

STRUCTURAL NOTES

NO REVISION / SUBMISSIONS DATE

STRUCTURAL LEGEND

SYMBOLS

| | |
|--|-----------------------------------|
| | FOOTING |
| | UNREINFORCED CONCRETE MASONRY |
| | REINFORCED CONCRETE MASONRY |
| | CONCRETE |
| | BOND BEAM |
| | REIN. MASONRY PIERS |
| | DROP SLAB TO RECEIVE FLOOR FINISH |
| | THICKENED SLAB |
| | FLOOR JOINT |
| | WALL FLOOR JOINT |
| | SAWN JOIST |
| | 1' DEEP CAPPED JOIST |
| | CONCRETE SLAB TURNDOWN |
| | SLOPE (DOWN AND DROP) |
| | VERTICAL STEEL REINFORCING |
| | TOP OF STEEL ELEVATION |
| | TOP OF FOOTING ELEVATION |
| | ADD # IN CENTERLINE OF SLAB |
| | HIGH STRENGTH BOLT |
| | JOIST BOTTOM CHORD STRUT |
| | ROOF DRAIN |
| | FRAME AROUND ROOF DECK OPENING |
| | BEAM TO COLUMN MOMENT CONNECTION |

ABBREVIATIONS

| | |
|--------|-----------------------------|
| W/ | WITH |
| DBL. | DOUBLE |
| BOT. | BOTTOM |
| DJ | DOUBLE JOIST |
| SM | SIMILAR |
| T/O | THROUGHOUT |
| U.N. | UNLESS NOTED |
| P.E.J. | PRE-MOLDED EXPANSION JOINT |
| GA. | GAUGE |
| E.W. | EACH WAY |
| O.C. | ON CENTER |
| CL. | CLEARANCE |
| FD | FLOOR DRAIN |
| LLV | LONG LEG VERTICAL |
| SLV | SHORT LEG VERTICAL |
| EJ | EXPANSION JOINT |
| MB | METAL BUILDING MANUFACTURER |
| MBP | METAL BUILDING PURLINS |
| O.H. | OPPOSITE HAND |
| PB | PARALAM BEAM |
| ML | MICROLAM BEAM |
| RS | ROUGH SAWN |
| P.T. | PRESSURE TREATED |
| P.E. | PRE-ENGINEERED |

STRUCTURAL SHEET INDEX

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- S1.1 NEW ELEVATOR PLANS
- S1.2 SECTIONS
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- S2.1 FIRST FLOOR GIRT PLAN
- S2.2 SECOND FLOOR GIRT PLAN

GENERAL:

- DO NOT SCALE DRAWINGS. FOLLOW DIMENSIONS SHOWN ON PLAN OR OBTAIN ADDITIONAL INFORMATION.
- CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN HEREIN WITH ARCHITECTURAL PLANS, SECTIONS, AND DETAILS PRIOR TO CONSTRUCTION OR MATERIAL PURCHASE. CONTRACTOR SHALL NOTIFY ARCHITECT IN WRITING OF ANY DISCREPANCIES NOTED. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND ELEVATIONS NOT SHOWN HEREIN.
- CONTRACTORS SHALL VISIT THE SITE PRIOR TO BID TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE WORK OR COST THEREOF AND SHALL NOTIFY THE ARCHITECT IN WRITING PRIOR TO SUBMITTING BIDS.
- REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, CODE, SPECIFICATION, OR TENTATIVE SPECIFICATION ADOPTED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.
- NO CHANGE IN SIZE OR DIMENSION OF ANY STRUCTURAL MEMBER SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD. NO OPENING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD UNLESS SPECIFICALLY DETAILED ON THE CONTRACT DRAWINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.
- CONTRACTOR HAS THE SOLE RESPONSIBILITY FOR MEANS, METHODS, SAFETY, TECHNIQUES, SEQUENCES, AND PROCEDURES OF ALL CONSTRUCTION SHOWN HEREIN. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTIBILITY, ANALYSIS, AND ERECTION PROCEDURES, INCLUDING DESIGN AND ERECTION OF FALSE WORK, TEMPORARY BRACING, ETC. CONTRACTOR HAS THE SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS.
- THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY THE CONTRACTOR.

