A. NOTES TO THE CONTRACTOR:

- DRAWINGS REPRESENT THE DESIRED RESULT OF CONSTRUCTION. BIDDERS SHALL USE COMPLETE SETS OF BIDDING DOCUMENTS IN PREPARING BIDS: NEITHER THE. ENGINEER, OWNER NOR ARCHITECT ASSUMES RESPONSIBILITY FOR ERRORS OR MISINTERPRETATIONS RESULTING FROM THE USE OF INCOMPLETE SETS OF BIDDING DOCUMENTS.
- THE METHODS OF CONSTRUCTION AND THE RISKS INVOLVED DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN THE BUILDING'S STRUCTURAL INTEGRITY AT ALL STAGES OF CONSTRUCTION.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS DURING CONSTRUCTION AND REPORT TO THE ARCHITECT/ENGINEER DURING CONSTRUCTION ANY DISCREPANCIES.
- CONTRACTOR'S PROPOSED SUBSTITUTIONS SHALL BE APPROVED BY THE ARCHITECT/ENGINEER PRIOR TO COMMENCING ANY PERTINENT WORK.
- ALL MATERIALS AND INSTALLATIONS MUST BE TESTED/INSPECTED BY THIRD PARTY AGENCIES APPROVED BY THE STRUCTURAL ENGINEER, BUT EMPLOYED BY THE GENERAL OWNER. SEE INDIVIDUAL SPECIFICATION SECTIONS FOR SPECIFIC REQUIREMENTS. CONTRACTOR [OWNER] SHALI SUBMIT A LIST OF PROPOSED INSPECTORS AT THE PRE-CONSTRUCTION MEETING; LIST SHALL INCLUDE CREDENTIALS OF INSPECTOR(S) WHO WILL ACTUALLY PERFORM THE WORK.

6. SPECIAL INSPECTIONS:.

- a. A SPECIAL INSPECTIONS PROGRAM IS REQUIRED FOR THIS PROJECT. THE STRUCTURAL ENGINEER OF RECORD, BFMJ, MUST APPROVE ALL SPECIAL INSPECTORS FOR STRUCTURAL WORK IN WRITING PRIOR TO BEGINNING ANY FIELD CONSTRUCTION WORK.
- THE SPECIAL INSPECTOR (SI) THAT OVERSEES EACH SPECIAL INSPECTION PROGRAM AREA MUST BE A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF KENTUCKY. HE AND HIS INSPECTION AGENTS SHALL HAVE APPROPRIATE EXPERIENCE AND TRAINING IN THE AREA OF WORK THEY WILL BE PROVIDING SERVICES FOR INCLUDING THE ABILITY TO READ AND INTERPRET THE CONTRACT DOCUMENTS, INCLUDING CONTRACT DRAWINGS, SPECIFICATIONS AND FIELD ADDENDUMS.
- SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE 2007 KENTUCKY BUILDING CODE
- ALL MATERIALS SUPPLIERS ARE TO SUBMIT ALL NECESSARY PAPERWORK OR HIRE A SPECIAL INSPECTOR TO MEET THE REQUIREMENTS FOR INSPECTION OF FABRICATORS LISTED IN CHAPTER 17 OF THE 2007 KBC, SECTION 1704.2.
- THE OWNER IS TO ENGAGE A SPECIAL INSPECTOR OR INSPECTORS THAT WILL OBSERVE AND REPORT ON THE CONSTRUCTION PRACTICES.
- THE CONTRACTOR OR HIS SUBCONTRACTORS ARE TO ENGAGE THE TESTING AGENCIES FOR ALL MATERIAL TESTING REQUIRED IN THEIR SPECIFICATIONS OF WORK.
- DUTIES OF THE SPECIAL INSPECTOR:
- SPECIAL INSPECTORS AND THE AUTHORIZED AGENT(S) SHALL OBSERVE DESIGNATED WORK TO VERIFY CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS.
- THE SI SHALL INFORM ALL PERTINENT PARTIES, INCLUDING THE SER, OF ANY DEVIATIONS FROM COMPLIANCE WITH THE CONTRACT DOCUMENTS
- THE SI IS TO PROVIDE PERIODIC INTERIM REPORTS TO THE SER, BFMJ, AND FILE A FINAL REPORT OF SPECIAL INSPECTIONS AT THE COMPLETION OF THE PROJECT TO THE SER AND BUILDING OFFICIAL.
- THE FOLLOWING TYPES OF STRUCTURAL WORK REQUIRE SPECIAL INSPECTION: (REFER TO BUILDING CODE. SPECIFICATIONS, AND SPECIAL INSPECTION LETTER _____FOR DETAILED INSPECTION

