GENERAL STRUCTURAL NOTES 15-0058

Bayside Bowl Foundation 58 Alder Street. Portland, ME.

DESIGN LIVE LOADS: 2009 IBC, MUEBC

Snow	60 pst (Pg)
Wind	100 mph, exp B, 3 second gust
Floor	40 psf
Deck	60 psf

FOUNDATION / DRIVEN PILES:

- See geotechnical report # 151.06004 by Ransom Consulting Inc.. Soils engineer shall verify soil conditions and types during excavation and prior to concrete placement. --Piles---
- Steel piling shall be 8" dia. concrete-filled steel pipe unless noted otherwise. Piling shall be driven in accordance with the requirements outlined in the soils report and the Architect's specification. Minimum capacity per pile shall be as noted on the drawings.

CONCRETE AND REINFORCEMENT:

- Concrete shall conform to applicable provisions of ACI-301 and 318.
- Minimum 28 day compressive strength (F'c) as follows: • Footings and Walls: 3,000 w/4-6% air entrainment.
- Interior Slabs: 4,000 psi w/ fibermesh
- Cement Type: I/II
- Deformed reinforcement: ASTM A615 grade 60, except bars specified to be field_bent, stirrups, and ties which shall be grade 40.
- Fibermesh: 100% virgin polypropylene, fibrillated fibers as manufactured by Fibermesh Co. per ASTM C-1116 type 111 4.1.3 and ASTM C-1116 performance level one, 1.5 lb. per cubic yard. • Welded Wire Fabric (WWF): ASTM A185. See also plan.
- Typical minimum foundation reinforcing: 2 #5 top and bottom, (except as noted) continuous at corners and steps.
 Reinforcement shall be fabricated and placed per ACI Manual of Standard Practice (ACI_315). At splices, lap bars 50
- diameters unless noted otherwise. • Minimum 2 #5 around all four sides of all openings, extend min. 2'_0 beyond openings.
- Concrete cover over reinforcing: 11/2" for concrete placed against forms; 3" for concrete placed against earth. See also drawings.
- In continuous members, splice top bars at mid span and bottom bars over supports.
 Keep reinforcement clean and free of dirt, oil, and scale. Oil forms prior to placing reinforcement.

STRUCTURAL STEEL

- Angles, misc.:
- ASTM A36 A1554 Grade 55 U.N.O. • Anchor Bolts:
- Expansion Anchors shall be NER approved, installed in accordance with manufacturers specifications.
- In concrete: Wedge Type In solid masonry: Sleeve Type
- Non-shrink grout beneath column base and beam bearing plates shall be non-metallic with minimum compressive strength 5000psi.
- All structural steel shall be fabricated and erected per the current edition of AISC Steel Construction Manual.
- Welding by qualified welders. E70XX electrodes.
- Except as noted, framed beam connections shall be detailed to develop 0.6 x Allowable Uniform Load values tabulated in the 9th Edition AISC Manual, Pp. 2-27 and following.
- All beams shall have fitted web stiffeners welded to each side of webs above and below columns. (1/4" plate or as noted)
- Attach wood nailer plates to beams with 1/2" diameter machine or carriage bolts at maximum 32" o.c., or 3/8" diameter bolts at 32" with glued contact face, or 5/32" diameter powder actuated drive pins at 24" o.c., U.O.N.

STRUCTURAL ERECTION AND BRACING REQUIREMENTS

- The structural drawings illustrate the completed structure with all elements in their final positions, properly supported and braced. The contractor, in the proper sequence, shall provide proper shoring and bracing as may be required to achieve the final completed structure.
- These plans have been engineered for construction at one specific building site. Builder assumes ALL responsibility for use of these plans at Any Other building site. Plans shall not be used for construction at any other building site without specific review by the engineer.
- Observations of foundation reinforcing or framing required by the owner, lender, insurer, building department or any
- other party will be accomplished by the engineer at the owner's expense. At least 24 hours advance notice is requested. • All slabs on grade shall be separated from adjacent structural and finish elements to allow free movement of the slab,
- unless specifically shown and noted otherwise.

