8. CARE SHALL BE EXERCISED TO AVOID DAMAGING ANY NEARBY STRUCTURES WHILE THE COMPACTION OPERATION IS UNDERWAY. PRIOR TO COMMENCING COMPACTION, OCCUPANTS OF ADJACENT STRUCTURES SHOULD BE NOTIFIED, AND THE EXISTING CONDITIONS OF THE STRUCTURES SHALL BE DOCUMENTED. COMPACTION SHALL CEASE IF DEEMED DETRIMENTAL TO ADJACENT STRUCTURES, AND GEOTECHNICAL ENGINEERS BE CONTACTED IMMEDIATELY. IT IS RECOMMENDED THAT THE VIBRATORY ROLLER REMAIN A MINIMUM OF 50 FEET FROM EXISTING STRUCTURES. WITHIN THIS ZONE, USE OF A TRACK-MOUNTED BULLDOZER OR A VIBRATORY ROLLER, OPERATING IN THE STATIC MODE, IS RECOMMENDED.

9. ANY STRUCTURAL BACKFILL OR FILL REQUIRED FOR SITE DEVELOPMENT SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 12 INCHES IN THICKNESS AND COMPACTED BY THE USE OF THE ABOVE DESCRIBED VIBRATORY DRUM ROLLER. THE LIFT THICKNESS SHALL BE REDUCED TO 8 INCHES IF THE ROLLER OPERATES IN THE STATIC MODE OR IF TRACK-MOUNTED COMPACTION EQUIPMENT IS USED. IF HAND-HELD COMPACTION EQUIPMENT IS USED, THE LIFT THICKNESS SHALL BE FURTHER REDUCED TO 6 INCHES.

10. STRUCTURAL FILL IS DEFINED AS A NON-PLASTIC, INORGANIC, GRANULAR SOIL HAVING LESS THAN 10 PERCENT MATERIAL PASSING THE NO. 200 MESH SIEVE AND CONTAINING LESS THAN 4 PERCENT ORGANIC MATERIAL. IT SHOULD BE NOTED THAT SOILS WITH MORE THAN 10 TO 12 PERCENT PASSING THE NO. 200 SIEVE WILL BE MORE DIFFICULT TO COMPACT, DUE TO THEIR NATURE TO RETAIN SOIL MOISTURE, AND MAY REQUIRE DRYING. TYPICALLY, THE MATERIAL SHOULD EXHIBIT MOISTURE CONTENT WITHIN ±2 PERCENT OF THE MODIFIED PROCTOR OPTIMUM MOISTURE CONTENT (ASTM D 1557) DURING THE COMPACTION OPERATIONS. COMPACTION SHALL CONTINUE UNTIL DENSITIES OF AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557) HAVE BEEN ACHIEVED WITHIN EACH LIST OF THE COMPACTED STRUCTURAL FILL.

11. AFTER SATISFACTORY PLACEMENT AND COMPACTION OF THE REQUIRED STRUCTURAL FILL, THE FOUNDATION AREAS MAY BE EXCAVATED TO THE PLANNED BEARING LEVELS. THE FOUNDATION BEARING LEVEL SOILS, AFTER COMPACTION, SHALL EXHIBIT DENSITIES OF AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557), TO A DEPTH OF ONE FOOT BELOW THE BEARING LEVEL. FOR CONFINED AREAS, SUCH AS THE FOOTING EXCAVATIONS, ANY ADDITIONAL COMPACTION OPERATIONS CAN PROBABLY BEST BE PERFORMED BY THE USE OF A LIGHTWEIGHT VIBRATORY SLED OR ROLLER HAVING A TOTAL WEIGHT ON THE ORDER OF 500 TO 2000 POUNDS.

