GENERAL STRUCTURAL NOTES A1. All work shall conform to the requirements of the International Building Code (2003 IBC) and other codes having jurisdiction. A2. The structural design of the building is based on the full interaction of all its connected parts, including all reinforced concrete. No provisions have been made for any temporary conditions that may arise during construction prior to the completion of the structure. The contractor shall be responsible for adequate design and construction of all forms, shoring and temporary bracing during the progress A3. The information shown on the structural drawings is intended for this project only and shall not be used for any other purpose. Changes to structural documents (including notes, details, plans, and specifications) shall not be made without written approval from Price Structural Engineers, Inc. (PSE) A4. Contractor(s) shall provide experienced jobsite supervision to ensure that components are installed in accordance with the structural drawings and standards of quality workmanship. A5. The structural documents for this project (including notes, details, drawings, and specifications) are interdependent. Use of some but not all of the structural documents or changes to structural documents without the written approval of PSE is not permitted. A6. Principal openings through structural components are shown on these drawings. The Contractor shall examine the project drawings for the required openings, as he shall provide for all openings whether or not shown on the structural drawings, and shall verify size and location of all openings with other project requirements. Any deviation from the openings shown on the structural drawings shall be

- A7. Alternate connection details may be used if such details are submitted to PSE for review and written acceptance is granted. However, PSE shall be the sole judge of acceptability and the contractor's bid shall anticipate the use of those specific details shown on the drawings. The contractor shall be responsible for the design of any alternate details which he proposes.
- A8. Work not indicated on a part of the drawings but reasonably implied to be similar to that shown at corresponding places, shall be included. Do not scale from drawings.
- A9. The contractor shall be completely responsible for the safety of adjacent structures, property, and the public. The contractor shall comply with all Federal, State, and Local requirements.
- A10. All contractors are required to examine the drawings and specifications carefully, visit the site and fully inform themselves as to all existing conditions and limitations, prior to submitting their bid. Failure to visit the site and familiarize themselves with the existing conditions and limitations will in no way relieve the successful bidder from furnishing any materials or performing any work in accordance with drawings and specifications (with no additional cost to the Owner).
- All. Except where noted on the structural drawings, see architectural drawings for dimensions and locations of new materials.
- A12. Where conflicts exist between codes, specifications, or drawings, the more stringent requirements shall govern. Notify PSE immediately when such conflicts are discovered.
- A13. Fire code provisions are not contained on structural drawings. Coordinate fire code requirements with owner, code official, and architect. See other project documents for requirements.
- A14. Substitutions for specified manufactured materials shall not be made without written approval from PSE. Manufactured materials shall be installed in accordance with manufacturer's requirements and recommendations.
- A15. Stored materials shall be stacked on pallets in a manner that prevents distortion or damage, above the ground, covered and kept in a dry condition. New materials shall be installed plumb, level and square, unless noted otherwise.
- A16. PSE has performed the structural design of the structural components only for this project, as designated by the structural drawings. Structural documents do not contain provisions for non-structural features including fire protection, ADA disability access, drainage, emergency egress requirements, flashing, finishes, ventilation, vibration, watertightness, lighting, soundproofing, building setback requirements or any other sitework, architectural, mechanical, electrical or environmental features.

REINFORCING FOR CONCRETE

brought to PSE's attention for approval.

- E1. All concrete reinforcing bars shall conform to ASTM A615, Grade 60 except where noted. All reinforcing bars to be welded shall
- E2. All welded wire fabric (w.w.f.) shall conform to ASTM A-185. W.W.F. shall be provided in flat sheets.
- E3. Provide all necessary accessories to hold reinforcing securely in position. Reinforcement supports shall be spaced not more than 4'-0" on center and shall consist of pre-manufactured chairs.
- E4. All laps in W.W.F. shall be 1 1/2 mesh spaces or 1'-0", whichever is larger, and shall be wired together.
- E5. Reinforcing bars may not be welded except where designated by the structural engineer.
- E6. Concrete protection for reinforcement shall be provided as follows (UON):
- a. Surfaces cast against and permanently exposed to earth . . . 3 inches (clear)
- b. Formed surfaces exposed to earth or weather
- #6 through #18 bars . . . 2 inches #5 bars and smaller . . . I I/2 inches
- c. Formed surfaces not exposed to earth or weather Slabs, walls, joists . . Beams, columns (including stirrups and ties) I 1/2 inches
- See ACI 318 for conditions not listed.
- E7. All hooks shown on drawings shall be standard hooks unless noted otherwise. Rotate hooks where necessary to provide adequate concrete cover.
- E8. Where continuous bars are called for, they shall run continuously around corners and lapped at necessary splices, or hooked at discontinuous ends. Lap lengths shall be as given in the splice and development table. Lap beam top bars at mid-span and beam bottom bars at supports, unless noted otherwise.
- E9. Minimum lap splice for #4 and #5 bars shall be 2'-0" (UON).

STRUCTURAL STEEL NOTES

- GI. All structural steel work shall conform to the recommendations and requirements contained in the "Manual of Steel Construction, Allowable Stress Design" (AISC Ninth Edition, including Supplement #1, 2001), and "Structural Welding Code - Steel" (AWS D1.1, latest edition). Steel fabricator shall be AISC certified and submit evidence to the satisfaction of the structural engineer that AISC and AWS requirements for procedures, quality control, and maintenance of records are strictly adhered to.
- G2. Structural steel rolled shapes, plates, and bars shall conform to the following ASTM designations:
 - ASTM A-992 . All wide flange sections ("W Shapes"), fy = 50 ksi.ASTM A-36 . . . Other rolled shapes, plates and bars unless otherwise noted. fy = 36 ksi. Steel tubes. fy = 46 ksi.ASTM A-500, Grade B... ASTM A-53, Grade B . . . Steel pipe. fy = 35 ksi.ASTM A-325, Type SC or N All bolts for connecting structural members, unless otherwise noted. ASTM A-307. . All anchor bolts, unless otherwise noted. ASTM A-36. Threaded rods, unless otherwise noted. ASTM 1554 fy = 105 ksi. High strength threaded rod where noted.
- G3. Nonshrink grout shall be 5000 psi (min.) compressive strength.
- G4. All shop and field welds shall be made by certified welders, and shall conform to the American Welding Society Code, AWS D1.1, latest edition. Carefully control welding technique to avoid distortion, including clamping prior to welding.
- G5. Electrodes for all field and shop welding shall conform to AWS E70-XX. Minimum weld size shall be 3/16" fillet (UON).
- G6. Holes in steel shall be shop drilled.
- G7. Strctural steel shall be primed with fabricator's primer.
- G8. Ends of columns shall be "finished to bear" per AISC recommendations.

