

STRUCTURAL NOTES:

DESIGN BASIS:
 2009 International Building Code.
 Dead Loads: Self weight
 Roof Snow Load: Pg=60psf, Ce=1.0, Ct=1.1, Pf=46psf
 Live Loads: Basement and 1st Floor = 40.0 psf, 2nd Floor = 35.0 psf.
 Wind Speed: 100mph, Simplified Method, I=1.0, Exposure B.

- FOUNDATIONS:**
- Bear footings on firm, undisturbed dense native soil at 4'-6" minimum below lowest adjacent finish or natural grade, which ever is lower. Step footings to achieve these depths as required.
 - Assumed soil bearing pressure = 2,000 psf.
 - Place foundation concrete on clean, firm, dry bearing material.
 - Engineer shall be notified if stone ledge or marine clay is found during excavation.
 - Install 4" dia. perforated drain tile (rotate perforations to top of pipe) on exterior and interior of footing perimeter. Wrap all drain tile in filter fabric and encase with 12" of 3/4" crushed stone around entire pipe. Create a positive drain to atmosphere or dry well with drainage away from structure. Provide (2) stubs through slab for possible use in radon mitigation system. See contractor for mitigation system requirements.
 - Contractor shall be responsible for any additional drainage requirements, such as sump pumps etc. All foundation wall exteriors shall be coated with dampproofing per manufacturer's spec. Dampproofing shall not be visible above final grade.
 - Contractor coordinate with architectural drawings.

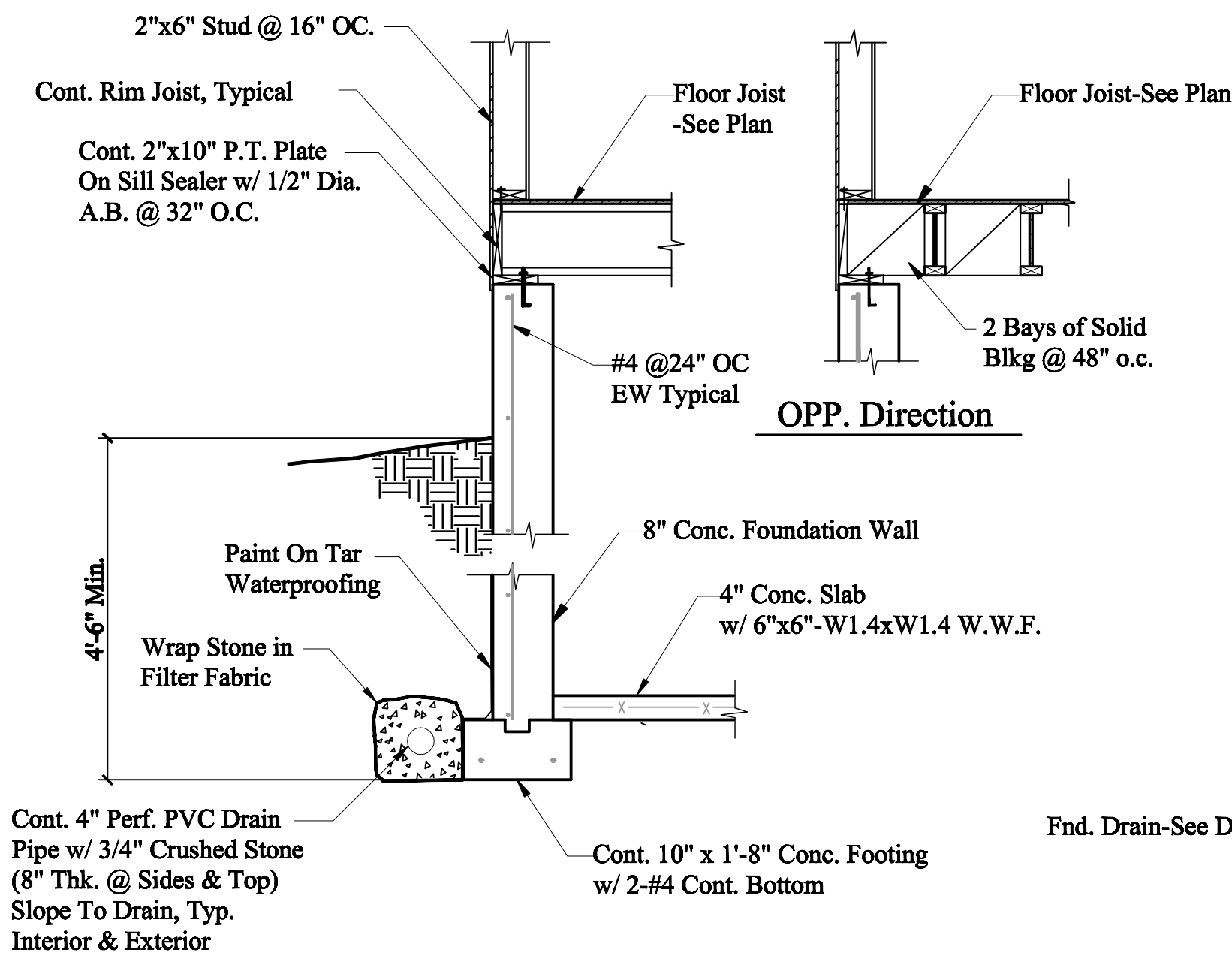
- CONCRETE:**
- Concrete regular weight (144 pcf) with Type II cement per ASTM C150, aggregate per ASTM C33, and potable water. No fly-ash permitted in floor slab. Aggregate size = 1" maximum for footings and slab. Minimum compressive strength = 3000 psi for footings, 4,000psi for foundation walls, slab on grade, exterior slabs, and sidewalks.
 - Saw cuts for floor slab control joints (CJ) shall be made as soon as the slab can support the weight of the saw, but no more than 12 hours after placing concrete. Max. 24 sq. ft. of per saw cut area.
 - Finish all garage floor slabs 1/4" ft. toward over head door.
 - All concrete exposed to freeze/thaw cycle to have 6% air entrainment.

