

STRUCTURAL NOTES

1. BUILDING CODES

- A. THE 2009 INTERNATIONAL BUILDING CODE (IBC) AND ALL SUBSEQUENT SUPPLEMENTS  
B. FLORIDA BUILDING CODE, 2010

2. DESIGN LOADS

- A. IN ADDITION TO SELF WEIGHT, THE BUILDING IS DESIGNED FOR THE FOLLOWING LOADS:

TYPICAL FLOOR ROOF	LIVE LOAD 100 PSF 20 PSF	SUPERIMPOSED DEAD LOAD 10 PSF 10 PSF
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- B. ROOF SNOW LOAD DESIGN CRITERIA:

GROUND SNOW LOAD ( $P_g$ ):	0 PSF
FLAT ROOF SNOW LOAD ( $P_f$ ):	20 PSF
EXPOSURE FACTOR ( $C_e$ ):	1.0
IMPORTANCE FACTOR ( $I$ ):	1.0
THERMAL FACTOR ( $C_t$ ):	1.0

- C. WIND LOAD DESIGN CRITERIA:

RISK CATEGORY:	II
BASIC WIND SPEED	140 MPH
WIND EXPOSURE	D
INTERNAL PRESSURE COEFFICIENT ( $C_{pi}$ ):	$\pm 0.18$
IMPORTANCE FACTOR ( $I$ ):	1.0

- D. EARTHQUAKE LOAD DESIGN CRITERIA:

EQUIVALENT LATERAL FORCE PROCEDURE:	
SEISMIC USE GROUP:	II
SEISMIC DESIGN CATEGORY:	B
IMPORTANCE FACTOR ( $I$ ):	1.0
MAPPED SPECTRAL RESPONSE ACCELERATIONS ( $S_s$ )	= 0.080
	( $S_1$ ) = 0.050
SPECTRAL RESPONSE COEFFICIENTS	( $S_DS$ ) = 0.085
	( $S_D1$ ) = 0.080
SOIL SITE CLASS:	E
SEISMIC RESPONSE COEFFICIENT ( $C_s$ ):	0.026
RESPONSE MODIFICATION FACTOR ( $R$ ):	3.25 (ORD STEEL FRAME)
DESIGN BASE SHEAR ( $V$ ):	7.2 KIP

- E. THE CONTRACTOR SHALL NOT STORE ANY CONSTRUCTION MATERIALS OR UNDERTAKE ANY CONSTRUCTION OPERATION WHICH WILL EXCEED THE DESIGN LIVE LOADINGS NOTED.

- F. THE STABILITY OF THE STRUCTURE IS DEPENDENT UPON THE DIAPHRAGM ACTION OF THE FLOORS AND ROOF. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR THE METHOD OF CONSTRUCTION AND SHALL PROVIDE ALL TEMPORARY BRACING AND SHORING REQUIRED TO MAINTAIN THE STABILITY OF THE STRUCTURE AND TO SUPPORT CONSTRUCTION LOADS DURING CONSTRUCTION, INCLUDING SOILS ON WALLS FROM BACKFILLING PRIOR TO PLACING SLABS ON GRADE. DESIGN OF ALL BRACING IS THE CONTRACTORS RESPONSIBILITY.

- G. THE FRAMING HAS BEEN DESIGNED FOR THE WEIGHT OF EQUIPMENT SHOWN ON THE STRUCTURAL DRAWINGS. IF ACTUAL WEIGHT OF EQUIPMENT EXCEEDS THAT SHOWN OR IF EQUIPMENT NOT SHOWN EXCEEDS 500 POUNDS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.

- H. ALL STAIRS, RAILINGS, STUD WALLS, GLASS STORE FRONT, AND EXTERIOR CEILINGS AND SOFFITS SHALL BE DESIGNED FOR THE LOADS INDICATED OR SPECIFIED BY THE BUILDING CODE.

3. SPREAD FOOTING FOUNDATIONS

- A. REFER TO "CAST IN PLACE CONCRETE" FOR APPLICABLE CODES AND STANDARDS.