FOUNDATIONS

- BI. Contractor shall field verify adequacy of existing soils and retain the services of a licensed geotechnical engineer if evidence of poor soils is observed os suspected (including but not limited to clay or peat or debris within the soil).
- B2. All footing excavations are to be finished by hand. All finished foundation excavations shall be inspected by the project foreman before any concrete is placed. Bedrock surfaces shall be swept clean and loose debris removed prior to placement of footings on bedrock.
- B3. If existing soils are inadequate, then structural fill below slabs, adjacent to foundation walls and fill below footings shall conform to MDOT 703.06 Type B:

PERCENT FINER BY WEIGHT SCREEN OR SIEVE SIZE

4 inch	100%
3 inch	90% - 100%
I/4 inch	25% - 90%
No. 40	0% - 30%
No. 200	0% - 5%

- B4. Structural fill shall be compacted in 12" (max) lifts (loose measure) to 95% of its maximum dry density in accordance with ASTM D1557. Hand vibratory equipment shall be used to compact backfill at confined areas and adjacent to basement using 6" lifts (loose measure).
- B5. Crushed stone shall consist of clean angular fragments of quarried rock with uniform quality and conform to MDOT 703.22 Type C. Maximum stone size shall be I".
- B6. Unless otherwise noted, all foundation units shall be centered under supported members.
- B7. Where foundation elements are to have fill on both sides, each side shall be filled and compacted simultaneously, maintaining a common elevation such that compacted fill on one side of the foundation does not exceed more than I2" above the compacted fill on the other
- B8. Contractor shall provide continuous drainage by mechanical methods to control surface and underground water as required during construction, so that all excavations are dry. Water level shall be maintained at 12 inches below bottom of excavations at all times.
- B9. Remove existing foundations to at least 3 feet below bottom of proposed slabs and foundations.
- B10. All holes in foundation walls shall have plastic sleeves. Coordinate size and locations of sleeves prior to placing concrete. Sleeves larger than 10" diameter shall have additional (2) $\#4 \times 5'$ -0" rebar on 4 sides of sleeves.
- BII. Shoring, bracing, or sheeting used to provide lateral support of excavations shall remain in place until all permanent structural systems at and below ground level are complete.
- B12. Pipes shall not pass under or through footings. Lower wall footings by stepping to avoid interference (see typical stepped footing detail).
- B13. Contractor shall take necessary precautions to avoid disturbing existing soil beneath footings. As a minimum, a smooth edge bucket shall be used for excavation at these areas.
- B14. When excavating for new footings, contractor shall take the necessary precautions to avoid disturbing existing utilities which may exist below grade.
- B15. Footings shall not bear on bedrock if bedrock slope exceeds 4:1 (Horiz.: Vert.) unless footing is pinned to bedrock surface with #4 rebar @ 24" o.c. Provide 90° hook in rebar at top, 5" embedment into bedrock, and use anchoring cement approved by PSE.
- B16. No foundations shall be placed in water or on frozen ground.

CONCRETE

- F1. All concrete work shall conform to the latest edition of the ACI Building Code (ACI 318), Specifications for Structural Concrete for Buildings (ACI 301) and to the 2003 IBC. In case of conflict, the more stringent requirements shall govern.
- F2. For locations listed below, concrete shall have 3/4" aggregate, 4" to 5" slump (max.), Type I or II ASTM C-150 Portland Cement and designated compressive strength (fc) in 28 days as follows:

Location	f'c	Air	Polypropolene	Max. Water:Cement
	(psi)	Entrainment	Fibers	Ratio
Footings	3000	None	None	.51
Retaining Walls, Foundation Walls, Piers	4000	4% - 7%	None	.42
Interior Slabs on Grade (UON)	4000	None	I 5. lb / c.y.	.42
Miscellaneous Concrete	3000	4% - 7%	None	.51

Water quantity shall not exceed specified maximum water/cement ratio. Quantity of water added at ready mix plant shall be indicated on the delivery slip for each truck.

- F3. A "foundation wall" shall be considered a "retaining wall" if final grade elevation on one side of wall is more than 15 inches above the final grade on the opposite side of wall.
- F4. All footings shall be placed monolithically. See typical details for construction joint requirements.
- F5. Pipes or conduits placed in slabs on grade shall not be placed closer than 3 diameters on center and shall have an outside diameter less than I/3 of the slab thickness.
- F6. All keys shall be $2" \times 4"$ (nominal) unless otherwise shown on the drawings.
- F7. All exposed edges of concrete members shall be chamfered 3/4" unless shown otherwise on drawings.
- F8. See architectural drawings for door and window openings, drips, washes, reglet, concrete finishes, masonry anchors, and for miscellaneous embedded plates, bolts, anchors, angles, etc. Refer to mechanical, electrical, and site drawings for other embedment
- F9. Calcium chloride, aluminum or copper components shall not be placed in concrete. No conduits shall be placed in slabs on metal deck.
- F10. Embedments in concrete, including anchor bolts for columns, shall be firmly secured by tie wire (or other means) to prevent movement during concrete placement. Welding of embedments is not permitted.
- FII. All concrete materials, reinforcement and forms shall be free from frost or debris.
- F12. Concrete shall be maintained above 50 degrees F, and in moist condition for at least the first seven days after placement. Contractor shall provide blankets, tenting, and heat as necessary to ensure this condition exists. Contractor shall keep two operable concrete thermometers on site throughout concrete construction when temperatures are predicted to be less than 40 degrees F.
- F13. Consolidate all concrete with a vibrator or other means recommended by ACI 301. Honeycombed surfaces will not be permitted.
- F14. See architectural drawings for locations of floor drains. Slope slabs uniformly to drains (UON).
- F15. Control joints in slabs on grade are mandatory. See typical details. Control joints in foundation walls, basement walls, and retaining walls are mandatory. See typical details.
- F16. Coordinate concrete finish on floor slabs with owner's requirements and specifications.

maximum of 3/4-inch more than specified slab depth.

- F17. Concrete slabs, including those on steel deck, shall be placed so that slab thickness equals or exceeds thickness specified on drawings. This will require that slabs may not be dead level where supported by beams or trusses with camber.
- F18. Length of time to cure concrete slabs and materials applied to slab surfaces shall be compatible with floor finishes.
- F19. Slabs on grade shall contain ASTM C1116, Type III, ½" 1½" long polypropolene fibers at a rate of 1.5 pounds (min.) per cubic yard unless steel reinforcement is specified.
- F20. Surfaces of concrete construction joints, including exposed reinforcement, shall be cleaned and laitence removed. New concrete shall not be placed against existing hardened concrete until existing hardened concrete surface has been moistened (without standing water). F21. Depth of concrete specified at slabs on grade and elevated slabs is a minimum. Add additional concrete to level slab surfaces up to a
- F22. Isolation joints in concrete slab shall be 3/8" thick pre-formed, closed, cell foam joint material and top 1/2" of joint shall contain sealant with tooled joint surface.
- F23. Mid Range Plasticizer may be added for pumping provided it is under the direct oversight of the ready mix concrete supplier.