- REINFORCING:**
- ASTM A 615-S1, Grade 60 except #2 and #3 bars ASTM A615-S1: Grade 40.
 - Lap splices in concrete: 42 bar diameters.
 - Provide bent corner reinforcing to match and lap with horizontal reinforcing at corners and intersections of walls, and footings.
 - Reinforcing shall be placed with 3" clearance at all surfaces exposed to earth, 1-1/2" at all wall and slab concrete exposed to weather.

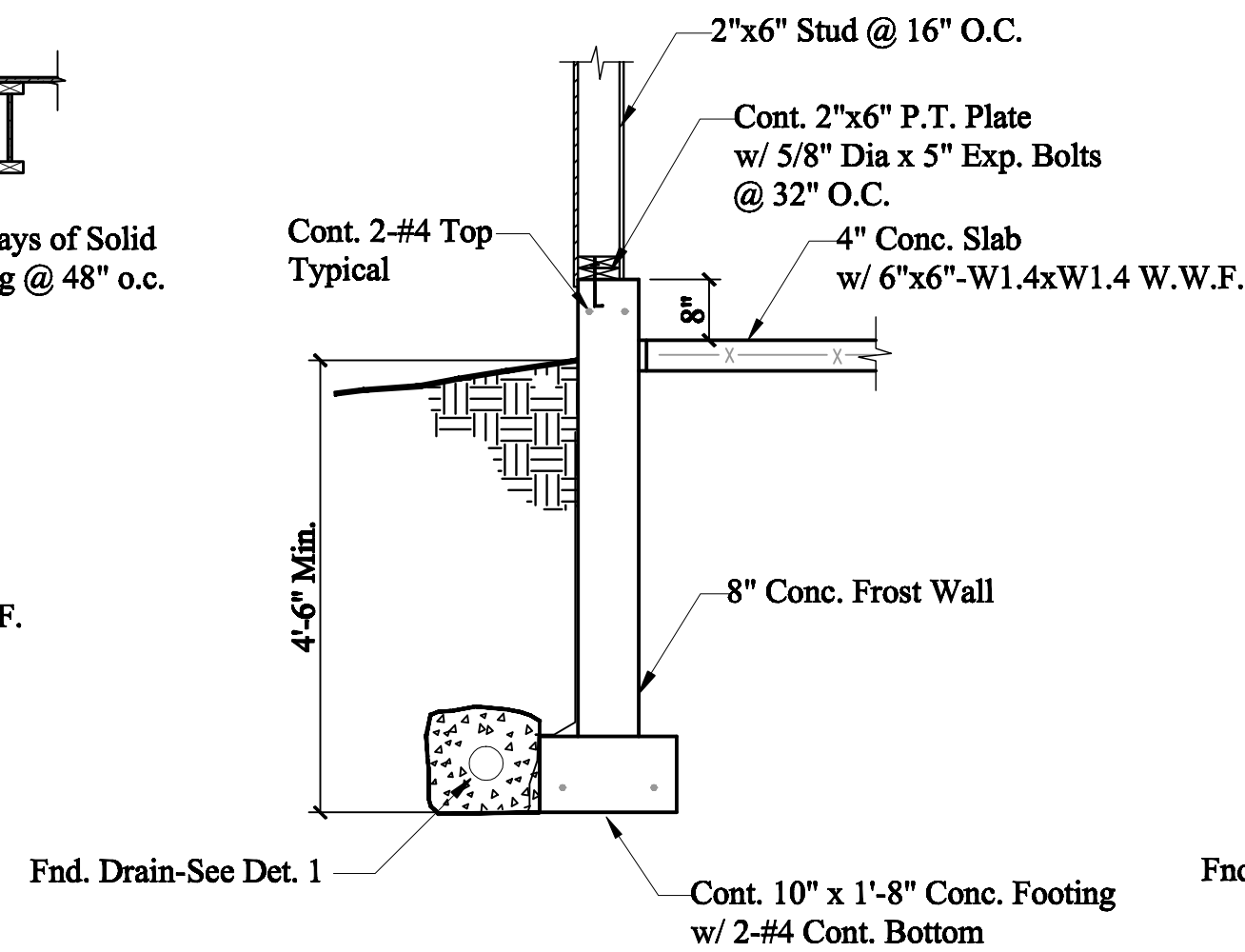
- STEEL:**
- Rolled sections and plates: ASTM A 992, Fy = 50 ksi.
 - Steel Lally Columns: ASTM A 513, Fy = 32 ksi, 16 gage steel filled w/ 3,000 psi concrete.
 - Steel Column: (not lally column) ASTM A 500, Fy = 42 ksi for round, Fy=46ksi for rectangular.
 - Anchor bolts and plain anchors: ASTM A 307.
 - Connection bolts: A 325 high strength
 - Submit shop drawings. Fabricate after Engineers review.

