## GENERAL NOTES

1. THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES. INCONSISTENCIES BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
2. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
3. ALL DIMENSIONS, EXISTING CONDITIONS, AND AS-BUILT CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
4. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE ONLY AFTER THE STRUCTURAL WORK CONTAINED IN THE S- DRAWINGS IS COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
5. SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWINGS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AS DETERMINED BY THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER RESERVES THE RIGHT TO INTERPRET DETAILS TO ADDRESS OTHER PROJECT CONDITIONS.
6. PROVIDE AND INSTALL NECESSARY MATERIAL TO CONNECT ELEVATOR SUPPORT BEAMS AND GUIDE RAILS. LOCATION AND SIZE OF MEMBERS AND ANY INSERTS REQUIRED SHALL BE DETERMINED BY THE ELEVATOR MANUFACTURER.
7. THE CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR ALL PARTS OF THE WORK, INCLUDING DESCRIPTION OF SHORING, AND CONSTRUCTION METHODS AND SEQUENCING WHERE APPLICABLE. NO PERFORMANCE OF THE WORK INCLUDING, BUT NOT LIMITED TO, DEMOLITION OF EXISTING STRUCTURE, OR FABRICATION OR ERECTION OF NEW STRUCTURAL ELEMENTS, SHALL COMMENCE WITHOUT REVIEW OF THE SHOP DRAWINGS BY THE ARCHITECT AND ENGINEER. SUBMIT ONE COPY AND ONE SEPIA. COPY WILL BE REVIEWED AND SEPIA WILL BE RETURNED. FOR SHOP DRAWINGS AND SUBMITTALS REQUIRED, REFERENCE THE PROJECT SPECIFICATION.
8. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
9. IN ACCORDANCE WITH THE MAINE UNIFORM BUILDING AND ENERGY CODE/INTERNATIONAL BUILDING CODE (2009 EDITION, SECTION 1704.1), A STATEMENT OF SPECIAL INSPECTIONS IS REQUIRED AS A CONDITION FOR PERMIT ISSUANCE BY THE LOCAL CODE OFFICIAL. THIS STATEMENT SHALL INCLUDE A COMPLETE LIST OF MATERIALS AND WORK REQUIRING SPECIAL INSPECTIONS, THE INSPECTIONS TO BE PERFORMED AND A LIST OF THE INDIVIDUALS, APPROVED AGENCIES AND FIRMS INTENDED TO BE RETAINED FOR CONDUCTING SUCH INSPECTIONS.
10. REFERENCE THE PROJECT SPECIFICATIONS FOR ALL TESTING REQUIREMENTS.

## DESIGN LOADS

1. BUILDING CODE:
   MAINE UNIFORM BUILDING AND ENERGY CODE
   INTERNATIONAL BUILDING CODE, 2009 EDITION
   ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
2. DESIGN FLOOR LIVE LOADS:
   STAIRS: 100 PSF
   PARKING: 40 PSF
   RETAIL: 100 PSF
3. DESIGN ROOF SNOW LOAD:
   GROUND SNOW LOAD (Pg): 60 PSF
   SNOW EXPOSURE FACTOR (Ce): 1.0
   SNOW LOAD IMPORTANCE FACTOR (Is): 1.0
   SNOW LOAD THERMAL FACTOR (Ct): 1.2
   FLAT ROOF SNOW LOAD (Pf): 52 PSF + DRIFT
4. DESIGN WIND LOAD:
   BASIC WIND SPEED: 100 MPH
   WIND LOAD IMPORTANCE FACTOR (Iw): 1.0
   WIND EXPOSURE: C
   INTERNAL PRESSURE COEFFICIENT: .18
   COMPONENTS & CLADDING PER ASCE 7-05
5. DESIGN SEISMIC LOADS:
   EQUIVALENT LATERAL FORCE PROCEDURE
   SEISMIC OCCUPANCY CATEGORY: II
   SEISMIC IMPORTANCE FACTOR (Ie): 1.0
   MAPPED SPECTRAL RESPONSE ACCELERATIONS:
   Ss: 0.315
   S1: 0.077
   SEISMIC SITE CLASS: D
   SPECTRAL RESPONSE COEFFICIENTS:
   Sds: 0.325
   Sd1: 0.123
   SEISMIC DESIGN CATEGORY: B
   BASIC STRUCTURAL SYSTEM: BUILDING FRAME SYSTEM
   BASIC SEISMIC FORCE RESISTING SYSTEM:
   SPECIAL PRECAST SHEAR WALLS
   RESPONSE MODIFICATION FACTOR (R): X: 5.0
   Y: 5.0
   SEISMIC RESPONSE COEFFICIENT (Cs): X: 0.043
   Y: 0.043

