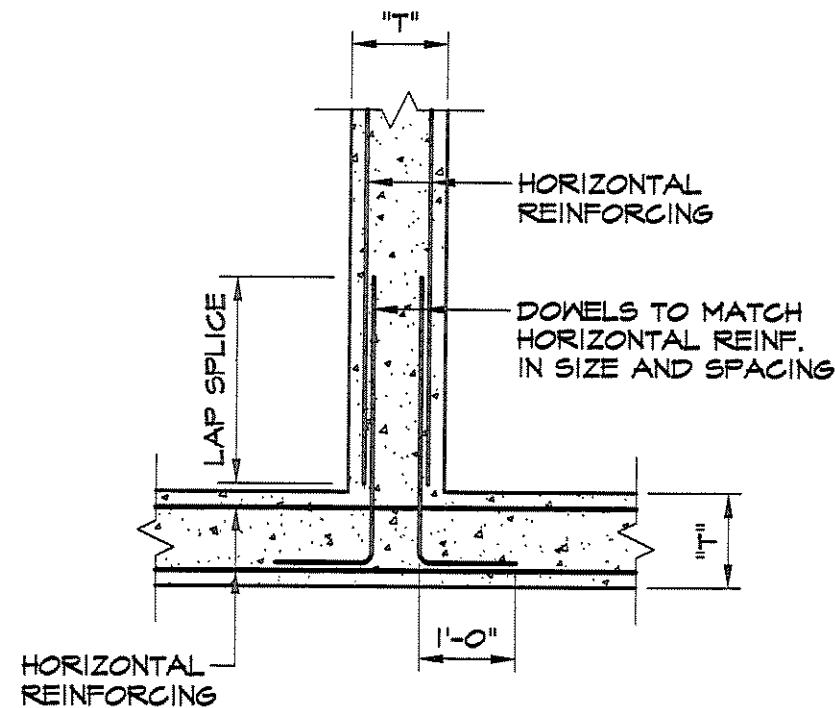
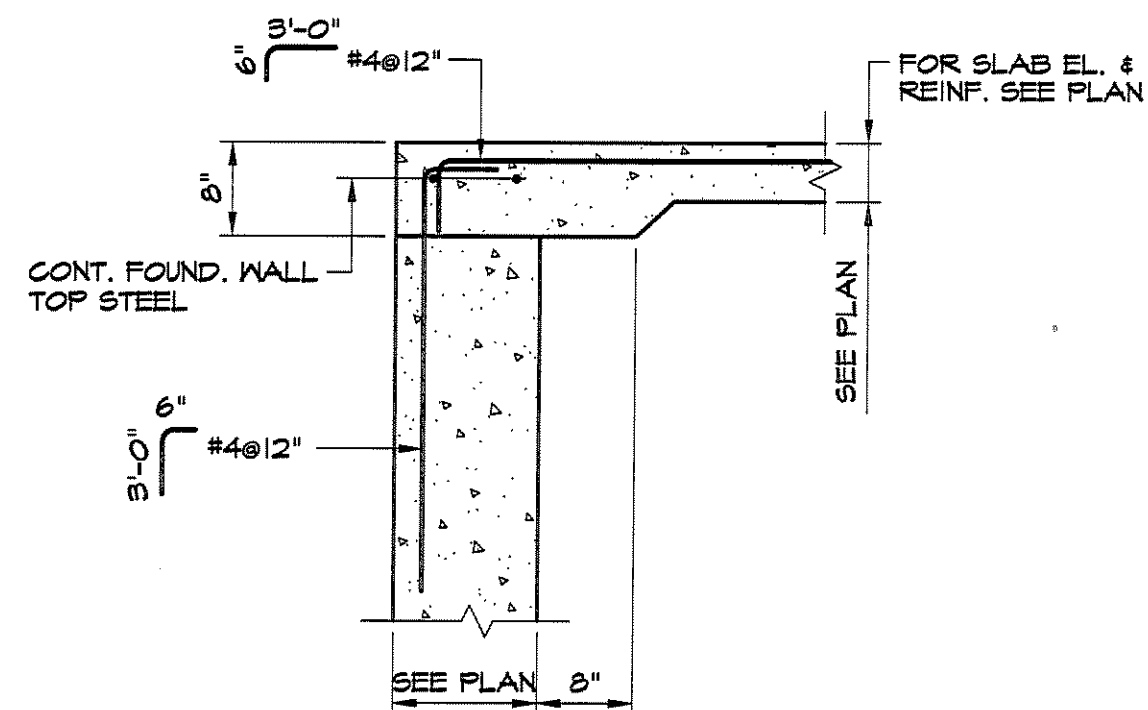


