BEAVERTON SCHOOL DISTRICT WEST TUALATIN VIEW ELEMENTARY SCHOOL SEISMIC STREGTHENING

ABBREVIATIONS

2 3 1 2 3 3 2 3 3 4 3 3 4 3 4 3 4 3 4 3 4 3 4	Angle Centerline Diameter or Round Perpendicular Plate Square	FD FDN FE FEC FHC FIN FI R
AB ADJ. AFF ALT ALUM. ARCH AVV	Anchor Bolt Adjustable Above Finish Floor Alternate Aluminum Architectural Audio/Video	FLUOR FUOC FOF FOS FRT FT FTG
3D. 31T. 3LDG 3LK 3LKG 3M 30 30 30C 3RNG	Board Bituminous or Bitumen Building Block Blocking Beam Bottom Of Bottom of Curb Bearing	GA GALV. GC GFCI GLB GMU GYP. HB
CAB or CBNT CB CI CJ CL CLG CLR	Cabinet Catch Basin Cast Iron Control Joint Closet Ceiling Clear	HC HDR HM HORIZ. HR HSS HT
CMU CO COL CONC. CONN. CONST.	Concrete Masonry Unit Cleanout Column Concrete Connect or Connection Construction	ID INSUL. INT. JT
CONT. COORD. CORR CTR CUST.	Continuous Coordinate Corridor Center Custodial	LAM LAV LT MAX
DBL DF DIA DIAG DIM DISP DN DR DR DS DTL DWG	Double Drinking Fountain Diameter Diagonal Dimension Dispenser Down Door Downspout Detail Drawing	MB MDF MDO MECH. MEMB. MFR or MAN MFR or MAN MIN MIN MISC. MO MOD BIT MTL
EJ EL ELEC ELEV EQ EXP EXT. E) or EXIST.	Expansion Joint Elevation Electrical Elevator Equal Expansion Exterior Existing	(N) NIC NO or # NOM NTS OFCI OFOI OSSC

	Floor Drain Foundation Fire Extinguisher Fire Extinguisher Cab. Fire Hose Cabinet Finish Floor Fluorescent Face of Concrete Face of Finish Face of Stud Fire Retardant Treated Foot or Feet Footing
	Gauge Galvanized General Contractor Ground-Fault Circuit Interrup Glue Laminated Beam Glass Masonry Unit Gypsum
	Hose Bibb Hollow Core Header Hollow Metal Horizontal Hour Hollow Structural Section Height
	Inside Diameter or Inside Di Insulation Interior
	Joint
	Laminate Lavatory Light
UF	Maximum Machine Bolt Medium Density Fiberboard Medium Density Overlay Mechanical Membrane Manufacturer Man Hole Minimum Miscellaneous Masonry Opening Modified Bitumen Metal
	New Not In Contract Number Nominal Not to Scale

(NOT ALL ABBREVIATIONS ARE USED)

OC

OD

OPNG

OPP.

PLAM

PR

PT

PTD

RAD

RD

REF

REINF

REQ'D

REV

RM

RO

SC

SD

SCD

SECT.

SHGC

SHT'G

SIM

SND

SNF

STL

SPEC

STOR.

SUSP.

T&G

TEMP.

TOC

TOW

TOP

TPD

TYP

UNO

VIF

VERT.

VEST

W/O

WP

WT

TEL

STRUCT

SM

PTD/R

PLYWD

Owner Furnished Contractor Installed Owner Furnished Owner Installed Oregon Structural Specialty Code

On Center Outside Diameter Opening Opposite Plate

Plastic Laminate

Riser

Room

Plywood Pair Pressure Treated Paper Towel Dispenser Combination Paper Towel Dispenser / Receptacle

Radius Roof Drain Refrigerator or Reference Reinforced Required Reverse

Rough Opening Solid Core Seat Cover Dispenser Soap Dispenser Section Square Feet Solar Heat Gain Coefficient

Sheathing Similar Sheet Metal Sanitary Napkin Dispenser Sanitary Napkin Receptacle Specification Stainless Steel Storage Structural Suspended

Tread Tongue and Groove Telephone Tempered Top of Curb Top of Pavement Top of Wall Toilet Paper Dispenser Typical

Unless Noted Otherwise Verifv In Field Vertical Vestibule Veneer Plaste

With Water Closet Water Heate Without Waterproof Weight

GENERAL NOTES

- 1. COORDINATE ALL WORK WITH THE DRAWINGS AND SPECIFICATIONS
- REQUIREMENTS PRIOR TO SUBMITTING A BID.
- 4. WORK SHALL INCLUDE ALL REQUIRED PERMITS, LABOR, MATERIALS, AND EQUIPMENT TO COMPLETE ALL WORK INDICATED ON DRAWINGS AND SPECIFICATIONS.
- 5. PROVIDE TEMPORARY DUST-PROOF PARTITIONS AS REQUIRED TO PROTECT ALL EXISTING AREAS AND EQUIPMENT FROM
- 6. GENERAL CONTRACTOR TO PATCH, REPAIR AND PAINT (REFINISH) SURFACES AND BUILDING ELEMENTS DAMAGED BY
- REQUIRED. PROTECTING ADJACENT FINISHES AND CLEANUP.
- COMPLETION.

- QUALITY WORKMANSHIP.



STANDARD SYMBOLS





1 SITE PLAN G1 N.T.S.

2. CONTRACTOR AND SUB-CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS, LOCATIONS, AND PROJECT

3. CONTRACTOR AND SUB-CONTRACTORS SHALL FIELD VERIFY DIMENSIONS, AND FAMILIARIZE THEMSELVES WITH PROJECT REQUIREMENTS PRIOR TO COMMENCING WITH THE WORK. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO ARCHITECT

DAMAGE DUE TO DEMOLITION OR NEW CONSTRUCTION ACTIVITIES. COORDINATE LOCATIONS AND REQUIREMENTS WITH OWNER

MECHANICAL, ELECTRICAL, AND PLUMBING WORK AND WHERE ITEMS ARE REMOVED, RELOCATED OR ADDED.

7. REPAIR FLOORS WHERE DAMAGED BY THE WORK OF THIS PROJECT

8. PATCH AND REPAIR ALL SURFACES TO MATCH EXISTING WHERE ITEMS ARE REMOVED OR ALTERED - FIELD VERIFY EXTENT

9. ALL PAINTING SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR

10. CONTRACTOR IS RESPONSIBLE FOR FINAL CLEAN-UP OF WORK AREAS AND ALL EXPOSED BUILDING SURFACES AT SUBSTANTIAL

11. ALL TRASH AND TOOLS SHALL BE REMOVED FROM PREMISES EACH DAY AND THE AREA LEFT CLEAN WHENEVER UNATTENDED. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP. COORDINATE WITH OWNER IF SECURE STORAGE IS NEEDED ONSITE

12. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO FINISHED SURFACES, EQUIPMENT, FURNITURE, EXISTING MATERIALS OR FINISHES, CAUSED AS A RESULT OF HIS WORK. REPAIR OR REPLACE DAMAGED ITEMS AS DIRECTED BY ARCHITECT

13. ALL WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.

14. WORK SHALL BE DONE BY THOSE SKILLED AND EXPERIENCED IN THEIR RESPECTIVE TRADES. WORK SHALL BE OF THE HIGHEST

97034

PORTLAND. OREGON 97204 PHONE: (503) 227-3251 FAX: (503) 227-7980 CONTACT: NATHAN INGRAFFEA MECHANICAL / ELECTRICAL ENGINEER

97214

97205



CODE SUMMARY

APPLICABLE CODE 2019 OSSC

BUILDING CONSTRUCTION DATA

CONSTRUCTION TYPE	VB (UNCHANGED)
BUILDING HEIGHT	(EXISTING UNCHANGED)
MAXIMUM ALLOWABLE BUILDING HEIGHT	40'
NUMBER OF STORIES	1
MAXIMUM ALLOWABLE NUMBER OF STORIES	1
BASEMENT	YES

BUILDING OCCUPANCY DATA

OCCUPANCY GROUP(S)	E (UNCHANGED)
SEPARATED/UNSEPARATED USES	NONE
ACCESSORY/INCIDENTAL USES	NONE

BUILDING AREA DATA

FLOOR AREA:	
BUILDING 2 (GYM)	5,595 SF
MAXIMUM ALLOWABLE FLOOR AREA	9,500 SF

EXIT ANALYSIS

<u>GYM ASSEMBLY AREA</u> AREA OCCUPANT LOAD FACTOR NO. OCCUPANTS

<u>STAGE AREA</u> AREA OCCUPANT LOAD FACTOR NO. OCCUPANTS

LOCKER/RESTROOM AREA OCCUPANT LOAD FACTOR NO. OCCUPANTS

TOTAL FIRST FLOOR OCCUPANTS EGRESS WIDTH REQUIRED EGRESS WIDTH PROVIDED NUMBER OF EXITS REQUIRED NUMBER OF EXITS PROVIDED

HAZARDOUS MATERIALS SPECIAL INSPECTION FIRE ALARM SPRINKLER STAND PIPE

4,498 SF 1/7 NET 643 OCC

ОК

638 SF 1/15 NET 43 OCC

646 SF 1/50 GROSS 14 OCC

700 OCC 140 INCHES 192 INCHES 2 4 (1 ACCESSIBLE)

NO YES (SEE STRUCTURAL) YES NO NO

FIRE RESISTING BUILDING **REQUIREMENTS IBC TABLE 601**

BUILDING ELEMENT	CONST. TYPE VB
STRUCTURAL FRAME	0
EXTERIOR BEARING WALLS	0
INTERIOR BEARING WALLS	0
EXTERIOR NONBEARING WALLS AND PARTITIONS	0
INTERIOR BEARING WALLS AND PARTITIONS	0
FLOOR	0
ROOF	0







CODE PLAN LEGEND

121A ← STORAGE ← S OCC. ← 120 SF ← 300 1 ←	ROOM NUMBER ROOM NAME / USE CCCUPANCY GROUP SQUARE FEET / AREA NUMBER OF OCCUPANTS
	OCCUPANT LOAD FACTOR
	/XX" EXIT AND EGRESS LOAD
	EXIT WIDTH REQUIRED
	EXIT WIDTH PROVIDED
	OCCUPANT LOAD
	EXIT ACCESS TRAVEL DISTANCE EMERGENCY EXIT ILLUMINATION * * EXIT ILLUMINATION SHALL BE PROVIDED THROUGHOUT TO MEET (1 F _c MIN. PER OSSC 1006
€ H	EXIT SIGN INTERNALLY OR EXTERNALLY ILLUMINATED
↔ FE	FIRE EXTINGUISHER (2-A, 10-B)
MINIMUM C RATED CO	CORRIDOR WIDTH 42" RRIDORS NOT REQUIRED

EXISTING 2-HOUR RATED FIRE WALL

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	BEAVERTON SCHOOL DISTRICT	WEST TUALATIN VIEW ELEMENTARY SCHOOL	SEISMIC STREGTHENING	8800 SW LEAHY ROAD , PORTLAND, OR 97225	
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	(IF NC SCALE	ACCC	CHES T DRDING	HEN GLY)	
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SPECIFICATION NOTES:

BSD WEST TUALATIN VALLEY ELEMENTARY SCHOOL SEISMIC STRENGTHENING	P: 800-350-2142		
SPECIFICATIONS	 Warranty No: 11033-64-OR 0520 Roofing System: Solar Brite KEE 		
NOTE: SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION	C. Contractor to contact Viking products group in writing for approval before making alterations on or through the roof system. Do not proceed with the roof alterations prior to receipt of written approval from Viking for the products and installer.		
SECTION 02 41 13 SELECTIVE STRUCTURE DEMOLITION	D. Contractor to perform inspection of existing roof system prior to start of any work at the roof. Notify the Owner of any observable defects or deficiencies in		
A. Provide all selective building demolition necessary and preparatory to construction. Refer to the Drawings for location of existing materials requiring removal. Verify existing conditions at the site of the work and include all work evident by inspection.	the roof system prior to the start of the work.		
B. Provide for the salvage of existing materials for reuse as indicated in the Drawings.	07 92 00 JOINT SEALANTS		
C. Interior Dust Control: Provide dust control barriers consisting of curtains or doors to limit the spread of demolition dust and debris in construction work. Use all precautions to confine dust to the work area. Maintain throughout the construction process.	A. Provide complete sealant systems as indicated on Drawings and specified herein.		
D. Protection: Provide protection and conduct demolition operations to prevent personal injury or property damage.	B. Provide manufacturer's standard warranties as follows:		
 E. Service Disconnection: Disconnect existing service lines to be abandoned and cap exposed service lines to be maintained. 	 20 year Structural Adhesion Warranty. 20 year Weatherseal Warranty. 		
 Provide slurry control to protect all existing facilities from water damage during sawing and drilling. 	3. 20 year Non-Staining Warranty.		
 Provide dust barriers inside the existing building until completion of demolition work. Install bracing and shoring prior to removing structural components. 	C. Submittals:		
G. Lead Base Paint: For renovations, repairs and painting (RRP) in "Child-Occupied Facilities" (where kids under the age of 6 regularly spend time and built	1. Product Data.		
Chapter 333, Division 70) associated with lead-based paints (LBP).	D. Silicone Single Component Non-sag Neutral Curing Joint Sealant: ASTM C920, Type S, Grade NS, Class 100/50 NT. Use at exterior joints in vertical and population services and interior perimeter joints of exterior openings. Sand joints		
 The Contractor is responsible for the identification of LBP hazards and providing engineering controls for trigger activities that disturb LBP. Any time painted surfaces are disturbed, the work must be performed by a certified firm with a trained and certified "renovator" in accordance with 40 	 Dow Corning Dowsil 790. 		
 CFR (including Part 745.82 Lead). Post the areas of the building that will be affected with appropriate signage warning of the potential hazard. 	 Momentive Performance Materials Silpruf LM SCS2700. Pecora 890. 		
H. The District will directly retain an accredited Asbestos Consultant for all of its projects that involve adding to or renovating existing facilities. The	4. Sika Sikasil WS-290. 5. Tremco Spectrem 1.		
The Consultant will provide documentation regarding the finding of asbestos and mitigation measures as required by the Asbestos Hazard Emergency			
I. Clean_up: Remove all demolition debris, including broken concrete and masonry, from the building as soon as selective demolition has been completed.			
J. Disposal:	 A. Provide (1) wall stop at each new steel bollard. 1. Rockwood 403 - concave solid cast wall stop, or accepted substitute. 		
 Do not store, sell, or burn demolished or salvaged materials on the Site. Transport debris to an approved and licensed land fill area. 	a. Finish: US26D/626		
3. Repairs: Repair damage to existing facilities and adjacent property to meet conditions existing prior to demolition operations.	09 29 00 GYPSUM BOARD		
K. Broom clean interior surfaces, exterior stabs, and paving that have been solied by demolition activities.	A Provide avosum drawall partitions, ceilings and soffits on metal framing and metal furring. Include backing for applied finishes and installation of accustical		
05 51 33 ALLUMINUM LADDERS	insulation as scheduled on the Drawings.		
	B. System Tolerances: Do not exceed 1/4" variation in 8' 0" from plumb, level and true lines.		
B. Conform to OSHA requirements for fixed wall ladders and cages.	C. Submit Product Data: Submit the manufacturer's specifications and installation instructions for each gypsum drywall product component, including other data as may be required to above compliance with these apprecifications.		
C. Submit shop drawings showing all pertinent dimensions, fabrication, assembly and installation details.	data as may be required to show compliance with these specifications.		
D Acceptable Manufacturers:	D. High Abuse Gypsum Panels: Georgia-Pacific DensArmor with coated glass mat on back surface and paper face on front 5/8" thickness in Type "X" fire resistance with tapered 		
1. Alaco Ladder Company.	long edges, parallel flexural strength of 50 pounds. Conform to ASTM C1396 and ASTM C1177, or accepted substitute.		
 O'Keefe's Incorporated. Or accepted substitute. 	heavy liner paper on the back side, 5/8" thick, or accepted substitute.		
E Ladder Fabrication:	3. United States Gypsum Abuse-Resistant wallboard strengthened by a heavy natural-finish paper on the face side and a strong liner paper on the back side, 5/8" thick, or accepted substitute.		
 Aluminum Wall Ladder: 6061 T6 alloy mill finish 20 1/4" wide with 1 1/8" round rungs at 12" on center, serrated, and secured with cast aluminum connectors and 4 colid rivets reted at 024 pounds shoer strength cash. 	E Screw Fasteners: ASTM C1002 No nailing of gypsum materials will be allowed		
 Brackets: 1/8" thick minimum, mounted as shown in the details and bolted securely to wall backing. Mounting brackets shall provide 7" space from 			
wall to centerline of rungs. 3. All surfaces shall be clean, smooth, free of burrs, and rounded.	F. Gypsum Board Metal Trim: Manufacturer's standard 26-gage galvanized steel. All trim to have fine mesh expanded metal flanges. Fine mesh corner beads: Mini-Bead 800/900 by ClarkDietrich Building Systems, Niles Mini-Bead 800/900, Mini Veneer Bead by Phillips Manufacturing Co., CertainTeed		
E Security Door: 6061-T6 aluminum allow formed from 0.063" thick sheet, and secured with aluminum piano binges and basis. Door shall cover lowest 8	No-Coat Corner System, or accepted substitute.		
feet of ladder.	G. Interior Joint Reinforcing Tape: Fiber tape not less than 2 1/4" wide, ASTM C475.		
G. Provide in manufacture's standard clear anodized finish.	H. Interior Joint Treatment Materials: ASTM C475, ready-mixed type as recommended by gypsum wallboard manufacturer. Provide 2 separate grades, 1		
05 50 00 METAL FABRICATIONS	specifically for bedding tapes and filling depressions and 1 for topping and sanding. Use chemical-hardening type for bedding and filling where required.		
A. Provide items made from iron and steel shapes, plates, bars, strips, tubes, pipes and castings which are not a part of structural steel:	I. Basecoat/Surfacer: Flat latex basecoat for use on surfaces indicated to receive Level 4. Basecoat is in addition to primer specified in Section 09 91 23 -		
 Steel handrails and railings. Steel Bollards. 	Interior Painting. 1. "PrepRite High Build Interior Latex Primer/Surfacer", B28W601; Sherwin Williams.		
B. Submit shop drawings for fabrication and erection of miscellaneous metal fabrications. Include plans, elevations and details of sections and connections.	2. "SHEETROCK Brand Primer-Surfacer, Tuff-Hide; USG Corporation.		
C. Pipe and Tube Railings:	J. Level 4 finish: All joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound applied over all flat		
 Wall mounted handrails. Rigging loft railings and guardrails. 	joints and one separate coat of joint compound applied over interior angles. Fastener heads and accessories shall be covered with three separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges. Mop down all walls after the final mud coat prior to priming.		
3. 1_1/4" diameter pipe:	09 65 13 RESILIENT BASE		
D. Standards: Comply with AWS "Code for Welding in Building Construction", AISC "Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings" and AISC "Specifications for Architecturally Exposed Structural Steel".	A Complex Submit 2 complex of each type and calcy of resilient have and tripe accessory. Dravide 2,1/0" lang complex for each accessory.		
E. Workmanship: Use materials of size and thickness as required to produce strength and durability in finished product for use intended. Work to dimensions indicated or accounted on shop drawings, using proven details of fabrication and support.	 B. Rubber Base: ASTM F1861, Type TS rubber, vulcanized thermoset; top set Style B, Cove. 		
F. Fabricate of welded construction, drill and tap as required to receive hardware and similar items. Include required anchors for building into other works.	1. Manufacturers:		
G. Form exposed work true to line and level with accurate angles and surfaces and straight sharp edges. Ease exposed edges to a radius of approximately	 b. Flexco, Inc: www.flexcofloors.com. 		
H. Welded Joints: Form exposed connections with flush hairline joints. Weld corners and seams continuously with shielded arc process, complying with	c. Johnsonite, a Tarkett Company: www.johnsonite.com. d. Roppe Corp: <u>www.roppe.com</u> .		
recommendations by AWS. At exposed connections, grind exposed welds smooth and flush to match and blend with adjoining surfaces. Provide 1/4" minimum fillet welds and full penetration butt welds.	2. Height: 4 inch. 3. Thickness: 0.125 inch.		
I. Form exposed connection with hairline joints, flush and smooth, using concealed fasteners. Only if necessary, use exposed fasteners of type indicated or,	4. Finish: Satin.		
J. Provide for anchorage of type indicated, coordinated with supporting structure. Fabricate and space anchoring devices to provide adequate support for	6. Color: Match existing base at remaining walls		
intended use.	09 91 00 PAINTING		
L. Primed Shop Finish: Apply primer at a rate to obtain a dry film thickness of 2.0-mils. Do not prime members or portions of members to be galvanized,			
embedded in concrete or grout and surfaces to be field welded unless indicated otherwise.	1. Exterior Painting:		
07 21 00 THERMAL INSULATION	 a. Field finish new exposed bollards, exposed steel stiffeners at wing walls. 2. Interior Painting: 		
A. Provide thermal blanket insulation in wall framing spaces. B. Insulation Data: Mineral Fiber Insulation Blanket, ASTM C665, ES HH-L-521F, 1.5 nound minimum density. CertainTeed, Manville, Owens/Corpins, H.S.	a. Field finish new exposed gypsum board, plywood panel substrate for climbing wall, wood trim at new duct penetrations and wood base at the stage, new handrails, and guardrails		
Gypsum, or accepted substitute.	b. Field finish existing exposed concrete columns and horizontal beams at the walls receiving new furring and gypsum board finish.		
2. R-Value: R-19, 5-1/2" thick.	B. Submittals: 1. Provide manufacturer's data sheets on each product to be used		
07 54 00 THERMOPLASTIC MEMBRANE ROOFING	 Office Samples: a. Submit Samples: For the Architect's review of color and gloss. 		
A. Patch and repair existing roofing at new roof top mechanical unit, and at the removed unit heater flues.	b. Resubmit Samples: As requested until required color and gloss is achieved.		
 B. The existing roof is under warranty, make roof repairs as required to maintain the existing roof warranty. 1. Viking Products Group Inc. 	 Opaque Finish: Frovide three of x of minimum size samples of each color and gloss. d. Transparent Finish: On actual wood surfaces provide three 4" x 8" minimum size samples for natural and stained wood finish. 		
5			

- 3812 E 91s Street
- Cleveland OH 44105

- the

C. Acceptable Manufacturers

1. Miller Paint Co. (Specification Standard)

- 2. PPG.
- 3. Rodda Paint Co. 4. Sherwin Williams Co., Professional Coatings Division. (Hillsboro standard)
- 5. Watco Dennis
- 6. Kelly Moore.
- 7. Parker Paint Co. 8. Or accepted substitute.
- D. Exterior Materials:

1. Ferrous Metal:

- a. Primer: Miller No. 310-2-10 Acrimetal DTM.
- b. Second and Third Coats: Miller No. 310-5-XX Acrimetal DTM Semi Gloss

E. Interior Materials:

- 1. Painted Wood and Trim New and Existing:
- a. Primer: Miller No. 270-0-11 Miller-Prime Acrylic Enamel Undercoat b. Second and Third Coats: Miller No. 320-5-XX Acrinamel Acrylic Semi-Gloss Enamel.
- 2. Ferrous Metal:
- a. Primer: Miller No. 310-2-10 Acrimetal DTM. b. Second and Third Coats: Miller No. 320-5-XX Acrimetal DTM Semi Gloss.
- 3. Gypsum Drywall Walls (Paint): a. Primer: Miller No. 220-0-11 P.V.A. Primer.
- b. Second and Third Coats: Miller No. 120-4-XX Premium Satin. 4. Stained and Sealed Wood:
- 5. Concrete:
- a. Primer: Miller No. 620-0-11 Kril Primer. b. First and Second Coats: Miller No. 130-1-XX Performance Plus Flat.

11 61 43 STAGE CURTAINS

- C. Qualifications: 1. Use workers skilled in handling and installing stage curtains.
- 2. Stagecraft Industries Inc. Phone (503) 508-9364, or accepted substitute.
- D. Storage and Handling:
- 3. Store curtains in a manner that prevents the curtains from being creased.
- E. Reinstall the curtains and rigging at the back of the stage once the work at the stage area is completed.

11 66 23 GYMNASIUM WALL PADS

A. Provide gymnasium wall pads where shown on the drawings.

- B. Submittals. Provide the following:
- 1. Product data from the manufacturer.
- 2. Color Samples of fabric. 3. Shop Drawings.
- C. Acceptable Manufacturers:
- 1. Draper, Inc., 411 South Pearl Street, Spiceland, Indiana 47385-0425; 765-987-7999. 2. Or accepted Substitute.

D. Type: Fabric covered urethane wall protection pads.

- 1. Pad shape and size:
- a. Flat, rectangular pads: 24 by 72 inches, typical.
- 1. Cushioning material: 2 inches thick urethane filler with 3.5 pounds density.
- 2. Backer: 7/16 inch Urea-formaldehyde-free Oriented Strand Board. 3. Cover: Solid vinyl coated polyester fabric with embossed pattern: a. Weight: 14 ounces per SY.
- b. Breaking strength: 350 PSI.
- c. Tear resistance: 65 pounds.
- d. Resistant to rot, mildew, and ultraviolet light.
- f. Color: Match the existing, Dark blue.

- front or sides.
- H. Provide 1 inch wide fabric flanges at panel bottom and top and for wall mounting panels.

28 15 11 ACCESS CONTROL DEVICES

A. Provide new card reader where shown on the drawings. 1. HID Signo Reader part# 40NKS-00-000000.

32 17 26 TACTILE WARNING SURFACING

- A. Provide cast-in-place polymer composite detectable warning
- B. Submit product data.
- C. Manufacturer:
- 1. Armor-Tile Tactile Systems
- 2. Or accepted Substitute

a. Primer: Watco Toner Stain to match existing and Old Master's Water Based Sanding Sealer (7520X). b. Second and Third Coats: Miller No. 710-4-45 Acriclear Satin Waterborne Polyurethane. Sand paper or synthetic steel wool between coats.

A. Provide in-place protection for the stage curtain at the front of the stage to protect the curtain from damage or contamination for dust and debris.

B. Remove the stage curtains and rigging at the back of the stage to permit the execution of the seismic work. Protect the curtain and all accessories for reinstallation upon completion of the work at the stage. Do not install the curtain until the painting and other finish work is complete.

1. Store the curtains in a safe place. Coordinate the location with the Owner's representative to insure restricted access and safe keeping. 2. Place curtains in a sealed cover to prevent curtains from being contaminated by dust and debris in the storage area.

F. Test the operation of the curtains to make sure rigging and curtains were properly installed.

b. Custom size pads required to fill in spaces between the columns and at the columns.

e. Flammability: Rated self extinguishing in accordance with California State Fire Code F-230.

E. UL GREENGUARD Gold Certification: Entire wall pad assembly shall have been submitted to indoor air quality evaluation (IAQ) evaluation in accordance with UL 2811 test method to show compliance with emissions limits on UL 2818 Section 7.1 and 7.2. Materials are tested in accordance with ANSI/BIFMA M7.1-2011 and determined to comply with ANSI/BFMA X7.1-2011 and ANSI/BIFMA e3-2014e credit 7.6.1, 7.6.2 and 7.6.3. Material of emissions of total volatile organic compounds of < 0.22 mg/m3, formaldehyde < 0.0135 ppm, total aldehydes < 0.043 ppm, individual volatile organic compounds < 1/1000 TLV and < ½ chronic REL and total phthalates < 0.01 mg/m3. Manufacturer must be able to provide independent lab and test reports to verify compliance.

