

STRUCTURAL NOTES

GENERAL

1. CODES:

IBC INTERNATIONAL BUILDING CODE, 2006
ACI AMERICAN CONCRETE INSTITUTE, 1995
AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION (LRFD), 1983
AWS AMERICAN WELDING SOCIETY
SDI STEEL DECK INSTITUTE
ASTM AMERICAN SOCIETY OF TESTING AND MATERIALS
ANSI AMERICAN NATIONAL STANDARD INSTITUTE
AISI AMERICAN IRON AND STEEL INSTITUTE (SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS)

2. DESIGN LOADS:

SUPERIMPOSED DEAD LOADS:

2" LVTI CONCRETE TOPPING20 PSF
MEP/CEILING/FLOORING10 PSF
STAIR SYSTEM20 PSF
PARTITIONS20 PSF

LIVE LOADS:

MEZZANINE100 PSF
CLASSROOMS50 PSF
RESTROOMS100 PSF
CORRIDORS100 PSF
STAIRWAYS100 PSF
SNOW LOAD30 PSF + DRIFT EFFECTS

WIND LOAD20 PSF (MAIN RESISTING SYSTEM)
25 PSF (COMPONENTS & CLADDING)
30 PSF (COMPONENTS & CLADDING - CORNERS)

3. DIMENSIONS ON STRUCTURAL DRAWINGS ARE TO BE CHECKED AGAINST ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AS WELL AS AGAINST FIELD CONDITIONS BY CONTRACTORS.

4. UNLESS NOTED OTHERWISE, DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS ARE INTENDED TO BE TYPICAL FOR SIMILAR CONDITIONS.

5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND PLACEMENT OF INSERTS, HANGERS, SLEEVES, DUCT WORK, PADS AND ANCHOR BOLTS THAT ARE REQUIRED BY MECHANICAL EQUIPMENT.

FOUNDATIONS

1. ALL SOIL SUPPORTED FOOTINGS SHALL BE FOUNDED UPON UNDISTURBED, NATURAL SUBGRADE OR COMPACTED STRUCTURAL FILL WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 3,000 PSF, AS INDICATED ON THE DRAWINGS AND AS FIELD VERIFIED AND APPROVED BY THE OWNER'S SOIL TESTING LABORATORY. SOAK ELEVATIONS AND SOIL BEARING CAPACITIES SHALL BE FIELD DETERMINED AND VERIFIED BY THE OWNER'S SOIL TESTING LABORATORY.

2. THE SOIL SUBGRADE FOR ALL FOOTINGS AND SLABS SHALL BE INSPECTED AND APPROVED BY THE OWNER'S TESTING LABORATORY IMMEDIATELY PRIOR TO PLACING CONCRETE.

3. ALL FOOTING AND SLAB SUBGRADES, INCLUDING PIT SLABS, SHALL BE COMPACTED TO 98 PERCENT OF STANDARD PROCTOR (ASTM D698) MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT, AS REQUIRED.

4. ALL ORGANIC AND/OR OTHER UNSUITABLE MATERIALS SHALL BE REMOVED FROM SUBGRADE AND BACKFILL AREAS AND BACKFILLED WITH SELECT FILL, COMPACTED TO 98 PERCENT OF STANDARD PROCTOR (ASTM D698) MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT (ALSO REFER TO SOILS REPORT).

5. DO NOT UNDERMINE EXISTING CONSTRUCTION.

6. PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES OF FOUNDATION WALLS AND BALANCE COMPACTION.

7. NO MUD SLABS, FOOTINGS OR SLABS SHALL BE PLACED ONTO OR AGAINST SUBGRADE CONTAINING FREE WATER, FROST OR ICE.

8. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY FROST OR ICE FROM PENETRATING ANY FOOTING OR SLAB SUBGRADE BEFORE AND AFTER PLACING OF CONCRETE UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE PERMANENT BUILDING STRUCTURE.

9. THE CONCRETE FOR EACH ISOLATED FOOTING SHALL BE PLACED IN ONE (1) CONTINUOUS PLACEMENT.

10. ALL SLABS ON GRADE SHALL BE PLACED ON A MOISTURE BARRIER OVER A MINIMUM OF 6" COMPACTED GRANULAR MATERIAL (UNDERBED MATERIAL).

