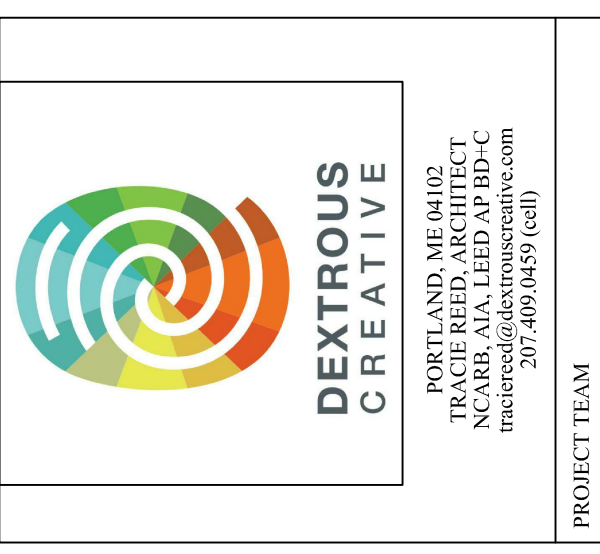


37 DEANE STREET

OWNER
LARRY A. WICHROSKI, P.E.
No. 5990
Landscape Architecture
100 Willow Street
Portland, ME 04106
E-MAIL: larry@larryw.com
PHONE: 517.616.6003



PROJECT TEAM

CIVIL ENGINEERING
Rosa A. Coulliz, P.E., M.E., N.H., VT
Engineering Assistance & Design, Inc.
100 Adams Road
Yorvouth, Maine 04096
Tel: 207-835-7663
Mobile: 207-835-7663
ztlid@meinc.com

STRUCTURAL ENGINEER
Larry Wichroski, P.E.
Professional Engineer
P.O. Box 575
Freeport, ME 04032
Tel: 207-835-7663
EDPLarry@pb.com

GEOTECHNICAL ENGINEER
Steve Marcotte, CC, P.G., LSE
Steve & Maher, Engineers, Inc.
1000 Main Street
Cumberland Center, ME 04021
Tel: 207-835-2600
sahm@smeh.com

LANDSCAPE ARCHITECT
Tony Cowles
Landscape Architect
Cowles Studio | Landscape Architecture
T: (207) 415-4332
tonycowles@studio.com

GENERAL CONTRACTOR
Upwright Frameworks
School St., Wilton, ME 04294
jprofs@uprightframeworks.com

EDP

ENGINEERING DESIGN PROFESSIONALS
Consulting Engineers

P.O. BOX 375 · FREEPORT, MAINE
(207) 865-9505

No.	Description	Date

DETAILS & STRUCTURAL NOTES

Project number 02216
Date 06/01/16
Drawn by LAW
Checked by Larry Wichroski, P.E.
S1
Scale 1/2" = 1'-0"

STRUCTURAL NOTES:

- CODE:** Comply with the 2012 International Residential Building Code.
- DESIGN LOADS:**
Dead Loads: Roof = 15.0 psf, Floor = 10.0 psf.
Live Loads: Roof = 45.0 psf (Plus Drift), 1st Floor = 40.0 psf, 2nd Floor = 35.0 psf.
Wind Load: Building = 31.0 psf
- FOUNDATIONS:**
1. Bear on firm, undisturbed dense native soil at 4" minimum below lowest adjacent finish or natural grade, which ever is lower. Step footings to achieve these depths as required. If stone ledge is encountered place footing directly on ledge where exists.
2. Assumed soil bearing pressure = 2,000 psf. See subsurface investigation report by Seves & Maher Engineers, Inc. dated March 21, 2016.
3. Place foundation concrete only on clean, firm, dry bearing material. Dowel to stone ledge as detailed.
4. Engineer shall be notified if stone ledge or masonry slab is found during excavation.
5. Foundations shall be placed on firm, undisturbed soil or rock. All footings shall be placed on bedrock. Minimum compressive strength = 3,000 psi for foundations and slab on grade and 4,000 psi for exterior slabs and sidewalks.
6. 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.
7. Pitch all garage floor slabs 1/4" ft. toward over head door.
8. See architectural drawings for additional information not shown.

CONCRETE:
1. Concrete regular weight (144 pcf) with Type II cement per ASTM C150, aggregate per ASTM C33, and No. 10 mesh (1/2" max.) bar reinforcement per ASTM A618. Minimum compressive strength = 3,000 psi for foundations and slab on grade and 4,000 psi for exterior slabs and sidewalks.
2. 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.
3. Pitch all garage floor slabs 1/4" ft. toward over head door.