- WOOD:**
- 1. General:**
- Each piece of lumber shall be "S-DRY" and bear the grade stamp of a grading rules agency approved by the American Lumber Standards Committee.
 - Double up studs at jacks and under beams.
 - Do not notch or drill joists, beams or load bearing studs without approval.
- 2. Connections:**
- Nail roof plywood with 10d common at 4" o.c. at all edges and boundary members and 6" o.c. at intermediate supports.
 - Glue floor plywood to all framing members and nail with 10d common at 4" o.c. at all plywood edges and boundary members and 6" o.c. at intermediate supports.
 - Nail wall plywood with 10d common nails at 4" o.c. at all edges and boundary members and 6" o.c. at intermediate supports.
- 3. Structural Sawn Lumber:**
- 2 x 6 thru 2 x 14 joists: Spruce Pine Fir No. 2 with Fb (repetitive) = 1006 p.s.i.
 - Studs: Spruce Pine Fir No. 2 with Fb (repetitive) = 776 p.s.i.
- 4. Laminated Veneer Lumber (LVL) manufactured by Weyerhaeuser with:**
 Fb = 2600 psi, Fv = 285 psi, E = 2,000 ksi
- 5. Plywood:**
- Roof Sheathing: C-D INT-APA (PSI-94) with exterior glue; 5/8" with Identification Index 48/24. Lay up with face grain perpendicular to supports. Stagger joints. Each plywood piece to be continuous over a minimum of two spans with a minimum width of 1'-0" unless blocking is provided at all joints.