11. ALL PERIMETER WALL AND COLUMN FOOTINGS SHALL BEAR A MINIMUM OF 3'-6" BELOW FINISHED GRADE.

12. THE CONTRACTOR SHALL PROVIDE AND HAVE SOLE RESPONSIBILITY FOR ALL NECESSARY MEASURES TO TEMPORARILY SUPPORT EXISTING WALLS AND FOOTING DURING CONSTRUCTION.

CONCRETE

1. CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318), LATEST EDITION.

2. UNLESS NOTED OTHERWISE, CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL DEVELOP 3,000 PSI COMPRESSIVE STRENGTH IN 28 DAYS. SLABS ON PRECAST SHALL BE LIGHTWEIGHT CONCRETE AND SHALL 3500 PSI COMPRESSIVE STRENGTH IN 28 DAYS, AND WALKS & CURBS SHALL BE 4,000 PSI, AIR ENTRAINED 4% TO 6%.

3. VERTICAL WALL CONSTRUCTION JOINTS SHALL BE FORMED WITH VERTICAL BULKHEADS AND KEYWAYS. WALL REINFORCING SHALL BE CONTINUOUS THROUGH THE JOINT OR SHALL BE DOWELED WITH AN EQUIVALENT AREA OF REINFORCEMENT.

4. NO SLAB SHALL HAVE COLD JOINTS IN A HORIZONTAL PLANE. STOPS IN CONCRETE WORK MUST BE MADE AT THE THIRD POINT OF THE SPAN WITH BULKHEADS AND HORIZONTAL KEYS WHICH ARE LOCATED AT THE SLAB MIDDEPTH AND ARE ONE THIRD THE SLAB THICKNESS. W.W.F. SHALL BE CONTINUOUS THROUGH THE KEYWAY AND LAP 2 PANELS WITH ADJACENT SLAB.

5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND PLACEMENT OF INSERTS, EMBEDDED PLATES, MASONRY ANCHORS, REGLETS, SLEEVES, DUCT WORK, PADS AND ANCHOR BOLTS. THE GENERAL CONTRACTOR SHALL VERIFY ALL OPENINGS THROUGH WALLS WITH SHOP DRAWINGS SHOWING OPENINGS IN THE SLABS, INCLUDING BUT NOT LIMITED TO SLEEVE SIZES AND LOCATIONS, DUCT SIZE AND LOCATION, ETC.

6. NO OPENING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.

7. EXPOSED EXTERNAL CONCRETE CORNERS SHALL BE CHAMFERED 3/4 INCHES, UNLESS SHOWN OR NOTED OTHERWISE.

8. SLABS ON GRADE SHALL BE PLACED IN ALTERNATE STRIPS WITH A MAXIMUM WIDTH OF 20'-0" OR AS SHOWN ON PLAN. CONTROL JOINTS SHALL BE CUT WITHIN 24 HOURS AFTER THE CONCRETE HAS SET. CONTROL JOINTS SHALL NOT EXCEED 20'-0" INTERVALS IN EACH DIRECTION AND SHALL BE LOCATED TO CONFORM WITH BAY SPACING WHEREVER POSSIBLE (I.E. AT COLUMN CENTERLINES, HALF-BAYS, THIRD-BAYS).

9. DEPRESSED SLABS SHALL MAINTAIN FULL THICKNESS UNLESS NOTED OTHERWISE.

10. ADHESIVE ANCHORS SHALL BE MANUFACTURED BY HELTI OR EQUAL, AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

REINFORCEMENT

1. UNLESS NOTED OTHERWISE, REINFORCEMENT SHALL CONFORM TO ASTM SPECIFICATION A615, GRADE 60.

2. CORNER BARS SHALL BE PROVIDED AT WALL CORNERS EQUAL TO THE HORIZONTAL WALL REINFORCEMENT.

3. ALL CONCRETE FORMED SLAB OR WALL OPENINGS SHALL BE REINFORCED WITH 2 #5 BARS PLACED ONE IN EACH FACE AT 45 DEGREES TO OPENING CORNERS.