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

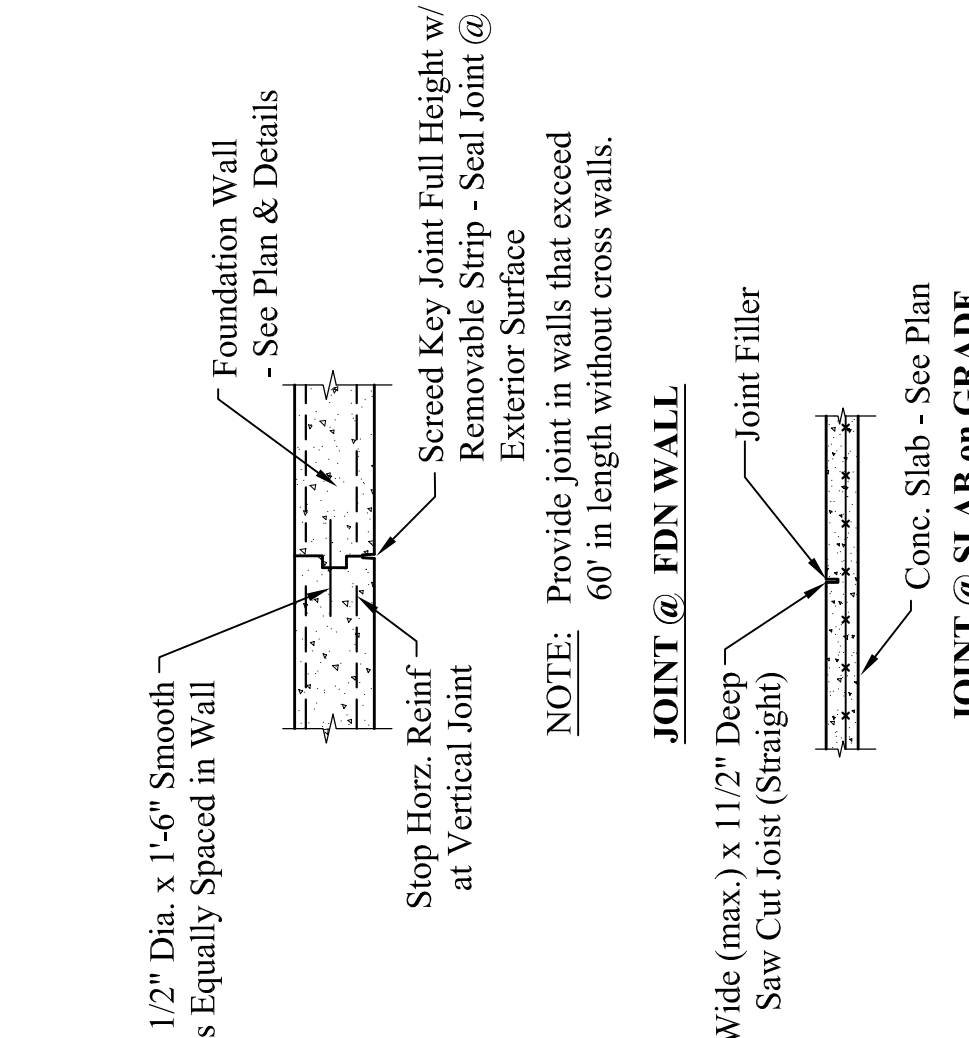
STEEL:
1. Rolled sections and plates: ASTM A-36, Fy = 36 ksi.
2. Steel Lally Columns: ASTM A513, Fy = 32 ksi, 16 gage steel filled w/ 3,000 psi concrete.
3. Steel Pipe Columns: (not lally columns) ASTM A-36, Fy = 36 ksi.
4. Bolts and plate anchors: ASTM A307.
5. Slabcut stop drawings. Fabricate after engineer's review.

WOOD:
1. General:
a. 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.
b. Do not notch or drill joints, beams or load bearing studs without approval.
2. Connections:
a. Nail roof plywood with 8d common at 6" o.c. at all edges and boundary members and 10" o.c. at intermediate supports.
b. Glue floor plywood to all framing members and nail with 8d common at 6" o.c. at all plywood edges and 12" o.c. at intermediate supports.
c. Nail CDX sheathing with 16d common nails at 6" o.c. at all edges and boundary members and 12" o.c. at intermediate supports.
d. Nail Advanced R-6 wall sheathing with 0.131" Dia. x 3" common nails at 3" o.c. along all panel edges and 6" o.c. along intermediate supports.

