

GENERAL STRUCTURAL NOTES

14-0041
Stair, and Ramp

DESIGN LIVE LOADS: 2009 IBC, MUEBC

Snow	50 psf (Pg)
Wind	100 mph, exp B, 3 second gust
Floor	40 psf
Deck	60 psf

CONCRETE AND REINFORCEMENT:

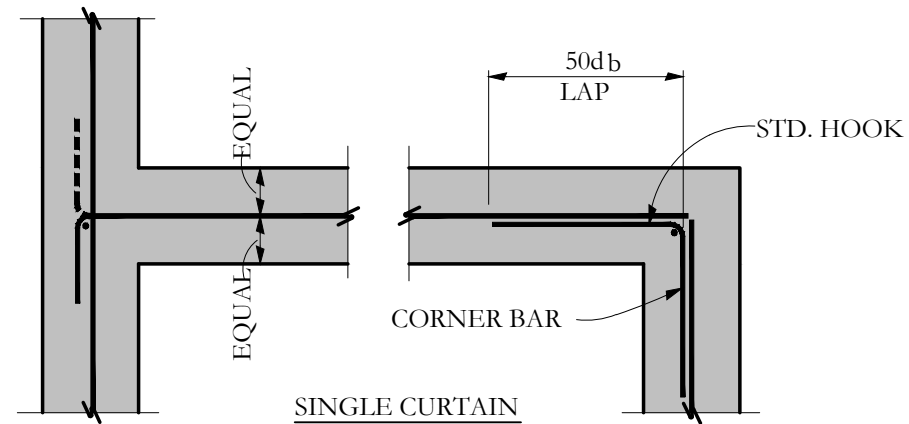
- Concrete shall conform to applicable provisions of ACI-301 and 318.
- Minimum 28 day compressive strength (F'c) as follows:
 - Interior Slabs: 4,000 psi w/ fibermesh
- Cement Type: I/II
- Deformed reinforcement: ASTM A615 grade 60, except bars specified to be field_bent, stirrups, and ties which shall 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: 1 1/2" 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.

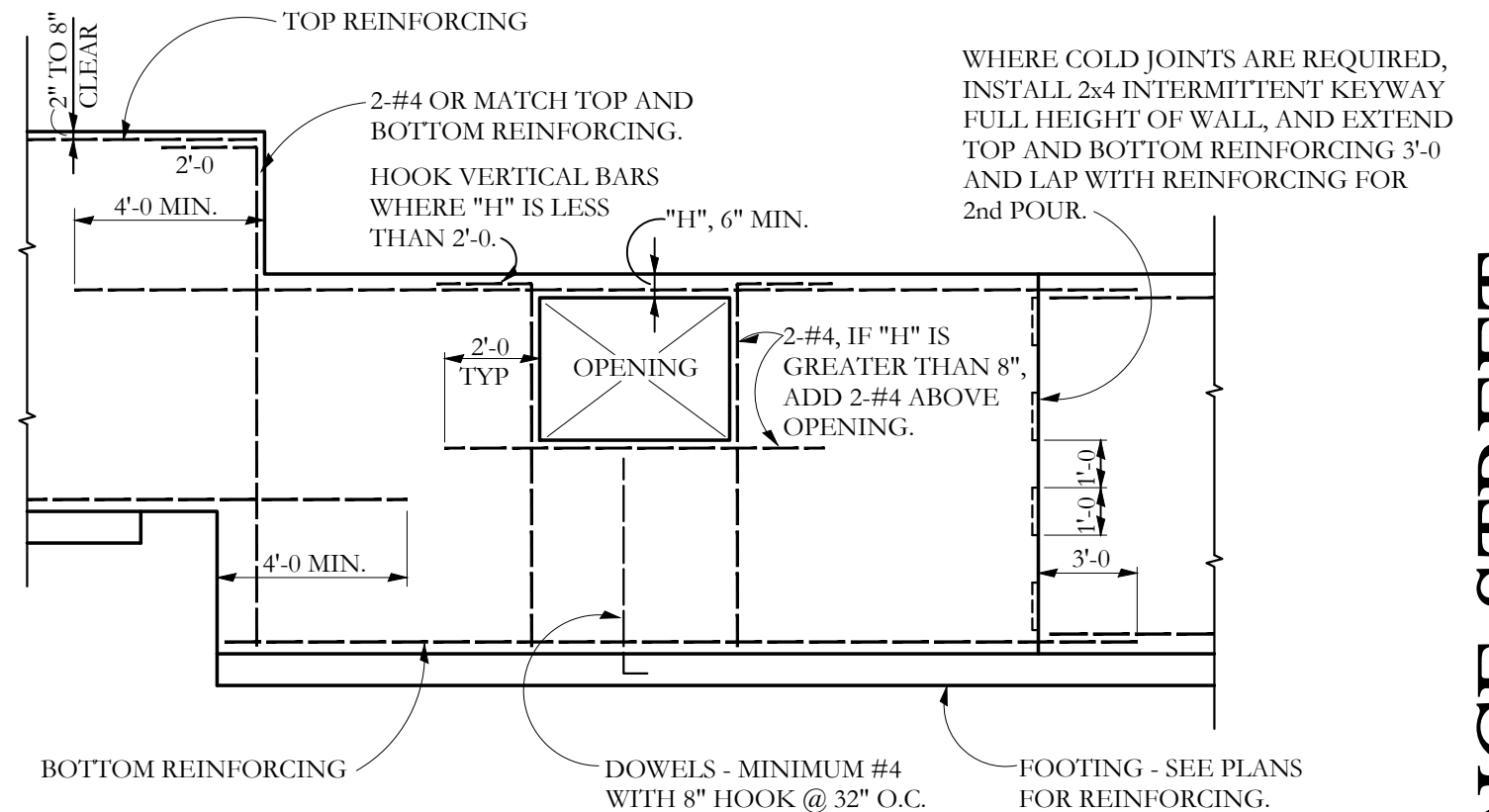
STRUCTURAL STEEL:

- Structural Beams: ASTM A992
- Angles, misc.: ASTM A36
- Anchor Bolts: ASTM A307 or A36.
- Standard pipe columns: ASTM A 53, Grade B.
- Tube Columns: ASTM A500, Grade B, 46 ksi
- Connector bolts: ASTM A307
- Adjustable pipe columns: 3" diameter, 11 (eleven) gage, shall be certified by the manufacturer for a safe load capacity of 13,500 lbs. at 7'-6" 3" diameter "Heavy Duty" schedule 40 (3.5" O.D.) Columns shall be certified for 28,000 lbs. at 7'-6". Maximum screw extension 2".
- 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.



TYPICAL CONCRETE WALL INTERSECTIONS
NO SCALE



TYPICAL REINFORCING AT STEPS AND OPENINGS
NO SCALE



Structural Integrity
Consulting Engineers, Inc.
77 Oak Street
Portland, ME, 04101
p. 207-774-4614
f. 866-793-7835
www.structuralintg.com

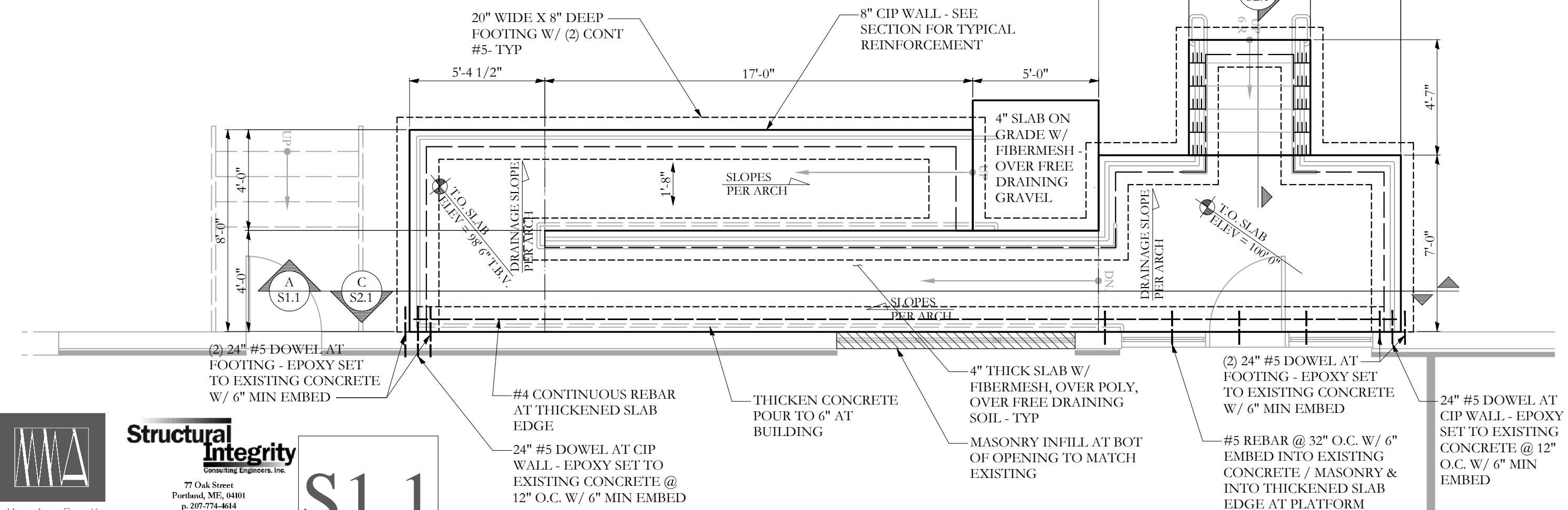
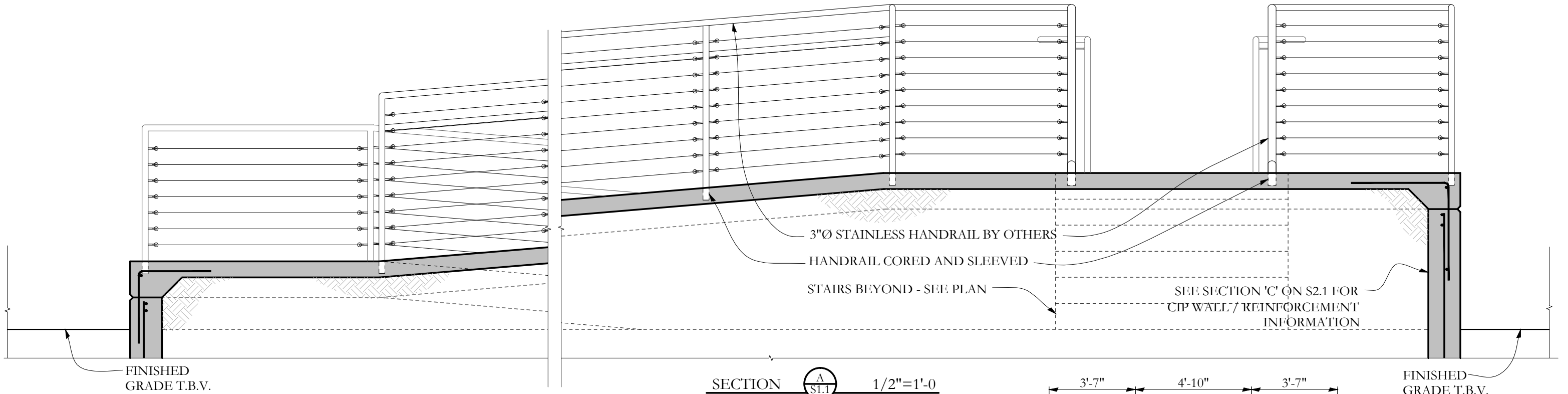


