

GENERAL NOTES

- THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE THE CONTRACT DOCUMENTS. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS, GENERAL NOTES, AND SITE DRAWINGS. CONSULT THE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLET, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
- ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- THE CONTRACTOR IS DESIGNED TO BE SELF-SUPPORTING AND STABLE ONLY AFTER THE STRUCTURE IS COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL TEMPORARY BRACINGS, GUYS OR TENDONS, SUCH MATERIALS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWINGS SHALL BE AS INDICATED. TYPICAL FOR SIMILAR CONDITIONS AS DETERMINED BY THE ARCHITECT.
- 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.
- ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE OBSERVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.

- DESIGN LOADS**
- BUILDING CODE:**
BOCA NATIONAL BUILDING CODE (1989)
ASCE 7-88 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
 - DESIGN LIVE LOADS:**
FIRST FLOOR (BAGGAGE CLAIM) 100 PSF
SECOND FLOOR OFFICE 50 PSF LL, 20 PSF DL
MECHANICAL PENITHOUSE 80 PSF
 - DESIGN LIVE LOADS:**
ROOF 60 PSF
SNOW EXPOSURE FACTOR (CE): 0.80
SNOW LOAD IMPORTANCE FACTOR (I): 1.20
SNOW LOAD WIND EXPOSURE FACTOR (E): 1.0
FLAT ROOF SNOW LOAD (P_s): 46 PSF + DRIFT
 - DESIGN WIND LOADS:**
WIND SPEED: 85 MPH
WIND EXPOSURE FACTOR (K): 1.23
WIND EXPOSURE: C
 - DESIGN LIVE LOADS:**
PEAK VELOCITY-RELATED ACCEL (A_v): 0.12
SEISMIC PERFORMANCE CATEGORY: C
SOIL-PROFILE TYPE: S1
ANALYSIS: EQUIVALENT FORCE PROCEDURE
- STRUCTURAL SYSTEM/SEISMIC SYSTEM**
CENTRIC BRACED FRAMES
R=5, CD=4.5
- FOUNDATION NOTES: (SOIL SUPERSEDED)**
- FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH A REPORT ENTITLED "FOUNDATION DESIGN FOR THE PORTLAND INTERNATIONAL BAGGAGE CLAIM FACILITY" AMENDED BY PROJECT MEMORANDUM DATED OCTOBER 17, 2002, BOTH PREPARED BY R.W. & ASSOCIATES, INC. THESE DOCUMENTS ARE PART OF THIS WORK. REFER TO THESE DOCUMENTS FOR SPECIFIC RECOMMENDATIONS.
 - FOUNDATION DESIGN IS BASED ON SHALLOW SPREAD FOOTINGS BEARING ON SUFFICIENT UNDISTURBED NATIVE SOILS AND/OR NEW COMPACTED STRUCTURAL FILL EXTENDING TO UNDISTURBED NATIVE SOIL.
 - ALLOWABLE BEARING CAPACITY 3,000 PSF
 - EXTEND BOTTOM OF EXTERIOR FOOTINGS AT LEAST 4.0 FEET BELOW THE FINAL EXTERIOR GRADE FOR PROTECTION AGAINST FROST.
 - ALL PAVEMENT, EXISTING FOUNDATIONS AND UNCONTROLLED GRANULAR FILL SHOULD BE REMOVED FROM THE AREA OF THE PLANNED ADDITION TO AT LEAST 8 FEET BEYOND THE FOOTING LIMIT.
 - NO FILL FOR BUILDING SUPPORT SHALL BE PLACED UNDER SUBGRADES HAVE BEEN OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
 - CONVALENT STRUCTURAL FILL SHALL BE USED TO BACKFILL TO THE DESIGN FOOTING SURFACE AND BENEATH ALL SLABS ON GRADE. REFER TO SECTION 6.1 IN THE REPORT.
 - STRUCTURAL FILL SHALL BE PLACED AND COMPACTED IN UNIFORM LIFTS AS REFERENCED IN THE GEOTECHNICAL REPORT. HAND OPERATED EQUIPMENT SHALL BE USED FOR COMPACTION WITHIN 8 FEET OF NEW FOUNDATION WALL.
 - PROVIDE A P.C. DRAINAGE AROUND THE PERIMETER OF THE STRUCTURE TO COLLECT AND REMOVE EXCESSIVE WATER. PROVIDE A DRAINAGE SYSTEM TO GRAVITY FLOW TO PROPERLY DESIGNED OUTLET. REFER TO SITE DRAWINGS FOR ADDITIONAL INFORMATION.
 - SOILS EXPOSED AT THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITION. FOUNDATION EXCAVATIONS AND SHOULD BE ADEQUATELY PROTECTED FROM DRAINAGE AWAY FROM THE EXCAVATIONS AND NOT BE ALLOWED TO DRILL. FOUNDATION EXCAVATIONS AND SHOULD BE ADEQUATELY PROTECTED FROM FOR EXCAVATIONS AND APPROPRIATE DRAINAGE MEASURES SHALL BE EMPLOYED.
 - SLOPE FOOTING EXCAVATIONS AS REQUIRED FOR STABILITY AND SAFETY OR BRACED EXCAVATIONS SHALL BE DESIGNED IN ACCORDANCE WITH OSHA REQUIREMENTS. PROVIDE SHEETING OR SHORING IN ACCORDANCE WITH OSHA REQUIREMENTS REGISTERED IN THE STATE OF MAINE.