12. TO REDUCE THE LOADS APPLIED TO THE RETAINING WALL STRUCTURES, GROUNDWATER DRAINAGE BEHIND THE WALL SHALL BE PROMOTED. GRANULAR BACKFILL SHALL BE PLACED DIRECTLY BEHIND THE WALLS. THESE SOILS SHALL BE CLEAN SANDS CONTAINING LESS THAN 5-PERCENT PASSING THE NO. 200 SIEVE AND CONTAINING LESS THAN 2-PERCENT ORGANIC MATERIAL. POSITIVE DRAINAGE OF THESE BACKFILL SOILS SHALL ALSO BE PROVIDED BY SUCH MEANS AS A SOCK ENCLOSED PERFORATED PIPE TOE-DRAIN OR WEEP HOLES.

13. TO AVOID WALL DAMAGE DURING THE COMPACTION PROCESS, HEAVY COMPACTION EQUIPMENT SHALL NOT BE USED WITHIN 5 FEET OF THE WALL. HAND-HELD COMPACTION EQUIPMENT SHALL BE USED IN THESE AREAS. THE FILL SOIL SHALL BE PLACED IN LOOSE LIFTS OF 6 INCHES OR LESS AND COMPACTED TO ACHIEVE A MAXIMUM DENSITY OF AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557). BACKFILL DENSITIES IN EXCESS OF 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY CAN RESULT IN OVERSTRESSING OF THE RETAINING WALLS.

14. A REPRESENTATIVE NUMBER OF FIELD IN-PLACE DENSITY TESTS SHALL BE MADE IN THE UPPER 2 FEET OF COMPACTED NATURAL SOILS, IN EACH LIST OF COMPACTED BACKFILL AND FILL, AND IN THE UPPER 12 INCHES BELOW THE BEARING LEVELS IN THE FOOTING EXCAVATIONS. THE DENSITY TESTS ARE CONSIDERED NECESSARY TO VERIFY THAT SATISFACTORY COMPACTION OPERATIONS HAVE BEEN PERFORMED.

DENSITY TESTING SHALL BE PERFORMED AS LISTED BELOW:

a. ONE LOCATION FOR EVERY 5000 SQUARE FEET OF BUILDING AREA WITH A MINIMUM OF THREE TESTS;

b. 25-PERCENT OF ANY ISOLATED COLUMN FOOTING LOCATIONS;

c. ONE LOCATION FOR EVERY 100 LINEAR FEET OF CONTINUOUS WALL FOOTINGS;

d. ONE LOCATION FOR EVERY 10,000 SQUARE FEET OF PAVEMENT AREA WITH A MINIMUM OF THREE TESTS; AND

e. ONE LOCATION FOR EVERY 100 FEET OF RETAINING WALL BACKFILL.

H. CONCRETE:

1. CAST-IN-PLACE:

a. REINFORCING STEEL CLEAR COVER SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH _____ 3"

CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 BARS AND LARGER _____ 2"
#5 BARS AND SMALLER _____ 1½"

CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
SLABS, WALLS, JOISTS:
#11 BARS AND SMALLER _____ ¾"

BEAMS, COLUMNS:
PRIMARY REINFORCEMENT,
TIES STIRRUPS, SPIRALS _____ 1½"

b. ALL FORMWORK, SHORING AND RESHORING SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION. ALL SUBMISSIONS SHALL BEAR HIS SEAL AND SIGNATURE.

c. NO SLEEVE SHALL BE PLACED THROUGH ANY CONCRETE ELEMENT UNLESS SHOWN ON THE STRUCTURAL DRAWINGS, APPROVED SLEEVING SHOP DRAWINGS OR SPECIFICALLY AUTHORIZED IN WRITING BY THE RESIDENT ENGINEER.

d. CORE DRILLING OF FOUNDATIONS, BEAMS, JOISTS, SLABS, AND COLUMNS SHALL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESIDENT ENGINEER.

