



City of Portland, Oregon - Bureau of Development Services

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



Facility Permit Program Revision Submittal Requirements and Application

A Permit Revision is required when there are proposed changes to the project after the permit has been issued. This may arise due to discrepancies between the city-approved permit drawings and actual field conditions, or the customer has changed their mind about an aspect of the project. In all cases, a revision to the existing permit must be submitted, reviewed and approved.

Applicants will provide:

- A copy of this application
- Two (2) sets of calculations, if applicable
- Three (3) sets of plans that clearly reflect the proposed change(s).
- Inspector's correction notice, if revision is due to an inspection correction

Drawings and calculations must be stamped and signed by the Architect and/or the Engineer of Record, if applicable.

Contact Information:

Contact name _____

Address _____

City _____ State _____ Zip Code _____

Phone _____ Email _____

Value of revision _____ Issued FPP building permit # _____

Job site address _____

Description of revision:

Helpful Information:

Bureau of Development Services

City of Portland, Oregon
1900 SW 4th Avenue, Portland, OR 97201
www.portlandoregon.gov/bds

Submit your plans in person to:

Development Services Center (DSC),
Second Floor, Permitting Services.
For Hours Call 503-823-7310, select option 1

Important Telephone Numbers:

BDS main number.....503-823-7300
DSC automated information line503-823-7310
Facility Permit Program.....503-823-5996
City of Portland TTY.....503-823-6868



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GENERAL STRUCTURAL NOTES:

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:
 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.

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, L₁), REDUCED PER OSSC.

GRAVITY SYSTEM CRITERIA		
OCCUPANCY OR USE	UNIFORM LOAD	CONCENTRATED LOAD
LABORATORIES	60 PSF L.L. + 15 PSF PARTITIONS	2,000 LBS.
CORRIDORS AND STAIRS	100 PSF L.L.	2,000 LBS. (300 LBS. AT STAIRS)
VERTICAL FLOOR DEFLECTION (INTERIOR)	L/360 LIVE LOAD PER OSSC TABLE 1604.3	
GRAVITY LOADING NOTES:	1. LIVE LOADS REDUCED PER OSSC. 2. MEMBERS DESIGNED FOR MORE CRITICAL OF UNIFORM OR CONCENTRATED LOAD.	
SEISMIC CRITERIA		
RISK CATEGORY	IV	
SEISMIC DESIGN CATEGORY	D	
SITE CLASS	D	
IMPORTANCE FACTOR	IE = 1.5 (REF. TABLE NOTE)	
MCE SPECTRAL ACCELERATION	S _s = 0.89	S ₁ = 0.40
SITE COEFFICIENT	F _a = 1.2	F _v = 1.5
DESIGN SPECTRAL ACCELERATION	SDS = 0.71	SD1 = 0.40
ANALYSIS PROCEDURE	SEISMIC DEMANDS ON NONSTRUCTURAL COMPONENTS PER ASCE 7-16, SECTION 13.3	

TABLE NOTE:
 DESIGN OF ALL EQUIPMENT ANCHORAGES BASED ON AN IMPORTANCE FACTOR OF I_p = 1.5 TO MATCH MAIN BUILDING RISK CATEGORY. REFER TO SUBMITTALS TABLE FOR EQUIPMENT MEETING REQUIREMENTS OF I_p = 1.5. ALL OTHER EQUIPMENT NOT REQUIRED FOR LIFE SAFETY AND MEETS THE REQUIREMENTS FOR AN I_p = 1.0.

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
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 S00X-S00X. CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SPECIAL INSPECTOR TO PERFORM THESE INSPECTIONS.

SUBMITTALS

SUBMIT SHOP DRAWINGS AND OTHER SUBMITTALS 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	COMMENTS
STRUCTURAL STEEL	X		
STEEL FASTENERS	X		
PENETRATIONS OF DECKS	X		REF. TABLE NOTE 1
MEDICAL EQUIPMENT: Dx700 AU RECAPPER DYNAMIC INLET CENTRIFUGE ALLOQUOTER (ALSO INCLUDES LABELER) 5000 TUBE STORAGE OUTLET TOP UTILITIES		X	LISTED MEDICAL EQUIPMENT REQUIRED FOR LIFE SAFETY. SEISMIC CERTIFICATION FOR LISTED EQUIPMENT TO BE SUBMITTED AS A DELEGATED DESIGN SUBMITTAL.

TABLE NOTES:
 1. CONTRACTOR SHALL COORDINATE AND SHOW ALL REQUIRED PENETRATIONS, WITH DIMENSIONS FOR MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, TECHNOLOGY AND OTHER SERVICES ON A SINGLE DRAWING FOR REVIEW AT EACH SLAB/DECK, STRUCTURAL WALL AND/OR BEAM.

POST-INSTALLED CONCRETE ANCHORS

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

TYPE	APPROVED ANCHORS
EXPANSION	HILTI KWIK BOLT TZ (ICC ESR-1917)

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.

STRUCTURAL STEEL

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

STRUCTURAL STEEL	
SHAPE	MATERIAL GRADE
PLATES WHERE NOTED	ASTM A572, GRADE 50
PLATES AND ANGLES, U.N.O.	ASTM A36

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:

- CLARIFY SECTIONS 7.5.1 AND 7.5.3 AS FOLLOWS:
 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.
- 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."

