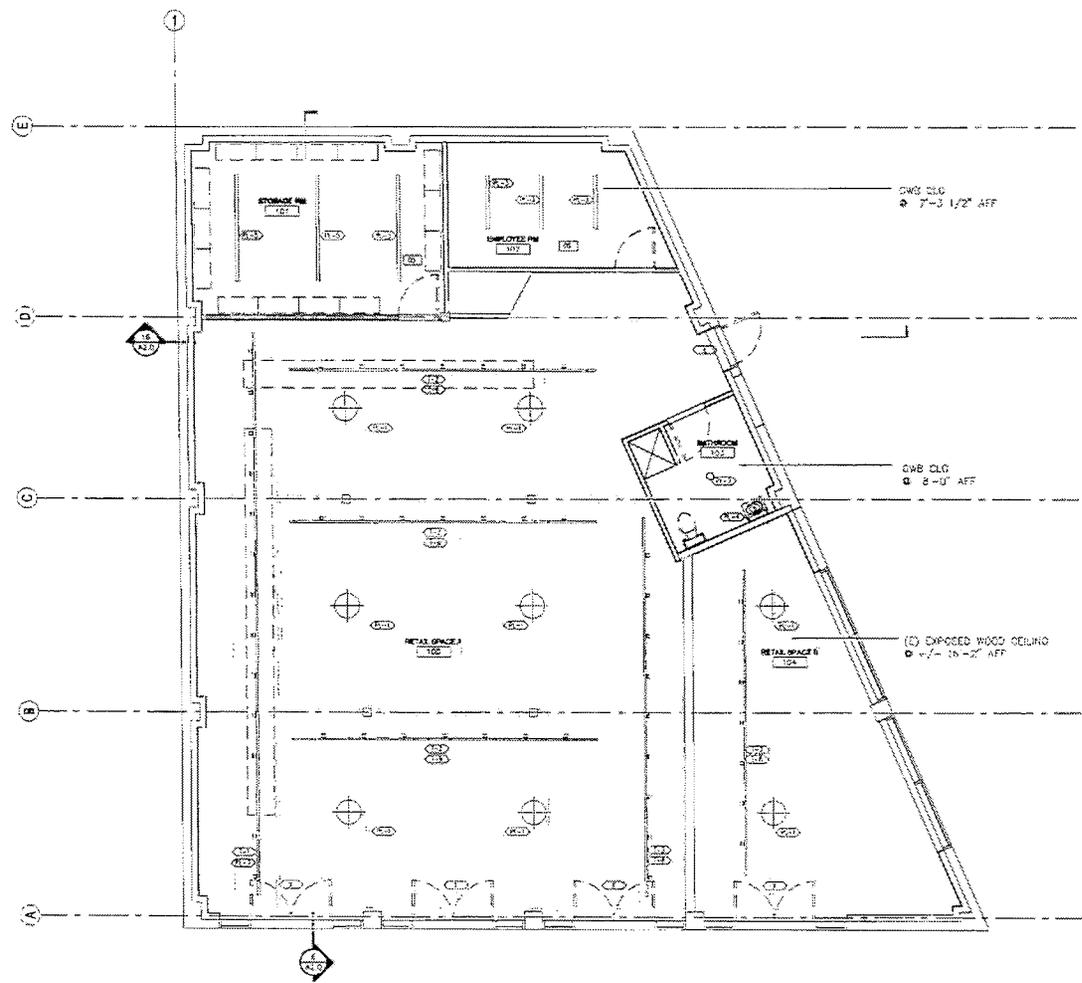
2003 REGISTERED ARCHITECT
James J. Morris
 State of WA License No. 10000

ORIGINS
 18390 CLEVELAND'S
 REDMOND, WA 98053

Date:	
Client:	
Scale:	
Sheet:	
Project:	
Drawn by:	
Checked by:	
Approved by:	

Plans

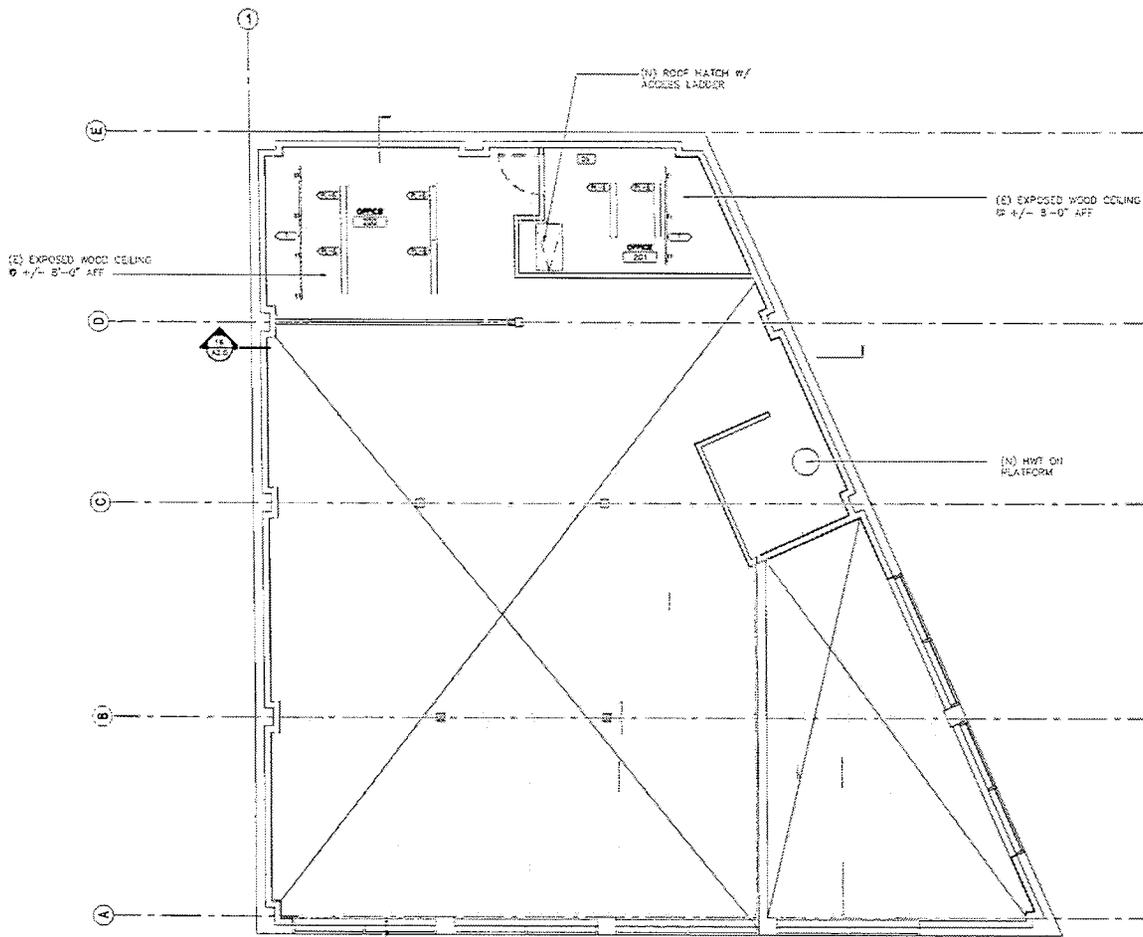
Site Copy



LIGHTING FIXTURE SCHEDULE

TYPE	LAMPS	MANUFACTURER	DESCRIPTION
PL-1	LED 40W	LIAMS PS 1670	PENDANT-MOUNTED LED FIXTURE 16 INCH DIA. 18\"/>
PL-2	LED 20W	PERKINS LIGHTS&S	RECESSED DOWNLIGHT-LIGHT FOR WET LOCATIONS
PL-3	LED 21W	PRIMALIC EDGE 4A	RECESSED LINEAR LED FIXTURE 4\"/>
PL-4	LED 24W	OXYGEN LIGHTING	SURFACE-MOUNTED LED VARIETY FIXTURE
PL-5	LED 40W	PHILIPS DATH-SBITE	SURFACE-MOUNTED LINEAR LED SINGLE-TRAY 4\"/>
PL-6	LED 42W	PRIMALIC EDGE 683AL	AEREAFT CABLE-HUNG LINEAR LED FIXTURE 4\"/>
PL-7	200W	PHILIPS LIGHTS&S	CURRENT LIMITER DEVICE W/ 1/2\"/>
PL-8	240W	PHILIPS LIGHTS&S	CURRENT LIMITER DEVICE W/ 1/2\"/>
T-1	LED 300W	TRACK LIGHTS&S LITESPAN 9990	TRACK BASIC, GRID TRACK 4\"/>
T-2	LED 300W	TRACK LIGHTS&S LITESPAN 9990	TRACK BASIC, GRID TRACK 4\"/>
T-3	LED 240W	TRACK LIGHTS&S LITESPAN 9990	TRACK BASIC, GRID TRACK 4\"/>
X	LED	DUAL-LIFE LTC-164W	COMBINATION EXIT SIGN WITH ELECTRONIC CIRCUITRY 120-18\"/>

1 MAIN FLOOR REFLECTED CEILING PLAN
 10/20/12



(E) EXPOSED WOOD CEILING
12'-0" AFF

(D) ROOF HATCH W/
ACCESS LADDER

(E) EXPOSED WOOD CEILING
12'-0" AFF

(N) HWT ON
PLATFORM



1 MEZZANINE REFLECTED CEILING PLAN
DATE

MORRIS
ARCHITECTS, INC. PC
1000 N. 10th St. E
Seattle, Washington 98108
Telephone: 206.461.1000
Facsimile: 206.461.1001
www.morrisarch.com

6201 REGISTERED
ARCHITECT
Professional Seal
State of Washington

ORIGINS

16390 CLEVELAND S
REDMOND, WA 9805

Drawn by:	____
Checked by:	____
Date:	____
Scale:	As Shown
Project No.:	____
Revision:	____
____	____
____	____
____	____
____	____

Reflected
Cg plan

Site Copy A14

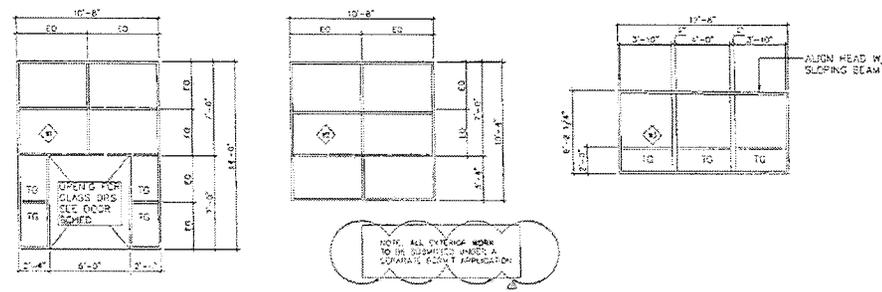
WINDOW SCHEDULE

MARK	ROUGH OPENING		OPERATION	AREA	QUANTITY	TOTAL AREA	DETAILS			REMARKS
	W	H					SKL	JAMB	SIL	
W1	10'-0"	14'-0"	FIXED		4					
W2	10'-0"	14'-0"	FIXED		2					
W3	12'-0"	VARIOUS	FIXED		1					

NOTES
 1. WINDOWS W1 AND W2 TO BE THERMALLY BROKEN ANODIZED ALUMINUM FRAME W/ LOW-E GLASS.
 2. ALL GLASS UNVALUED TO COMPLY WITH WA STATE ENERGY CODE TABLE C602.1.3
 APPLICATION MAX U-FACTOR U@50 MAX SHGC
 SINGLE-PANED/UNGLAZED ENTRANCE DOORS 0.36 0.40
 3. TEMPERED GLASS AS REQUIRED W/ TO DESIGNATION

FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALLS				CEILING	REMARKS
				NORTH	SOUTH	EAST	WEST		
100	RETAIL AREA	2D	RB	DWB	DWB	DWB	DWB	WO	
101	STORAGE	2D	PB	DWB	DWB	DWB	DWB	DWB	
102	EMPLOYEE ROOM	2D	RB	DWB	DWB	DWB	DWB	DWB	
103	BATHROOM	2D	RB	DWB	DWB	DWB	DWB	GRD	
104	RETAIL AREA	2D	RE	DWB	DWB	DWB	DWB	WO	
200	OFFICE	2D	RB	DWB	DWB	DWB	DWB	WO	
201	OFFICE	2D	RB	DWB	DWB	DWB	DWB	WO	

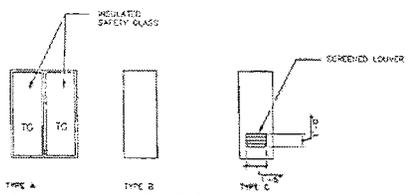


DOOR SCHEDULE

MARK	SIZE (FINISH DOOR SIZE)		TYPE	M/T	ACTION	FRAME M/T	FINISH	DOOR GROUP	DETAILS			REMARKS
	WIDTH	HEIGHT							EDGR	FRAMC	SIL	
100.1	3'-0"	7'-0"	A	AL	SWING	AL						INSULATED W/ PANE GLASS
100.2	3'-0"	7'-0"	A	AL	SWING	AL						INSULATED W/ PANE GLASS & CLOSER
100.3	3'-0"	7'-0"	A	AL	SWING	AL						INSULATED W/ PANE GLASS
100.4	3'-0"	7'-0"	B	HW	SWING	HW						INSULATED
101.1	3'-0"	7'-0"	C	NO	SWING	NO						
102.1	3'-0"	7'-0"	B	NO	SWING	NO						W/ CLOSER
103.1	3'-0"	7'-0"	B	NO	SWING	NO						W/ CLOSER
104.1	3'-0"	7'-0"	A	AL	SWING	AL						INSULATED W/ PANE GLASS & CLOSER
201.1	3'-0"	7'-0"	B	NO	SWING	NO						

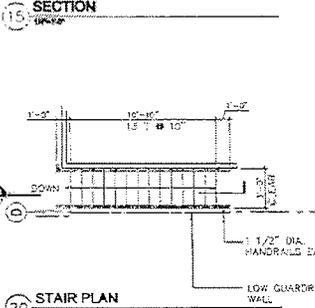
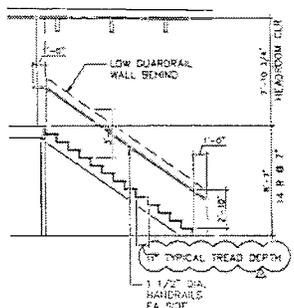
NOTES
 1. ALL U-VALUES TO COMPLY WITH WA STATE ENERGY CODE TABLE C602.1.3. MAX U-FACTOR (OPACITY DOORS) = 0.30 MAX U-FACTOR (GLAZED DOORS) = 0.36 MAX SHGC = 0.35
 2. TEMPERED GLASS AS REQUIRED W/ TO DESIGNATION

NOTE: ALL EXTERIOR WORK TO BE SUBMITTED UNDER A SEPARATE PERMIT APPLICATION.



KEY

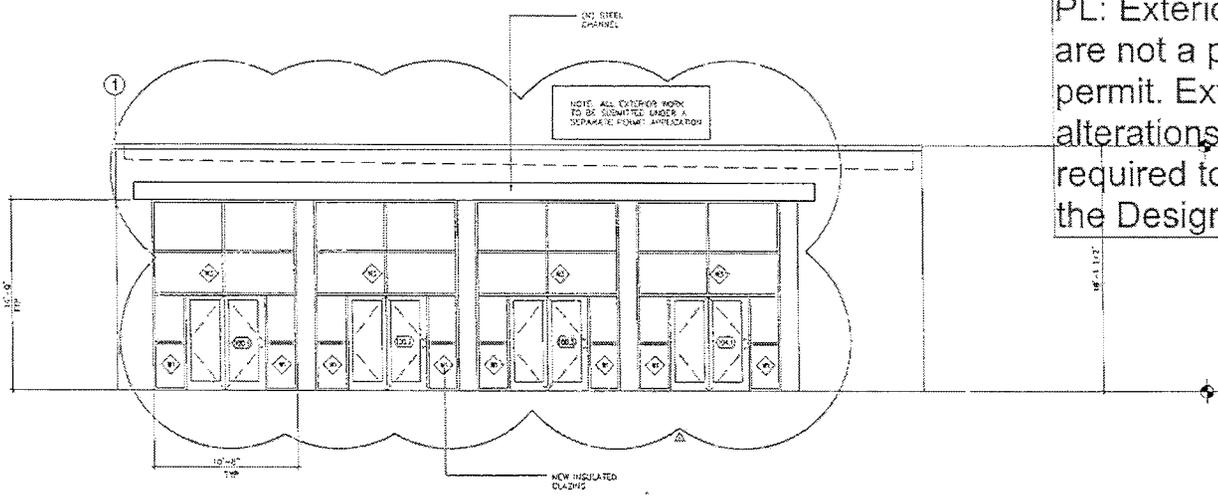
CPY	CLANED
CI	CLANED C/L
GGC	GRANITE GROUND GRANITE
DWB	DRYWALL WALLBOARD
PAINT	PAINT
RC	RESIDENT BASE
RF	RUBBER FLOOR
SC	SEALED CONCRETE
T/S	TILESET
VT	VINYL COMPOSITION TILE
WO	EXPOSED WOOD CEILING



ORIGINS
 16390 CLEVELAND ST
 REDMOND, WA 98052

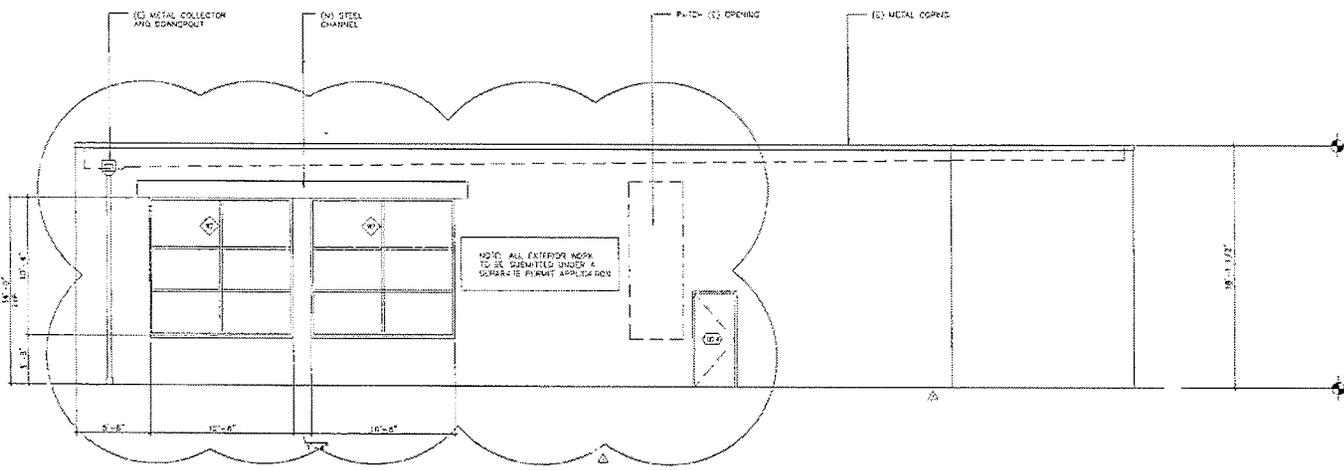
Drawn by: []
 Checked by: []
 Date: 08/20/18
 Scale: As Shown
 Project: []
 Title: []
 Sheet: []
 Schedule: []
 Stair Plan / Section

A3.0
 Site Copy



1 SOUTH ELEVATION
1/4" = 1'-0"

PL: Exterior modifications are not a part of this permit. Exterior alterations will likely be required to go through the Design Review Board



2 EAST ELEVATION
1/4" = 1'-0"

MORRIS
ARCHITECTS, INC. PA
Edward B. Morris, AIA
16360 Cleveland St
Redmond, WA 98052
Phone: 509.882.2200
Fax: 509.882.2207
www.morrisarch.com

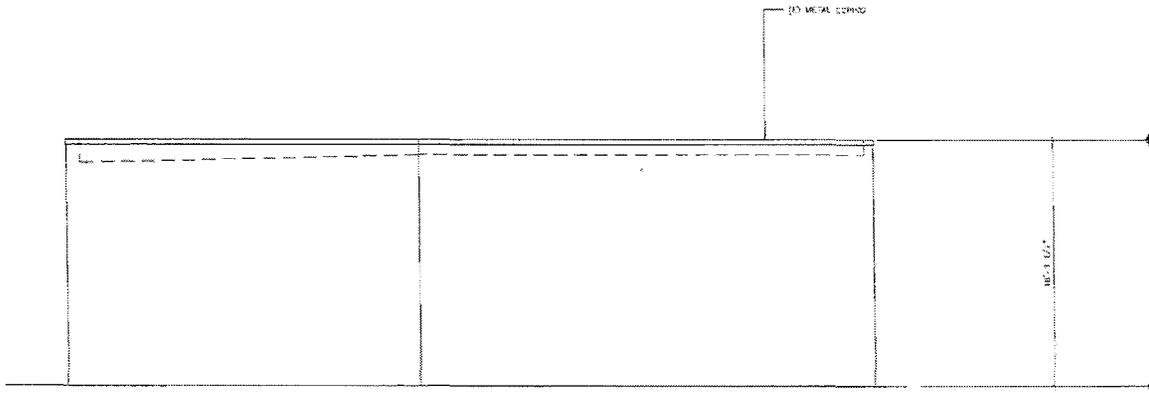
2003 REGISTERED ARCHITECT
Franklin
STATE OF WASHINGTON

ORIGINS
16360 CLEVELAND ST
REDMOND, WA 98052

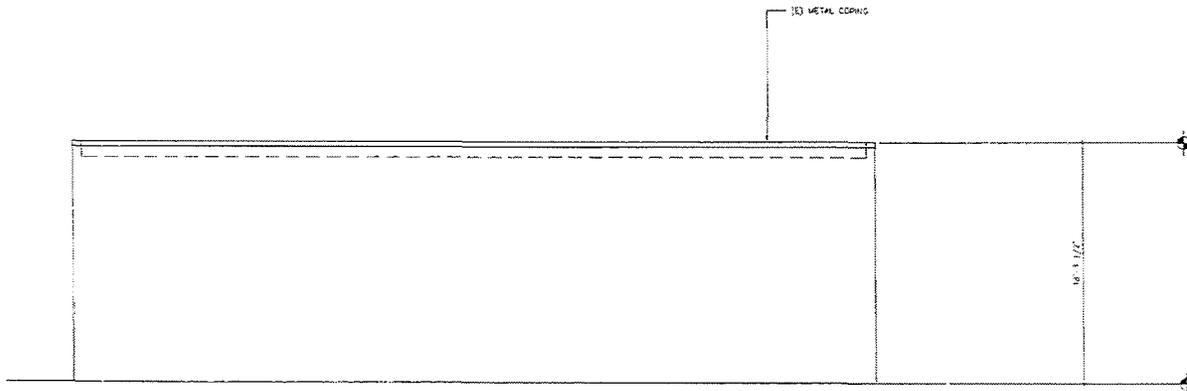
Drawn by: _____
Checked by: _____
Date: 10/20/18
Scale: 1/4" = 1'-0"
Project: _____
16360 Cleveland St
Redmond, WA 98052

Elevations

A4.0
Site Copy

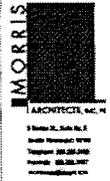


1 NORTH ELEVATION



2 WEST ELEVATION

PL: Exterior modifications are not a part of this permit. Exterior alterations will likely be required to go through the Design Review Board



ORIGINS
1830 CLEVELAND ST
REDMOND, WA 98062

Client No.	_____
Contract No.	_____
Date	2/18/2020
Scale	As Shown
By	_____
Checked	_____
Approved	_____
Project	1830 Cleveland St
Location	Redmond, WA

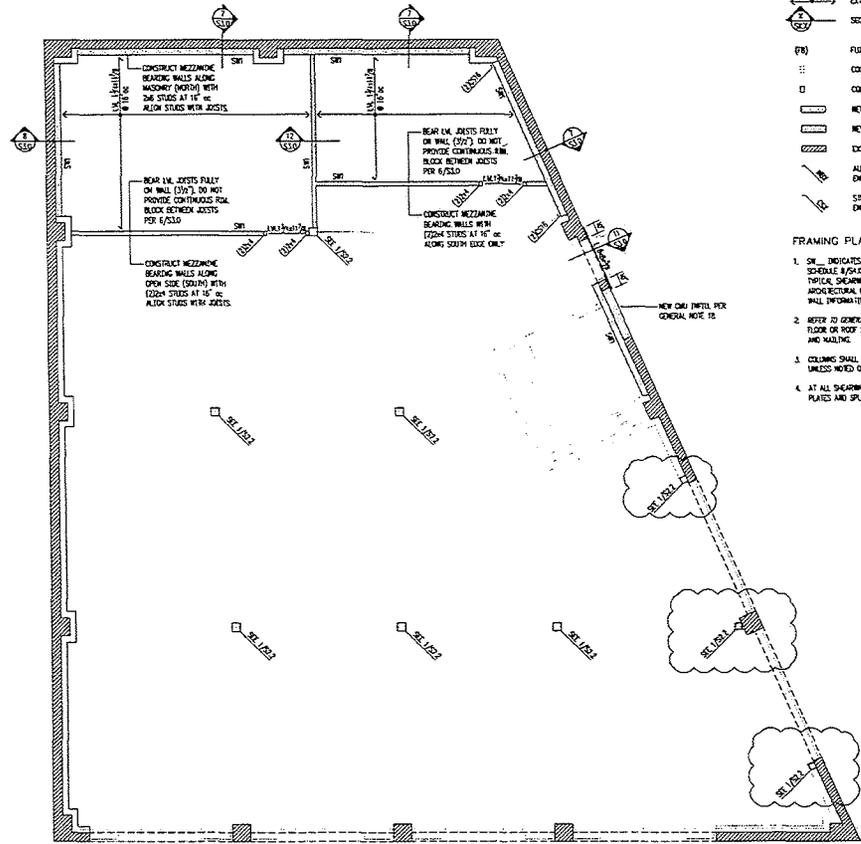
Elevations

A4.1
Site Copy

HVE
 HVE Mechanical Engineering Inc.
 10220 Newburg, Suite 200
 Dayton, Ohio 45424
 937.233.4444
 www.hveinc.com

- LEGEND**
- ↑ SPAN
 - EXIST
 - ⊕ SECTION DETAIL
 - (FR) FLASH BEAM
 - ⋮ COLUMN ABOVE
 - COLUMN BELOW
 - ▭ NEW WOOD SHEAR WALL
 - ▭ NEW CMU WALL
 - ▭ EXISTING CMU WALL
 - ALL-SHEAR HOLDDOWN AT END OF SHEARWALL ASIDE
 - STOP HOLDDOWN AT END OF SHEARWALL ASIDE

- FRAMING PLAN NOTES**
1. SW - INDICATES SHEARWALL TYPE PER SCHEDULE 8.0.4.1. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
 2. REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEARWALL TYPE, ENDNESS AND NAILING.
 3. COLUMNS SHALL BE DOUBLE STUD WORKING UNLESS NOTED OTHERWISE. SEE 14.0.4.1.
 4. AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12.0.4.1.