CONCRETE NOTES

- CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318 - 85)", AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301-86)", THESE PUBLICATIONS IS AVAILABLE THROUGH THE AMERICAN CONCRETE INSTITUTE (248) 848-3800.
- GENERAL CONTRACTOR, CONSTRUCTION MANAGER AND/OR OWNER'S CLERK OF THE WORKS SHALL HAVE AVAILABLE ON SITE AT ALL TIMES A COPY OF ACI FIELD MANUAL, 1997 EDITION, AMERICAN CONCRETE INSTITUTE (248) 848-3800.
- CONCRETE SHALL BE CONTINUED CONCRETE, REPROPORTIONED, MIXED AND PLACED IN THE PRESENCE OF A REPRESENTATIVE OF AN APPROVED TESTING AGENCY.
- CONCRETE MIX DESIGN: SEE SPECIFICATIONS.
- ADJUSTMENT TO CONCRETE MIXES, MIX ADJUSTMENTS MAY BE REQUESTED BY THE CONTRACTOR, WHEN CHARACTERISTICS OF THE MATERIALS, JOB CONDITIONS, WEATHER OR OTHER CIRCUMSTANCES WARRANT, AT NO ADDITIONAL COST TO THE OWNER AS NOTED HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL WORKERS AND STRENGTH DATA MUST BE SUBMITTED AND ACCEPTED BY THE ARCHITECT BEFORE USING IN WORK.
- CONCRETE SHALL BE ORDERED AT THE PROPER ONLY IF THE MAXIMUM ORDERED WATER-CEMENT RATIO AND SLUMP ARE NOT EXCEEDED. CONTRACTOR SHALL HAVE BATCH TICKET INDICATING WATER AND CEMENT MIXED IN THE PLANT, AND SHALL RECORD EXCESSIVE ADDED AS EVIDENCE THAT THE WATER-CEMENT RATION HAS NOT BEEN EXCEEDED. ADDITIONAL DOSES OF SUPER PLASTICIZER SHOULD BE USED WHEN DELAYS OCCUR AND REQUIRED SLUMP HAS NOT BEEN MAINTAINED. A MAXIMUM OF TWO ADDITIONAL DOSES ARE PERMITTED PER ACI 213.1R RECOMMENDATIONS.
- CONCRETE MIXING: PROVIDE BATCH TICKET FOR EACH BATCH DISCHARGED AS SPECIFIED HEREIN. PROVIDE BATCH TICKET FOR EACH BATCH DISCHARGED AS SPECIFIED HEREIN. PROVIDE BATCH TICKET FOR EACH BATCH DISCHARGED AS SPECIFIED HEREIN. PROVIDE BATCH TICKET FOR EACH BATCH DISCHARGED AS SPECIFIED HEREIN. PROVIDE BATCH TICKET FOR EACH BATCH DISCHARGED AS SPECIFIED HEREIN.
- CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
- PROVIDE P.V.C. SLEEVES WHERE PIPES PASS THROUGH CONCRETE WALLS OR SLABS.
- REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 318, LATEST EDITION.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND BE PROVIDED IN FLAT SHEETS.
- FIBER REINFORCEMENT SHALL BE TYPE III SYNTHETIC VIRGIN HOMOPOLYMER POLYPROPYLENE FIBERS CONFORMING TO ACI 311.1F.
- COMPLETE SHOP DRAWINGS AND SCHEDULES OF ALL REINFORCING STEEL SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND SCHEDULE ON A SHOP DRAWINGS THE NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION. MINIMUM REQUIREMENTS SHALL BE: HIGH CHAIRS AT 4'-0" O.C.; BEAM BOLSTERS AT 5'-0" O.C.; BAR, SUB BOLSTERS, CONTINUOUS AND J-6 NOTED OTHERWISE, SHALL BE AS FOLLOWS:

- SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH, 3.0" #5 BARS, 5/8" DIAMETER WIRE, AND SMALLER, 1.5" #6 THROUGH #11 BARS, 2.0"
- SURFACES NOT IN CONTACT WITH EARTH OR EXPOSED TO WEATHER: BARS, BRACES, AND COLUMNS, ALL REINFORCEMENT, 1.5"
- REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT ALL HOOKED BARS AT DISCONTINUOUS ENDS. PROMOTE TENSION LAP SPICES FOR ALL REINFORCING UNLESS OTHERWISE SHOWN ON PLAN. SEE SCHEDULE DWG 53.
- WELDING OF REINFORCEMENT IS NOT PERMITTED.
- FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS, PROVIDE SUPPLEMENTAL REINFORCING AROUND OPENING AS SHOWN ON THE CONTRACT DOCUMENTS TYPICAL DETAILS.
- PROVIDE 10 MIL VAPOR BARRIER UNDER INTERIOR SLABS CAST ON GRADE. SEAL ALL JOINTS PER THE MANUFACTURER'S RECOMMENDATIONS.
- CONSTRUCTION JOINTS SHOWN ON DRAWINGS ARE MANDATORY. OMISSIONS, ADDITIONS, OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMITTAL OF A LOCATION FOR REVIEW BY THE STRUCTURAL ENGINEER.
- WHERE CONSTRUCTION JOINTS ARE NOT SHOWN OR WHEN ALTERNATE AND CONTROL JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED FOR REVIEW PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS.
- BRACINGS OF CONSTRUCTION JOINTS, UNLESS NOTED OTHERWISE SHALL BE AS FOLLOWS:
A) FOOTINGS AND WALLS MAX LENGTH 25'-0" AND NOT WITHIN 1'-0" OF ANY CORNER. BRACING SHALL BE 2x4 OR 2x6 CONCRETE TO COMPLETE SLAB AS SPECIFIED.
B) SLABS ON GRADE MAX AREA 6,100 SF
C) CONCRETE ON STEEL DECK MAX AREA 6,100 SF
- CONSTRUCTION JOINTS SHALL BE LOCATED WHERE ABRUPT CHANGES IN THICKNESS OCCUR.
- EXCEED ONLY WHERE INTERMEDIATE CONTRACTION JOINTS ARE PROVIDED. MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS.
- CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE WORKING OR RETARDING AGENTS ARE USED. CONSTRUCTION JOINTS SHALL STOP CONCRETE WORK SHALL BE MADE AT JOISTS OR AT POINTS OF MINIMUM SLAB.
- ANCHOR BOLTS SHALL BE HEADED BOLTS CONFORMING TO ASTM A307 UNLESS NOTED OTHERWISE ON DRAWINGS. ANCHOR BOLTS FOR EXTERIOR COLUMNS SHALL BE HOT DIPPED GALVANIZED.
- ALL GROUT BENEATH BASE PLATES & BEARING PLATES SHALL BE "3-STAR" 5000-PSI NON-SHRINK GROUT BY U.S. GROUT CORP.
- 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.