EXISTING CONSTRUCTION:

- DIMENSIONS INDICATED RELATIVE TO EXISTING STRUCTURES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION OR MATERIAL PURCHASE. CONTRACTOR SHALL NOTIFY ARCHITECT IN WRITING OF DISCREPANCIES.
- BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING STRUCTURE, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE EXISTING STRUCTURAL AND OTHER CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY BRACING, SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.
- BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION SURVEY OF THE EXISTING BUILDING AT LOCATIONS WHERE BUILDING ADDITIONS ARE TO BE CONSTRUCTED, AT INTERIOR OF BUILDING WITHIN 10 FEET OF ALL REMODELING WHICH AFFECTS EXISTING STRUCTURAL SYSTEMS, AND AT EXISTING EXTERIOR WALLS WHERE THEY ARE WITHIN 10 FEET OF A BUILDING ADDITION. CONTRACTOR SHALL FURNISH A REPORT TO THE ARCHITECT WHICH INCLUDES PHOTOGRAPHS WHICH DOCUMENT EXISTING BUILDING CRACKS OR OTHER COSMETIC FLAWS IN THE BUILDING. CONTRACTOR SHALL PROVIDE CRACK CONTROL MONITORS OR OTHER MONITORING DEVICES AS MAY BE WARRANTED BASED ON THE CONDITIONS OBSERVED.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ETC., NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE WORK TO THE EXISTING WORK. THE CONTRACTOR SHALL MAKE ALL FIELD MEASUREMENTS NECESSARY FOR THE COMPLETE DETAILING, FABRICATION, AND ERECTION OF ALL STRUCTURAL MEMBERS. ANY DISCREPANCY NOTED BETWEEN ASSUMPTIONS MADE ON THE DRAWINGS OF EXISTING FEATURES AND THE ACTUAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT / ENGINEER. ALL DIMENSIONS OBTAINED IN FIELD AND USED AS A BASIS OF DETAILING SHALL BE CLEARLY INDICATED ON THE SHOP DRAWINGS.
- WHERE WELDING TO AND WITHIN THE EXISTING STRUCTURE IS REQUIRED, CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID FIRE HAZARDS AND STRUCTURAL LIQUEFACTION DURING WELDING AS NECESSARY AND IN ACCORDANCE WITH LOCAL BUILDING CODES AND OSHA REGULATIONS. SAFETY PRECAUTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE REMOVAL AND/OR PROTECTION OF EXISTING COMBUSTIBLE MATERIALS. THE CONTRACTOR SHALL NOT LEAVE THE SITE EACH DAY UNTIL SATISFIED THAT NO FIRE HAZARDS EXIST.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ERECTION OF ALL SHORING NECESSARY TO SAFEGUARD THE EXISTING STRUCTURE. ANY SHORING SHOWN HEREIN IS A PARTIAL AND SCHEMATIC REPRESENTATION OF THAT REQUIRED. THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN FOR SHORING, BRACING AND PROTECTION OF THE EXISTING CONSTRUCTION. THIS PLAN SHALL INCLUDE A CONSTRUCTION SEQUENCE AND SHALL BEAR THE SEAL OF THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA AND SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO BEGINNING THE WORK.

FOUNDATIONS:

- FOUNDATION DESIGN IS BASED ON A MAXIMUM ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR SUBSURFACE CONDITIONS ENCOUNTERED IN THE FIELD DIFFERENT FROM THOSE ASSUMED OR DESIGNED.
- ALLOWABLE BEARING PRESSURE SHALL BE VERIFIED BY FIELD TESTING IN ACCORDANCE WITH REQUIREMENTS OF THE PROJECT SPECIFICATIONS. IN THE ABSENCE OF SPECIFICATION REQUIREMENTS, A DYNAMIC CONE PENETROMETER TEST (ASTM STP-399) SHALL BE PROVIDED IN THE PIT EXCAVATION.
- PIT SLAB SHALL BEAR ON SUBGRADE COMPACTED TO A MINIMUM PER ASTM D-1557.

CONCRETE:

- UNLESS OTHERWISE SHOWN, THE CENTERLINES OF ALL PIERS AND COLUMN FOOTINGS/PILE CAPS SHALL BE LOCATED ON COLUMN CENTERLINES OVER CONFORM TO THE FOLLOWING:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #5 BAR AND SMALLER: 1 1/2"
 - #6 BAR AND LARGER: 2"
 - CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
 - SLABS, WALLS, JOISTS:
 - #11 BAR AND SMALLER: 3/4"
 - #14 AND #18 BARS: 1 1/4"
 - BEAMS, COLUMNS:
 - PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS: 1 1/2"
- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A616, GRADE 60, UNLESS NOTED OTHERWISE.
- PROVIDE DOWELS OF THE SAME SIZE AND NUMBER AS THE VERTICAL WALL AND COLUMN REINFORCING, UNLESS NOTED OTHERWISE.
- REINFORCEMENT SHALL BE SPLICED ONLY AT LOCATIONS SHOWN OR NOTED ON THE STRUCTURAL DOCUMENTS, EXCEPT REINFORCING MARKED CONTINUOUS MAY BE SPLICED AT LOCATIONS DETERMINED BY THE CONTRACTOR. SPLICES AT OTHER LOCATIONS SHALL BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
- ALL CONCRETE WORK SHALL CONFORM TO ACI 318 AND CRSI STANDARDS.
- NO REINFORCING SHALL BE CUT IN FIELD. ADDITIONAL REINFORCING AND THAT QUANTITY OF REINFORCING OCCURRING AT OPENINGS SHALL BE PLACED EQUALLY EACH SIDE OF OPENING AS DETAILED.
- HOOKS IN REINFORCING ARE IN ADDITION TO LINKS SHOWN.
- UNLESS NOTED OTHERWISE, DETAILING AND FABRICATION OF REINFORCING STEEL SHALL FOLLOW ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING OF REINFORCED CONCRETE STRUCTURES" (ACI 315).
- REINFORCING SHALL BE SUPPORTED IN FORMS AND SPACED WITH WIRE BAR SUPPORTS ACCORDING TO CRSI "PLACING REINFORCING BARS", UNLESS NOTED OTHERWISE.