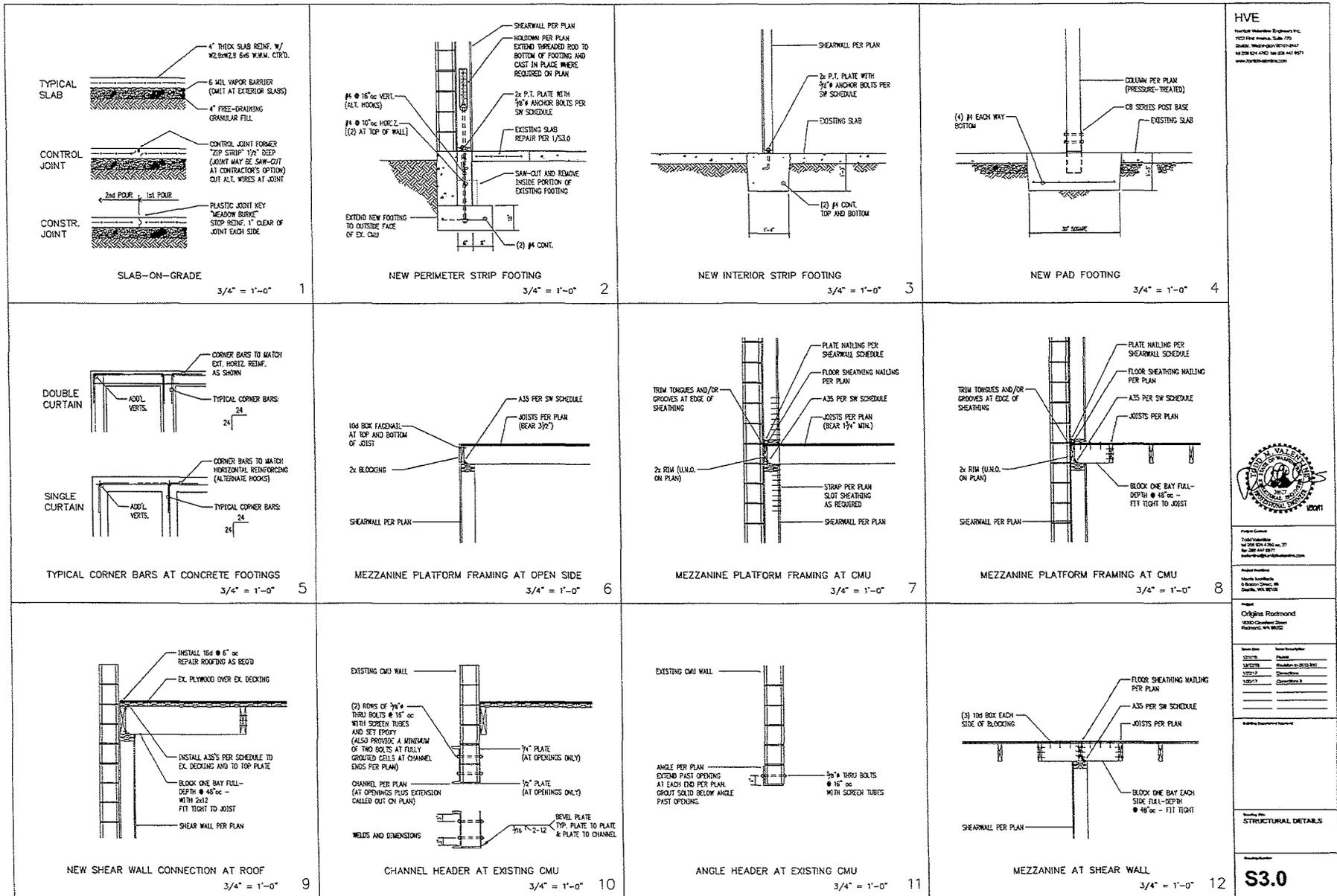
MEZZANINE FRAMING (ENTRY LEVEL WALLS)
 Scale: 1/4" = 1'-0"



Project Name	
Title/Version	
Project Number	
Project Location	
Project Description	
Author	Date
Checked	Checked
Designed	Designed
Reviewed	Reviewed

Building Department Approval	
Issued For	
Drawing Title	
Drawing Number	

SITE COPY
 ELDG-2016-39802



HVE
 Hurdle & Associates Engineers P.C.
 1000 First Avenue, Suite 1700
 Seattle, Washington 98101-2447
 206.461.4400 FAX: 206.461.4401
 www.hve.com



Project Location:
 10000 University
 NE 5th St. & 120th St., ST
 Redmond, WA 98073
 Info: 206.461.4400

Project:
 Originae Richmond
 10000 University Street
 Redmond, WA 98073

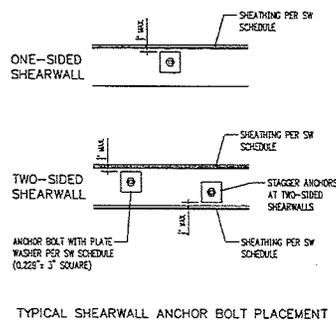
Revision	By	Checked	Date

Address: 10000 University Street

Drawing Title:
STRUCTURAL DETAILS

Scale:
S3.0

SITE COPY
 BLDG-2015-03002



TYPICAL SHEARWALL ANCHOR BOLT PLACEMENT

SHEARWALL SCHEDULE (NOTE - NOT ALL SHEAR WALL TYPES NECESSARILY USED ON PLAN)

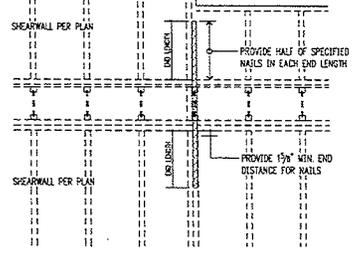
MARK	SHEATHING ¹	STUDS AT ABUTTING PANEL EDGES ²	PANEL EDGE NAILING ^{3,4}	RIM JOIST OR BLOCKING TO TOP PLATE		BOTTOM PLATE ATTACHMENT		
				SOLID RIM	I/I RIM	BOTTOM PLATE TO RIM JOIST BELOW ⁴	ANCHOR BOLT TO CONCRETE ⁵	STILL PLATE AT FLOOR
SW1	15/32" CDX PLYWOOD	2x	8d @ 6"oc	A35 @ 24"oc	16d @ 5"oc	16d @ 5"oc	3/8" @ 48"oc	2x
SW2	15/32" CDX PLYWOOD	2x	8d @ 4"oc	A35 @ 15"oc	16d @ 4"oc	16d @ 4"oc	3/8" @ 32"oc	2x
SW3	15/32" CDX PLYWOOD	3x	8d @ 3"oc	A35 @ 12"oc	N/A - USE SOLID RIM	16d @ 3"oc	3/8" @ 16"oc	2x
SW4	15/32" CDX PLYWOOD	3x	8d @ 2"oc	A35 @ 9"oc	N/A - USE SOLID RIM	16d @ 2"oc	3/8" @ 12"oc	2x
SW5	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 3"oc	A35 @ 6"oc	N/A - USE SOLID RIM	(2) ROWS 16d @ 3"oc	3/8" @ 15"oc	3x
SW6	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 2"oc	A35 @ 4"oc	N/A - USE SOLID RIM	(2) ROWS 16d @ 2"oc	3/8" @ 12"oc	3x

1. WALL SHEATHING SHALL CONSIST OF APA RATED PLYWOOD WITH SPAN RATING 24/0. ALLOW 3/8" SPACING AT ALL PANEL EDGES AND ENDS OF PANELS. 7/8" APA RATED SHEATHING (098) MAY BE USED IN PLACE OF 15/32" CDX.
2. STUDS AT ABUTTING PANEL EDGES MAY CONSIST OF (2)2x STUDS IN PLACE OF 3x STUDS - NAIL (2)2x STUDS TOGETHER WITH BOTTOM PLATE ATTACHMENT NAILING.
3. BLOCK ALL PANEL EDGES W/ 2x4 FLAT, ATTACH W/ PANEL EDGE NAILING. TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS. END STUDS SHALL RECEIVE PANEL EDGE NAILING. INTERMEDIATE STUDS SHALL BE 2x STUDS. NAIL SHEATHING TO INTERMEDIATE FRAMING MEMBERS WITH 8d @ 12"oc.
4. 8d NAILS SHALL BE 0.131" DIAMETER x 2 1/2" (COMMON). 16d NAILS SHALL BE 0.131" DIAMETER x 3 1/2" (BODY).
5. ANCHORS TO CONCRETE SHALL CONSIST OF CAST-IN-PLACE ANCHOR BOLTS, EXPANSION BOLTS, EPOXY GROUTED ALL-THREADS, OR TIEIN HD HEAVY DUTY SCREW ANCHORS. CAST-IN-PLACE ANCHOR BOLTS HAVE A 7" EMBED AND SHALL BE 1/2" BOLTS OR SHALL HAVE A HEX NUT AT THE BOTTOM END. EXPANSION BOLTS SHALL HAVE 5" EMBED AND SHALL NOT BE USED AT STEM WALL LOCATIONS WITH EDGE DISTANCE LESS THAN 5" (INSTEAD, USE EPOXY GROUTED ALL-THREADS OR TIEIN HD ANCHORS). EPOXY GROUTED ANCHORS SHALL HAVE 5" EMBED AND 2 1/2" MIN. EDGE DISTANCE. TIEIN HD ANCHORS SHALL HAVE 3 1/2" EMBED AND 1 3/4" MIN. EDGE DISTANCE. AT ALL ANCHOR BOLTS, PROVIDE STEEL PLATE WASHERS THAT ARE A MINIMUM OF 0.225" (3 GAUGE) x 3 1/2" (SIMPSON BP98-3 OR SIMILAR). PLACE BOLTS PER ANCHOR BOLT PLACEMENT DETAIL.

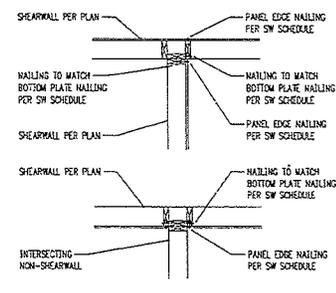
STRAP SCHEDULE

MARK	END LENGTH	NAILS	NAIL SPACING
CSIS	14"	(36) 8d x 2 1/2"	2 1/4"

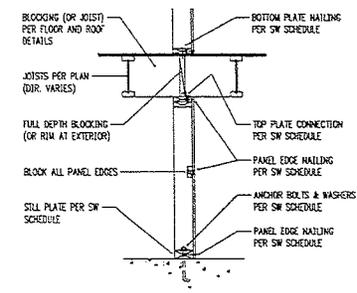
1. 10d AND 12d DIAMETER = 0.148"; 8d DIAMETER = 0.131".
2. USE HALF OF THE REQUIRED NAILS IN EACH MEMBER BEING CONNECTED (I.E. IN EACH END LENGTH).



TYPICAL STRAP HOLDOWN AT FLOOR



TYPICAL SHEARWALL INTERSECTIONS

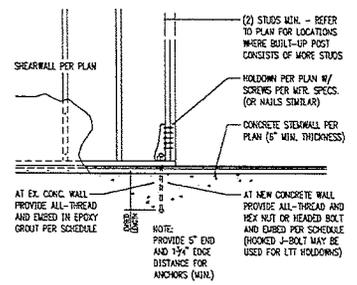


TYPICAL SHEARWALL SECTION

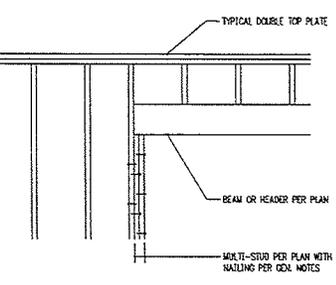
HOLDOWN SCHEDULE

MARK	FASTENERS TO STUDS ¹	ANCHOR DIA. ²	EMBEDMENT LENGTH	
			EPOXY ³ CAST-IN ⁴	
H01	(8) 3/4" x 2 1/2" SCREWS	3/8"	13"	11"
H02	(20) 3/4" x 2 1/2" SCREWS	7/8"	N/A	SEE 2/S3.0

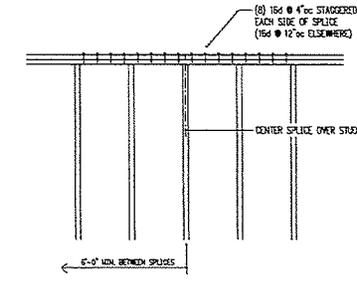
1. 10d AND 12d DIAMETER = 0.148"; 16d DIAMETER = 0.161". SCREWS SHALL BE SIMPSON "305" TYPE SCREWS. INSTALL PER SIMPSON RECOMMENDATIONS.
2. PROVIDE A35 OR A307 ALL-THREAD AT EPOXY AND CAST-IN ANCHORS.
3. PROVIDE SIMPSON "301-10" EPOXY PER GENERAL STRUCTURAL NOTES. SPECIAL INSPECTION IS REQUIRED.
4. AT CAST-IN ANCHORS PROVIDE HEAVY HEX NUT AT BOTTOM OF ALL-THREAD. HOOKED 1/2" BOLT MAY BE USED FOR LIT HOLDOWNS.



TYPICAL HOLDOWN AT CONCRETE



TYPICAL MULTIPLE-STUD POST CONSTRUCTION



TYPICAL TOP PLATE SPLICE CONSTRUCTION

HVE
 Hatched Industries Engineering Inc.
 1027 Park Avenue, Suite 205
 Seattle, Washington 98101-2640
 206.426.6141 FAX: 206.426.6211
 www.hatchedindustries.com



Project Location
 14250 SW 47th Ave., 37
 Redmond, WA 98073

Originals Retained
 10000 Columbia Street
 Redmond, WA 98073

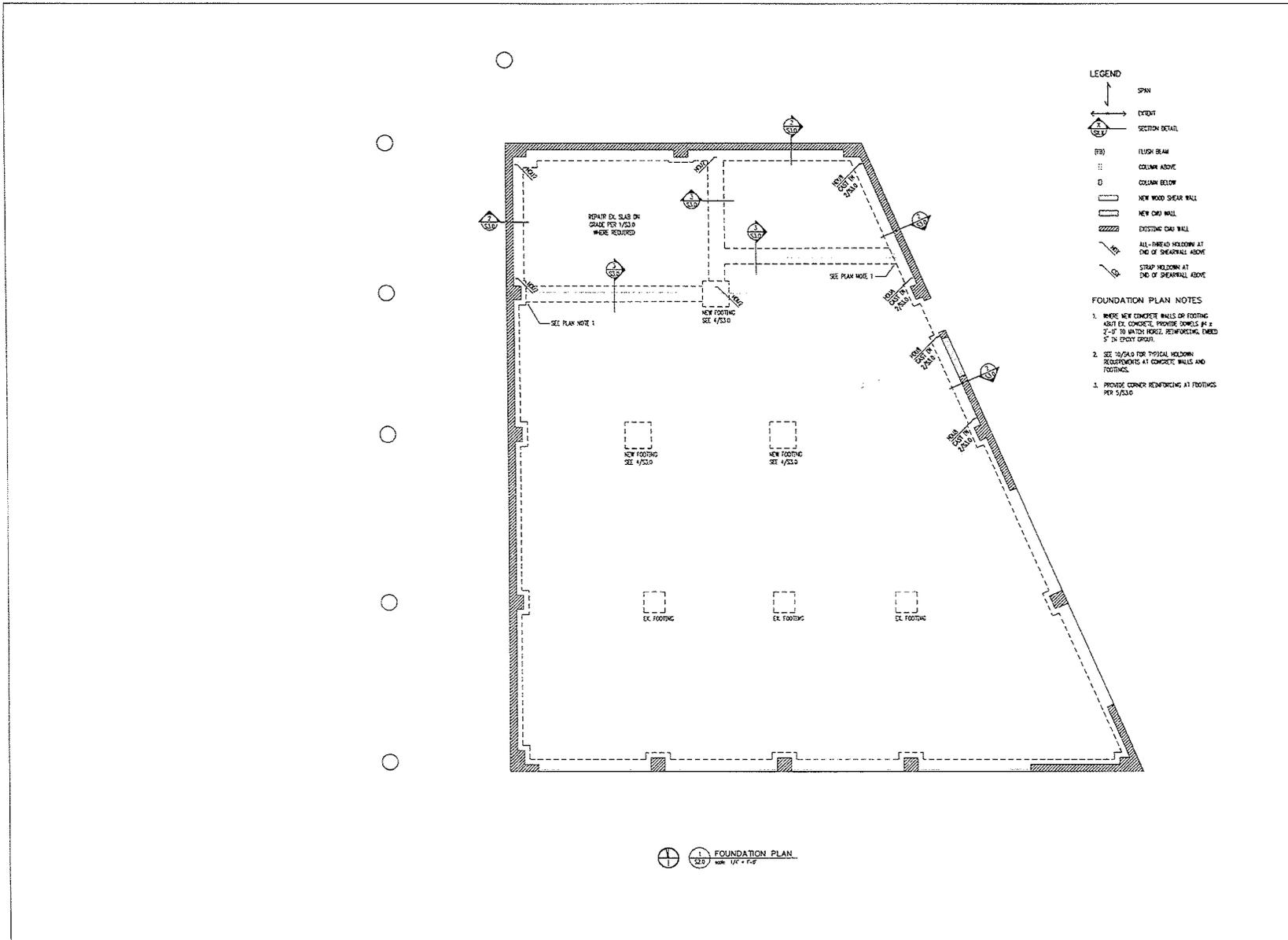
Issue Date	Issue Description
02/16/16	Final
12/09/15	Revised to 2015 IBC
12/02/15	Clarification
11/02/15	Clarification & Additions

Structural Details

Issue Number
S4.0

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EXHIBIT B



HVE
 National Mechanical Contractors Inc.
 1820 First Avenue, Suite 100
 Duette, Washington, DC 20037
 410.224.4770 Fax: 202.462.4477
 www.nationalhve.com

LEGEND

- ↑ SPAN
- ← EXIST
- ↔ SECTION DETAIL
- (FB) FLUSH BEAM
- ⋮ COLUMN ABOVE
- COLUMN BELOW
- ▬ NEW WOOD SHEAR WALL
- ▬ NEW CMU WALL
- ▬ EXISTING CMU WALL
- ALL-IN-ONE HOLD-DOWN AT END OF SHEARWALL ABOVE
- STRAP HOLD-DOWN AT END OF SHEARWALL ABOVE

FOUNDATION PLAN NOTES

1. WHERE NEW CONCRETE WALLS OR FOOTINGS ABUT EX. CONCRETE, PROVIDE SOWELS IN AT 2'-0" TO MAXIMUM SPACES, REINFORCING EMBED 5" IN EXIST. GROUT.
2. SEE 10/24/10 FOR TYPICAL HOLD-DOWN REQUIREMENTS AT CONCRETE WALLS AND FOOTINGS.
3. PROVIDE CORNER REINFORCING AT FOOTINGS PER 10/24/10.

PROFESSIONAL SEAL
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 18001

Project Name
 Title 14-00000
 14-00000-00000-01
 No. 200-844-0011
 14-00000-00000-00000

Issue Number
 14-00000-00000-01
 14-00000-00000-01
 14-00000-00000-01

Issue
 Origins Redmond
 10100 Cleveland Street
 Redmond, VA 22083

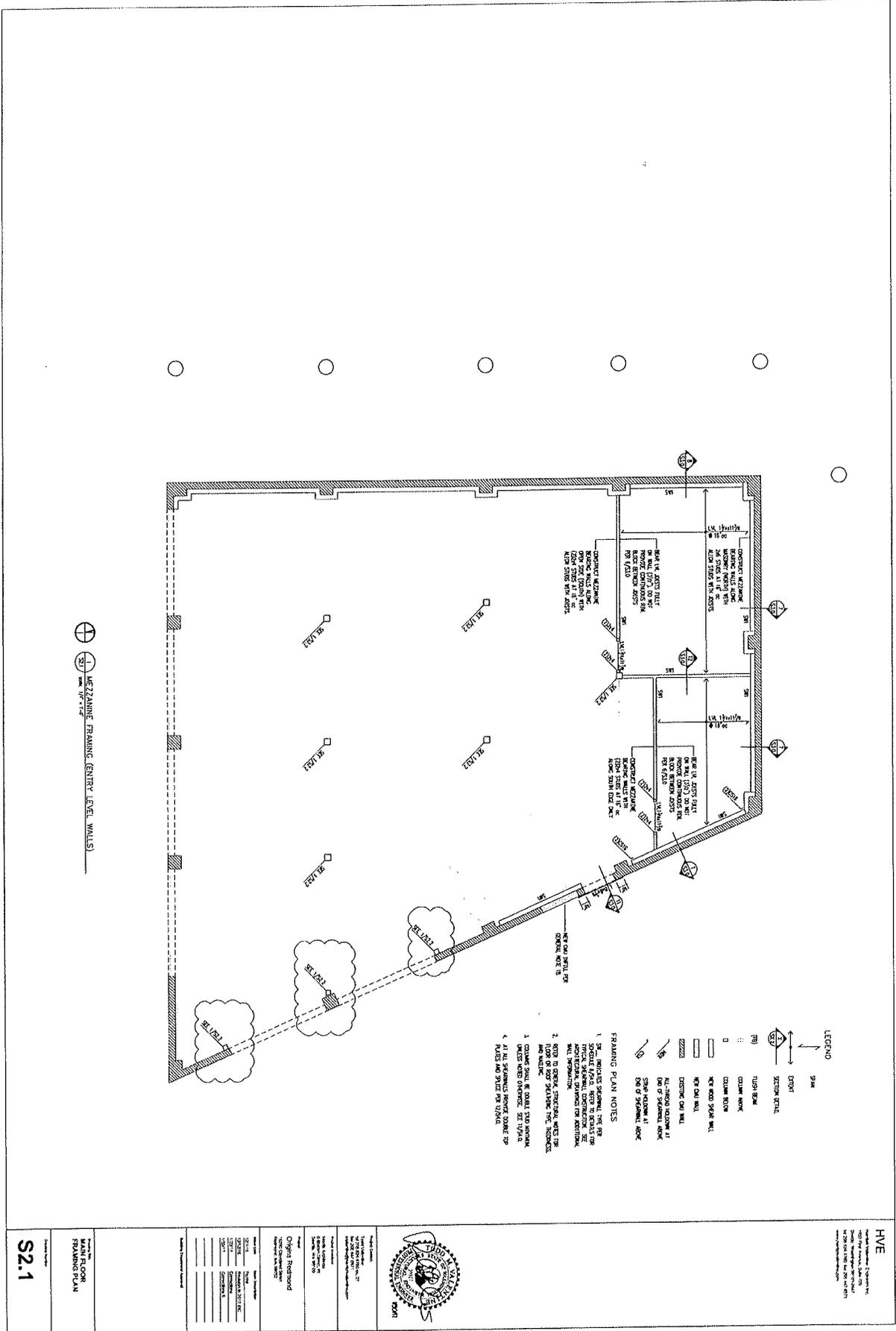
Issue Date Issue Description
 10/24/10 10/24/10
 10/24/10 10/24/10
 10/24/10 10/24/10
 10/24/10 10/24/10

Working Document Number

Issued For
FOUNDATION PLAN

Drawing Number
S2.0

DATE COPY
 04/04/2011 10:38:50



SEE DRAWING
SECTION 102-105

MEZZANINE FRAMING (ENTRY LEVEL WALLS)

S2.1

MEZZANINE FRAMING (ENTRY LEVEL WALLS)

NO.	DATE	DESCRIPTION
1	08/11/2011	ISSUED FOR PERMIT
2	08/11/2011	ISSUED FOR PERMIT
3	08/11/2011	ISSUED FOR PERMIT
4	08/11/2011	ISSUED FOR PERMIT
5	08/11/2011	ISSUED FOR PERMIT
6	08/11/2011	ISSUED FOR PERMIT
7	08/11/2011	ISSUED FOR PERMIT
8	08/11/2011	ISSUED FOR PERMIT
9	08/11/2011	ISSUED FOR PERMIT
10	08/11/2011	ISSUED FOR PERMIT

ORIGINS REDMOND
ARCHITECTS



HVE
HVE ENGINEERING CORPORATION
10000 Parkwood Drive, Suite 100
Cincinnati, Ohio 45240
Phone: (513) 733-1111
Fax: (513) 733-1112
www.hve.com

Harriott Valentine Engineers Inc.