F. ASTM: Pads shall meet all requirements of ASTM 2440-04. Manufacturer must be able to provide independent lab and test reports to verify compliance.

G. Construction: Cushioning material adhered to backer and panel fully wrapped with fabric which is stapled to backer such that backer is not exposed on

nina	units	in	location	shown	on	the	Drawings.



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Sheet



GENERAL DEMOLITION NOTES

- 1. PROTECT FLOOR AND OTHER FINISHES FROM DAMAGE DUE TO
- WORK. 2. ITEMS NOTED TO BE SALVAGED ARE TO BE REINSTALLED WITHIN THE BUILDING. CONTRACTOR SHALL SECURE ITEMS AND PROTECT FROM DAMAGE. SALVAGED ITEMS THAT ARE DAMAGED OR LOST SHALL BE REPLACED WITH EQUIVALENT NEW ITEMS BY THE CONTRACTOR.
- 3. REMOVE EXISTING CONDUIT AND SURFACE MOUNTED RACEWAY WHERE REQUIRED TO INSTALL NEW WALL FURRING. RECONNECT CIRCUITS IN NEW CONDUIT CONCEALED IN NEW WALL FURRING.
- 4. STAGE CURTAINS TO BE WRAPPED AND PROTECTED FROM DUST, DEBRIS AND DAMAGE AS REQUIRED TO PERFORM WORK IN AREA CONTRACTOR TO COORDINATE WITH OWNER FOR CURTAIN REMOVAL.

DEMOLITION SHEET NOTES

- 1. REMOVE AND SALVAGE EXISTING WALL MOUNTED CLOCK REMOVE AND SALVAGE EXISTING CLIMBING WALL PANELS
- REMOVE AND SALVAGE EXISTING WALL PADS
- REMOVE AND SALVAGE EXISTING WALL MOUNTED PEG BOARD
- REMOVE EXISTING HANDRAIL AT RIGGING LOFT ABOVE 6. REMOVE EXISTING WALL MOUNTED THERMOSTAT - SEE
- MECHANICAL
- 7. REMOVE EXISTING ABANDONED WIRES
- 8. REMOVE AND SALVAGE EXISTING FIRE ALARM DEVICES 9. EXISTING FIRE ALARM DEVICES TO REMAIN, PROTECT AT ALL TIMES
- 10. REMOVE EXISTING EXIT SIGN
- 11. EXISTING EXIT SIGN TO REMAIN
- 12. REMOVE AND SALVAGE EXISTING WIRELESS ACCESS POINT 13. REMOVE AND SALVAGE EXISTING PHONE. POWER AND DATA
- BELOW TO BE REROUTED
- 14. REMOVE AND SALVAGE EXISTING BASKET BALL HOOPS 15. EXISTING BASKETBALL HOOP TO REMAIN, PROTECT AT ALL TIMES 16. REMOVE EXISTING LADDER
- 17. REMOVE AND SALVAGE EXISTING JUMP ROPE HANGER
- 18. REMOVE EXISTING HANDRAILS
- 19. REMOVE AND SALVAGE EXISTING WALL MOUNTED AED. RETURN TO OWNER.
- 20. REMOVE AND SALVAGE EXISTING SPEAKER 21. REMOVE AND SALVAGE EXISTING BELL
- 22. REMOVE AND SALVAGE EXISTING WALL MOUNTED MARKER BOARD
- 23. REMOVE AND SALVAGE EXISTING WALL MOUNTED TACK BOARD 24. REMOVE EXISTING DRAIN PIPE AND CAP AT FLOOR. PATCH HOLE IN BRICK WALL ABOVE WITH REPAIR MORTAR. PATCH EXTERIOR METAL PANEL SIDING AT PENETRATION
- 25. REMOVE AND SALVAGE EXISTING WALL MOUNTED LIGHT AND PROTECTION CAGE
- 26. EXISTING WALL MOUNTED CLIMBING WALL TO REMAIN AT COLUMNS, PROTECT AT ALL TIMES
- 27. REMOVE EXISTING WALL PADS
- 28. REMOVE AND SALVAGE EXISTING WALL MOUNTED STAGE AUDIO, LIGHTING CONTROLS AND ELECTRICAL DEVICES ON THE WALL BELOW.
- 29. EXISTING ELECTRICAL PANELS TO REMAIN, PROTECT AT ALL TIMES
- 30. REMOVE EXISTING ABANDONED ALARM SENSOR BOX
- 31. EXISTING GAS METER TO REMAIN, PROTECT AT ALL TIMES
- 32. REMOVE AND SALVAGE THRESHOLD FOR REINSTALLATION
- 33. EXISTING UNIT GAS HEATER AND FLUE ABOVE TO BE REMOVED
- 34. PATCH HOLE IN CEILING WITH GLUE UP TILE TO MATCH EXISTING
- REMOVE GAS LINE BACK THROUGH WALL SEE MECHANICAL 35. EXISTING WALL MOUNTED PADS TO REMAIN, PROTECT AT ALL
- TIMES 36. CONTRACTOR TO REMOVE AND SALVAGE THE BACK STAGE
- CURTAIN 37. REMOVE AND SALVAGE EXISTING WALL MOUNTED DOOR MULLION
- BRACKETS 38. REMOVE AND SALVAGE EXISTING ELECTRICAL LIGHT SWITCH
- 39. REMOVE AND SALVAGE EXISTING WALL MOUNTED ROPE WINCH
- 40. REMOVE AND SALVAGE EXISTING CALL BUTTON

WALL TYPE LEGEND

EXISTING BRICK WALL

- EXISTING WOOD STUD WALL
- EXISTING METAL STUD WALL

EXISTING WALL OR ITEM TO BE REMOVED

F/A F/A HORN-STROBE

F/A PULL STATION

ELECTRICAL LIGHT SWITCH - 5



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WEST

LINE IS 2 INCHES AT FULL SCALE (IF NOT 2 INCHES THEN SCALE ACCORDINGLY

date: 10 DEC 2021

job no.: 21022.00.L

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STERED ARCHE 1. REMOVE AND REPLACE EXISTING CAST IRON GRATING WITH NEW GRATE TO MEET ICC A117.1 ARTICLE 302.3, PROTECT EXISTING CATCH BASIN AT PROVIDE NEW DETECTABLE WARNING AT ACCESS AISLE RAMP 11. EXISTING LENDING LIBRARY TO REMAIN, PROTECT AT ALL TIMES 15. PROVIDE NEW CARD READER MOUNTED TO NEW HSS BOLLARD. PROVIDE PROGRAMMING OF ACCESS CONTROL SYSTEM TO CONTROL SYSTEM TO

11 SOUTH ELEVATION - BAY 10, 11 & 12 SA2.1 N.T.S.

SOUTH ELEVATION - BAY 11, 12 & 13 12 SA2.1

3 NORTH ELEVATION - BAY 2, 3 & 4 SA2.1 N.T.S.

13 SOUTH ELEVATION - BAY 13 SA2.1 N.T.S.

SOUTH ELEVATION - BAY 14 14 SA2.1

DRAWING INDEX

SS-001	DRAWING INDEX AND LIST OF ABBREVIATIONS
SS-002	GENERAL STRUCTURAL NOTES
SS-003	GENERAL STRUCTURAL NOTES CONT.
SS-004	SPECIAL INSPECTION AND TESTING
SS-005	SPECIAL INSPECTION AND TESTING CONT.
SS-006	SPECIAL INSPECTION AND TESTING CONT.
SS-200	FIRST FLOOR PLAN
SS-300	ELEVATION
SS-301	ELEVATION
SS-600	DETAILS
SS-800	DETAILS
SS-801	DETAILS
ISSUE LOC	<u>GKEY:</u>

' X 'ISSUED AS PART OF A SET

' - ' NOT A PART OF ISSUED SET
' * ' FOR INFORMATION ONLY

A.B.	ANCHOR BOLT	GA
ACI	AMERICAN CONCRETE INSTITUTE	GA
ADD'L.	ADDITIONAL	GL
AESS	ARCHITECTURAL EXPOSED	HC
		HS
AISC	CONSTRUCTION INCORPORATED	IBC
ALT.	ALTERNATE	ICE
ALUM.	ALUMINUM	חו
ARCH.	ARCHITECT	
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	IN.
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	K
AWS	AMERICAN WELDING SOCIETY	KO
BLDG.	BUILDING	
BOT.	воттом	
BRBF	BUCKLING RESTRAINED BRACED FRAME	LLI
C.G.	CENTER OF GRAVITY	LLY
C.I.P.	CAST IN PLACE	LO
C.J.	CONTROL JOINT	LO
C.J.P.	COMPLETE JOINT PENETRATION	LS
CL	CENTERLINE	LV
CLR.	CLEAR	LV
CMU	CONCRETE MASONRY UNIT	MA
COL.	COLUMN	ME
CONC.	CONCRETE	ME
CONN.	CONNECTION	ME
CONST.	CONSTRUCTION	N/II
CONT.	CONTINUOUS	N/14
db	BAR DIAMETER	
DBA	DEFORMED BAR ANCHOR	МТ
DET.	DETAIL	
DIA., Ø	DIAMETER	
DIAG.	DIAGONAL	
D.L.	DEAD LOAD	
DWG.	DRAWING	
ELEC.	ELECTRICAL	N. 1
EL.	ELEVATION	0.0
EQ.	EQUAL	0.1
EXIST., (E)	EXISTING	OP
EXP.	EXPANSION	
EXT.	EXTERIOR	FA DA
FDN.	FOUNDATION	PA D//
FIN.	FINISH	P/(
FLR.	FLOOR	PC
FT.	FOOT	PE
FTG.	FOOTING	

LIST OF ABBREVIATIONS

GA.	GAUGE
GALV.	GALVANIZED
GL	GLULAM
HORIZ.	HORIZONTAL
HSS	HOLLOW STRUCTURAL STEEL
IBC	INTERNATIONAL BUILDING CODE
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
I.D.	INSIDE DIAMETER
IN.	INCH
INT.	INTERIOR
К	KIPS
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LB.	POUND
L.L.	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC.	LOCATION
LONG.	LONGITUDINAL
LSL	LAMINATED STRAND LUMBER BEAM
LVF	LOW VELOCITY FASTENER
LVL	LAMINATED VENEER LUMBER BEAM
MAX.	MAXIMUM
MBMA	METAL BUILDING MANUFACTURERS ASSOCIATION
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MPH	MILES PER HOUR
MT	MAGNETIC PARTICLE TESTING
(N)	NEW
N.I.C.	NOT IN CONTRACT
NOM.	NOMINAL
NO.	NUMBER
N.T.S.	NOT TO SCALE
0.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OPP.	OPPOSITE
OWJ	OPEN WEB JOIST
PAF	POWDER ACTUATED FASTENER
PART.	PARTITION
P/C	PRECAST
PCF	POUNDS PER CUBIC FOOT
PERIM.	PERIMETER

PL	PLATE
PP	PARTIAL PENETRATION
PSF	POUNDS PER SQUARE FOOT
PSL	PARALLEL STRAND LUMBER
PSI	POUNDS PER SQUARE INCH
P/T	POST-TENSIONED
P.T.	PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
R, RAD.	RADIUS
RCSC	RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS
REF.	REFERENCE
RET.	RETURN
REINF.	REINFORCING
REQ'D.	REQUIRED
REQ'MTS.	REQUIREMENTS
SCHED.	SCHEDULE
S.C.	SLIP CRITICAL
SCL	STRUCTURAL COMPOSITE LUMBER
SIM.	SIMILAR
SLRS	SEISMIC LOAD RESISTING SYSTEM
S.O.G.	SLAB ON GRADE
SPEC.	SPECIFICATION
SQ.	SQUARE
SS	STAINLESS STEEL
SSMA	STEEL STUD MANUFACTURERS ASSOCIATION
STD.	STANDARD
STRUCT.	STRUCTURAL
SYM.	SYMMETRICAL
THRU	THROUGH
T & G	TONGUE AND GROOVE
TRANS.	TRANSVERSE
TJ	TRUSS JOIST
TS	LIGHT GAUGE TUBE STEEL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U.T.	ULTRASONIC TESTING
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
w/	WITH
WF	WIDE FLANGE
w/o	WITHOUT
W.P.	WORK POINT
WPS	WELDING PROCEDURE SPECIFICATION
WWF	WELDED WIRE FABRIC

job no.: **21022.00.L**

BEAVERTON SCHOOL DISTRICT DRAWING INDEX AND LIST OF ABBREVIATIONS

GENERAL

STRUCTURAL DRAWINGS ARE A PART OF THE CONTRACT DOCUMENTS AND ARE COMPLEMENTARY TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING DRAWINGS, THE SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REQUIREMENTS FROM THE CONTRACT DOCUMENTS INTO THEIR SHOP DRAWINGS AND WORK. AS REQUIRED BY THE GENERAL CONDITIONS, THE CONTRACTOR SHALL PROMPTLY REPORT TO THE ARCHITECT ANY ERRORS, INCONSISTENCIES, OR OMISSIONS IN THE CONTRACT DOCUMENTS DISCOVERED BY OR MADE KNOWN TO THE CONTRACTOR.

THE GENERAL STRUCTURAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK. WHERE CONFLICT EXISTS, THE MORE STRINGENT OR RESTRICTIVE REQUIREMENT SHALL GOVERN UNTIL CLARIFICATION IS REQUESTED.

CODE REQUIREMENTS:

DRAWINGS REPRESENT A VOLUNTARY PARTIAL SEISMIC UPGRADE TO THE GYM BUILDING. THE PARTIAL SEISMIC UPGRADE WAS DONE PER ASCE 41-17. ANY MODIFICATIONS TO GRAVITY ELEMENTS CONFORM TO THE 2019 OREGON STRUCTURAL SPECIALTY CODE (OSSC), BASED ON THE 2018 INTERNATIONAL BUILDING CODE (IBC).