- B. REFER TO PROJECT GEOTECHNICAL REPORT BY KCI TECHNOLOGIES, INC. AND DATED 11/2011 FOR SITE PREPARATION AND RECOMMENDATIONS.

1. MINIMUM DEPTH TO BOTTOM OF EXTERIOR FOOTINGS = 18 IN BELOW GRADE  
2. NET ALLOWABLE BEARING CAPACITY = 2500 PSF

- C. THE ALLOWABLE SOIL BEARING PRESSURE SHALL BE FIELD VERIFIED BY A REGISTERED GEOTECHNICAL ENGINEER AND APPROVED PRIOR TO PLACING FOUNDATIONS. SHOULD THE ACTUAL SOIL BEARING PRESSURE BE LESS THAN 2500 PSF, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.

- D. ALL EXCAVATION AND BACKFILLING OPERATIONS WITHIN THE BUILDING FOOTPRINT, INCLUDING ALL COMPACTION TESTS AND INSPECTIONS, SHALL BE DONE UNDER THE DIRECTION AND SUPERVISION OF A REGISTERED GEOTECHNICAL ENGINEER.

- E. ALL EXISTING SOIL CONTAINING GRAVEL, CONSTRUCTION OR DEMOLITION DEBRIS, ORGANIC SUBSTANCES, OR OTHER FOREIGN OBJECTS SHALL BE REMOVED FROM THE REGION WITHIN THE FOOTPRINT OF THE STRUCTURE.

4. CAST IN PLACE CONCRETE

- A. CODES AND STANDARDS:

1. ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"  
2. ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"  
3. ACI 117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS"  
4. ACI 305 "RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING"  
5. ACI 306 "RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING"  
6. ACI 347 "RECOMMENDED PRACTICE FOR CONCRETE FORM WORK"  
7. ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT"  
8. CRSI "MANUAL OF STANDARD PRACTICE"

- B. REINFORCING MATERIALS:

1. STEEL REINFORCEMENT: ASTM A 615, GRADE 60, DEFORMED  
2. PLAIN-STEEL WELDED WIRE REINFORCEMENT: ASTM A 185

- C. CONCRETE MATERIALS:

1. PORTLAND CEMENT: ASTM C 150, TYPE I/II  
2. FLY ASH: ASTM C 618, CLASS F  
3. GROUND GRANULATED BLAST FURNACE SLAG: ASTM C 989, GRADE 120  
4. NORMAL WEIGHT AGGREGATES: ASTM C 33  
a. MAXIMUM COARSE AGGREGATE SIZE: 1 INCH NOMINAL  
b. FINE AGGREGATE SHALL BE FREE OF MATERIAL WITH DELETERIOUS REACTIVITY TO ALKALI IN CEMENT  
5. LIGHT WEIGHT AGGREGATES: ASTM C 330, 1 INCH NOMINAL MAXIMUM AGGREGATE SIZE  
6. WATER: ASTM C 94, POTABLE

- D. ADMIXTURES:

1. AIR ENTRAINMENT: ASTM C 260  
2. WATER-REDUCER: ASTM C 494  
3. SILICA FUME: ASTM C 1240  
4. NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED.

- E. CONCRETE MIXTURES:

1. FLY ASH, POZZOLAN, GROUND GRANULATED BLAST FURNACE SLAG, AND SILICA FUME MAY BE USED AS NEEDED TO REDUCE THE TOTAL AMOUNT OF PORTLAND CEMENT WHICH WOULD OTHERWISE BE USED BY NOT MORE THAN 40 PERCENT.  
a. MAXIMUM SUBSTITUTION OF FLY ASH SHALL BE 20 PERCENT.  
b. MAXIMUM SUBSTITUTION OF SILICA FUME SHALL BE 10 PERCENT.