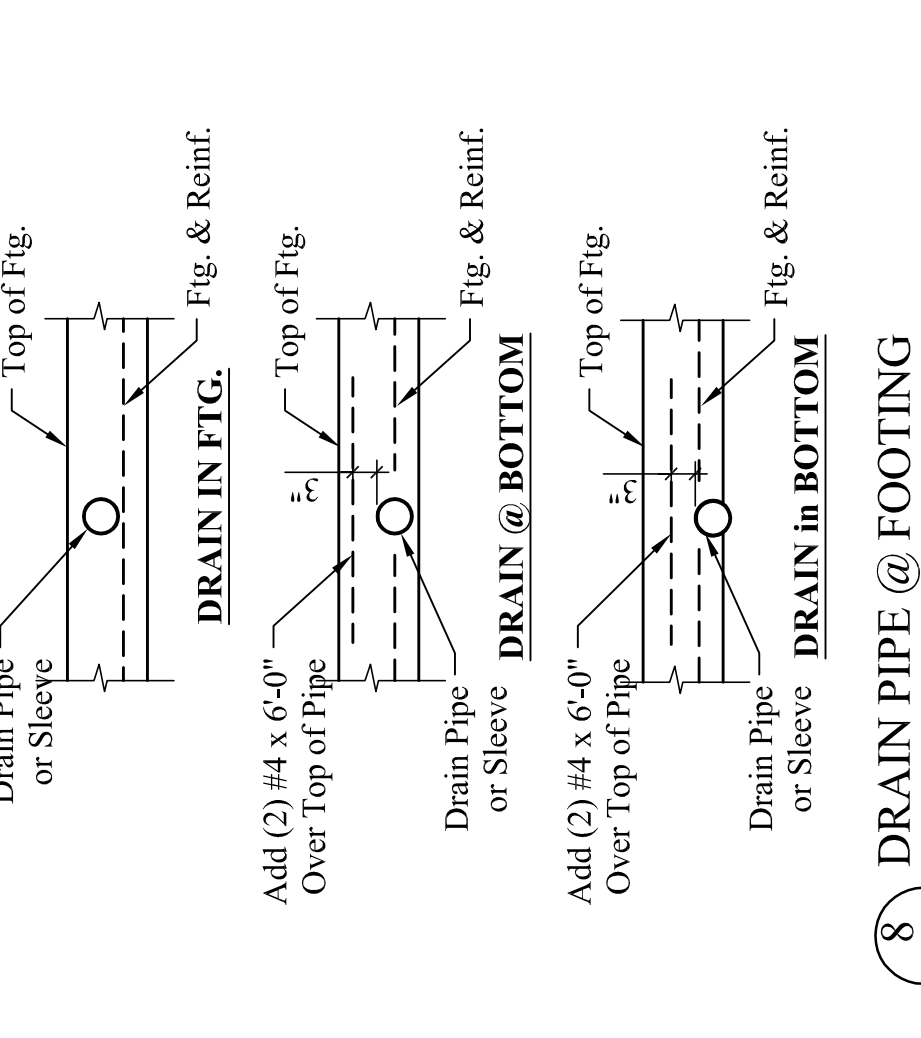
3. Structural Sawn Lumber:
a. 2 x 6 thru 2 x 14 joists: Spruce Pine Fir No. 2 with Fb (repetitive) = 1200 p.s.i.
b. 2 x 6 thru 2 x 14 joists: Spruce Pine Fir No. 1 with Fb (repetitive) = 1200 p.s.i.
4. Laminated Veneer Lumber (LVL): Beams: Fb = 2,800 psi, Fv = 385 psi, E = 2,000 ksi
Posts: Fb = 2,400 psi, Fv = 190 psi, E = 1,800 ksi

5. Plywood:
a. 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 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.
b. Wall Sheathing: C-D INT-APA (PSI-74) with exterior glue; 1/2" CDX with Identification Index 24/0. All panel edges shall be staggered. Optional: Advanced R-6 Zip System, 7/16" OSB sheathing with 1" of foam. All panel edges blocked with 2" nominal or wider framing.
6. Light Metal Plate Connected Wood Trusses:
a. Design, fabricate, transport and erect per Truss Plate Institute Standards TPI-18 and EWT-76.
b. Design for loads, in addition to member weights, as given under "DESIGN LOADS" above.
c. Submit design calculations and shop drawings. Fabricate after the engineer's review. Include wood All permanent and temporary bracing and fastening at bearings by truss manufacturer.
e. Comply with "SUPPLEMENTARY NOTES" below.