TEMPORARY CONDITIONS:

THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES UNTIL COMPLETION.

EXISTING CONDITIONS:

ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS SHALL BE FIELD VERIFIED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY SIGNIFICANT DISCREPANCIES FROM CONDITIONS SHOWN ON THE DRAWINGS.

ASSUMED FUTURE CONSTRUCTION:

VERTICAL: NONE HORIZONTAL: NONE

DESIGN CRITERIA

DESIGN WAS BASED ON THE STRENGTH AND DEFLECTION CRITERIA OF THE OSSC. IN ADDITION TO THE DEAD LOADS, THE FOLLOWING LOADS AND ALLOWABLES WERE USED FOR DESIGN, WITH LIVE LOADS (L.L.) REDUCED PER OSSC:

GRAVITY SYSTEM CRITERIA				
OCCUPANCY OR USE	UNIFORM LOAD CONCENTRATED LOAD			
GYM	100 PSF L.L.	2,000 LBS.		
SIDEWALKS AND DRIVEWAYS	250 PSF L.L.	8,000 LBS.		
ROOF LIVE/SNOW LOAD	25 PSF L.L. (ALSO SEE SNO	W LOAD CRITERIA BELOW)		
	SNOW CRITERIA			
DESIGN ROOF SNOW LOAD	27 PSF MINIMUM IN ACC	CORDANCE WITH OSSC		
	GEOTECHNICAL CRITERIA			
DESIGN BASED ON REPORT BY:	NO	NE		
	WIND CRITERIA			
RISK CATEGORY				
MAIN WIND FORCE RESISTING SYSTEM	V = 103 MPH BASIC DESIGN W	IND SPEED (3-SECOND GUST)		
COMPONENTS AND CLADDING	V = 103 MPH BASIC DESIGN WIND SPEED (3-SECOND GUST)			
EXPOSURE CATEGORY	(
GUST / INTERNAL PRESSURE	GCpi = +/- 0.18			
	SEISMIC CRITERIA			
RISK CATEGORY				
SEISMIC DESIGN CATEGORY	D			
SITE CLASS				
ANALYSIS PROCEDURE				
	A DIRECTION (PLAN EAST/WEST)	BRICK INFILL WALLS IN CONCRETE		
SEISMIC FORCE RESISTING SYSTEM	GRAVITY FRAME	GRAVITY FRAME		
DESIGN EVENT GREATER OF 75% BSE-1N AND 100% BSE-1E				
PERFORMANCE CRITIERIA IMMEDIATE OCCUPANCY PER ASCE 41-17		NCY PER ASCE 41-17		
Sxs =	0.51g			
DESIGN EVENT	GREATER OF 75% BSE-2N AND 100% BSE-2E			
PERFORMANCE CRITIERIA	LIFE SAFETY PER ASCE 41-17			
Sxs = 0.81g				

SEISMIC FORCE-RESISTING SYSTEM

THIS PROJECT PROVIDES A VOLUNTARY PARTIAL SEISMIC UPGRADE OF THE OUT OF PLANE BRACING OF THE EXISTING BRICK WALLS. THERE IS NO CHANGE TO THE EXISTING SEISMIC FORCE RESISTING SYSTEM.

THE SEISMIC FORCE-RESISTING SYSTEM (SFRS) FOR THE COMPLETED STRUCTURE IS AS FOLLOWS:

GYM: BRICK INFILL WALLS IN CONCRETE GRAVITY FRAME ON ALL SIDES. BRICK WALLS ARE BRACED BY NEW METAL STUD BACK UP WALLS.

REFERENCE SHEETS SS-300 THRU SS-301 FOR SFRS ELEVATIONS AND DETAILS. REFERENCE PLANS FOR ADDITIONAL SFRS COMPONENTS AND DETAILS.

REFER TO THE GENERAL STRUCTURAL NOTES FOR ADDITIONAL FABRICATING, INSTALLATION, TESTING AND INSPECTION REQUIREMENTS FOR MEMBERS THAT ARE PART OF THE SFRS.

GENERAL STRUCTURAL NOTES

STRUCTURAL OBSERVATIONS

THE STRUCTURAL ENGINEER OF RECORD (SEOR) WILL PERFORM STRUCTURAL OBSERVATIONS BASED ON THE REQUIREMENTS OF THE OSSC AT THE STAGES OF CONSTRUCTION LISTED BELOW. CONTRACTOR SHALL PROVIDE SUFFICIENT ADVANCED NOTICE AND ACCESS FOR THE SEOR TO PERFORM THESE OBSERVATIONS.

ITEM	COMMENTS
AT THE START OF STUD INSTILATION	
FOR FIRST BRICK ANCHOR TEST	
AS REQUIRED TO ADDRESS STRUCTURAL ISSUES	

A FIELD REPORT WILL BE SUBMITTED TO THE BUILDING DEPARTMENT FOLLOWING EACH SITE VISIT.

STRUCTURAL OBSERVATION IS FOR THE GENERAL CONFORMANCE OF THE STRUCTURAL DRAWINGS AND DOES NOT ALLEVIATE ANY SPECIAL INSPECTION REQUIREMENTS.

SPECIAL INSPECTIONS AND TESTING

SPECIAL INSPECTION WILL BE PROVIDED BY THE OWNER BASED ON THE REQUIREMENTS OF THE OSSC AS SUMMARIZED IN THE SPECIAL INSPECTION AND TESTING PROGRAM ON SHEETS SS-003. CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SPECIAL INSPECTOR TO PERFORM THESE INSPECTIONS.

SUBMITTALS

SUBMIT SHOP DRAWINGS AND OTHER SUBMITTALS THROUGH THE OWNERS E-BUILDER SYSTEM TO THE ARCHITECT AND ENGINEER PRIOR TO FABRICATION AND CONSTRUCTION OF STRUCTURAL ITEMS. IF THE SUBMITTALS DIFFER FROM OR ADD TO THE STRUCTURAL CONTRACT DOCUMENTS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON. ANY CHANGES TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ARE SUBJECT TO REVIEW AND ACCEPTANCE BY THE SEOR.

FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM OR ADD TO THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OREGON AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO CONSTRUCTION.

THE USE OF REPRODUCTIONS OR PHOTOCOPIES OF THE CONTRACT DRAWINGS SHALL NOT BE PERMITTED. WHEN CAD OR REVIT FILES ARE PROVIDED TO THE CONTRACTOR OR SUBCONTRACTORS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR/SUBCONTRACTOR TO REMOVE ALL INFORMATION NOT DIRECTLY RELEVANT TO THE SCOPE OF THE SUBMITTAL AS WELL AS ALL REFERENCES TO OUTSIDE SOURCE FILES.

DELEGATED DESIGN SUBMITTALS SHALL INCLUDE DESIGN DRAWINGS AND CALCULATIONS FOR ITEMS THAT ARE DESIGNED BY OTHERS. DELEGATED DESIGN SUBMITTALS SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OREGON ON EVERY DRAWING SHEET AND ON THE CALCULATION COVER SHEET, AND SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER PRIOR TO FABRICATION. CALCULATIONS SHALL BE INCLUDED FOR ALL CONNECTIONS TO THE STRUCTURE, CONSIDERING LOCALIZED EFFECTS ON STRUCTURAL ELEMENTS. DESIGN SHALL BE BASED ON THE REQUIREMENTS OF THE OSSC AND AS NOTED UNDER "DESIGN CRITERIA".

SUBMITTALS AND DELEGATED DESIGN SUBMITTALS SHALL INCLUDE THE FOLLOWING:

ITEM	SUBMITTAL	DELEGATED DESIGN SUBMITTAL	СОММЕ
CONCRETE MIX DESIGNS	Х		
CONCRETE REINFORCEMENT	Х		
STRUCTURAL STEEL	Х		
STEEL WELDING PROCEDURES	Х		
BRICK ANCHOR MATERIALS	Х		
COLD FORMED METAL FRAMING	Х		
METAL STAIRS, LADDERS, AND RAILINGS		Х	
MEPF SYSTEMS ANCHORAGE AND BRACING		Х	REF. TABLE

TABLE NOTES:

THE CONTRACTOR SHALL COORDINATE SEISMIC RESTRAINTS OF MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE SAFETY EQUIPMENT AND ASSOCIATED DISTRIBUTION SYSTEMS WITH THE STRUCTURE. CONNECTIONS TO STRUCTURE AND PROVISIONS FOR SEISMIC MOVEMENTS SHALL CONFORM TO ASCE 7-16 CHAPTER 13, BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF OREGON, AND SHALL BE SUBMITTED TO THE ARCHITECT AND SEOR PRIOR TO FABRICATION. FOR RISK CATEGORY III AND IV BUILDINGS, THE SYSTEMS ENGINEER SHALL SPECIFY THE REQUIREMENTS FOR EQUIPMENT SEISMIC CERTIFICATION IN THE DEFERRED SUBMITTAL IN ACCORDANCE WITH OSSC SECTION 1705.12.6 AND ASCE 7-16 SECTION 13.2.

POST-INSTALLED ANCHORS IN CONCRETE

POST-INSTALLED CONCRETE ANCHORS SHALL BE THE FOLLOWING PRODUCTS, U.N.O.:

ТҮРЕ	APPROVED ANCHORS		
EXPANSION	SIMPSON STRONG-BOLT 2 (ICC ESR-3037) DEWALT POWER-STUD+ SD2 (ICC ESR-2502)		
CONCRETE SCREW	SIMPSON TITEN HD (ICC ESR-2713) DEWALT SCREW-BOLT+ (ICC ESR-3889)		
ADHESIVE ANCHORS	SIMPSON SET-XP (ICC ESR-2508) SIMPSON SET-3G (ICC ESR-4057) DEWALT PURE110+ (ICC ESR-3298)		

ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND PRODUCT EVALUATION REPORTS. EMBEDMENTS SPECIFIED ON DRAWINGS ARE "EFFECTIVE" EMBEDMENTS. REFERENCE MANUFACTURER LITERATURE FOR CORRESPONDING ACTUAL EMBEDMENT DEPTHS. DO NOT CUT REINFORCING IN NEW OR EXISTING CONCRETE DURING INSTALLATION.

REQUESTS FOR ANCHOR SUBSTITUTIONS SHALL BE SUBMITTED TO THE SEOR IN WRITING ALONG WITH EVIDENCE OF EQUAL OR GREATER CAPACITY TO THE SPECIFIED CONNECTION.

INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER AS CERTIFIED THROUGH ACI/CRSI AND IN ACCORDANCE WITH ACI 318-14 SECTION 17.8.2.2. PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE SEOR PRIOR TO INSTALLATION.

ALL-THREAD ROD FOR ADHESIVE ANCHORS SHALL CONFORM TO ASTM F1554 GRADE 55, U.N.O. ANCHORS EXPOSED TO EARTH OR WEATHER SHALL BE PROTECTED FROM CORROSION BY HOT-DIP GALVANIZING OR USE OF STAINLESS STEEL. PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, U.N.O.

NO LOADS OR WELDS SHALL BE PLACED ON EMBEDDED PLATES OR ANGLES FOR A MINIMUM OF 7 DAYS AFTER CASTING. ADHESIVE ANCHORS SHALL NOT BE INSTALLED FOR A MINIMUM OF 21 DAYS AFTER CASTING CONCRETE IN ACCORDANCE WITH ACI 318-14 SECTION 17.1.2.

POST-INSTALLED ANCHORS IN EXISTING BRICK

POST-INSTALLED ANCHORS IN EXISTING BRICK WALLS SHALL MEET THE FOLLOWING REQUIREMENT, U.N.O.:

ANCHORS INTO BRICK WALLS SHALL BE 3/8" DIAMETER SIMPSON HELICAL WALL TIE (HEILI-TIE) MADE WITH TYPE 304 STAINLESS STEEL. INSTALLATION SHALL BE PERPENDICULAR TO THE WALL. INTO THE MORTAR BED. AND HAVE A EMBEDMENT DEPTH WITHIN 1" OF THE EXTERIOR SURFACE, FOLLOW ALL MANUFACTURER RECOMMENDATIONS FOR PREDRILLIING AND INSTALLATION OF ANCHORS.

REQUEST FOR ALTERNATE ANCHOR TYPE SHALL BE SUBMITTED TO EOR AS A SUBMITTAL WITH EVIDENCE OF EQUIVALENCY SHOWN FOR THE ANCHOR AND ASSEMBLY CAPACITY.

SEE SS-006 FOR PROOF TESTING REQUIREMENTS FOR ANCHORS.

STRUCTURAL STEEL SHALL BE OF THE MATERIAL AND TYPE LISTED BELOW, U.N.O.:

STRUCTURAL STEEL				
SHAPE	MATERIAL GRADE			
WIDE FLANGE SHAPES	ASTM A992, GRADE 50			
PLATES WHERE NOTED	ASTM A572, GRADE 50			
CHANNELS, PLATES AND ANGLES, U.N.O.	ASTM A36			
HOLLOW STRUCTURAL SECTIONS (RECTANGULAR)	ASTM A500, GRADE C (Fy=50KSI)			
HOLLOW STRUCTURAL SECTIONS (ROUND)	ASTM A500, GRADE C (Fy=46KSI)			
PIPES	ASTM A53, GRADE B (Fy=35 KSI)			

DESIGN, DETAILING, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH THE "AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" WITH "COMMENTARY" AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", WITH THE FOLLOWING CLARIFICATIONS AND ADDITIONS: 1. CLARIFY SECTIONS 7.5.1 AND 7.5.3 AS FOLLOWS:

BOLTS SHALL CONFORM TO THE ASTM AND RCSC FOR JOINTS USING HIGH STRENGTH BOLTS. BOLTS SHALL BE ASTM F3125 GRADE A325 AND GRADE A490 WHERE NOTED, AND SNUG-TIGHT UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS USED AS PART OF THE SEISMIC FORCE RESISTING SYSTEM (SFRS) NOTED ON THE DRAWINGS AND DETAILS SHALL BE FULLY TENSIONED AND ALL FAYING SURFACES SHALL BE PREPARED AS REQUIRED FOR CLASS A OR BETTER SLIP-CRITICAL JOINTS.