ROUGH CARPENTRY

- C1. Lumber shall bear the grade and trademark of the association under whose rules it is produced and a mark of mill identification. Lumber shall be sound, seasoned, kiln-dried to a moisture content not exceeding 19% and surfaced four sides.
- a. Pressure Treated (PT) lumber shall be Southern Yellow Pine (SYP), Number I grade.
- b. Except as noted above, lumber (including lumber used for studs, beams, lintels, wall plates, jambs, king studs, and columns and posts shall be No. 2 grade Spruce (or better), Pine, Fir (SPF).
- C2. Lumber and wood in exterior applications, at sills, at porches and in contact with concrete and masonry shall be pressure treated using preservative with a minimum net retention of 0.40 pcf, or equivalent pressure treating system.
- C3. All fasteners (including nails, lag screws, and bolts) for pressure treated lumber shall be hot-dip galvanized. If ACQ preservative is used, fasteners shall either be stainless steel or be clearly specified as having a G185 galvanized coating and joist / beam hangers shall have additional galvanizing suitable for ACQ.
- C4. Cut ends of pressure treated lumber and timber posts and sills shall be dipped in a preservative treatment for a minimum of fifteen minutes. Where pressure treated members must otherwise be cut during erection, apply a field treatment preservative to comply with AWPA M4
- C5. Fabricate horizontal and inclined members, units of less than 1:1 slope, with natural convex bow (crown) up to provide camber.
- C6. As a minimum, carpentry work shall comply with AFPA's "National Design Specification for Wood Construction," 2001 Edition. Wood components shall be securely attached with sound connections and without splitting. As a minimum, wood fasteners shall conform to IBC 2003, Table 2304.9.1, "Fastening Schedule." Contractor shall be aware that more stringent requirements are specified within these
- C7. All plywood and sheathing shall conform to APA "Plywood Spcification Grade Guide" and Product Standard PS-1. Plywood construction shall conform to APA Design/Construction Guide - Residential and Commercial, Form E30B for required applications.
- C8. Sheathing end joints for floors and roof shall be staggered. Plywood shall be placed such that plywood surface grain is transverse to truss, joist or rafter span (3 span minimum). Floor sheathing shall be glued to top of supports with 3/8" diameter continuous bead of "PL400 Subfloor Adhesive," manufactured by OSI Sealants, Inc. or other adhesive conforming to APA AFG-01 and ASTM D3498.
- C9. Sheathing for floors shall be 3/4" thick Tongue & Groove APA rated plywood with 48/24 span rating or "Advantec" (by Huber Corp.). Fasten plywood floor sheathing with 10d nails at 6" o.c. along supported edges and 12" o.c. elsewhere. Drywall screws will not be
- C10. Plywood for roofs shall be 5/8" thick, APA rated sheathing with 40/20 span rating. Install "H" clips at sheathing midspan. Fasten plywood with 10d common nails at 6" on center along supported edges and 12" on center elsewhere.
- C11. Wall sheathing shall be 7/16" thick, APA rated plywood or OSB sheathing suitable for exterior use (UON). Use full size sheets as much as possible. All edges of wall sheathing shall be supported by lumber framing (nominal 2" thick); add blocking as necessary. Wall sheathing shall be fastened to studs with galvanized 8d common nails having 4" spacing at supported edges and 6" spacing elsewhere (U.O.N.) except that all wall sheathing at "shearwalls" shall have nail spacing reduced to 4" o.c. at all edges. Wall sheathing shall be applied at all exterior walls and at interior walls where designated on drawings.
- C12. Reference to "Simpson" on Drawings indicates metal connectors manufactured by Simpson Strong-Tie.
- C13. Reference to "Paralam" and "LVL" on Drawings indicates materials manufactured by Trus Joist MacMillan. These materials shall be installed in strict accordance with Trus Joist requirements.
- C14. Floor and roof framing around chase openings for mechanical ducts shall consist of the following (unless noted otherwise):
- a. Double floor length joists each side of openings with joist depth same as adjacent floor framing.
- b. Members connected with Simpson double joist hangers.
- C15. Holes through framing members shall be drilled through middle third of lumber and shall not exceed I" diameter. Contact Structural Engineer if larger holes are required.
- C16. Double top plate at exterior and load-bearing walls shall be lapped a minimum of 4'-0" and be fastened together with not less than (2) rows of 16d nails spaced at 6" on center (total of 18 nails).
- C17. Spike together all framing members which are built up using two rows of 16d nails at 12" O.C. staggered.
- C18. Provide double top plate in all exterior walls and all interior bearing walls with lapped connection at wall intersections.
- C19. All nails shall be "common" unless noted otherwise. Pre-drill holes as necessary to prevent splitting. Nail spacing shall not be less than 2"
- C20. Provide Simpson connection post caps and post bases at posts and columns.
- C21. The threaded portion of all lag screws shall be placed in predrilled holes which are one-half the nominal diameter of the lag screw. Bolts and lag screw shanks shall be installed in predrilled holes which are not more than 1/32 inch larger in diameter than the nominal bolt diameter. Anchor bolts for bottom wall plates shall be installed in predrilled holes which are not more than 1/4" larger in diameter than the nominal bolt diameter.
- C22. Wood framing shall be a minimum of 2" clear from masonry chimneys and 6" clear from flue openings unless a "zero tolerance" system has been approved by the local building official. This distance shall be increased where specified by codes or other requirements having
- Where any interior walls are parallel with floor joists below for more than half the joist span, add one additional floor joist directly below interior wall centerline (additional joist may be omitted if joist already exists at this location). If wall is less than half the joist span, add transverse blocking between joists to support the wall. Blocking shall be at wall ends and at 48" o.c.
- C24. To avoid popping nails and minor cracking in drywall finishes, drywall shall not be placed until framing has dried to a moisture content less than 14 percent (verified by calibrated moisture meter).
- C25. Adjust setting of nail guns such that top of nail head does not penetrate below surface of APA rated sheathing.
- C26. Where columns are shown, contractor shall install additional studs (equal to the same width as the column) directly below the columns on each floor and between floors such that continuous support for the column extends to the foundation.
- C27. Where joists (or rafters) are framed to the sides of beams, the gap between the ends of joists (or rafters) and the beam to which they are connected shall not exceed 1/16 inch.
- C28. Wall plates shall be face-nailed to each stud (and each individual 2x at built-up columns) with (2) 16d nails, typical (UON).
- C29. All holes in joist and rafter hangers shall have one 10d nail unless larger nails are specified by Simpson or on drawings. Use Simpson 10d × I 1/2 nails at hangers mounted to I 1/2" thick lumber. All holes in beam hangers shall have one 16d nail unless otherwise specified by Simpson or on drawings.
- C30. All floors shall have solid bridging between joists spaced at not more than 8'-0" on center. Adjacent blocking may be offset 1.5" so that blocking can be face-nailed to joists at both ends.
- C31. Handrail assemblies, guardrail systems, and anchorage at supports shall be designed to resist a load of 50 lb/ft in any direction at the top rail or a single 200 lb. load in any direction at the top rail. See Architectural drawings and building code for additional requirements.

KEY TO SECTION SYMBOL

Detail Label - □ Detail Viewing Direction where Detail is Shown

NOT FOR CONSTRUCTION

UNDER NO CIRCUMSTANCES SHALL THIS DRAWING BE USED FOR BIDS, DEVELOPMENT OF SHOP DRAWINGS, OR FABRICATION OF NEW MATERIALS.

DESIGN LOADS

- D1. Floor Live Loads
- a Typical Floor Private Areas = 40 psf. b. Typical Floor Public Areas = 100 psf.
- D2. Snow Load
- a. Ps = 35 psf (see Details for drift loads). b. Ce = 1.0.
- c. $I_S = I.0$. d. Ct = 1.0.
- D3. Wind Load
 - a. Basic Wind Speed = 100 mph. b. $I_{W} = 1.0$. c. Exposure = "B."
- D4 Seismic
- a. IE = 1.0. b. Soil Site Class = "D."
- c. Spectral Response Accelerations: $S_S = .35.$
- SI = .10.d. Seismic Force Resisting Systems:
- Light frame shear wall w/ wood sheathing e. R(N/S) = 6.5.

ADDL

ARCH

BOT

BOF

BTWN

COL

CONC

COORD

CONT

DIA

DIM

DWGS

EMBT

EXG

FDN

FIN FI

FTG

GALV

HOR

FG

EXPANSION

Bottom

Bearing

Between

Clear

Column

Detail

Fach

Elevation

Existing

Footing

R (E/W) = 6.5.f. Design Procedure = "Equivalent Lateral Force."