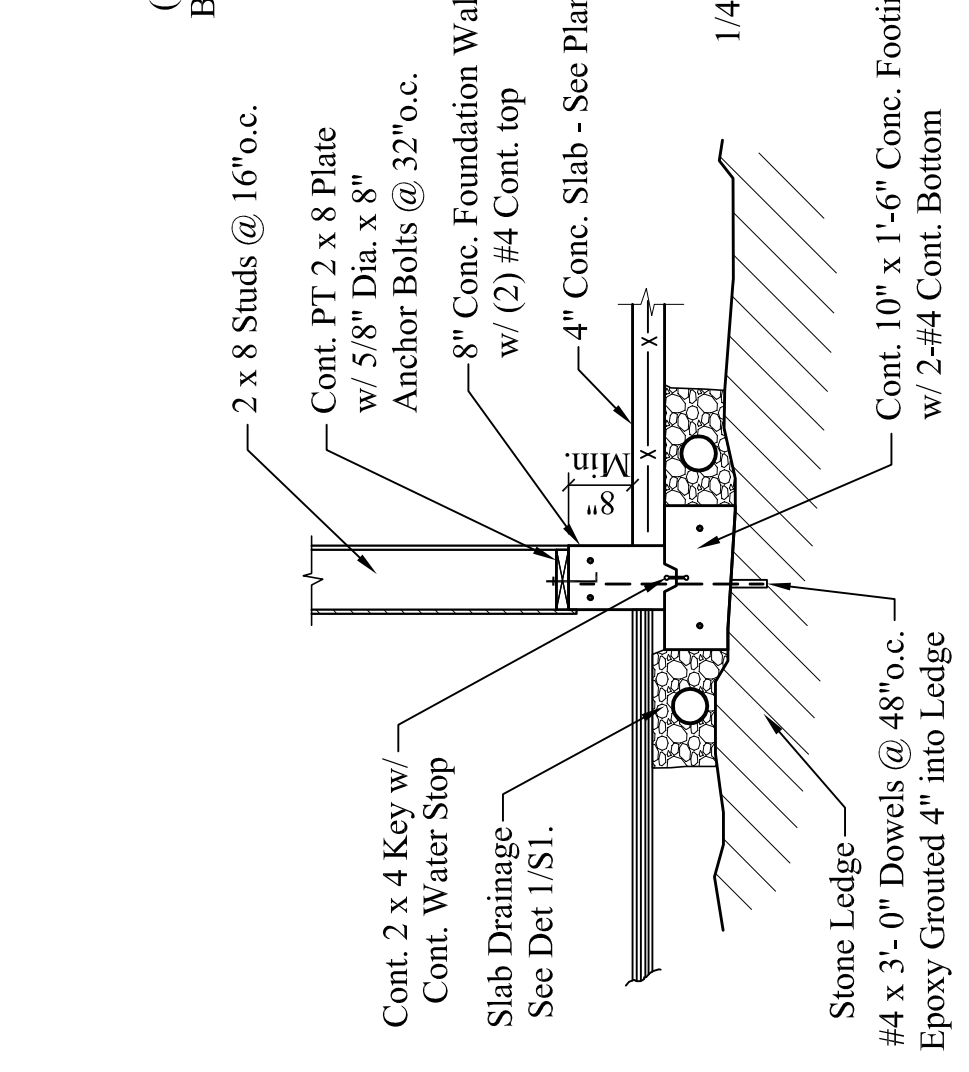
SUPPLEMENTARY NOTES:
1. Verify all dimensions and conditions with architectural drawings prior to starting work. Notify the engineer if any discrepancies are noted.
2. Provide all necessary temporary bracing, shoring, jacking or other means to avoid excessive stresses and to hold structural elements in place during construction.



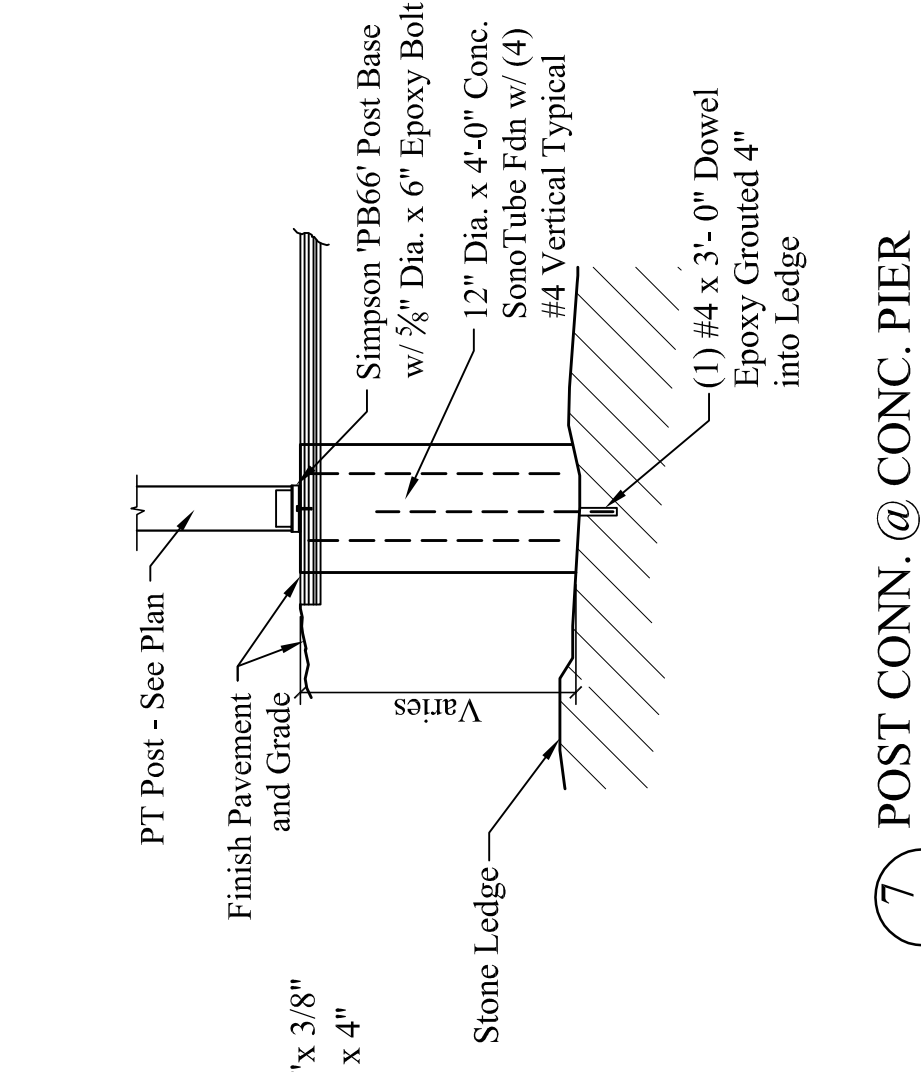
4 TYP. FLOOR & WALL JOINTS
Scale: 1/2" = 1'-0"