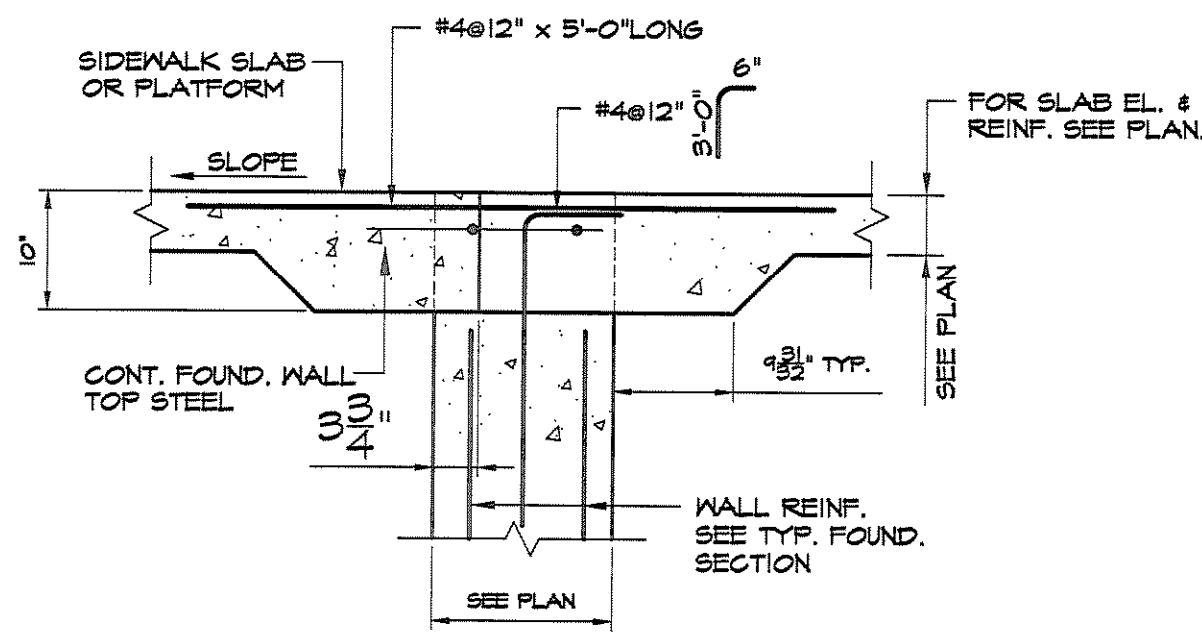
HORIZONTAL REINFORCING AT CORNER AND END OF CONCRETE WALLS AND FOOTINGS



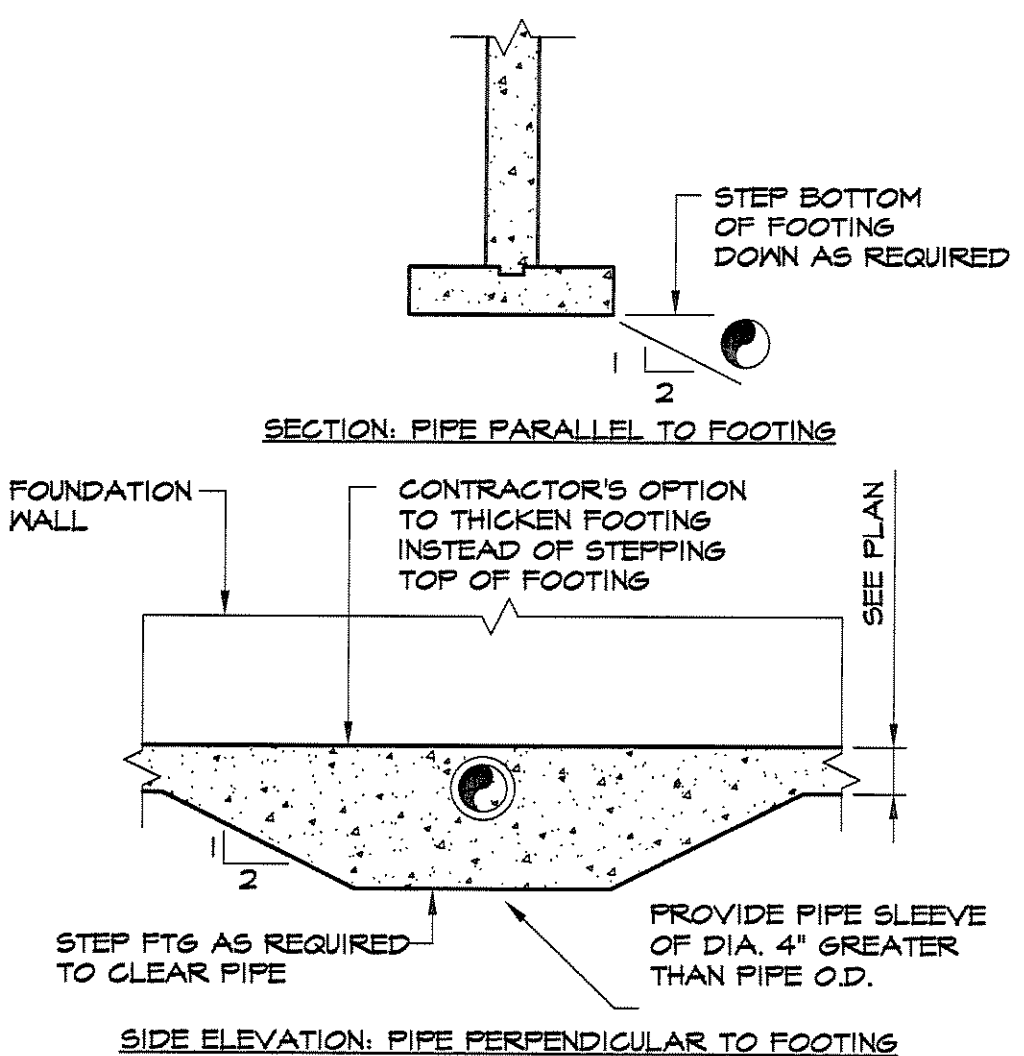
HORIZONTAL REINFORCING OF CONCRETE WALLS & FOOTINGS