 - Sub-flooring: C-D INT-APA (PSI-94) with exterior glue; 3/4" with Identification Index 48/24. lay up with face grain perpendicular to supports. Stagger joints. Each plywood piece to be continuous over a minimum of two spans with a minimum width of 1'-0" unless blocking is provided at all joints.
 - Wall Sheathing: C-D INT-APA (PSI-74) with exterior glue, 1/2" with Identification Index 24/0. All panel edges backed with 2" nominal or wider framing.
- 6. Light Metal Plate Connected Wood Trusses:**
- Design, fabricate, transport and erect per Truss Plate Institute Standards TPI-18 and BWT76.
 - Design for loads, in addition to member weights, as given under "DESIGN BASIS" above.
 - Submit design calculations and shop drawings. Fabricate after the Engineer's review. Include wood grades to be used.
 - All permanent and temporary bracing and fastening at bearings by truss manufacturer.
 - Comply with "SUPPLEMENTARY NOTES" below.
- 7. Engineered I Joists:**
- Engineered I Joists manufactured by Weyerhaeuser.
 - Construct deck per manufacturer's recommendations, including web stiffeners at cantilever and supports.
 - Contractor to utilize Weyerhaeuser manufactured rim joist.

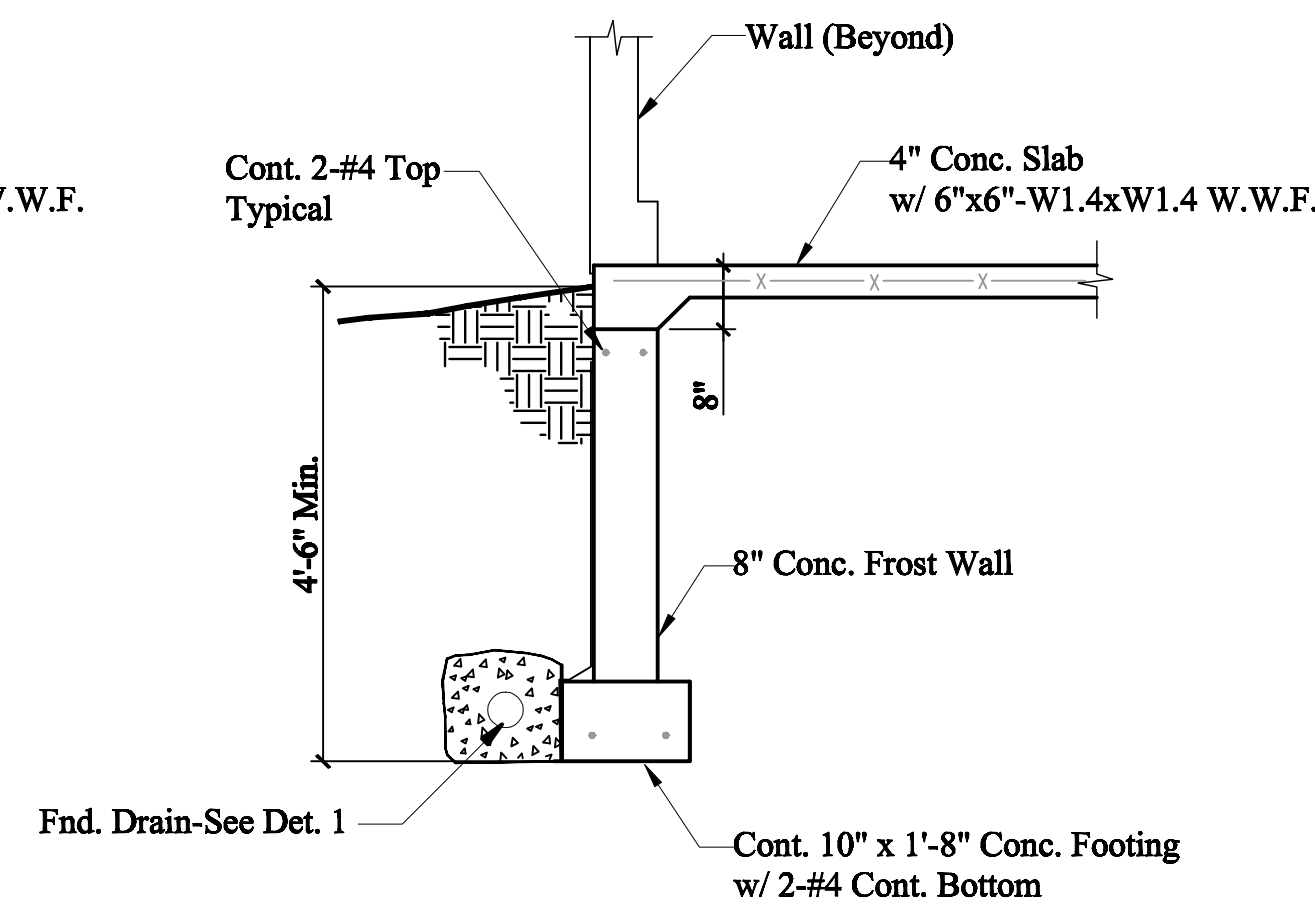
- SUPPLEMENTARY NOTES:**
- Verify all dimensions and conditions with architectural drawings prior to starting work. Notify the Engineer of any discrepancies or inconsistencies.
 - Provide all necessary temporary bracing, shoring, guying or other means to avoid excessive stresses and to hold structural elements in place during construction.