REQUIREMENTS):

FABRICATORS STRUCTURAL STEEL WORK CONCRETE WORK PIER FOUNDATION WORK

DESIGN CRITERIA

THIS STRUCTURE HAS BEEN DESIGNED ACCORDING TO THE [2013] KENTUCKY BUILDING CODE AND FOR THE SPECIFIC LOADS THAT ARE LISTED BELOW.

1. ROOF LOADS

- DEAD LOAD = 10 PSF + STRUCTURAL FRAMING
- MECHANICAL, CEILING, LIGHTING = 10 PSF
- LIVE LOAD = 20 PSF
- SNOW LOADS:

GROUND SNOW LOAD $(P_g) = 20 \text{ PSF}$

FLAT-ROOF SNOW LOAD $(P_f) = 20 PSF$

EXPOSURE FACTOR (Ce) = 0.9

THERMAL FACTOR $(C_t) = 1.0$

IMPORTANCE FACTOR $(I_s) = 1.0$

MECHANICAL EQUIPMENT LOADS AND LOCATIONS USED FOR DESIGN ARE AS INDICATED ON THE (STRUCTURAL (MECHANICAL /ARCHITECTURAL) DRAWINGS. ACTUAL EQUIPMENT LOADS AND LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR AND SHALL BE INDICATED ON THE STRUCTURAL SHOP DRAWINGS SUBMITTED FOR

2. FLOOR LOADS

- a. DEAD LOAD = 75 PSF + STRUCTURAL FRAMING
- SUPERIMPOSED DEAD LOAD = 25 PSF INCLUDES MEP & CEILING LOADS
- c. LIVE LOAD = 100 PSF

APPROVAL.

SLAB ON GRADE = 150 PSF

WIND LOADS:

- LATERAL LOADS:

BASIC WIND SPEED = 115 MPH

IMPORTANCE FACTOR $(I_w) = 1.00$

RISK CATEGORY = II

EXPOSURE = B

INTERNAL PRESSURE COEFFICIENT (GC_{pi}) = ± 0.18

MAIN WINDFORCE DESIGN PRESSURE (P) = 20.1

COMPONENTS AND CLADDING DESIGN PRESSURE

a) WHEN EFFECTIVE AREA IS > OR = 90 FT2 POSITIVE PRESSURES ON WALLS AND WALL-CORNERS = 20 PSF

NEGATIVE PRESSURES (SUCTION) ON WALLS = -20 PSF iii. NEGATIVE PRESSURES (SUCTION)

ON WALL-CORNERS = -25 PSF

b) WHEN EFFECTIVE AREA IS > OR = 50 FT2 i. POSITIVE PRESSURES ON WALLS AND WALL-CORNERS = 22 PSF ii. NEGATIVE PRESSURES (SUCTION) ON WALLS = -23 PSF

NEGATIVE PRESSURES (SUCTION) ON WALL-CORNERS = -25.3 PSF

WHEN EFFECTIVE AREA IS > OR = 10 FT2

- POSITIVE PRESSURES ON WALLS
- AND WALL-CORNERS = 24 PSF NEGATIVE PRESSURES (SUCTION) ON WALLS = -26 PSF
- iii. NEGATIVE PRESSURES (SUCTION) ON WALL-CORNERS = -32 PSF

NOTE: WALL CORNER WIDTH IS DEFINED AS 10% OF LEAST HORIZONTAL DIMENSION OR 0.4H, H IS THE HEIGHT OF THE WALL, BUT NOT LESS THAN 3 FT.

