

NO.	DATE	DESCRIPTION
03/23/17	SD	

DESIGN CRITERIA:

- BUILDING CODE - INTERNATIONAL BUILDING CODE 2012
- RISK CATEGORY & IMPORTANCE FACTORS

A. RISK CATEGORY	II
B. IMPORTANCE FACTOR	1.0
C. WIND FACTOR	1.0
D. SNOW FACTOR	1.0
E. SEISMIC FACTOR	1.25
- DESIGN DEAD LOADS:

A. ROOF	PER PEMB MFR
* LIVE LOADS ARE REDUCIBLE IN ACCORDANCE WITH THE BUILDING CODE	
- DESIGN LIVE LOADS:

A. ROOF	20 PSF
* LIVE LOADS ARE REDUCIBLE IN ACCORDANCE WITH THE BUILDING CODE	
- WIND LOADS:

A. ULTIMATE WIND SPEED	120 MPH
B. DIRECTIONALITY FACTOR (K _d)	0.85
C. EXPOSURE CATEGORY	B (PER PEMB MFR)
D. ENCLOSURE CLASSIFICATION	ENCLOSED BUILDING
E. GUST EFFECT FACTOR (G _f)	0.86
F. COMPONENT AND CLADDING LOADS (100 SQ. FT. ZONES ARE PER ASCE-7)	ZONE WIDTH (w) = 6.0 FT
- ROOFS:

NEGATIVE ZONE 1	-37.9 PSF
NEGATIVE ZONE 2	-41.2 PSF
NEGATIVE ZONE 3	-41.1 PSF
POSITIVE ALL ZONES	16.0 PSF
- WALLS:

NEGATIVE ZONE 4	-29.9 PSF
NEGATIVE ZONE 5	-32.3 PSF
POSITIVE ZONES 4 & 5	23.2 PSF

- EARTHQUAKE LOADS:

A. SITE CLASS	D
B. S _e	0.162
C. S ₁	0.09
D. S ₂	0.173
E. S _{d1}	0.134
- SEISMIC DESIGN CATEGORY: C
- BASIC SEISMIC FORCE RESISTING SYSTEM: PER PEMB MFR
- RESPONSE MODIFICATION COEFFICIENT (R): PER PEMB MFR
- OVER-STRENGTH COEFFICIENT (O): PER PEMB MFR
- DEFLECTION AMPLIFICATION FACTOR (C_d): PER PEMB MFR
- SEISMIC RESPONSE COEFFICIENT (C_s): PER PEMB MFR
- LONG PERIOD TRANSITION PERIOD (T_L): 12
- ANALYSIS PROCEDURE: PER PEMB MFR
- DESIGN BASE SHEAR: PER PEMB MFR

SPECIAL INSPECTIONS:

- SPECIAL INSPECTION AND A FINAL REPORT IN ACCORDANCE WITH IBC SECTION 1704.4 SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO THE TIME THAT PHASE OF THE WORK IS APPROVED FOR OCCUPANCY.
- THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION ACCORDING TO THE SCHEDULE OF SPECIAL INSPECTIONS.
- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
 - THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAIVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
 - THE SPECIAL INSPECTOR SHALL VERIFY THE CONSTRUCTION OF THE WORK AS SHOWN ON THE PROFESSIONAL RECORD, AND THE CONTRACTOR, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR. IF DISCREPANCIES ARE UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL ENGINEER.
 - THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
- DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:
 - NOTIFY THE SPECIAL INSPECTOR THAT SPECIAL INSPECTIONS ARE NEEDED
 - COORDINATE THE SCHEDULING AND TIMELY NOTIFICATION OF THE SPECIAL INDIVIDUALS NEEDED FOR THE SPECIAL INSPECTION
 - PROVIDE DIRECT ACCESS TO THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT
 - SUBMIT FABRICATORS CERTIFICATES OF COMPLIANCE, WELDER'S CERTIFICATES, AND OTHER REQUIRED DOCUMENTATION FOR REVIEW BY THE SPECIAL INSPECTOR
 - PROVIDE SAFE ACCESS TO THE WORK TO BE INSPECTED AND DELIVER SAMPLES FOR TESTING WHEN NEEDED.
- WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF SPECIFIED QUALITY ASSURANCE TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.