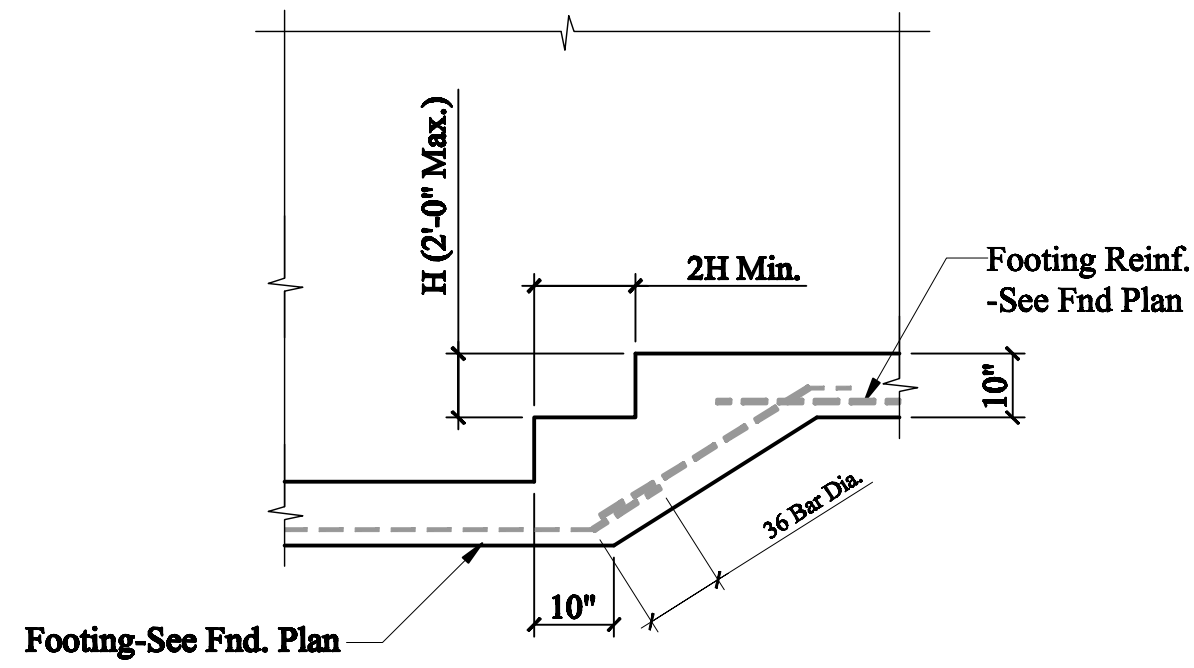
1 BASEMENT FDN. WALL
 Scale: 1/2" = 1'-0"