LOOSE LINTELS:

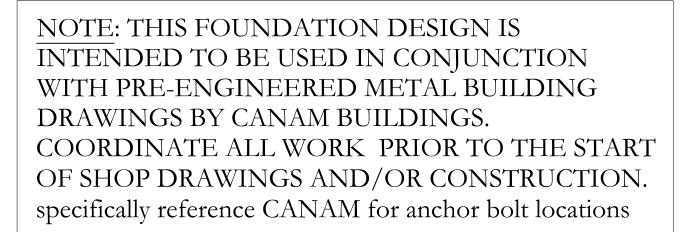
- Minimum lintel except as noted, one angle for each 4" of wall thickness to bear 6" each end:
- Openings to 4'-0 L 3-1/2 x 3-1/2 x 1/4
- 4'-0 to 5'-4 L 5 x $3-1/2 \times 1/4$
- •5'-5 to 6'-6 L 6 x 3-1/2 x 5/16

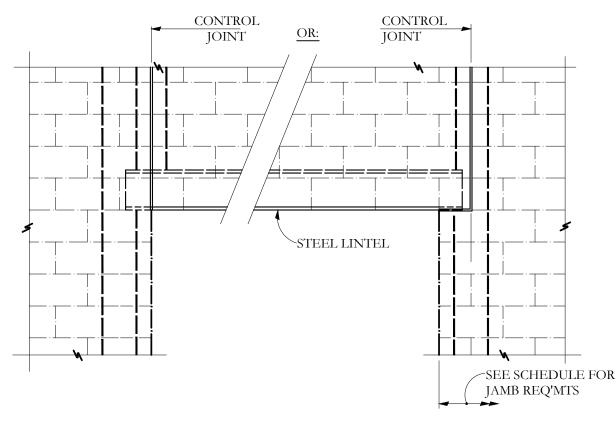
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SHOP DRAWINGS

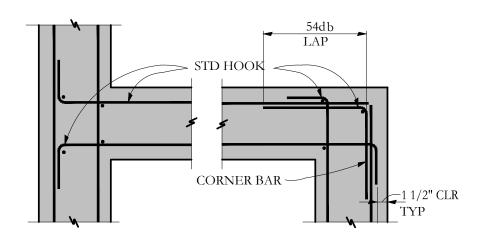
• Fabricator and / or supplier of rebar, structural steel, shall submit shop and erection drawings for architect and engineer review. Submit one reproducible and two prints for each drawing. Allow five working days for review.



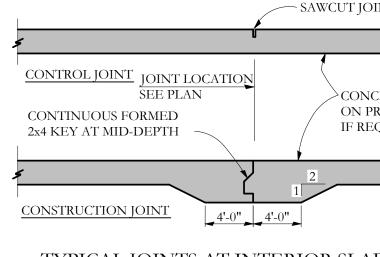


OPENING SIZE	LINTEL SIZE	JAMB ANCHORS	JAMB EXTENSION	ANCHORS
LESS THAN 4'-0	C6 x 8.2 OR L3 1/2x 3 1/2x 1/4	(1) 5 /8 "Ø x 6"	6"	5 / 8" Ø x 6" @ 12"
4'-1 TO 5'-4	C8 x 11.5 OR L5x 3 1/2 x 1/4	(2) 5 /8 "Ø x 6"	6"	5 / 8" Ø x 6" @ 12"
5'-5 TO 6'-6	C8 x 11.5 OR L6x 3 1/2 x 5/16	(2) 5 /8 "Ø x 6"	10"	5 / 8" Ø x 6" @ 12"