WELDING SHALL CONFORM TO THE AWS CODES FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1 AND APPROVED BY THE STRUCTURAL ENGINEER. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER-METAL MANUFACTURER. FOR MEMBERS INCLUDED IN THE SEISMIC FORCE RESISTING SYSTEM (SFRS), REQUIREMENTS OF AWS D1.8 SHALL APPLY.

FOR MEMBERS AND CONNECTIONS THAT ARE PART OF THE SEISMIC FORCE RESISTING SYSTEM, DISCONTINUITIES CREATED BY ERRORS OR BY FABRICATION OR ERECTION OPERATIONS, SUCH AS TACK WELDS, ERECTION AIDS, AIR-ARC GOUGING, AND FLAME CUTTING, SHALL BE REPAIRED AS REQUIRED BY THE STRUCTURAL ENGINEER.

WELDS SHALL BE MADE USING E70XX ELECTRODES AND SHALL BE 3/16" MINIMUM, UNLESS OTHERWISE NOTED. WELDING SHALL BE BY AWS CERTIFIED WELDERS.

PROVIDE WEEP HOLES AT EXTERIOR CLOSED SECTIONS WHERE MOISTURE MAY ACCUMULATE. LOCATE WEEP HOLES AT BOTTOM OF HORIZONTAL MEMBERS AT MIDSPAN UNLESS OTHER NOTED. LOCATE WEEP HOLES AT BOTTOM OF VERTICAL MEMBERS EXCEPT AT ROOF ASSEMBLIES. ALL WEEP HOLES TO BE APPROVED PRIOR TO FABRICATION.

NON-SHRINK GROUT USED UNDER BEARING AND BASE PLATES SHALL BE ASTM C 1107, FACTORY-PACKAGED. NONMETALLIC AGGREGATE GROUT, NONCORROSIVE, NONSTAINING, MIXED WITH WATER TO CONSISTENCY SUITABLE FOR APPLICATION AND A 30-MINUTE WORKING TIME. GROUT STRENGTH SHALL BE 8,000 PSI MINIMUM AT 28 DAYS.

DISSIMILAR METALS SHALL BE SEPARATED AS REQUIRED TO PREVENT GALVANIC CORROSION BY COMPLETELY COVERING CONTACT AREAS WITH HESKINS 3453 CORROSION PROTECTION TAPE OR APPROVED EQUAL MATERIAL

CONTRACTOR TO COMMUNICATE WITH GALVANIZER FOR THE PROJECT EARLY ON TO INFORM THE GALVANIZER THAT THE STEEL IS TO RECEIVE A DUPLEX COATING. HOT DIPPED GALVANIZED STEEL THAT IS TO BE PAINTED SHALL BE PREPARED PER ASTM D6386. HOT DIPPED GALVANIZED STEEL THAT IS TO BE POWDER COATED SHALL BE PREPARED PER ASTM D7803.

ALL GALVANIZED STEEL IS TO BE DETAILED TO BE SHOP WELDED AND FIELD BOLTED. WHERE FIELD WELDING IS REQUIRED DUE TO FIELD CONDITIONS, REPAIR DAMAGED GALVANIZED COATING WITH ZINC RICH PAINT PER ASTM A780 WITH EFFECTIVE THICKNESS EQUAL TO HOT-DIP GALVANIZED COATING.

GENERAL STRUCTURAL NOTES CONT.

STRUCTURAL STEEL

EMBEDMENT LOCATION DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR INFORMATION ONLY. THE SEOR IS NOT RESPONSIBLE FOR THE APPROVAL OF EMBEDMENT LOCATION DRAWINGS.

2. ADD THE FOLLOWING PARAGRAPH TO SECTION 7.10.3:

"THE ERECTOR SHALL HAVE THE SOLE RESPONSIBILITY FOR DETERMINING THE MEANS AND METHODS USED TO PROPERLY AND ADEQUATELY BRACE THE FRAMING DURING ERECTION."

GALVANIZING AND DUPLEX COATING

ALL STEEL EXPOSED TO WEATHER OR LOCATED OUTSIDE THE BUILDING ENVELOPE SHALL BE HOT-DIP GALVANIZED UNLESS NOTED OTHERWISE IN PROJECT SPECIFICATIONS OR DRAWINGS. WHERE THESE ELEMENTS ARE ALSO EXPOSED TO VIEW THEY SHALL ADDITIONALLY BE PAINTED OR POWDER COATED PER SPECIFICATIONS AND ARCHITECTURAL DRAWINGS.

COLD-FORMED METAL FRAMING

STEEL STUDS SHALL BE C-STUDS WITH A MINIMUM YIELD STRENGTH OF 33,000 PSI FOR 33 AND 43 MIL AND 50,000 PSI FOR 54, 68 AND 97 MIL THICKNESSES. GAUGE PLATE AND STRAPS SHALL HAVE A MINIMUM YIELD STRENGTH OF 30,000 PSI FOR 33 AND 43 MIL AND 50,000 PSI FOR 54, 68 AND 97 MIL THICKNESSES. COLD-FORMED FRAMING SHALL BE OF THE SIZE, GAUGE, AND SPACING SHOWN ON THE DRAWINGS.

THE AMERICAN IRON AND STEEL INSTITUTE AND STEEL STUD MANUFACTURES ASSOCIATION (SSMA) STANDARDS ARE USED IN THIS PACKAGE. PRODUCTS USED SHALL MEET OR EXCEED AISI STANDARDS AND ARE DESIGNATED BY THE FOLLOWING FOUR PART IDENTIFICATION CODE, WITH ALL DIMENSIONS IN 1/100 INCHES:

EXAMPLE:	<u>362 S</u>
362	INDICAT
S	INDICAT
162	INDICAT
22	

PROVIDE BRIDGING ADEQUATE TO DEVELOP THE FULL MOMENT CAPACITY OF STUDS IN CONFORMANCE WITH THE STEEL STUD MANUFACTURERS ASSOCIATION'S (SSMA) RECOMMENDATIONS.

ALL FIELD CUTTING OF STUDS MUST BE BY SAWING, SHEARING, OR PLASMA CUTTING. OTHER CUTTING METHODS OF COLD-FORMED MEMBERS ARE UNACCEPTABLE.

NO NOTCHING OR COPING OF STUDS IS ALLOWED, UNLESS NOTED OTHERWISE.

ENDS OF AXIAL LOAD BEARING WALL STUDS SHALL HAVE SQUARE END CUTS AND SHALL BE SEATED TIGHT AGAINST THE TRACKS WITH A MAXIMUM GAP TOLERANCE OF 1/8" BETWEEN THE STUD AND TRACK. FOR STUDS WITH A MATERIAL THICKNESS OF 68 MIL AND GREATER, THE MAXIMUM GAP TOLERANCE IS REDUCED TO 1/16".

SPLICING OF WALL STUDS OR HEADERS IS NOT ALLOWED, UNLESS NOTED OTHERWISE.

CONTRACTOR TO ENSURE PUNCH OUT ALIGNMENT WHEN ASSEMBLING LATERAL BRACING AND FIELD CUTTING STUDS TO LENGTH.

ALL HEADERS/BUILT-UP BEAMS ARE TO BE CONSTRUCTED WITH UNPUNCHED MATERIAL ONLY.

COLD-FORMED FRAMING CONNECTIONS SHALL BE AS FOLLOWS:

COLD-FORMED METAL FRAMING CONNECTIONS			
FASTENER PRODUCT			
SCREWS	ELCO DRIL-FLEX OR HILTI KWIK-FLEX (ESR-3332)		
PAF'S HILTI X-U (ESR-2269)			

FOR SCREWS, PROVIDE 3/4" MINIMUM CLEARANCE FROM ALL EDGES AND 3/4" MINIMUM CENTER TO CENTER SPACING.

FASTENERS OF COMPARABLE SPECIFICATIONS AND LOAD CAPACITIES MAY BE SUBMITTED FOR APPROVAL.

WELDING SHALL CONFORM WITH AWS D1.3.

<u> 162 - 33</u>

TES WEB DEPTH (IN 1/100 OF AN INCH) TES SHAPE STYLE (S, T, U OR F)

TES FLANGE WIDTH (IN 1/100 OF AN INCH) INDICATES MATERIAL MIL THICKNESS (1 MIL = 1/1,000 INCH)

GENERAL STRUCTURAL NOTES CONT.

STATEMENT OF SPECIAL INSPECTION NOTES:

- SPECIAL INSPECTIONS SHALL CONFORM TO SECTION 1705 OF THE 2019 OSSC, CONTRACT DOCUMENTS AND APPROVED SUBMITTALS. 1. REFER TO SPECIAL INSPECTION AND TESTING TABLES FOR PROJECT REQUIREMENTS.
- SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY MEETING 2. THE REQUIREMENTS OF ASTM E329 (MATERIALS). THE INSPECTION AND TESTING AGENCY SHALL FURNISH TO THE STRUCTURAL ENGINEER ARCHITECT A COPY OF THEIR SCOPE OF ACCREDITATION. SPECIAL INSPECTORS SHALL BE APPROVED BY THE BUILDING OFFICIAL. WELDING INSPECTORS SHALL BE QUALIFIED PER SECTION 6.1.4.1(1) OF AWS D1.1.
- THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. 3 ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION AND NOTED IN THE INSPECTION REPORTS.
- THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, STRUCTURAL 4. ENGINEER, ARCHITECT, CONTRACTOR, AND OWNER. THE SPECIAL INSPECTION AGENCY SHALL SUBMIT A FINAL REPORT STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED AND IS IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THAT ALL DISCREPANCIES NOTED IN THE INSPECTION REPORTS HAVE BEEN CORRECTED.
- -5 QUALITY ASSURANCE (QA) IS REQURIED FOR STRUCTURAL STEEL ITEMS PER AISC 360 AND 341 UNLESS SPECIFICALLY NOTED OTHERWISE. QUALITY CONTROL (QC) TO BE PROVIDED BY THE FABRICATOR, ERECTOR OR OTHER RESPONSIBLE CONTRACTOR AS APPLICABLE. CONTRACTOR AND SPECIAL INSPECTOR TO DOCUMENT QUALITY CONTROL AS REQUIRED IN AISC 360 SECTION N3 AND AISC 341 SECTION J2.

INSPECTION TYPES: 6

- CONTINUOUS : 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 : 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 HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK.
- OBSERVE : OBSERVE THESE FUNCTIONS ON A RANDOM, DAILY BASIS. OPERATIONS NEED NOT BE DELAYED PENDING OBSERVATIONS. PERFORM : INSPECTIONS SHALL BE PERFORMED PRIOR TO THE FINAL ACCEPTANCE OF THE ITEM.
- PERFORM INSPECTION PRIOR TO FINAL ACCEPTANCE OF THE ITEM FOR TEN WELDS TO BE MADE BY A GIVEN WELDER, WITH THE WELDER DEMONSTRATING UNDERSTANDING OF REQUIREMENTS AND POSSESSION OF SKILLS AND TOOLS TO VERIFY THESE ITEMS, THE PERFORM DESIGNATION OF THIS TASK SHALL BE REDUCED TO OBSERVE, AND THE WELDER SHALL PERFORM THIS TASK. SHOULD THE INSPECTOR DETERMINE THAT THE WELDER HAS DISCONTINUED PERFORMANCE OF THIS TASK, THE TASK SHALL BE RETURNED TO PERFORM UNTIL SUCH TIME AS THE INSPECTOR HAS RE-ESTABLISHED ADEQUATE ASSURANCE THAT THE WELDER WILL PERFORM THE INSPECTION TASKS LISTED.
- SPECIAL INSPECTION OF MECHANICAL POST INSTALLED ANCHORS SHALL BE IN STRICT CONFORMANCE WITH THE ICC REPORT AND 8 MANUFACTURER'S INSTALLATION REQUIREMENTS. ANCHOR INSTALLERS SHALL BE QUALIFIED AS REQUIRED BY JURISDICTION REQUIREMENTS.
- INSPECTION REPORTS SHALL IDENTIFY NAMES OF INSTALLERS. •
- SPECIAL INSPECTOR SHALL PROVIDE DOCUMENTATION AT THE END OF ANCHOR INSTALLATIONS STATING THAT THE ANCHORS WERE • INSPECTED PER APPROVED ANCHOR EVALUATION REPORT.

9 **TESTING ABBREVIATIONS:**

NDT - NON-DESTRUCTIVE TESTING C.J.P. - COMPLETE JOINT PENETRATION **MT - MAGNETIC PARTICLE TESTING RBS - REDUCED BEAM SECTION**

- DOCUMENT (D): INDICATES CONTRACTOR AND SPECIAL INSPECTOR TO PROVIDE DOCUMENTATION IN ACCORDANCE WITH AISC 341. 10
- CAPACITY OF HELI-TIE ANCHORS IN BRICK WALL AND THEIR CONNECTORS SHALL BE PROOF TESTED TO VERIFY A CAPACITY OF 200LBS. A 11. MINIMUM OF (2) ANCHORS SHALL BE TESTED AT EACH WALL ELEVATION AND FOR THE ENTIRE PROJECT AS FOLLOWS.

-FIRST 5 ANCHORS: 100% OF ANCHORS TESTED -ANCHORS 6-20: 50% OF ANCHORS TESTED -ANCHORS 21-100: 5% OF ANCHORS TESTED -ANCHORS PAST 101: 2% OF ANCHORS TESTED

CONTRACTOR RESPONSIBILITY:

EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE MAIN WIND-OR SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND-OR SEISMIC-RESISTING COMPONENT LISTED THE TABLES SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:

ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.

- ACKNOWLEDGEMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
- PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND 2. DISTRIBUTION OF THE REPORTS.
- IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION 3.

SPECIAL INSPECTIONS AND TESTING

GENERAL - SPECIAL INSPECTIONS					
	OSSC CODE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 6)		
SYSTEM OR MATERIAL	REFERENCE		CONTINUOUS	PERIODIC	REMARKS
FABRICATORS	1705.10 1704.2.5				SPECIAL INSPECTION IS REQUIRED FOR STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES FABRICATED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTIONS SHALL BE PERFORMED DURING FABRICATION. PERFORMING SPECIAL INSPECTIONS IS NOT REQUIRED, WHERE FABRICATOR HAS BEEN APPROVED AS AN APPROVED FABRICATOR, PER SECTION 1704.2.5.1.
DEFERRED SUBMITTALS				x	SPECIAL INSPECTION REQUIREMENTS FOR DEFERRED SUBMITTAL ITEMS, INCLUDING REQUIREMENTS FOR DESIGNATED SEISMIC SYSTEMS IN ACCORDANCE WITH OSSC SECTION 1705.12.4 IF APPLICABLE, TO BE SPECIFIED BY THE SYSTEM ENGINEER AND INCLUDED WITH DEFERRED SUBMITAL DOCUMENTS.
SUBMITTALS TO THE BUILDING OFFICIAL	1704.5			x	CERTIFICATES OF COMPLIANCE, REPORTS OF PRE- CONSTRUCTION TESTS, OR REPORTS OF MATERIAL PROPERTIES SHALL BE SUBMITTED TO THE BUILDING OFFICIAL.
POST INSTALLED ADHESIVE ANCHORS WITH SUSTAINED TENSION LOADS INSTALLED HORIZONTALLY OR AT AN UPWARD INCLINE IN HARDENED CONCRETE AND COMPLETED MASONRY			x		
POST INSTALLED MECHANICAL ANCHORS AND ADHESIVE ANCHORS (EXCLUDING CONDITIONS NOTED ABOVE) IN HARDENED CONCRETE AND COMPLETED MASONRY				x	

S	

	ST	EEL - SPECIAL I	NSPECTIONS								
YSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	INSPECTION (N CONTINUOUS/	OTES 5 AND 6) PERIODIC/	REMARKS	INSPECTION TASKS PRIOR TO BOLTING					
DN			PERFORM	OBSERVE		MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR			x		
STRUCTURAL ELEMENTS	1704.2.5.1	AISC 360		Х	REFER TO INSPECTION OF FABRICATOR REQUIREMENTS	FASTENERS MARKED IN ACCORDANCE WITH ASTM	-			V	
		ASTM A6				REQUIREMENTS	_			X	
- VERIFICATION OF STRUCTURAL STEEL	1505.2.1 2203.1	SPECIFIED IN CONSTRUCTION		х	CERTIFIED MILL TEST REPORTS	(GRADE, TYPE, BOLT LENGTH, IF THREADS ARE TO BE EXCLUDED FROM THE SHEAR PLANE)				Х	
NENTS	TABLE 1705.2	DOCUMENTS AISC 360 A3.1				PROPER BOLTING PROCEDURE SELECTED FOR JOINT	1705.2.1.2	AISC 360 TABLE N5.6-1		Х	
		AISC 360 N3.2				CONNECTING ELEMENTS< INCLUDING THE APPROPRIAT	E	AISC 360 M2.5			
		AISC 360 A3.3				SPECIFIED, MEET APPLICABLE REQUIREMENTS	, IF			X	
AL VERIFICATION OF HIGH STRENGTH BOLTS, NUTS	1705.2.1.2 AISC 360 N5	AISC 300 N3.2 ASTM STANDARDS SPECIFIED IN		х	MANUFACTURER'S CERTIFIED TEST REPORTS	PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENT	red			X	
ASHERS	TABLE 1705.2-2	2 CONSTRUCTION DOCUMENTS				FOR FASTENER ASSEMBLIES AND METHODS USED PROPER STORAGE PROVIDED FOR BOLTS, NUTS,	-			X	
		RUSU 2.1				INSPECTION TASKS DURING BOLTING					
		AISC 360 A3.4 AISC 360 N3.2				FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACE IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	D	AISC 360		Х	
RIAL VERIFICATION OF ANCHOR BOLTS AND ADED RODS		ASTM STANDARDS SPECIFIED IN		Х	MANUFACTURER'S CERTIFIED TEST REPORTS	JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR T	0	TABLE N5.6-2 AISC M2.5 BCSC		Х	
		DOCUMENTS				FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	1705.2.1.2 TABLE 1705.	SPECIFICATION 2-2 FOR STRUCTUR		Х	
RIAL VERIFICATION OF WELD FILLER METALS	1705.2.1.1 TABLE 1705.2-5	AISC 360 A3.5 AISC 360 N3.2 APPLICABLE AWS A5 DOCUMENTS		Х	MANUFACTURER'S CERTIFIED TEST REPORTS	FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES		JOINTS USING ASTM A325 OR A490 BOLTS SECTION 9		Х	
TURAL STEEL WELDING						INSPECTION TASKS AFTER BOLTING					
IFYING USE OF PROPER WPS'S	1705.2.1 AWS D1.1	AISC 360 N3.2		Y	RETAIN A RECORD OF WELDING PROCEDURE SPECIFICATIONS	DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	1705.2.1.2 TABLE 1705.	AISC 360 2-2 TABLE N5.6-3	X		
PLETE AND PARTIAL JOINT PENETRATION GROOVE		AWS D1.1	Х	<u> </u>	RETAIN A RECORD OF QUALIFICATION CARDS						
TIPASS FILLET WELDS LE PASS FILLET WELDS GREATER THAN 5/16"	TABLE 1705.2-6	AWS D1.1 CLAUSE	X X		ALL WELDS VISUALLY INSPECTED PER AWS D1.16.9			STEEL - TEST	ING		
G AND SLOT WELDS GLE PASS FILLET WELDS LESS THAN OR EQUAL	-		X	X		SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD	FREQUENCY (NOTE 6)		REMARKS
.DING STAIR AND RAILING SYSTEMS	1705.2(2.5)	AWS D1.1 CLAUSE		Х	ALL WELDS VISUALLY INSPECTED PER AWS			OTEEL			
FICATION OF JOINT & CONNECTION DETAILS				v	51.10.3	ULTRASONIC (UT) TESTING OF WELDS	1705.2.1	AWS D1.1 6.13 &		ALL C.J.I	P. WELDS 5/16" AND THICKER REQUIRE UT
ACING, AND STIFFENERS				~				0.14.0		REQUIRI	ED AT THERMALLY CUT ACCESS HOLES
JG-TIGHT BOLT INSTALLATION				Х	ALL CONNECTIONS VISUALLY INSPECTED AND VERIFIED SNUG	MAGNETIC PARTICLE (MT) TESTING OF WELDS	1705.2.1	AWS D1.1 6.14.4 AISC360 N5.5c		ROLLED EXCEED	SHAPES OR WHEN THE WEB THICKNESS S 2" FOR BUILT-UP SHAPES. REQUIRED
						PRE-CONSTRUCTION TESTING OF WELDING STUDS,	1705.2.1	AWS D1.1 7.7.1	EACH SIZE AND TYPE OF	THIS TE	SPECIFICALLY NOTED ON DRAWINGS STING PERFORMED BY CONTRACTOR AND
						STUD/DBA APPLICATION QUALIFICATION	1705 2 1	AWS D1 1 7 6	NON-PREQUALIFIED	THIS TES	STING PERFORMED BY CONTRACTOR AND
							1700.2.1		APPLICATIONS	CONFIRI	MED BY SPECIAL INSPECTOR
						PRE-INSTALLATION VERIFICATION OF PRETENSIONED HIGH STRENGTH BOLTS	1705.2.1	RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS SECTION 7	EACH COMBINATION OF DIAMETER, LENGTH, GRADE AND LOT TO BE USED IN THI WORK	:, E	

date: 10 DEC 2021 drawn by: RL checked: ST

. • . job no.: 21022.00.L

BEAVERTON SCHOOL DISTRICT

SPECIAL INSPECTION AND TESTING CONT.

SYSTEM OR MATERIA

POST INSTALLED ANCHORS IN HARDEN

POST INSTALLED ANCHORS IN BRICK M

SYSTEM OR MATERIA

POST INSTALLED ANCHORS IN BRICK WALLS

SYSTEM OR MATER MATERIAL VERIFICATION OF WELD FIL

VERIFYING USE OF PROPER WPS'S VERIFYING WELDER QUALIFICATIONS COLD FORMED ROOF AND FLOOR DEC MATERIALS TEST REPORTS AND CERT

IDENTIFICATION MARKINGS TO CONFOR STANDARDS SPECIFIED IN THE APPROV DOCUMENTS

COLD-FORME

WELDING OF ELEMENTS OF THE SEISN SYSTEMS

SCREW ATTACHMENT, BOLTING, ANCH FASTENING OF ELEMENTS OF THE SEIS RESISTING SYSTEM, INCLUDING SHEAF DIAPHRAGMS, COLLECTORS (DRAG ST DOWNS

COLD-FORM

WELDING OF ELEMENTS OF THE MAIN RESISTING SYSTEM, INCLUDING SHEAF DIAPHRAGMS, COLLECTORS, DRAG ST HOLDDOWNS

SCREW ATTACHMENT, BOLTING, ANCH FASTENING OF MAIN WINDFORCE-RESI ELEMENTS INCLUDING SHEAR WALLS, DIAPHRAGMS, COLLECTORS, DRAG ST HOLDDOWNS

SPECIAL INSPECTIONS AND TESTING CONT.

ANCHORS - SPECIAL INSPECTIONS									
A1	OSSC CODE		FREQUENC	(NOTE 6)	DEMADKS				
AL	REFERENCE	REFERENCE	CONTINUOUS	PERIODIC	REWARKS				
POST INSTALLED ANCHORS IN CONCRETE									
ED CONCRETE	1980.8 1909.1	ACI 318 1.3, 3.8.6		Х	REF. NOTE 8				
	F	OST INSTALLED AN	CHORS IN BRICK						
ORTOR BED			Х		SEE TESTING REQUIREMENTS				
	-								
		ANCHORS -	TESTING						
AL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 6)		REMARKS				
			Х		REF. NOTE 11				

LIGHT GAUGE AND OTHER STEEL - SPECIAL INSPECTIONS										
	OSSC CODE	CODE OR	FREQUENC	Y (NOTE 6)	DEMARKS					
	REFERENCE	REFERENCE	CONTINUOUS	PERIODIC	REWIARNS					
		LIGHT GAUGE	WELDING							
LER METALS				Х	MANUFACTURER'S CERTIFIED TEST REPORTS					
		AWS D1.3		Х	RETAIN A RECORD OF WELDING PROCEDURE SPECIFICATIONS					
				Х	RETAIN A RECORD OF QUALIFICATION CARDS					
KS - WELDING, TFICATIONS	1705.2.2	SDI QA/QC, AWS D1.3		Х	WELDING INSPECTION AND INSPECTOR QUALIFICATION					
		GENER	AL							
RM TO ASTM WED CONSTRUCTION	1705.2.2 1705.2.3 1705.2.4 TABLE 1705.2-4	APPLICABLE ASTM STANDARDS		Х	MANUFACTURER'S CERTIFIED TEST REPORTS					
ED STEEL LIGHT-FR	RAME CONST	RUCTION: REQU	JIRED SPECIAL II	NSPECTIONS F	OR SEISMIC RESISTANCE					
AIC FORCE RESISTING	1705.12.3	AWS D1.3		Х	ALL WELDS VISUALLY INSPECTED PER AWS D1.3 7.1					
IORING AND OTHER SMIC-FORCE- R WALLS, BRACES, TRUTS) AND HOLD-	1705.12.3	AWS D1.3		Х	EXCEPTION: NOT REQUIRED FOR SHEAR WALLS, BRACES, DIAPHRAGMS, DRAG STRUT AND HOLD- DOWNS. IF SHEATHING IS GYP OR FIBERBOARD OR IF SHEATHING IS WOOD STRUCTURAL PANEL/STEEL SHEET ONE SIDE ONLY AND FASTENER SPACING IS GREATER THAN 4" ON CENTER					
AED STEEL LIGHT-	FRAME CONS	STRUCTION: REC	QUIRED SPECIAL	INSPECTIONS	FOR WIND RESISTANCE					
WINDFORCE- R WALLS, BRACES, RUTS AND		AWS D1.3		Х	ALL WELDS VISUALLY INSPECTED PER AWS D1.3 7.1					
IORING AND OTHER ISTING SYSTEM BRACES, RUTS AND	1705.11.2			Х	NOT REQUIRED IF SHEATHING IS GYP OR FIBERBOARD. ADDITIONALLY IS NOT REQUIRED IF SHEATHING IS WOOD STRUCTURAL PANEL OR STEEL SHEETS ON ONLY ONE SIDE OF THE SHEAR WALL, SHEAR PANEL OR DIAPHRAGM ASSEMBLY AND THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES O.C. OR MORE.					

(E)	INDICATES EXISTING.
	INDICATES EXISTING STRUCTURE.
	CONTRACTOR TO VERIFY ALL EXIS DIMENSIONS AND ELEVATIONS PRI ERECTION. NOTIFY EOR OF ANY DI SHOWN ON THE DRAWINGS.

CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATIONS AND ERECTION. NOTIFY EOR OF ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE DRAWINGS.

4. + XX' - XX" INDICATES TOP OF SLAB ELEVATION.

INDICATES NEW METAL STUD WALL REF. ELEVATIONS.

Level 2 18' - 0"

600S162-54 @ 16" o.c.