SEISMIC LOADS:

THE FOLLOWING EARTHQUAKE DESIGN DATA WAS USED FOR THIS DESIGN ANALYSIS:

MAPPED SPECTRAL RESPONSE ACCELERATION S_S = 0.194

MAPPED SPECTRAL RESPONSE ACCELERATION $S_{1} = 0.078$

DESIGN SPECTRAL ACCELERATION FOR SHORT PERIOD $(S_{DS}) = 0.155$ DESIGN SPECTRAL ACCELERATION FOR 1-SECOND PERIOD (Sp1) = 0.088

SEISMIC USE GROUP II

SITE CLASS TYPE = B

SEISMIC DESIGN CATEGORY = B

BASIC STRUCTURAL SYSTEM AND SEISMIC-RESISTING SYSTEM TABLE 12.2-1 ASCE 7-10: STEEL ORDINARY MOMENT FRAMES

RESPONSE MODIFICATION FACTOR (R) = 3½

ANALYSIS PROCEDURE: = EQUIVALENT LATERAL FORCE PROCEDURE

FOUNDATION, FILLING, AND EXCAVATION (SOIL REPORT)

THE FOLLOWING DESIGN INFORMATION HAS BEEN OBTAINED FROM A SUBSURFACE REPORT PREPARED BY ALT & WITZIG ENGINEERING, INC. DATED APRIL 3, 2012.

- 1. WEATHERED SHALE (BROWN) CAPACITY = 12,000 PSF
- WEATHERED SHALE (GRAY) CAPACITY = 30,000 PSF
- FOR INFORMATION ON FILLING AND EXCAVATION AND BACKFILLING, SEE GEOTECHNICAL REPORT DATED APRIL 3, 2012 AS PREPARED BY ALT & WITZIG ENGINEERING, INC.
- CAISSONS SHALL BEAR ON WEATHERED GRAY SHALE AND THE BOTTOM OF ALL FOOTINGS/CAISSONS SHALL BE SOCKETED 6" MINIMUM INTO ROCK AND SHALL BE PLACED ON A LEVEL SURFACE
- FOOTINGS SHALL BEAR ON WEATHERED BROWN SHALE (MIN.) AND THE BOTTOM OF ALL FOOTINGS/CAISSONS SHALL BE SOCKETED 6" MINIMUM INTO ROCK AND SHALL BE PLACED ON A LEVEL SURFACE.
- BOTTOM OF CAISSON AND TOP OF FOOTING ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. MINIMUM LENGTH OF ANY DRILLED SHAFT IS 3'-O" UNO.
- CONFIRM SOUND ROCK BY DRILLING 2" DIAMETER x 5'-0" PROBE
- HOLES AT EACH (CAISSON) (AND) (COLUMN FOOTING) (AND AT 20'-0" ON CENTER ALONG CONTINUOUS FOOTINGS.)
- DO NOT PLACE BACKFILL AGAINST BASEMENT /FOUNDATION WALLS UNTIL SUPPORTED FLOOR STRUCTURE, INCLUDING FLOOR DIAPHRAGM, AND SLAB ON GRADE IS IN PLACE.

D. <u>CAST IN PLACE CONCRETE</u>

- PRIOR TO FABRICATION, SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING AND PLACEMENT OF CONCRETE REINFORCEMENT. COMPLY WITH ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" SHOWING BAR SCHEDULES, STIRRUP SPACING, DIAGRAMS OF BENT BARS, AND ARRANGEMENT OF CONCRETE REINFORCEMENT. INCLUDE SPECIAL REINFORCEMENT REQUIRED AND OPENINGS THROUGH CONCRETE STRUCTURES.
- SUBMIT LABORATORY TEST REPORTS FOR CONCRETE MATERIALS AND MIX DESIGN TEST AS SPECIFIED.
- ALL CONCRETE SHALL DEVELOP 5000 PSI COMPRESSIVE STRENGTH IN 28 DAYS, EXCEPT FOOTINGS AND DRILLED SHAFTS
- REINFORCING BARS SHALL BE DEFORMED AND SHALL CONFORM TO ASTM A615, Fy = 60 KSI. REINFORCING BARS INDICATED TO BE WELDED SHALL CONFORM TO ASTM A706. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A185.
- SPLICES IN CONTINUOUS VERTICAL OR HORIZONTAL REINFORCING BARS SHALL BE PER LATEST EDITION OF ACI 318 OR (40) BAR DIAMETER LAP SPLICE WHICHEVER IS GREATER UNLESS NOTED OTHERWISE AND BARS SHALL BE EITHER CONTINUOUS OR SPLICED WITH CORNER BARS AT CORNERS OR TEES (SEE STANDARD DETAILS).