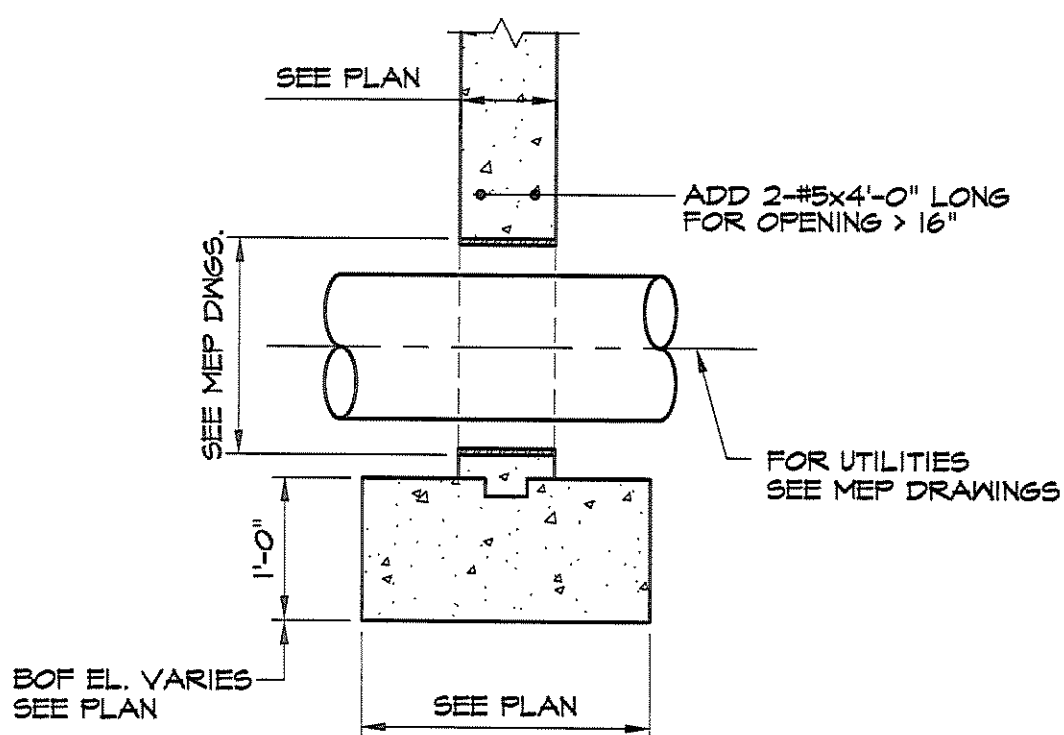
**TYPICAL WALL SECTION AT DOORWAY
TOW ELEVATION = TOP OF SLAB ELEVATION**



**TYPICAL WALL SECTION AT DOORWAY
W/SIDEWALK OR PLATFORM
TOW ELEVATION = TOP OF SLAB ELEVATION**



TYPICAL FOOTING DETAILS AT PIPES



TYPICAL UTILITY SLEEVE
NOTE: STEP FOOTING DOWN AS REQUIRED TO ACCOMMODATE UTILITY SLEEVE ELEVATION.

GENERAL NOTES:

- The design is in accordance with the International Building Code 2003.
- The structural drawings shall be used in conjunction with the architectural, mechanical, electrical, plumbing, and landscape drawings and specifications.
- Details shown as typical are applicable to all similar conditions.
- All dimensions, elevations and conditions shall be verified in the field by the contractors and any discrepancies shall be brought to the attention of the Engineer for clarification before proceeding with the affected part of the work. For work attached to or within existing structures, the contractors shall determine all necessary dimensions, elevations and conditions required for the accurate fabrication and erection of the building components. The contractor shall verify all dimensions and conditions at the site and report any discrepancy to the engineer before ordering material and proceeding with the work. Dimensions and elevations noted in the contract documents as (+/-) and all field conditions shall be verified in the field (V.I.F.) by the contractors prior to the submission of shop drawings. Upon receipt of shop drawings, the engineer has the right to assume that all field dimensions, elevations and conditions have been verified by the contractors and that the shop drawings accurately reflect such verifications unless stated otherwise on the shop drawings.
- The contractor is entirely responsible for the stability of the structure during all phases of erection & construction.
- Where drawings and specifications show conflicting information, it shall be brought to the attention of the Engineer for clarification.

FOUNDATIONS:

- Foundations shall bear on compacted granular fill or natural undisturbed soils having a minimum bearing capacity of 1 1/2 tons per square foot (as verified by the Geotechnical Engineer). Structural fill shall meet the requirements of the Sebago Technics Geotechnical Report dated Feb. 12, 2008.
- All exterior foundations shall be a minimum of 4'-6" below finished grade.
- No foundations or slabs shall be placed in water or on frozen ground.
- The contractor should review the Geotechnical Report prepared by the Geotechnical Consultants. Any recommendations made by the Report shall become part of the job specifications.
- Backfill on both sides of foundation and retaining walls at the same time, maintaining equal heights of backfill on each side, until final grade is reached on one side.

REINFORCED CONCRETE:

- All structural concrete shall be normal weight, stone aggregate concrete, and shall be proportioned, mixed and placed under the supervision of a control engineer in accordance with ACI 318, 318 and 301 standards, latest editions. Concrete shall develop the following 28 day strengths:
 - Concrete Flatwork exposed to weather 4000 psi (6% air entrained)
 - Exterior walls, footings, piers and slabs 3500 psi (6% air entrained)
 - Second floor Post-Tensioned Slab 5000 psi
 - All other concrete 3500 psi without air
- Reinforcing bars including stirrups shall conform to ASTM A615 with 60,000 psi yield strength with minimum anchorage and splice requirements for reinforcing in accordance with ACI 318, latest edition. Welded wire fabric shall conform to ASTM A185.
- Slabs on grade shall be placed in accordance with the latest ACI recommendations.
- Slabs on grade shall be placed on a layer of well graded granular fill compacted to 95% of maximum dry density.
- Provide concrete pads for mechanical equipment according to the requirements of the manufacturer and in accordance with the typical details, and mechanical drawings.
- Detailing of reinforcement shall be according to the latest edition of ACI 318 "Details and Detailing of Concrete Structures".
- Not all openings through concrete slabs and walls are shown on structural drawings. Openings indicated on the drawings or any additional openings or inserts required must be verified with respective trades before placement of concrete.
- See architectural drawings for finishes, depressions, neglots, notches, and other architectural features.
- Concrete exposed to the exterior shall be air entrained.
- Unless noted otherwise, provide the following clear cover for reinforcing steel:
 - Footings: 3"
 - Foundation Walls: 1 1/2"
 - Interior Slabs: 1"
 - Exterior Slabs: 2"
 - Columns, Piers or Pilasters: 1 1/2" to ties
- All exposed concrete to be rubbed to a smooth finish.

STRUCTURAL STEEL & METAL DECK:

- All structural steel work shall conform to the "Specifications for Design, Fabrication and Erection of Structural Steel for Buildings" of the American Institute of Steel Construction.
- The structural steel shall conform to the following:
 - Structural shapes: ASTM A572 (Grade 50) or A992
 - Plates and angles: ASTM A36
 - Structural tubing: ASTM A500 Grade B or C
 - Structural pipe: ASTM A500 Grade C
- All column ends shall be sawed or milled.
- The contractor shall supply all plates, clips, seat angles, connections, etc. as required for completion of the structure, even if such items are not explicitly called for on the architectural or structural drawings.
- All connections of non-composite beams where reactions are not given on the plans shall be designed for the Allowable Uniform Loads on Beams divided by two.
- Design and detail all connections according to the AISC specifications.
- Design all brace connections to develop the full capacity of the member unless otherwise noted.
- All connections shall be bolted with ASTM A325 or A490 high-strength bolts or welded in accordance with AWS and AISC requirements.
- The fabricator shall submit job standards for each type of connection to be used on the project. If shop drawings are submitted without prior submittal of job standards the shop drawings will be returned without review.
- All deck to be placed continuously over two or more spans except in areas where there is only one span.

WOOD CONSTRUCTION:

- All lumber used shall conform to the following species:
 - All lumber for trusses shall be as required by the truss supplier.
 - Laminated Veneer Lumber (LVL) shall have an allowable bending stress of 2600 psi, an allowable shear stress of 285 psi, and a modulus of elasticity of 1.9 x 10⁶ psi.
 - Parallels (LVL) shall have an allowable bending stress of 2400 psi, an allowable compression stress parallel to grain of 2400 psi, and a modulus of elasticity of 2.0 x 10⁶ psi.
 - All other lumber shall be spruce-pine-fir No. 1 / No. 2 or better as follows:
 - Studs - No. 1 / No. 2 or better
 - Joists and Rattens - No. 1 / No. 2 or better
 - Beams and Girders - No. 1 or better
 - All pressure treated wood shall be SYP #2 or better and treated with ACQ-C or ACQ-D Carbonate preservative.
- Wood joists shall be designed for loads shown, supplier to submit stamped calculations and shop drawings for approval.
- All metal straps shall conform to the Truss Plate Institute.
- All wood in contact with concrete shall be pressure treated.
- All exterior walls shall be sheathed in 1/2" APA exterior grade, Exposure 1 (24/16) plywood or OSB (unless noted otherwise).
- All floor sheathing shall be 3/4" Stud - I - Floor (24) plywood or OSB glued and nailed to floor members.
- All roof sheathing shall be 5/8" APA Exposure 1 (40/20) plywood or OSB (unless noted otherwise). Provide plywood ridge clips at ridge and hip clips.
- Nailing Pattern for Wood Sheathing:
 - Roof... 8d (13) nails 6" at edges and 12" at interior.
 - Wall... 6d (13) nails 6" at edges and 12" at interior.
 - Floor... 8d (13) nails 6" at edges and 12" at interior, unless noted otherwise.
- The truss fabricator shall design all wood trusses for the live and dead loads shown on drawings. The fabricator shall be required to submit shop drawings and stamped calculations for approval to the Engineer. Shop drawings shall include erection drawings, details, bridging and other customary information required to properly construct the roof trusses. The Truss Supplier shall provide all hangers for LVLs and trusses. The hanger marks shall be shown and marked on the Erection Plans. The Truss Supplier shall coordinate supports for hanging pipes, mechanical units and other equipment.
- The contractor shall adequately brace the wood trusses during erection. Installation of permanent bracing shall be in accordance with the truss designer's requirements.
- At all interior load bearing walls and all non-load bearing walls over 8' in height, provide one row of wood blocking at mid-height of studs.
- All mechanical fasteners in contact with pressure treated wood shall be hot-dip galvanized or mechanically deposited zinc coated fasteners. Hot-dip galvanized fasteners should meet ASTM A153, with 2-ounces of zinc coating per square foot minimum. Mechanically deposited zinc coated fasteners shall meet ASTM B633 Class 55 or greater.
- All mechanical connectors in contact with pressure treated wood shall be hot-dip galvanized connectors. All hot-dip galvanized connectors shall meet ASTM A653, Class 65 with 1.85-ounces of zinc coating per square foot minimum or Type 304 and 316 stainless steel products. Fasteners and connectors used together should be of the same type (e.g. hot-dip nails with hot-dip joist hangers).
- All mechanical connectors in contact with pressure treated wood and not meeting the above corrosion protection requirements shall be isolated from contact with the pressure treated wood by means of three layers of 15-lb felt paper.