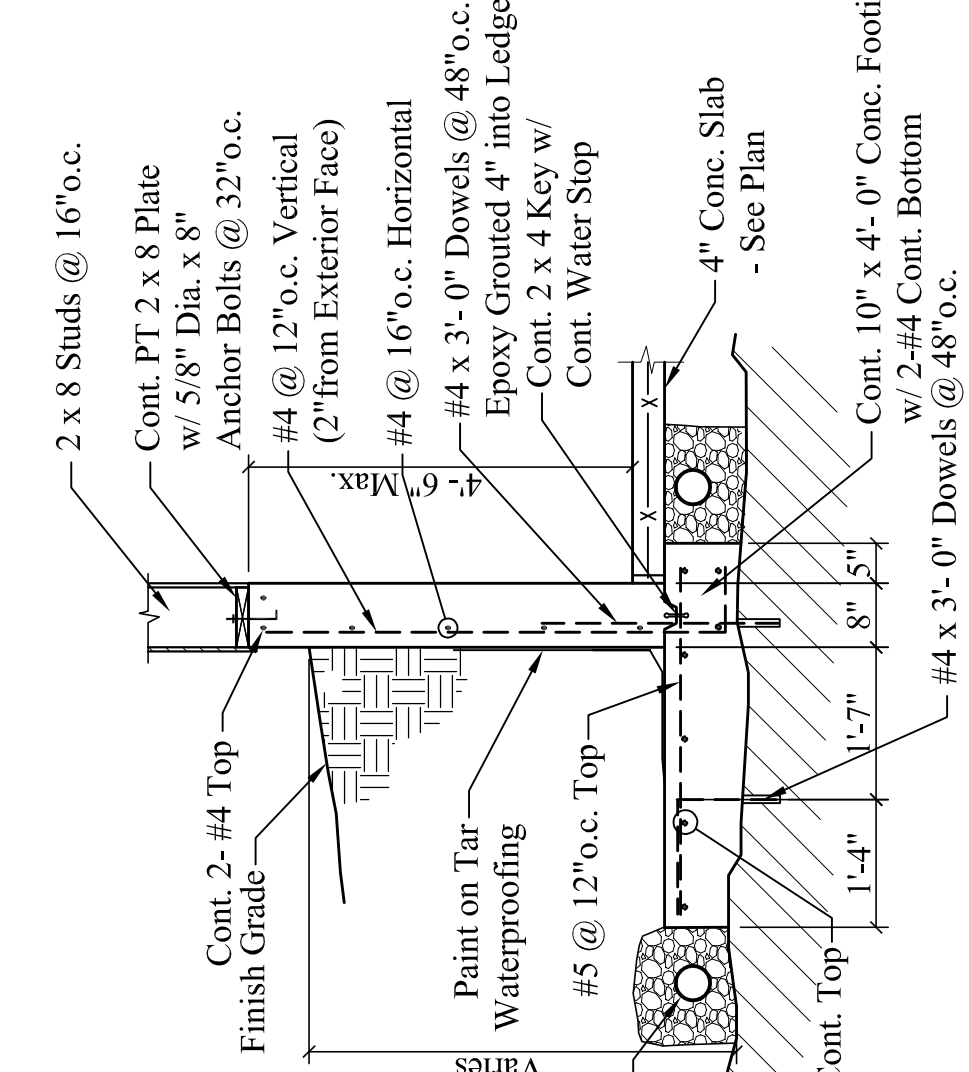
8 DRAIN PIPE @ FOOTING
Scale: 1/2" = 1'-0"