e. NO SPLICES OF REINFORCEMENT SHALL BE PERMITTED EXCEPT AS DETAILED OR AUTHORIZED BY THE RESIDENT ENGINEER. MAKE BARS CONTINUOUS AROUND CORNERS. WHEN PERMITTED, SPLICES SHALL BE MADE BY CONTACT TENSION LAP SPLICES, UNLESS OTHERWISE NOTED.

f. ALL INSERTS AND SLEEVES SHALL BE CAST-IN-PLACE WHENEVER FEASIBLE. DRILLED OR POWDER DRIVEN FASTENERS WILL BE PERMITTED WHEN PROVEN TO THE SATISFACTION OF THE RESIDENT ENGINEER THAT THE FASTENERS WILL NOT SPALL THE CONCRETE AND HAVE THE SAME CAPACITY AS CAST-IN-PLACE INSERTS.

g. CHAMFER ALL EXPOSED CONCRETE CORNERS, ¾" x ¾" MINIMUM, UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS.

h. THE CONCRETE SLABS SHALL BE FINISHED FLAT AND LEVEL WITHIN TOLERANCE, TO THE ELEVATION INDICATED ON THE DRAWINGS. CONTRACTOR SHALL PROVIDE ADDITIONAL CONCRETE REQUIRED DUE TO FORMWORK AND FRAMING DEFLECTION TO ACHIEVE THIS FINISHED TOP OF SLAB ELEVATION.

i. CONSTRUCTION JOINTS FOR MILD-REINFORCED CONCRETE SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF SPAN. PROPOSED CONSTRUCTION JOINT LOCATIONS SHALL BE SHOWN ON REINFORCING STEEL SHOP DRAWINGS. ANY STOP IN CONCRETE WORK MUST BE MADE WITH VERTICAL BULKHEADS AND HORIZONTAL KEYS, UNLESS OTHERWISE SHOWN. ALL REINFORCING IS TO BE CONTINUOUS THROUGH JOINTS. FOUNDATIONS, SLABS, BEAMS, GIRDERS, AND JOISTS SHALL NOT HAVE JOINTS IN A HORIZONTAL PLANE UNLESS SHOWN OTHERWISE.

j. WELDED WIRE FABRIC REINFORCEMENT SHALL BE SUPPLIED IN SHEETS, EXCEPT FOR SLAB-ON-GRADE CONSTRUCTION WHERE ROLLS MAY BE USED. LAP TWO FULL MESH LENGTHS AT SPLICES AND WIRE TOGETHER.

k. NO WELDING OF REINFORCING SHALL BE PERMITTED UNLESS SPECIFICALLY CALLED FOR OR APPROVED BY THE RESIDENT ENGINEER.

l. PROVIDE PLASTIC TIPPED BOLSTERS AND CHAIRS AT ALL LOCATIONS WHERE THE CONCRETE SURFACE IN CONTACT WITH THE BOLSTERS OR CHAIRS IS EXPOSED.

m. PROVIDE VERTICAL DOVETAILS SLOTS 24" O.C. HORIZONTALLY AT BEAMS, COLUMNS, AND WALLS WHERE MASONRY WALLS OCCUR.

2. ARCHITECTURAL PRECAST CONCRETE PANELS & BRICK

a. REFER TO ARCHITECTURAL DRAWINGS AND DETAILS FOR TYPE AND LOCATION OF PANELS.

b. DESIGN OF ARCHITECTURAL PANELS SHALL BE IN ACCORDANCE WITH ACI AND PCI REQUIREMENTS AND IS THE RESPONSIBILITY OF THE PRECAST MANUFACTURER'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION FOR THE LIVE, DEAD AND LATERAL LOADS REQUIRED BY THESE DOCUMENTS. ALL SUBMITTALS SHALL BEAR THIS ENGINEER'S SEAL AND SIGNATURE.