STRUCTURAL CALCULATIONS

Project:

Origins Redmond
16390 Cleveland Street
Redmond, WA 98052

Architect:

Morris Architects
8 Boston Street
Seattle, WA 98109

Structural Engineer:

Harriott Valentine Engineers, Inc.
1932 First Avenue, Suite 720
Seattle, WA 98101
tel. 206-624-4760



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Seattle, Washington 98101-2447
tel. 206-624-4760 | fax 447-6971

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1/19/2017
Page ____ of ____

USGS Design Maps Summary Report

User-Specified Input

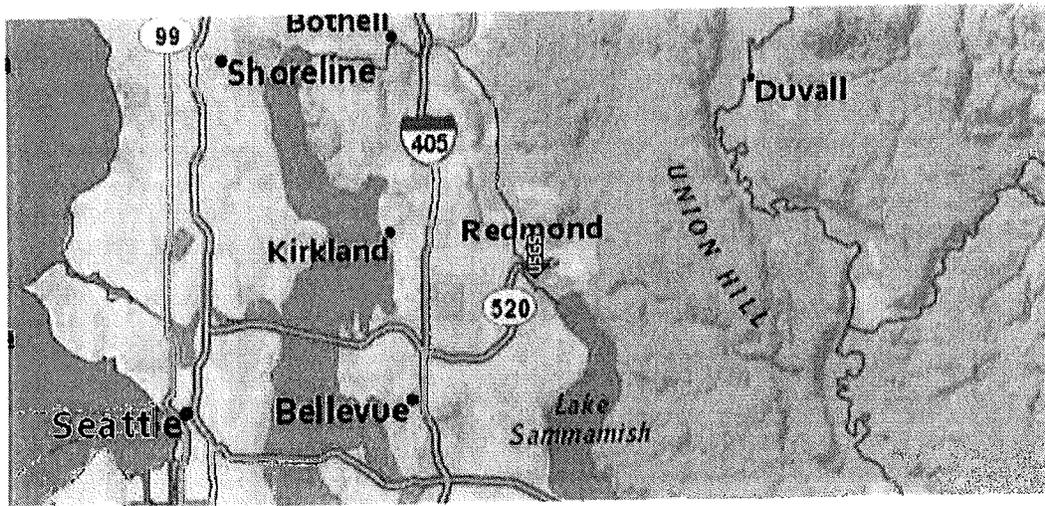
Report Title Origins
Wed November 23, 2016 19:14:32 UTC

Building Code Reference Document 2012/2015 International Building Code
(which utilizes USGS hazard data available in 2008)

Site Coordinates 47.67°N, 122.12°W

Site Soil Classification Site Class D – “Stiff Soil”

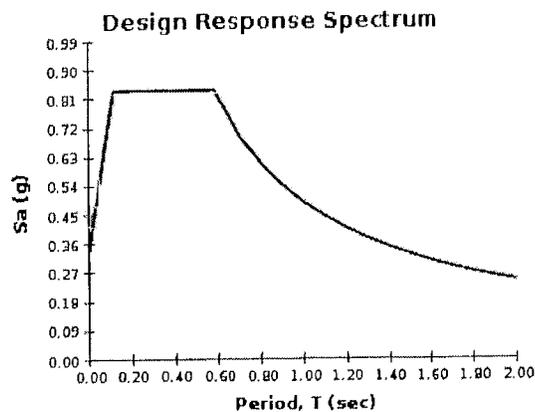
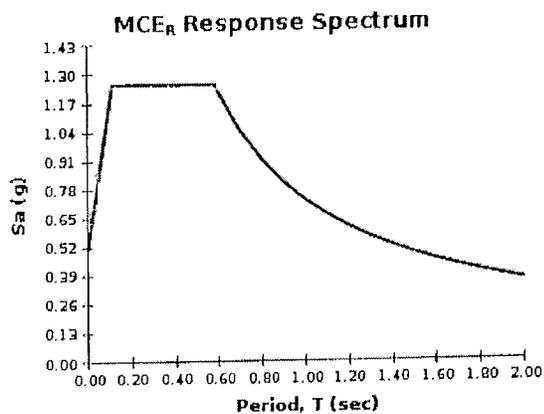
Risk Category I/II/III



USGS-Provided Output

$S_s = 1.254 \text{ g}$	$S_{Ms} = 1.254 \text{ g}$	$S_{Ds} = 0.836 \text{ g}$
$S_1 = 0.481 \text{ g}$	$S_{M1} = 0.730 \text{ g}$	$S_{D1} = 0.487 \text{ g}$

For information on how the S_s and S_1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the “2009 NEHRP” building code reference document



Although this information is a product of the U.S. Geological Survey, we provide no warranty, expressed or implied, as to the accuracy of the data contained therein. This tool is not a substitute for technical subject-matter knowledge.

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SEISMIC DESIGN *MAIN STRUCTURE*

ASCE 7-10
Equivalent Lateral Force Procedure

Occupancy Category	II	Table 1-1
Seismic Design Category	D	Table 11.6-1
Importance Factor	1.00	Table 11.5-1
Site Class	D	Table 20.3-1
S _s	125.40 %g	(from USGS Seismic Hazard Curves, 2008 data)
S ₁	48.10 %g	(from USGS Seismic Hazard Curves, 2008 data)
F _a	1.00	Table 11.4-1
F _v	1.50	Table 11.4-2
C _t	0.02	Table 12.8-2
x	0.75	Table 12.8-2
h _n	18.00 feet	(height to highest level)

S _{MS} = F _a *S _s	1.2540	Eq. 11.4-1
S _{M1} = F _v *S ₁	0.7215	Eq. 11.4-2
S _{DS} = (2/3)*S _{MS}	0.8360 g	Eq. 11.4-3
S _{D1} = (2/3)*S _{M1}	0.4810 g	Eq. 11.4-4
Period T _a = C _t *h _n ^{0.75}	0.1748 s	Eq. 12.8-7
T _o	0.1151 s	per section 11.4.5
T _s	0.5754 s	per section 11.4.5
S _a	0.8360 g	per section 11.4.5

R	6.5	Table 12.2-1
Ω _o	2.5	Table 12.2-1
C _d	4	Table 12.2-1
Section 9.5.5 ok?	Yes	Table 12.6-1

Equivalent Lateral Force Procedure (section 12.8)

C _s	0.1286	Eq. 12.8-2
W, weight	98,685 lb	per table below
Q _E	12,692 lb	Eq. 12.8-1

Vertical Force Distribution (section 12.8.3)

k = 1.00

Level	Hx (ft)	Floor Area (ft ²)	Seismic Dead Ld (psf)	Floor Wt. (k)	Wall Length (ft)	Wall Wt. (k)	Total Wt. (k)	WxHx (k-ft)	Cvx (%)	(LRFD) Q _E (k)	(ASD) 0.7Q _E (k)
Roof	18.00	2799	15	42.0	175	56.7	98.7	1776.3	100.0	12.69	8.88
							98.7	1776.33	100.0	12.69	8.88

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11/23/2016
Page ____ of ____

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WIND DESIGN *MAINTENANCE*

ASCE 7-10
Simplified Envelope Method (Chapter 28)

$p_s = K_z I p_{s0}$

λ = adjustment factor = 1.00
I = importance factor = 1.00
Kzt = topographic factor = 1.00

Part of Figure 28.6-1 - Adjustment Factor for Building Height and Exposure, λ

Zone
Computation

Mean Roof Height (ft)	Exposure		
	B	C	D
15	1.00	1.21	1.47
16	1.00	1.23	1.49
17	1.00	1.24	1.50
18	1.00	1.26	1.52
19	1.00	1.27	1.53
20	1.00	1.29	1.55
21	1.00	1.30	1.56
22	1.00	1.31	1.57
23	1.00	1.33	1.59
24	1.00	1.34	1.60
25	1.00	1.35	1.61
26	1.00	1.36	1.62
27	1.00	1.37	1.63
28	1.00	1.38	1.64
29	1.00	1.39	1.65
30	1.00	1.40	1.66

a = 10% of least horizontal dimension or 0.4 x h, whichever is smaller, but not less than either 4% of least horizontal dimension or 3 feet.

w = 35.00 ft x 0.1 = 3.50 ft
h = 18.00 ft x 0.4 = 7.20 ft
w = 35.00 ft x 0.04 = 1.40 ft

a = 4.00 ft
2a = 8.00 ft

Zone B - end zone of roof
Zone A - end zone of wall

Zone D - interior zone of roof
Zone C - interior zone of wall

Part of Figure 28.6-1 - Method 2
Design Wind Pressure, p_{s30}

Basic Speed	Roof Angle	Roof Pitch	Horizontal Pressures (psf)			
			A	B	C	D
110	0 to 5	flat	19.2	-10.0	12.7	-5.9
	10	2	21.6	-9.0	14.4	-5.2
	15	3	24.1	-8.0	16.0	-4.6
	20	4	26.6	-7.0	17.7	-3.9
	25	6	24.1	3.9	17.4	4.0
	30 to 45	7 to 12	21.6	14.8	17.2	11.8

Design Wind Pressure, ps

Basic Speed	Roof Angle	Roof Pitch	Horizontal Pressures (psf)			
			A	B	C	D
110	0 to 5	flat	19.2	-10.0	12.7	-5.9
	10	2	21.6	-9.0	14.4	-5.2
	15	3	24.1	-8.0	16.0	-4.6
	20	4	26.6	-7.0	17.7	-3.9
	25	6	24.1	3.9	17.4	4.0
	30 to 45	7 to 12	21.6	14.8	17.2	11.8

A = 9' x 19.2 x .6 = 104 PLF
C = 9' x 12.7 x .6 = 69 PLF

<<<

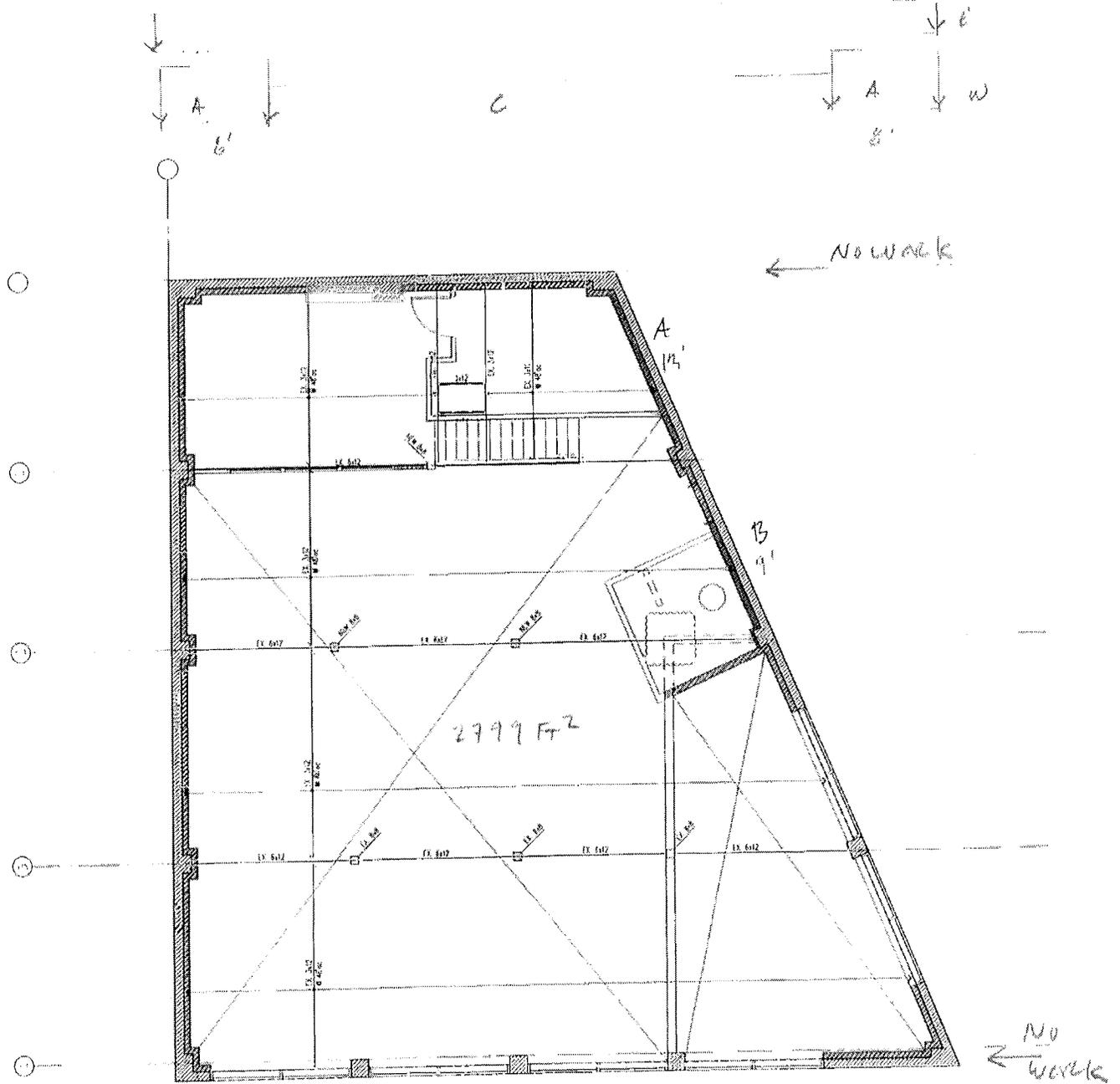
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MAIN STRUCTURE SHEAR WALLS

47.67, -12 Page 1 of 19



↑ NO WORK

← NO WORK

ROOF FRAMING (MEZZANINE LEVEL WALLS)
REV. 11/14/16

SEISMIC ACTIONS
 RESOLVED PER $\theta = 24^\circ$
 $C = 4.8 K$

↑ $2.4^{\circ} W$
 $4.4^{\circ} E$

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MAIN STRUCTURE SEISMIC WALLS

WALL	HT.	L	F	V	SW	OT	HA
* → A	18'	13'	3.15 ^k 3.5 ^k	242 268	SW1	4.4 ^k 4.8 ^k	HDDG
B	18'	9'	2.18 ^k	242	SW1	4.4 ^k	HDDG

HORIZONTAL FLEXIBILITY TYPE 5
NONPARALLEL SYSTEM

ADD 30% OF PERMANENT LOAD

$$4.4^k \times .70 = 1.32^k$$

RESOLVED =



$$= 1.32^k \div \sin 24^\circ$$

$$= .537^k$$

TOTAL E = $4.8^k + .537^k$
= 5.33^k

* ADD MEZZANINE LOADS TO WALL "A"

Harriott Valentine Engineers Inc.

SEISMIC DESIGN - Mezzanine

ASCE 7-10
Equivalent Lateral Force Procedure

Occupancy Category	II	Table 1-1
Seismic Design Category	D	Table 11.6-1
Importance Factor	1.00	Table 11.5-1
Site Class	D	Table 20.3-1
S _s	125.40 %g	(from USGS Seismic Hazard Curves, 2008 data)
S ₁	48.10 %g	(from USGS Seismic Hazard Curves, 2008 data)
F _a	1.00	Table 11.4-1
F _v	1.50	Table 11.4-2
C _t	0.02	Table 12.8-2
X	0.75	Table 12.8-2
h _n	9.00 feet	(height to highest level)
S _{M5} = F _a *S _s	1.2540	Eq. 11.4-1
S _{M1} = F _v *S ₁	0.7215	Eq. 11.4-2
S _{D5} = (2/3)*S _{M5}	0.8360 g	Eq. 11.4-3
S _{D1} = (2/3)*S _{M1}	0.4810 g	Eq. 11.4-4
Period T _a = C _t *h _n ^{0.75}	0.1039 s	Eq. 12.8-7
T _o	0.1151 s	per section 11.4.5
T _s	0.5754 s	per section 11.4.5
S _a	0.0787 g	per section 11.4.5
R	6.5	Table 12.2-1
Ω _o	2.5	Table 12.2-1
C _d	4	Table 12.2-1
Section 9.5.5 ok?	Yes	Table 12.6-1

Equivalent Lateral Force Procedure (section 12.8)

C _s	0.1286	Eq. 12.8-2
W, weight	14,286 lb	per table below
Q _E	1,837 lb	Eq. 12.8-1

Vertical Force Distribution (section 12.8.3)

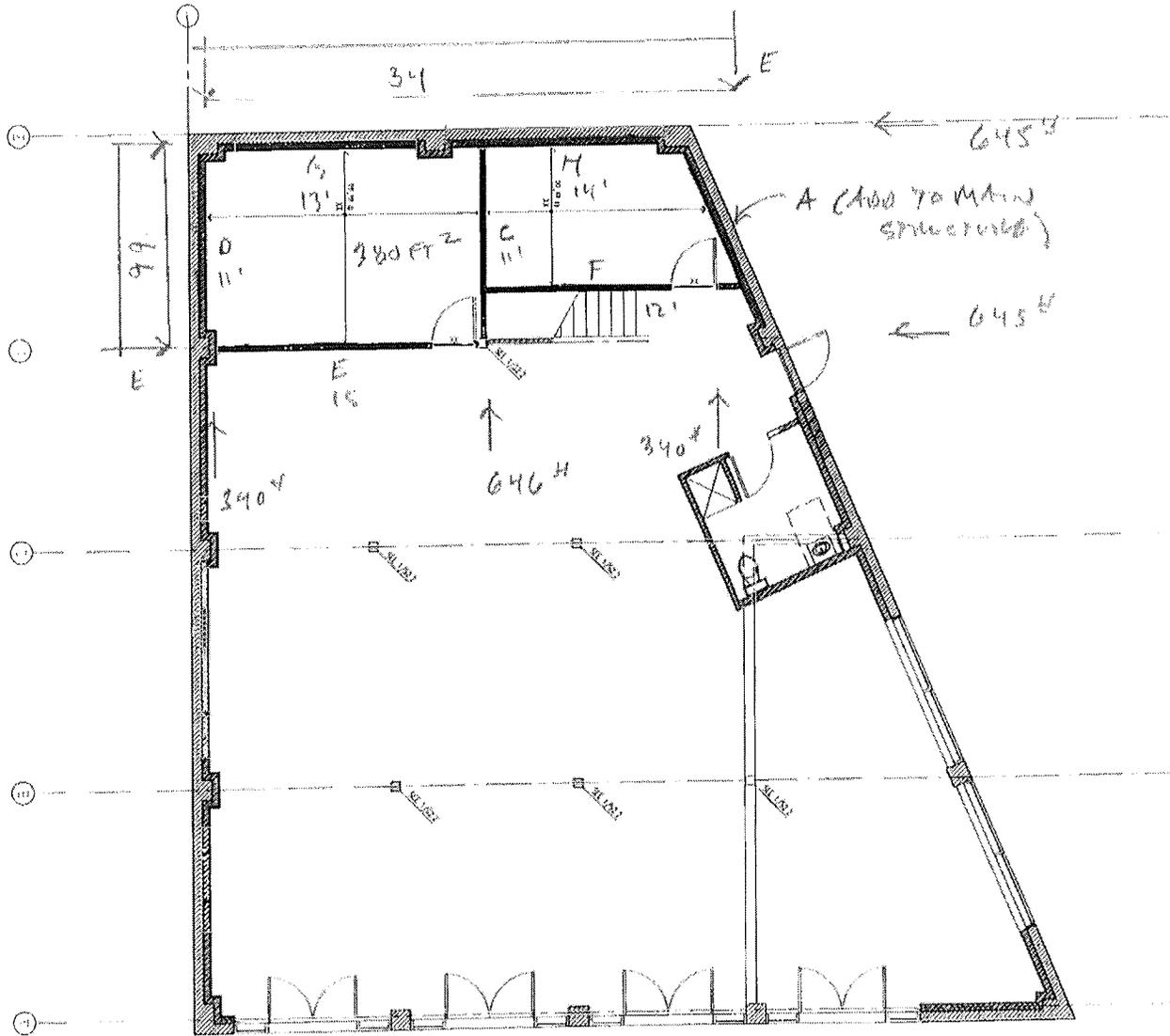
k = 1.00

Level	Hx (ft)	Floor Area (ft ²)	Seismic Dead Ld (psf)	Floor Wt. (k)	Wall Length (ft)	Wall Wt. (k)	Total Wt. (k)	WxHx (k-ft)	Cvx (%)	(LRFD) Q _E (k)	(ASD) 0.7Q _E (k)
Roof	18.00	380	15	5.7	106	8.6	14.3	257.1	100.0	1.84	1.29
							14.3	257.15	100.0	1.84	1.29

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MEZZANINE FRAMING (ENTRY LEVEL WALLS)
vol. 1/4" = 1'-0"

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01616-05 11/23/16

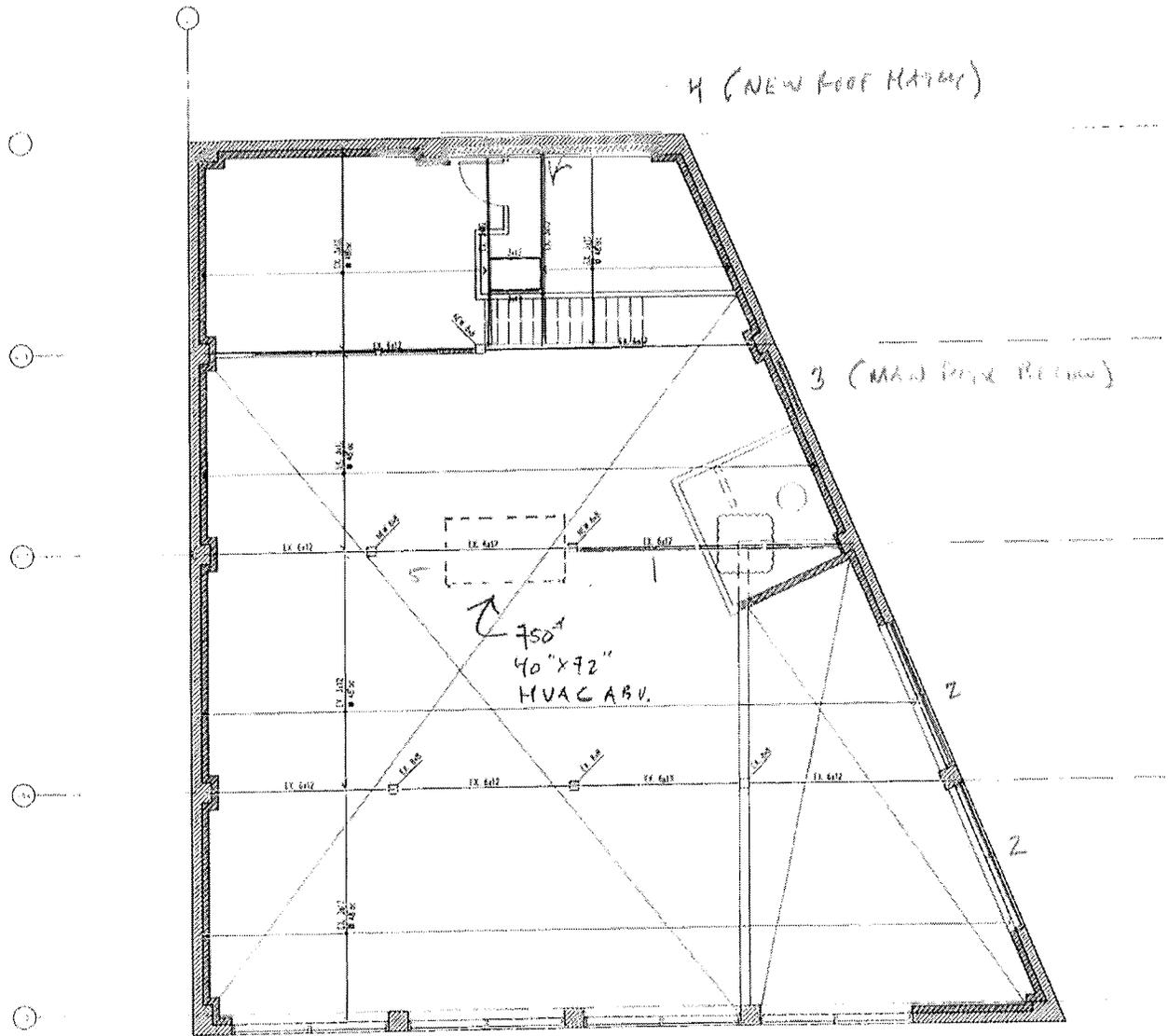
WELDRING SHEAR WALLS

WALL HT. L F V SW OT MD

A - SEE MAIN STRUCTURE SHEET NOTES

C	9'	11'	646 [#]	59	SW1	528 [#]	MDVZ
D	9'	11'	340 [#]	31	SW1	278 [#]	MDVZ
E	9'	15'	358 [#]	24	SW1	215 [#] - 375 [#] = -160 [#]	NOVZ
F	9'	12'	289 [#]	32	SW1	290 [#] - 300 [#] = -10 [#]	NOVZ
G	9'	18'	311 [#]	24	SW1	215 [#] - 325 [#] = -110 [#]	NOVZ
H	9'	14'	334 [#]	24	SW1	215 [#] - 350 [#] = -135 [#]	NOVZ

