STEEL:

1. FABRICATOR SHALL PARTICIPATE IN THE AISC QUALITY CERTIFICATION PROGRAM AND BE CERTIFIED BY AISC FOR CATEGORY STD "STEEL BUILDING STRUCTURES".
2. STRUCTURAL STEEL SHALL MEET THE LATEST AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
3. ALL WIDE FLANGE SHAPES TO MEET ASTM A992 – f'y = 50ksi. ALL OTHER SHAPES, PLATES, ANGLES, ETC. TO MEET ASTM A36 – f'y = 36ksi. ALL TUBING TO MEET ASTM A500, GRADE B – f'y = 46ksi. ALL PIPES TO MEET ASTM A53, GRADE B – f'y = 35ksi.
4. ALL BOLTS TO MEET ASTM A325 HIGH STRENGTH, WITH WASHERS AS REQUIRED, (EXCEPT ANCHOR BOLTS TO MEET ASTM F1554 GRADE 55 UNO).
5. ANCHOR BOLTS SHALL NOT BE MODIFIED UNLESS APPROVED BY ENGINEER.
6. ALL BEAMS AND DIAGONAL BRACING SHALL NOT BE RELEASED FROM THE HOIST CABLE UNTIL MEMBER IS SECURED BY A MINIMUM OF TWO BOLTS PER END.
7. WELDING SHALL CONFORM TO THE STANDARDS SET FORTH IN AWS D1.0 PUBLICATION "WELDING IN BUILDING CONSTRUCTION".
8. ALL NOTED SHOP CONNECTIONS TO HAVE 1/4" FILLET WELDS MINIMUM UNLESS AS BOLTED CONNECTIONS.
9. ALL FIELD WELDS TO BE WITH E70XX ELECTRODES. BRUSH CLEAN ALL FIELD WELDS AND COAT WITH A COLD–GALVANIZING REPAIR PRIMER.
10. ALL ERECTION DRAWINGS SHALL SHOW ALL FIELD WELDS REQUIRED.
11. ELEVATIONS FOR TOP OF STEEL ARE NOTED ON DRAWINGS. BEAMS FRAME FLUSH AT TOP UNLESS NOTED (+/–).
12. ALL STRUCTURAL STEEL SHALL HAVE THE FOLLOWING SURFACE PREPARATION IN ACCORDANCE WITH THE STRUCTURAL STEEL PAINTING COUNCIL REQUIREMENTS FOR THE FOLLOWING GRADE: SSPC–SP3 "POWER TOOL CLEANING".
13. ALL STRUCTURAL STEEL SHALL BE SHIPPED WITH ONE COAT OF SHOP PRIMER EXCEPT THOSE MEMBERS THAT ARE GALVANIZED OR IN AREAS SCHEDULED TO RECEIVE FIRE PROOFING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AREAS TO BE FIRE PROOFED WITH THE ARCHITECTS DRAWINGS.
14. BAR GRATING SHALL BE 1 1/4" x 1/8" GALVANIZED GRATING. GRATING SHALL BE CLAMPED TO SUPPORT BEAMS WITH GALVANIZED CLAMPS THAT DO NOT REQUIRE DRILLING OF BEAMS. ALL EDGES OF GRATING SHALL BE BANDED.
15. NO OPENINGS TO BE PLACED IN BEAM WEBS OR FLANGES WITHOUT ENGINEER'S APPROVAL.
16. THE STEEL FRAME IS "NON–SELF SUPPORTING". ADEQUATE TEMPORARY SUPPORT MUST BE PROVIDED BY THE CONTRACTOR UNTIL REQUIRED CONNECTIONS OR ELEMENTS ARE IN PLACE.
17. THE FOLLOWING MINIMUM INSPECTION SHALL BE PROVIDED FOR FIELD WELDS:
    A) FIELD WELDED MOMENT CONNECTIONS – 100% VISUAL INSPECTION
    B) WELDED CONNECTION OF PRIMARY STEEL STRUCTURE TO EMBEDMENTS CAST INTO CONCRETE STRUCTURE – 100% VISUAL INSPECTION
    C) WELDS OF STEEL JOISTS TO SUPPORTING STEEL FRAME – 100% VISUAL INSPECTION.
18. ALL LOOSE STEEL ANGLES SUPPORTING EXTERIOR BRICK VENEER WITH METAL STUD BACK–UP SHALL BE L6x6x⅝ GALVANIZED WITH 6–INCH MINIMUM BEARING EACH END. . WHERE BACK–UP IS OF CONCRETE WALL CONSTRUCTION, THE LOOSE ANGLE SHALL BE ⅝" BENT PLATE 6 1/2"x6 1/2" GALVANIZED WITH 6–INCHES MINIMUM BEARING EACH END, UNLESS NOTED OTHERWISE.
19. CAP ALL OPEN–ENDED HSS SECTIONS WITH A PLATE EQUAL TO THE WALL THICKNESS (1/4" MIN. THK.) AND SEAL WITH A 1/4" FILLET AND WELD ALL AROUND, UNO.
20. ALL STRUCTURAL STEEL CONNECTIONS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE DESIGNED TO RESIST FORCES INDICATED, BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF ALABAMA. DESIGN CALCULATIONS FOR THE CONNECTIONS DESIGNED BY THE SPECIALTY ENGINEER SHALL BE SUBMITTED FOR THE FILES OF THE ARCHITECT AND ENGINEER. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SHOP DRAWINGS CONTAINING CONNECTIONS FOR WHICH CALCULATIONS HAVE NOT BEEN RECEIVED WILL BE RETURNED UNCHECKED AS AN INCOMPLETE SUBMITTAL.