c. PRECAST MEMBERS & BRICK MAY REQUIRE ELECTRICAL CONDUIT, JUNCTION BOXES, OPENINGS, ETC FOR THE PASSAGE OF UTILITIES. THEY MAY ALSO REQUIRE INSERTS, PLATES AND ANCHORS FOR THE ATTACHMENT OF OTHER EQUIPMENT. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ITEMS REQUIRED AND THEIR POSITIONING. COORDINATE WITH APPROPRIATE TRADES. CHAMFERS, REVEALS, REGLETS, ETC ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS, REFER TO ARCHITECTURAL DETAILS.

d. METHOD AND LOCATIONS OF ATTACHMENT SHALL BE IN ACCORDANCE WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS UNLESS INDICATED OTHERWISE.

e. SUBMIT CALCULATIONS FOR PRECAST & BRICK CONNECTIONS SHOWING A RATIONAL COMPLETE LOAD PATH, INCLUDING EFFECTS ON SUPPORTING MEMBERS. CONNECTIONS SHALL BE DESIGNED SO THAT NO ECCENTRIC OR TORSIONAL FORCES ARE INDUCED IN THE SUPPORTING MEMBERS. CALCULATIONS SHALL CLEARLY INDICATE ALL LOADS IMPOSED UPON THE STRUCTURAL SYSTEM. REVIEW OF THE CALCULATIONS BY THE RESIDENT ENGINEER SHALL BE SOLELY FOR THE PURPOSE OF EVALUATING THE IMPACT OF THESE LOADS ON THE STRUCTURAL SYSTEM.

I. MASONRY:

1. GENERAL

a. PROVIDE STANDARD WEIGHT GALVANIZED HORIZONTAL JOINT REINFORCEMENT IN ALL WALLS AND PARTITIONS UNLESS OTHERWISE SHOWN OR NOTED. HORIZONTAL REINFORCEMENT SHALL BE EQUAL TO DUR-O-WAL IN BED JOINTS 9 GAGE 4 WIRE SYSTEM SERIES 200 OR APPROVED EQUAL @ 16" O.C. MEASURED VERTICALLY UNLESS OTHERWISE NOTED. EXTEND INTO COLUMNS OR PROVIDE DOVETAIL ANCHORS TO SECURE MASONRY TO COLUMNS. PROVIDE ONE PIECE PREFABRICATED UNITS AT 8" O.C. AT ALL WALL CORNERS AND INTERSECTIONS.

b. PROVIDE MASONRY ANCHORS AT 16" O.C. SET ON COURSING AND ATTACHED TO ALL BEAMS, COLUMNS, PARTITIONS AND WALLS ABUTTING OR EMBEDDED IN MASONRY.

c. PROVIDE BOND BEAMS WITH 2 #4 HORIZONTAL REINFORCEMENT CONTINUOUS IN ALL MASONRY WALLS AT EACH FRAMING LEVEL.

d. IN GROUTED AND/OR REINFORCED MASONRY WALLS, USE MASONRY UNITS WITH CORES THAT ALIGN VERTICALLY TO PROVIDE CONTINUOUS UNOBSTRUCTED CELLS FOR GROUTING AND REINFORCING STEEL PLACEMENT.

e. ALL CONCRETE MASONRY WALLS SHALL BE REINFORCED W/GROUT & 1-#5 REINFORCING BAR @ 48" O.C. MAX, UNLESS OTHERWISE NOTED.

f. AT EACH GROUTED CELL, A BAR MATCHING THE WALL REINFORCEMENT SHALL BE DOWELED INTO THE BEAM ABOVE & BEAM OR FOOTING BELOW. BAR SHALL BE CONTINUOUS & LOCATED @ CENTER OF CELL.

g. DOWELS SHALL HAVE STANDARD 90° HOOK.

h. OPENINGS SHALL HAVE BLOCK CELLS @ EACH JAMB FILLED WITH GROUT & REINFORCEMENT.

i. LAP SPLICES FOR DEFORMED REINFORCING BARS USED IN MASONRY CONSTRUCTION SHALL BE 50 BAR DIAMETERS.