NOT FOR CONSTRUCTION
REVISED PERMIT SET
4/15/16

## FOUNDATION NOTES

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH RECOMMENDATIONS DEVELOPED BY THE PROJECT GEOTECHNICAL CONSULTANT; HALEY & ALDRICH, INC.
2. THE SUBSURFACE CONDITIONS PRESENT AT THE SITE ARE SUMMARIZED IN THE REPORT ENTITLED, "GEOTECHNICAL DATA REPORT, MIDTOWN DEVELOPMENT, SOMERSET STREET, PORTLAND, MAINE," PREPARED BY HALEY & ALDRICH, INC., DATED 8 MAY 2015. REFER TO SPECIFICATION SECTION 02010 – EXISTING SUBSURFACE CONDITIONS FOR DETAILED INFORMATION ON THE SUBSURFACE SOIL, ROCK AND GROUNDWATER CONDITIONS PRESENT AT THE SITE.
3. REFER TO SPECIFICATION SECTION 02140 – DEWATERING AND DRAINAGE CONTROL FOR CONSTRUCTION DEWATERING AND PERMANENT DRAINAGE REQUIREMENTS.
4. REFER TO SPECIFICATION SECTION 02250 – LATERAL EARTH SUPPORT FOR SPECIFIC DESIGN AND SUBMITTAL REQUIREMENTS AND REQUIREMENTS FOR FURNISHING, INSTALLING, MONITORING AND REPORTING AND REMOVAL OF TEMPORARY LATERAL EARTH SUPPORT SYSTEMS.
5. REFER TO SPECIFICATION SECTION 02300 – EARTHWORK FOR ALL EXCAVATION, SUBGRADE PREPARATION AND PROTECTION, BACKFILL AND COMPACTION REQUIREMENTS.
6. REFER TO SPECIFICATION SECTION 02380 – FOUNDATION PILES FOR SPECIFIC SUBMITTAL REQUIREMENTS AND REQUIREMENTS FOR FURNISHING, TESTING, INSTALLING AND CONCRETING OF FOUNDATION PILES.
7. PILE LENGTHS SHALL BE ESTIMATED BY THE CONTRACTOR BASED ON THEIR INTERPRETATION OF SUBSURFACE INFORMATION PROVIDED IN THE GEOTECHNICAL DATA REPORT (SEE NOTE 2, ABOVE) AND THE REQUIREMENTS OF SPECIFICATION SECTION 02380 – FOUNDATION PILES.