QUALITY ASSURANCE:

- THE CONTRACTOR/OWNER SHALL EMPLOY AND PAY FOR THE SERVICES OF AN INDEPENDENT TESTING AGENCY AFFILIATED TO THE OWNER TO PROVIDE QUALITY ASSURANCE TESTING AND INSPECTIONS FOR WORK SPECIFIED UNDER DIVISIONS 2, 3, 4, 5 & 6. THE TESTING AGENCY SHALL BE LICENSED BY THE PROJECT STATE. ALL TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF AN ENGINEER REGISTERED IN THE PROJECT STATE.
- FAILURE OF QUALITY ASSURANCE TESTING AND INSPECTIONS TO DETECT ANY DEFECTIVE WORK OR MATERIAL SHALL NOT IN ANY WAY PREVENT LATER REJECTION WHEN SUCH DEFECT IS NOTED. NOR SHALL IT OBLIGATE THE OWNER'S REPRESENTATIVE FOR FINAL ACCEPTANCE.
- SEE SPECIFICATIONS FOR SPECIFIC REQUIREMENTS FOR QUALITY ASSURANCE TESTING AND INSPECTIONS.
- THE TESTING AGENCY AND ITS REPRESENTATIVE ARE NOT AUTHORIZED TO REVOKE, ALTER, RELAX, ENLARGE OR RELEASE ANY PORTION OF THE WORK, PERFORM ANY OUTSIDE OF THE CONTRACTOR OR BE A PARTY TO SCHEDULING OF WORK.
- RECORDS OF INSPECTIONS SHALL BE KEPT AVAILABLE TO THE BUILDING OFFICIAL FOR THE PROGRESS OF THE WORK AND FOR TWO YEARS AFTER COMPLETION OF THE PROJECT. RECORDS SHALL BE PRESERVED BY THE INDEPENDENT TESTING AGENCY.
- A MINIMUM OF TWENTY-FIVE PERCENT OF ALL SHOP AND FIELD COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE INSPECTED AT RANDOM. ALL FIELD COMPLETE JOINT PENETRATION GROOVE WELDS ALONG THE COLUMN BASE PLATES SHALL BE TESTED IN COMPLIANCE WITH THE GOVERNING CITY, MUNICIPAL OR FEDERAL BODY. IF THE TESTING REQUIREMENT, BOTH IN TERMS OF QUALITY AND QUANTITY, IS DIFFERENT THAN STATED ABOVE THE MORE STRINGENT OF THE TWO REQUIREMENTS SHALL BE FOLLOWED. ANY DEVIATION FROM THIS GUIDELINE IS SUBJECT TO THE ENGINEER'S RECORDS APPROVAL.

SUBMITTALS:

- CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTALS AT LEAST 30 DAYS PRIOR TO FIRST SUBMITTAL. SUBMITTALS SHALL BE SUBMITTED ON DESIGNATED DATES MAY IMPACT REVIEW SCHEDULE.
- ANY MATERIALS OR PRODUCTS SUBMITTED FOR REVIEW THAT ARE DIFFERENT FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE IDENTIFIED AS SUCH BY THE CONTRACTOR. ALLOWING MATERIALS TO BE IDENTIFIED AS SUCH BY THE CONTRACTOR SHALL BE AT THE RISK OF THE CONTRACTOR. A COST SAVER TO THE OWNER IS NOT A JUSTIFICATION FOR SUBMITTING MATERIALS THAT DO NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF THE MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF THE MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF THE MATERIALS.
- ALL SHOP DRAWINGS AND SHOP DRAWINGS BY THE STRUCTURAL ENGINEER OF RECORD SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE BUILDING OFFICIAL. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION. SEE SPECIFIC PROVISIONS IN THE CONTRACT DOCUMENT DEALING WITH THE APPROPRIATE DESIGN RESPONSIBILITIES OF CONTRACTORS, SUBCONTRACTORS AND CONTRACT SUPPLIERS.
- THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFYING ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT AND OBLIGATES HIM TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING FROM ANY ERRORS THAT MAY OCCUR HEREIN.

MISCELLANEOUS:

- THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING PERTINENT ASPECTS OF ALL DISCIPLINES INTO THEIR SHOP DRAWINGS AND WORK, AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS.
- NO OPENINGS OR MODIFICATIONS SHALL BE MADE IN OR TO ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
- NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
- OPENINGS 1/4" OR LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUCH OPENINGS.
- THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.
- THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL THE TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.
- DO NOT SCALE THESE DRAWINGS. USE DIMENSIONS. FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS, SEE ARCHITECTURAL DRAWINGS.
- CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL AND/OR MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.
- THE CONTRACTOR SHALL INFORM THE PROFESSIONAL ENGINEER, IN WRITING, OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL ENGINEER OF SUCH DEVIATION AT THE TIME OF SUBMISSION AND THE ARCHITECT HAS GIVEN THE WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
- WHERE A SECTION/DETAIL IS CUT ON THE PLAN, IT IS ASSUMED UNDERSTOOD TO BE REPRESENTATIVE OF ALL LIKE OR SIMILAR CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
- AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF PERSONS AND PROPERTY, THE ARCHITECT'S OR ENGINEER'S PRESENCE AT THE JOB SITE OR REVIEW OF WORK DOES NOT IMPLY CONFIRMATION OF THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH OSHA REGULATIONS.
- CONSULT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATION, SIZE AND EXTENT OF CHASES, INSERTS, RECESSES, RIDGES, FINISHES, DEPRESSIONS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL VERIFY ALL FLOOR AND ROOF MOUNTED MECHANICAL EQUIPMENT WEIGHTS AS WELL AS FLOOR AND ROOF JOIST WEIGHTS AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
- THE CONTRACTOR SHALL NOTIFY, IN WRITING, THE STRUCTURAL ENGINEER OF RECORD OF CONDITIONS ENCOUNTERED IN THE FIELD WHICH ARE CONTRADICTORY TO THOSE SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS.
- STRUCTURAL CONTRACT DOCUMENTS SHALL NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR ANY MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR OR SUBCONTRACTOR.
- REFERENCE TO STANDARD SPECIFICATIONS OR 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 AND PUBLISHED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.
- SEE ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATIONS, SLOPE, AND LOCATION OF DEPRESSIONED FLOOR AREAS. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH THE ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.
- PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR THE REQUIRED OPENINGS AND HE SHALL PROVIDE FOR ALL OPENINGS WHETHER SHOWN ON THE DRAWINGS OR NOT. HE SHALL VERIFY THE LOCATION AND ANY FIELD MATERIALS WITH THE MECHANICAL CONTRACTOR. ANY DEVIATION FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR APPROVAL.