4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

MIN. COVER (INCHES)	
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"
EXPOSED TO EARTH OR WEATHER:	
#6 THROUGH #18 BARS	2"
#5 BARS, 5/8 INCH WIRE, AND SMALLER	1 1/2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS & JOISTS	3/4"
PIERS AND COLUMNS:	
PRINCIPAL REINFORCEMENT, TIES	1 1/2"

5. ARRANGEMENT AND DETAILS OF REINFORCEMENT, INCLUDING BAR SUPPORTS AND SPACERS, SHALL BE IN ACCORDANCE WITH THE A.C.I. DETAILING MANUAL (ACI SP-88), LATEST EDITION.

6. WELDED WIRE FABRIC SHALL CONFORM TO ASTM SPECIFICATION A185.

7. LAP WELDED WIRE FABRIC TWO FULL MESH LENGTHS AT SIDE AND END LAPS (WIRE TOGETHER).

8. PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCEMENT AT THE POSITIONS INDICATED. PLASTIC COATED ACCESSORIES SHALL BE USED IN ALL EXPOSED CONCRETE WORK.

9. ALL EMBEDMENT LENGTHS AND LAPS SHALL BE AS REQUIRED BY ACI 318. UNLESS NOTED OTHERWISE, MINIMUM LAP SHALL BE 36 BAR DIAMETERS.

10. UNLESS SHOWN OR NOTED OTHERWISE, ALL CONCRETE WORK SHALL CONTAIN AT LEAST MINIMUM REINFORCEMENT AS REQUIRED BY ACI 318.

MASONRY

1. DESIGN AND CONSTRUCTION OF MASONRY SHALL BE IN ACCORDANCE WITH THE ACI/ASCE/TMS "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES AND SPECIFICATIONS FOR MASONRY STRUCTURES".

2. THE MINIMUM NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS SHALL BE 2150 PSI.

3. THE MINIMUM NET AREA COMPRESSIVE STRENGTH OF BRICK MASONRY UNITS SHALL BE 5500 PSI.

4. MORTAR FOR MASONRY SHALL BE TYPE N, CONFORMING TO THE REQUIREMENTS OF ASTM C270.

5. GROUT FOR MASONRY SHALL CONFORM TO ASTM C476 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

6. REINFORCEMENT BARS FOR MASONRY SHALL CONFORM TO ASTM SPECIFICATION A615, GRADE 60.

7. VERTICAL CELLS TO BE FILLED WITH GROUT SHALL BE ALIGNED TO PROVIDE A CONTINUOUS, UNOBSTRUCTED OPENING OF THE DIMENSIONS SHOWN ON THE PLANS. CELLS WHICH WILL CONTAIN VERTICAL REINFORCEMENT SHALL HAVE A MINIMUM TWO (2) INCH CLEAR OPENING.

8. GROUT FOR FILLING REINFORCED OR NON-REINFORCED CELLS SHALL BE PLACED IN MAXIMUM FOUR (4) FOOT LIFTS AND CONSOLIDATED IN PLACE BY VIBRATION OR OTHER METHODS WHICH INSURE COMPLETE FILLING OF THE CELLS. ALL CELLS CONTAINING REINFORCING BARS OR ANCHOR BOLTS SHALL BE FULLY GROUTED.

9. HOLLOW UNITS SHALL BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. WEBS SHALL ALSO BE BEDDED WHERE THEY ARE ADJACENT TO CELLS TO BE REINFORCED OR FILLED WITH GROUT, IN THE STARTING COURSE ON FOOTINGS AND SOLID FOUNDATION WALLS AND IN NON-REINFORCED OR GROUTED PIERS, PILASTERS AND COLUMNS.

10. SOLID MASONRY UNITS SHALL BE LAID WITH FULL HEAD AND BED JOINTS. POINTS OF BEARING SHALL BE ON TWO (2) COURSES OF SOLID MASONRY OR TWO (2) COURSES OF HOLLOW MASONRY GROUTED SOLID.

11. ALL WALLS AND PIERS SHALL HAVE HORIZONTAL JOINT REINFORCEMENT AT 16" ON CENTER CONSISTING OF TWO (2) 5 GAGE RODS WITH 1 GAGE CROSS TIES AT 16" ON CENTER GALVANIZED WITH 0.6 OZ. ZINC COATING, ASTM A116, CLASS 3 (TWO (2) RODS IN CMU AND ONE (1) ROD IN FACE BRICK).