ENGINEERED WOOD TRUSSES:

- Truss design shall be prepared by the truss manufacturer in accordance with the truss plate institutes specifications and under the supervision of a professional engineer licensed in the Commonwealth of Massachusetts. All truss design drawings and calculations shall be submitted to the architect / engineer for review and shall be signed and sealed by the truss design engineer.
- The configuration of the truss web members shall be determined by the truss manufacturer.
- Floor and roof trusses are to be spaced at 24" o.c. unless otherwise noted on plans.
- The uniform loads indicated in the schedule in combination snow drift loads shall be used to design hip and/or girder trusses as required.
- The maximum truss live load deflection shall be span/240 for roof trusses and span/360 for floor trusses.
- Truss bridging shall be installed as required by the truss manufacturer's design in accordance with the Truss Plate Institute Specifications & Recommendations.
- All roof trusses shall be designed to withstand all applied wind loads at site in combination with loads indicated above and in accordance with the Massachusetts Building Code "CMR 780 6th edition" windward, leeward and suction wind pressures shall be considered in the design.
- All roof and floor truss shop drawings shall be submitted to the Architect/Engineer for approval prior to fabrication.
- Trusses shall be stored in accordance with the manufacturer's requirements.
- Roof trusses with spans greater than 5'-0" shall be connected at the bearing locations at each end as noted below:
 - Where the roof truss bears on a double 2x plate, the truss shall be connected with a minimum 2-1/2" toenails and a Simpson H2.5 hurricane anchor at each end of truss.
 - Where the roof truss connects to another truss or beam, it shall be connected with a galvanized metal truss anchor or hanger capable of resisting gravity and wind loads.

DESIGN LOADS:

The building has been designed to conform to the 2003 International Building Code, and to resist the following loads:

- Wind:**
- Wind Speed (3 Second Gust) V=100 mph
 - Wind Importance Factor: I=1.0
 - Wind Exposure: "B"
- Snow:**
- Ground Snow:Pg=50 psf
Flat Roof Snow:Pf=35 psf
Snow Exposure Factor:Ce=1.00
Snow Load Importance Factor:I=1.0
Thermal Factor:Ct=1.0
- Seismic Design:**
- Seismic Design Category: "D"
 - Seismic Use Group: "I"
 - Spectral Response Coefficients: Sds=0.371, Sd1=0.160
 - Site Class "D"
 - Basic Seismic Force Resisting System: Concrete Shear Wall Below 2nd Floor Wood & S/WB Shear Walls above 2nd Floor
 - Design Base Shear: V=16.0 k
 - Analysis Procedure: V=Cs*W