FOUNDATIONS:

- SPREAD FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING A NET ALLOWABLE BEARING CAPACITY OF 2.0 KSF FOR INDIVIDUAL FOOTINGS AND 1.0 KSF FOR CONTINUOUS WALL FOOTINGS UNLESS OTHERWISE NOTED.
- THE FOOTINGS HAVE BEEN POSITIONED AT THE ESTIMATED ELEVATION WHICH WILL PROVIDE SUITABLE BEARING. HOWEVER, IF ADEQUATE BEARING CAPACITY IS NON-EXISTENT AT THESE ESTIMATED ELEVATIONS, THE FOOTING SHALL BE LOWERED TO AN ELEVATION WHERE THE PRESCRIBED SAFE BEARING CAPACITY EXISTS.
- FOOTINGS MAY BE CAST INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.
- EXCAVATION FOR FOOTINGS SHALL BE CUT TO ACCURATE SIZES AND DIMENSIONS AS SHOWN ON PLANS. SOIL BELOW FOUNDATION SHALL BE PROPERLY REMOVED AND REPLACED WITH COMPACTED AND SUBGRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE.
- IN THE AREA OF THE BUILDING, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL, ABANDONED FOOTINGS AND ANY OTHER EXISTING UNSUITABLE MATERIALS AS IDENTIFIED BY THE GEOTECHNICAL INVESTIGATION REPORT SHALL BE REMOVED. ANY FILL MATERIAL REQUIRED AT THE SITE SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE GEOTECHNICAL INVESTIGATION REPORT AND APPROVED BY A SOILS ENGINEER. ROCKS OF A DIAMETER GREATER THAN THAT SPECIFIED SHALL BE EXCLUDED FROM STRUCTURAL FILL. FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS ACCORDING TO THE GEOTECHNICAL INVESTIGATION REPORTS AND COMPACTED TO A SPECIFIED MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED COMPACTION TEST (ASTM D1557). ADEQUATE WET/DRY AND MOISTURE CONTENT TESTS SHALL BE CONDUCTED TO ENSURE COMPLIANCE.
- FOOTING CONCRETE SHALL BE CAST ON THE SAME DAY THE EXCAVATION IS APPROVED. THE BEARING SURFACE IS ALLOWED TO BECOME WET. CONCRETE SHALL BE CASTING THE REWORKED TO THE SATISFACTION OF THE TESTING AGENCY.
- ALL BEARING MATERIAL SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. INSPECTION REPORTS SHALL BE THE SOLE JUDICIAL AS TO THE SUITABILITY OF THE BEARING MATERIAL. INSPECTION REPORTS SHALL BE ADJUSTED AS NOTED.
- BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 5'-0" BELOW FINAL GRADE FOR POST PROTECTION.
- IF UNSATISFACTORY SOIL CONDITIONS ARE ENCOUNTERED, REMOVAL AND REPLACEMENT SHALL BE PERFORMED ON THE BASIS OF UNIT PRICES SET FORTH IN THE CONTRACT.
- GRAVEL FILL SHALL BE AN EVENLY GRADED MIXTURE OF NATURAL OR CRUSHED STONE, CONFORMING TO THE REQUIREMENTS OF ASTM D2938 AND D4231, AND HAVING A GRADEKIN AS FOLLOWS:

11.	100% PASSING	— 3/4" SIEVE
	100% PASSING	— 1 1/2" SIEVE
	10-20% PASSING	— 1/2" SIEVE
	10-10% PASSING	— 3/8" SIEVE
	0-5% PASSING	— #4 SIEVE
- ANY FILL WITHIN 10'-0" OF THE BUILDING LIMIT SHALL CONFORM TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER FOR PREPARATION OF THE FOUNDATION.
- BACKFILL AROUND AND OVER FOUNDATION ELEMENTS SHALL BE OF SUITABLE MATERIAL, INSPECTED AND PRE-APPROVED BY THE TESTING ENGINEER.
- BACKFILL AGAINST WALLS SHALL BE PLACED IN 8 INCH LIFTS AND SHALL BE DEPOSITED EVENLY AGAINST EACH SIDE OF THE WALL UNTIL THE LOWER FINAL GRADE IS REACHED. BACKFILL SHALL NOT BE PLACED AGAINST WALLS DEPENDENT UPON TOP AND BOTTOM SLAB FOUNDATION FOR SUPPORT UNLESS SUCH SLABS HAVE ATTAINED MINIMUM DESIGN COMPRESSIVE STRENGTH. WALLS WITH SLAB-ON-GROUND AT THE TOP OF THE WALL SHALL BE SAFELY SHORED AND BRACED DURING BACKFILLING.
- MAXIMUM SLOPE OF EXCAVATIONS SHALL BE IDENTIFIED IN THE GEOTECHNICAL INVESTIGATION REPORT AND ADHERED TO. PROVIDE SHORING AND PROTECTION FOR EXCAVATION BANKS AS NECESSARY TO PRESERVE SAFETY AND PREVENT CAVING.
- ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED.
- COLLUM FOOTINGS AND WALL FOOTINGS SHALL BE POURED MONOLITHICALLY WITH TOPS OF ADJACENT FOOTINGS AT THE SAME ELEVATION.
- THERE SHALL BE NO HORIZONTAL OR VERTICAL CONSTRUCTION JOINTS IN ANY FOOTING WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
- CONCRETE CAST ON SLOPING SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOLITHICALLY TOWARD THE HIGHER ELEVATION UNTIL THE INTENDED POUR IS COMPLETED.

CONCRETE:

- CODE: LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ANSII/AISC 360."
- CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH AND DENSITY IN ACCORDANCE WITH THE FOLLOWING:

STRENGTH (DESIGN)	AIR
FOOTINGS & SLABS ON GRADE	3000 145 3%
RETAINING WALLS, BASEMENT WALLS, & COLUMNS	4000 145 6%
- CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR ALL UNIQUE CONCRETE APPLICATIONS FOR REVIEW WELL IN ADVANCE OF CONCRETE PLACEMENT. CONCRETE MIX DESIGN SHALL BE CERTIFIED BY AN ENGINEER REGISTERED IN THE PROJECT STATE. MIX DESIGN TEST DATA SHALL COMPLY WITH ACI 318.5.3 AND SHALL INCLUDE (AT A MINIMUM) AVERAGE 28 DAY STRENGTH, NUMBER OF SAMPLES, AND STANDARD DEVIATION (IF APPLICABLE). TEST RESULTS SHALL NOT BE MORE THAN 24 MONTHS OLD AT TIME OF SUBMITTAL.
- REINFORCING SHALL CONFORM TO ASTM A118, GR60, UNLESS NOTED OTHERWISE.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, GRADE 60.
- WELDED WIRE FABRIC SHALL BE PLACED 1" BELOW SLAB, UNLESS NOTED OTHERWISE. LAP FABRIC 6" ON SIDES AND ENDS.
- ALL REINFORCING SHALL BE DETAIL, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST ADDITION OF THE ACI DETAILING MANUAL.
- ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE.
- THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ABOVE-GRADE CONCRETE POURS. ALL CONSTRUCTION JOINTS SHALL BE MADE IN THE CENTER OF SPANS WITH VERTICAL BULKHEADS. WHEN A BEAM INTERSECTS A GIRDER AT THIS POINT, THE JOINTS OF THE GIRDER SHALL BE OFFSET A DISTANCE EQUAL TO TWICE THE WIDTH OF THE BEAM. THE LOCATION OF CONSTRUCTION JOINTS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. ADDITIONAL REINFORCING AT CONSTRUCTION JOINTS SHALL BE SPECIFIED BY THE ENGINEER OF RECORD.
- "CONTINUOUS" REINFORCING SHALL HAVE A MINIMUM LAP OF "B" TYPE (ACI 318) AT SPLICES, UNLESS NOTED OTHERWISE.
- HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS AND SHALL HAVE 90 DEGREE BENDS AND EXTENSIONS AT CORNERS AND INTERSECTIONS, AS SHOWN ON TYPICAL BAR PLACING DETAILS.
- PROVIDE 3" X 6" X 20 GAGE STEEL METAL BAR CHAIRS AT 4'-0" MAXIMUM CENTERS EACH WAY FOR ALL TOP REINFORCING FOR SLABS-ON-GRADE.
- SUBMIT REINFORCING PLACEMENT AND DETAIL (SHOP) DRAWINGS FOR REVIEW. NO REINFORCING BARS SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.
- PRODUCTS AND MATERIALS:
 - PORTLAND CEMENT SHALL CONFORM TO ASTM C150.
 - AGGREGATES SHALL CONFORM TO ASTM C33.
 - REINFORCING BARS SHALL CONFORM TO ASTM A615 (GRADE 60).
 - FORMING SHALL BE OF WOOD, STEEL, OR FIBERGLASS OF SATISFACTORY QUALITY AND CONDITION.
 - NO ADMIXTURES SHALL BE ADDED TO THE CONCRETE UNLESS APPROVED BY THE ENGINEER.
 - NON-SHRINK GROUT SHALL BE READY TO USE NON-METALLIC AGGREGATE AND DEVELOP A 7-DAY COMPRESSIVE STRENGTH OF 5000 PSI.
- ALL REINFORCING SHALL BE SUPPORTED IN FORMS SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WELDED TOGETHER IN ACCORDANCE WITH LATEST ADDITION OF THE ACI MANUAL OF STANDARD PRACTICES.
- MINIMUM CONCRETE COVER (UNLESS NOTED OTHERWISE) SHALL BE:

#11 BARS AND SMALLER	3/4 INCHES
UNFORMED SURFACE IN CONTACT WITH THE GROUND	3 INCHES
EXTERIOR BASEMENT WALLS	2 INCHES
INTERIOR BASEMENT WALLS	3 INCHES
FORMED SURFACES EXPOSED TO EARTH OR WEATHER	1 1/2 INCHES
#8 BARS AND LARGER	2 INCHES
#6 BARS AND SMALLER	1 1/2 INCHES
FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER	1 1/2 INCHES
BEAMS, GIRDERS AND COLUMNS	3/4 INCHES
- LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING, UNLESS NOTED OTHERWISE. WHERE CHANGES ARE NOT CALLED OUT ON DRAWINGS, USE CLASS "B" SPLICES.

BAR	TENSION SPLICES (INCHES)	COMPRESSION SPLICES (INCHES)
SIZE	A	B
#3	20	12
#4	24	15
#5	28	18
#6	36	23
#7	42	28
#8	48	33
#9	54	39
#10	60	45
#11	66	51
- SCHEDULED OR FIELD REINFORCING STEEL SHALL NOT BE WELDED FOR ANY REASON. WELDED REINFORCING STEEL SPLICES ARE NOT PERMITTED. THE ENGINEER'S APPROVAL WHERE WELDS AND SPLICES ARE CALLED FOR SHALL CONFORM TO AWS D1.1.
- REINFORCING SHALL BE SIZED AND SPACED AS THE MAIN REINFORCING WITH LAP SPLICES EQUAL TO 48 BAR DIAMETERS, MINIMUM.
- SLAB-ON-GROUND SHALL BE SAW CUT IMMEDIATELY AFTER CONCRETE HARDENS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF CONSTRUCTION SCHEDULE ("SOFT CUT") INTERNATIONAL.
- CONTROL JOINTS IN SLAB-ON-GROUND SHALL BE LOCATED AT 15'-0" MAXIMUM SPACING AND SHALL CREATE SECTION JOINTS WITH A MAXIMUM ASPECT RATIO OF 1.5:1. CONTROL JOINTS SHALL BE SAWS AND SHALL BE A MINIMUM OF 1/4" OF THE SLAB THICKNESS DEEP IF CUT WITH A CONVENTIONAL SAW, OR 1" DEEP IF CUT WITH AN EARLY ENTRY DRY-CUT SAW. THE CONTROL JOINTS SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE SAW BLADE CAN CUT THE CONCRETE WITHOUT DISPLACING THE AGGREGATE. CUT EVERY OTHER MESH WIRE AT THE CONTROL JOINT LOCATION PRIOR TO PLACING CONCRETE.
- SEAM CONTROL JOINTS SHALL BE PLACED AS SOON AS CONCRETE IS ABLE TO BE SAWS. GASTRO-ROLLING SHALL BE REMOVED. ANY FILL MATERIAL REQUIRED AT THE SITE SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE GEOTECHNICAL INVESTIGATION REPORT AND APPROVED BY A SOILS ENGINEER. ROCKS OF A DIAMETER GREATER THAN THAT SPECIFIED SHALL BE EXCLUDED FROM STRUCTURAL FILL. FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS ACCORDING TO THE GEOTECHNICAL INVESTIGATION REPORTS AND COMPACTED TO A SPECIFIED MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED COMPACTION TEST (ASTM D1557). ADEQUATE WET/DRY AND MOISTURE CONTENT TESTS SHALL BE CONDUCTED TO ENSURE COMPLIANCE.
- BASE PLATES, ANCHOR BOLTS, SUPPORT ANGLES, ETC. BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 4" OF CONCRETE.
- THE FLATNESS AND LEVELNESS OF THE SLAB-ON-GRADE SHALL BE DETERMINED ACCORDING TO ASTM E 1155 OR ACI 117. SLAB CLASS "B" SHALL BE DETERMINED USING THE FOLLOWING SPECIFIC FLATNESS AND LEVELNESS SHALL BE F/15-35 AND F/1-20.
- CONCRETE WORK SHALL BE SUBJECT TO QUALITY ASSURANCE TESTING AND INSPECTIONS. SEE GENERAL NOTES AND PROJECT SPECIFICATIONS.