12. THE MINIMUM CLEAR DISTANCE BETWEEN PARALLEL REINFORCING BARS, EXCEPT IN COLUMNS, SHALL BE EQUAL TO THE NOMINAL DIAMETER OF THE BAR, OR 1, WHICHEVER IS GREATER.

13. VERTICAL REINFORCEMENT SHALL BE LAP SPLICED A MINIMUM OF 40 BAR DIAMETERS (1'-0" MINIMUM) WHERE REQUIRED.

14. ALL REINFORCING BARS SHALL BE COMPLETELY EMBEDDED IN MORTAR OR GROUT AND SHALL HAVE A COVERAGE OF MASONRY NOT LESS THAN:

BARS LARGER THAN #5	2"
#5 BARS AND SMALLER	1 1/2"

15. PROVIDE ADEQUATE TEMPORARY BRACING AS REQUIRED DURING CONSTRUCTION TO WITHSTAND LATERAL LOADS AND THE PRESSURES OF FLUID GROUT.

STRUCTURAL STEEL

1. STRUCTURAL STEEL WORK SHALL CONFORM TO THE AISC "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS", AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".

2. STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A572 GRADE 50, UNLESS NOTED OTHERWISE. STRUCTURAL STEEL PLATES, ANGLES, CHANNELS AND MISCELLANEOUS MATERIAL SHALL CONFORM TO ASTM A36. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500, GRADE B. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A53. ANCHOR BOLTS SHALL BE ASTM A307, 3/4" DIAMETER WITH 4" HOOKS AND 9" EMBEDMENT, UNLESS NOTED OTHERWISE.

3. HIGH STRENGTH BOLTING SHALL BE DONE IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS".

4. BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325. BOLTS SHALL BE 3/4 INCH DIAMETER MINIMUM.

5. WELDING SHALL BE DONE BY CERTIFIED WELDERS AND SHALL CONFORM TO AWS D1.1 "STRUCTURAL WELDING CODE", LATEST EDITION. ALL WELDING ELECTRODES SHALL BE E70XX.

6. THE FABRICATOR/ERECTOR SHALL SUBMIT TO THE ARCHITECT FOR REVIEW, ENGINEERED AND CHECKED DRAWINGS SHOWING SHOP FABRICATION DETAILS, FIELD ASSEMBLY DETAILS AND ERECTION DIAGRAM FOR ALL STRUCTURAL STEEL.

7. UNLESS NOTED OTHERWISE, CONNECTIONS SHALL BE AISC SINGLE PLATE SHEAR CONNECTIONS USING A325-N BOLTS.

8. FIELD CONNECTIONS, EXCEPT WHERE SHOWN TO BE WELDED, SHALL BE BOLTED.

9. CONNECTIONS SHALL BE DESIGNED FOR THE BEAM REACTIONS INDICATED ON THE DRAWINGS. IN CASES WHERE REACTIONS ARE NOT INDICATED, PROVIDE AT LEAST ONE HALF THE UNIFORM LOAD CARRYING CAPACITY OF THE BEAM. THE MINIMUM NUMBER OF BOLTS PER CONNECTION SHALL BE TWO (2). CONNECTIONS SHALL NOT BE LESS THAN ONE HALF THE DEPTH OF THE BEAM.

10. BEAMS AND JOISTS SHALL BE FABRICATED WITH THE NATURAL CAMBER UP. PROVIDE CAMBERS AS INDICATED ON THE DRAWINGS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES WITH RELATION TO TEMPERATURE DIFFERENTIALS, ESPECIALLY WITH RESPECT TO STRUCTURAL STEEL FRAMING INTO CONCRETE WALLS, BEAMS OR COLUMNS.

12. THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.

13. ERECT AND MAINTAIN TEMPORARY BRACING TO INSURE THE ALIGNMENT AND STABILITY OF THE STRUCTURE DURING ERECTION UNTIL PERMANENT CONNECTIONS HAVE BEEN COMPLETED.