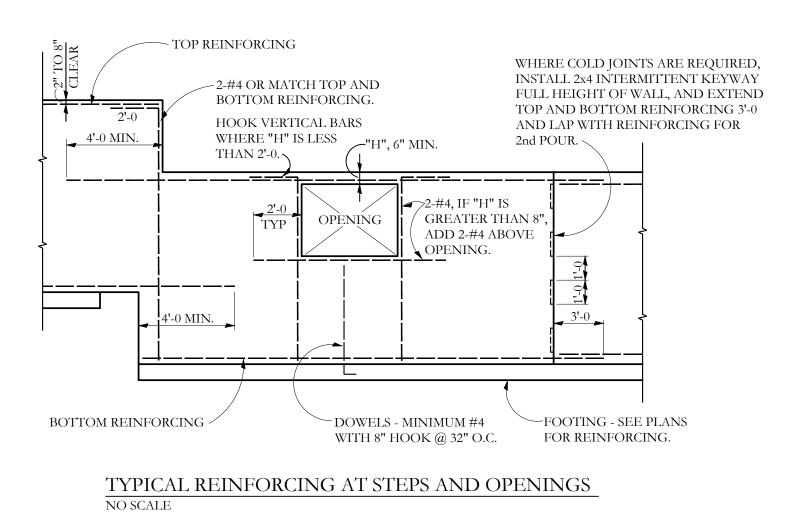
TYPICAL LOOSE LINTEL INSTALLATION NO SCALE



TYPICAL CONCRETE REINFORCEMENT (a) INTERSECTIONS PLAN







В	Anchor Rod (Bolt)	EF	Each Face	MACH	Machine	SC	Slip Critical		
DDL	Additional	EJ	Expansion Joint	MASY	Masonry	SCH	Schedule		
DJ	Adjustable	ELEV	Elevation	MATL	Material	SDST	Self Drilling Self Tapping		
FF	Above Finished Floor	ELEC	Electric (Electrical)	MAX	Maximum	SECT	Section		
LT	Alternate	ENGR	Engineer	MB	Machine bolt	SF	Square Feet		
МТ	Amount	EQ	Equal	MECH	Mechanical	SHT	Sheet		
NCH	Anchor, Anchorage	EQUIP	Equipment	MEZZ	Mezzanine	SHTG	Sheathing	© 2015 R	YAN SENATO
PPROX	Approximate	EQUIV	Equivalent	MFR	Manufacture, -er, -ed	SIM	Similar		RCHITECTUR
RCH	Architect, -ural	ES	Each Side	MIN	Minimum	SLH	Short Leg Horizontal		
R	All Thread Rod	EST	Estimate	ML	Microllam	SLV	Short Leg Vertical		
'G	Average	E-W	East to West		(Trus-joist brand LVL)	SOG	Slab on Grade		1
2	Bottom of Concrete	EXC	Excavate	MO	Masonry Opening	SP	Spaces		
T 7	Brick Ledge	EXP	Expansion	MTL	Metal	SPEC	Specifications		
K	Block	EXT	Exterior	NF	Near Face	SQ	Square		
KG	Blocking	FND	Foundation	NIC	Not In Contract	ST	Snug Tight		
[Beam	FF	Far Face, Finished Floor	NS N S	Near Side	STD STIFF	Standard Stiffener		
DT C	Bottom	F-F	Face to Face	N-S NTS	North to South	STIFF	Stiffener		
<u>G</u>	Bearing Bottom of Wall	FIG FL	Figure Flush	NTS	Not to Scale OSHA Column Joist		Steel		I 2
7	Counterbore	FL FLG	Flush	OCJ OD	OSHA Column Joist Outside Diameter	SUPT	Support		ESIGN ME 0410
	Cubic Foot	FLR	Floor	OF	Outside Face	SY	Square Yard		12 4
	Center of Gravity	FO	Face of	ОН	Opposite Hand	SYM	Symmetrical		$ \supseteq \circ$
)	Cast in Place	FP	Full Penetration	OPNG	Opening	T&B	Top and Bottom		I ഗ ш
	Construction Joint	FS	Far Side	OPP	Opposite	T&G	Tongue and Groove		lŭi ₹
	(Control Joint)	FTG	Footing	OSB	Oriented Strand Board	TB	Top of Beam		
G	Ceiling	GA	Gage (Gauge)	PAF	Powder Actuated Fast'nr	TC	Top of Concrete		
2	Clear	GALV	Galvanized	РС	Precast	TD	Top of Deck		ON I land
	Construction Manager	GC	General Contractor	PCF	Pounds Per Cubic Foot	THD	Thread		
	(Management)	GEN	General	PEN	Penetration	THK	Thick, -ness		
U	Concrete Masonry Unit	GL	Glue laminated (Glulam)	PERP	Perpendicular	TJ	Top of Joist		
L	Column	GND	Ground	PL	Property Line	TL	Total Load		FOUNDATI Alder St Por
Μ	Common	GR	Grade	PLF	Pounds per Linear Foot	TPG	Topping		にんだ