- ALL TOP BARS SHALL LAP SPLICE AT MIDSPAN BETWEEN SUPPORTS WITH DISCONTINUOUS ENDS TERMINATING WITH A STANDARD ACI BEND, UNLESS OTHERWISE SHOWN OR NOTED.
- ALL BOTTOM AND SIDE BARS SHALL LAP SPLICE OVER SUPPORT (SUCH AS COLUMN, GIRDER, PIER, ETC.), UNLESS OTHERWISE SHOWN OR NOTED.
- ALL COLUMN VERTICAL BARS SHALL BE SPLICED USING APPROVED MECHANICAL BAR COUPLERS (125% BAR YIELD STRENGTH) BY "BARSPLICE PRODUCTS, INC." OR EQUAL. SEE SECTION 03300 FOR ADDITIONAL DETAILS.
- WELDED WIRE REINFORCEMENT (WWR) SHALL CONFORM TO ASTM A185. ALL MESH/WWR MUST BE SUPPLIED IN FLAT SHEETS AND ALL WWR SHALL BE PROPERLY SUPPORTED WITH STANDARD CHAIRS FOR CONCRETE ON METAL DECK OR CONCRETE BRICK FOR SLAB-ON-GRADE. HOOKING AND LIFTING WILL NOT BE PERMITTED (FOR ELEVATED OR SLAB-ON-GRADE).
- CLEARANCES BETWEEN REINFORCING BARS AND CONCRETE SURFACES SHALL BE AS FOLLOWS:

MINIMUM COVER, IN

- a. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH
- b. CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #6 THROUGH #18 BARS
- #5 BAR AND SMALLER CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT

WITH GROUND: SLABS, WALLS: #11 AND SMALLER 3/4

BEAMS, COLUMNS: PRIMARY REINFORCEMENT,

11. PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLAB ON GRADE WHERE INDICATED ON DRAWINGS OR AT MAXIMUM SPACING OF [20'/18'/16'] EACH WAY, UNLESS NOTED OTHERWISE. COORDINATE ANY JOINT LOCATION CHANGES WITH ARCHITECT.

TIES AND STIRRUPS

- CONTROL OR CONSTRUCTION JOINTS SHALL EITHER BE ONE INCH DEEP SAWCUT OR PREFORMED GALVANIZED KEY FORMS EQUAL IN DEPTH TO ONE-FOURTH THE SLAB DEPTH. SAWCUT JOINTS WITHIN 12 HOURS AFTER POURING CONCRETE.
- ALL GRADE BEAMS OR FOUNDATION WALLS SHALL BE POURED MONOLITHICALLY WITH FORMED COLUMN PIERS. ALL TOP BARS SHALL BE CONTINUOUS OVER SUPPORTS AND LAP SPLICED AT MID SPAN. ALL BOTTOM BARS SHALL RUN CONTINUOUS OR LAP AT CENTERLINE OF PILE CAPS.
- 14. WHERE MECHANICAL PIPES PASS THROUGH CONCRETE WALLS, THEY SHALL DO SO BY A MECHANICAL JOINT WALL SLEEVE OR AS INDICATED BY MECHANICAL/PLUMBING DOCUMENTS. THE SLEEVE SHALL BE CAST INTO THE POUR AND AS SPECIFIED OR APPROVED BY THE MECHANICAL ENGINEER. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL DETAILS.
- WHERE NOTED WATER STOPS SHALL BE "SYNKO-FLEX" NON-SWELLING WATER STOP AS MANUFACTURED BY THE HENRY GROUP, HOUSTON, TEXAS 77020, PHONE (800) 231-4551 OR "RX" WATERSTOP AS MANUFACTURED BY THE AMERICAN COLLOID CO. ALL OTHER WATER STOPS NOT SPECIFICALLY CALLED OUT, ARE TO BE CONVENTIONAL PVC WATER STOPS AS PRESCRIBED IN SPEC SECTION 03300 OR AS NOTED ON DRAWING.