Kilopound (1000 pounds) Pound Additional LG Long LOCNS Alternate Locations Aluminum Low Point Anchor Bolt LVL Microlam Architectural MAS Masonry MAXMaximum MDOT Bottom of Maine Dept. of Transportation MECH Bottom of Footing Mechanical MFR Manufacturer MIN Minimum MISC Bearing Plate Miscellaneous N&W Both Sides Nut & Washer NF Near Face Cast in Place Concrete NIC Not in Contract Center Line NTS Not to Scale \circ C On Center OD Outside Diameter OF Concrete Outside Face OH Control loist Opposite Hand OPNG Concrete Masonry Unit Opening OSB Coordinate Oriented Strand Board Continuous (APA-rated) Powder Activated Fastener Pounds per Cubic Foot Diameter PCF Dimension Preformed Joint Filler Drawings PLAM Parallam PLY Plywood PROJ Expansion Projection PSF Pounds per Square Foot Each Face PSI Pounds per Square Inch REINF Embedment Reinforcement reqd Equally Spaced Required SCHED Schedule Each Way SECT Section Square Foot Foundation Far Face Similar Final Grade Spaces STD Finish Floor Standard Finish Floor Elevation T&B Top and Bottom Tie Joist Top of TOC Top of Concrete TOF Galvanized Top of Footing TOG Top of Grout General Contractor Hot Dip Galvanized TOP Top of Pier TOW Top of Wall Horizontal High Point TYP Typical Inside Diameter UON Unless Otherwise Noted VERT Inside Face Vertical Verify in Field W/ With W/O Without WP Working Point **WWF** Welded Wire Fabric

ISSUED FOR PERMIT ONLY

L Ctructural Ingineers, Inc. 75 farms edge road

north yarmouth, maine 04097

APLAN THOMPSON

ARCHITECTS

124 FORE STREET

PORTLAND, ME 04101

GENERAL STRUCTURAL

telephone 207 846 0099

fax 207 846 1633

8/18/10

NEW 3-UNIT BLDG.

CENSED

LEDMAN & MYERS

62 CUMBERLAND AVENUE PORTLAND, ME 04101

AS NOTED SCALE DAP ENGINEER:

PROJECT NO.:

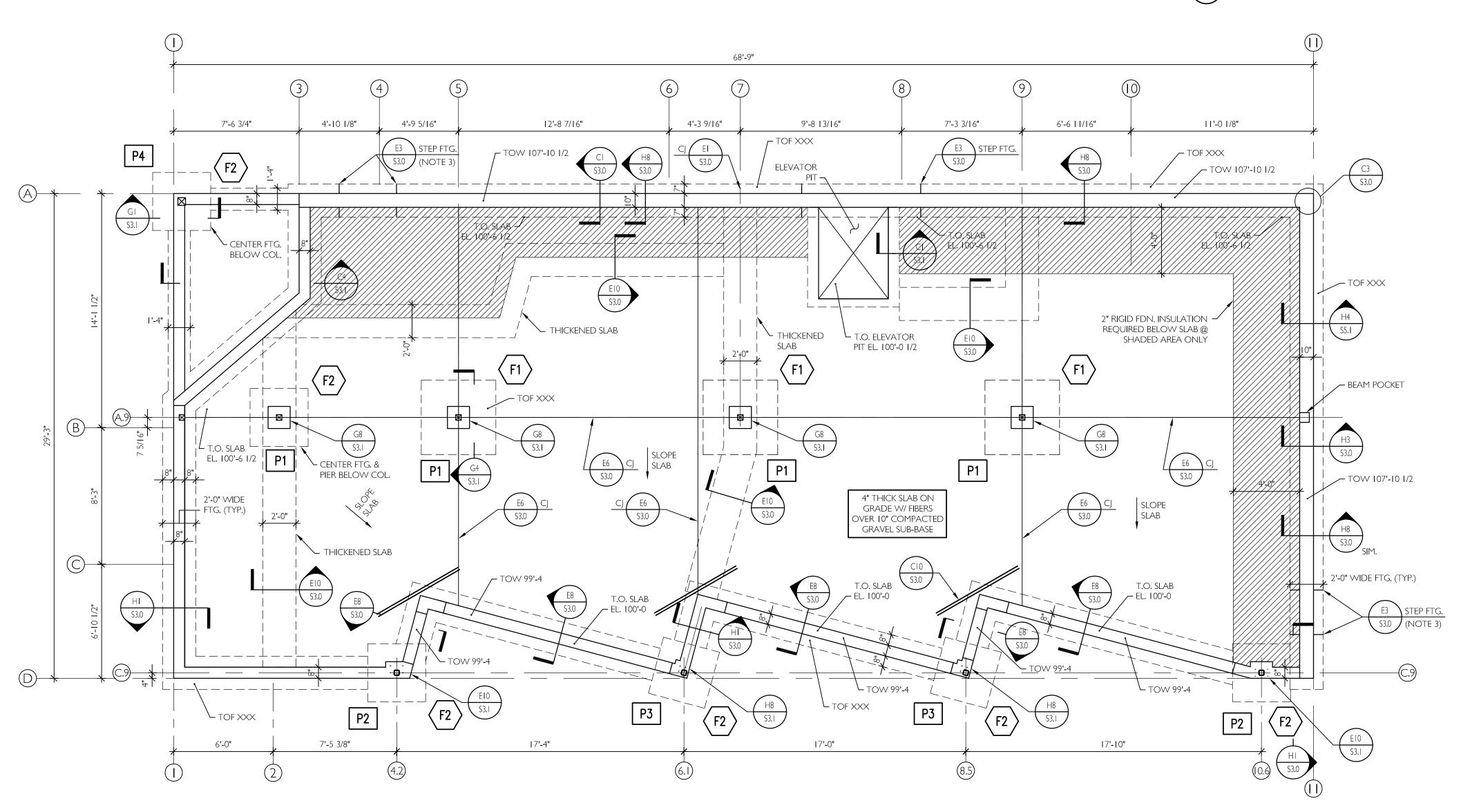
129-10

DATE:

8/8/10

FOOTING SCHEDULE					
TYPE	LENGTH	WIDTH	THICKNESS	REINFORCEMENT	
FI	4'-6"	4'-6"	l'-0"	(6) #5 EACH WAY	
F2	3'-6"	3'-6"	l'-0"	(5) #4 EACH WAY	

FOOTING SCHEDULE



FOUNDATION PLAN 1/4" = 1'-0"

NOTES:

- 1. See Drawing \$1.0 for additional notes and requirements.
- See Drawings \$3.0 and \$3.1 for required typical details.
- 2. See E6 / S3.0 for control joint requirements in basement (contractor to lay out CJ locations not shown).
- 3. Each vertical step in footing shall be 2'-0" or less (see detail). Additional steps in footings may be required to accommodate 4'-0" frost protection and variations in final grades (see site plan).
- 4. Coordinate foundation dimensions and concrete elevations with architectural drawings except where specified otherwise on structural
- 5. Foundation shall not be backfilled until first floor framing and floor sheathing have been fully installed.
 - indicates footing type. See B7 / S2.0 for footing schedule.

indicates pier type. See schedule below for pier details.

MARK	DETAIL
P1	G8 / S3.1
P2	E10 / S3.1

H8 / S3.I GI / S3.I

PRELIMINARY NOT FOR CONSTRUCTION

UNDER NO CIRCUMSTANCES SHALL THIS DRAWING BE USED

FOR BIDS, DEVELOPMENT OF SHOP DRAWINGS, OR FABRICATION OF NEW MATERIALS.