## CONCRETE NOTES

1. CONCRETE WORK SHALL CONFORM TO "ACI MANUAL OF CONCRETE PRACTICE", LATEST EDITION. THIS PUBLICATION IS AVAILABLE THROUGH THE AMERICAN CONCRETE INSTITUTE (248) 848-3800.
2. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
3. PROVIDE PVC SLEEVES WHERE PIPES PASS THROUGH EXTERIOR CONCRETE, OR SLABS.
4. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315, LATEST EDITION.
5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND BE PROVIDED IN FLAT SHEETS.
6. FIBER REINFORCEMENT SHALL BE TYPE III SYNTHETIC VIRGIN HOMOPOLYMER POLYPROPYLENE FIBERS CONFORMING TO ASTM C1116.
7. MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
   A. SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH, 3.0"
   B. FORMED SURFACES IN CONTACT WITH EARTH OR EXPOSED TO WEATHER
      #5 BARS, 5/8" DIAMETER WIRE AND SMALLER, 1.5"
      #6 THROUGH #11 BARS, 2.0"
   C. SURFACES NOT IN CONTACT WITH EARTH OR EXPOSED TO WEATHER
      WALLS, SLABS, JOISTS #11 BARS AND SMALLER, 1.0"
      BEAMS, GIRDERS, AND COLUMNS; ALL REINFORCEMENT, 1.5"
9. REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT NECESSARY SPLICES OR HOOKED BARS AT DISCONTINUOUS ENDS. PROVIDE TENSION LAP SPLICES PER THE SCHEDULE S-0.1, FOR ALL REINFORCING UNLESS OTHERWISE SHOWN ON PLAN.
10. WELDING OF REINFORCEMENT IS NOT PERMITTED
11. FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS, PROVIDE SUPPLEMENTAL REINFORCING AROUND OPENING AS SHOWN ON THE CONTRACT DOCUMENTS TYPICAL DETAILS. NO PENETRATIONS SHALL BE MADE THROUGH FOOTINGS WITHOUT WRITTEN PERMISSION FROM ENGINEER.
12. CONSTRUCTION JOINTS SHOWN ON DRAWINGS ARE MANDATORY. OMISSIONS, ADDITIONS, OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMITTAL OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER. WHERE CONSTRUCTION JOINTS ARE NOT SHOWN, OR WHEN ALTERNATE LOCATIONS ARE PROPOSED, DRAWINGS SHOWING LOCATION OF CONSTRUCTION AND CONTROL JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED. VERTICAL CONSTRUCTION JOINTS AND STOPS IN CONCRETE BEAMS/ GRADE BEAMS SHALL BE MADE AT MIDSPAN OR AT POINTS OF MINIMUM SHEAR, UNLESS NOTED OTHERWISE.

## CONCRETE NOTES (CONT.)

13. SPACING OF CONSTRUCTION JOINTS, UNLESS NOTED OTHERWISE SHALL BE AS FOLLOWS:
    A. FOOTINGS AND WALLS
       MAX LENGTH 40'-0" OR 15'-0" FROM ANY CORNER**
    B. SLABS ON GRADE
       SEE FOUNDATION PLAN

** EXCEED ONLY WHERE INTERMEDIATE CONTRACTION JOINTS ARE PROVIDED. MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS.

14. ANCHOR RODS SHALL BE HEADED RODS CONFORMING TO ASTM F1554, GRADE 36 KSI WELDABLE STEEL, UNLESS NOTED OTHERWISE ON DRAWINGS. ANCHOR RODS THAT ARE TO BE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED.
15. ALL GROUT BENEATH BASE PLATES & BEARING PLATES SHALL BE "5-STAR" 5000-PSI NON-SHRINK GROUT BY U.S. GROUT CORP.
16. SLAB THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION, SUBGRADE FLUCTUATIONS, AND TO OBTAIN THE SPECIFIED SLAB ELEVATION AT THE FLATNESS AND LEVELNESS INDICATED.
17. INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO THE SCHEDULED CONCRETE PLACEMENT. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO THE SCHEDULED COMPLETION OF THE INSTALLATION OF REINFORCEMENT.
18. ALL ITEMS TO BE EMBEDDED INTO CONCRETE SHALL BE INSTALLED PRIOR TO PLACEMENT OF CONCRETE. PROVIDE ADDITIONAL REINFORCEMENT AND/OR TEMPLATES AS REQUIRED TO ENSURE THE CORRECT POSITIONS OF EMBEDMENTS. "WET SETTING" OF EMBEDMENTS INTO CONCRETE IS STRICTLY PROHIBITED. EMBEDMENTS INCLUDE, BUT NOT BY LIMITATION, REINFORCEMENT, REINFORCING DOWELS, EMBEDDED PLATES, ANCHOR RODS, ANCHOR INSERTS, SLEEVES, LOAD TRANSFER PLATES, DIAMOND DOWELS, AND SHELF BULK HEADS.

## STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC "SPECIFICATION FOR THE DESIGN FABRICATIONS, AND ERECTION OF STRUCTURAL STEEL" LATEST EDITION, AND THE "CODE OF STANDARD PRACTICE", LATEST EDITION.
2. STRUCTURAL STEEL: STEEL PLATES, SHAPES, AND BARS, CONFORM TO ASTM A36 UNLESS NOTED OTHER WISE (U.N.O.). STRUCTURAL STEEL SHAPES DESIGNATED ON THE DRAWINGS FOR WIDE-FLANGE SECTIONS: ASTM A992 (ASTM A572 GRADE 50 WITH SPECIAL REQUIREMENTS PER AISC TECHNICAL BULLETIN #3 DATED MARCH, 1997)
3. STRUCTURAL TUBING: CONFORM TO ASTM A500 GRADE B46 KSI.
4. CONNECTION DESIGN FOR THIS PROJECT IS THE RESPONSIBILITY OF THE FABRICATOR. CONNECTION CALCULATIONS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE SHALL BE SUBMITTED WITH THE SHOP DRAWINGS FOR THIS PROJECT. SEE THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
5. FIELD CONNECTIONS SHALL BE BOLTED USING ASTM A325N HIGH STRENGTH BOLTS (U.N.O.) EXCEPT WHERE SLIP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY A325 (SC) ON THE DRAWINGS. PROVIDE SLIP CRITICAL (SC) CONNECTIONS AT ALL MOMENT CONNECTIONS, BRACED FRAMES, RELIEVING ANGLES AND AS OTHERWISE NOTED. USE A490 BOLTS WHERE INDICATED.
6. WHERE WELDING IS INDICATED, ALL WELDING SHALL CONFORM TO AWS D1.1-LATEST EDITION. ELECTRODES SHALL CONFORM TO AWS A5.1 E70XX SERIES WITH PROPER ROD TO PRODUCE OPTIMUM WELD (LOW HYDROGEN)
7. SEE CONCRETE NOTES AND DRAWINGS FOR ANCHOR BOLT INFORMATION, TYP.
8. PROVIDE 1/4" THICK LEVELING PLATE UNDER ALL COLUMN BASE PLATES UNLESS OTHERWISE NOTED. LEVELING PLATES SHALL BE SET AND GROUTED PRIOR TO ERECTING COLUMNS.
9. PROVIDE ALL MISCELLANEOUS ANGLES, PLATES, ANCHOR BLOTS ETC., SHOWN ON ARCHITECTURAL DRAWINGS FOR SUPPORT OF BLOCKING, PARAPETS, FINISHES, ETC. COORDINATE WITH MISCELLANEOUS METAL FABRICATOR TO ENSURE COMPLETE COVERAGE OF ALL ITEMS.

## MASONRY NOTES

1. ALL MASONRY CONSTRUCTION SHALL CONFORM TO ACI 530.1-LATEST EDITION.
2. ALL CONCRETE MASONRY UNITS WALL BE ASTM C90 GRADE N, TYPE I STANDARD WEIGHT BLOCKS INCLUDING STRETCHERS AND CORNER BLOCKS. MINIMUM PRISM STRENGTH OF BLOCK SHALL BE F'M = 1500 PSI IN 28 DAYS.
3. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270, TYPE M OR S
4. GROUT SHALL CONFORM TO ASTM-C476
5. REINFORCING FOR BOND BEAMS, LINTEL BLOCKS AND VERTICAL WALL REINFORCING SHALL BE BILLET STEEL CONFORMING TO ASTM A615, GRADE 60
6. HORIZONTAL JOINT REINFORCING SHALL BE DUR-O-WAL TRUSS DESIGN, STANDARD CLASS MILL GALVANIZED WITH 3/16" DIAMETER SIDE RODS AND 9 GAUGE CROSS TIES, U.N.O. REINFORCING SHALL BE PLACED IN MASONRY WALLS AT EVERY SECOND BLOCK COURSE.
7. CONCRETE MASONRY UNITS SHALL BE LAID IN RUNNING BOND UNLESS OTHERWISE NOTED. PROVIDE FULL MORTAR COVERAGE ON ALL WEBS AND FACE SHELLS. PROVIDE CORNER BLOCKS AND END BLOCKS TO FINISH ALL 90 DEGREE CORNERS AND WALL OPENINGS.
8. PROVIDE LINTELS AT WALL PENETRATIONS AS SHOWN IN THE LINTEL SCHEDULE.
9. STANDARD LAP LENGTH OF GRADE 60 MASONRY REINFORCING BARS SHALL BE 48 BAR DIAMETERS FOR BARS #5 AND SMALLER. PROVIDE MECHANICAL SPLICES RATED FOR 125% THE BAR YIELD STRENGTH FOR BARS #6 AND LARGER. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCEMENT.
10. CELLS TO BE GROUTED SHALL BE 2-CELL BLOCK. ALIGN CELLS TO MAINTAIN A CLEAR UNOBSTRUCTED, CONTINUOUS VERTICAL CHASE. CELLS MUST BE KEPT CLEAN OF PROTRUSIONS OR FINS OF MORTAR. FILL CELLS OF MASONRY UNITS AND WALL CAVITIES WHERE INDICATED WITH 2500 PSI GROUT. MAXIMUM GROUT LIFT WITHOUT CLEAN-OUTS SHALL BE 4'-0". HIGH LIFT GROUTING SHALL CONFORM TO CODE REQUIREMENTS WITH A MINIMUM CEMENT CONTENT OF 8 SACKS PER CUBIC YARD. SUPPORT ALL VERTICAL BARS IN CENTER OF GROUTED CELLS WITH VERTICAL BAR POSITIONER.
11. FIELD PENETRATIONS THROUGH BLOCK WALLS SHALL NOT BE MADE THROUGH BOND BEAMS, LINTELS OR GROUTED CELLS.