STRUCTURAL STEEL NOTES

- STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC "SPECIFICATION FOR THE DESIGN FABRICATION, AND ERECTION OF STRUCTURAL STEEL", 8TH EDITION, AND THE "CODE OF STANDARD PRACTICE, LATEST EDITION.
- UNLESS NOTED OTHERWISE (UNLESS STRUCTURAL STEEL SHEETS SPECIALLY ORDERED WITH SPECIAL REQUIREMENTS PER AISC TECHNICAL BULLETIN #3 DATED MARCH, 1987)
- STRUCTURAL TUBING: CONFORM TO ASTM A500 GRADE B46 (S3).
- FIELD CONNECTIONS SHALL BE BOLTED USING 3/4" DIAMETER ASTM A325N HIGH STRENGTH BOLTS AND 3/4" THICK END PLATES. PROVIDE 4SD 10 OR SC CONNECTIONS AT ALL CONNECTIONS AS INDICATED IN THE CONNECTIONS DESIGN. CONNECTIONS SHALL BE BOLTED TO BOLTED MOMENT CONNECTIONS AND BOLTED BRACED FRAMED CONNECTIONS.
- WELDED END PLATES SHALL BE WELDED TO WELDED CONNECTIONS TO WELDED MEMBERS. WELDED END PLATES SHALL BE WELDED TO WELDED MEMBERS. WELDED END PLATES SHALL BE WELDED TO WELDED MEMBERS. WELDED END PLATES SHALL BE WELDED TO WELDED MEMBERS.
- METAL FLOOR AND ROOF DECK SHALL BE AS INDICATED ON THE DRAWINGS IN ACCORDANCE WITH THE LATEST EDITION OF "DESIGN MANUAL FOR FLOOR AND ROOF DECK" BY THE STEEL BECK INSTITUTE. METAL FLOOR AND ROOF DECK SHALL BE FORMED ON STEEL SHEETS CONFORMING TO ASTM A611. METAL FLOOR DECK SHALL BE PAINTED.
- DESIGN AND DETAIL ALL CONNECTIONS ACCORDING TO AISC STANDARD CONNECTION TABLES. DESIGN STANDARD BEAM CONNECTIONS FOR THE MAXIMUM LOAD CAPACITY OF THE MEMBER. BRACING CONNECTIONS HAVE BEEN DETAILED ON THE DRAWINGS.
- ALL STEEL SHALL BE FABRICATED AND SHIPPED AS BARE UNPAINTED STEEL. WEATHER SHALL BE PAINTED WITH THE FABRICATOR'S RUST INHIBITIVE PRIMER. WEATHER SHALL BE PAINTED WITH THE FABRICATOR'S RUST INHIBITIVE PRIMER. WEATHER SHALL BE PAINTED WITH THE FABRICATOR'S RUST INHIBITIVE PRIMER. WEATHER SHALL BE PAINTED WITH THE FABRICATOR'S RUST INHIBITIVE PRIMER.
- COAT ALL COLUMNS BELOW SLAB WITH BITUMINOUS MASTIC.
- CONCRETE STEEL NOTES AND DRAWINGS FOR ANCHOR BOLT INFORMATION, TYP.
- PROVIDE 3/8" MINIMUM STRENGTH PLATES EACH SIDE OF BEAM WEB AT BEAMS FRAMING OVER COLUMNS AND AT BEAMS SUPPORTING COLUMNS ABOVE.
- PROVIDE 1/4" THICK LEVELING PLATES UNDER ALL COLUMN BASE PLATES UNLESS ENGINEERING COLUMNS.
- PROVIDE ALL ANGLES, PLATES, ANCHORS, BOLTS, ETC., SHOWN ON ARCHITECTURAL DRAWINGS.
- DESIGN JOISTS FOR NET UPLIFT OF 8 PSF TYPICAL.
- PROVIDE BRACING IN ACCORDANCE WITH SJI SPECIFICATIONS. PROVIDE "Y" BRACING IN ALL SPANS ADJACENT TO BEAMS AND WHERE INDICATED ON THE DRAWINGS. BRACING DESIGN SHALL BE BY THE JOIST SUPPLIER, AND SHALL BE INDICATED ON THE JOIST ERECTION DRAWINGS.
- STANDARD SPECIFICATIONS.
- SLOPE JOIST JOISTS TO ATTAIN UNIFORM BEARING ON SUPPORTING MEMBERS.
- ALL K-SERIES JOISTS SHALL HAVE WELDED CONNECTIONS. WELDS TO BE 1/8" X 2" CRITICAL CONNECTION AT THE JOISTS (T-J) ON OR NEAREST COLUMN LINES.
- EXTENDED ENDS (R-TYPE) SHALL BE PROVIDED WHERE DECK EXTENDS BEYOND SUPPORTS.
- JOIST FABRICATOR SHALL SHOW ON SHOP DRAWINGS THE DISTANCE FROM CENTER LINE OF SUPPORT TO FIRST PANEL OF JOIST.
- JOIST FABRICATOR SHALL SUPPLY ALL ANGLE BRACING, STEEL JOIST FABRICATOR SHALL PROVIDE MASONRY ANCHORS FOR BRACING.
- STABILIZER PLATES BETWEEN BOTTOM CHORD ANGLES SHALL BE PROVIDED TO BRACE THE JOIST ORDER AGAINST OVERTURNING DURING ERECTION PER OSHA REQUIREMENTS.
- JOISTS SHALL BE THOROUGHLY INSPECTED DURING FABRICATION TO ENSURE COMPLIANCE WITH CODES AND GOOD WORKMANSHIP.
- HANGERS FOR DUCTS, PIPES, UNITS, ETC., MUST BE ATTACHED TO JOISTS AT PANEL POINTS ONLY.