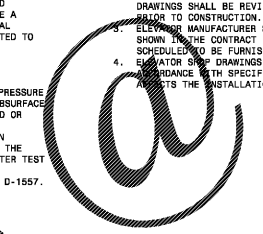
CONCRETE MASONRY:

- REINFORCED WALLS, PIERS, AND PILLASTERS, SHALL BE FILLED IN MAXIMUM 8'-0" LIFTS. FILL SHALL BE MECHANICALLY MIXED (ASTM C476) GROUT WITH MAXIMUM 1/2" DIA. AGGREGATE AND SHALL DEVELOP NOT LESS THAN 2500 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH.
- MINIMUM COMPRESSIVE STRENGTH OF CONCRETE MASONRY SHALL BE F'M = 1500 PSI.
- ALL REINFORCING SHALL BE TIED IN ONE CELLS IN THE LOCATION INDICATED ON THE STRUCTURAL DETAILS AS REQUIRED TO PREVENT DISPLACEMENT OF REINFORCING DURING PLACEMENT OF GROUT.
- VERTICAL REINFORCING SHALL BE LAPPED AT DOWELS AND SPLICES A MINIMUM OF 48 DIAMETERS BUT NOT LESS THAN 2'-0".
- WHERE REINFORCED PIERS (TYPES P1, P2, P3, ETC.) ARE INDICATED ON FOUNDATION PLAN, THEY SHALL BE DISCONTINUOUS ABOVE BEARING OF LINTEL EXCEPT AS FOLLOWS:
 - OPENINGS 4'-0" TO 8'-0": CONTINUE JAMB REINFORCING 24" ABOVE OPENING
 - OPENINGS OVER 8'-0": CONTINUE JAMB REINFORCING TO TOP OF WALL
- MASONRY CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATION FOR MASONRY STRUCTURES (ACI 530.1-99)" PUBLISHED AMERICAN CONCRETE INSTITUTE.
 - REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A616, GRADE 60.
 - FABRICATE REINFORCING BARS WHICH ARE SHOWN TO BE HOISTED BENT. ALL REINFORCING DOWELS FROM FOUNDATIONS SHALL HAVE VERTICAL REINFORCING SIZE AND SPACING INDICATED FOR CONSTRUCTION OF JOIST OVER. ALL BARS SHALL HAVE STANDARD 90° HOOKS (MINIMUM 8").
 - UNLESS INDICATED OTHERWISE IN SPECIFICATIONS OR ON ARCHITECTURAL DRAWINGS, PROVIDE 9 GA. HORIZONTAL TRUSS TYPE JOINT REINFORCING O.C. IN ALL WALLS. DISCONTINUE REINFORCING AT CONTROL JOINTS.

ELEVATOR:

- REFER TO ARCHITECTURAL DRAWINGS AND SHOP SPECIFICATIONS FOR ALL ELEVATOR REQUIREMENTS FOR THIS PROJECT.
- ALL DIMENSIONS, ELEVATIONS, BRACINGS, ETC., SHOWN FOR THE CONSTRUCTION OF ELEVATOR PIT SHALL BE SHOWN ON CONTRACT DRAWINGS SHALL BE REVIEWED AND APPROVED BY THE ELEVATOR MANUFACTURER PRIOR TO CONSTRUCTION.
- ELEVATOR MANUFACTURER SHALL REVIEW THE LOCATION AND SIZE OF HOIST BEAM SHOWN ON THE CONTRACT DOCUMENTS TO VERIFY COMPLIANCE WITH EQUIPMENT SCHEDULED TO BE FURNISHED AT ELEVATOR LOCATION.
- ELEVATOR SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW IN ACCORDANCE WITH SPECIFICATIONS PRIOR TO ANY CONSTRUCTION WORK WHICH AFFECTS THE INSTALLATION OF THE ELEVATORS.

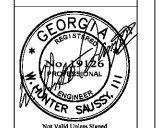
Order Plans



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