14. ALL STRUCTURAL STEEL EXPOSED TO VIEW SHALL CONFORM TO THE ARCHITECTURAL EXPOSED STRUCTURAL STEEL (AESS) CRITERIA OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

STEEL JOISTS

1. JOISTS SHALL MEET THE CRITERIA IN THE "STEEL JOIST INSTITUTE SPECIFICATION", INCLUDING THE MATERIAL TYPE AND LOAD CAPACITY FOR THE DEPTH AND SPAN OF THE STEEL JOISTS NOTED ON THE PLAN.

2. THE JOIST SUPPLIER SHALL SUBMIT ENGINEERING CALCULATIONS FOR JOISTS DESIGNATED "SP" AND DETAILED FABRICATION AND ERECTION DRAWINGS FOR ALL JOISTS, ANCHORAGES AND BRIDGING.

3. JOISTS SHALL REQUIRE CONTINUOUS BRIDGING MEMBERS FASTENED DIRECTLY TO EACH JOIST. BRIDGING SHALL BE DESIGNED IN ACCORDANCE WITH THE "STEEL JOIST INSTITUTE SPECIFICATION".

4. ROUND MEMBERS FOR BOTTOM CHORDS WILL NOT BE ACCEPTABLE FOR JOISTS. USE ONLY DOUBLE ANGLE BOTTOM CHORDS.

5. UNLESS NOTED OTHERWISE, HANGING LOADS FROM JOISTS SHALL BE ONLY FROM DIAGONAL INTERSECTION POINTS AND ONLY WITH ACCEPTABLE JOIST HANGER DEVICES.

6. PROVIDE TEMPORARY BRACING, GUYS, OR OTHER DEVICES REQUIRED TO PROVIDE STABILITY FOR THE ERECTION OF STRUCTURAL STEEL. LEAVE BRACING IN PLACE UNTIL ALL STEEL WORK IS IN FINAL POSITION AND APPROVED. MAINTAIN ADEQUATE LATERAL SUPPORT THROUGHOUT CONSTRUCTION.

STRUCTURAL METAL DECK

1. METAL DECK SHALL BE DESIGNED, DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH STEEL DECK INSTITUTE SPECIFICATIONS. METAL DECK SHALL BE DESIGNED FOR THE SPAN AND LOADING CONDITIONS SHOWN ON THE DRAWINGS AND IN THE METAL DECK SCHEDULE.

2. METAL DECK SECTION PROPERTIES SHALL BE COMPUTED IN ACCORDANCE WITH AISI "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS". METAL DECKING SHALL BE FABRICATED FROM STEEL TYPE ASTM A445, GRADE A, HAVING A MINIMUM YIELD STRENGTH OF 33,000 PSI. ALL METAL ROOF DECKING SHALL BE HOT-DIPPED GALVANIZED.

3. THE FABRICATOR/ERECTOR SHALL PROVIDE ENGINEERING CALCULATIONS, FOR 3" DEEP ACOUSTICAL LONG SPAN ROOF DECK AND PUBLISHED MANUFACTURER'S DATA VERIFYING THE SPECIFIED DECK REQUIREMENTS, TO THE ARCHITECT FOR REVIEW. PROVIDE ENGINEERED AND CHECKED SHOP DRAWINGS INDICATING LOCATION, GAGE AND SIZE OF EACH PIECE OF DECKING. THE SHOP DRAWINGS SHALL CLEARLY SHOW WELDING DETAILS TO STRUCTURAL FRAMING AND SIDE LAP CONNECTION DETAILS.

4. THE MINIMUM GAGE OF THE METAL DECK SHALL BE 22 GAGE, UNLESS NOTED OTHERWISE.

5. METAL DECKING SHALL BE WELDED AT 12 INCHES MAXIMUM ON CENTER TO THE SUPPORTING STEEL, WITH A 3/4-INCH DIAMETER WELD. BE FASTENED AT 16 INCHES MAXIMUM ON CENTER. NO WELD OR FASTENER SPACING SHALL BE GREATER THAN THAT RECOMMENDED BY THE DECK MANUFACTURER.

6. THE METAL DECK SHALL BE DESIGNED TO BE CONTINUOUS OVER THREE (3) SPANS IN THE DIRECTION INDICATED. SINGLE AND DOUBLE SPANS, IF REQUIRED, SHALL SATISFY LOAD AND DEFLECTION REQUIREMENTS.