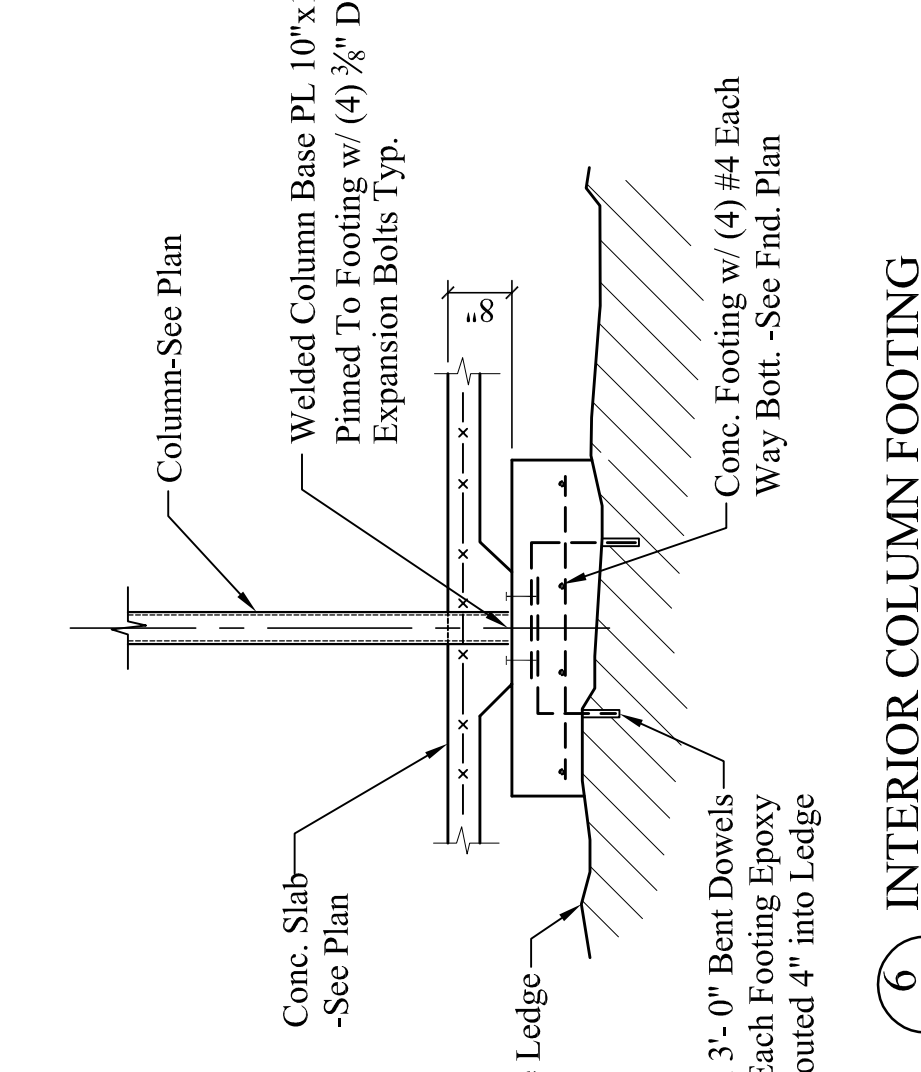
3 FOOTING @ LOW FDN WALL
Scale: 1/2" = 1'-0"



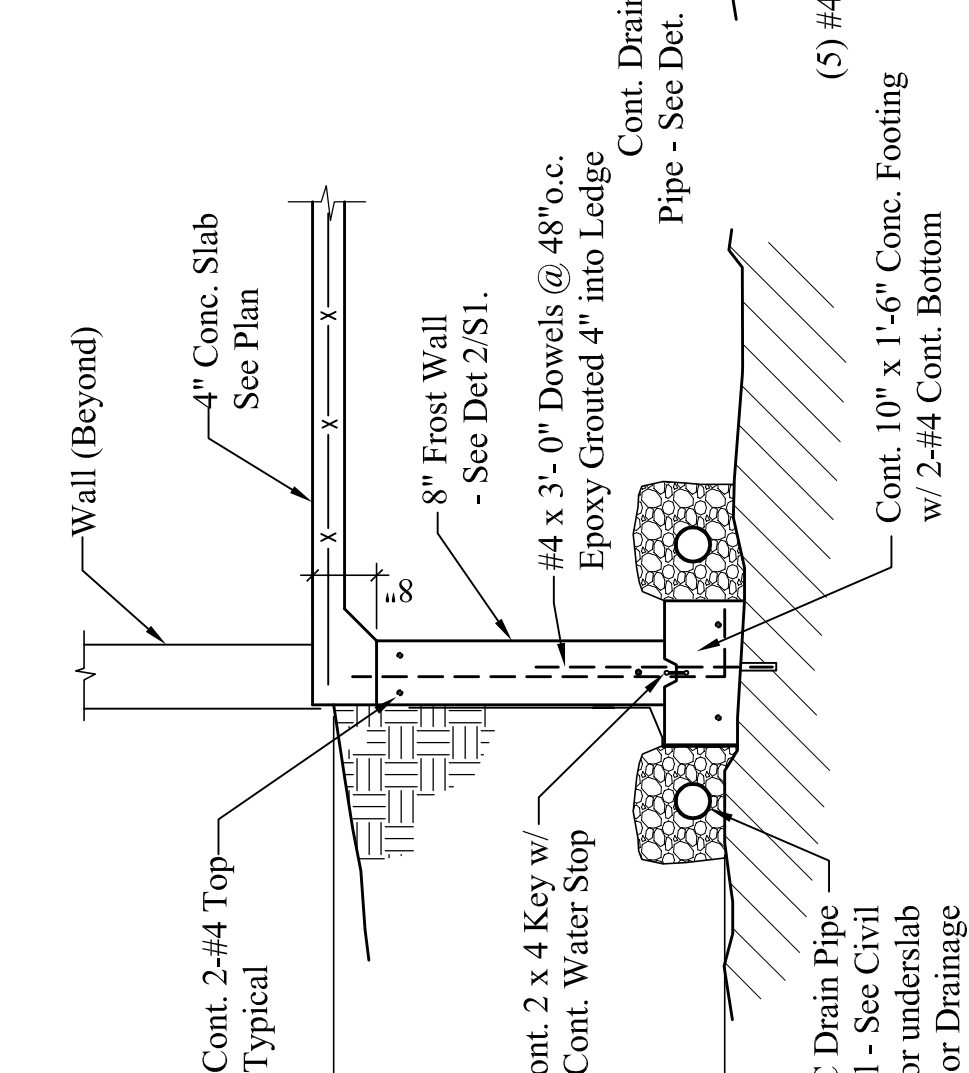
7 POST CONN. @ CONC. PIER
Scale: 1/2" = 1'-0"