j. SUBMIT GROUT MIX DESIGN AND MASONRY UNIT CERTIFICATIONS TO THE RESIDENT ENGINEER FOR APPROVAL.

k. CONTRACTOR SHALL PROVIDE ADEQUATE BRACING AND SUPPORTS FOR ALL MASONRY WORK UNTIL PERMANENT CONSTRUCTION IS IN PLACE. CONTRACTOR SHALL ALSO PROVIDE AND MAINTAIN LIMITED ACCESS ZONE IN ACCORDANCE WITH OSHA 3106.

l. SEE SPECIFICATIONS AND DETAILS FOR GENERAL CONTROL JOINT REQUIREMENTS. JOINTS ARE TO BE CONSTRUCTED IN ALL WALLS AND PARTITIONS.

m. THE CONTRACTOR SHALL PROVIDE LINTELS OF LOOSE STEEL ANGLES, PRECAST CONCRETE, OR REINFORCED CONCRETE BLOCK AT HIS OPTION (UNLESS SHOWN OTHERWISE ON THE DRAWINGS) FOR NON-LOAD-BEARING WALLS AND PARTITIONS AS FOLLOWS:

STEEL LINTELS: BEARING LENGTH

FOR EACH 4" THICKNESS OF WALL
UP TO 4' - 0" OPENING:
L3-1/2 x 3-1/2 x 5/16 _____ 6"
4' - 0" TO 6' - 0" OPENING:
L4x3-1/2x5/16 (LLV) _____ 6"
6' - 0" TO 7' - 11" OPENING:
L5x3-1/2x5/16 (LLV) _____ 6"
8' - 0" TO 10' - 0" OPENING:
(1) W8X15 w/ 5/16 SUSP PL
UP TO A 12" THICK WALL MAX. _____ 8"

REINFORCED CMU LINTELS: PROVIDE MINIMUM 8" BEARING EACH END.

UP TO 4' - 0" OPENING	LINTEL SIZE = WALL THICKNESS X 8" DEEP REINFORCED W/ 2 #4 BOTTOM UP TO 8" THICK, REINFORCED W/ 3 #4 BOTTOM OVER 8" THICK.
4' - 0" TO 8' - 0" OPENING	LINTEL SIZE = WALL THICKNESS X 16" DEEP REINFORCED W/ 2 #5 BOTTOM UP TO 8" THICK, REINFORCED W/ 3 #5 BOTTOM OVER 8" THICK & #3 STIRRUPS AT 6" O.C.

PRECAST CONCRETE LINTELS:

PROVIDE MINIMUM 8" BEARING EACH END.

UP TO 4' - 0" OPENING	LINTEL SIZE = WALL THICKNESS X 8" DEEP REINFORCED W/ 2 #4 BOTTOM
4' - 0" TO 8' - 0" OPENING	LINTEL SIZE = WALL THICKNESS X 16" DEEP REINFORCED W/ 2 #5 BOTTOM

n. THE CONTRACTOR SHALL VERIFY ALL OPENINGS BELOW LINTELS INDICATED ARE ADEQUATE TO ACCEPT DOOR FRAMES, LOUVERS, ETC. AS SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS. NOTIFY THE RESIDENT ENGINEER OF ANY DISCREPANCIES PRIOR TO LINTEL INSTALLATION.

o. NO OPENINGS SHALL BE PLACED ABOVE ANY LINTEL WITHIN A HEIGHT LESS THAN OR EQUAL TO THE WIDTH OF THE CLEAR OPENING BELOW THE LINTEL, UNLESS SPECIFICALLY SHOWN OR APPROVED BY THE RESIDENT ENGINEER.