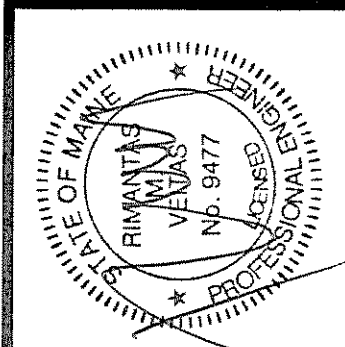
- SHOP DRAWINGS:**
- All shop drawings submitted to the Engineer should indicate the date, revision number and issue description of the reference drawings (the structural contract drawings used to prepare the shop drawings). If shop drawings are not prepared according to the latest structural drawings, or if shop drawings are submitted without indicating reference drawings, the shop drawings will be returned without review.
 - All shop drawings shall be checked by the Subcontractor and reviewed by the General Contractor prior to submission. Shop drawings which have not been checked by the Subcontractor or reviewed by the General Contractor will be returned without review.
 - Review of shop drawings by the Engineer does not relieve the Contractor from full conformance to the contract documents.

ABBREVIATIONS ON STRUCTURAL DRAWINGS:

- | | | | |
|--------|-------------------------|--------|--------------------------|
| A.B. | Anchor Bolt | L.P. | Low Point |
| A.R. | Anchor Rod | LVL | Laminated Veneer Lumber |
| ARCH. | Architectural/Architect | MC | Moment Connection |
| BOF | Bottom of Footing | MIN. | Minimum |
| CU | Control Joint | N.S. | Near Side |
| C | Center Line | O.C. | On Center |
| CONC. | Concrete | E | Plate |
| CMU | Concrete Masonry Unit | P.T. | Pressure Treated |
| DIA. | Diameter | RD | Root Drain |
| DWGS. | Drawings | REINF. | Reinforced / Reinforcing |
| EL. | Elevation | REQ'D | Required |
| EP | Each Face | RTU | Roof Top Unit |
| EOD | Edge of Deck | T&B | Top & Bottom |
| EN B. | Each Way Bottom | TOC | Top of Concrete |
| EXIST. | Existing | TOS | Top of Steel |
| F.N. | Foundation | TOW | Top of Wall |
| F.S. | For Side | TYP. | Typical |
| FR. | Footing | UNP. | Unless Noted Otherwise |
| H.P. | High Point | VERT. | Vertical |
| HSS | Hollow Structural Steel | V.I.F. | Verify in Field |
| HORZ. | Horizontal | W | With |
| LAM | Parallam | | |

BAR SIZE	CONCRETE REINFORCING SPLICE SCHEDULE					
	"LAP SPLICES"		"TENSION LAP SPLICES"		"COMPRESSION" "LAP SPLICES"	
	ALL CONCRETE		f _c '=3000	f _c '=4000	ALL CONCRETE	
3	14"	28"	21"	24"	19"	12"
4	18"	37"	29"	32"	25"	15"
5	23"	46"	36"	40"	31"	19"
6	27"	56"	43"	48"	37"	23"
7	32"	61"	48"	53"	43"	27"
8	36"	69"	53"	59"	49"	31"
9	41"	78"	61"	67"	57"	36"
10	46"	87"	70"	76"	66"	41"
11	50"	96"	79"	85"	74"	46"

- NOTES:**
- ALL SPLICES TO BE "LAP SPLICES" UNLESS NOTED OTHERWISE IN SECTIONS.
 - TENSION AND COMPRESSION LAP SPLICE WILL BE INDICATED ON PLANS AND SECTIONS.
 - A TOP BAR IS A HORIZONTAL WITH AT LEAST 12" OF FRESH CONCRETE BELOW.



OWNER:
**53 DANFORTH STREET, LP
C/O THE SZANTON COMPANY**
ONE CITY CENTER - 4TH FLOOR
PORTLAND, ME 04101

**ARCHETYPE, P.A.
ARCHITECTS**
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

53 DANFORTH
53 DANFORTH STREET
PORTLAND, MAINE

Project:

Revisions:	28 May 2008 - 50% MSHA Submittal
	01 July 2008 - 90% MSHA Submittal
	15 July 2008 - Pricing Set
	25 July 2008 - 100% MSHA Submittal

Date: 28 May 2008
Scale: 1/8" = 1'-0"

**TYPICAL DETAILS &
GENERAL NOTES**

VEITAS ARCHITECTS
engineers

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S2.01