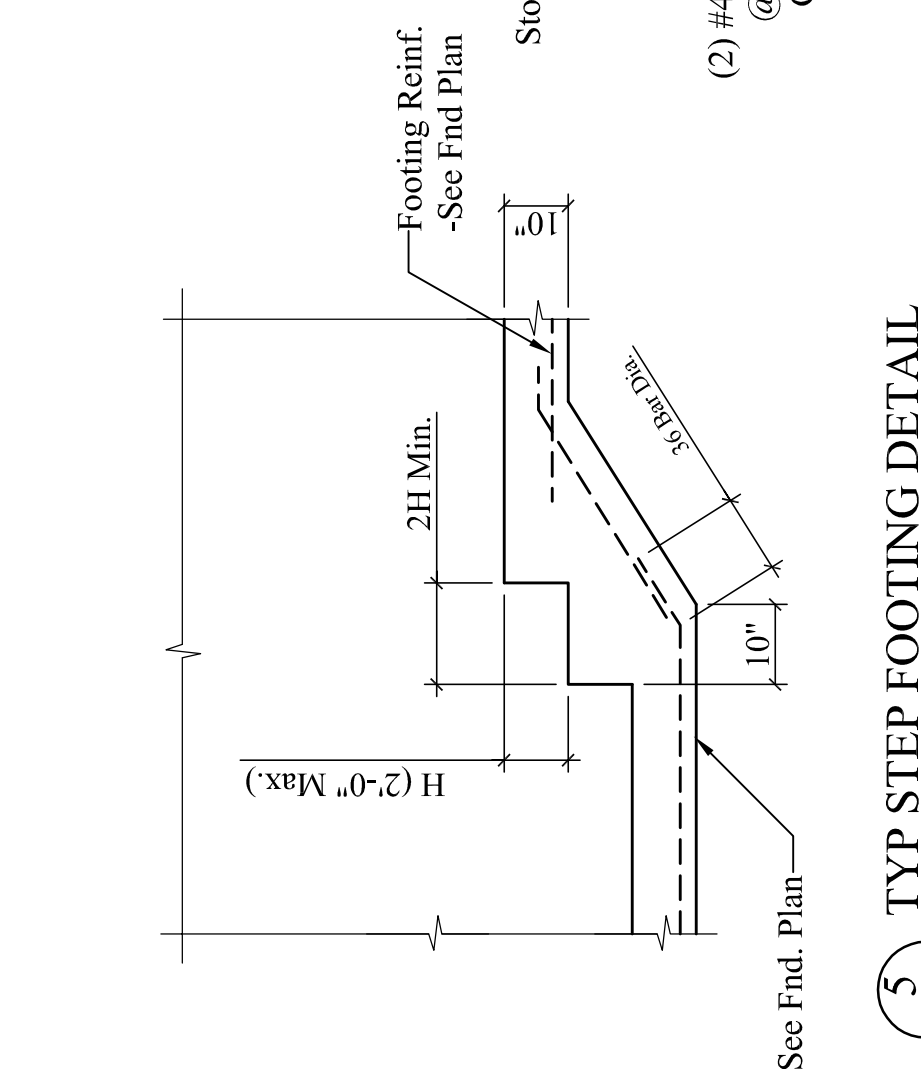
2 PARTIAL HT. FROST WALL
Scale: 1/2" = 1'-0"