E. <u>STRUCTURAL STEEL</u>

- ALL STRUCTURAL STEEL EXCEPT AS NOTED TO BE ASTM A992 GRADE 50, (NOTE A572, GR. 50 MAY BE SUBSTITUTED IF FABRICATOR DEMONSTRATES THAT A992 MATERIAL IS NOT READILY AVAILABLE). CHANNELS ANGLES, PLATES, AND BARS TO BE ASTM A36.
- ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GR 36.
- ALL CONCRETE EXPANSION OR ADHESIVE ANCHORS AND MASONRY ANCHORS SHALL BE HILTI OR ITW RAMSET OR APPROVED EQUAL. SEE DETAILS FOR ADDITIONAL INFORMATION. ALL ANCHORS SHALL BE INSTALLED IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ALL BOLTS FOR STEEL BEAM CONNECTIONS SHALL BE HIGH STRENGTH, A325-N BEARING TYPE AND 3/4" IN DIAMETER, UNLESS NOTED.
- ALL HEADED STUD ANCHORS SHALL BE MANUFACTURED BY "NELSON STUD" OR APPROVED EQUAL.
- CONFORM TO LATEST AWS CODE.

ALL WELDS TO BE MADE WITH E70XX RODS AND WELDING IS TO

- COMPOSITE FLOOR DECK SHALL BE 3" DEEP, 19 GAUGE G-90, WITH THE FOLLOWING PROPERTIES:
 - I_n=1.103 IN⁴/FT Sn=0.700 IN³/FT
- STEEL ROOF DECK IN ALL AREAS EXCEPT OVER THE POOL SHALL BE 3" DEEP 22 GAUGE G-90, Fy = 33KSI AND SHALL CONFORM TO THE STEEL DECK INSTITUTE AND SHALL HAVE THE FOLLOWING MINIMUM SECTION PROPERTIES:

I_x=0.772 IN⁴/FT SHEAR CAPACITY=250 PLF Sn=0.433 IN³/FT Sp=0.382 IN³/FT

STEEL ROOF DECK IN AREA OVER THE POOL SHALL BE 4.1/2" DEEP (EPIC) 18 GAUGE ACOUSTIAL DECK G-90, Fy = 40 KSI AND SHALL CONFORM TO THE STEEL DECK INSTITUTE AND SHALL HAVE THE FOLLOWING MINIMUM SECTION PROPERTIES:

I_N=4.06 IN⁴/FT I_P=3.32 IN⁴/FT Sn=1.22 IN³/FT Sp=1.12 IN³/FT

STEEL ROOF DECK SHALL BE CONTINUOUS OVER 3 SPANS AND SHALL BE FASTENED TO JOISTS, BEAMS OR ANGLES WITH FACTORY MUTUAL APPROVED SCREWS (TRAXX OR APPROVED EQUAL) OR POWDER ACTUATED FASTENERS WITH A MINIMUN SIZE OF #12 TRAXX SCREWS OR APPROVED EQUAL AT 12" ON CENTER. SIDE LAPS SHALL BE FASTENED AT DECK SUPPORTS AND AT THIRD POINTS BETWEEN SUPPORTS WITH #10 TRAXX SCREWS OR APPROVED EQUAL.

SHEAR CAPACITY=250 PLF

a. AT CORNERS OF BUILDING FASTEN A 10'-0" x 10'-0" AREA OF STEEL ROOF DECK TO JOISTS, BEAMS OR ANGLES WITH FACTORY MUTUAL APPROVED SCREWS OR POWDER ACTUATED FASTENERS AT 6" ON CENTER.