- METAL DECK**
- THE METAL ROOF AND FLOOR DECK SHALL BE FORMED OF STEEL SHEETS CONFORMING TO ASTM STANDARD A811.
 - FLOOR DECK SHALL BE 2 INCH DEEP, 30 GAGE (MINIMUM) GALVANIZED COMPOSITE STEEL UNITS WITH THE FOLLOWING MINIMUM SECTION PROPERTIES PER FOOT:
I_p = 0.418 IN⁴
I_m = 0.415 IN⁴
S_x = 0.360 IN³
S_y = 0.327 IN³
J = 0.376 IN⁴
J_x = 0.327 IN⁴
J_y = 0.327 IN⁴
 - METAL ROOF DECK SHALL BE 1-1/8" DEEP, 18 GAGE, PAINTED TYPE B METAL DECK WITH THE FOLLOWING MINIMUM PROPERTIES PER FOOT:
I_p = 0.376 IN⁴
I_m = 0.376 IN⁴
S_x = 0.327 IN³
S_y = 0.327 IN³
 - INSTALL DECKING AS PER DRAWINGS AND SPECIFICATIONS.

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REVISION	DATE	DESCRIPTION	APP'D	CHK'D	APP'D	CHK'D
1	4/22/04	CONCRETE DRAWINGS ISSUED FOR CONSTRUCTION	APP	THN	APP	THN
2	FEB 28 2004					

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GENERAL NOTES

EASTERLY EXPANSION OF BAGGAGE CLAIM FACILITY
PORTLAND INTERNATIONAL JETPORT, PORTLAND, MAINE

APPROVED: _____
CHECKED: _____
DESIGNED: _____
DATE: FEB 28 2004
SCALE: 1/8" = 1'-0"

SHEET NO. _____ OF _____