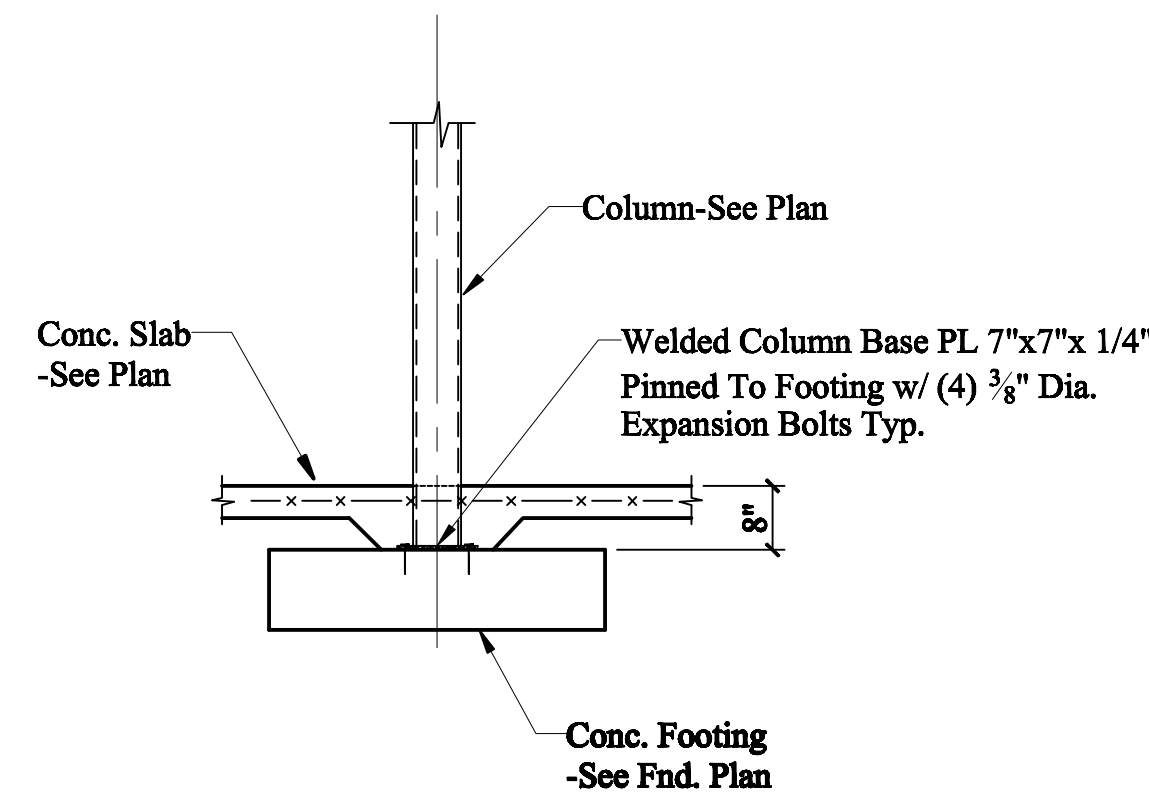
2 FOUNDATION @ GARAGE STUD WALL
 Scale: 1/2" = 1'-0"