- AT CORNERS OF BUILDING FASTEN A 10'-0" x 10'-0" AREA OF STEEL ROOF DECK TO JOISTS, BEAMS OR ANGLES WITH FACTORY MUTUAL APPROVED SCREWS OR POWDER ACTUATED FASTENERS AT 6" ON CENTER AND AT PERIMETER OF BUILDING FASTEN A 6'-0" WIDE STRIP OF STEEL ROOF DECK TO JOISTS, BEAMS OR ANGLES WITH FACTORY MUTUAL APPROVED SCREWS OR
- EACH SIDE OF A ROOF RIDGE IS TO BE TREATED AS A BUILDING PERIMETER FOR DECK CONNECTION TO SUPPORTING MEMBERS.

POWDER ACTUATED FASTENERS AT 6" ON CENTER.

- 11. UPLIFT LOADING: INSTALL AND ANCHOR ROOF DECK UNITS TO RESIST GROSS UPLIFT LOADING OF 45 LBS. PER SQUARE FOOT AT EAVE OVERHANG AND 30 LBS. PER SQUARE FOOT FOR OTHER ROOF AREAS.
- STEEL TUBE COLUMNS (RECTANGULAR) SHALL CONFORM TO ASTM A500, Fy=46 KSI.
- 13. STEEL TUBE COLUMNS (CIRCULAR) SHALL CONFORM TO ASTM A500, Fy = 42 KSI.
 - CONNECTIONS: BEAM CONNECTIONS SHALL BE AS DETAILED. AT ANY CONNECTION THAT IS NOT DETAILED. USE A SIMILAR TYPE OF CONNECTION AS SHOWN IN THE DRAWINGS. DETAILS MUST BE SUBMITTED IN WRITING AND ACCEPTED BY THE ENGINEER OF RECORD BEFORE SUBMITTING SHOP DRAWINGS IA REGISTERED PROFESSIONAL ENGINEER LICENSED TO DO BUSINESS IN KENTUCKY MUST STAMP SUBMITTAL OF PROPOSED CHANGES. SUBMITTAL SHALL INCLUDE AS A MINIMUM, A COMPLETE DETAIL, LOAD CAPACITY OF CONNECTION, AND LOCATION OF WHERE THE DETAIL IS TO BE USED AND COST SAVINGS TO THE OWNER. THE CONTRACTOR SHALL REIMBURSE THE ENGINEER OF RECORD ON A TIME AND MATERIAL BASIS FOR CHECKING ALL PROPOSED CHANGES.] SEE SPECIFICATION FOR ADDITIONAL DETAILS.
- THE MANUFACTURING AND ERECTION OF BAR JOISTS AND THEIR ACCESSORIES SHALL CONFORM TO THE LATEST EDITION OF THE STEEL JOIST INSTITUTE.
- 16. JOIST SUBSTITUTES SHALL BE MANUFACTURED BY VULCRAFT OR APPROVED EQUAL.
- 17. JOIST MANUFACTURER SHALL DESIGN JOISTS, JOIST GIRDERS, BRIDGING AND RELATED CONNECTIONS TO RESIST A NET WIND UPLIFT FORCES OF <u>10</u> PSF.
- AFTER ERECTION OF COLUMNS AND INSTALLATION OF NON-SHRINK GROUT, COAT ALL EXPOSED STEEL BELOW FINISHED FLOOR ELEVATION WITH ONE COAT OF A TWO PART EPOXY: INTERZONE 954 BY INTERNATIONAL PROTECTIVE COATINGS (I.P.C.), CHEMBUILD 135 BY TNEMEC, OR SHERWIN WILLIAMS MACROPOXY HS. SEE SECTION 05100 FOR ADDITIONAL REQUIREMENTS.
- TOUCHUP ALL HOT DIPPED GALVANIZING AFTER ERECTION OR WELDING WITH A GALVANIZING REPAIR PAINT CONFORMING TO ASTM A780. ACCEPTABLE PRODUCTS ARE "ZRC" OR "DYNAFLUX "- SUBMIT CUT SHEET TO ENGINEER PRIOR TO ANY APPLICATION

COMPOSITE FLOOR CONSTRUCTION

WELDING).