J. STRUCTURAL STEEL:

1. GENERAL:

a. ALL SHOP AND FIELD CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS OR WELDS. ALL HIGH STRENGTH BOLTS AND NUTS SHALL BE CLEARLY MARKED AS REQUIRED BY AISC SPECIFICATIONS. CONNECTIONS MADE WITH UNMARKED BOLTS AND NUTS WILL BE REJECTED.

b. PROVIDE ACCESS FOR INSPECTION OF ALL SHOP AND FIELD CONNECTIONS FOR PROPER MATERIALS AND WORKMANSHIP.

c. ALTERNATE CONNECTION DESIGNS SHALL ONLY BE ALLOWED WITH PRIOR APPROVAL OF THE RESIDENT ENGINEER. IF SUCH APPROVAL IS GRANTED, ALL CONNECTIONS, SPLICES AND ERECTION PIECES NOT IN ACCORDANCE WITH CONTRACT DRAWINGS (FABRICATOR REDESIGN) SHALL BE DESIGNED BY THE FABRICATOR'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION. CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED BEARING THE ENGINEER'S SEAL AND SIGNATURE.

d. ALL STRUCTURAL STEEL THAT IS SUBJECT TO WETTING WITH SALT-LADEN WATER OR OTHER MILD CHEMICAL ATTACK SHALL BE COMMERCIAL BLAST CLEANED AND PAINTED WITH THREE COATS OF EPOXY PAINT IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL PAINTING SYSTEM SPECIFICATION NO 13.01. A URETHANE TOPCOAT SHALL BE PROVIDED FOR ALL STEEL EXPOSED TO VIEW.

e. CERTIFIED COPIES OF MILL TEST REPORTS SHALL BE SUBMITTED TO THE RESIDENT ENGINEER.

f. THE GENERAL CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OF ANY FABRICATION OR ERECTION ERRORS OR DEVIATIONS AND RECEIVE WRITTEN APPROVAL BEFORE ANY FIELD CORRECTIONS ARE MADE.

g. CONNECTIONS SHALL BE SELECTED FOR REACTIONS AS SHOWN ON PLANS AND AS DETAILED AND SCHEDULED. NO CONNECTION SHALL CONSIST OF LESS THAN 2-3/4" DIA. A325-N BOLTS OR WELDS DEVELOPING LESS THAN 10,000 POUNDS. MINIMUM WELD 3/16" FILLET.

h. UNLESS OTHERWISE NOTED, ALL A325 BOLTS SHALL BE TIGHTENED TO THE "SNUG TIGHT" CONDITION DEFINED AS THE TIGHTNESS ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. THE SNUG TIGHT CONDITION MUST ENSURE THAT THE PLIES OF THE CONNECTED MATERIAL HAVE BEEN BROUGHT INTO SNUG CONTACT.

i. PERMANENT FRAMING AND FINAL CONNECTION DETAILS ARE SHOWN ON THE DRAWINGS. THE FABRICATOR AND ERECTOR ARE RESPONSIBLE FOR THE DESIGN OF TEMPORARY BRACING AND RECOMMENDED ERECTION PROCEDURES.

j. WELDING ELECTRODES, WELDING PROCESS, MINIMUM PREHEAT AND INTERPASS TEMPERATURES SHALL BE IN ACCORDANCE WITH THE AISC AND AWS SPECIFICATIONS. ANY STRUCTURAL STEEL DAMAGED IN WELDING IS TO BE REPLACED OR REINFORCED AS ACCEPTABLE TO THE RESIDENT ENGINEER.

k. WELDERS SHALL SUBMIT CURRENT EVIDENCE OF PASSING THE APPROPRIATE AWS QUALIFICATION TESTS TO THE RESIDENT ENGINEER.

l. GAS CUTTING TORCHES SHALL NOT BE USED TO CORRECT FABRICATION ERRORS WITHOUT THE APPROVAL OF THE RESIDENT ENGINEER.

K. COMPOSITE DECK:

1. DECK PROPERTIES ARE BASED ON PRODUCTS MANUFACTURED BY UNITED STEEL DECK, INC. (USD). DECKS BY OTHER MANUFACTURES MAY BE SUPPLIED PROVIDED SECTION PROPERTIES ARE WITHIN 5% OF THOSE SPECIFIED AND IF APPROVED BY THE RESIDENT ENGINEER.