- F. PROPORTION NORMAL WEIGHT CONCRETE MIXES AS FOLLOWS:

LOCATION	28 DAY STRENGTH ( $f'_c$ )	WATER-CEMENTIOUS RATIO	SLUMP LIMIT	AIR CONTENT
FOUNDATIONS, WALLS BELOW GRADE	3000 PSI	0.60	4" +/- 1"	6.0% +/- 1.5%
SLABS ON GRADE	3000 PSI	0.60	4" +/- 1"	4.5% +/- 1.5%

- G. ALL CONCRETE MIX DESIGNS, INCLUDING CEMENT CONTENT, WATER CEMENT RATIO, FINE AND COARSE AGGREGATE CONTENT AND ALL ADMIXTURES, SHALL BE REVIEWED BY ENGINEER PRIOR TO PLACING FIRST CONCRETE.

- H. ALL CONCRETE SHALL BE SAMPLED AND TESTED BY THE TESTING AGENCY. THE CONTRACTOR SHALL NOTIFY THE TESTING AGENCY 48 HOURS PRIOR TO THE PLACING OF ANY CONCRETE.

- I. THE CONCRETE STRUCTURE SHALL NOT SUPPORT THE DESIGN LIVE LOAD FOR A MINIMUM OF 28 DAYS AND ALL SHORING AND RESHORING REQUIRED TO SUPPORT THE CONCRETE STRUCTURE DURING CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR. SHOP DRAWINGS, SIGNED AND SEALED BY A REGISTERED ENGINEER IN THE STATE OF FLORIDA, SHALL BE SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL INDICATE THE TYPE, EXTENT, SIZE, AND LOCATION OF ALL SHORING AND RESHORING AS WELL AS THE SEQUENCE OF CONSTRUCTION.

- J. MINIMUM COVER FOR ALL REINFORCING SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:

FOUNDATIONS	3 INCHES
SLABS ON GRADE	2 INCHES (TOP)
WALLS BELOW GRADE	2 INCHES

5. CONCRETE MASONRY

- A. CODES AND STANDARDS:

1. ACI 530/ASCE 5/TMS 4021 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"  
2. ACI 530.1/ASCE 6/TMS 602 "SPECIFICATIONS FOR MASONRY STRUCTURES"  
3. ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT"

- B. SUBMITTALS:

1. MATERIAL CERTIFICATES FOR MASONRY UNITS, GROUT MIXES, MORTAR MIXES, REINFORCEMENT, AND ANCHORS/TIES  
2. SHOP DRAWINGS INCLUDING DETAIL BENDING AND PLACEMENT OF UNIT MASONRY REINFORCING  
3. ADDITIONAL SAMPLE SUBMITTALS MAY BE REQUIRED BY ARCHITECT/OWNER. REFER TO ARCHITECTURAL DRAWINGS.

- C. MATERIALS:

1. CONCRETE MASONRY ASSEMBLIES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (  $f'_m$  ) OF 1500 PSI.  
2. NORMAL WEIGHT HOLLOW LOAD BEARING CONCRETE MASONRY UNITS: ASTM C 90 WITH UNIT NET AREA COMPRESSIVE STRENGTH OF 1900 PSI.

- a. GRADE N-1 BLOCK BELOW GRADE AND WHERE BLOCK IS SUBJECTED TO MOISTURE PENETRATION, OTHERWISE PROVIDE GRADE S-1 OR N-1 AT CONTRACTOR'S OPTION.  
3. HYDRATED LIME MORTAR: ASTM C 270

- a. TYPE M BELOW GRADE (MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI)  
b. TYPE S ABOVE GRADE (MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 1800 PSI)

- D. REINFORCEMENT:

- a. UNCOATED STEEL REINFORCING BARS: ASTM A 615, GRADE 60  
b. HORIZONTAL JOINT REINFORCEMENT: ASTM A 951, EITHER LADDER OR TRUSS TYPE WITH MINIMUM 3/16 INCH DIAMETER  
D. VENEER TIES: MILL-GALVANIZED CARBON STEEL WIRE (ASTM A 82, MINIMUM 3/16 INCH DIAMETER WITH ASTM A 641, CLASS 1 COATING) OR GALVANIZED CORRUGATED METAL SHEET (ASTM A 653, G60 ZINC COATING)

- E. INSTALLATION:

1. UNLESS OTHERWISE INDICATED, ALL BOND BEAMS SHALL BE REINFORCED WITH 2-#5 BARS RUNNING CONTINUOUS AND LAP SPICED A MINIMUM OF 36 BAR DIAMETERS. PROVIDE CORNER BARS AT CORNERS AND INTERSECTIONS.  
2. VERTICAL WALL REINFORCING SHALL BE CUT AND LAP SPICED PER DETAILS FOR MAXIMUM 5'-0" GROUT LIFTS. MASONRY CORES CONTAINING VERTICAL REINFORCING SHALL BE GROUTED SOLID.  
3. THE CONTRACTOR SHALL PROVIDE HOLLOW BLOCK FILLED SOLID WITH GROUT DIRECTLY BELOW ALL CHANGES IN WALL THICKNESS.  
4. THE CONTRACTOR SHALL PROVIDE A 1 INCH SOFT JOINT BETWEEN TOP OF NON-BEARING MASONRY WALLS AND THE UNDERSIDE OF THE STRUCTURAL FLOOR OR ROOF FRAMING ABOVE.  
5. CONTROL JOINTS SHALL BE PLACED IN THE MASONRY WALL TO FORM PANELS WITH A LENGTH TO HEIGHT RATIO OF 2.5 OR LESS. THE MAXIMUM PANEL LENGTH SHALL NOT EXCEED 45 FEET. ADDITIONAL JOINTS SHALL BE PLACED WHERE ABRUPT CHANGES IN WALL OCCUR.  
6. UNLESS OTHERWISE NOTED, ANCHOR WOOD SILL PLATES TO THE MASONRY WALLS USING 1/2" DIAMETER X 0'-7" LONG ASTM F 1554, GRADE 36 BOLTS SPACED AT 6' -0" MAXIMUM.  
7. CONTRACTOR IS RESPONSIBLE FOR BRACING AND SHORING OF ALL MASONRY WALLS AS REQUIRED UNTIL ROOF AND FLOOR SYSTEMS HAVE BEEN COMPLETELY INSTALLED.

- F. INSPECTIONS BY INDEPENDENT INSPECTION AGENCY:

- ALL MASONRY SHALL BE FIELD INSPECTED IN ACCORDANCE WITH IBC LEVEL 1 SPECIAL INSPECTIONS INCLUDING VERIFICATION OF THE MASONRY COMPRESSIVE STRENGTH, VERIFICATION OF GROUT COMPRESSIVE STRENGTH, COMPLIANCE OF ALL MATERIALS TO CONTRACT DOCUMENTS, THE CONDITION, SIZE, SPACING, AND PLACEMENT OF REINFORCEMENT, AND THE QUALITY AND PLACEMENT OF ALL JOINTS.

6.

STRUCTURAL AND MISCELLANEOUS STEEL

- A. CODES AND STANDARDS:

1. AISC "STEEL CONSTRUCTION MANUAL", 13TH EDITION.  
2. AISC 303 "CODE OF STANDARD PRACTICE FOR BUILDINGS AND BRIDGES"  
3. AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"  
4. RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A 325 OR A 490 BOLTS"  
5. AWS D1.1 "STRUCTURAL WELDING CODE"  
6. AISC "SPECIFICATION FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL"

- B. SUBMITTALS:

1. SHOP DRAWINGS INDICATING THE SIZES, EXTENT, AND LOCATION OF ALL STRUCTURAL AND MISCELLANEOUS STEEL FRAMING INCLUDING ALL CONNECTIONS, FASTENERS, AND BEARINGS.

- C. MATERIALS:

1. W-SHAPES: ASTM A 992  
2. CHANNELS, ANGLES, PLATES: ASTM A 36  
3. HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A 500, GRADE "B"  
4. STEEL PIPE: ASTM A 53, TYPE E OR S, GRADE B  
5. PRIMER: FABRICATOR'S STANDARD LEAD AND CHROMATE FREE, NONASPHALTIC, RUST INHIBITING, COMPLY WITH MPI#79  
6. NON-METALLIC SHRINKAGE RESISTANT GROUT: ASTM C 1107 WITH MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS  
7. GALVANIZE: HOT-DIP ZINC COATING, ASTM A 123

- D. CONNECTIONS:

1. WELDED CONNECTIONS: E70XX ELECTRODES  
2. HIGH-STRENGTH BOLTS: ASTM A 325, TYPE 1, HEAVY-HEX STEEL STRUCTURAL BOLTS  
3. HEADED ANCHOR RODS: ASTM F 1554, GRADE 55, STRAIGHT, WITH ASTM A 563 HEAVY-HEX CARBON STEEL NUTS

- E. INSPECTIONS BY INDEPENDENT INSPECTION AGENCY:

1. BOLTED CONNECTIONS: RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING A 325 OR A 490 BOLTS"  
2. WELDED CONNECTIONS: VISUAL INSPECTION, TESTING AND INSPECTION PER AWS D1.1  
3. VERIFY, WITH ERECTOR PRESENT, ELEVATIONS OF CONCRETE AND MASONRY BEARING SURFACES AND LOCATIONS OF ANCHOR BOLTS AND OTHER EMBEDDED ITEMS.

- F. INSTALLATION:

1. ALL CONNECTIONS, UNLESS OTHERWISE NOTED, SHALL BE DOUBLE ANGLE OR SINGLE PLATE SHEAR CONNECTIONS DESIGNED AND DETAILED IN ACCORDANCE WITH AISC MANUAL OF STEEL CONSTRUCTION.  
a. MINIMUM EDGE DISTANCE: 1 1/2 INCHES  
b. BOLT SPACING: 3 INCHES  
2. BEAM CONNECTIONS SHALL USE NO LESS THAN TWO 3/4" DIAMETER ASTM A 325N OR A 490 HIGH STRENGTH BOLTS.  
3. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY CERTIFIED WELDERS.  
4. WELDS SHALL DEVELOP THE FULL STRENGTH OF MATERIALS BEING WELDED UNLESS OTHERWISE INDICATED.  
5. THE CONTRACTOR SHALL NOT SPLICE OR CUT OPENINGS IN STEEL MEMBERS NOT SHOWN ON CONTRACT DRAWINGS WITHOUT THE PERMISSION OF THE STRUCTURAL ENGINEER.

7. STEEL JOISTS

- A. REFER TO "STRUCTURAL STEEL" SECTION FOR APPLICABLE CODES AND STANDARDS. IN ADDITION, COMPLY WITH THE FOLLOWING:

1. STEEL JOIST INSTITUTE "STANDARD SPECIFICATIONS, LOAD TABLES, AND WEIGHT TABLES FOR STEEL JOISTS AND JOIST GIRDERS"

- B. ALL OPEN WEB K SERIES JOISTS SHALL BE DESIGNED, FABRICATED, AND ERECTED PER SJI SPECIFICATIONS.

- C. CONTRACTOR SHALL DESIGN SPECIAL JOISTS CAPABLE OF WITHSTANDING DESIGN LOADS INDICATED, WITH LIVE LOAD DEFLECTIONS NO GREATER THAN THE FOLLOWING:

1. FLOOR JOISTS: VERTICAL DEFLECTION OF L/360 OF THE SPAN  
2. ROOF JOISTS: VERTICAL DEFLECTION OF L/240 OF THE SPAN

- D. SUBMITTALS:

1. SHOP DRAWINGS INDICATING LAYOUT, DESIGNATION, LOCATION, AND NUMBER OF JOISTS, INCLUDING ANCHORAGE, BRACING, BRIDGING, AND JOIST ACCESSORIES.

- E. INSTALLATION:

1. MECHANICAL EQUIPMENT SHALL NOT BE PLACED DIRECTLY ON THE JOISTS WITHOUT THE APPROVAL OF THE ENGINEER. NO EQUIPMENT SHALL BE SUPPORTED FROM THE BOTTOM CHORD OR BETWEEN PANEL POINTS OF THE JOISTS WITHOUT STRENGTHENING AS INDICATED.  
2. THE CONTRACTOR SHALL PROVIDE BOTTOM CHORD STRUTS FOR ALL JOINTS BEARING AT OR NEAR COLUMNS.  
3. INSTALL AND CONNECT BRIDGING CONCURRENTLY WITH JOIST ERECTION ACCORDING TO SJI SPECIFICATIONS.