STEEL JOISTS:

1. STEEL JOISTS AS SHOWN ON THE PLANS ARE TO BE FABRICATED AND ERECTED PER S.J.I. RECOMMENDATIONS, INCLUDING BRIDGING. SEE PLANS AND DETAILS FOR SPECIAL BRIDGING AND BRACING REQUIREMENTS.
2. JOISTS AT OR NEAREST TO CENTERLINES OF COLUMNS ARE TO HAVE BOLTED CONNECTIONS. EXTEND BOTTOM CHORD OF JOISTS LOCATED AT COLUMN CENETERLINES AND PROVIDE 1/2"x6"x6" JOIST STABILIZER PLATE WITH 13/16" DIA. HOLE WELDED TO COLUMN. DO NOT WELD JOIST BOTTOM CHORD TO STABILIZER PLATE.
3. ALL JOISTS SHALL BE CAMBERED IN ACCORDANCE WITH S.J.I. CRITERIA.
4. SUSPENSION OF ANY ITEMS FROM JOISTS OR JOIST GIRDERS SHALL BE ONLY AT PANEL POINTS, U.N.O.
5. ALL JOISTS SHALL BE DESIGNED FOR THE ADDITION OF A SINGLE MOVING CONCENTRATED LOAD OF 150 LBS APPLIED VERTICALLY AT ANY POINT ALONG THE BOTTOM CHORD OF THE JOIST. THIS LOAD MAY BE PLACED AT ANY LOCATION BETWEEN ANY TWO PANEL POINTS ON THE BOTTOM CHORD. THIS LOADS SHALL BE IN ADDITION TO THE DESIGN LOADS SPECIFIED ON THE DRAWINGS AND IN ADDITION TO THE UNIFORM DESIGN LOADS LISTED IN S.J.I OR THE SUPPLIER'S PUBLISHED LOAD TABLES. SECONDARY STRESSES CREATED BY THIS CONCENTRATED LOAD SHALL NOT BE USED TO REDUCE DESIGN STRESSES IN ANY JOIST MEMBER OR COMPONENT.
6. LOCATE VERTICAL WEB MEMBER AT CONCENTRATED LOADS OR PROVIDE ADDITIONAL L1–1/2" X 1–1/2" X 1/4" VERTICAL STIFFENERS EACH SIDE OF WEB.
7. ROOF JOISTS SHALL BE DESIGNED FOR A "NET UPLIFT LOAD" BASED ON THE SCHEDULE ON SHEET S1.4.
8. BRIDGING INDICATED ON PLANS ARE FOR PURPOSES OF ILLUSTRATING MISCELLANEOUS ATTACHMENTS AND DETAILS. GREATER OR FEWER LINES OF BRIDGING MAY BE REQUIRED BY S.J.I. AND THESE REQUIREMENTS WILL SUPERSEDE THE CONTRACT DOCUMENTS.
9. JOIST DRAWINGS MUST BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF THE PROJECT. FURNISH COMPREHENSIVE ENGINEERING ANALYSIS OF SPECIAL JOISTS AND ALL JOISTS WITH ROOF UPLIFT LOADS GREATER THAN 25 PSF. SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR ITS PREPARATION.