- WHERE FOOTINGS, WALLS, OR OTHER STRUCTURAL ELEMENTS INTERSECT CORNER OR TEE, PROVIDE CORNER BARS WITH REQUIRED LAP LENGTHS TO PROVIDE CONTINUITY OF HORIZONTAL STEEL REINFORCING, UNLESS NOTED OTHERWISE.
- PROVIDE A MINIMUM OF 3" COVER FOR ANCHOR BOLTS AND LOCATE HORIZONTAL REINFORCEMENT TO THE OUTSIDE FOR ANCHOR BOLT CONTAINMENT, UNLESS NOTED OTHERWISE.
- WHERE DOWELS, BOLTS OR INSERTS ARE CALLED OUT TO BE ANCHORED TO CAST IN PLACE OR PRECAST CONCRETE ELEMENTS USING ADHESIVE ANCHORS, USE AN ANCHORAGE SYSTEM ENGINEER PRIOR TO THE COMMENCEMENT OF FABRICATION. INCLUDE PLACING DRAWINGS FOR FRAMING MEMBERS SHOWING SIZE AND GAGE DESIGNATIONS, NUMBER, TYPE, LOCATION AND SPACING. INDICATE SUPPLEMENTAL TRAPPING, BRACES, SPLICES, BRIDGING, AND DETAILS REQUIRED FOR PROPER INSTALLATION.
- PROVIDE TEMPORARY SHORING AND BRACING OF ALL STRUCTURAL AND MISCELLANEOUS ELEMENTS UNTIL CONCRETE HAS OBTAINED 80% OF DESIGN STRENGTH AND ALL PERMANENT BRACING ELEMENTS ARE INSTALLED.
- PLACEMENT OF CONCRETE, COLD WEATHER AND HOT WEATHER PRECAUTIONS, MATERIAL AND PROTECTIVE WORKING ENVIRONMENT, REMOVED COVER AND DETAILING SHALL CONFORM TO THE REQUIREMENTS OF THE ACI 318.
- ALL CONDUIT, SLEEVES AND PIPES EMBEDDED IN CONCRETE SHALL CONFORM TO SECTION 6.3 OF ACI 318 AND THE FOLLOWING:
 - CONCRETE BEAMS, SLAB RISBS AND JOIST WIDTHS SHOWN ON THE DRAWINGS ARE THE MINIMUM ALLOWABLE WIDTHS.
 - BEAMS, SLAB RISBS AND JOISTS HAVING PIPES OR SLEEVES PASSING THROUGH THEM WHICH ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE INCREASED IN WIDTH IMMEDIATELY ADJACENT TO THE SLEEVE OR PIPE TO OBTAIN THE SAME CROSS-SECTIONAL AREA OF CONCRETE SHOWN FOR THE MEMBER.
 - SLEEVES AND PIPES SHALL BE PLACED SO THAT REINFORCING STEEL CAN BE PLACED WITH THE SPECIFIED COVER AND CLEAR DISTANCE BETWEEN BARS.
 - THE COVER OF COVERING OF PIPES AND SLEEVES SHALL NOT BE LESS THAN 1" CLEAR DISTANCE BETWEEN SUCH PIPES AND SLEEVES SHALL NOT BE LESS THAN 1-1/2".
 - CONDUITS AND PIPES PLACED IN SLABS AND TOPPING OVER SLAB RISBS OR JOIST SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN ONE-THIRD THE THICKNESS OF THE SLAB OR TOPPING, NOT MORE THAN 1-1/4" ROUND OUTER DIAMETER CONDUIT, OR THE EQUIVALENT TO SUPPORT THE WEIGHT OF THE CONCRETE.
 - CONDUITS OR PIPES PASSING THROUGH JOISTS, SLAB RISBS OR BEAMS, PARALLEL TO THE MEMBER SHALL NOT BE LARGER THAN 1-1/4" OUTER DIAMETER AND SHALL BE PLACED 2" CLEAR OF THE REINFORCING AT TOP, BOTTOM AND SIDES. CONDUITS OR PIPES PASSING THROUGH JOISTS, SLAB RISBS OR BEAMS PERPENDICULAR TO THE MEMBER SHALL NOT BE LARGER THAN 2" OUTER DIAMETER, AND SHALL BE PLACED AT MID-HEIGHT OF THE MEMBER.
 - CONDUITS AND PIPES PLACED IN COLLUMS SHALL NOT DISPLACE MORE THAN 4% OF THE CROSS-SECTIONAL AREA OF THE COLLUM AND SHALL BE LOCATED ON THE CENTER LINE OF THE COLLUM. ELECTRICAL BOXES SHALL BE NO DEEPER THAN THE REQUIRED CLEARANCE FOR REINFORCING.