8. STEEL DECKING

- A. REFER TO "STRUCTURAL STEEL" SECTION FOR APPLICABLE CODES AND STANDARDS. IN ADDITION, COMPLY WITH THE FOLLOWING:

1. STEEL DECK INSTITUTE "STANDARD SPECIFICATIONS FOR FLOOR AND ROOF DECK"  
2. ANSI "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS"

- B. SUBMITTALS:

1. SHOP DRAWINGS INDICATING LAYOUT, MATERIAL PROPERTIES OR LOAD TABLES, ANCHORAGE DETAILS, PANS, AND DECK ACCESSORIES  
2. PRODUCT DATA AND STRUCTURAL LOAD TABLES OF MECHANICAL FASTENERS, IF APPLICABLE.

- C. MATERIALS:

1. GALVANIZED AND PRIME PAINTED STEEL SHEET: ASTM A 653, STRUCTURAL STEEL, GRADE 33, G60 ZINC COATING  
a. REFER TO PLANS AND DETAILS FOR MINIMUM PROFILE DEPTHS, THICKNESS, AND SECTION PROPERTIES PER FOOT WIDTH.  
b. SPAN CONDITION: TRIPLE SPAN OR MORE WHERE POSSIBLE, PROVIDE TEMPORARY SHORING AT ONE OR TWO SPAN CONDITIONS PER MANUFACTURER RECOMMENDATIONS.

- D. INSTALLATION:

1. REFER TO TYPICAL DETAILS FOR PERIMETER AND SIDE LAP CONNECTION REQUIREMENTS.  
2. WELDING WASHERS SHALL BE USED ON ALL METAL DECK WHICH IS 22 GA. OR LESS IN THICKNESS.  
3. ALL WELDS AND BURN AREAS SHALL BE CLEANED AND PAINTED WITH APPROVED PRIMER OR GALVANIZING REPAIR PAINT AS REQUIRED.  
4. THE CONTRACTOR SHALL PROVIDE SUPPORT FOR METAL DECK EDGES AT OPENINGS GREATER THAN 10 INCHES SQUARE. REFER TO TYPICAL DETAILS ON DRAWINGS FOR ADDITIONAL INFORMATION.  
5. THE CONTRACTOR SHALL PROVIDE ALL ACCESSORIES NECESSARY TO PROPERLY INSTALL THE METAL DECK.

COLD FORMED METAL FRAMING

- A. CODES AND STANDARDS:

1. AISI'S "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" INCLUDING THE "STANDARD FOR COLD FORMED STEEL FRAMING".

- B. SUBMITTALS:

1. SHOP DRAWINGS INDICATING THE SIZE, LOCATION, AND CONNECTION DETAILS FOR ALL MEMBERS, SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.  
2. CALCULATIONS FOR ALL COLD FORMED MEMBERS AND COMPONENTS INCLUDING MEMBER SIZE, GAUGE, LOCATION, CONNECTION, AND LATERAL BRACING DETAILS, SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.

- C. MATERIALS:

1. COLD FORMED METAL MEMBERS 16 GAUGE OR HEAVIER: ASTM A 446 WITH A MINIMUM YIELD STRENGTH OF 50 KSI.  
2. COLD FORMED METAL MEMBERS 18 GAUGE OR LIGHTER: ASTM A 446 WITH A MINIMUM YIELD STRENGTH OF 33 KSI.  
3. GALVANIZING OF ALL COLD FORMED MEMBERS SHALL MEET THE REQUIREMENTS OF ASTM A 525 WITH A MINIMUM G 60 COATING.

- D. STRUCTURAL PERFORMANCE REQUIREMENTS:

1. ALL COLD FORMED METAL FRAMING AND CONNECTIONS SHALL BE DESIGNED, FABRICATED, AND ERECTED BY THE CONTRACTOR TO SUPPORT LOADS INDICATED IN "DESIGN LOADS" SECTION.  
2. REFER TO PLANS AND DETAILS FOR MINIMUM SIZE AND SPACING FOR COLD FORMED METAL MEMBERS.  
3. DEFLECTION LIMITS:  
a. EXTERIOR NON LOAD BEARING WALL FRAMING: HORIZONTAL DEFLECTION OF L/600.  
b. ROOF TRUSSES: VERTICAL DEFLECTION OF L/240.