7. PROVIDE CONTINUOUS SHEET METAL CLOSURES AT SLAB OPENINGS AND SLAB EDGES AND CONTINUOUS DECK CLOSURE AT DECK ENDS.

8. PROVIDE, AS REQUIRED, SPLICE PLATES, COLUMN CLOSURES, CANT STRIPS, SUMP PLATES AT PIPING PENETRATIONS AND RECESSED SUMP PANS AT ROOF DRAINS. PROVIDE SUPPLEMENTAL FRAMING AT OPENINGS AS REQUIRED FOR SUPPORT OF THE METAL DECK. OPENINGS SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

9. ANY METAL DECK OPENING THAT IS 12-INCH DIAMETER OR LARGER OR ANY GROUP OF OPENINGS THAT PENETRATE MORE THAN ONE STORY OR ONE METAL DECK FLOOR SHALL BE FRAMED WITH SUPPLEMENTAL STEEL FRAMING AS ACCEPTABLE TO THE ARCHITECT, MIN. 3"x3"x3/8" ANGLES.

10. NO LOAD EXCEEDING 3 PSF SHALL BE PERMITTED TO BE HUNG DIRECTLY FROM ANY COMPOSITE METAL DECKING. NO LOADS SHALL BE PERMITTED TO BE HUNG DIRECTLY FROM METAL ROOF DECK. ALL HANGERS FOR DUCTWORK, CONDUIT RACKS, PIPES LARGER THAN 4" DIAMETER, ETC. SHALL BE HUNG DIRECTLY FROM STRUCTURAL STEEL FRAMING OR SUPPLEMENTAL MEMBERS ACCEPTABLE TO THE ARCHITECT.

PRECAST CONCRETE HOLLOW CORE PLANK

1. STRUCTURAL PRECAST ELEMENTS SHALL BE DESIGNED FOR THE SPAN AND LOADING CONDITIONS SHOWN ON THE DRAWINGS BY A LICENSED STATE OF INDIANA STRUCTURAL ENGINEER IN ACCORDANCE WITH THE APPLICABLE CODES, INCLUDING THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318 AND THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315. DESIGN CALCULATIONS, INCLUDING THE DESIGN OF STRUCTURAL ELEMENTS AND CONNECTIONS FOR BOTH WIND AND GRAVITY LOADING CONDITIONS, SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO THE START OF FABRICATION.

2. DETAILED SHOP DRAWINGS SHOWING STRUCTURAL ELEMENTS, DETAILS AND CONNECTIONS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO THE START OF FABRICATION.

3. THE PRECAST CONCRETE MANUFACTURER SHALL BE RESPONSIBLE FOR FULL COORDINATION OF ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DETAILS AS THEY EFFECT THE STRUCTURAL SYSTEM.

4. THERE SHALL BE NO FIELD CUTTING OF PRECAST ELEMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT AND PRECAST MFR.

5. ALL MILD REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND SHALL BE 6 X 6 - W1.4 X W1.4, UNLESS NOTED OTHERWISE.

6. ALL PRESTRESSING STEEL SHALL CONFORM TO ASTM A416, GRADE 250 OR 270. ALL STEEL EMBEDMENTS SHALL CONFORM TO ASTM A36.

7. ALL KEYWAYS SHALL BE GROUTED IN ACCORDANCE WITH THE PRECAST CONCRETE MANUFACTURER'S RECOMMENDATION.

GENERAL NOTE

ALL STEEL ANGLES AND PLATES USED FOR EXTERIOR WALL OPENING LINTELS EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED TYPICALLY.

REVISIONS

BY

DATE

0-24-08

SCALE

NO SCALE

DRAWN

LAS

JOB

2814

SHEET

S3.1

OF 82 SHEETS

STRUCTURAL NOTES & DETAILS

LIBERTY ELEMENTARY SCHOOL

EARLY LEARNING CENTER ADDITION & REMODEL

50-1 W. COUNTY ROAD 900 N.

gerometta & kinel architects, inc.

CHESTERTON, INDIANA

chesterston, Indiana