↑ ↑
 GOOD OF
 DETAIL
 NET VALUE





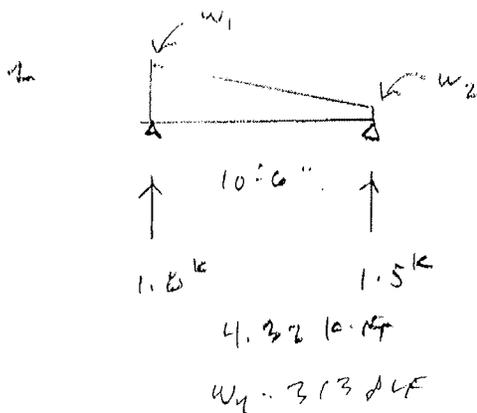
 ROOF FRAMING (MEZZANINE LEVEL WALLS)
 1/32" = 1'-0"

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Roof Framing

1 $l = 18' 3''$
 $w = \frac{29'}{2} \times (20 + 25) = 653 \text{ PLF}$
 $M = 27.2 \text{ K}\cdot\text{FT}$
 $V = 6 \text{ K}$

EX. 6×16
 $M_R = 27.69 \text{ K}\cdot\text{FT} (115\%)$
 $V_R = 9.7 \text{ K}$
 $\Delta = .6'' = \frac{M}{367} \text{ OK}$



$w_1 = (4' \times 36 \text{ PSF}) + \frac{11'}{2} (45 \text{ PSF})$
 $= 392 \text{ PLF}$
 $w_2 = (4' \times 36 \text{ PSF}) + \frac{4'}{2} (45 \text{ PSF})$
 $= 234 \text{ PLF}$

TRAY CHANNEL
 C 12 X 20.7

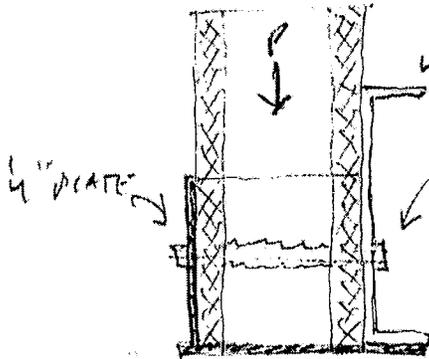
$M_u = M_R \cdot F_y \cdot Z_x$
 $= 36 \text{ KSI} (25.6 \text{ in}^3)$
 $= 921.6 \text{ K}\cdot\text{in}$
 $= 76.8 \text{ K}\cdot\text{FT}$

$\frac{M_u}{\phi} = 46 \text{ K}\cdot\text{FT} \text{ OK}$

$\Delta = 0.029'' = \frac{M}{5506} \text{ OK}$

ROOF FRAMING

2 CONTINUOUS



C 12 x 20.7

(2) ROWS OF
5/8" T. RODS IN GROOVE w/
SCREEN TUBES @ 16" OC

ALLOWABLE = 290 #

$$392 \# = 290 \# \times 8.4" OC$$

→ CHECK PLATE FLEX FLEXURE

$$P = 392 \# / FT OF PLATE$$

$$M = 392 \# \times \frac{6"}{2} = 1176 \# \cdot FT$$

$$TRY \frac{1}{2}" PLATE \quad I = 12" \quad 1 \frac{1}{2}"$$

BOLTS AT COLUMNS

$$R = 1.8 \# + 1.5 \# = 3.3 \#$$

$$ALLOWABLE = 2.73 \#$$

FLEX 5/8" T. ROD w/ 5" EMBED

OK w/ DOUBLE ROWS PATENT

$$f = .125 \# / in^2$$

$$e = .5 \# / in^2$$

$$M_p = f_y e = 18 \# \cdot W$$

$$= 1.5 \# \cdot FT$$

$$\frac{M_p}{12} = 896 \# \cdot FT \quad OK$$

$$\Delta = \frac{P b^2 (3l - b)}{6EI}$$

$$= \frac{392 \# (4")^2}{6EI} (3(6") - 4")$$

$$= 0.006" \quad OK$$

ROOF FRAMING

3 (MAN DOOR)

$$\begin{aligned}
 L &= 3'-6" \\
 W &= 10'-6" \text{ (36)} + (5' \times 40 \text{ PSF}) \\
 &\quad \text{CORNER} \quad \text{ROOF} \\
 &= 578 \text{ PLF} \\
 M &= 885 \text{ H-FT} \\
 V &= 1.01 \text{ K}
 \end{aligned}$$

TRY AVAILABLE

$$L \ 8 \times 8 \times 5 \text{ B}$$

$$\begin{aligned}
 M_H &= 1.5 M_H \\
 &= 1.5 (.5) S_x F_y \\
 &= 445 \text{ K-IN} \\
 &= 37 \text{ K-FT}
 \end{aligned}$$

$$\frac{M_H}{\sqrt{2}} = 22.2 \text{ K-FT} \quad \text{OK}$$

CHECK BENDING ON
BOTTOM LEGS.

$$\begin{aligned}
 M &= 578 \text{ PLF} \times 4' \\
 &= 193 \text{ H-FT} \\
 M_H &= M_P = F_y Z \\
 &= 36 (.0976) \\
 &= 3.5 \text{ K-IN} \\
 &= 293 \text{ H-FT} \quad \text{OK}
 \end{aligned}$$

4 (ROOF MATCH)

LOCATE BETWEEN EX. PURLINS
AND FRAMING IN SAME DIRECTION
TO MATCH.

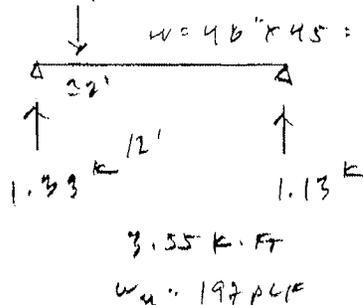
Roof Framing

5 - SUPPORT FOR HVAC

CHECK PURLINS FIRST

$P = 48" \times 37.5 \text{ PSF} \times 21' = 300 \text{ K DEAD}$

$W = 48" \times 45 = 180 \text{ PLF DEAD + SNOW}$



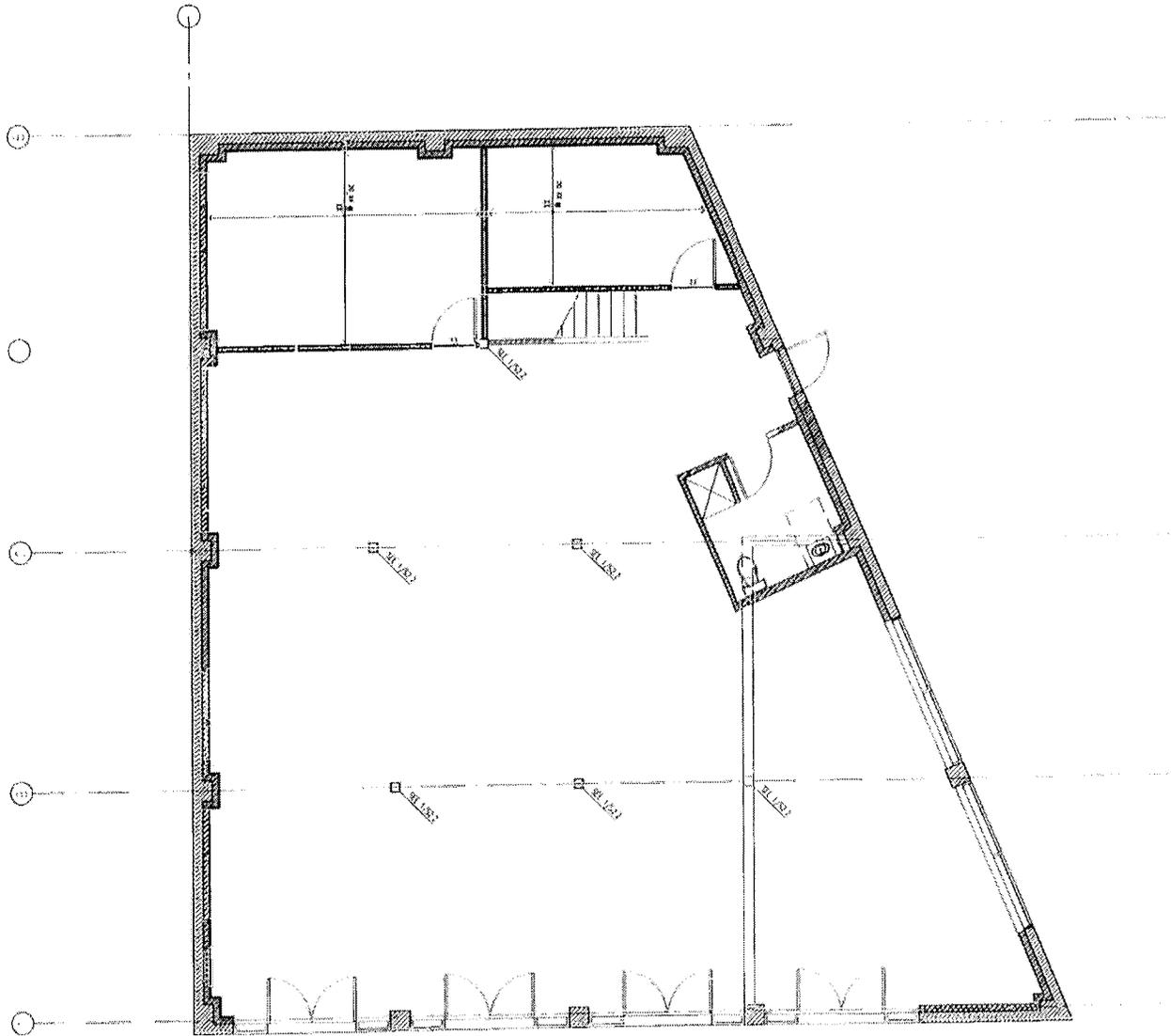
EX. 3x12

$M_u = 4.3 \text{ K·FT}$
(115%) APPROXIMATE

$V_u = 2.02 \text{ K}$

$\Delta = .23 \text{ "}$ *604*

MEZZANINE FRAMING



MEZZANINE FRAMING (ENTRY LEVEL WALLS)
1/21/16
2/2/16

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MEZZANINE FRAMING

JOISTS

$l = 13'$ MAX. $\{50$

UNIFORM

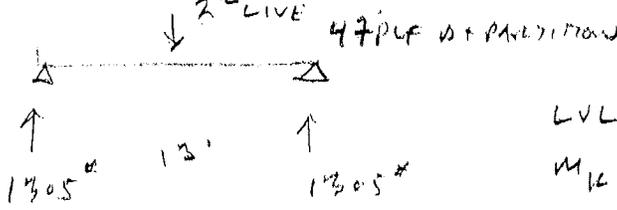
$W = (20 + 15 + 40) \left(\frac{16}{12}\right) = 113.6 \text{ PLF}$

PARTITION

$M = 7.1 \text{ K.FT} \quad 2.4 \text{ K.FT}$

$V = 650 \# \quad 736 \#$

POINT



7.5 K.FT
MOVEMENTS

LVL $1\frac{3}{4} \times 11\frac{7}{8}$ @ 16" oc
 $M_{12} = 8.9 \text{ K.FT}$ OK
 $V_R = 3.9 \text{ K}$ OK
 $\Delta = .46"$ OK 333

HEADINGS

$l = 3'$ MAX	(2) 2×8
$w = 305 \text{ PLF}$	$M_R = 2.23$
Mid-point: 2"	$V_R = 2.18$
$M = 1.84 \text{ K.FT}$	$\Delta = 0.024"$ <u>OK</u>

UNIFORM

$l = 3'$

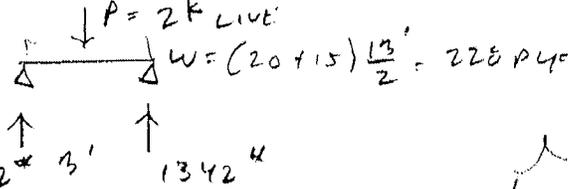
$W = (20 + 15 + 50) \left(\frac{13}{2}\right) = 552 \text{ PLF}$

PARTITION

$M = 621 \# \cdot \text{FT}$

$V = 828 \#$

POINT



1.8 K.FT $w_n = 160 \text{ PLF}$

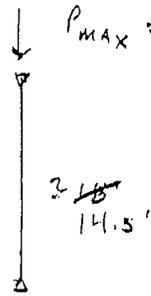
LVL $1\frac{3}{4} \times 7\frac{1}{4}$
 $M_{12} = 3.5 \text{ K.FT}$ OK
 $V_R = 2.4 \text{ K}$ OK
 $\Delta = 0.03"$ OK 1313

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 Seattle, Washington 98101-2447
 tel. 206 624 4760 | fax 447 6971

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11/25/16

COLUMNS / FOOTINGS

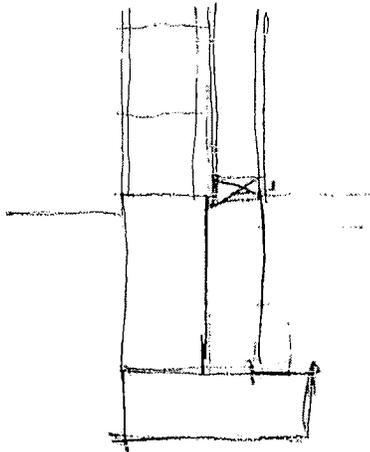


EX B O.K. FNLG 11.6 k
SEE NEXT PAGE

ASSUMING 2 KSF SOIL BEARING

11.6 k / 2 KSF = 5.8 FT²
2.4' x 2.4'

USE 30" x 30" x 10" FOOTING
w/ (4) #4 EACH
w/ 4 BOTTOM



Harriott Valentine Engineers Inc.

WOOD COLUMN

4x OR 6x

Species: DF #1
 Size: 8x

Fc* = 925 psi Fc_⊥ = 405 psi << sill plate is
 E = 1.60E+06 psi Hem-Fir
 c' = 0.8
 d = 7.25 in
 KcE = 0.3

	le	le	FcE	F'c	6x8 Pa	8x8 Pa
	(ft)	(in)	(psi)	(psi)	(lb)	(lb)
Pa (perp)					16149	21288
8.00	96.00	2738	849	10397	16338	
8.50	102.00	2425	837	10251	16109	
9.00	108.00	2163	824	10090	15856	
9.50	114.00	1941	809	9914	15579	
10.00	120.00	1752	794	9721	15277	
10.50	126.00	1589	777	9513	14949	
11.00	132.00	1448	758	9289	14597	
11.50	138.00	1325	739	9050	14221	
14.50	174.00	833	605	7409	11643	

Harriott Valentine Engineers Inc.

WOOD COLUMN

MULTI-STUD

Species: HF stand.

Size: 2x4

$F_c^* = 1300 \text{ psi}$ $F_{c \perp} = 405 \text{ psi}$ << sill plate is Hem-Fir
 $E = 1.20E+06 \text{ psi}$
 $c' = 0.8$
 $d = 3.5 \text{ in}$
 $K_c E = 0.3$

	le	le	F _{cE}	F' _c	(2)2x4	(3)2x4	(4)2x4	(5)2x4	
	(ft)	(in)	(psi)	(psi)	Pa	Pa	Pa	Pa	
					(lb)	(lb)	(lb)	(lb)	
Pa (perp)					4253	6379	8505	10631	
8.00	96.00	479	435	4566	6848	9131	11414	<< crushing governs	
8.50	102.00	424	390	4099	6148	8198	10247	up to a height of	
9.00	108.00	378	352	3696	5543	7391	9239	8'-4" w/ Hem-Fir	
9.50	114.00	339	319	3346	5019	6691	8364	(6'-5" if Doug-Fir)	
10.00	120.00	306	290	3041	4562	6083	7603		
10.50	126.00	278	264	2775	4163	5550	6938		
11.00	132.00	253	242	2541	3812	5083	6353		
11.50	138.00	232	222	2335	3503	4670	5838		
12.00	144.00	213	205	2152	3229	4305	5381		

Species: HF stud

Size: 2x6

$F_c^* = 800 \text{ psi}$ $F_{c \perp} = 405 \text{ psi}$ << sill plate is Hem-Fir
 $E = 1.20E+06 \text{ psi}$
 $c' = 0.8$
 $d = 5.5 \text{ in}$
 $K_c E = 0.3$

	le	le	F _{cE}	F' _c	(2)2x6	(3)2x6	(4)2x6	(5)2x6	
	(ft)	(in)	(psi)	(psi)	Pa	Pa	Pa	Pa	
					(lb)	(lb)	(lb)	(lb)	
Pa (perp)					6683	10024	13365	16706	
8.00	96.00	1182	645	10642	15963	21284	26605	<< crushing governs	
8.50	102.00	1047	620	10229	15343	20457	25572	up to a height of	
9.00	108.00	934	593	9788	14683	19577	24471	12'-5" w/ Hem-Fir	
9.50	114.00	838	565	9329	13994	18658	23323	(8'-5" if Doug-Fir)	
10.00	120.00	756	537	8860	13290	17720	22151		
10.50	126.00	686	509	8390	12586	16781	20976		
11.00	132.00	625	480	7928	11892	15856	19820		
11.50	138.00	572	453	7479	11219	14959	18699		
12.00	144.00	525	427	7049	10574	14099	17624		

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11/30/2016
 Page ____ of ____

EXHIBIT C



THE CITY OF REDMOND STATEMENT OF SPECIAL INSPECTIONS GUIDELINES

In accordance with Chapter 17 of the current adopted International Building Code (IBC), the *owner*, or the *registered design professional in responsible charge* acting as the owner's agent, is required to hire an independent testing/inspection agency to perform required special inspections.

The independent agency hired to perform the duties of special inspection is required to be a registered agency with Washington Association of Building Officials (WABO), under the Special Inspection Registration Program (SIRP) Standard No. 1701 or most current adopted special inspection standard published by WABO.

The design professional shall complete the attached forms and submit them to the Building Department prior to issuance of the building permit. For projects requiring continuous inspection, the preparer shall submit the name and qualifications of the individual(s) assigned to the project. The inspectors assigned to any project within the Jurisdiction shall be currently registered with WABO, and certified for the disciplines assigned.

A. Contractor's Responsibilities

- 1. Notify the agency**
The contractor is responsible for notifying the inspection agency in sufficient time for scheduling personnel to perform required inspections.
- 2. Provide written statement of responsibility**
The contractor shall provide a written statement of responsibility as required in section 1704 for construction of designated main-wind or seismic force resisting system.
- 3. Provide access to Jurisdiction approved plans**
The approved plans shall be readily accessible at the job site.
- 4. Provide access to work**
The contractor shall provide reasonable access to all work requiring special inspection.
- 5. Retaining special inspection reports at the job site**
The contractor is also responsible for retaining at the job site all special inspection records submitted by the special inspector, and providing these records for review by the Building Department's inspector upon request.
- 6. Notify Jurisdiction of special inspections** prior to scheduled inspection time.

B. Duties of the Special Inspector

- 1. Observe the work**
The inspector shall observe the work for compliance with the Jurisdiction approved plans, specifications, and applicable provisions of the IBC. The architect/engineer's reviewed shop drawings, and/or placement drawings, may be used only as an aid to inspections.
 - **Continuous Special Inspection** – The full-time observation of work requiring special inspection by an approved special inspector who is present in the area where the work is being performed.
 - **Periodic Special Inspection** – The part-time or intermittent observation of work requiring special inspection by an approved special inspector who is present in the area where the work is being performed and at the completion of the work.
- 2. Report non-conforming items**
The inspector shall bring non-conforming items to the immediate attention of the contractor, and note all such items in the daily report. If any item is not resolved in a timely manner and is about to be incorporated in the work, the special inspector shall immediately notify the Building Department, the engineer or architect, his/her office.
- 3. Furnish daily reports**
The special inspector shall complete a daily report for each day's inspections. The daily reports shall remain at the job site with the contractor for the Building Department's inspector. The reports shall include the following:
 - a. Name of special inspector with WABO certification number and certification type, date, time, temperature and weather conditions.
 - b. Description of the inspections, with locations and tests performed.
 - c. Listing any non-conforming items.
 - d. Include how items were resolved or unresolved.
 - e. List any changes or corrections to non-conforming issues authorized by the engineer, architect, or Jurisdiction's building inspectors.

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4. Furnish weekly reports

The inspection agency shall furnish weekly reports of the tests and inspections performed directly to the Building Department, project engineer, architect, and/or others as designated.

5. Furnish final report

The inspection agency shall submit a final signed report to the Building Department stating that all items requiring special inspections and testing were fulfilled, all discrepancies were corrected or resolved, and all work requiring special inspections is in conformance with the approved design drawings and specifications.

- Any items unresolved or discrepancies in coverage (i.e., missed inspections, periodic inspections when continuous was required, etc.) shall be specifically itemized in this report.

C. Jurisdiction's Responsibilities

1. To verify compliance

The Jurisdiction is required to oversee the implementation of Structural Tests and Special Inspection requirements found in IBC Chapter 17 and the WABO - SIRP Standards 1701.

2. Review special inspections

The Building Department shall review all special inspectors and special inspection requirements.

3. Monitor special inspections

Work requiring special inspections, and the performance of special inspectors, shall be monitored by the Building Department's inspector. The Jurisdiction's approval must be obtained prior to placement of concrete or other similar activities in addition to that of the special inspector.

4. Issue Certificate of Occupancy

The Building Department will only issue a Certificate of Occupancy after all special inspection reports and the final special inspection report, have been submitted and accepted.

D. Owner Responsibilities

The owner, the design professional in responsible charge acting as the owner's agent, shall fund special inspection services. The owner is responsible for seeing that these requirements are met.

E. Registered Design Professional Responsibilities

1. The registered design professional in responsible charge (engineer, or architect), shall include special inspection requirements and specifications on the plans.
2. Provide structural observation Per IBC Section 1704 as amended by the State of Washington requirements and specifications on the plans.
3. Prepare the Statement of Special Inspections in accordance with IBC section 1704 and identify Structural Testing for Seismic Resistance per IBC section 1705 (When required). The statement of special inspections shall identify items fabricated on the premises of an approved fabricator where special inspections are not required by section 1704.2.5
4. Review the special inspection reports and provide corrective action for work that may not conform to the approved plans.

ACKNOWLEDGMENTS

I have read and understand my responsibilities regarding special inspections.

Owner/Agent

Name: Sean Miller Company: Andorra Ventures LLC Signature: [Signature] Date: 2-10-17

Contractor

Name: Abraham Monkey Company: Monkey Construction LLC Signature: [Signature] Date: 2-10-17

Inspection Agency

Name: Susan Rosenau-Moser Company: OTH Rosenau+Assoc. Signature: [Signature] Date: 2/10/17

Registered Design Professional in Resp. Charge

Name: TODD VALENTINE Company: HARRIOTT VALENTINE ENGINEERS Signature: [Signature] Date: 1/19/17

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STATEMENT OF SPECIAL INSPECTION FORM

PROJECT ORIGINS REMOND PERMIT # BPCLN-2016-02092
ADDRESS 16390 CLEVELAND STREET DATE 1/19/17
INSPECTION AGENCY OTTO ROSENAN PHONE # 206-725-4600
ADDRESS 6747 MARTIN LUTHER KING JR. WAY CITY SEATTLE ZIP 98118
AGENCY CONTACT PERSON KATELYN MYERS
DESIGN PROFESSIONAL TODD VALENTINE COMPANY HARRIOTT VALENTINE
ADDRESS 1932 FIRST AVE #720 CITY SEATTLE ZIP 98101

Check Required Special Inspections - per International Building Code, Section 1704/1705:

- Seismic Force Resisting Systems requiring inspection (IBC 1705):
- 1. Structural Welding (Steel AISC 360)
 - 2. High Strength Bolting (Steel AISC 360)
 - 3. Structural Concrete and Reinf. Steel (1705.3)
 - 4. Anchor Bolts in Concrete (1705.3)
 - 5. Prestressed Concrete and PT tendons (1705.3)
 - 6. Shotcrete (1705.3)
 - 7. Masonry (1705.4)
 - 8. High Load Diaphragms (Wood 1705.5)
 - 9. Grading, excavation, and filling (Soils 1705.6)
 - 10. Driven Deep Foundations (1705.7)
 - 11. Cast-in-place Deep Foundations (1705.8)
 - 12. Sprayed Fire-Resistant Materials (1705.14)
 - 13. Mastic and Intumescent Coatings (1705.15)
 - 14. Ext. Insul. and Fin. System-EIFS (1705.16)
 - 15. Expansion and Adhesive Anchors (1705.3)
 - 16. Smoke Control/Stair Pressurization (1705.18)
 - 17. Welding for Seismic Resistance (AISC 341)
 - 18. Structural Wood (1705.11.1)
 - 19. Fire-Resistant Penetrations (1705.17)
 - 20. Storage Racks (1705.12.7)
 - 21. Architectural Components. (1705.12.5)
 - 22. Mech. and Elec. Components (1705.12.6)
 - 23. Other inspections as required by the Design Professional or the Building Official (1705.1).
SOIL BEARING PRESSURE (2,000 PSF MIN)
 - 24. Items by an approved Fabricator (1704.2.5)

Specify Structural Testing for Seismic Resistance below (IBC 1705.12 when required)

- A. Structural Steel (IBC 1705.13.1)
Test Description _____
Frequency _____
- B. Non-Structural Components (IBC 1705.13.2)
Test Description _____
Frequency _____
- C. Other Testing Required by Design Professional or Building Official (IBC 1705.13.1)
Test Description _____
Frequency _____

Section 1704.5-Structural Observations (List requirements): _____

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STRUCTURAL IMAGING

670 MARINE DRIVE
SEQUIM, WASHINGTON 98382
PHONE: (206) 290-7439
FAX: (360) 681-5414
WA. REGIS. NO. STRUCL*004RA

July 19, 2006

In regards to: Redmond Retail Bldg.