SPECIAL INSPECTIONS AND TESTING:

SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 6)		REMARKS
			CONTINUOUS	PERIODIC	
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 SUBMITTAL 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 MECHANICAL ANCHORS IN HARDENED CONCRETE				X	
STEEL - SPECIAL INSPECTIONS					
SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	INSPECTION (NOTES 5 AND 6)		REMARKS
			CONTINUOUS/PERFORM	PERIODIC/OBSERVE	
STEEL FABRICATION					
FABRICATION OF STRUCTURAL ELEMENTS	1704.2.5.1	AISC 360		X	REFER TO INSPECTION OF FABRICATOR REQUIREMENTS
MATERIAL VERIFICATION OF ANCHOR BOLTS AND THREADED RODS		AISC 360 A3.4 AISC 360 N3.2 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS		X	MANUFACTURER'S CERTIFIED TEST REPORTS

ABBREVIATIONS:

A.B.	ANCHOR BOLT	FLR.	FLOOR	P/C	PRECAST
ACI	AMERICAN CONCRETE INSTITUTE	FT.	FOOT	PCF	POUNDS PER CUBIC FOOT
ADDL.	ADDITIONAL	FTG.	FOOTING	PL	PLATE
AESS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL	GA.	GAUGE	P.P.	PARTIAL PENETRATION
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION INCORPORATED	GALV.	GALVANIZED	PSI	POUNDS PER SQUARE INCH
ALT.	ALTERNATE	GL	GLULAM	P/T	POST-TENSIONED
ALUM.	ALUMINUM	HORIZ.	HORIZONTAL	P.T.	PRESSURE TREATED
APA	AMERICAN PLYWOOD ASSOCIATION	HSS	HOLLOW STRUCTURAL SECTION	PVC	POLYVINYL CHLORIDE
ARCH.	ARCHITECT	IBC	INTERNATIONAL BUILDING CODE	R. RAD.	RADIUS
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS	RCSC	RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS
AWS	AMERICAN WELDING SOCIETY	ICC	INTERNATIONAL CODE COUNCIL	REF.	REFERENCE
BLDG.	BUILDING	ID.	INSIDE DIAMETER	RET.	RETURN
BOT.	BOTTOM	IN.	INCH	REINF.	REINFORCING
BRBF	BUCKLING RESTRAINED BRACED FRAME	INT.	INTERIOR	REQD.	REQUIRED
C.G.	CENTER OF GRAVITY	INT.	INTERIOR	REQMTS.	REQUIREMENTS
C.I.P.	CAST IN PLACE	K	KIPS	SCHED.	SCHEDULE
C.J.	CONTROL JOINT	KSF	KIPS PER SQUARE FOOT	S.C.	SLIP CRITICAL
C.J.P.	COMPLETE JOINT PENETRATION	KSI	KIPS PER SQUARE INCH	SIM.	SIMILAR
CL	CENTERLINE	LBS.	POUND	SLRS	SEISMIC LOAD RESISTING SYSTEM
CLR.	CLEAR	L.L.	LIVE LOAD	S.O.G.	SLAB ON GRADE
CMU	CONCRETE MASONRY UNIT	LLH	LONG LEG HORIZONTAL	SPEC.	SPECIFICATION
COL.	COLUMN	LLV	LONG LEG VERTICAL	SQ.	SQUARE
CONC.	CONCRETE	LOC.	LOCATION	SS	STAINLESS STEEL
CONN.	CONNECTION	LONG.	LONGITUDINAL	STEEL STUD MANUFACTURERS ASSOCIATION	
CONST.	CONSTRUCTION	LVF	LOW VELOCITY FASTENER	SSMA	
CONT.	CONTINUOUS	MAX.	MAXIMUM	STD.	STANDARD
ϕ	BAR DIAMETER	MBMA	METAL BUILDING MANUFACTURERS ASSOCIATION	STRUCT.	STRUCTURAL
DBA	DEFORMED BAR ANCHOR	MECH.	MECHANICAL	SYM.	SYMMETRICAL
DET.	DETAIL	MFR.	MANUFACTURER	THRU	THROUGH
DIA., Ø	DIAMETER	MIN.	MINIMUM	T&G	TONGUE AND GROOVE
DIAG.	DIAGONAL	MISC.	MISCELLANEOUS	TJ	TRUSS JOIST
D.L.	DEAD LOAD	MPH	MILES PER HOUR	TRANS.	TRANSVERSE
DWG.	DRAWING	MT	MAGNETIC PARTICLE TESTING	TS	LIGHT GAUGE TUBE STEEL
ELEC.	ELECTRICAL	(N)	NEW	TYP.	TYPICAL
EL.	ELEVATION	N.I.C.	NOT IN CONTRACT	U.N.O.	UNLESS NOTED OTHERWISE
EQ.	EQUAL	NOM.	NOMINAL	UT	ULTRASONIC TESTING
EXIST., (E)	EXISTING	NO.	NUMBER	VERT.	VERTICAL
EXP.	EXPANSION	N.O.	NUMBER	V.I.F.	VERIFY IN FIELD
EXT.	EXTERIOR	N.T.S.	NOT TO SCALE	w/	WITH
FDN.	FOUNDATION	o.c.	ON CENTER	WF	WIDE FLANGE
FIN.	FINISH	O.D.	OUTSIDE DIAMETER	w/o	WITHOUT
		OPP.	OPPOSITE	W.P.	WORK POINT
		OWJ	OPEN WEB JOIST	WPS	WELDING PROCEDURE SPECIFICATION
		PAF	POWDER ACTUATED FASTENER	WWF	WELDED WIRE FABRIC
		PART.	PARTITION		

BID & PERMIT SET

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Project Title:
HRC 9 Core Lab Equipment Replacement
 PKA Project Number: 201006
 Client Project Number: 21HRC064
 Hatfield Research Center
 3251 SW Sam Jackson Park Rd, Portland, OR 97239
 Key Plan

Revisions shown below may not apply to this publication

Revision	Date
PLAN REVIEW RESPONSE	21 JAN. 2022

20 MAY 2021

Sheet Title
DRAWING INDEX, GENERAL STRUCTURAL NOTES
 Sheet Number:
S001