- STORAGE ROOM ENCLOSURE REF. PLAN

- CUT HOLE IN FLOOR TO EXTEND JAMB THROUGH

RAISED STORAGE ROOM

PROVIDE BLOCKING AT HANDRAIL ATTACHMENT POINTS REF. 10/SS-801

<u>Level 1</u> 0' - 0"

EDGE OF FURRED
 WALL. REF. ARCH.

NOTES:

1101	EO:	
1.	(E)	INDICATES EXISTING.
2.		INDICATES EXISTING STRUCTURE
3.		CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO FABRICATIONS AND ERECTION. NOTIFY EOR OF ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE DRAWINGS.
4.	H-X	INDICATES BOX HEADER TYPE REF. 2/SS-801.
5.	J-X	INDICATES JAMB TYPE REF. 1/SS-801.
6.		INDICATES NEW METAL STUD WALL.

ELEVATION

NOT	ES:	
1.	(E)	INDICATES EXISTING.
2.		INDICATES EXISTING STRUCTURE
3.		CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO FABRICATIONS AND ERECTION. NOTIFY EOR OF ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE DRAWINGS.
4.	H-X	INDICATES BOX HEADER TYPE REF. 2/SS-801.
5.	J-X	INDICATES JAMB TYPE REF. 1/SS-801.
6.		INDICATES NEW METAL STUD WALL.

STRUCTURA

1. 2.

GENERAL STRUCTURAL NOTES

<u> 1000:</u>

POSTS & 6 INCH NOMINAL BEAMS

PLATES & SILLS ON CONCRETE

1000

1500

2000

2500

3000

4000

5000

6000

2x4 FRAMING & STUDS

2x6 LARGER STUDS

2x6 DECKING

DESIGN LOADS:

MS1.1

SCALE: N.T.S.

PROVIDE SOLID BLOCKING FOR JOIST AND RAFTERS AT ALL BEARING WALLS AND BEAMS. PROVIDE BRIDGING AND FIRE STOPPING AS REQUIRED BY CODE.

ROOF, WALL AND FLOOR SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE I OR CDX OR EQUIVALENT ORIENTATED STRAND BOARD WITH EXTERIOR GLUE. SEE DRAWINGS FOR PANEL INDEX, INSTALLATION, AND NAILING REQUIREMENTS. NAILING INDICATED ON DRAWINGS TO BE WITH COMMON NAILS. SHEAR WALL SHEATHING SHALL BE INSTALLED WITH JOINTS BLOCKED UNLESS OTHERWISE NOTED. USE EXTERIOR TYPE PLYWOOD FOR EXPOSED LOCATIONS SUCH AS SOFFITS. ADHESIVE FOR FIELD GLUING PANELS TO FRAMING SHALL COMPLY WITH APA

NAIL ALL MEMBERS WITH MINIMUM NAILING TO CONFORM TO TABLE 2304.9.1 OF THE IBC AND INCREASE WHERE INDICATED. FASTENERS AND HANGERS NOTED ON THE DRAWINGS ARE MODEL NUMBERS OF "SIMPSON STRONG-TIE COMPANY, INC." AND MAY BE REPLACED WITH EQUIVALENT MODELS BY OTHER COMPANIES HAVING EQUIVALENT PROPERTIES AND STRENGTHS. INSTALL ALL CONNECTORS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS WITH NAILING IN ALL AVAILABLE HOLES, SIMPSON OR EQUIVALENT STEEL FASTENERS ATTACHED TO ACQ-TREATED WOOD SHALL HAVE GALVANIZING CONFORMING TO ASTM G185 -SIMPSON PRODUCTS WITH THIS GALVANIZING ARE NOTED AS "ZMAX".

CUTTING OR NOTCHING OF BEAMS, JOISTS, RAFTERS AND COLUMNS NOT ALLOWED WITHOUT PRIOR APPROVAL. JOISTS AND RAFTERS MAY HAVE A CIRCULAR HOLE NOT EXCEEDING 15% OF DEPTH DRILLED AT CENTER OF MEMBER. STUDS IN BEARING WALLS MAY BE NOTCHED NOT EXCEEDING 25% OF DEPTH AT TOP AND BOTTOM 1/5 OF HEIGHT OR MAY HAVE A CIRCULAR HOLE NOT EXCEEDING 1/3 OF MEMBER DEPTH

EXTERIOR SURFACED LUMBER AND WOOD POSTS SHALL BE HEM-FIR AND SHALL BE STAINED "CEDAR TONE" AND PRESSURE TREATED FOR ABOVE GROUND APPLICATIONS WITH CROMATED COPPER ARSENATE (CCA). MINIMUM RETENTION OF CCA AS DEFINED IN AWPA STANDARD P5 SHALL BE 0.25 POUNDS PER CUBIC FOOT. THE TREATMENT PROCESS SHALL BE IN ACCORDANCE WITH AWPA STANDARDS C2 FOR LUMBER AND C23 FOR POSTS. TREAT FIELD CUTS AND BORES IN TREATED MEMBERS IN ACCORDANCE WITH AWPA STANDARD M4 USING SOLVENT BASE COPPER NAPHTHENATE SOLUTION CONTAINING A MINIMUM 2% COPPER METAL OR COMPATIBLE PRESERVATIVE ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

4.	HORIZONTAL SEISMIC FORCE FORCE GENERATED PER IBC (OREGON) (POUNDS)	MINIMUM NUMBER OF SCREWS OR LAGS FROM UNIT CURB TO WOOD CURB	SIMPSON A35'S FOR LEVELING CURB TO ROOF STRUCTURE
	343	4	4
	514	6	6
	686	6	6
	857	8	8
	1029	8	8
	1371	10	10
	1714	12	12
	2057	15	15

MS1.1

CONNECTORS ARE TO BE INSTALLED THROUGH THE BOTTOM FLANGE OF THE STEEL CURB SECTION THROUGH THE ROOF PLYWOOD SHEATHING AND INTO A WOOD FRAMING MEMBER (OR WOOD BLOCKING) BELOW. VERTICAL SUPPORT OF THE WEIGHT OF THE MECHANICAL UNIT IS A SEPARATE CONSIDERATION, AND SHALL BE PROVIDED FOR BY ARRANGEMENT OF ROOF STRUCTURAL FRAMING NOT SHOWN SPECIFICALLY BY THIS TABLE OR DETAIL. APPROVED CONNECTORS INCLUDE THE FOLLOWING - LARGER SIZES MAY BE USED. $#14 \times 2 1/2$ " MINIMUM LENGTH CUT THREAD WOOD SCREW

1/4" DIAMETER X 2 1/2" MINIMUM LENGTH STANDARD LAG SCREW

"SIMPSON" SDS1/4 \times 2 1/2" MINIMUM LENGTH HEX HEAD WOOD SCREW

-TYPE OF SENSOR

-SENSOR SUBSCRIPT SUPERSCRIPT

- DAMPER SUBSCRIPT

AIR DIRECTED

EQUIPMENT ABBREVIATIONS

PUMP SUMP PUMP BOOSTER PUMP CONDENSING WATER PUMP COOLING TOWER SUMP PUMP

VARIABLE FREQUENCY DRIVE CONTACTOR CONTROL COMPRESSOR EXHAUST FAN RETURN/RELIEF FAN

AIR HANDLER VARIABLE AIR VOLUME DAMPER BOX AREA DAMPER SMOKE DAMPER

FIRE SMOKE COMBINATION DAMPER VALVE WATER HEATER

BUILDING AUTOMATION SYSTEM

HEATING WATER SUPPLY HEATING WATER RETURN DOMESTIC HOT WATER DOMESTIC COLD WATER GALLONS PER MINUTE DOUBLE VALVE OPERATOR

AIR FLOW ABBREVIATIONS

OUTSIDE AIR **RETURN AIR** SUPPLY AIR EXHAUSTED AIR

CONTROLS FOR HVU W/ BACK	NET IN	ITEGR,	ATION	SZ \	VAV	
POINT DESCRIPTION		READ	WRITE	READ)/WRITE	TREND
SUPPLY FAN START/STOP					Х	
EXHAUST FAN START/STOP					Х	
EXHAUST FAN SPEED					Х	
EXHAUST FAN STATUS		X				
SUPPLY FAN STATUS		X				
SUPPLY FAN SPEED					Х	
OUTSIDE AIR/ECONOMIZER DAMPER POSITION					Х	
RA TEMP		X				
DISCHARGE AIR TEMP			X			
MIXED AIR TEMP		X				
HEATING SECTION MODULATION					Х	
COOLING MODULATION						
POINTS LISTED ABOVE ARE MINIMUM POINTS TO	BE MAPP	ED TO G	RAPHIC I	NOTED A	BOVE	
CONTROLS FOR HVU W/ BACK	NET IN	ITEGR	ATION	SZ \	VAV	
		UT	OUT	OUTPUT		
	DIGITAL	ANALOG	DIGITAL	ANALOG		
RA CO2			×			

CONTROLS FOR DE-STRATIFICATION FANS						
	INPUT		OUTPUT			
POINT DESCRIPTION		ANALOG	DIGITAL	ANALOG		INEND
FANS ON/OFF			×			
FAN SPEED				×		
SYSTEM MANUAL SWITCH STATUS	×					

ROOF TOP UNIT	HVU-1
MARK NUMBER	
TYPE	ROOF TOP
CFM	5000
MIN/MAX OSA (CFM)	2782/5000
EXTERNAL SP. ("H20)	1.45
MOTOR HP	4
FAN RPM	1334
DISCHARGE DIRECTION	DOWN
CONTROLLED BY.	DDC
PRE FILTER	MERV 8
FILTER	MERV 13
GAS INPUT (MBH)	400
뛽 GAS OUTPUT (MBH)	320
ENT. AIR 'F	40°F
LVG. AIR [•] F	99 ° F
EFFICIENCY	80%
VOLTAGE/PH	208/3
MCA/MROPD	21.2/30
MAX WEIGHT (LBS)	2170
SMOKE DETECTOR	NO
POWER EXHAUST	YES
BASIS OF DESIGN: DAIKIN	DAHA09A

DE-STRATIFICATION FANS					
MARK NUMBER		DS 2			
VOLTAGE/PH	120/1	120/1			
AMPS	0.46	0.46			
RPM	1640	1640			
WEIGHT: LBS	9	9			
BASIS OF DESIGN: AIRIUS	A-25-EC	A-25-EC			

VENTILATION AIR SCHEDULE - HVU-1

ROOM NUMBER AND NAME	AREA (SQ. FT.)	OCCUPANT LOAD (#/1000 SQ. FT.)
	Az	
OCKER ROOMS	720	0
TAGE	915	35
IULTI-USE ASSEMBLY	4475	50
ALL	195	0
OTAL	6305	

NUMBER OF OCCUPANTS	OUTSIDE AIR REQUIREMENT (CFM/P)	OUTSIDE AIR REQUIREMENT (CFM/SQ FT.)	OUTSIDE AIR REQUIRED (CFM)		ZONE OSA (CFM)	SUPPLY AIR (CFM)	PRIMARY OSA FRACTION	RETURN AIR (CFM)	EXHAUST AIR (CFM)	Zone Ventilation Efficiency	Corrected OSA CFM	AIR SYSTEM
Pz	Rp	Ra	Vbz	Ez	Voz	Vpz	Zp			Evz		
0	10	0.25	180	0.8	225	750	0.30	525	0	1.21	243.23	HVU-1
33	10	0.06	385	1.0	385	750	0.51	365	0	1.00	416.09	HVU-1
224	7.5	0.06	1949	1.0	1949	3305	0.59	1357	0	0.93	2106.39	HVU-1
0	7.5	0.06	12	0.8	15	195	0.08	180	0	1.44	15.81	HVU-1
257			2525		2573 Vou	5000 Vps		2427	0	0.93 Ev	2782	

MECHANICAL LEGEND	
SUPPLY AIR DIFFUSER	AFF ABOVE FINISH FLOOR
	AHU ························· AIR HANDLING UNIT B.D. ··················BOTTOM OF DUCT
	BHPBRAKE HORSEPOWER
	CFM CUBIC FEET PER MINUTE
	CONN CONNECTION
OR	CW DOMESTIC COLD WATER
	DBDRY BULB
	DIA. UNITED DIAMETER
DUCT UP & DOWN	EA EXHAUST AIR
I I & DOWN	EDBENTERING DRY BULB TEMPERATURE
EXHAUST AIR DUCT UP & DOWN	EWT ········ENTERING WATER TEMPERATURE
	FIXTFIXTURE
DUCT UP & DOWN	FPS
COMMENTATION AIR DUCT UP & DOWN	FR ····································
EXHAUST AIR DUCT UP & DOWN	GA. GAUGE
	GPM ························GALLONS PER MINUTE H ····································
WITTERMINAL UNIT	HPHORSEPOWER
	IN. INCHES
(E) ······EXISTING	L ····································
	LDBLEAVING DRY BULB
	LWT LEAVING WATER TEMPERATURE
() ····································	MBA. MAXIMUM MBH MINIMUM THOUSANDS OF BTUS PER HOUR
© ····································	MIN. ························ MINIMUM NC ····································
(?)NOTE	N.C. ·················NORMALLY CLOSED NG ·····················NATURAL GAS
	N.I.M. ·················NOT IN MECHANICAL
EQUIPMENT DESIGNATOR	OAOUTSIDE AIR
BALL VALVE	P/T ····································
GATE VALVE	RA RETURN AIR RECT RECTANCI AR
°∼I ······CHECK VALVE	REQ'D REQUIRED
	SA
	S.P. CONTRACT STATIC PRESSURE
	TEMP. TEMPERATURE
	W WIDTH
	WB WATER PRESSURE DROP
	Ø DIAMETER
	CD CONDENSATE
T PRESSURE GAUGE	
「一」 · ··································	
	NEW WORK
	HWS (HWS) HEATING WATER SUPPLY
SMOKE DETECTOR	
USY MUKE DAMPER	

	DIFFUSE	R SCHED	ULE
	MARK	S1	S2
	MANUFACTURER	TITUS	TITUS
	MODEL	300 SERIES	DL SERIES
IS	MODULE SIZE	SEE DRAWINGS	SEE DRAWINGS

GRILLE S	SCHEDULE
MARK	R1
MANUFACTURER	KEES
MODEL	GHD SERIES
MODULE SIZE	SEE DRAWINGS

MM6.