Magellan Architects
8383 158th Av. N.E. suite 280
Redmond, WA 98052

Attention: Josh Peterson

Dear Magellan Architects,

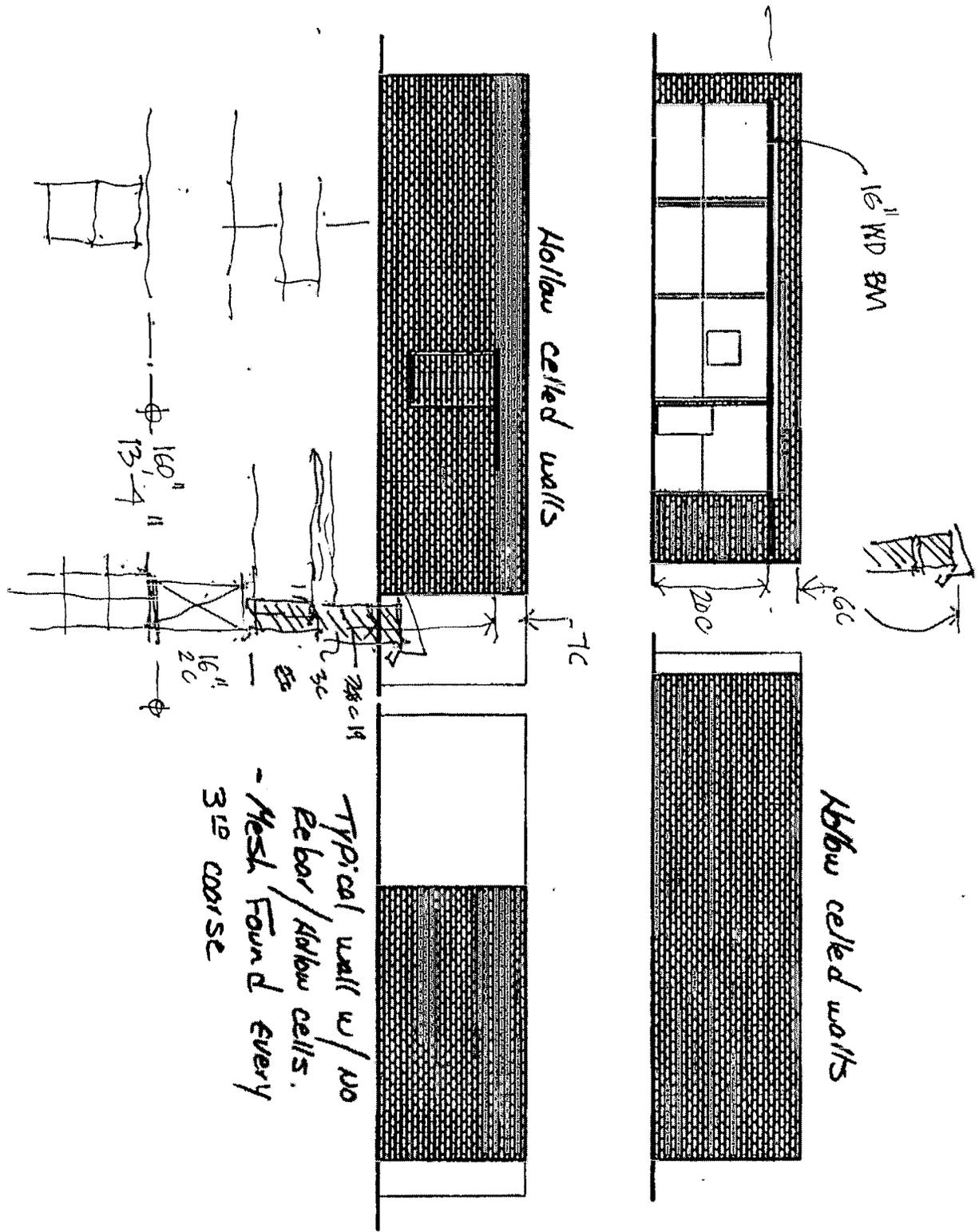
Subject: Structural Diagrams

The Redmond Retail Building located at 16390 Cleveland St., Redmond was scanned for reinforcement and grouted cells. The c.m.u. walls have no vertical or horizontal rebar between columns (typical). There is a mesh in the grout every third course throughout the structure (typical). The columns were scanned and two pieces of rebar were found (vertical only) in grouted cells (typical). The slab on grade was scanned and no reinforcement was found.

Sincerely,

Ulrich Van Landeghem
Vice-President
Structural Imaging LLC

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Typical wall w/ no
 Rebar / Hollow cells.
 - Mesh Found every
 3rd course

AS
 SCHEME

CMU CLEVELAND
 9200 CLEVELAND STREET
 MEDFORD, MA 02155
 JOB NUMBER: 06-067
 SCALE: 3/32" = 1'-0"

Magellan
 ARCHITECTS

6000 12th Avenue Northeast, Suite 200
 Redmond, Washington 98052
 Tel: (425) 885-4300 Fax: (425) 885-4305
 www.magellansarchitects.com

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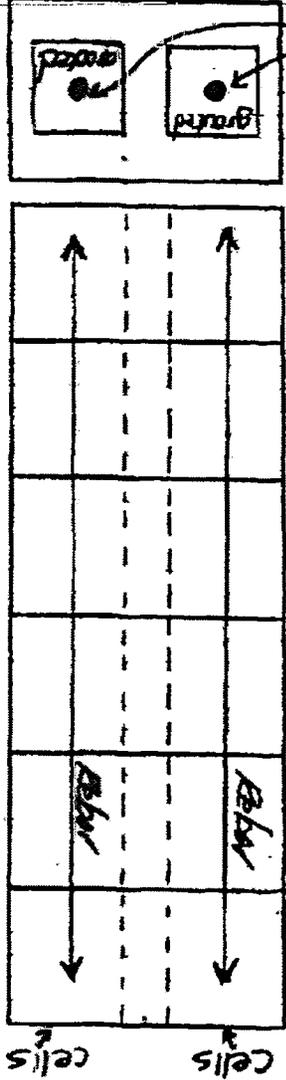
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246 19
180
66 19

360
246 + 19
~~113~~

Column
SIDE VIEW

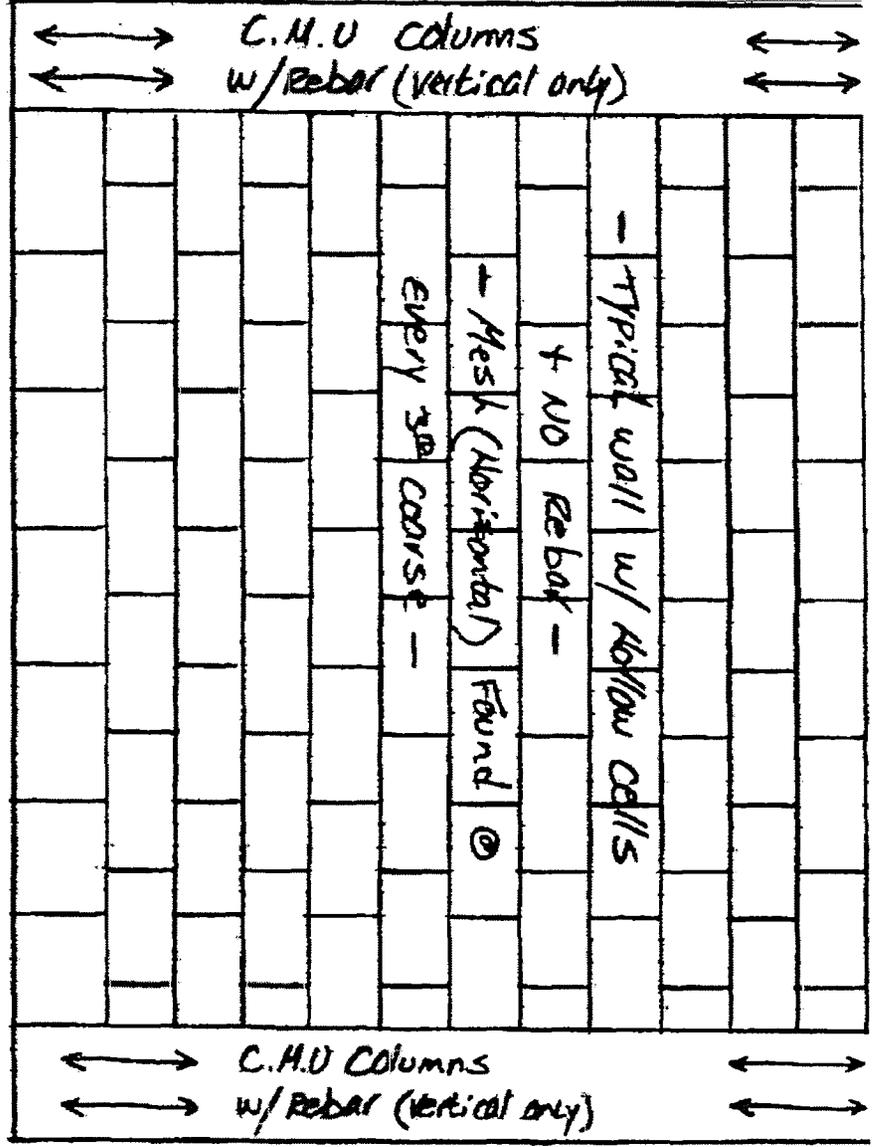
Block
TOP VIEW



Typical Column

Sellen

Selle



227 Westlake Ave N
PO Box 9970

Tel (206) 682-7778
Fax (206) 623-3206

GENERAL CONTRACTING
CONSTRUCTION MANAGEMENT

227 Westlake Ave N
PO Box 9970

Tel (206) 682-7778
Fax (206) 623-3206

GENERAL CONTRACTING
CONSTRUCTION MANAGEMENT

Harriott Valentine Engineers Inc.

SUPPLEMENTAL STRUCTURAL CALCULATIONS

Project:

Origins Redmond
16390 Cleveland Street
Redmond, WA 98052

Architect:

Morris Architects
8 Boston Street
Seattle, WA 98109

Structural Engineer:

Harriott Valentine Engineers, Inc.
1932 First Avenue, Suite 720
Seattle, WA 98101
tel. 206-624-4760



1932 First Avenue, Suite 720
Seattle, Washington 98101-2447
tel. 206-624-4760 | fax 447-6971

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1/30/2017
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STRONG BACKS AT NEW CMU OPENINGS

$$P_{net} = \lambda K_{zz} P_{net3D} = (1)(1)(-21.3) = -21.3 \text{ PSF}$$

$$\text{WIND LOAD} = 0.6 (P_{net}) = 12.8 \text{ PSF}$$

$$\begin{aligned} \text{LOAD AT CENTER COLUMN} &= 12.8 \text{ PSF} \times \frac{(10'-8" + 1'-4")}{2} \\ &= 76.8 \text{ PLF} \end{aligned}$$

COLUMN SPAN $\leq 14'$

$$M = 1.88 \text{ K.FT}$$

$$V = 538 \text{ \#}$$

TR4 6x6

$$M_{R} = 3.12 \text{ K.FT}$$

$$V_{R} = 3.43 \text{ K}$$

$$\Delta = .54" = \frac{L}{308} \text{ OK}$$

EXHIBIT D

Project Summary

PROJ-SUM

2015 WSEC Compliance Forms for Commercial Buildings including R2, R3, & R4 over 3 stories and all R1

Revised Jun 2016

General Info <i>This PROJ-SUM form shall be provided as a cover sheet for all compliance form submittals. Project Title matches project plans title block.</i>	Project Title: Origins TI and Change of Use	Date: 12/1/2016
	Project Street Address: 16390 Cleveland St.,	For Building Department Use
	Project City, County, Zip: Redmond WA 98052	
	Project Owner or Rep: Tom Morris, Morris Architects	
	Jurisdiction: Redmond WA	

Project Description <i>Select all that apply to the scope of project.</i> <i>Select Addition + Existing or Alteration + Existing if the existing building will be combined with the addition or alteration to demonstrate compliance per Section C502.1 or C503.1.</i>	New Construction and Additions <input type="checkbox"/> New Building <input type="checkbox"/> Building Addition <input type="checkbox"/> Addition + Existing		
	Existing Building Retrofit <input checked="" type="checkbox"/> Alteration <input checked="" type="checkbox"/> Alteration + Existing <input checked="" type="checkbox"/> Change in Space Conditioning <input checked="" type="checkbox"/> Change of Occupancy <input type="checkbox"/> Historic Building		
Building Elements Scope - Select all that apply <input checked="" type="checkbox"/> All <input checked="" type="checkbox"/> Building Envelope <input checked="" type="checkbox"/> Mechanical Systems <input checked="" type="checkbox"/> Service Hot Water Systems <input checked="" type="checkbox"/> Lighting Systems <input checked="" type="checkbox"/> Electrical Systems			

Occupancy Type	<input checked="" type="radio"/> All Commercial <input type="radio"/> Group R - R2, R3, & R4 over 3 stories and all R1 <input type="radio"/>
	<i>Mixed Use - Building is greater than three stories above grade and it has both Commercial and Group R occupancies.</i> <i>Mixed Occupancy - Building is three stories or less above grade and it has both Commercial and Group R2, R3 or R4 occupancies. Select All Commercial to document compliance for the commercial areas of the building. The residential spaces shall comply with the WSEC Residential Provisions.</i>

Space Conditioning Categories	<i>Select all that apply to the scope of project</i> <input checked="" type="checkbox"/> Fully Conditioned <input type="checkbox"/> Semi-heated ² <input type="checkbox"/> Refrigerated Warehouse, Walk-in Cooler/Freezer, Refrigerated Display Case ¹ <input type="checkbox"/> Low Energy Space Category ³		
	Eligible Low Energy Spaces <input type="checkbox"/> Unconditioned <input type="checkbox"/> Low energy heating/cooling capacity <input type="checkbox"/> Wireless service equipment shelter <input type="checkbox"/> Greenhouse ⁴ <input type="checkbox"/> Equipment building		

Floor Area and Stories	Floors Above Grade	Building Gross Conditioned Floor Area	Project Gross Conditioned Floor Area
	1	2,800	2800.0

General Compliance Path	<input type="radio"/> Prescriptive <input type="radio"/> Total Building Performance
	<i>Prescriptive - Projects complying prescriptively shall demonstrate compliance with all applicable mandatory and prescriptive requirements of this code. Refer to C401.2, Item 1 for more information. Compliance forms to include with a Prescriptive submittal: All applicable ENV, LTG, MECH and C406.</i> <i>Total Building Performance - Projects complying via total building performance (TBP) shall include a summary of results from a whole building energy model per Section C407 and shall demonstrate compliance with all applicable mandatory provisions in this Code. Refer to Section C401.2, Item 2 for more information. Compliance forms to include with a TPB submittal: PROJ-SUM, C406-SUM & C406-DETAIL, ENV-CHK, LTG-EXT, LTG-CHK, and all MECH forms (except MECH-ECONO)</i>

Site Copy

Envelope Summary

ENV-SUM

2015 WSEC Compliance Forms for Commercial Buildings including R2, R3, & R4 over 3 stories and all R1

Revised Jun 2016

Project Info <i>Compliance forms do not require a password to use. Instructional and calculating cells are write-protected.</i>	Project Title: Origins TI and Change of Use	Date: 12/01/2016
	<i>Applicant Information: Provide contact information for individual who can respond to inquiries about compliance form information provided.</i>	
	Company Name: Morris Architects	
	Company Address: 8 Boston Street, Suite #6, Seattle WA 98109	
	Applicant Name: Tom Morris	
	Applicant Phone: (206) 285-2403	
Applicant Email: morrisarch@integra.net		For Building Department Use

Project Description	<input type="checkbox"/> New Building <input type="checkbox"/> Addition <input checked="" type="checkbox"/> Alteration
----------------------------	--

Occupancy Type <i>Selection required to enable forms.</i>	<input checked="" type="radio"/> All Commercial <input type="radio"/> Group R - All R1 and R2, R3, R4 over 3 stories <input type="radio"/>
---	--

Envelope Compliance Path <i>Selection required to enable forms.</i>	<input type="radio"/> Prescriptive <input checked="" type="radio"/> Component Performance
---	---

Component Performance Calculation Type <i>Selection required to enable ENV-UA and ENV-SHGC forms.</i>	<input type="radio"/> Standard <input checked="" type="radio"/> Change of Occupancy/Conditioning <input type="radio"/>
<input type="checkbox"/> Additional Efficiency Package Option - C406.8 Enhanced Envelope <i>To comply, demonstrate building thermal envelope performance is 15% lower than the Target UA.</i>	

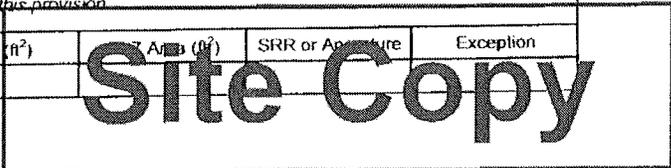
Air Barrier Testing	<input type="checkbox"/> Air barrier testing per Section C402.5.1.2 included in project scope <input type="checkbox"/> Air barrier testing not required <input type="checkbox"/> Additional Efficiency Package Option - C406.9 Reduced Air Infiltration <i>To comply, demonstrate that measured air leakage of building envelope does not exceed 0.25 cfm/ft² (air barrier surface area) under test pressure of 0.3 inch w.g.</i>
----------------------------	---

Vertical Fenestration and Skylight Area Calculation <i>Prescriptive Path - Enter values for vertical fenestration, skylights, gross walls and roof on this ENV-SUM worksheet.</i> <i>Component Performance - Enter values in ENV-UA and/or ENV-UA-GROUP-R worksheet. These values auto-fill from ENV-UA and are write-protected on ENV-</i>	Total Vertical Fenestration (rough opening)	divided by	Gross Exterior Above Grade Wall Area	times 100 equals	% Vertical Fenestration
	815.0	÷	3500.0	X 100 =	23.3%
	Total Skylight	divided by	Gross Exterior Roof Area	times 100 equals	% Skylight
	0.0	÷	2800.0	X 100 =	0.0%

Fenestration Area Compliance	Vertical Fenestration Area VERTICAL FENESTRATION AREA COMPLIES
	Skylight Area SKYLIGHT AREA COMPLIES

Vertical Fenestration Alternates <i>Show locations of qualifying daylight zone areas and ft² on project plans.</i> <i>For Daylight Zone Area Calculations -</i> a) Sidelight areas include primary + secondary daylight zone areas. b) Include overlapping toplight and sidelight daylight zone areas under Toplight. c) Refer to Chapter 2 for net floor area	<input type="radio"/> High performance fenestration U-factors and SHGC per C402.4.1.3 <input type="radio"/> Dedicated outdoor air system per C402.4.1.4 and C403.6 <input type="radio"/> In buildings ≥ 3 stories, 25% or more of NET floor area is in daylight zones per <input type="radio"/> In buildings < 3 stories, 50% or more of CONDITIONED floor area is within daylight zones per C402.4.1.1						
Daylight Zone Calculations							
Daylight Zone Fenestration Alternate Not Selected. No Calculations Required	<table border="1"> <tr> <th>Sidelight Daylight Zone Area</th> <th>Toplight Daylight Zone Area</th> <th>Percent Daylight Zone Area</th> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	Sidelight Daylight Zone Area	Toplight Daylight Zone Area	Percent Daylight Zone Area			
Sidelight Daylight Zone Area	Toplight Daylight Zone Area	Percent Daylight Zone Area					

Spaces in Single Story Building Requiring Skylights <i>Code requires a minimum of 50% of the floor area to be within a skylight daylight zone for specific space types. Refer to C402.4.2 for</i>	<i>List all enclosed spaces that exceed 2,500 ft², have ceiling height greater than 15 ft, and are space types required to comply with this provision.</i>										
<table border="1"> <thead> <tr> <th>Space</th> <th>Area (ft²)</th> <th>% Area (ft²)</th> <th>SRR or Aperture</th> <th>Exception</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Space	Area (ft²)	% Area (ft²)	SRR or Aperture	Exception						
Space	Area (ft²)	% Area (ft²)	SRR or Aperture	Exception							



specific space types. Refer to C402.4.2 for requirements.

DLZ = Daylight zone,
SRR = Skylight to roof ratio

Indicate aperture with "AP" prefix (AP 1.1%)

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Component Performance Path, pg. 1

ENV-UA

2015 WSEC Compliance Forms for Commercial Buildings including R2, R3, & R4 over 3 stories and all R1

Revised Jun 2016

Project Title: Origins TI and Change of Use				Date: 12/01/2016								
Calculation Adjustments Proposed UA is allowed to be 10% higher than Target UA				For Building Department Use								
Fenestration Area as % gross above-grade wall area				23.3%		Max. Target: 30.0%						
Skylight Area as % gross roof area				0.0%		Max. Target: 3.0%						
Vertical Fenestration Alternates:				None Selected on ENV-SUM								
Envelope Component				Proposed UA			Target UA					
Cavity+CI Plan/Detail # U-factor Source & Table # ²				U-factor	x Area (A)	= UA (U x A)	U-factor	x Area (A)	= UA (U x A)			
Roofs	Deck	R= 30	1/A2.1	A102.2.5, R30 CI Insulation over wood deck			0.032	2800	89.6	0.027	2800	75.6
		R _n								Above Deck Insulation U-0.027		
		R _n								0.031		
	Joist/Raft	R _n								Metal Building U-0.031		
		R _n								0.027		
		R _n								Joist/single rafter U-0.027		
	Attic/Oth	R _n								0.021		
		R _n								Single raft, attic, other U-0.021		
		R _n								0.055		
	Opaque Walls - Above Grade ^{4a}	Steel	R _n							Steel/metal frame U-0.055		
			R _n							0.052		
			R _n							Metal Building U-0.052		
Wood/Oth		R _n								0.054		
		R _n								Wood Frame, other U-0.054		
		R _n								0.104		
Mass ³		R= 21	A1.0	A103.3.7.1(4), 8" Solid groud CMU + R21 2x6 wood stud			0.055	2664	146.5	0.104	2664	277.1
		R _n		Wall Type A						Mass Wall U-0.104		
		R _n								0.200		
Transfer ⁵		R _n								Mass Transfer Deck U-0.20		
		R _n								0.078		
		R _n								Group R Mass Wall U-0.078		
Group R	R _n								0.104			
	R _n								Assumed to be Mass Wall U-0.104			
	R _n								0.078			
Below Grade	Comm ^{4,7}	R _n							Assumed to be Mass Wall U-0.078			
		R _n							0.031			
		R _n							Mass Floor U-0.031			
Floors	Mass	R _n							0.029			
		R _n							Joist/Framing U-0.029			
		R _n										

	Area	UA	Area	UA
Page 1 Subtotal	5464	236	5464	353

Component Performance Compliance (UA)

UA COMPLIES

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Component Performance Path, pg. 2

ENV-UA

2015 WSEC Compliance Forms for Commercial Buildings including R2, R3, & R4 over 3 stories and all R1

Revised Jun 2016

Project Title:		Origins TI and Change of Use				Date	12/01/2016				
Fenestration Area as % gross above-grade wall area		23.3%		Max. Target: 30.0%		For Building Department Use					
Skylight Area as % gross roof area				Max. Target: 3.0%							
Building Component		Proposed UA				Target UA					
	Ins R	Plan/Detail #	F-factor	Source & Table # ⁸	F-factor	x Perimeter	= UA (U x A)	F-factor	x Perimeter	= UA (U x A)	
Slab-on-grade	Unheated	R=		Existing slab	.73	A106.1, unisulated slab		0.730	131	95.6	
		R= 10	1/A21.	A106.1, 2' R10 horizontal interior slab w/o break	0.700		88	61.6	Slab-On-Grade F-0.54		
		R=							0.550	Heated Slab-On-Grade F-0.55	
Slab-on-grade	Heated	R=									
		R=									
		R=									
Schedule ID		U-factor		Source ^{9,10}	U factor	x Area (A)	= UA (U x A)	U factor	x Area (A)	= UA (U x A)	
Doors ⁹	Swinging	foam insulated metal door A107.1(1), foam insulated metal door			0.370	21	7.8	0.37	21	7.8	
								Opaque Swing Doors U-0.37			
								0.34	Opaque rollup & sliding U-0.34		
Doors ⁹	Other							0.30	Non-Metal Frame U-0.30		
		Vertical Fenestration ^{8,10}	Metal, fixed	2 pane, thermal break NFRC PRODUCT DATA		0.38	647	245.9	0.38	647	245.9
				A3.0					Metal Frame, Fixed U-0.38		
Vertical Fenestration ^{8,10}	Metal, op.							0.40	Metal Frame, Operable U-0.40		
		MH entrance	Storefront door NFRC Product Data		0.60	168	100.8	0.60	168	100.8	
A3.0						Metal Entrance Door U-0.60					
Skylights ¹⁰	All Types							0.50	All types U-0.50		

	Area	UA	Area	UA
Page 2 Subtotal	1055	512	1055	473
Page 1 Subtotal	5464	236	5464	353
Project Total	6519	748	6519	825

TO COMPLY - The Proposed Total UA shall not exceed the Target Total UA

Component Performance Compliance (UA)

UA COMPLIES

- Note 1 - If vertical fenestration or skylight area exceeds maximum allowed per C402.4.1, then Target Area Adjustment of all applicable envelope elements will be calculated automatically by the compliance form. Refer to Target Area Adjustments worksheet for this calculation.
- Note 2 - Opaque assembly U-factors shall come from Appendix A or calculated per approved method as specified in C402.1.5.1.
- Note 3 - Proposed CMU mass wall in non-Group R that meet Table C402.1.4 Footnote D requirements can enter the target U-value of 0.014
- Note 4 - For semi-heated spaces utilizing the wall insulation exception, enter Target Wall U-factors under Proposed Wall U-factors so exterior walls are neutral to the calculation.
- Note 5 - Mass transfer slab edges must be covered with an assembly having an overall U-factor of 0.2.
- Note 6 - Demising walls, doors, and vertical fenestration separating spaces with different degrees of space conditioning (unconditioned, semi-heated, fully conditioned) shall be included only on the ENV-UA form for the space with the greatest degree of space conditioning.
- Note 7 - List Group R above grade mass walls here. List all other mass walls, Commercial and Group R, in the Opaque Walls - Above Grade section.
- Note 8 - Slab-on-grade F-Factors shall come from Appendix A or calculated per approved method as specified in C402.1.5.1.
- Note 9 - Opaque door U-factors shall come from Appendix A or calculated per approved method as specified in C402.1.5.1. A door is defined as opaque if less than 50% of the door area has glazing.