- CONTRACTOR TO REVIEW LOCATION OF ALL CONSTRUCTION JOINTS A MINIMUM OF TEN (10) DAYS IN ADVANCE OF ANY SLAB POUR WITH THE ENGINEER OF RECORD (BFMJ ENGR) FOR A WRITTEN APPROVAL. NOTE THAT ALL SLAB REINFORCEMENT MUST RUN CONTINUOUS THROUGH THE CONSTRUCTION JOINT
- MINIMUM LONGITUDINAL SPACING OF STUDS ON BEAMS SHALL
- MAXIMUM LONGITUDINAL SPACING OF STUDS ON BEAM SHALL BE

MINIMUM TRANSVERSE SPACING OF STUDS ON BEAMS AND

- GIRDERS SHALL BE 3". ALL STUDS SHALL BE 3/4" DIAMETER X 6" LONG (AFTER
- WHERE POSSIBLE, PLACE STUDS IN ONE ROW ALONG BEAM CENTERLINE, SYMMETRICALLY ABOUT MID-SPAN OF BEAM, STARTING AT END OF BEAM EXCEPT AS NOTED BY LEGEND FOR NONSYMMETRICAL PLACEMENT.
- WHERE DECK RIBS ARE PERPENDICULAR_TO BEAM:
 - LOCATE STUDS IN VALLEYS OF DECK DIRECTLY OVER BEAM WEB, WHERE POSSIBLE, AT A UNIFORM SPACING.
 - WHERE SPECIFIED NUMBER OF STUDS EXCEEDS NUMBER OF DECK RIBS AVAILABLE, USE THE EXCESS STUDS TO MAKE PAIRS OF STUDS IN VALLEYS NEAR ENDS OF BEAM.
- WHERE DECK RIBS ARE PARALLEL TO BEAM:
- SPACE STUDS UNIFORMLY THROUGHOUT SPAN DIRECTLY OVER THE BEAM WEB WHERE POSSIBLE.
- WHERE SPECIFIED NUMBER EXCEEDS NUMBER PERMITTED BY MINIMUM SPACING IN ONE ROW, USE EXCESS STUDS TO MAKE PAIRS OF STUDS AT MINIMUM SPACING NEAR ENDS OF BEAM.

DECK TO BEAM HALFWAY BETWEEN STUDS. NOTE PROVIDE

ADDITIONAL PLUG WELDS AS REQUIRED IF RESULTING SPACING

9. IF LONGITUDINAL STUD SPACING EXCEEDS 18", PLUG WELD

BETWEEN WELD AND STUD IS MORE THAN 18".

<u>ABBREVIATIONS</u>

AND

ALUM. ALUMINUM

APPROX. APPROXIMATE

ANCH. ANCHOR

BLKG. BLOCKING

BEAM

BOTTOM

BEARING

COMP. COMPOSITE

CONC. CONCRETE

CONN. CONNECTION

CONST. CONSTRUCTION

CONT. CONTINUOUS

CONTR. CONTRACTOR

COOR. COORDINATE

DOUBLE

DIMENSION

DOWN

DOWELS

EACH

DRAWING'S

DEAD LOAD

DRILLED PIER

DRILLED SHAFT

ERECTION BOLT

EXPANSION JOINT

EACH FACE

ELEVATION

EMBEDMENT

ENGINEER

EQUAL

EXIST. EXISTING

EACH WAY

EXPANSION

EXTERIOR

FINISHED

FRAMING

FLOOR

FOOT

GAUGE

FV FIELD VERIFY

FOOTING

FLGS. FLANGES

FOUNDATION

FINISHED FLOOR ELEVATION

DETAIL

DIA. or Φ DIAMETER

DIAG. DIAGONAL

CONCRETE BLOCK

CONSTRUCTION JOINT

DEFORMED BAR ANCHORS

COLUMN STRIP

CONTROL JOINT

CENTER LINE

AFF

ALT.