ISSUED FOR PERMIT ONLY

Price Structural Engineers, Inc. 75 farms edge road north yarmouth, maine 04097 telephone 207 846 0099 fax 207 846 1633

8/18/10

KAPLAN THOMPSON NEW 3-UNIT BLDG. LEDMAN & MYERS

62 CUMBERLAND AVENUE

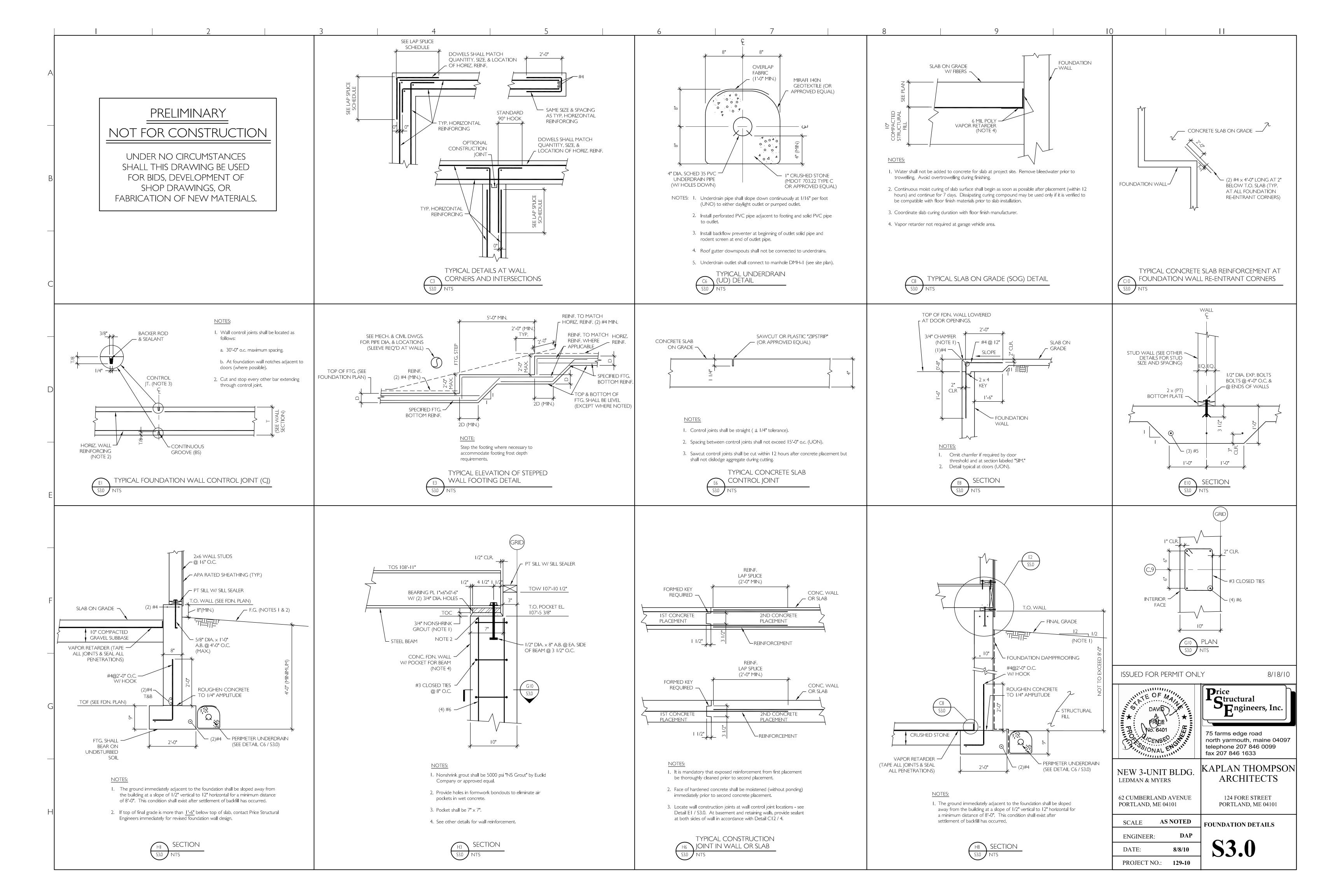
124 FORE STREET PORTLAND, ME 04101 PORTLAND, ME 04101