Site Copy

Skylight Target Area Adjustment Calculations

If skylight area exceeds maximum allowed per Section C402 4.1, then Target Area Adjustment of all applicable envelope elements is required. This

SKY= Skylight	NR = Net roof (excludes skylight)	Gross Exterior Roof Area = SKY + NR
----------------------	--	--

Proposed Areas

Skylight (Horizontal Fenestration) ->		SKY=						
Opaque Roof ->		NR=	2800.0					

Gross Exterior Roof Area		Max Skylight % (C402.3.1)		Maximum Skylight Fenestration Area				
2800.0	X	3.0%	÷	100	=	84.0		

Total Skylight Area		Maximum Target		Delta Skylight Area				
	-	84.0	=	-84.0	↕ greater	-84.0	=	Excess Skylight

Total Skylight Area		Excess Skylight		Target Skylight Area		Total Skylight Area		Target SKY Multiplier
	-		=		÷		=	

Multiplier applied to all Proposed Skylight Areas to calculate Target Skylight Area

Net Roof Area		Excess Skylight		Target Net Roof Area		Net Roof		Target Net Roof Mult.
2800.0	+		=	2800.0	÷	2800.0	=	1.00

Multiplier applied to all Proposed Opaque Roof Areas to calculate Target Roof Area

Target Areas - UA and SHGC x A

Skylight		Proposed Area		Target SKY Mult.		Target Area	
All	X		X		=		<p><i>Target areas in shaded boxes are applied to target areas on ENV-UA</i></p>
Roof		Proposed Area		Target Net Roof Mult.		Target Area	
Insulation Above Deck	X	2800.0	X	1.00	=	2800.0	
Metal Building	X		X		=		
Joist / Single Rafter	X		X		=		
Attic / All Others	X		X		=		

Sum of Proposed		2800.0		Sum of Target		2800.0
------------------------	--	--------	--	----------------------	--	--------

Sum of target roof and skylight areas are calculated in equal the

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SHGC Calculation

ENV-SHGC

2015 WSEC Compliance Forms for Commercial Buildings including R2, R3, & R4 over 3 stories and all R1

Revised Jun 2016

Project Title: Origins TI and Change of Use		Date: 12/01/2016															
Fenestration Area as % gross above-grade wall area: 23.3% Max Target 30%		For Building Department Use															
Skylight Area as % gross roof area: Max. Target: 3%																	
Vertical Fenestration Alternates: None Selected on ENV-SUM																	
<p>Notes: 1 - Proposed vertical fenestration and skylight areas entered in ENV-SHGC must match proposed fenestration areas in ENV-UA</p> <p>2 - If Target Area Adjustment is required per ENV-UA, then target areas will be automatically adjusted in ENV-SHGC. Refer to Target Area Adjustments worksheet for this calculation.</p> <p>3 - Fenestration assembly SHGC shall be the manufacturer's NFRC product rating, or shall be the default value per Section C303.1.3</p> <p>4 - Fenestration that separates conditioned space from a non-conditioned space shall be included in this worksheet. Enter target SHGC values for this fenestration under proposed SHGC, so if</p>																	
<table border="1"> <thead> <tr> <th>Skylights</th> <th>Proposed SHGC</th> <th>Target SHGC</th> </tr> <tr> <th>Sch. ID</th> <th>Provide SHGC source and fenestration schedule ID</th> <th>SHGC x Area (A) = SHGC x A</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>0.35</td> </tr> <tr> <td></td> <td></td> <td>SHGC 0.35</td> </tr> <tr> <td colspan="2" style="text-align: right;">Skylight Totals</td> <td></td> </tr> </tbody> </table>		Skylights	Proposed SHGC	Target SHGC	Sch. ID	Provide SHGC source and fenestration schedule ID	SHGC x Area (A) = SHGC x A			0.35			SHGC 0.35	Skylight Totals			
Skylights	Proposed SHGC	Target SHGC															
Sch. ID	Provide SHGC source and fenestration schedule ID	SHGC x Area (A) = SHGC x A															
		0.35															
		SHGC 0.35															
Skylight Totals																	

All Non-North Vertical Fenestration+		Proposed SHGC			Target SHGC ++			
Sch. ID	Provide SHGC source and fenestration schedule ID	PF	SHGC	x Area (A) = SHGC x A	PF Category	SHGC	x Area (A) = SHGC x A	SHGC x A
A3.0	Storefront fixed glazing	0.40	647	259	PF < 0.2	0.40	815	326.0
A3.0	Operable entry doors	0.40	168	67	0.2 ≤ PF < 0.5	0.48		
					PF ≥ 0.5	0.64		
<p>++ If projection factor (PF) credits are applied to the proposed design, Target SHGC will sum fenestration area by PF category.</p>								
<p>* If PF credit is applied, then vertical fenestration must be entered in the correct table according to orientation. If credit is not applied then all vertical fenestration can be entered in either table.</p>					Non-North Window Totals		815.0	326.0
							815.0	326.0

North Vertical Fenestration+		Proposed SHGC			Target SHGC++			
Sch. ID	Provide SHGC source and fenestration schedule ID	PF	SHGC	x Area (A) = SHGC x A	PF Category	SHGC	x Area (A) = SHGC x A	SHGC x A
					PF < 0.2	0.53		
					0.2 ≤ PF < 0.5	0.58		
					PF ≥ 0.5	0.64		
<p>++ If projection factor (PF) credits are applied to the proposed design, Target SHGC will sum fenestration area by PF category.</p>								
North Window Totals								

TO COMPLY - The Proposed Total SHGC x A shall not exceed the Target Total SHGC x A.

	Area	SHGC x A	Area	SHGC x A
Total (Skylight + Window)	815.0	326.0	815.0	326.0

Component Performance Compliance (SHGC)

SHGC COMPLIES

Site Copy

Building Permit Plans Checklist, pg. 1

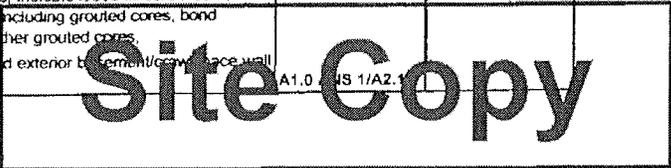
ENV-CHK

2015 WSEC Compliance Forms for Commercial Buildings including R2, R3, & R4 over 3 stories and all R1 Revised Jun 2016

Project Title: **Origins TI and Change of Use** Date: **12/01/2016**

The following information is necessary to check a building permit application for compliance with the building envelope requirements in the Washington State Energy Code, Commercial Provisions.

Applicability (yes,no,na)	Code Section	Component	Compliance information required in permit documents	Location in Documents	Building Department Notes
SCOPE					
na	C402.1.1	Low energy spaces	Low energy spaces are identified on plans, include project information, and calculations if applicable, that demonstrate spaces are eligible for envelope provisions exemption		
na	C402.1.1.1	Semi-heated spaces	Semi-heated spaces are identified on plans, include calculations that demonstrate spaces are eligible for wall insulation exemption		
na	C402.1.2	Equipment Buildings	Provide building area, average wall and roof U-factor, and installed equipment information that demonstrates equipment building is eligible for envelope provision exemption		
na	C410.2	Walk-in and warehouse cooler and freezer spaces	Cooler and freezer spaces are identified on plans, C410 envelope compliance forms provided (pending)		
na	C101.4.1	Mixed occupancy	Spaces with different occupancy requirements are identified on plans		
yes	C503.2	Change of space conditioning	Existing unconditioned spaces changing to semi-heated or conditioned space, and existing semi-heated spaces changing to conditioned space, are identified on plans. Include calculations that demonstrate baseline and final level of conditioning.	A0.1	
na	C505.1	Change of occupancy	Existing F, S and U-occupancy spaces undergoing a change in occupancy are indicated on plans, include calculations that demonstrate upgrade complies with the current WSEC. Pre-2002 Group R spaces undergoing a change to a commercial occupancy are indicated on plans; include calculations that demonstrate upgrade complies with the current WSEC. Non-Group R occupancy spaces undergoing a change to Group R are indicated on plans; include calculations that demonstrate upgrade complies with the current WSEC.		
ENVELOPE PROVISIONS					
yes	C103.2 C103.6.3	Compliance documentation	Indicate envelope insulation compliance path and provide applicable forms: ENV-PRESCRIPTIVE or ENV-LIA / ENV-SHGC for component performance If complying via total building performance, provide a list of all proposed envelope component types, areas and U-values	A0.1 AND 1/A2.1	
yes	C303.1.1 C303.1.2	Insulation identification	Indicate identification mark shall be applied to all insulation materials and insulation installed such that the mark is readily observable during inspection	A1.0	
yes	C303.1.3 C402.4.3	Fenestration product rating	Fenestration products shall be labeled with rated U-factor, SHGC, VT, and leakage rating	A3.0	
yes	C303.1.1 C402.2.1	General insulation installation	Indicate installation methods, thicknesses, densities and clearances to achieve the intended R-value of all insulation materials. Where two or more layers of rigid insulation will be used, indicate that edge joints between layers are staggered	A1.0 AND 1/12.1	
yes	C103.2 C402.2.2	Roof assembly insulation	Indicate R-value(s) of cavity/continuous insulation on roof sections; Indicate framing materials on roof sections; Indicate method of framing for ceilings below vented attics and vaulted ceilings per A102.2 (std, adv). Provide area weighted average U-factor calculation for insulation whose thickness varies by 1 inch or less; Indicate effective U-factors of tapered insulation entirely above deck per A102.2.6; include roof configuration and slope, maximum R-value at peak and minimum R-value at low point for all roof surfaces Indicate R-values for thermal spacers and each insulation layer, and liner system (LS) method for metal building roofs	1/A2.1	
na	C402.2.2	Skylight curb insulation	Indicate curb insulation R-value on roof section if not included in skylight NFRC rating		
yes	C103.2 C402.2.3 C402.2.4 C303.2.1	Above/below grade wall insulation	Indicate R-value(s) of cavity/continuous insulation on wall sections, Indicate framing materials on wall sections. Indicate method of framing for wood const per A103.2 (std, int, adv): Indicate material density category, wall weight and heat capacity for qualifying mass walls; For qualifying ASTM C90 masonry walls, indicate loose-fill core insulation material and percentage of cores filled including grouted cores, bond beams, vertical fills, headers and any other grouted cores. Indicate method of protection of exposed exterior basement/crawlspace wall insulation	A1.0 AND 1/A2.1	



Building Permit Plans Checklist, pg. 2

ENV-CHK

2012 Washington State Energy Code Compliance Forms for Commercial Buildings including R2 & R3 over 3 stories and all R1

Project Title: **Origins TI And Change of Use** Date: **12/01/2016**

Applicability (yes,no,na)	Code Section	Component	Compliance information required in permit documents	Location in Documents	Building Department Notes
yes	C103.2 C402.4.4	Opaque doors	Indicate rated U-factor (swinging) or R-value (non-swinging - roll-up/sliding) on wall sections or in door schedules - applies to doors with less than 50% glazed area	A3.0	
na	C402.2.5	Floor over outdoor or unconditioned space insulation	Indicate R-value(s) of cavity/continuous insulation on floor sections; Indicate framing material on floor sections; Indicate material density category and weight of qualifying mass floors		
yes	C402.2.6 C303.2.1	Slab-on-grade floor insulation	Indicate R-value of continuous insulation on wall section or foundation detail; Indicate insulation extends down vertically and/or horizontally the required distance from top of slab; Indicate method of protection of exposed exterior slab edge insulation	1/A2.1	
na	C402.2.6 C303.2.1	Radiantly heated slab on-grade floor insulation	Indicate R-value of continuous insulation on wall section or foundation detail; Indicate insulation extends down vertically from top of slab and then horizontally under the entire slab; Indicate method of protection of exposed exterior slab edge insulation		
na	C402.2.8	Radiant heating system insulation	Indicate insulation R-value behind radiant panels, U-bend/headers and bottom surface of radiantly heated floors (other than radiantly heated slab-on-grade)		
yes	C402.4.1 C502.2.1 C503.3.2	Vertical fenestration maximum area	Provide calculation for total vertical fenestration area as a percentage of gross above grade wall area (WWR) for new construction, additions and alterations in ENV-SUM		
na	C402.4.1.1 C405.2.4.1 C502.2.1 C503.3.2	Increased prescriptive maximum vertical fenestration area with daylight zones and controls	Provide calculations showing that the percentage of overall conditioned floor area within daylight zones is equal to or greater than 50% in 1 & 2 story buildings. OR Provide calculations showing that the percentage of overall net floor area within daylight zones is equal to or greater than 25% in buildings 3 stories or more; include the gross floor area and list of spaces omitted for the net floor area. Note in envelope plans that all lighting fixtures located within daylight zones shall be provided with daylight responsive controls per WSEC Section C405.2.4.1; indicate method of control in lighting fixture schedules Indicate that the VT of vertical fenestration is at least 1.1 times the rated SHGC		
na	C402.4.1.3 C502.2.1 C503.3.2	Increased prescriptive maximum vertical fenestration area with high-performance glazing	Indicate high performance U-factors and SHGC values in fenestration schedules. If applicable, provide area-weighted U-factor calculation(s) used for multiple fenestration elements within the same fenestration category per Table C402.3		
na	C402.4.1.4 C403.6	Increased prescriptive maximum vertical fenestration area with DOAS mechanical systems	Indicate that for eligibility, all occupied, conditioned spaces will be served by a dedicated outside air system (DOAS) that delivers ventilation air without requiring operation of the heating/cooling system per Section C403.6		
yes	C402.1.5	Wall/vertical fenestration target area adjustment	Indicate if component performance with target area adjustment will be used to account for vertical fenestration area in excess of the prescriptive maximum allowed		
na	C402.4.1 C502.2.2 C503.3.3	Skylight maximum area	Provide calculation for total skylight area as a percentage of gross roof area (SRR) for new construction, additions and alterations in ENV-SUM		
na	C402.1.5.2	Roof/skylight target area adjustment	Indicate if component performance with target area adjustment will be used to account for skylight area in excess of the prescriptive maximum allowed		
yes	C402.4.3 C303.1.3	U-factors, SHGC and VT for all fenestration assemblies	Indicate U-factors, SHGC and VT values in fenestration schedules; If applicable, provide area-weighted U-factor calculation(s) used for multiple fenestration elements within the same fenestration category per Table C402.3 Indicate if values are NFRC or default, if default then specify frame type, glazing layers, gap width, low-e coatings, gas-fill	A3.0	
na	C402.4.3	Permanent shading devices	For windows with overhangs or permanent projection shading devices, provide projection factor calculations (Equation C-4.0) and associated minimum SHGC for north and non-north orientations		

Site Copy

Building Permit Plans Checklist, pg. 3

ENV-CHK

2012 Washington State Energy Code Compliance Forms for Commercial Buildings including R2 & R3 over 3 stories and all R1

Project Title: Origins TI and Change of Use		Date			
Applicability (yes,no,na)	Code Section	Component	Compliance information required in permit documents	Location in Documents	Building Department Notes
na	C402.4.2	Spaces in single story buildings requiring skylights	In single story buildings, provide list of enclosed areas that exceed 2,500 sf, have ceiling height greater than 15 ft, and are space types required to comply with this provision. For each area identify space type, floor area, floor to ceiling height, and any exception taken. For each area provide calculations for percentage of conditioned floor area located within a daylight zone including skylight and eligible sideflight daylight zones. For each area provide calculations for percentage of skylight area. OR: Provide calculations for skylight effective aperture (Equation C4-5); Indicate haze factor of skylight glazing material or diffuser		
AIR LEAKAGE					
na	C402.5.1.1	Air barrier construction and sealing	Indicate location of continuous air barrier on plans and sections; Provide details for all joints, transitions in materials, penetrations in air barrier and note method of sealing (caulked, gasketed, or other approved method)		
na	C402.5.3	Rooms containing open combustion fuel burning appliances used for space conditioning	Indicate that room(s) containing non-direct vent appliances is isolated from inside the thermal envelope with a sealed air barrier, including doorway gasketing and sealing around ductwork and piping penetrations. Indicate insulation provided in wall, floor and ceiling of the room envelope, and insulation required on combustion air ductwork		
na	C402.5.4	Access openings and doors to shafts, chutes, stairways and doors	Indicate locations of all access openings and doors to shafts, chutes, stairways and elevators; Indicate method of gasketing, weatherstripping and sealing of these openings		
na	C402.5.5 C403.2.4.3	Outdoor air intakes, exhausts and relief openings	Indicate locations of all stairway enclosure, elevator shaft and building pressurization relief openings, outside air intakes and exhaust openings; Note in envelope plans that all relief, outside air intake and exhaust openings shall be provided with dampers in accordance with Mechanical Section C403.2.4.3		
na	C402.5.8	Recessed lighting in building envelope	Indicate method of sealing between light fixture housing and wall or ceiling; Note in envelope plans that all recessed lighting fixtures shall be IC rated and have an air leakage rating not greater than 2 cfm per ASTM E283 test; include these requirements in lighting fixture schedules		
	C402.5.6	Loading dock seals	Indicate weather seal at cargo and loading dock doors		
na	C402.5.7	Vestibules	Indicate locations and dimensions of vestibules and air curtains; Indicate exception and criteria utilized for all building entrances and exits that do not have a vestibule or air curtain; Indicate required performance for air curtains installed per exception 7; For unconditioned vestibules, indicate which envelope assembly (interior or exterior) complies with the requirements for a conditioned space		
na	C103.2 C402.5.1.2	Building air leakage test	Indicate on plans the air barrier boundaries and area calculations on all six sides of the air barrier; Indicate air barrier test method in accordance with ASTM E779 or approved equivalent; Indicate required maximum leakage rate for compliance. Include the following requirements in project documents. (1) Submit air barrier test report to jurisdiction once test is completed; (2) If test results exceed 0.4 cfm/ft2 at 0.3 in. wg, then visually inspect air barrier and seal noted sources of leakage; (3) Submit a follow-up report to jurisdiction noting corrective measures taken; (4) Include air barrier test report in compliance documentation provided to owner.		

If "no" is selected for any question, provide explanation:

End of Building Permit Plans Checklist

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EXHIBIT E

Lighting Summary

LGT-SUM

2015 Washington State Energy Code Compliance Forms for Commercial Buildings including R2, R3, R4 over 3 stories and all R1 Revised August 2016

Project Info <i>Compliance forms do not require a password to use. Instructional and calculating cells are write-protected.</i>	Project Title: Origins TI and Change of Use	Date: 12/5/2016
	<i>Applicant Information: Provide contact information for individual who can respond to inquiries about compliance form information provided.</i>	
	Company Name: Morris Architects Inc. PS	
	Company Address: 8 Boston St. Suite 6, Seattle, WA 98109	
	Applicant Name: Tom Morris	
	Applicant Phone: 206 286-1755	
Applicant Email: morrisarch@integra.net		For Building Department Use

Project Description	<input type="checkbox"/> New Building <input type="checkbox"/> Addition <input checked="" type="checkbox"/> Alteration <input type="checkbox"/> Plans Included
Include PROJ-SUM form (included in envelope forms workbook) with lighting compliance forms.	

Building Additions <i>Refer to Section C502.2.6 for additional requirements.</i>	Compliance Method		Interior lighting	Exterior lighting
	Lighting systems in addition area comply with all applicable provisions as a stand alone new construction project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lighting systems in addition are combined with existing building lighting systems to demonstrate compliance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Addition is combined with existing: For interior lighting projects, include new + existing interior lighting fixture wattage in Proposed Lighting Wattage table in LTG-INT-BLD or LTG-INT-SPACE form. For exterior lighting projects, include new + existing exterior lighting fixture wattage in Proposed Tradable and Proposed Non-Tradable Lighting Wattage tables in LTG-EXT form.				

Interior and Exterior Lighting Alterations <i>Select all Lighting Power and Lighting Control elements that apply to the scope of the retrofit project. If project includes a combination of spaces where less than 50% of the existing fixtures are replaced in some spaces, and 50% or more of the fixtures are replaced in others, then provide separate lighting power compliance forms for the two retrofit conditions. Spaces undergoing the same type of retrofit may be combined into one lighting power compliance form.</i> <i>Refer to Section C503.6 for additional requirements.</i>	Lighting Power	Interior lighting	Parking garage	Exterior lighting
	50% or more of existing are replaced	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Less than 50% of existing are replaced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lamp and/or ballast replacement only – existing total wattage not increased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50% or more replaced - Total lighting power of new + existing-to-remain fixtures shall comply with total LPA per Sections C405.4.2 and C405.5.2. Include new + existing-to-remain fixtures in Proposed Lighting Wattage table in LTG-INT-BLD, LTG-INT-SPACE or LTG-EXT form. Less than 50% replaced - Total lighting power of new + existing-to-remain fixtures shall not exceed the total lighting power prior to alteration. Include new + existing-to-remain fixtures in the Proposed Lighting Wattage table in LTG-INT-BLD, LTG-INT-SPACE or LTG-EXT form. 50% threshold applies to number of luminaires for interior spaces and parking garages, and total installed wattage for exterior luminaires.				

<i>All alteration lighting controls shall be commissioned per C408.3.</i> <input type="checkbox"/> No changes are being made to the interior or exterior lighting systems and existing space uses and configuration are not changed.	Lighting Controls	Interior lighting	Parking garage	Exterior lighting
	New wiring installed to serve added fixtures and/or fixtures relocated to new circuit(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	New or moved lighting panel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Interior space is reconfigured - luminaires unchanged or relocated only	<input type="checkbox"/>		
New wiring or circuit - For interior lighting, provide required manual controls per C405.2.3, occupancy sensor controls per C405.2.1, daylight responsive controls per C405.2.4 and application specific lighting controls per C405.2.5. For exterior lighting, provide required controls per C405.2.7. New or moved panel - Provide all applicable lighting controls as noted for New Wiring and automatic time switch controls per C405.2.2. Reconfigured interior space - Provide all required lighting controls that apply to a new interior space. Application specific lighting control provisions per C405.2.5 do not apply to reconfigured spaces.				

Change of Space Use	<input type="checkbox"/> Existing interior lighting systems in areas under-going a change in space use are upgraded to comply with LPAs for the new space types per Tables C405.4.2(1) or C405.4.2(2).
Identify interior spaces requiring LPD upgrade to the current Code in Proposed Lighting Wattage table in LTG-INT-BLD or LTG-INT-SPACE form.	

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Lighting Summary, cont.

LGT-SUM

2015 Washington State Energy Code Compliance Forms for Commercial Buildings including R2, R3, R4 over 3 stories and all R1

Revised August 2016

Project Title: Origins TI and Change of Use		Date: 12/5/2016
Interior Lighting System Description	Ambient illumination at offices and supot spaces, and product illumination at retail floors provided by LED fixtures either pendant mounted, track mounted, surface mounted or recessed in the ceiling.	
Interior Lighting Power Allowance Method	<input checked="" type="checkbox"/> Building Area Method <input type="checkbox"/> Space-by-space Method <i>Select method used in project.</i>	
Interior Lighting Controls	<input checked="" type="checkbox"/> All C405.2.1 - C405.2.8 Controls <input type="checkbox"/> C405.2 Exception 5 Luminaire Level Lighting Control (LLLC) <input type="checkbox"/> Additional Efficiency Package Option C406.4 Enhanced digital lighting controls <i>To comply with C406.4, no less than 90% of the total installed interior lighting power shall comply with the required controls per C406.4.</i>	
Dwelling Unit Interior Lighting	Permanently installed interior lighting fixtures in dwelling units comply with: <ul style="list-style-type: none"> <input type="radio"/> C405.2 thru C405.5 Commercial Lighting Controls and LPA <input type="radio"/> C406.3 High Efficacy Lighting <input type="radio"/> 	
Exterior Lighting System Description		

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Interior Lighting - Space-By-Space Method

LTG-INT-SPACE

2015 Washington State Energy Code Compliance Forms for Commercial Buildings including R2, R3, R4 over 3 stories and all R1

Revised August 2016

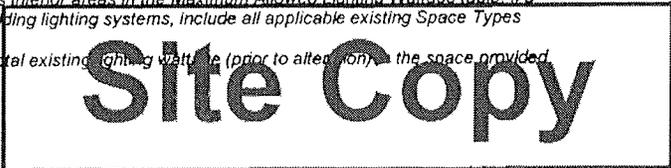
Project Title: Origins TI and Change of Use			Date: 12/5/2016
Calculation Area <small>NOTE 9</small>	<input type="radio"/> Addition - stand alone	<input type="radio"/> Addition + existing	For Building Department Use
	<input type="radio"/> Spaces where < 50% of luminaires are replaced	<input type="radio"/> Spaces where ≥ 50% of luminaires are replaced	
LPA Calculation Type	<input type="radio"/> Standard	<input checked="" type="radio"/> Additional Efficiency Package Option C406.3 Reduced Interior Lighting Power	
To comply with C406.3, the Proposed LPD shall be 25% lower than the Target LPA. Refer to C406.3 for additional requirements.			