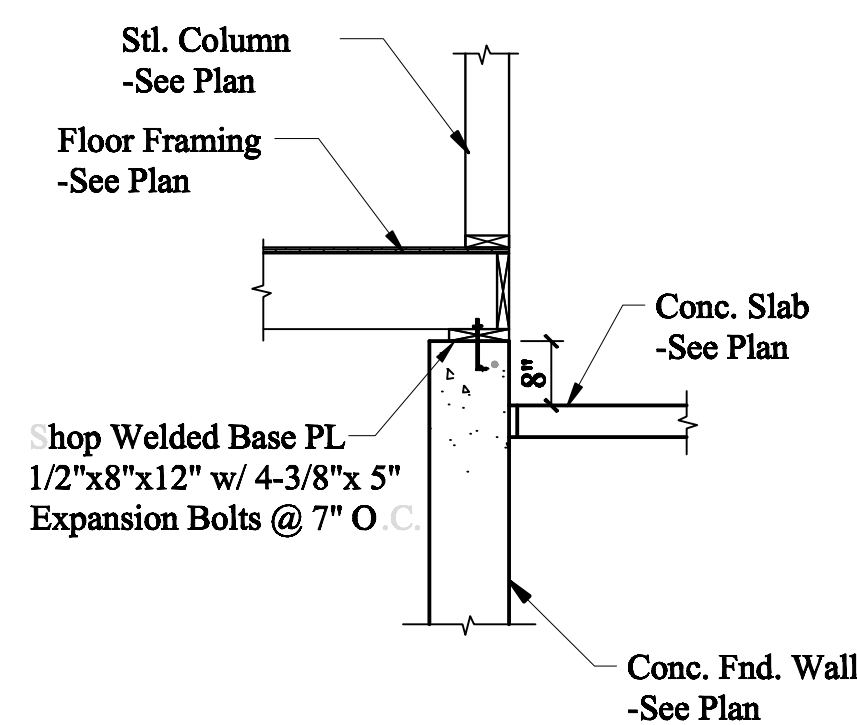
3 GARAGE FDN. @ DOOR
 Scale: 1/2" = 1'-0"



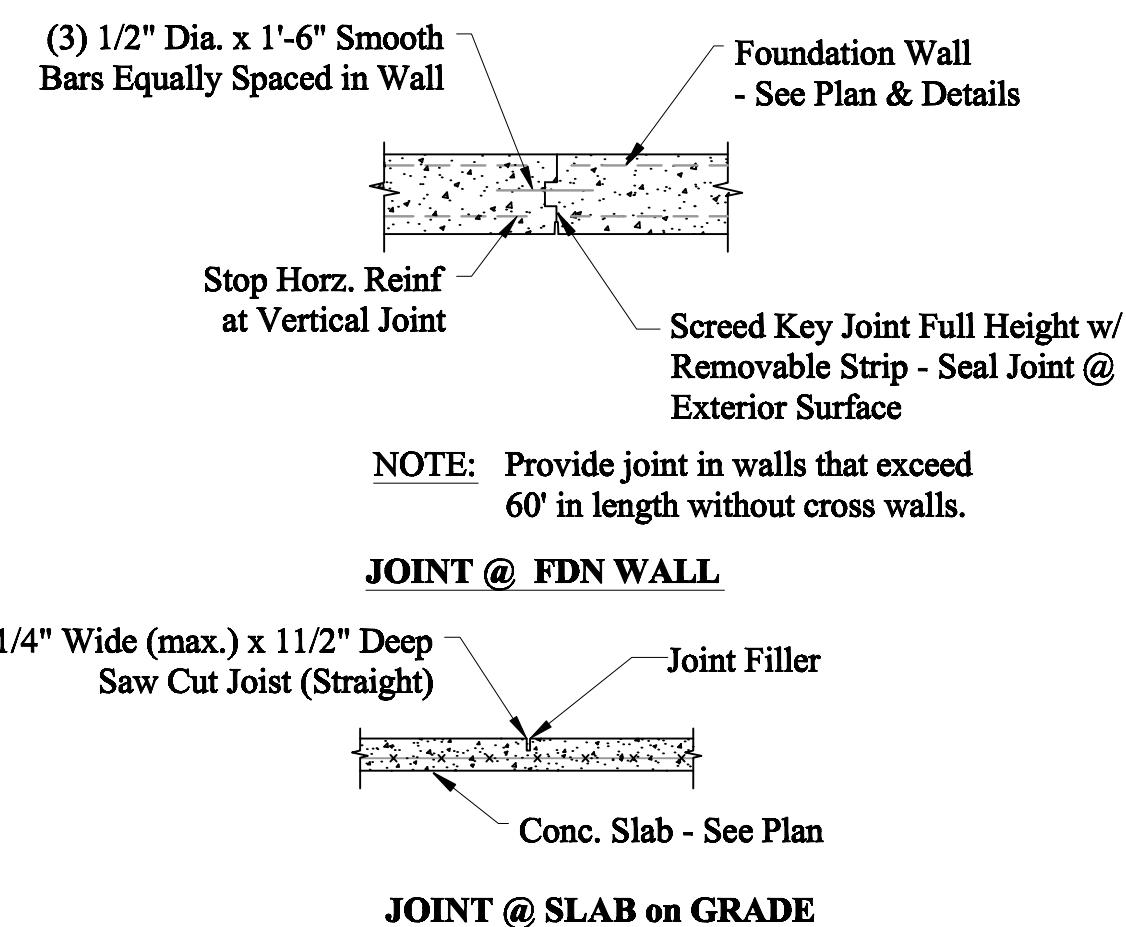
4 TYP STEP FOOTING DETAIL
 Scale: 1/2" = 1'-0"