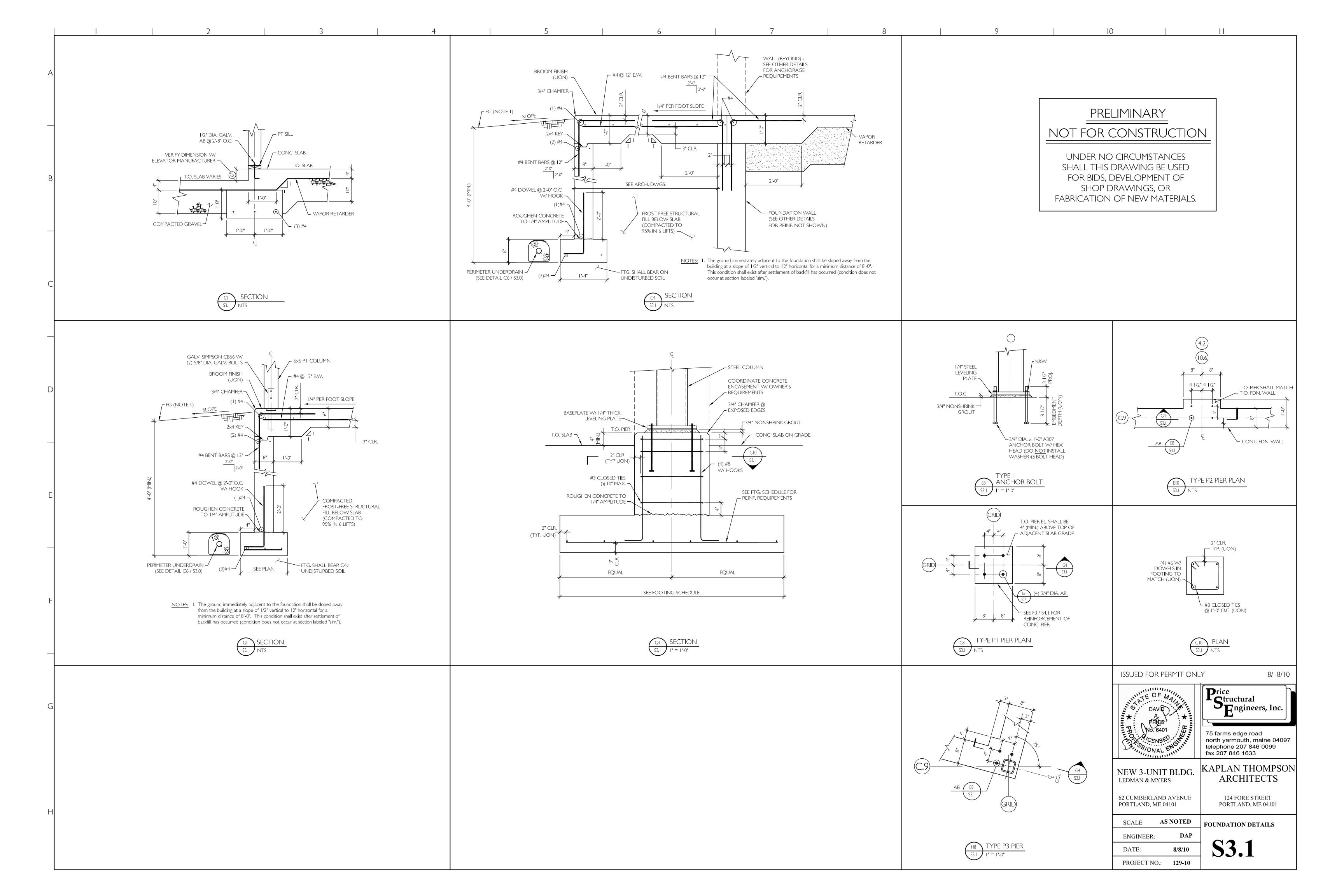
SCALE AS NOTED

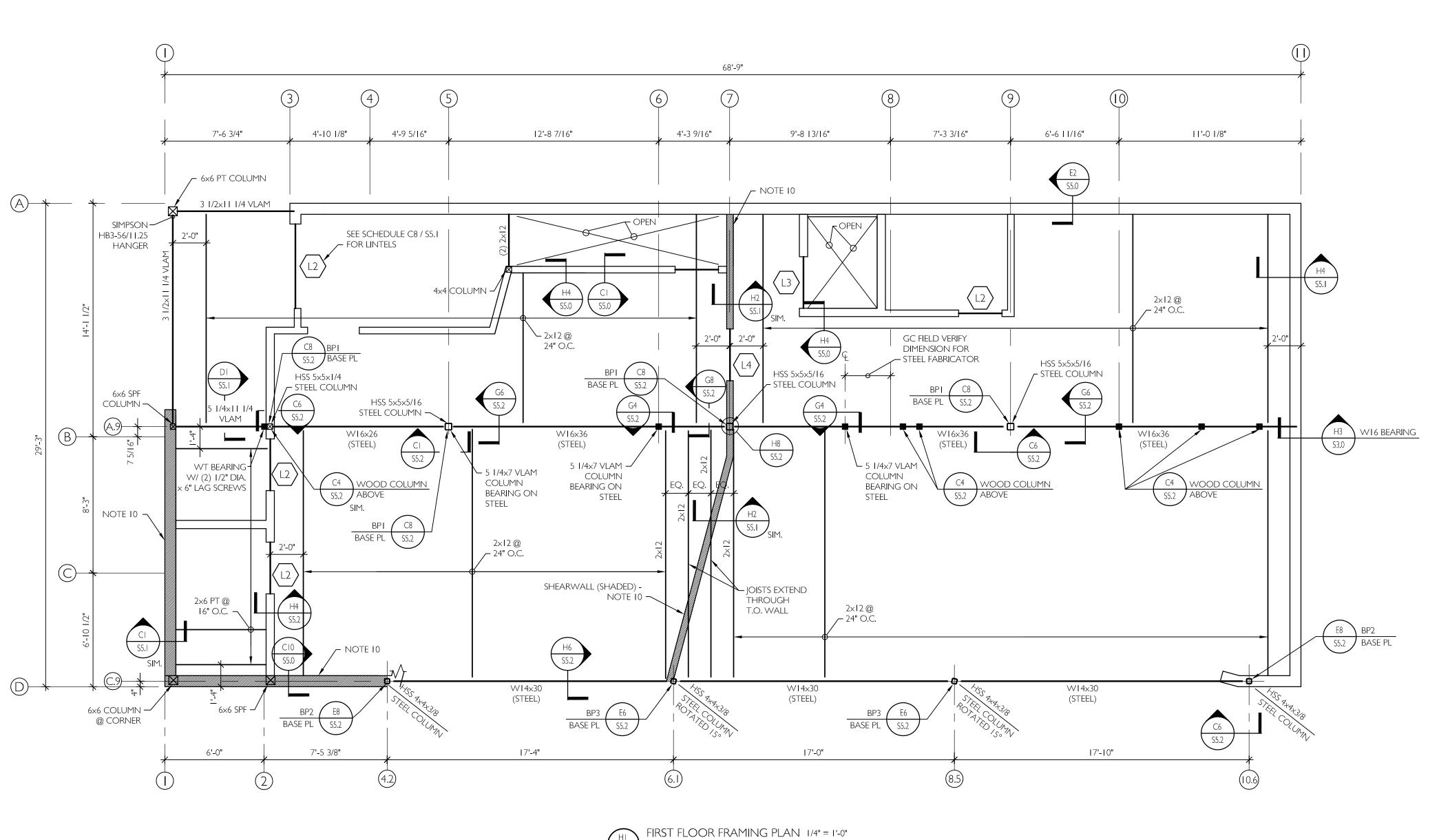
DAP **ENGINEER:** 8/8/10 DATE: PROJECT NO.: **129-10**

FOUNDATION PLAN **S2.0**

ARCHITECTS







WALLS SHOWN EXTEND BETWEEN BASEMENT & IST FLOOR

- I. See Drawing S1.0 for additional notes and requirements. See Drawings S5.0, S5.1, and S5.2 for required typical details.
- 2. Finalize exact locations for stairs and other floor openings with architectural drawings. Sizes and locations of floor openings shown on structural drawings should be considered approximate.
- 3. Spacing of floor framing materials shall not exceed 24" on center. Add additional joists and other components as necessary to accommodate this requirement
- 4. PT shall be pressure treated #1 SYP (typical, unless noted otherwise). All Simpson hangers in contact with pressure treated lumber to have ZMAX finish (typ.)
- 5. See Detail C6 / S5.2 for typical steel beam to steel column connections.
- 6. See Arch. Dwgs. for Deck Guardrail requirements. G.C. shall construct guard rail system capable of withstanding 50 pounds per lineal foot applied in any direction at the top of rail (typical at guard rails).
- 7. Beams shall be flush framed with floor joists, typical (UON).
- 8. The abbreviation "VLAM" indicates "Versallam" products as manufactured by Boise Cascade (or approved equivalent).
- 9. Exterior walls shall be 2x8 studs @ 24" o.c. w/ double top plate and single bottom plate (typ.).
- 10. Shearwalls (shown shaded) shall have 7/16" OSB wall sheathing w/ all edges fastened to 2x lumber using 8d nails @ 4" o.c. Add blocking between studs as necessary. Long dimension of sheathing panels may be placed either vertically or horizontally. If placed horizontally, then end joints shall be offset 4'-0". Connect sheathing to interior supports w/ 8d nails @ 12" o.c.
- II. Top of Steel ("TOS") shall be El. 108'-11" unless noted otherwise by a "+" or "-" from this elevation (G.C. shall verify this elevation prior to steel fabrication).
- 12. Add additional framing as necessary to support garage door components in accordance with building code and manufacturer's requirements.

Post bearing on beam

Column between basement floor & 1st floor

Lintel (see G8 / S5.1 for typical lintel framing)

PRELIMINARY NOT FOR CONSTRUCTION

UNDER NO CIRCUMSTANCES SHALL THIS DRAWING BE USED FOR BIDS, DEVELOPMENT OF SHOP DRAWINGS, OR FABRICATION OF NEW MATERIALS.

ISSUED FOR PERMIT ONLY

Price Structural Engineers, Inc.