Maximum Allowed Lighting Wattage <small>NOTE 1</small>					
Location (plan #, room #)	Space Type	Ceiling Height <small>NOTE 2</small>	Gross Interior Area in ft ²	Allowed Watts per ft ²	Watts Allowed (watts/ft ² x area)
Total Area					
Retail Display Allowance from LTG-INT-DISPLAY					
Lobby Art/Exhibit Display Allowance from LTG-INT-DISPLAY <small>NOTE 8</small>					
Allowed Watts					

Proposed Lighting Wattage <small>NOTE 3</small>					
Location (plan #, room #)	Fixture Description <small>NOTE 4, 5, 6</small>	Number of Fixtures	Watts/Fixture <small>NOTE 7</small>		Watts Proposed
Proposed Retail Display Lighting from LTG-INT-DISPLAY					
Total Proposed Watts may not exceed Total Allowed Watts for Interior Lighting					
Total Proposed Watts					

Interior Lighting Power Allowance

- Note 1 - List all unique space types per Table C405.4.2(2) that occur in the project scope. Select space type category per from drop down menu.
- Note 2 - Indicate ceiling height for atriums and spaces utilizing the ceiling height adjustment per Table C405.4.2(2), Footnotes d thru f.
- Note 3 - List all proposed lighting fixtures including exempt lighting equipment and existing-to-remain fixtures.
- Note 4 - For proposed Fixture Description, indicate fixture type, lamp type (e.g. T-8), number of lamps in the fixture, and ballast type (if included). For track lighting, list the length of the track (in feet) in addition to the fixture, lamp, and ballast information.
- Note 5 - For lighting equipment eligible for exemption per C405.4.1, note exception number and leave Watts/Fixture blank.
- Note 6 - Existing-to-remain fixtures shall be included in the Proposed Lighting Wattage table in the same manner as new fixtures. Identify as existing in fixture description.
- Note 7 - For proposed Watts/Fixture enter the luminaire wattage for installed lamp and ballast using manufacturer or other approved source. For luminaires with screw-in lamps, enter the manufacturer's listed maximum input wattage of the fixture (not the lamp wattage). For low voltage lighting, enter the wattage of the transformer. For line voltage track/busway systems, enter the larger of the attached luminaire wattage or 50 watts/lineal foot, or enter the wattage limit of permanent current limiting device.
- Note 8 - Lobby Art/Exhibit Display Allowance is independent of the Maximum Allowed Lighting Wattage.
- Note 9 - Calculation Area Details:
 - a. Lighting fixtures in a building addition may comply as a stand alone project, or they may be combined with the overall existing building lighting systems to demonstrate compliance. Refer to C502.1.
 - b. For alterations and building additions, provide Space Types and gross interior areas in the Maximum Allowed Lighting Wattage table. If a building addition will comply as combined with the overall existing building lighting systems, include all applicable existing Space Types and gross interior areas.
 - c. If less than 50% of existing lighting fixtures will be replaced, provide total existing lighting wattage (prior to alteration) in the space provided.



Interior Display Lighting - Space-by-Space

LTG-INT-DISPLAY

2015 Washington State Energy Code Compliance Forms for Commercial Buildings including R2, R3, R4 over 3 stories and all R1 Revised August 2016

Project Title: Origins TI and Change of Use		Date: 12/5/2016																																			
<p>General Note - In Sales areas, an increase in lighting power allowance is permitted for lighting installed specifically for the purpose of highlighting merchandise. Only Sales areas illuminated with eligible merchandise display lighting may be included in the Gross Interior Area under each Retail category. This lighting power allowance is the Maximum Retail Display Allowance OR the Total Retail Proposed Display Watts, whichever is less. Proposed retail display lighting wattage that exceeds this allowance is applied to general area lighting.</p> <p>Maximum Allowed Retail Display Lighting Wattage</p>		For Building Department Use																																			
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Location (plan #, room #)</th> <th style="width: 40%;">Retail Sales Area Type ^{NOTE 1}</th> <th style="width: 15%;">Gross Interior Area in ft²</th> <th style="width: 10%;">Allowed Watts per ft² ^{NOTE 2}</th> <th style="width: 20%;">Watts Allowed (watts/ft² x area)</th> </tr> </thead> <tbody> <tr> <td></td> <td>Retail 1: All unclassified retail display</td> <td></td> <td>0.60</td> <td>No display</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2" style="text-align: right;">Total Retail With Display Area</td> <td></td> <td>Total Watts</td> <td></td> </tr> <tr> <td colspan="2"></td> <td></td> <td>Retail Display Lighting Base Allowance</td> <td></td> </tr> <tr> <td colspan="2"></td> <td></td> <td>Maximum Retail Display Allowance ^{NOTE 3}</td> <td></td> </tr> </tbody> </table>			Location (plan #, room #)	Retail Sales Area Type ^{NOTE 1}	Gross Interior Area in ft ²	Allowed Watts per ft ² ^{NOTE 2}	Watts Allowed (watts/ft ² x area)		Retail 1: All unclassified retail display		0.60	No display											Total Retail With Display Area			Total Watts					Retail Display Lighting Base Allowance				
Location (plan #, room #)	Retail Sales Area Type ^{NOTE 1}	Gross Interior Area in ft ²	Allowed Watts per ft ² ^{NOTE 2}	Watts Allowed (watts/ft ² x area)																																	
	Retail 1: All unclassified retail display		0.60	No display																																	
Total Retail With Display Area			Total Watts																																		
			Retail Display Lighting Base Allowance																																		
			Maximum Retail Display Allowance ^{NOTE 3}																																		

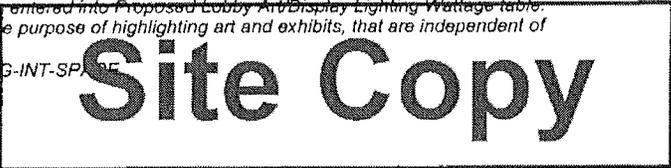
Proposed Retail Display Lighting Wattage ^{NOTE 4}

Retail Area	Location (plan #, room #)	Fixture Description ^{NOTE 5}	Number of Fixtures	Watts per Fixture ^{NOTE 6}	Watts Proposed
Total Retail Proposed Display Watts ^{NOTE 7}					
Retail Display Power Allowance ^{NOTE 8}					

Proposed Retail Display Lighting Totals from LTG-INT-DISPLAY

Retail 1	Retail 2	Retail 3	Retail 4

- Note 1 - Select retail sales areas from drop down menu. Only retail sales areas that comply with C405.4.2.2.1 may be entered in this table.*
- Note 2 - Retail display lighting power allowances per C405.4.2.2.1, Equation 4-11.*
- Note 3 - Maximum retail display wattage allowance as calculated per C405.4.2.2.1, Equation 4-11.*
- Note 4 - Only separately controlled retail display fixtures that are independent of general area lighting per C405.4.2.2.1 may be entered in this table.*
- Note 5 - For proposed Fixture Description, list ALL proposed display lighting fixtures. Indicate fixture type, lamp type (e.g. T-8), number of lamps in the fixture, and ballast type (if included). For track lighting, list the length of the track (in feet) in addition to the fixture, lamp, and ballast information.*
- Note 6 - For proposed Watts/Fixture enter the luminaire wattage for installed lamp and ballast using manufacturer or other approved source. For luminaires with screw-in lamps, enter the manufacturer's listed maximum input wattage of the fixture (not the lamp wattage). For low voltage lighting, enter the wattage of the transformer. For line voltage track/busway systems, enter the larger of the attached luminaire wattage or 50 watts/lineal foot, or enter the wattage limit of permanent current limiting device.*
- Note 7 - Total Retail Proposed Display Watts is automatically entered into the Proposed Fixture Wattage table in LTG-INT-SPACE.*
- Note 8 - Retail display lighting power allowance is the lesser of the Maximum Retail Display Allowance OR the Total Retail Proposed Display Watts. Retail display wattage allowance is automatically entered in the Maximum Allowed Lighting Wattage table in LTG-INT-SPACE.*
- Note 9 - Enter a unique title for each lobby area in project that has art/exhibit display lighting.*
- Note 10 - Lobby art and exhibit display wattage allowance per Table C405.4.2(2), Footnote c = 0.5 W/ft².*
- Note 11 - Proposed display lighting totals for each lobby area per information entered into Proposed Lobby Art/Display Lighting Wattage table.*
- Note 12 - Only separately controlled display fixtures installed in lobbies for the purpose of highlighting art and exhibits, that are independent of general area lighting, may be entered in this table.*
- Note 13 - Lobby Art/Exhibit Display Allowance is automatically entered in LTG-INT-SPACE.*



Interior Display Lighting - Space-by-Space

LTG-INT-DISPLAY

2015 Washington State Energy Code Compliance Forms for Commercial Buildings including R2, R3, R4 over 3 stories and all R1

Revised July 2016

Project Title: Origins TI and Change of Use			Date: 12/5/2016	
<p><i>General Note - In Lobby areas, an additional wattage allowance is permitted for lighting installed specifically for the purpose of highlighting art and exhibits. Only Lobby areas with eligible display lighting may use this additional allowance. Proposed display lighting for each Lobby area may not exceed this allowance.</i></p>			For Building Department Use	
Maximum Allowed Lobby Art/Exhibit Display Lighting Wattage				
Lobby Area ^{NOTE 9}	Lobby Description including (plan # & room #)	Gross Interior Area in ft ²	Maximum Display Watts Allowed Per Area ^{NOTE 10}	Proposed Display Lighting Total Per Area ^{NOTE 11}
Total Lobby with Display Area				

Total Lobby Art/Exhibit Display Allowance ^{NOTE 13}

Proposed Lobby Art/Exhibit Display Lighting Wattage ^{NOTE 12}

Lobby Area	Location (plan #, room #)	Fixture Description ^{NOTE 5}	Number of Fixtures	Watts per Fixture ^{NOTE 6}	Watts Proposed
Total Lobby Art/Exhibit Proposed Display Watts					

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Interior Lighting - Building Area Method

LTG-INT-BLD

2015 Washington State Energy Code Compliance Forms for Commercial Buildings including R2, R3, R4 over 3 stories and all R1 Revised August 2016

Project Title: Origins TI and Change of Use		Date: 12/5/2016
Calculation Area <small>NOTE 8</small>	<input type="radio"/> Addition - stand alone <input type="radio"/> Addition + existing	For Building Department Use
	<input type="radio"/> Spaces where < 50% of luminaires are replaced <input type="radio"/> Spaces where ≥ 50% of luminaires are replaced	
LPA Calculation Type	<input checked="" type="radio"/> Standard <input type="radio"/> Additional Efficiency Package Option C406.3 Reduced Interior Lighting Power	

To comply with C406.3, the Proposed LPD shall be 25% lower than the Target LPA. Refer to C406.3 for additional requirements.

Maximum Allowed Lighting Wattage NOTE 1

Building Area	Location (plan #, room #, or ALL)	Area Description	Gross Interior Area in ft ²	Allowed Watts per ft ²	Watts Allowed (watts/ft ² x area)
Retail	ALL	retail floor and support spaces	3268	1.01	3301
Total			3268		

Proposed Lighting Wattage

Building Area	Location (plan #, room #)	Fixture Description <small>NOTE 2, 3, 4, 5</small>	Number of Fixtures	Watts per Fixture <small>NOTE 6</small>	Watts Proposed
Retail	Retail Space A	PL-1. LED pendant	6	46	276
Retail	Retail Space A	42' of track. Current limiter device	1	360	360
Retail	Retail Space A	23' of track. Current limiter device	1	240	240
Retail	Retail Space A	23' of track. Current limiter device	1	240	240
Retail	Retail Space A	23' of track. Current limiter device	1	240	240
Retail	Retail Space A	28' of track. Current limiter device	1	240	240
Retail	Retail Space B	PL-1 LED pendant	2	46	92
Retail	Retail Space B	22' of track. Current limiter device	1	240	240
Retail	Employee Room	PL-3 linear recessed LED 4' long	3	21	62
Retail	Office 200	PL-6 linear recessed LED 8' long	2	42	84
Retail	Office 201	PL-6 linear recessed LED 4' long	2	21	42
Retail	Storage	PL-5 Surface mounted LED striplight 8' long	3	60	180
Retail	Bathroom	PL-2 recessed downlight LED	1	9	9
Retail	Bathroom	PL-4 wall mounted vanity fixture	1	18	18
Retail	Office 200	10' of track. Current limiter device	1	120	120
Retail	Office 201	10' of track. Current limiter device	1	120	120

Compliance by Building Area NOTE 7

Building Area	Warnings	Total Allowed Watts	Total Proposed Watts	Interior Lighting Power Allowance
Retail		3301	2563	COMPLIES

Note 1 - List all unique building areas per Table C405.4.2(1) that occur in the project scope. Select building area category from drop down menu.
Note 2 - Proposed fixtures must be listed in the building area in which they occur. List all proposed lighting fixtures including exempt lighting equipment and existing-to-remain fixtures.
Note 3 - For proposed Fixture Description, indicate fixture type, lamp type (e.g. T-8), number of lamps, ballast type (if in use), and ballast wattage. For track lighting, list the length of the track (in feet) in addition to the fixture, lamp, and ballast wattage.
Note 4 - For lighting equipment eligible for exemption per C405.4.1, note exemption number.

Totals	3301	2563
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Note 4 - For lighting equipment eligible for exemption per C402.4.1, note exemption number and leave wattage blank.

Note 5 - Existing-to-remain fixtures shall be included in the Proposed Lighting Wattage table in the same manner as new fixtures. Identify as existing in fixture description.

Note 6 - For proposed Watts/Fixture enter the luminaire wattage for installed lamp and ballast using manufacturer or other approved source. For luminaires with screw-in lamps, enter the manufacturer's listed maximum input wattage of the fixture (not the lamp wattage). For low voltage lighting, enter the wattage of the transformer. For line voltage track/busway systems, enter the larger of the attached luminaire wattage or 50 watts/linear foot, or enter the wattage limit of permanent current limiting device.

Note 7 - Proposed Wattage for each Building Area type shall not exceed the Allowed Wattage for that Building Area type. Trading wattage between Building Area types is not allowed under the Building Area Method compliance path.

Note 8 - Calculation Area Details:

- a. Lighting fixtures in a building addition may comply as a stand alone project, or they may be combined with the overall existing building lighting systems to demonstrate compliance. Refer to C502.1.*
- b. For alterations and building additions, provide Building Area types and gross interior areas in the Maximum Allowed Lighting Wattage table. If a building addition will comply as combined with the overall existing building lighting systems, include all applicable existing Building Area types and gross interior areas.*
- c. If less than 50% of existing lighting fixtures will be replaced, use LTG-INT-SPACE form to document compliance.*

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Exterior Lighting

LTG-EXT

2015 Washington State Energy Code Compliance Forms for Commercial Buildings including R2, R3, R4 over 3 stories and all R1

Revised August 2016

Project Title: Origins TI and Change of Use		Date: 12/5/2016
Exterior Lighting Zone <small>Table C405.5.2(1) Specified by jurisdiction.</small>	<input type="radio"/> Zone 1 <input type="radio"/> Zone 2 <input type="radio"/> Zone 3 <input type="radio"/> Zone 4 <i>Zone selection required to enable LTG-EXT form</i>	For Building Department Use
	Calculation Area <input type="radio"/> Addition - stand alone <input type="radio"/> Addition + existing <input type="radio"/> Alteration with < 50% ext. wattage replaced <input type="radio"/> Alteration with ≥ 50% ext. wattage replaced	
Building Grounds <small>Applies to luminaires > 100 Watts</small>		<input type="checkbox"/> Efficacy > 80 lumens/watt <input type="checkbox"/> Exemption _____ <input type="checkbox"/> Controlled by motion sensor

Tradable Maximum Allowed Lighting Wattage ^{NOTE 1} Base Site Allowance: **0**

Tradable Surfaces	Surface Description	Area (ft ²), perimeter (lf) or # of items	Allowed Watts per ft ² or per lf	Allowed Watts x ft ² (or x lf)
Total Allowed Tradable + Site Allowance Watts:				

Tradable Proposed Lighting Wattage ^{NOTE 2}

Tradable Surface	Fixture Description	Number of Fixtures	Watts per Fixture	Watts Proposed
Total Proposed Tradable Watts:				

Total proposed tradable watts may not exceed the sum of total allowed tradable watts plus the base site allowance. Any base site allowance not needed to make tradable watts comply can be applied to individual non-tradable categories.

Non-Tradable Maximum Allowed Lighting Wattage ^{NOTE 1} Site Allowance Remaining: **0**

Non-Tradable Surfaces	Surface Description	Area (ft ²), perimeter (lf) or # of items	Allowed Watts per ft ² or per lf	Allowed Watts x ft ² (or x lf)

Non-Tradable Proposed Lighting Wattage ^{NOTE 2}

Non-Tradable Surface	Fixture Description	Number of Fixtures	Watts per Fixture	Watts Proposed

Non-tradable proposed watts may not exceed allowed watts for any individual surface unless the total excess watts for all non-tradable surfaces are less than the remaining site allowance.

Non-Tradable Watts Exceeding LPA: _____
 Remaining Site Allowance: _____

Exterior Lighting

- Note 1** - List all unique exterior surfaces per Table C405.5.2(2) that occur in the project scope. Select exterior surface categories from drop down menu.
- Note 2** - List all proposed lighting fixtures including existing-to-remain fixtures.
- Note 3** - For proposed Fixture Description, indicate fixture type, lamp type, number of lamps in the fixture, and ballast type (if applicable).
- Note 4** - Existing-to-remain fixtures shall be included in the Tradable and Non-Tradable Proposed Lighting Wattage tables in the same manner as new fixtures. Identify as existing in fixture description.
- Note 5** - For proposed Watts/Fixture enter the luminaire wattage for installed lamp and ballast using manufacturer or other approved source. For luminaires with screw-in lamps, enter the manufacturer's listed maximum input wattage of the fixture (not the lamp wattage). For low-voltage lighting, enter the wattage of the transformer.

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Lighting, Motor, and Electrical Permit Checklist, Pg. 1

LTG-CHK

2015 Washington State Energy Code Compliance Forms for Commercial Buildings including R2, R3, R4 over 3 stories and all R1

Revised August 2016

Project Title: **Origins TI and Change of Use** Date: **12/5/2016**

The following information is necessary to check a permit application for compliance with the lighting, motor, and electrical requirements in the Washington State Energy Code, Commercial Provisions.

Applicability (yes,no,na)	Code Section	Component	Compliance information required in permit documents	Location in Documents	Building Department Notes
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LIGHTING CONTROLS

	C405.2	Lighting controls, general	For all lighting fixtures, indicate lighting control method on plans for spaces and lighting zone(s) served, or exception taken		
	C405.2	Luminaire level lighting controls (LLLC)	Indicate on plans all fixtures provided with LLLC in lieu of C405.2 lighting controls; provide description of control capabilities and performance parameters		
	C405.1	Lighting in dwelling units	For permanently installed lighting fixtures in dwelling units, indicate lighting control method on plans for spaces and lighting zone(s) served, or demonstrate compliance with high efficacy exception		
	C405.2.3 C405.2.1.1 C405.2.2.2 C405.2.4 C405.2.5	Manual controls	Indicate on plans the method of manual lighting control (whether combined with occupancy sensor, automatic light reduction, daylight responsive or specific application controls), location of manual control device and area or specific application it serves		
	C405.2.2.1 C405.2.2.2 C405.2.3	Manual interior lighting controls	Indicate on plans which method of manual 50% lighting load reduction is provided, or whether lighting load is reduced via occupancy sensors or daylight responsive controls		
	C405.2.2	Method of automatic shut-off control	Indicate on plans the method of automatic shut-off control during unoccupied periods (occupancy sensor or time switch) for all lighting zones; Indicate locations where automatic shutoff is provided by other methods (occupancy sensor or digital timer switch) or which time switch control exception applies		
	C405.2.1 C405.2.1.1	Occupancy sensor controls	Indicate on plans the spaces served by occupancy sensors; indicate whether occupancy sensor controls are configured to be manual-on, automatic 50%-on, or serve a space eligible for automatic 100%-on per exception		
	C405.2.1.2	Occupancy sensor controls - warehouses	Indicate aiseways and open areas in warehouse spaces provided with occupancy sensor controls that reduce lighting power by 50%		
	C405.2.6	Digital timer switch	Indicate required digital timer switch control function when control is used		
	C405.2.2.1	Automatic time switch controls	Indicate locations of override switches on plans and the lighting zone(s) served, include area sq. ft.		
	C405.2.4.2 C405.2.4.3	Daylight zones - Sidelight and toplight	Indicate primary and secondary sidelight daylight zone areas on plans, include sq. ft.; Indicate toplight daylight zone areas on plans, include sq. ft.; For small vertical fenestration assemblies (rough opening less than 10 percent of primary daylight zone) where daylight responsive controls are not required, provide fenestration area to daylight zone calculation(s)		
	C405.2.4	Daylight responsive controls	Indicate on plans lighting zone(s) served by daylight responsive controls; Identify sidelight and toplight daylight zones that are not provided with daylight sensing controls and the exception(s) that apply; Indicate on plans the lighting load reduction method - continuous dimming, or stepped dimming that provides at least two even steps between 0%-100% of rated power; Indicate that daylight sensing controls are configured to completely shut off all controlled lights in the lighting zone		
	C405.2.5	Additional controls - Specific application lighting controls	Identify spaces and lighting fixtures on plans that require specific application lighting controls per this section		
	C405.2.5 - Items 1&2	Display and accent lighting	Indicate on plans that display and accent lighting, and display case lighting are controlled independently from both general area lighting and other lighting applications within the same space; Indicate manual and automatic lighting control method		

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Lighting, Motor, and Electrical Permit Checklist, Pg. 2

LTG-CHK

2015 Washington State Energy Code Compliance Forms for Commercial Buildings including R2, R3, R4 over 3 stories and all R1 Revised August 2016

Project Title: **Origins TI and Change of Use** Date: **12/5/2016**

The following information is necessary to check a permit application for compliance with the lighting, motor, and electrical requirements in the Washington State Energy Code, Commercial Provisions.

Applicability (yes,no,na)	Code Section	Component	Compliance information required in permit documents	Location in Documents	Building Department Notes
	C405.2.5 - Item 3	Hotel/motel guest rooms	Indicate method of automatic control - vacancy or captive key control of all installed luminaires and switched receptacles in guest room		
	C405.2.5 - Item 4	Supplemental task lighting	Indicate method and location of automatic shut-off vacancy control for supplemental task lighting, including under-shelf or under-cabinet lighting		
	C405.2.5 - Item 5	Lighting for non-visual applications	Indicate on plans eligible non-visual lighting applications, include sq. ft area of each lighting control zone; Indicate on plans that non-visual lighting are controlled independently from both general area lighting and other lighting applications within the same space; Indicate method of manual lighting control and applicable automatic lighting control		
	C405.2.5 - Item 6	Lighting equipment for sale or demonstration	Indicate on plans that lighting equipment for sale or demonstration are controlled independently from both general area lighting and other lighting applications within the same space; Indicate method of manual lighting control and applicable automatic lighting control		
	C405.2.5 - Item 7	Means of egress lighting	Identify on plans egress fixtures that function as both normal and emergency means of egress illumination, Provide calculation of lighting power density of total egress lighting; If total egress lighting power density is greater than 0.02 W/sq. ft., indicate on plans egress fixtures requiring automatic shut-off during unoccupied periods; Indicate method of automatic shut-off control	A1.3	
	C405.2.7	Exterior lighting controls	Indicate on exterior lighting plans and fixture schedules the automatic lighting control method, control sequence, and locations served; For building façade and landscape lighting, indicate automatic controls shut off lighting as a function of dawn/dusk and fixed opening/closing time; For all other exterior lighting, indicate automatic controls shut off lighting as a function of available daylight; include control sequence that also reduces lighting power by at least 30% between 12am-6am, or from 1 hour after closing to 1 hour before opening, or based upon motion sensor		
	C405.5.1	Exterior building grounds lighting controls	For building grounds fixtures greater than 100 watts, indicate on plans whether fixtures have efficacy greater than 80 lumens or; are controlled by motion sensor, or are exempt lighting per C405.5.2		

Site Copy

EXHIBIT F

Laing, Aaron M.

From: Laing, Aaron M.
Sent: Monday, April 17, 2017 11:37 AM
To: 'Matthew Woolsey'
Cc: Anderson, James C.
Subject: FW: Origins demo letter 2.9.17.pdf
Attachments: Origins demo letter 2.9.17.pdf

Approved demolition permit.