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APRIL 2, 2013

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PORTLAND, MAINE



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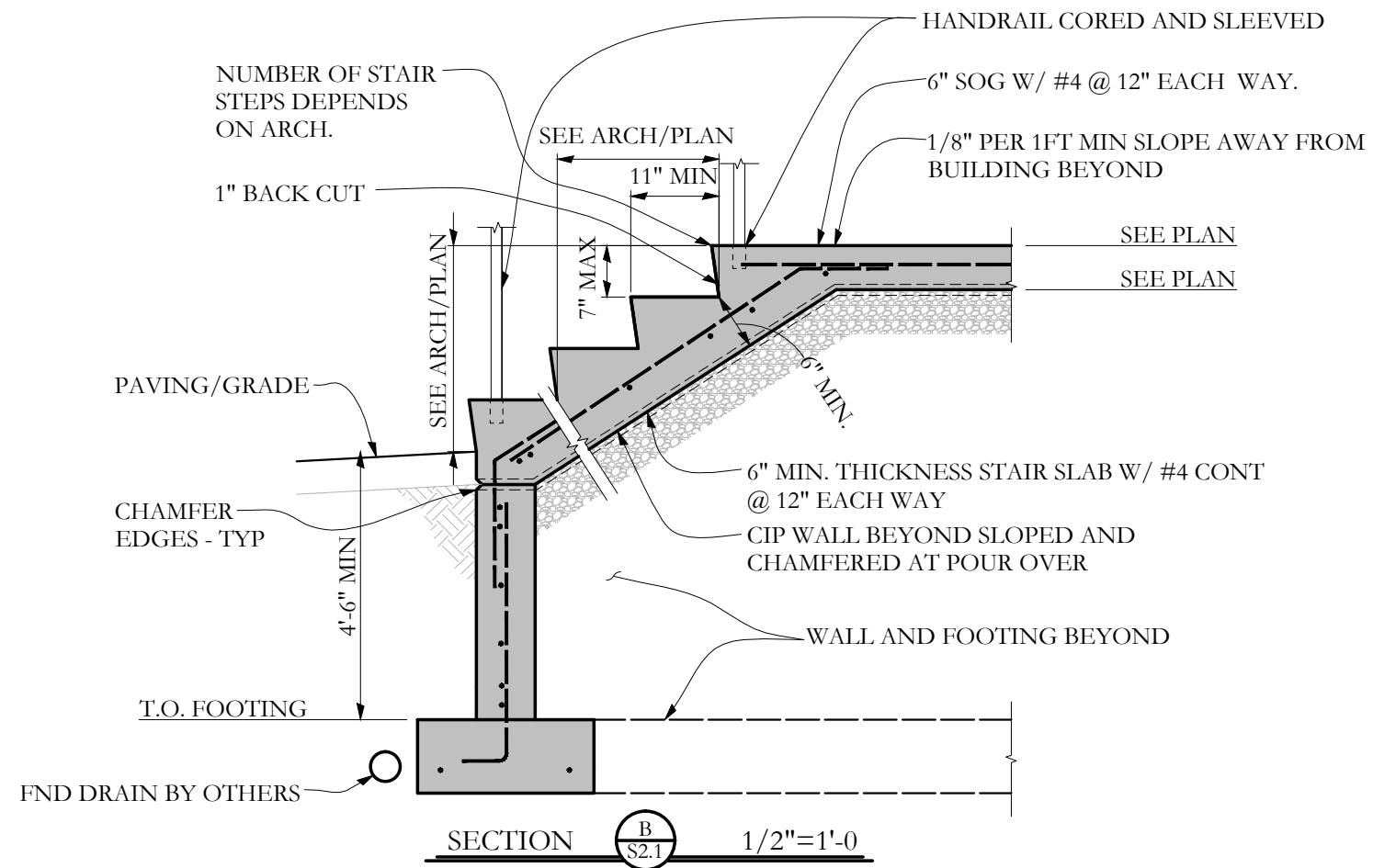
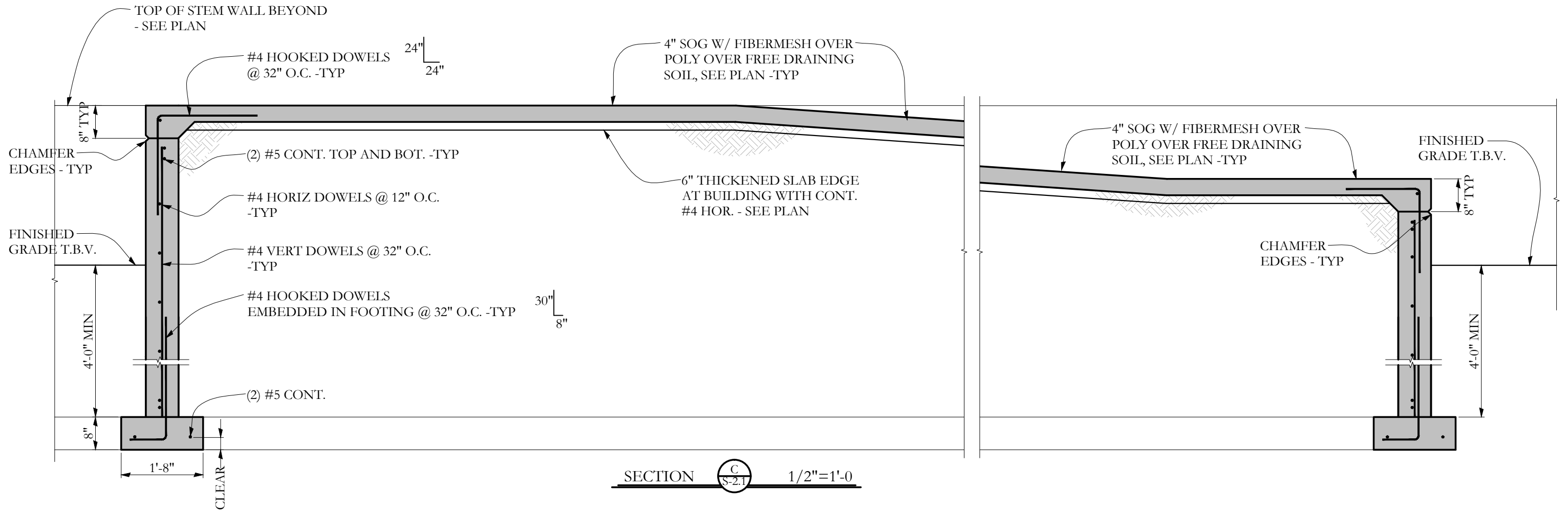
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ENTRY STAIR / RAMP PLAN
 SCALE: 1/4" = 1'-0"

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 PORTLAND, MAINE



MARK
MUELLER
ARCHITECTS

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Consulting Engineers, Inc.

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Portland, ME, 04101
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