8/18/10

75 farms edge road north yarmouth, maine 04097 telephone 207 846 0099 fax 207 846 1633

NEW 3-UNIT BLDG. LEDMAN & MYERS

PORTLAND, ME 04101

ARCHITECTS 62 CUMBERLAND AVENUE

124 FORE STREET

KAPLAN THOMPSON

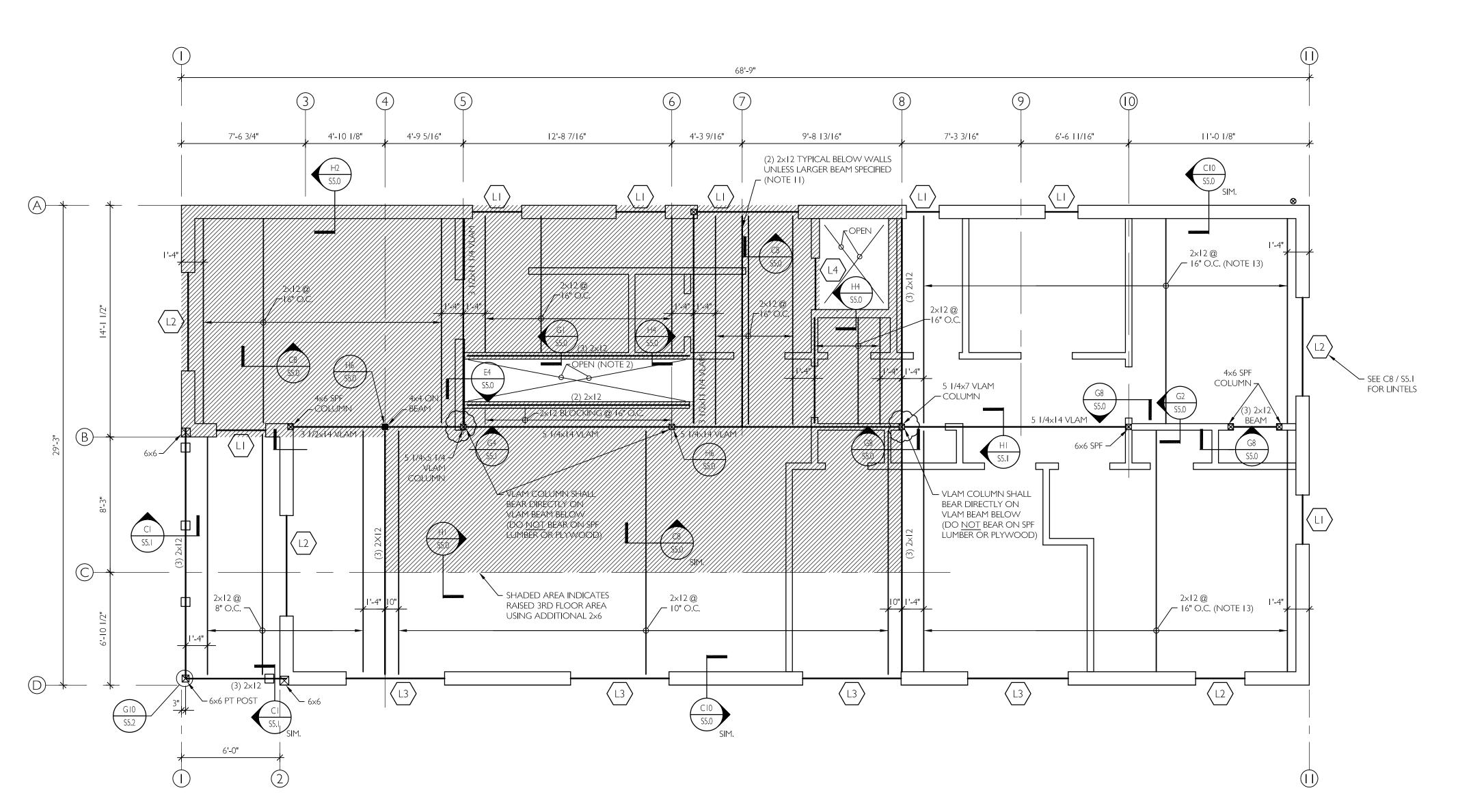
PORTLAND, ME 04101

AS NOTED SCALE **ENGINEER:** 8/8/10 DATE:

FIRST FLOOR FRAMING PLAN PROJECT NO.: **129-10**

NOTES: 1. See Drawing \$1.0 for additional notes and requirements. See Drawings S5.0, S5.1, and S5.2 for required typical details. 2. Finalize exact locations for stairs and other floor openings with architectural drawings. Sizes and locations of floor openings shown on structural drawings should be considered approximate. 3. Spacing of floor framing materials shall not exceed 24" on center. Add additional joists and other components as necessary to accommodate this requirement. 4. PT shall be pressure treated #1 SYP (typical, unless noted otherwise). All Simpson hangers in contact with pressure treated lumber to have ZMAX finish (typ.) <u>KEY</u> 5. Align column centerlines with columns above, typical. Add post within floor cavity between columns, typical (see H6 / S5.0). Post bearing on beam or lintel 6. See Arch. Dwgs. for Deck Guardrail requirements. G.C. shall construct guard rail system capable of withstanding 20 pounds per lineal foot Column between applied in any direction at the top of rail (typical at all guard rails). 1st floor and 2nd floor 7. Beams shall be flush framed with floor joists, typical (UON). 8. The abbreviation "VLAM" indicates "Versallam" products as manufactured Lintel (see G8 / S5.1 for typical lintel framing) by Boise Cascade (or approved equivalent). 9. Exterior walls shall be 2x8 studs @ 24" o.c. w/ double top plate and single bottom plate (typ.). 10. Walls labeled as "shearwalls" shall have 7/16" OSB wall sheathing w/ all edges fastened to 2x lumber using 8d nails @ 4" o.c. Add blocking between studs as necessary. Long dimension of sheathing panels may be 68'-9" placed either vertically or horizontally. If placed horizontally, then end joints shall be offset 4'-0". Connect sheathing to interior supports w/ 8d nails @ 12" o.c. II. Interior walls parallel to floor joist span shall be supported by either double joists centered below wall or solid lumber blocking spanning 7'-6 3/4" 4'-10 1/8" 4'-9 5/16" 12'-8 7/16" 4'-3 9/16" 9'-8 13/16" 7'-3 3/16" 6'-6 11/16" 11'-0 1/8" between joists (spacing blocking @ 2'-8" o.c.), typical (UON). 12. Interior wall segments located 6" northeast of grid B shall be framed with 2x6 studs @ 16" o.c. r 4x6 SPF COLUMN 2×12 @ -- 24" O.C. 24" O.C. — 5 I/4×7 VLAM - SEE SCHEDULE C8 / S5.1 COLUMN SHALL FOR LINTELS (TYP.) - BEAR ON VLAM BEAM 6×6 SPF COLUMN 7 5 I/4× 7 VLAM 5 I/4× 7 VLAM COLUMN -COLUMN \ COLUMN -5 I/4× 7 VLAM - COLUMN 3 1/2×14 VLAM 3 1/2×14 VLAM <u>5</u> 1/4×14 VLA<u>M</u> 6x6 SPF -COLUMN COLUMN COLUMN 2x6 @ 16" O.C. (TYP. @ GRID 8 WALLS, NOTE 12) 2×12 @ -- 24" O.C. PRELIMINARY NOT FOR CONSTRUCTION UNDER NO CIRCUMSTANCES SHALL THIS DRAWING BE USED FOR BIDS, DEVELOPMENT OF SHOP DRAWINGS, OR SECOND FLOOR FRAMING PLAN 1/4" = 1'-0" FABRICATION OF NEW MATERIALS. WALLS SHOWN EXTEND BETWEEN IST FLOOR AND 2ND FLOOR TYPICAL SIMPSON HANGER SCHEDULE (UON) ISSUED FOR PERMIT ONLY Price Structural SIMPSON HANGER FASTENERS MEMBER Engineers, Inc. (I) 2x6 LUS26-Z (FACE MOUNT) 10d NAILS 75 farms edge road north yarmouth, maine 04097 telephone 207 846 0099 fax 207 846 1633 LUS-210 (FACE MOUNT) $(1) 2 \times 12$ 10d NAILS HU212-2 (FACE MOUNT) $(2) 2 \times 12$ 16d NAILS KAPLAN THOMPSON NEW 3-UNIT BLDG. ARCHITECTS LEDMAN & MYERS HU212-3 (FACE MOUNT) $(3) 2 \times 12$ 16d NAILS 62 CUMBERLAND AVENUE 124 FORE STREET HB3.56/11.25 (TOP FLANGE) 3 1/2 × 11 1/4 VLAM PORTLAND, ME 04101 PORTLAND, ME 04101 16d NAILS SCALE AS NOTED NOTE: All holes in Simpson Hangers shall have fasteners. Contact PSE if additional guidance is needed SECOND FLOOR FRAMING PLAN **ENGINEER:** SIMPSON HANGER SCHEDULE 8/8/10 DATE: PROJECT NO.: **129-10**