- E. INSTALLATION:

1. WELDING OF COLD FORMED METAL MEMBERS SHALL BE COMPLETED IN ACCORDANCE WITH AWS D1.1 AND AWS D1.3.  
2. ALL COLD FORMED METAL MEMBERS SHALL BE SHEARED OR SAW CUT. CUTTING OF MEMBERS WITH A TORCH IS NOT PERMITTED.  
3. SPLICES IN COLD FORMED METAL MEMBERS ARE NOT PERMITTED UNLESS DETAILED ON THE CONTRACT DRAWINGS.

10. MISCELLANEOUS

- A. THE CONTRACTOR SHALL LOCATE ALL UTILITIES IN THE AREA OF CONSTRUCTION AND PREVENT DAMAGE TO THEM. SHOULD DAMAGE OCCUR TO ANY UTILITIES, THE CONTRACTOR IS REQUIRED TO REPAIR THE DAMAGE TO THE SATISFACTION OF THE OWNER AT HIS OWN EXPENSE.

- B. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED BY THE CONTRACTOR OR OWNER FOR REVIEW BY THE ENGINEER. IF THE CONTRACTOR OR OWNER FAILS TO SUBMIT THE SHOP DRAWINGS, THE ENGINEER WILL NOT BE RESPONSIBLE FOR STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT. THE SHOP DRAWINGS SHALL INDICATE ANY DEVIATIONS OR OMISSIONS FROM THE CONTRACT DOCUMENTS. THE GENERAL CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMISSION AND MAKE ALL CORRECTIONS DEEMED NECESSARY.

- C. THE CONTRACTOR SHALL REVIEW THE ARCHITECTURAL, CIVIL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION AND DIMENSION OF CHASES, INSERTS, OPENINGS, SLEEVES, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS WHICH IMPACT THE STRUCTURAL COMPONENTS.

- D. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS BEFORE PROCEEDING WITH CONSTRUCTION.



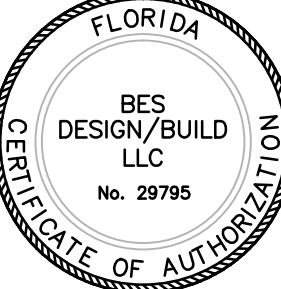
- E. THE CONTRACTOR SHALL NOT SUBMIT REPRODUCTIONS OF THE STRUCTURAL CONTRACT DOCUMENTS AS SHOP DRAWINGS.

- F. SCALES SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DIMENSIONAL INFORMATION SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.

FINAL SUBMISSION  
APRIL 9, 2013

IF SHEET IS LESS THAN (30"x42") IT IS  
A REDUCED PRINT; SCALE ACCORDINGLY

S001

 766 MIDDLE ST., FARMHOPE, AL 36532 251-990-5778 ARCH. & ENGR. SEAL  	NATURAL RESOURCES & ENVIRONMENTAL AFFAIRS SATISFACTORY TO DATE	P.W. DWG. NO.	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND PANAMA CITY, FLORIDA
	SAFETY DEPARTMENT SATISFACTORY TO DATE	DRAWN BY <b>KM</b>	CONSTRUCT NAVAL BRANCH HEALTH CLINIC PANAMA CITY
	FIRE DEPARTMENT SATISFACTORY TO DATE	CHECKED BY <b>NB</b>	GENERAL STRUCTURAL NOTES
	PUBLIC WORKS SUPERVISOR SATISFACTORY TO DATE	SUPERVISOR <b>WWB</b>	SIZE <b>F</b> TOWN PROJ. NO. 520-13-200 SCALE <b>N/A</b>
	APPROVED	DATE	CODE IDENT. NO. <b>N/A</b>
	PUBLIC WORKS OFFICER		CONSTR. CONTR. NO.
			MACC. T.O.# SHEET 1 OF 10