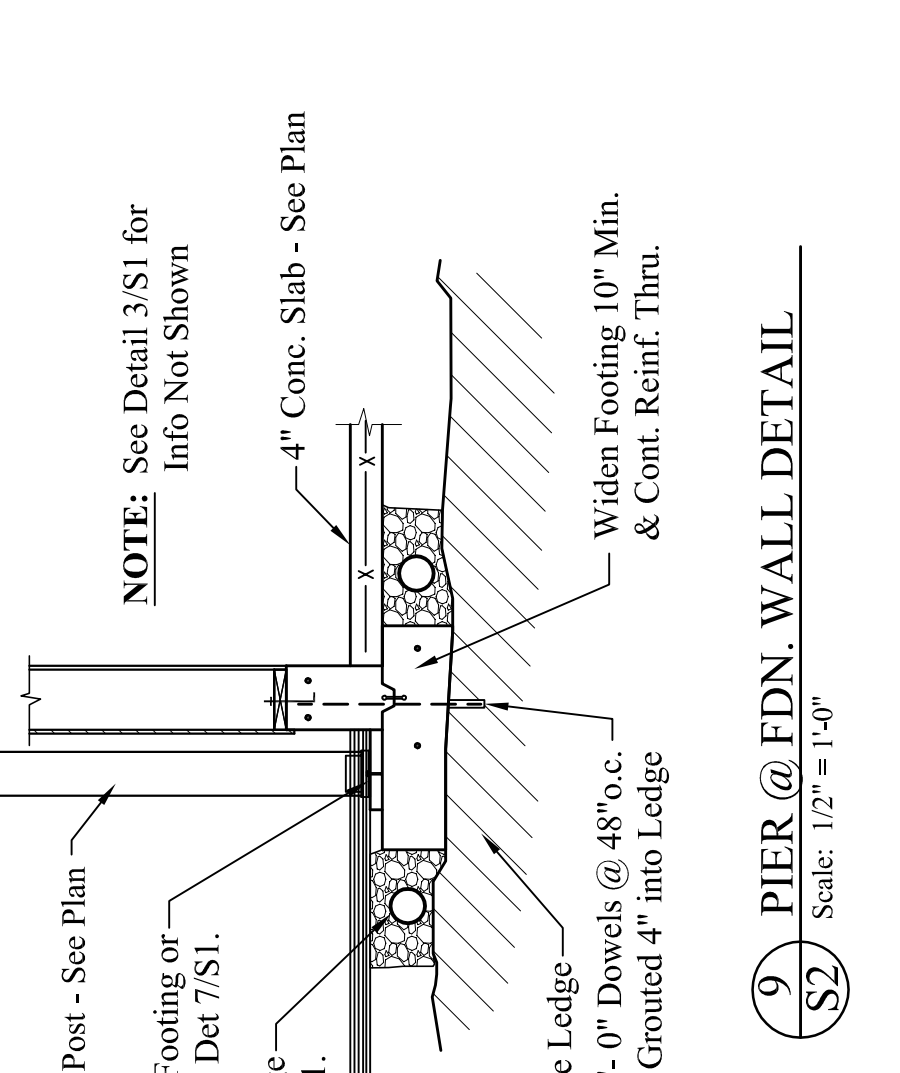
6 INTERIOR COLUMN FOOTING
Scale: 1/2" = 1'-0"



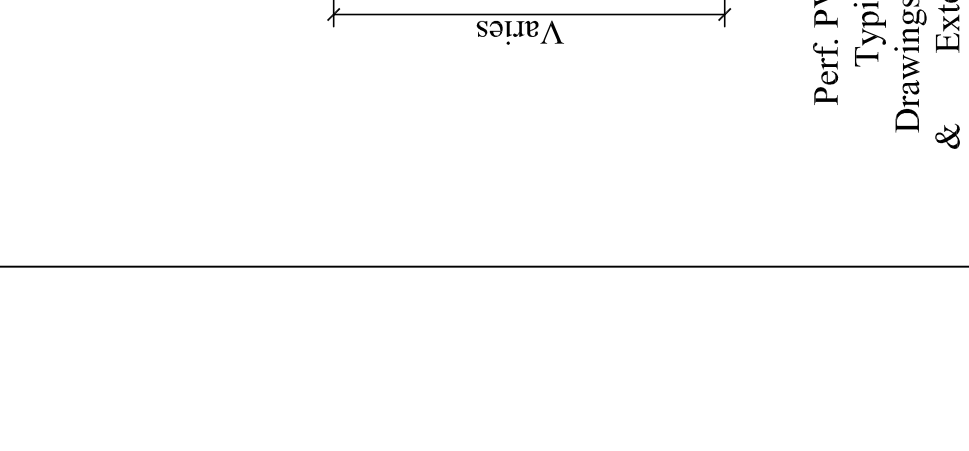
1 FROST WALL @ DOOR
Scale: 1/2" = 1'-0"



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



9 PIER @ FDN. WALL DETAIL
Scale: 1/2" = 1'-0"



10 COLUMN @ FDN. WALL DETAIL
Scale: 1/2" = 1'-0"

Mechanical, Electrical and Plumbing Design and Building Weatherization-Insulation-Ventilation by Others.