ADH.

BLDG.

COL.

DBL.

DTL.

DWG

ELEV.

EMB.

EQ.

FDN.

FRMG.

FT.

GA.

FTG.

FFE

ENGR.

ANCHOR BOLT

ADHESIVE

ALTERNATE

BACK TO BACK

(FOR STRUCTURAL DRAWINGS ONLY) GALV. GALVANIZED GRADE BEAM GENERAL CONTRACTOR ABOVE FINISHED FLOOR GRADE HOLLOW CORE **HEADED STUDS** HSB HIGH STRENGTH BOLTS HT. HEIGHT HORZ. HORIZONTAL ARCH. ARCHITECT/ARCHITECTURAL HSS HOLLOW STRUCTURAL SECTION JOIST BEARING ELEVATION BOTTOM OF BEAM ELEVATION BDSE BOTTOM OF DRILL SHAFT ELEVATION KIPS PER LINEAR FOOT BOTTOM OF FOOTING ELEVATION KSF KIPS PER SQUARE FOOT BRICK/BLOCK SEAT ELEVATION POUND LIVE LOAD LLH LONG LEG HORIZONTAL LLV LONG LEG VERTICAL LT. WT. LIGHT WEIGHT BOTTOM OF PILE ELEVATION LVL LAMINATED VENEER LUMBER MAS. MASONRY BOTTOM OF STEEL ELEVATION MAX. MAXIMUM BOTTOM OF WALL ELEVATION MECH. MECHANICAL MFG. MANUFACTURER MIN. MINIMUM MISC. MISCELLANEOUS MO MASONRY OPENING CONCRETE MASONRY UNIT MOM. MOMENT MS MIDDLE STRIP MTL. METAL NIC NOT IN CONTRACT

NO. or #NUMBER NTS NOT TO SCALE OC ON CENTER OPNG. OPENING OSF OUTSIDE FACE PCF POUNDS PER CUBIC FOOT PC PILE CAP PLF POUNDS PER LINEAR FOOT PLYWD.PLYWOOD PSF POUNDS PER SQUARE FOOT PSI POUNDS PER SQUARE INCH PSL PARALLEL STRAND LUMBER R RADIUS RAD. RADIUS REINF. REINFORCEMENT REQD. REQUIRED

RET. RETAINING SCHED.SCHEDULE SECT. SECTION SER STRUCTURAL ENGINEER OF RECORD SIM. SIMILAR SP. SPACE STIFF. STIFFENER STD. STANDARD STL. STEEL STRUC.STRUCTURAL

TBE TOP OF BEAM ELEVATION TOC TOP OF COLUMN ELEVATION TCE TOP OF CONCRETE ELEVATION TDSE TOP OF DRILL SHAFT ELEVATION TFE TOP OF FOOTING ELEVATION TJE TOP OF JOIST ELEVATION TPCE TOP OF PILE CAP ELEVATION TRE TOP OF ROCK ELEVATION TSE TOP OF SLAB ELEVATION TWE TOP OF WALL ELEVATION TYP. TYPICAL UNO UNLESS NOTED OTHERWISE VERT. VERTICAL W/ WITH

WP WORKING POINT

WWR WELDED WIRE REINFORCEMENT

ENGINEERED FILL OR UNDISTURBED SOIL BEDROCK CONCRETE **GROUT CRUSHED STONE** STEEL **EXISTING**

<u>LEGEND</u>

BLOCK **BRICK** PLYWOOD OR ENGINEERED LUMBER

PRECAST WOOD CROSS SECTION

DENSE GRADE AGGREGRATE

RX WATER STOP

(XX) INDICATES NUMBER OF STUD ANCHORS EQUALLY SPACED OVER ENTIRE LENGTH OF

KEYWAY - 2" x 4" x CONT. (TYP)

BEAMS. → DENOTES DIRECTION OF DECK SPAN

(XX) ELEVATION NOTE XX PLAN NOTE REVISIONS

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