## PRECAST CONCRETE NOTES

### GENERAL

1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING: ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", PCI MNL-116 "MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF PRECAST AND PRESTRESSED CONCRETE PRODUCTS", PCI MNL-120 "DESIGN HANDBOOK-PRECAST AND PRESTRESSED CONCRETE", AND ACI 362.1R "GUIDE FOR DESIGN OF DURABLE CONCRETE PARKING STRUCTURES" .
2. REFER TO THE DRAWINGS AND SPECIFICATIONS FOR SPECIAL FINISHES, COLORS, AND DETAILING REQUIREMENTS FOR THE EXTERIOR EXPOSED STRUCTURAL ELEMENTS, OR OTHER ELEMENTS DESIGNATED AS COMMERCIAL STRUCTURAL PRODUCT WITH ARCHITECTURAL FINISH.
3. THE PRECASTER MAY PROPOSE MODIFICATIONS OR CHANGES TO THE ELEMENT CONFIGURATION, REINFORCING AND/OR CONNECTION DETAILS FROM THOSE SHOWN IN THESE DRAWINGS. ACCEPTANCE OF SUCH MODIFICATIONS IS AT THE SOLE DISCRETION OF THE ENGINEER OF RECORD. THE CONTRACTOR SHALL SUBMIT WITH HIS PROPOSAL ALL INFORMATION REQUESTED BY THE ENGINEER, INCLUDING:
   A. FULL DESCRIPTION OF PRODUCTS AND INSTALLATION, INCLUDING CERTIFICATES, IF APPROPRIATE.
   B. IF A STRUCTURAL CHANGE IS INVOLVED, STRUCTURAL REDESIGN BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MAINE.
   C. ANY ADDITIONAL INFORMATION AS REQUESTED.

### DESIGN

1. THE PARKING STRUCTURE CONTRACT DRAWINGS ARE BASED ON PERFORMANCE TYPE DESIGN FOR THE PRECAST SUPERSTRUCTURE. AN INTEGRAL PART OF THIS PROJECT IS THE PREPARATION OF FINAL DESIGN DRAWINGS, DESIGN CALCULATIONS AND SHOP DRAWINGS NECESSARY FOR FABRICATION AND CONSTRUCTION OF ALL PRECAST ELEMENTS, CONNECTIONS AND ACCESSORIES IN ACCORDANCE WITH ALL CODES AND DESIGN REQUIREMENTS. SEE SPECIFICATION SECTION 03410 FOR ADDITIONAL REQUIREMENTS.
2. PRECAST STRUCTURAL ELEMENTS AND CONNECTIONS SHALL BE DESIGNED FOR THE LOADS AND CRITERIA PROVIDED ON THIS DWG, AS WELL AS ALL ADDITIONAL FORCES AND STRESSES INDUCED DURING FABRICATION, STRIPPING, YARD HANDLING, TRANSPORTATION AND ERECTION. PRECAST ELEMENT AND CONNECTION DESIGN SHALL CONFORM TO PCI MNL-120, LATEST EDITION.