MB	Combination	GT	Girder Truss	PNL	Panel	TRANS	Transverse		$ \downarrow \circ$
NC	Concrete		Gypsum Board	PP	Panel Point	TW	Top of Wall	\ \	
NN	Connection	HAS	Headed Anchor Stud	PS	Prestressed	TYP	Typical		こしょ
NT	Continue (Continuous)	HORIZ	Horizontal	PSF	Pounds per Square Foot	ULT	Ultimate		IO ₹
ORD	Coordinate, -tion	HT	Height	PSI	Pounds per Square Inch	UNO	Unless Noted Otherwise		I III 🔍
<u> </u>	Countersink	ID	Inside Diameter	PSL	Parallel Strand Lumber (generic term)	VERT	Vertical		28 H
R	Center	IF	Inside Face			VIF	Verify in Field		പറ
D	Cubic Yard	INT	Interior (Intermediate)	PT (1)	Post Tensioned	WA WP	Wedge Anchor Work Point		
B T	Deformed Anchor Bar Detail	JB JST	Joist Bearing Joist	PT (2) PTN	Pressure Treated Partition	WP WT	Work Point Weight		
I V	Develop	JS1 JT	Joint	PTN PWD	Partition	WWF	Welded Wire Fabric		
v \G	Diagonal	K	Kip (1,000 lbs.)	QTY	Quantity	XS	Extra Strong		
M	Diagonal	LD	Load	R	Radius	XSECT	Cross-section		
. 11	Dead Load		Live Load	RE	Reference (refer to)	XXS	Double Extra Strong		1
, 1	Down	LLH	Long Leg Horizontal	RECT	Rectangle				
	Drilled Pier	LLV	Long Leg Vertical	REINF	Reinforce, -ed, -ing	(E)	Existing		
	Double Tee	LOC	Location	REQ	Required	(N)	New		
WG	Drawing	LSL	Laminated Strand		Requirement	(R)	Remove		
/L	Dowel		Lumber (generic term)	RET	Retaining				
	Each	LT	Light	RM	Room				
С	Eccentric	LVL	Laminated Veneer	RMO	Rough Masonry Opening				
3	End to End	1 -	Lumber (generic term)	RO	Rough Opening				SENATORE I itecture

SAWCUT JOINT, 1/3 SLAB DEPTH

SEE PLAN CONCRETE SLAB-ON-GRADE ON PREPARED SUB-GRADE IF REQUIRED, SEE PLAN.

SEE PLAN

Γ	Structural Drawing Index				
SI	1.0 G	eneral Notes, Etc.			
SI	1.1 P	ile Plan			
SI	1.2 G	rade Beam Plan			
SI	1.3 SI	ab Plan			
S2	2.1 Se	ections			
FORPERMIT		AARON C. JONES No. 10968 CENSED SIONAL ENGINE RAN. 2015			
Structural Inte	0	77 Oak Street Portland, ME, 04101 p. 207-774-4614 f. 866-793-7835 <u>www.structuralinteg.com</u>			
SI # 15-005	-	BUILD WITH CONFIDENCE © 2012 Structural Integrity Consulting Engineers, Inc.			

CONSULTANTS:

STRUCTURAL: Structural Integrity 77 Oak Street Portland, ME 04101

207-774-4614

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DATE:

PROJECT No.

DRAWN BY:

SCALE:

CHECKED BY:

SHEET TITLE:

STRUCTURAL

GENERAL NOTES

/ ETC.

S1.

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AS NOTED