8/18/10



THIRD FLOOR & LOW ROOF FRAMING PLAN 1/4" = 1'-0" WALLS SHOWN EXTEND BETWEEN 2ND FLOOR & 3RD FLOOR

NOTES:

- 1. See Drawing \$1.0 for additional notes and requirements. See Drawings S5.0, S5.1, and S5.2 for required typical details.
- 2. Finalize exact locations for stairs and other floor openings with architectural drawings. Sizes and locations of floor openings shown on structural drawings should be considered approximate.
- 3. Spacing of floor framing materials shall not exceed 16" on center (UON). Add additional joists and other components as necessary to accommodate this requirement.
- 4. PT shall be pressure treated #1 SYP (typical, unless noted otherwise). All Simpson hangers in contact with pressure treated lumber to have ZMAX
- 5. Align column centerlines with columns above, typical. Add post within floor cavity between columns, typical (see H6 / S5.0).
- 6. See Arch. Dwgs. for Deck Guardrail requirements. G.C. shall construct guard rail system capable of withstanding 20 pounds per lineal foot

applied in any direction at the top of rail (typical at all guard rails).

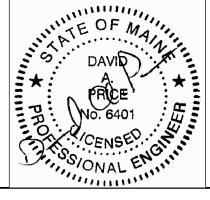
- 7. Beams shall be flush framed with floor joists, typical (UON).
- 8. The abbreviation "VLAM" indicates "Versallam" products as manufactured by Boise Cascade (or approved equivalent).
- 9. Exterior walls shall be 2x8 studs @ 24" o.c. w/ double top plate and single bottom plate (typ.).
- 10. Walls labeled as "shearwalls" shall have 7/16" OSB wall sheathing w/ all edges fastened to 2x lumber using 8d nails @ 4" o.c. Add blocking between studs as necessary. Long dimension of sheathing panels may be placed either vertically or horizontally. If placed horizontally, then end joints shall be offset 4'-0". Connect sheathing to interior supports w/ 8d nails @ 12" o.c.
- 11. Interior walls parallel to floor joist span shall be supported by either double joists centered below wall or solid lumber blocking spanning between joists (spacing blocking @ 2'-8" o.c.), typical (UON).
- 12. Interior wall segments located 6" northeast of grid B shall be framed with 2x6 studs @ 16" o.c.
- 13. Roof mounted equipment, including solar panels, shall be supported by a minimum of (2) 2x12 rafters face nailed together. Notify PSE if equipment load exceeds 300 lbs. at any rafter connection.

PRELIMINARY NOT FOR CONSTRUCTION

UNDER NO CIRCUMSTANCES SHALL THIS DRAWING BE USED FOR BIDS, DEVELOPMENT OF SHOP DRAWINGS, OR FABRICATION OF NEW MATERIALS.

ISSUED FOR PERMIT ONLY

8/18/10



Price Ctructural Engineers, Inc.

Post bearing on beam or lintel

2nd floor and 3rd floor

Lintel (see G8 / S5.1 for

typical lintel framing)

75 farms edge road north yarmouth, maine 04097 telephone 207 846 0099 fax 207 846 1633

NEW 3-UNIT BLDG. LEDMAN & MYERS

62 CUMBERLAND AVENUE

PORTLAND, ME 04101

KAPLAN THOMPSON ARCHITECTS

> 124 FORE STREET PORTLAND, ME 04101

AS NOTED SCALE **ENGINEER:** 8/8/10 DATE:

PROJECT NO.: **129-10**

HIRD FLOOR & LOW ROOF FRAMING PLAN

43'-11" 6'-0" 4'-10 1/8" 4'-9 5/16" 12'-8 7/16" 4'-3 9/16" 9'-8 13/16" 2×8 @ 12" O.C. \ LOAD BEARING ┌ 6×6 COLUMN WALL W/ 2×6 4x6 COLUMN -4x6 COLUMN ¬ STUDS @ 16" O.C. 5 1/4×11 7/8 VLAM – 6x6 COLUMN SEE LINTEL SCHEDULE C8
FOR REQUIREMENTS. S5.1 (2) KING STUDS REQUIRED @ LINTELS LONGER THAN 7'-0" (TYP.)

HIGH ROOF FRAMING PLAN 1/4" = 1'-0"

WALLS SHOWN EXTEND BETWEEN 3RD FLOOR AND HIGH ROOF

NOTES:

- I. See Drawing \$1.0 for additional notes and requirements. See Drawings S5.0, S5.1, and S5.2 for required typical details.
- 2. Finalize exact locations of roof openings with architectural drawings. Sizes and locations of roof openings shown on structural drawings should be considered approximate.
- Spacing of rafter framing materials shall not exceed 12" on center. Add additional blocking and other components as necessary to accommodate this requirement.
- 4. PT shall be pressure treated #1 SYP (typical, unless noted otherwise). All Simpson hangers in contact with pressure treated lumber to have ZMAX

<u>KEY</u>

Column between

Lintel (see G8 / S5.1 for typical lintel framing)

3rd floor and roof

Lintel (see G8 / S5.1 for

- 5. Beams shall be flush framed with rafters, typical (UON).
- 6. Unless noted otherwise, lintels at exterior walls shall be (3) 2x8's nailed The abbreviation "VLAM" indicates "Versallam" products as manufactured by Boise Cascade (or approved equivalent).
- 7. Exterior walls shall be 2x8 studs @ 24" o.c. w/ double top plate and single bottom plate (typ.).
- 8. Walls labeled as "shearwalls" shall have 7/16" OSB wall sheathing w/ all edges fastened to 2x lumber using 8d nails @ 4" o.c. Add blocking between studs as necessary. Long dimension of sheathing panels may be placed either vertically or horizontally. If placed horizontally, then end joints shall be offset 4'-0". Connect sheathing to interior supports w/ 8d nails @ 12" o.c.
- 9. Interior wall segments located 6" northeast of grid B shall be framed with 2x6 studs @ 16" o.c.
- 10. Roof mounted equipment, including solar panels, shall be supported by a minimum of (2) 2x8 rafters face nailed together. Notify PSE if equipment load exceeds 300 lbs. at any rafter connection.

PRELIMINARY

NOT FOR CONSTRUCTION

UNDER NO CIRCUMSTANCES SHALL THIS DRAWING BE USED FOR BIDS, DEVELOPMENT OF SHOP DRAWINGS, OR FABRICATION OF NEW MATERIALS.

ISSUED FOR PERMIT ONLY

Price Ctructural Fingineers, Inc.

8/18/10

75 farms edge road north yarmouth, maine 04097 telephone 207 846 0099 fax 207 846 1633

KAPLAN THOMPSON

NEW 3-UNIT BLDG. LEDMAN & MYERS

ARCHITECTS

62 CUMBERLAND AVENUE 124 FORE STREET PORTLAND, ME 04101 PORTLAND, ME 04101

SCALE AS NOTED **ENGINEER:** 8/8/10 DATE: PROJECT NO.: **129-10**

FRAMING PLAN