### FABRICATION AND ERECTION

1. UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS, MANUFACTURING TOLERANCES AND ERECTION TOLERANCES SHALL CONFORM TO PCI MNL-120 AND PCI MNL-135 "TOLERANCE MANUAL FOR PRECAST AND PRESTRESSED CONSTRUCTION," LATEST EDITION.
2. THE PRECASTER SHALL BE A CURRENT MEMBER OF PCI, CERTIFIED C3/C4.
3. THE PRECAST ERECTOR SHALL BE A CERTIFIED PRECAST ERECTOR, CATEGORY S2.
4. THE PRECASTER/ERECTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING AS REQUIRED TO PLUMB AND STABILIZE THE STRUCTURE DURING CONSTRUCTION. TEMPORARY GUYING AND BRACING SHALL REMAIN IN PLACE UNTIL ALL STRUCTURAL MEMBERS AND CONNECTIONS ARE INSTALLED.
5. THE PRECASTER SHALL FURNISH, INSTALL AND WARRANTY ALL PRECAST CONCRETE ELEMENTS, ALL CONNECTING AND SUPPORTING HARDWARE, GROUT, CAULKING AND OTHER WORK REQUIRED TO PROVIDE A FUNCTIONAL PRECAST CONCRETE STRUCTURE.
6. PRECAST CONCRETE ELEMENTS SHALL BE HANDLED WITH CARE DURING ALL PHASES OF MANUFACTURING, SHIPPING AND ERECTION. PROVIDE ADDITIONAL REINFORCEMENT IF REQUIRED FOR HANDLING PROCEDURES. DEFECTIVE OR DAMAGED ELEMENTS WILL BE REPLACED BY THE PRECASTER, OR REPAIRED BY THE PRECAST CONTRACTOR IF PERMITTED BY THE ENGINEER OF RECORD.
7. PROVIDE ALL OPENINGS, REVEALS, DRIPS, BLOCKOUTS, INSERTS, ETC. CAST INTO PRECAST ACCORDING TO THE CONTRACT DOCUMENTS.
8. UNLESS OTHERWISE NOTED, ALL OPENINGS IN PRECAST MEMBERS SHOWN ON THESE DRAWINGS SHALL BE CAST-IN DURING FABRICATION.
9. THE EDGES OF FLOOR ELEMENTS SHALL BE PREPARED ACCORDING TO THE DETAILS ON THESE DRAWINGS TO RECEIVE THE APPROVED JOINT SEALANT SYSTEM.
10. INSTALL EXPANSION JOINTS AFTER ALL GUYING AND BRACING HAS BEEN REMOVED AND COLUMN PLUMBNESS HAS BEEN MEASURED TO BE WITHIN TOLERANCE.
11. THE PRECAST CONTRACTOR SHALL CLEAN ALL SURFACES OF THE PRECAST WORK AS NECESSARY TO REMOVE DIRT, DEBRIS AND STAINS, INCLUDING WELD STAINS, AFTER ERECTION IS COMPLETE.