0.56

HVU-1

HVU-1

HVU-1 HVU-1

HEATING VENTILA	TING UNIT
MARK NUMBER	
PANEL & CIRCUIT CONNECTION	PNL-W-1,3,5
FEEDER SIZE	1"C, 3 #8 & 1 #10 GND.
VOLTAGE/PH	208V/3PH
FLA	16.7A
SMOKE DETECTOR	NO

HEATING VENTILA	TING UNIT
MARK NUMBER	$\begin{array}{c c} \hline DS \\ \hline 1 \\ \hline 2 \\ \hline 3 \\ \hline \end{array}$
PANEL & CIRCUIT CONNECTION	PNL-W-21
FEEDER SIZE	3/4"C, 2 #12 & 1 #12 GND.
VOLTAGE/PH	120V/1PH
FLA (EACH)	0.46A

LOAD		۱۸	1					
TYPE	PANEL	٧V	V	NEW	PLATFORM			
	208Y/120	VOLT	200	AMP		3 PHASE	4	WIRE
	CIR #	BREAK	ER	LOAD	DESCRIPTION		LOAD	
		A.	P.	TYPE		A	В	С
(N)	1	35	3	М	HVU-1 (5HP)	2,004		
(N)	3	-	-	M	*		2,004	
(N)	5	-	-	М	*			2,004
(N)	7	15	3		SPARE			
(N)	9	- 1	-		*			
(N)	11	- 1	-		*			
(N)	13	15	3		SPARE			
(N)	15	-	=		*			
(N)	17	-	-		*			
(N)	19	20	1		SPARE	0		
(N)	21	20	1		SPARE			
(N)	23	20	1		SPARE			
(E)	25	100	3	M	(E) PANEL- G	6,600		
(E)	27	-	-	M	*		6,600	
(E)	29		-	M	*			6,600
	31	20	1		SPARE			,
	33	20	1		SPARE			
	35	20	1		SPARE			
	37	20	1		SPARE			
	39	20	1		SPARE			
	41	20	1		SPARE			
(E)	2	20	1	Н	UNIT HEATER NORTH	1.000		
(E)	4	20	1	R	NE PLUGS	.,	720	
(E)	6	20	1	M	VAULT SUMP PUMP			1,200
(E)	8	20	1	Н	UNIT HEATER SOUTH	1,000		.,
(E)	10	20	1		SPARE	-,		
(E)	12	20	1	R	NE PLUGS			720
(E)	14	30	1	Н	SPACE HEATER BOYS	1,500		
(-/	16	20	1		SPACE	-,		
	18	20	1		SPACE			
(E)	20	20	1	R	STAGE PLUGS	720		
(E)	22	20	1	R	BOYS DRESSING ROOM		720	
(E)	24	20	1	R	GIRLS DRESSING ROOM			720
(E)	26	20	1	R	PLUGS DRESSING ROOM	720	1	
(E)	28	30	1	Н	HOT WATER TANK		1,500	1
(E)	30	30	1	Н	HOT WATER TANK	1		1,500
(E)	32	30	1	Н	SPACE HEATER GIRLS	1,500		
	34	20	1		SPACE			
	36	20	1		SPACE			
	38	20	1		SPACE			
	40	20	1		SPACE			
	42	20	1		SPACE			
	TOTAL KVA	39.33				15,044	11,544	12,744
	TOTAL AMPS	109.26				125.37	96.20	106.20
	MAIN BKR.	150A	MCB	FEEDER				
	BOTTOM		Х	SURFACE	AIC RATING:		SOLID NEU	J
	TOP			FLUSH			I.G. BUS	

PANEL			EXISTING	PLATFORM			
208Y/120		200	AMP		3 PHASE	4	WIRE
CIR #	BREAK	=R	LOAD	DESCRIPTION	OTTA OL	LOAD	
	A	P	TYPE	BEGGNI HON	A	B	С
1	20	1	Н	UNIT HEATER NORTH	1.000		
3	20	1	R	NEPLUGS		720	
5	20	1	M	VAULT SUMP PUMP			1.200
7	20	1	Н	UNIT HEATER SOUTH	1.000		.,
9	20	1		SPARE			
11	20	1	R	NE PLUGS			720
13	30	1	Н	SPACE HEATER BOYS	1,500		
15				NO SPACE		+	
17				NO SPACE			
19				NO SPACE			
21				NO SPACE			
23				NO SPACE			
25				NO SPACE			
27				NO SPACE			
29				NO SPACE			
31				NO SPACE		1	
33				NO SPACE		+	
35				NO SPACE			
37				NO SPACE			
39				NO SPACE			
41				NO SPACE			
2	20	1	R	STAGE PLUGS	720		
4	20	1	R	BOYS DRESSING ROOM		720	
6	20	1	R	GIRLS DRESSING ROOM			720
8	20	1	R	PLUGS DRESSING ROOM	720		
10	30	1	Н	HOT WATER TANK		1,500	
12	30	1	Н	HOT WATER TANK			1,500
14	30	1	Н	SPACE HEATER GIRLS	1,500		
16				NO SPACE			
18				NO SPACE			
20				NO SPACE			
22				NO SPACE			
24				NO SPACE			
26				NO SPACE			
28				NO SPACE			
30				NO SPACE			
32				NO SPACE			
34				NO SPACE			
36				NO SPACE			
38				NO SPACE			
40				NO SPACE			
42	10.50			NU SPACE	0.440	0.040	4.440
	13.52				6,440	2,940	4,140
	37.00	MLO			03.07	24.00	34.30
POTTOM							
		^	SURFAUE				
TOP			LO2H			I.G. BUS	

	\cap	•					
PANEL	G	I	EXISTING	PLATFORM			
208Y/120	VOLT	200	AMP		3 PHASE	4	WIRE
CIR #	BREAK	ER	LOAD	DESCRIPTION		LOAD	
	Α.	Ρ.	TYPE		A	B	С
1	20	1	L	PROJECTOR	750		
3	20	1	L	LIGHTS		1,000	
5	20	1		SPARE			
7	20	1	L	OVERHEAD LIGHTS	750		
9	20	1		SPARE			
11	20	1	L	OVERHEAD LIGHTS			750
13	20	1		SPARE			
15	20	1	L	OVERHEAD LIGHTS		750	
17	20	1		SPARE			
19	20	1	L	OVERHEAD LIGHTS	750		
21	20	1		SPARE			
23	20	1		SPARE			
25	20	1	L	STAGE SPOTLIGHTS	1,000		
27	20	1	L	STAGE FLOODLIGHT		1,000	
29				NO SPACE		,	
31				NO SPACE			
33				NO SPACE			
35				NO SPACE			
37				NO SPACE			
39				NO SPACE			
41				NO SPACE			
2	20	1	L	STAGE SPOTLIGHTS	1.000		
4	20	1	L	STAGE FLOODLIGHT	-1	1.000	
6	20	1	L	STAGE SPOTLIGHTS			1.000
8	20	1	L	STAGE FLOODLIGHT	1.000		
10	20	1	L	STAGE SPOTLIGHTS	,	1.000	
12	20	1	L	STAGE FLOODLIGHT			1.000
14	20	1	R	STAGE RECS	1,000		
16	20	1	R	RECS STAGE		1,000	
18	20	1		SPARE		,	360
20	20	1	R	REC ON STAGE			
22	20	1	L	FLOOR POCKET			
24	20	1	L	LIGHTS LOFT & PLUG			
26	20	1	L	FLOOR POCKET			
28	20	1	R	PA SYSTEM			
30				NO SPACE			
32				NO SPACE			
34				NO SPACE			
36				NO SPACE			
38				NO SPACE			
40				NO SPACE			
42				NO SPACE			
TOTAL KVA	15.11				6,250	5,750	3,110
OTAL AMPS	41.97				52.08	47.92	25.92
MAIN BKR.		MLO	FEEDER				
BOTTOM		Х	SURFACE	AIC RATING:		SOLID NEU	
TOP			FLUSH		I	IG BUS	

(E) 'MDP' MAIN DISTRIBUTION PANEL - SERVICE RATED 600A BUS 208Y/120V 3Ø 4W

3

	LIGHTING SYMBOLS	
	LED LAY-IN LIGHT FIXTURE	(+
	SURFACE MOUNTED LED	d
Ô	RECESSED LIGHT FIXTURE	ŧ
\bigcirc	DECORATIVE PENDANT FIXTURE	ĺ
	WALL-MOUNTED FIXTURE	(
\bigcirc	HEAT LAMP/ FAN / LIGHT	¥_) ()
\bigcirc	WALL MOUNTED LIGHT FIXTURE	[
$\overset{+}{\otimes}$	EXIT SIGN, UNIVERSAL MOUNT, W/ DIRECTIONAL ARROW	[
\bigotimes	EXIT SIGN, WALL MOUNT, +8'-0'' A.F.F.	[
SV	<u>WITCH SYMBOLS</u>	E
\$	SWITCH, SPST +48'' A.F.F.	E
\$ ₂	SWITCH, DPST +48'' A.F.F.	
\$ ₃	SWITCH, 3-WAY +48'' A.F.F.	
\$ ₄	SWITCH, 4-WAY +48'' A.F.F.	
\$ _E	SWITCH, EMERGENCY LIGHTING +48" A.F.F.	
\$ _D	SWITCH, DIMMER +48'' A.F.F.	/
\$ _P ¢	SWITCH, SPST, W/PILOT LIGHT +48" A.F.F.	/
3 [₽] Ρ Φ	SWITCH, 3-WAY, W/PILOT LIGHT +48" A.F.F.	
¢ ዋ	SWITCH, KEY-OPERATED +48 A.F.F. SWITCH TIMED ± 19 " A E E	
ΨŢ ¢	EXISTING SWITCH SPST $\pm 48^{\circ}$ A.F.F.	-[
¥ (∩©)	DAYLIGHT SENSOR	[
	OCCUPANCY SENSOR WALL MOUNTED	
60	OCCUPANCY SENSOR CEILING MOUNTED	

CA	SYMBOL	
POWER SYMBOLS		

RECEPTACLE NEMA 5-20R, DUPLEX +24'' A.F.F.	'A'	LIGHT
RECEPTACLE NEMA 5-20R, QUAD +24'' A.F.F.	AFF	ABOV
RECEPTACLE NEMA 5-20R, DUPLEX +6'' ABV COUNTER (44" AFF TO CENTER)	ATS	TRANS
RECEPTACLE NEMA 5-20R, QUAD +6'' ABV COUNTER	C (C/W)COND
RECEPTACLE NEMA 5-20R, DUPLEX +24'' A.F.F. (TAMPER RESISTANT)	CO	COND
RECEPTACLE NEMA 5-20R, DUPLEX, PEDESTAL MOUNT	CATV	CABLE
RECEPTACLE NEMA 5-20R, DUPLEX, FLUSH FLOOR MOUNT	CB	CIRCU
RECEPTACLE NEMA 5-20R, QUAD, FLUSH FLOOR MOUNT	CCT.	CIRCU
RECEPTACLE, SPECIAL (COORDINATE WITH EQUIPMENT SERVED)	CCTV	CLOSE
POWER POLE	CF/CI	CONT
MAGNETIC MOTOR STARTER	CLG	CEILIN
PUSHBUTTON STATION	СТ	CURRE
JUNCTION BOX	(E)	EXISTI
RELAY	EG	EQUIP
ELECTRICAL DISTRIBUTION PANEL, RECESSED	FACP	FIRE A
ELECTRICAL DISTRIBUTION PANEL, SURFACE	GFI	GROU
THERMOSTAT	GND	GROU
TRANSFORMER	HID	HIGH I
DISCONNECT, NON-FUSED	HP	HORSE
DISCONNECT, FUSED	IG	ISOLA
ELECTRICAL CONNECTION	JB	JUNCT
ELECTRICAL CONNECTION, SINGLE MOTOR	LCP	LIGHT
ELECTRICAL CONNECTION, MULTI-MOTOR	MCB	MAIN
EXISTING RECEPTACLE	MLO	MAIN
SMOKE DETECTOR, PHOTO TYPE	MTS	TRANS
FIRE ALARM HORN, +80'' A.F.F.	NIC	NOT II
FIRE ALARM HORN/STOBE, +80'' A.F.F.	NL	NIGHT
	OF/CI	OWNE
	OF/OI	OWNE
	PA	PUBLI
	UG	UNDE
	UNO	UNLES
	WP	WEAT

ALL MOUNTING HEIGHTS ARE AS SHOWN ABOVE UNLESS OTHER ELECTRICAL SHEETS SPECIFY DIFFERENT MOUNTING HEIGHTS.

ABBREVIATIONS

FIXTURE TYPE (SEE FIXTURE LIST) /E FINISHED FLOOR NSFER SWITCH, AUTOMATIC DUIT- (C/W DENOTES CONDUIT AND WIRE) DUIT ONLY E TELEVISION JIT BREAKER UIT (CCT'G DENOTES CIRCUITING) ED CIRCUIT TELEVISION **FRACTOR FURNISHED/CONTRACTOR INSTALLED** ١G RENT TRANSFORMER ING PMENT GROUND ALARM CONTROL PANEL JND FAULT INTERRUPTER JND INTENSITY DISCHARGE SEPOWER ATED GROUND TION BOX TING CONTROL PANEL I CIRCUIT BREAKER LUGS ONLY ISFER SWITCH, MANUAL IN CONTRACT T LIGHT ER FURNISHED/CONTRACTOR INSTALLED IER FURNISHED/OWNER INSTALLED IC ADDRESS ERGROUND SS NOTED OTHERWISE WEATHERPROOF