Schwabe Williamson & Wyatt

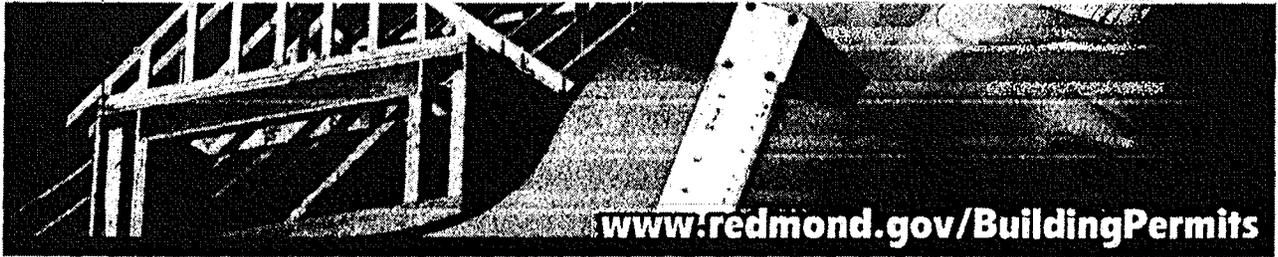
Aaron M. Laing
Shareholder
Direct: 206-407-1553
alaing@schwabe.com

Ideas fuel industries. Learn more at:
www.schwabe.com



From: Jozanne Moe
Sent: Thursday, February 09, 2017 7:24 AM
To: Morris Architects; Sean Miller
Subject: Origins demo letter 2.9.17.pdf

Hello,
Here is the approved interior demo only letter.
Thanks,
Jozanne



Project: ORIGINS CHANGE OF USE & TENANT IMPROVEMENT
Permit #: BUDG-2016-09802
Site Address: 16390 CLEVELAND ST., REDMOND WA. 98052

Subject: Request for approval of Non-Structural interior only demolition.

To Whom It May Concern:

This letter is to officially request to begin non-structural, interior demolition work at the above address. It is understood and agreed to that no exterior and no structural and or fire rated assembly demolition work will occur without prior consent of the Building Official and/or Fire Marshall. It is further understood that I do this work at my own risk and no inspections will occur until a Building Permit is issued. Fire and Life Safety measures will be maintained at all times.

- DEMOLISH (E) SLAB & RAMP ONLY. REMOVE ALL FILL SOIL.

Onsite Contact information:

Contractor:
Project Manager:
Contact #:
E-mail:

Design Professional Signature and/or
Electronic Stamp

Jozanne Moe

Digitally signed by Jozanne Moe
DN: CN=Jozanne Moe, OU=Planning, OU=All
Users, WINZ, DC=redmond, DC=wa
Reason: I agree to the terms defined by the
placement of my signature on this document
Date: 2017.02.09 07:20:15-0800

Plans Examiner Electronic Signature

EXHIBIT G

From: Heidi Poole
Sent: Tuesday, October 04, 2016 3:48 PM
To: kane@agmrealestate.com
Subject: Utility Map 16390 Cleveland Street

Hi Kane,
Please find the attached GIS map showing the utilities.

Blue = Water
Green = Sewer
Purple = Storm

If you need more information, please contact me directly.

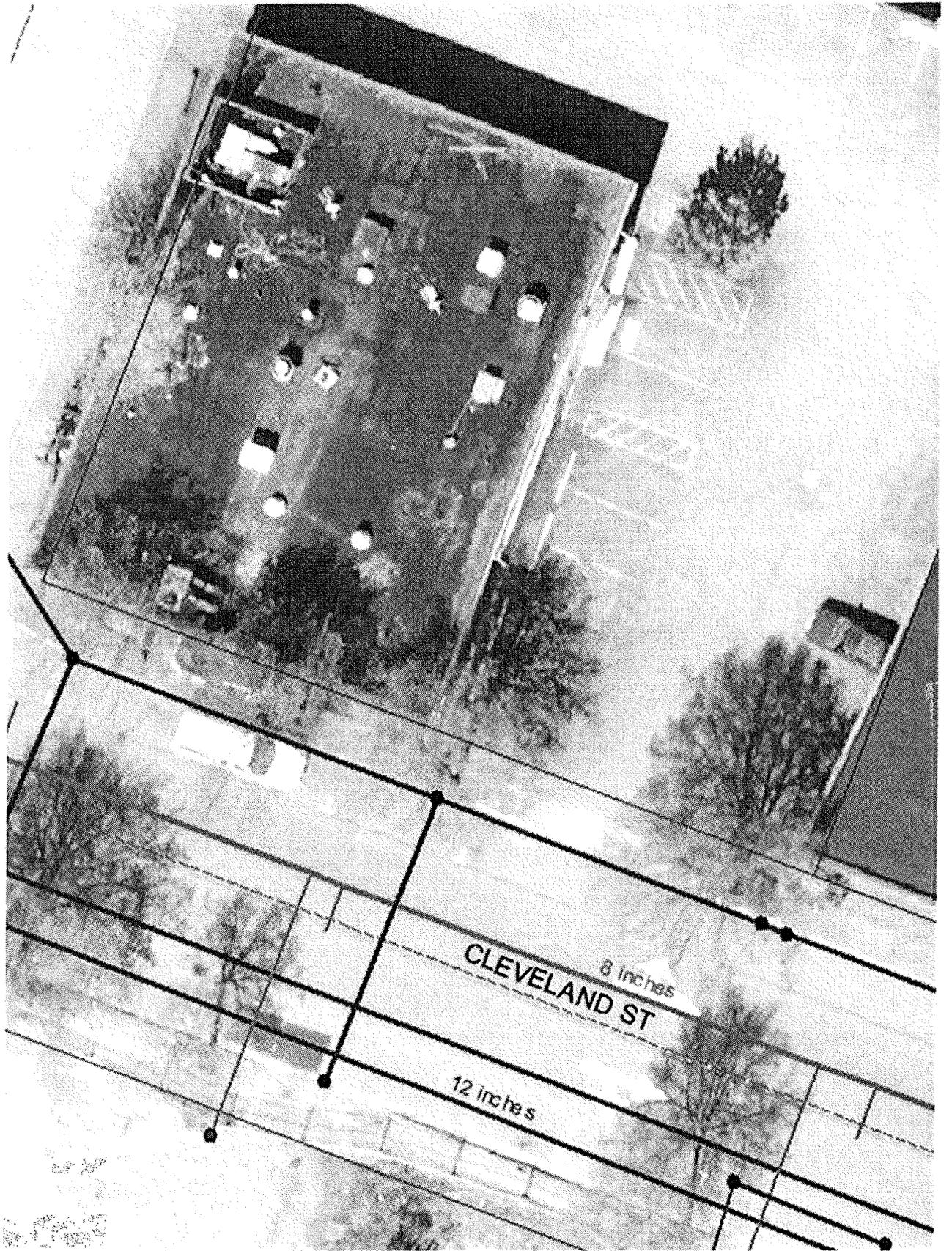


EXHIBIT H



Government Residents Business Development Plans & Projects Transportation Parks & Recreation Environment Public Safety



City of Redmond » Government » Boards and Commissions » Design Review Board » Meeting Information 2017 » DRB April 6, 2017

DRB April 6, 2017

Print Friendly

DRB April 6, 2017

Design Review Board
15670 NE 85th Street, Redmond, WA 98052
[Agenda for print](#) (PDF version)

Agendas & Summaries

- 2017
- 2016
- 2015
- 2014
- 2013
- 2012
- 2011
- 2010

DESIGN REVIEW BOARD AGENDA

MINUTES
Review and approval of meeting minutes:
[February 16, 2017](#)
[March 2, 2017](#)

APPROVAL
LAND-2013-00171, Anjuman-E-Burhani Masjid
Description: Construction of a new 20,000 square foot mosque including prayer areas, classrooms and a kitchen facility
Location: 15252 NE 51st Street
Contact: Ali Habib with Anjuman-E-Burhani Seattle
Architect: Samuel Cameron with Rolluda Architects, Inc.
Staff Contact: Sarah Pyle, 425-556-2426 or spyle@redmond.gov
Review Materials: [Memo](#) [Design Checklist](#) [Review Materials](#)

APPROVAL
LAND-2016-02100, Redmond City Center
Description: Construction of a nine-story mixed use building in two towers, with approximately 425 residential units and 49,000 sq. ft. of retail space
Location: 16135 NE 85th Street
Applicant: Oscar Del Moro with Comos Development Company
Architect: Robin Murphy with Sticker Cato Murphy Architects
Prior Review Dates: 12/05/13, 01/23/14, 03/05/15 & 02/02/17
Staff Contact: Gary Lee, 425-556-2418 or glee@redmond.gov
Review Materials: [Memo](#) [Design Checklist](#) [Option 1](#) [Option 2](#)
[Architectural Plans](#) [Lighting](#) [Landscape](#)

APPROVAL
LAND-2017-00290, Andorra
Description: Improvements to existing structure with interior & exterior renovations for future potential use of 1,500 sf retail marijuana sales
Location: 16390 Cleveland Street
Contact: Tom Morris with Morris Architects
Staff Contact: Gary Lee, 425-556-2418 or glee@redmond.gov
Review Materials: [Memo](#) [Design Checklist](#) [Design Intent](#)
[Review Materials](#)

~~REMOVED FROM THE AGENDA~~

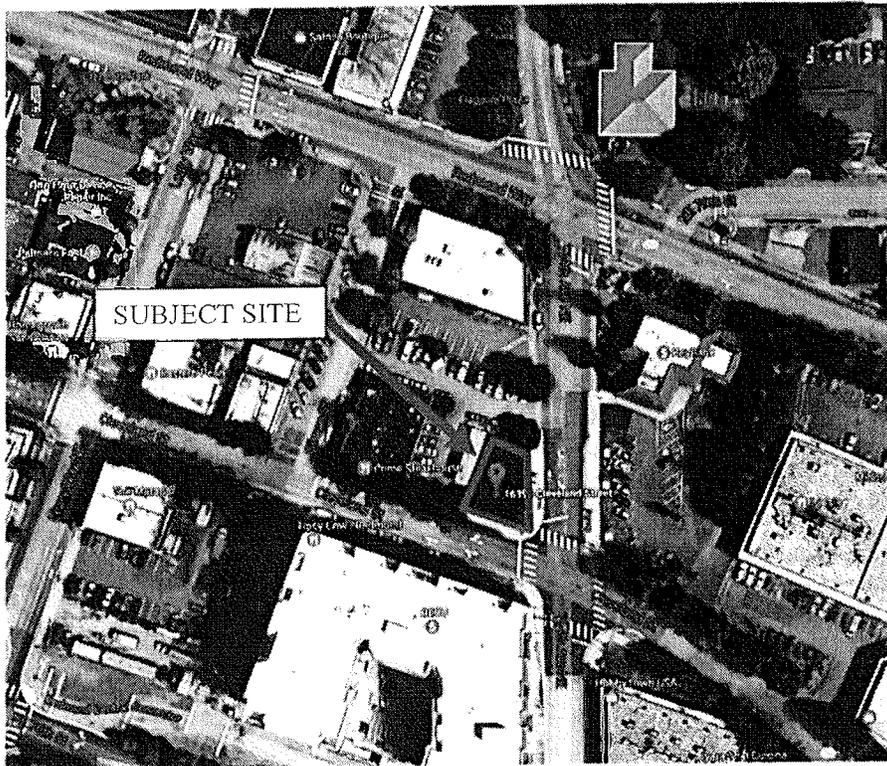
PRE-APPLICATION
LAND-2017-00149, Avalon Redmond
Description: Proposal to redevelop the SW portion of the existing site to include roughly 210 new multifamily units
Location: 15606 NE 40th Street
Contact: Scott Rasmussen with AvalonBay Communities
Architect: Dave Maul with Rutledge Maul Architects
Staff Contact: Scott Reynolds, 425-556-2409 or sreynolds@redmond.gov
Review Materials: [Memo](#) [Review Materials](#)

MEMORANDUM

TO: DESIGN REVIEW BOARD
FROM: CAMERON ZAPATA, PLANNER
SUBJECT: LAND-2017-00290; ANDORRA
DATE: APRIL 6, 2017
REQUEST: APPROVAL OF MODIFICATIONS TO BUILDING ELEVATIONS AND MATERIALS

I. PROJECT LOCATION

16390 Cleveland St, Redmond, WA 98052



II. PROJECT DESCRIPTION

The site is located at 16390 Cleveland St. The property is located in the Downtown Neighborhood.

The applicant is proposing to remodel and update the existing building. The proposed improvements include: installation of a metal canopy running the entire length of the storefront, new storefront with large areas of glass, and exterior to be clad with wood rainscreen.

The interior scope includes the addition of a second story interior mezzanine (no change to building footprint).

No changes are proposed to the on-site circulation or landscaping.

Staff is comfortable with the plans, but would like the Board's opinion on the proposed changes.

III. DESIGN REVIEW STAFF ANALYSIS

Design: The plan calls for an update to the existing building from the existing cinderblock exterior to horizontal Cumaru (Brazilian Teak) wood paneling and metal canopy. The awning will run the length of the storefront and will be painted black. This can best be visualized in the colored elevations. The presentation materials include a color scheme using the following colors: black and neutral grey. The applicant is proposing a combination of wood panel material, paint colors, and metal canopy.

Signage: Signage will be addressed administratively and must conform to minimum City requirements.

IV. STAFF RECOMMENDATIONS

The City of Redmond Planning staff recommends approval of the colors, materials and elevations with the following conditions:

1. Approval of materials as presented at tonight's meeting April 6, 2017.
2. Presentation Materials Inconsistencies
 - a. Where inconsistencies between the floor plans and elevations are found after the Design Review Board has approved this project, the elevations approved by the Design Review Board at this meeting will prevail.
 - b. If, after this Design Review Board approval, there are any inconsistencies found in the information provided for the elevations, floor plans, landscape plans, lighting plans, materials and color between the presentation boards and the 11 x 17" submitted drawings, the Design Review Board and Redmond Planning Staff will review and determine which design version will be followed for Site Plan Entitlement and Building Permits.

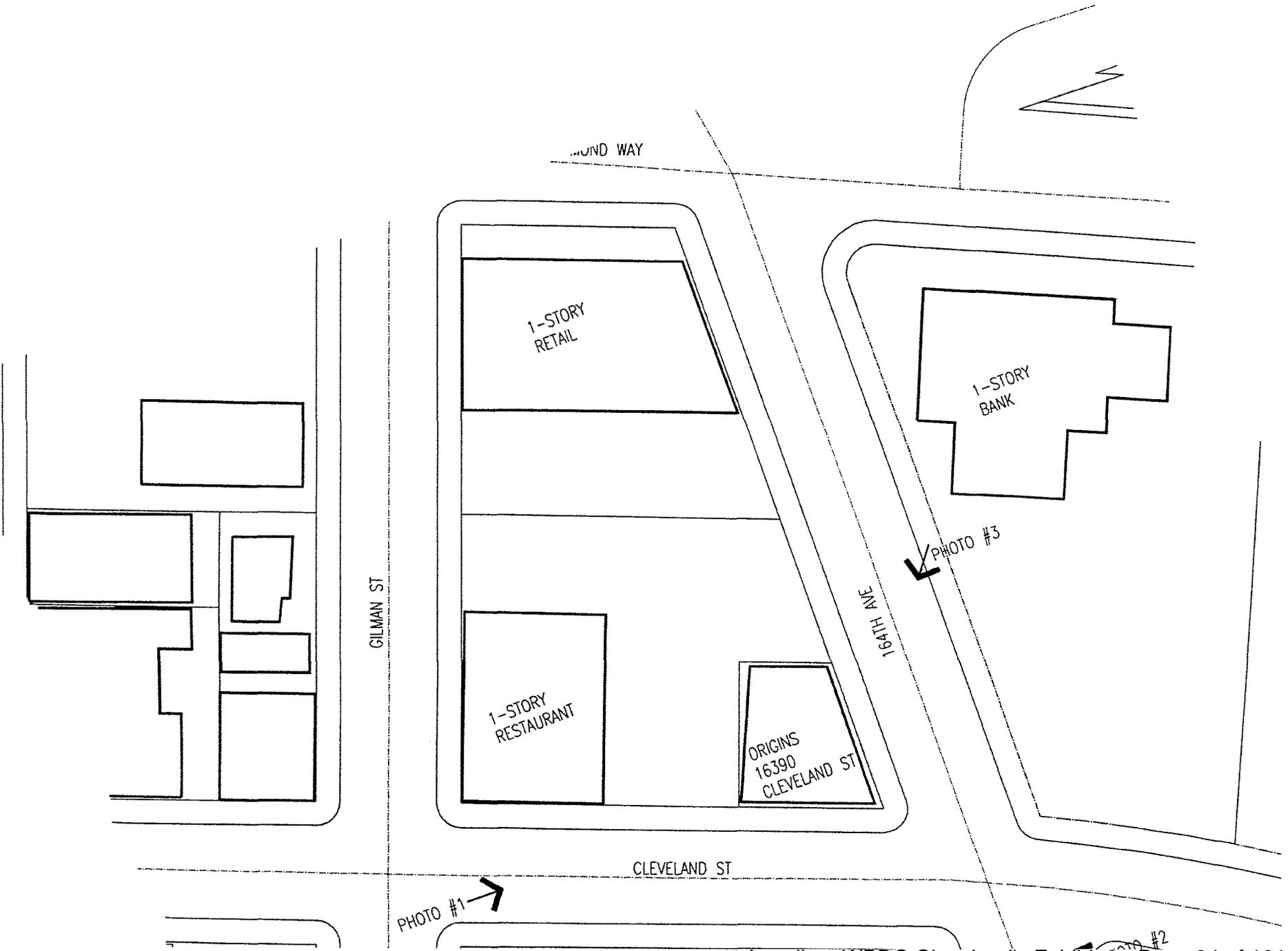
ORIGIN'S TENANT IMPROVEMENT AND CHANGE OF USE

Statement of Design Intent

This project is for the conversion of an existing un-heated warehouse structure into a commercial retail establishment which respects the established Redmond Zoning Code for both Citywide and Downtown Design Standards.

The context for this project is a pattern of single-story flat-roofed commercial structures, except for a newer six-story mixed-used structure on the south side of the Cleveland St. The design intent was to enhance this historical pattern with the use of large store-front windows and a metal-framed awning along the front of this building and a pair of large windows along 164th St. The idea is to increase the pedestrian visibility into this space and to preserve and celebrate as much of the existing interior structure as possible.

The materials selected for this project, painted steel channels and pilasters, a rusted metal awning cover, and a stained wood rain-screen are intended to add both an historic and a contemporary feel to this work.





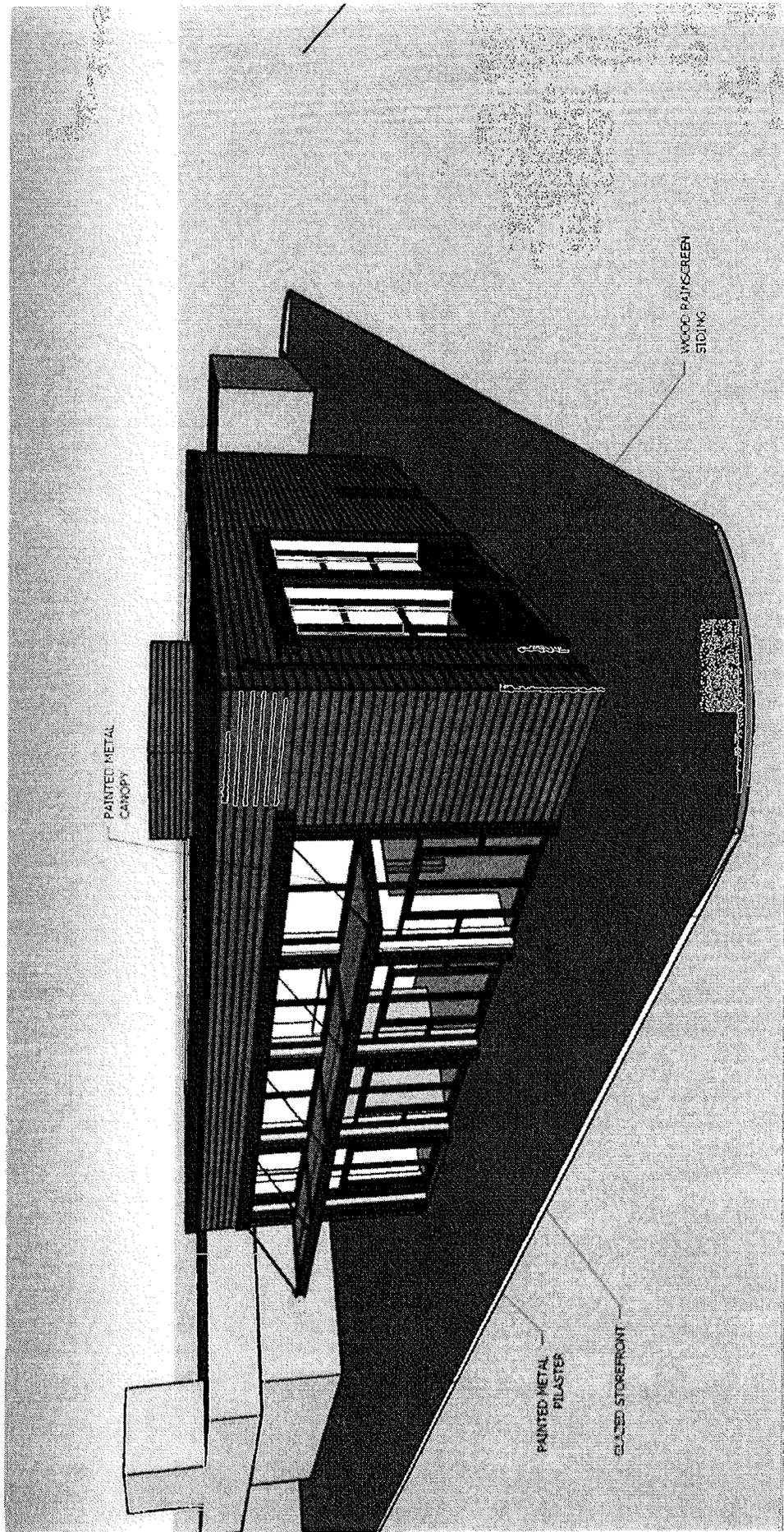
Site Photo #1

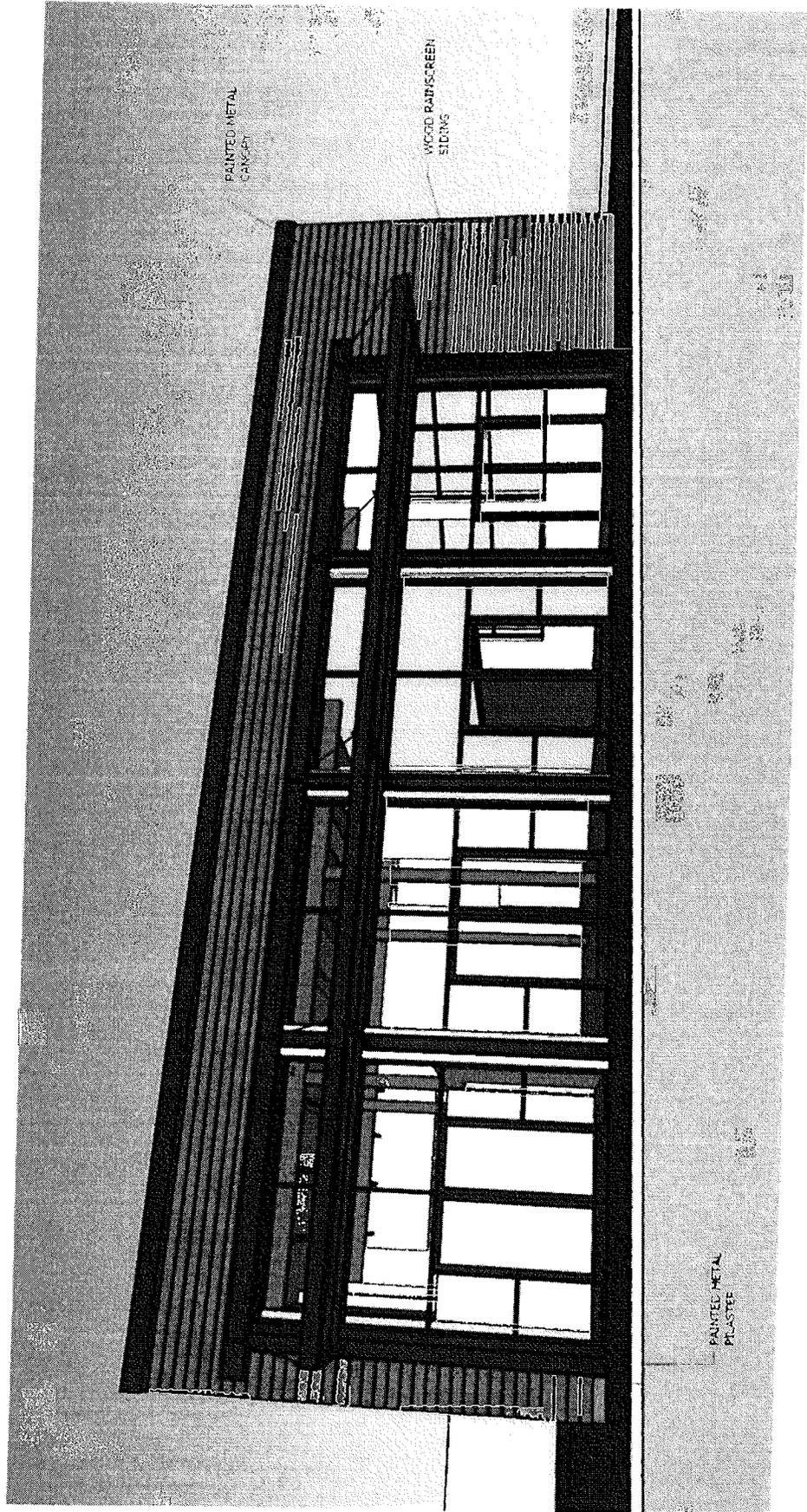


Site Photo #2



Site Photo #3





ORIGIN'S TENANT IMPROVEMENT AND CHANGE OF USE

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EXHIBIT I