2. PROVIDE STEEL DECK WITH THE FOLLOWING MINIMUM SECTION PROPERTIES:

a. MAIN BOILER BUILDING	1.5VL20 DECK; 5" TOTAL SLAB DEPTH; t = 3-½"
b. SUPPORT / OFFICE BLDG.	1.5VL20 DECK; 4" TOTAL SLAB DEPTH; t = 2-½"
c. STEEL DECK THICKNESS	= 0.0358"
d. STEEL DECK Ip	= 0.195 in^4/ft.
e. STEEL DECK In	= 0.222 in^4/ft..
f. STEEL DECK Sp	= 0.231 in^3/ft.
g. STEEL DECK Sn	= 0.240 in^3/ft.

3. INSTALL IN ACCORDANCE WITH SDI SUGGESTED SPECIFICATIONS UNLESS NOTED OTHERWISE ON THE DRAWINGS. INDIVIDUAL SHEETS SHALL EXTEND OVER AT LEAST THREE SPANS, WITH LAPS TO BE PLACED OVER SUPPORTS.

4. DECK SUPPLIER SHALL PROVIDE ALL ADDITIONAL FRAMING TO SUPPORT DECK AT OPENINGS THROUGH DECK AND ALL CLOSURE ANGLES AND PLATES WHERE REQUIRED TO RESULT IN A COMPLETE INSTALLATION.

5. FASTENERS FOR COMPOSITE DECKING SHALL BE IN ACCORDANCE W/ STRUCTURAL DRAWINGS.

6. ROOF AND NON-COMPOSITE DECKS SHALL BE WELDED TO STEEL SUPPORTS, INCLUDING THE EDGE SUPPORT PARALLEL TO THE DECK SPAN WITH 5/8" DIAMETER (EFFECTIVE FUSION DIAMETER) PLUG WELDS, 24/3, 30/4 OR 36/4 PATTERNS. FASTEN SIDE LAPS WITH 1-1/2" SEAM WELDS OR #10 SELF-TAPPING SCREWS AT 18" O.C. MAXIMUM SPACING.

L. STEEL JOISTS:

1. DESIGN OF JOISTS SHALL BE BY MANUFACTURER'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION FOR ALL LOADINGS REQUIRED BY THESE DOCUMENTS. ALL SUBMISSIONS SHALL BEAR THIS ENGINEER'S SEAL AND SIGNATURE.

2. BRIDGING SHALL BE WELDED OR BOLTED AND ANCHORED AT END WALLS OR BEAMS. ALL BRIDGING, BRIDGING ANCHORS AND JOIST CONNECTIONS SHALL BE COMPLETELY INSTALLED PRIOR TO THE APPLICATION OF ANY CONSTRUCTION LOADS.

3. FOR ROOF JOISTS RESISTING NET WIND UPLIFT, PROVIDE BRIDGING AT THE FIRST PANEL POINT FROM SUPPORTS. PROVIDE ADDITIONAL BRIDGING AS REQUIRED BY THE JOIST MANUFACTURER.

4. ALL SUPPORTED ROOFTOP UNITS AND OTHER SUSPENDED EQUIPMENT AND PIPING SHALL BE DIRECTLY SUPPORTED FROM JOIST PANEL POINTS UNLESS TOP OR BOTTOM CHORD IS SPECIFICALLY DESIGNED FOR INTERPANEL LOADING OR ADDITIONAL REINFORCEMENT IS PROVIDED.

FINAL DESIGN
APPROVED FOR CONSTRUCTION

Revisions:	Date

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Approved: Project Director

Project Title: REPLACE BOILERS - FCA D, ENERGY AT THE MALCOM RANDALL VAMC

Location: GAINESVILLE, FLORIDA

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