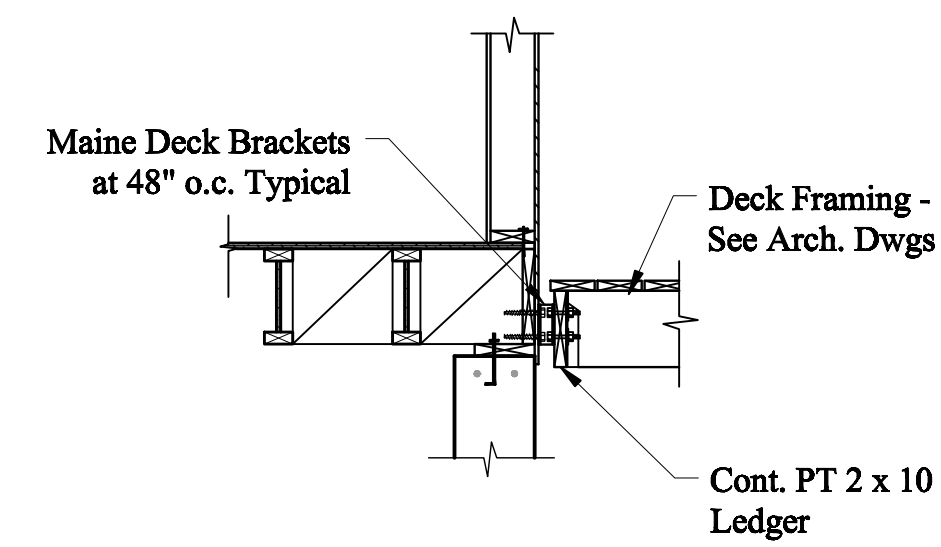
5 INTERIOR COLUMN FOOTING
 Scale: 1/2" = 1'-0"



7 STEEL COLUMN @ CONC WALL
 Scale: 1/2" = 1'-0"



8 TYP. FLOOR & WALL JOINTS
 SCALE: 1/2"=1'-0"



9 DECK FRMG @ FOUNDATION
 Scale: 1/2" = 1'-0"

General Notes

No.	Revision/Issue	Date
1	ADDED PORCH BEAM SIZE	5/2/17
0	ISSUED FOR CONSTRUCTION	5/1/17

Firm Name and Address
WOODBURY HILL PROFESSIONALS
 8 WOODBURY HILL ROAD
 AUBURN, MAINE 04210
 (207) 783-4459

Project Name and Address
 Dorler Residence
 Morningstar Lane, Lot 3
 Portland, Maine
 GENERAL NOTES & DETAILS

Project	DORLER	Sheet	
Date	04/28/17		S1.0
Scale	AS NOTED		