COMPOSITE FLOOR DECKING:

1. STEEL FLOOR DECK SHALL BE 2" 20–GAGE GALVANIZED COMPOSITE METAL DECK ATTACHED TO SUPPORTING MEMBERS WITH 5/8" PUDDLE WELDS AT 12" o.c. WIRE BRUSH ALL WELDS AND TOUCH UP WITH GALVANIZED REPAIR PAINT BEFORE PLACING CONCRETE FLOOR SLAB.
2. ALL SHEAR STUDS TO BE INSTALLED USING NELSON STUD GUN. ALL FERRULES SHALL BE REMOVED FROM THE BASE OF THE STUDS BEFORE PLACING THE CONCRETE SLAB. ALL SHEAR STUDS TO MEET ASTM A 108, Fy = 60 KSI.
3. PROVIDE 5/16 BENT PLATE WELDED TO TOP OF SUPPORT BEAMS ON ALL SIDES OF OPENINGS THROUGH ELEVATED FLOORS.
4. UNLESS INDICATED OTHERWISE, PROVIDE POUR STOPS OF LENGTH, DEPTH AND GAGE APPROPRIATE FOR OVERHANG AND SLAB DEPTH.

ROOF DECKING:

1. ALL STEEL ROOF DECK TO BE 1 ½" – 20 GAGE, TYPE "B" WIDE RIBBED GALVANIZED METAL ROOF DECK. ERECT PER MANUFACTURER'S SPECIFICATIONS.
2. TYPICAL METAL DECK TO JOIST AND PERIMETER ANGLE CONNECTIONS SHALL BE WITH ⅝" DIAMETER PUDDLE WELDS. ATTACHMENT PATTERN SHALL BE AS FOLLOWS:
   – 36/7 PATTERN ROOF ZONES 1 & 2
   – 36/14 PATTERN ROOF ZONE 3 (2 WELDS PER CORRUGATION)
3. ALL METAL DECK SIDE LAP CONNECTIONS SHALL BE #10 TEKS SELF–DRILLING SCREWS. THE NUMBER OF SIDELAP FASTENERS PER SPAN SHALL BE:
   – 3 PER SPAN (15" o.c. MAX)
4. ROOF DECK SHALL BE FASTENED AT ALL PERIMETER EDGE AND CHANGES IN DIRECTION AT 6"O.C MAX.
4. STEEL DECK SHALL BE ATTACHED TO ALL MEMBERS ON WHICH IT BEARS.
5. ALL OPENINGS IN ROOF DECK WITH ANY ONE DIMENSION GREATER THAN 12" SHALL BE FRAMED WITH L4x4x1/4 ON ALL FOUR SIDES.

STEEL STAIR NOTES:

1. COORDINATE STAIR TREAD & RISER CONFIGURATION AND RELATED STAIR DIMENSIONS WITH ARCHITECTURAL PLANS.
2. ALL EXPOSED STAIR FRAMING TO BE PRIMED AND PAINTED. REFERENCE SPECIFICATIONS FOR FIELD APPLIED FINISH PAINTING.
3. FABRICATE STAIR FLIGHTS & LANDINGS TO GREATEST EXTENT PRACTICAL IN SHOP.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF STAIRS, RAILINGS, AND RELATED CONNECTIONS TO THE STRUCTURE. SUBMIT SIGNED AND SEALED STRUCTURAL CALCULATIONS FOR STAIR DESIGN ALONG WITH STAIR SHOP DRAWINGS – SEE SPECIFICATIONS.

COLD–FORMED METAL FRAMING:

1. ALL COLD–FORMED STEEL FRAMING SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH THE LATEST EDITION OF "SPECIFICATIONS FOR THE DESIGN OF COLD–FORMED STEEL STRUCTURAL MEMBERS" BY THE AMERICAN IRON AND STEEL INSTITUTE. STEEL FOR 14 AND 16 GAGE STUDS SHALL HAVE A MINIMUM YIELD STRENGTH OF 50KSI. STEEL FOR ALL 18 AND 20 GAGE STUDS AND JOISTS, AND FOR ALL GAGE OF TRACK, ACCESSORIES AND BRIDGING SHALL HAVE A MINIMUM YIELD STRENGTH OF 33 KSI. ALL STEEL SHALL BE GALVANIZED AND SHALL HAVE A MINIMUM G60 COATING.
2. METAL STUD CONTRACTOR ASSUMES UNDIVIDED RESPONSIBILITY FOR ENGINEERING COLD FORMED METAL FRAMING BY EMPLOYING A QUALIFIED PROFESSIONAL ENGINEER TO PREPARE DESIGN CALCULATIONS AND COMPLETE SHOP DRAWINGS. SEALED STRUCTURAL ANALYSIS AND RELATED DESIGN CALCULATIONS SHALL BE SUBMITTED FOR REVIEW ON ALL EXTERIOR CURTAINWALL FRAMING AND RELATED ATTACHMENTS TO THE STRUCTURE. ADEQUATE DETAIL SHALL BE PROVIDED IN THE SHOP DRAWINGS TO INSURE PROPER CONSTRUCTION OF THE VARIOUS WALL ASSEMBLIES.
3. WHERE NOTED ON DETAILS, EXTERIOR WALL STUDS SHALL BE ATTACHED TO THE STRUCTURE WITH A "VERTI–CLIPS". NUMBER OF CLIPS, MODEL NUMBERS, AND RELATED ATTACHMENTS TO THE STRUCTURE SHALL BE AS DETERMINED BY THE METAL STUD ENGINEER FOR EACH CONDITION AND AS JUSTIFIED THROUGH ENGINEERING CALCULATIONS.
4. PROVIDE 1 1/2" 16 GAUGE COLD ROLLED CHANNEL LATERAL STUD BRACING AT INTERVALS AS LISTED BELOW. ATTACH LATERAL STUD BRACING TO EACH STUD AS RECOMMENDED BY METAL MANUFACTURER. ALL EXTERIOR WALL LOCATIONS – 4'–0" o.c. MAX.
5. POSITION STEEL STUDS VERTICALLY IN RUNNERS AND ANCHOR EACH STUD TO RUNNERS WITH FOUR #8 FRAMING SCREWS, TWO TOP AND TWO BOTTOM WITH ONE SCREW IN EACH FLANGE.
6. ALL STUDS ARE TO HAVE STANDARD PREPUNCHED HOLES IN WEBS. PREPUNCHED HOLES SHALL NOT BE LOCATED WITHIN 10"(INCHES) OF THE STUD SUPPORT LOCATIONS.
7. USE FLUX COVERED MILD STEEL ELECTRODES AWS E–6012, E–6013, OR E–7014 FOR WELDING STEEL STUDS. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE AWS PROCEDURES. CONSULT MANUFACTURER FOR EQUIPMENT RECOMMENDATIONS AND PROPER ELECTRODE SELECTION. TOUCH UP WELDED AREAS WITH A GALVANIZED REPAIR PRIMER.

POST–INSTALLED ANCHORING SYSTEMS:

1. ALL POST–INSTALLED ANCHORS (TORQUE–CONTROLLED EXPANSION ANCHORS, SLEEVE ANCHORS, AND THE LIKE) INDICATED ON THE DRAWINGS FOR USE IN CONCRETE OR GROUT–FILLED MASONRY SHALL MEET THE MINIMUM LOAD REQUIREMENTS IDENTIFIED IN THE POST–INSTALLED ANCHOR SCHEDULE BASED ON BASE MATERIAL AND ANCHOR EMBEDMENT DEPTH.
2. LOADS SHOWN IN THE TABLE ARE ALLOWABLE SAFE WORKING LOADS WITH A MINIMUM SAFETY FACTOR OF 4.0.
3. ALL ANCHORS FOR INTERIOR APPLICATIONS TO HAVE ZINC – PLATED CARBON STEEL FINISH UNLESS NOTED OTHERWISE. ANCHORS FOR EXTERIOR LOCATIONS AND WHERE GALVANIZED MATERIAL IS BEING ANCHORED SHALL HAVE ANCHOR BODY, NUT, AND WASHER WITH A HOT–DIPPED GALVANIZED COATING CONFORMING TO ASTM A153 AND A STAINLESS STEEL EXPANSION ELEMENT CONFORMING TO AISI 304 OR AISI 316.
4. ALL ANCHORS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

POST–INSTALLED ANCHOR SCHEDULE

ANCHOR DIAMETER	CONCRETE BASE MATERIAL: 4000 PSI		
	MIN. EMBED IN.	TENSION LB.	SHEAR LB.
1/2"ø	3 7/8"	2050	2190
5/8"ø	4 3/8"	3380	3780
3/4"ø	5 3/4"	4680	5340
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NOTES:

a. LOADS ARE FOR SINGLE ANCHORS WITH NO REDUCTIONS FOR EDGE OR SPACING DISTANCES AND ARE DERIVED PER ICC–ES AC193 SECTION 6.4.3 FOR ALL OTHER CASES, CALCULATE LOAD ACCORDING TO ICC–ES AC193, SECTION 6.4.3.

b. LOADS ARE FOR CONDITION B, ACI 318 [illegible](c) – SUPPLEMENTARY REINFORCEMENT IS NOT PROVIDED.

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GENERAL NOTES

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