STRUCTURAL STEEL:

- CODE: LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ANSII/AISC 360."
- STEEL SHALL CONFORM TO THE FOLLOWING GRADINGS:

WIDE FLANGE SHAPES	ASTM A992 (F _y =50ksi)
CHANNELS, ANGLES, PLATES, ETC. (UNO)	A36 (F _y =36ksi)
STRUCTURAL TUBES	A500 (F _y =48ksi)
ANCHOR BOLTS	F1554, GRADE 36
STEEL PIPE	A513, GRADE 36
BOLTS	A325
WELDING ELECTRODES	E7018
HARDENED STEEL WASHERS	F436
- STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF STEEL CONSTRUCTION" OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. SHOP DRAWINGS SHALL SHOW COMPLETE WELDING INFORMATION, BOTH SHOP AND FIELD, USING AMERICAN WELDING SOCIETY SYMBOLS, UNLESS OTHERWISE INDICATED OR SHOWN. BOLTED CONNECTION SHALL BE MADE USING 3/4" DIAMETER BOLTS CONFORMING TO ASTM A325 UNLESS OTHERWISE NOTED. THEY SHALL BE INSTALLED AND INSPECTED IN STRICT CONFORMANCE WITH LATEST EDITION AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS."
- THE STRUCTURE IS A NON-Self-SUPPORTING STEEL FRAME AND IS DEPENDENT UPON DIAPHRAGM ACTION OF THE METAL ROOF DECK AND ATTACHMENT TO THE SHEAR WALLS & BRACED MOMENT FRAMES FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES. PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL THESE ELEMENTS ARE COMPLETE AND ARE CAPABLE OF PROVIDING THIS SUPPORT.
- THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF ALL CONNECTIONS SHOWN ON THE STRUCTURAL DRAWINGS. CONNECTIONS SHOWN ARE SCHEMATIC AND ARE INTENDED TO SHOW THE RELATIONSHIP OF MEMBERS CONNECTED. CONNECTION DETAILS INDICATED ON THE DRAWINGS SHALL BE INCORPORATED INTO FABRICATOR'S CONNECTION DESIGN, SEE SPECIFICATIONS.
- SPLICING OF STEEL MEMBERS UNLESS SHOWN ON THE DRAWINGS IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.
- NO HOLES SHALL BE CUT IN ANY STEEL ELEMENT UNLESS THEY ARE DETAILED ON THE DRAWINGS.
- UNLESS NOTED OTHERWISE, BEAMS SHALL BEAR IF MINIMUM ON CONCRETE OR MASONRY. ANCHOR BEAMS TO MASONRY WITH TWO 3/4" DIAMETER ANCHOR BOLTS WITH 4" HOOK AND 1-4" EMBEDMENT.
- STRUCTURAL STEEL WORK SHALL BE SUBJECT TO QUALITY ASSURANCE TESTING AND INSPECTIONS. SEE QUALITY ASSURANCE GENERAL NOTES AND PROJECT SPECIFICATIONS.
- UNLESS OTHERWISE SHOWN ON THE DRAWINGS, THE SIZE OF WELDS SHALL NOT BE SMALLER THAN 1/4".
- THE CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST, ALL STEEL CONNECTIONS, GRUING, ETC. REQUIRED FOR ERECTION.
- OBTAIN ALL FIELD MEASUREMENTS REQUIRED FOR FABRICATION AND INSTALLATION. THE CONTRACTOR SHALL CONDUCT PRECISE MEASUREMENTS BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERECTION DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND FOR THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS.
- ALL HORIZONTAL TUBES REQUIRE AN END PLATE AT EACH END WITH A THICKNESS EQUAL TO OR GREATER THAN THE TUBE'S THICKNESS.

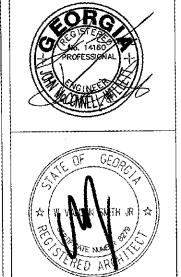
MASONRY:

- CODE: AMERICAN CONCRETE INSTITUTE (ACI) 308.1 (2002)
- MASONRY SHALL BE NON-WEIGHT AND HAVE A MINIMUM COMPRESSIVE STRENGTH, f_m, OF 1500 PSI. IN DESIGN AREA, MORE SHALL CONFORM TO ASTM C770 TYPES S OR M. GROUT SHALL CONFORM TO ASTM C476 WITH MAXIMUM AGGREGATE SIZE OF 3/8".
- REINFORCING SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.
- CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED TRUSS TYPE FABRICATED UNITS. SINGLE PARS OF 3/16" SIZES RODS AND 9 GAGE CONTINUOUS DIAGONAL SIZES FABRICATED FROM COLD DRAWN STEEL WIRE COMPLYING WITH ASTM A82. JOINT REINFORCING SHALL BE SPACED AT 16" O.C. VERTICALLY IN ALL MASONRY WALLS UNLESS NOTED OTHERWISE.
- SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF VERTICAL CONTROL JOINTS. VERTICAL CONTROL JOINTS JOINT REINFORCING SHALL BE STOPPED EITHER SIDE OF VERTICAL CONTROL JOINTS.
- CONTROL JOINTS SHALL BE LOCATED IN THE INTERIOR WALLS FOR THE BUILDING AT A SPACING NOT EXCEEDING 30 FEET. JOINTS SHALL BE AT A MINIMUM BE LOCATED AT INTERSECTING WALLS AND JAMB/SILL/ELS OF OPENING IN WALL.
- MASONRY PLASTERS SHALL BE LOCATED ADJACENT TO CONTROL OR EXPANSION JOINTS.
- MASONRY CELLS AND ALL CELLS BELOW FINISH FLOOR SHALL BE GROUTED SOLID.
- WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL TO 6 VERTICAL. DOWELS MAY BE GROUTED INTO FILL IN VERTICAL ALIGNMENT EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING.
- REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING STARTS.
- VERTICAL BARS SHALL BE HELD IN POSITION WITH PRE-MANUFACTURED TIES AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 200 DIAMETERS OF THE REINFORCING NOR 10 FEET.
- VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEARANCE OF 3/4" OF AN INCH FROM THE MASONRY AND NOT LESS THAN ONE BAR DIAMETER BETWEEN BARS.
- VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNIFORM LINE AREA NOT LESS THAN 1/2" X 2".
- GROUTING SHALL BE STOPPED 1-1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE JOINT.
- GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.
- ALL BOLTS INSERTED IN THE WALLS SHALL BE GROUTED SOLIDLY INTO POSITION.
- WHERE EXPANSION BOLTS OR OTHER ANCHORS ARE EMBEDDED INTO THE SIDE OF MASONRY WALLS, THE CELLS SHALL BE FULLY GROUTED AT LEAST 5" ABOVE AND BELOW EACH BOLT OR ANCHOR.
- REINFORCED MASONRY WORK SHALL BE SUBJECT TO QUALITY ASSURANCE TESTING AND INSPECTIONS. SEE QUALITY ASSURANCE GENERAL NOTES AND PROJECT SPECIFICATIONS.
- REINFORCING SHALL BE LAPPED A MINIMUM OF 38 INCHES, UN O.
- WHERE NOT OTHERWISE SHOWN, MASONRY WALL FOOTINGS SHALL BE 12" THICK AND HAVE A MINIMUM OF 4" PROJECTION ON EACH SIDE OF WALL. REINFORCE WITH (3) #6 BARS CONTINUOUS.
- WALLS SHALL BE GROUTED USING LOW LIFT GROUTING TECHNIQUES.

PRE-MANUFACTURED METAL BUILDING:

- PRE-MANUFACTURED METAL BUILDING SUPPLIER SHALL ENGINEER, DESIGN, FABRICATE AND ERECT THE METAL BUILDING SYSTEM TO WITHSTAND LOADS FROM WIND, GRAVITY AND MOVEMENT INCLUDING MOVEMENT THERMALLY INDUCED AND TO RESIST IN SERVICE USE CONDITION ANY LOADS THAT THE BUILDING WILL EXPERIENCE, INCLUDING EXPOSURE TO THE WEATHER, WITHOUT FAILING. BUILDING LOADS SHALL MEET OR EXCEED LOADS INDICATED BY THE 2009 IBC.
- DESIGN EACH MEMBER TO WITHSTAND STRESSES RESULTING FROM COMBINATIONS OF LOADS THAT PRODUCE THE MAXIMUM ALLOWABLE STRESSES IN THAT MEMBER, AS DESCRIBED IN MBMA'S "DESIGN PRACTICES MANUAL" LATEST EDITION.
- DESIGN PRIMARY AND SECONDARY STRUCTURAL MEMBERS AND EXTERIOR COVERING MATERIALS FOR APPLICABLE LOADS AND COMBINATIONS OF LOADS IN ACCORDANCE WITH THE MBMA'S "DESIGN PRACTICES MANUAL" LATEST EDITION.
- SUBMITTALS.
- FURNISH COMPLETE ERECTION DRAWINGS PREPARED BY OR UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER LEGALLY AUTHORIZED TO PRACTICE IN THE JURISDICTION WHERE THE PROJECT IS LOCATED. INCLUDE DETAILS SHOWING FABRICATION AND ASSEMBLY OF THE METAL BUILDING SYSTEMS. SHOW AND DESIGN ANCHORS, BOLT SETTINGS, SIDEWALL, ENDWALL, AND ROOF FRAMING.
- QUALIFICATIONS:
 - ENGAGE AN EXPERIENCED INSTALLER TO ERECT THE PRE-ENGINEERED METAL BUILDING WHO IS SPECIALIZED IN THE ERECTION AND INSTALLATION OF TYPES OF METAL BUILDING SIMILAR TO THAT REQUIRED FOR THIS PROJECT.
 - PROVIDE PRE-ENGINEERED METAL BUILDING SYSTEMS FABRICATED BY A FIRM THAT HAS THE MANUFACTURING OF METAL BUILDING SYSTEMS ARE SIMILAR TO THIS PROJECT.

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