### COLD FORMED FRAMING NOTES:

1. PRODUCTS AND INSTALLATION SHALL MEET THE REQUIREMENTS OF AISI SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS, 1996 EDITION & 1999 SUPPLEMENT, AWS SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES, D1.3, ASTM 653 STANDARD SPECIFICATION FOR SHEET STEEL, ZINC (GALVANIZED) OR ZINC-IRON ALLOY-COATED (GALVANIZED) BY THE HOT DIP PROCESS AND ASTM C 955 STANDARD SPECIFICATION FOR LOAD BEARING (TRANSVERSE AND AXIAL STEEL STUDS, RUNNER (TRACK) AND BRACING AND BRIDGING, FOR SCREW APPLICATION OF GYPSUM BOARD AND METAL PLASTER BASES.
2. FRAMING MATERIALS SHALL BE AS INDICATED ON THE DRAWINGS AS MANUFACTURED BY DIETRICH INDUSTRIES, INC. 500 GRANT ST., SUITE 2226, PITTSBURGH, PA. 15219, (412) 281-2805. APPROVED EQUALS WILL BE CONSIDERED.
3. ALL GALVANIZED STUDS, JOISTS, TRACK, BRIDGING AND ACCESSORIES SHALL BE FORMED FROM STEEL HAVING A G-60 COATING MEETING ASTM C 955.
4. WALL BRIDGING AND SOLID BLOCKING SHALL BE PROVIDED TO BRACE STUDS AGAINST ROTATION. INSTALL WALL BRIDGING AND BLOCKING PER DETAILS DWG S-X.X.
5. SCREWS SHALL BE SELF DRILLING, SELF TAPPING, ZINC COATED AND NOT LESS THAN #10.
6. SCREW PENETRATION THROUGH JOINED MATERIALS SHALL NOT BE LESS THAN THREE EXPOSED SCREW THREADS.
7. PROTECTIVE COATINGS ON SCREW FASTENERS SHALL BE COMPATIBLE WITH LIGHT GAUGE MATERIAL BEING JOINED.
8. CONTRACTOR SHALL REFER TO INSTALLATION INSTRUCTIONS PUBLISHED BY THE SCREW MANUFACTURER AND ASTM C954 FOR MINIMUM SPACING AND EDGE DISTANCE REQUIREMENTS AND TORQUE REQUIREMENTS.
9. POWDER ACTUATED FASTENERS INTO STEEL SHALL BE HILTI X-U.
10. POWER ACTUATED FASTENERS DESIGNATED 0.145" DIAMETER INTO CONCRETE SHALL BE HILT X-U PINS AND SHALL NOT BE INSTALLED UNTIL FULL COMPRESSIVE STRENGTH IS OBTAINED. PROVIDE 1" MIN EMBEDMENT.
11. CONTRACTOR SHALL REFER TO INSTRUCTIONS PUBLISHED BY THE P.A.F. MANUFACTURER FOR MINIMUM SPACING, EDGE DISTANCE AND CONCRETE EMBEDMENT AND ADDITIONAL INSTALLATION REQUIREMENT.
12. CUTTING OF COLD FORMED STEEL FRAMING SHALL BE BY SAW, SHEAR OR PLASMA CUTTING EQUIPMENT. OXYACETYLENE TORCH CUTTING IS NOT PERMITTED.
13. TEMPORARY BRACING SHALL BE PROVIDED AND REMAIN IN PLACE UNTIL WORK IS PERMANENTLY STABILIZED.
14. TOP TRACKS SHALL BE CONTINUOUS. WHERE SPLICING OF TRACK IS NECESSARY BETWEEN STUD SPACING, A PIECE OF STUD SHALL BE PLACED BETWEEN ADJACENT TRACKS AND FASTENED BY WELDS OR SCREWS TO EACH SIDE OF THE TRACK, EACH END, U.N.O.
15. SPLICING OF FRAMING COMPONENTS, OTHER THAN TRACK, IS NOT PERMITTED.
16. A SEALANT SHALL BE APPLIED TO CONCRETE OR MASONRY SURFACES PRIOR TO ANCHORING TRACKS.
17. PROVIDE HORIZ STRAP BRIDGING FOR ALL WALLS. HORIZ BRIDGING SHALL BE CONT 20GA x 1 1/2" (MIN) WIDE STEEL STRAPS ON EA FACE OF STUD, LOCATED AT MAX 4'-0" ON CENTER FOR THE FULL HEIGHT OF THE WALL. PROVIDE TRACK SOLID BLOCKING AT 10'-0" ON CENTER ALONG THE WALL AT EA LINE OF BRIDGING. PROVIDE AN ADDITIONAL LINE OF BRIDGING A MAX OF 12" BELOW ALL SLIP TRACK CONNECTIONS. ALTERNATELY, BRIDGING CHANNELS AND BRIDGING CLIPS MAY BE USED.
18. SLIDE CLIPS SHALL BE SUPERSTUD DC1500 DEFLECTION CLIPS.


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STATE OF MAINE
TODD M. NEAL
NO. 9406
LICENSED
PROFESSIONAL ENGINEER

midtown Portland

Somerset Street
Elm Street
Portland, ME

Building 2
GENERAL NOTES


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MEP Engineer
McCabe & Associates
FP Engineer
McCabe & Associates


SCALE: N.T.S.

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