GENERAL CONCRETE NOTES:

DESIGN LOADS (IBC 2003)

1. LIVE LOADS ROOF 20PSF
   FLOOR 100 PSF
   MEZZANINE 150 PSF
2. WIND LOADS BASIC WIND DESIGN VELOCITY 110 MPH WITH 3 SECONDS GUST.
   EXPOSURE B IMPORTANCE FACTOR 1
3. ALL CONCRETE REINFORCING BARS SHALL CONFORM TO ASTM, GRADE 60. NO. 3 BARS MAY CONFORM TO ASTM A615, GRADE 40.
4. CONCRETE SHALL BE REGULAR WEIGHT, SAND AND GRAVEL AGGREGATE , WITH TYPE 1 PORTLAND CEMENT . 5 SACK MIX, DESIGNATED MINIMUM COMPRESSIVE (F'C) OF 3000 PSI IN 28 DAYS.
5. ALL MIXING , TRANSPORTING , PLACING AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF AMERICAN CONCRETE INSTITUTE.
6. CONCRETE COVERING PROTECTION OF THE REINFORCEMENT BARS SHALL BE :
   DRILLED FOOTING .....3" SIDES & BOTTOM
   SLAB ON GRADE ..... 1" FROM TOP
   GRADE BEAM ..... 1 1/2" TOP , BOTTOM ;3" SIDES 1 1/2"
   THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN GRADE BEAM OTHER THAN CONSTRUCTION JOINTS SHALL BE MADE IN QUARTER SPANS BETWEEN FOOTING WITH VERTICAL BULKHEADS .
7. LAP CONTINUOUS UNSCHEDULED REINFORCING BARS AS FOLLOWS : BOTTOM BARS IN MEMBERS SUPPORTED BY FOOTING AT LOCATIONS –12" . TOP BARS SHALL BE LAP AT OR NEAR MID SPAN. LAP SHALL BE 50 BAR DIAMETERS.
8. GROUT UNDER THE BASE PLATES SHALL BE NON SHRINKING TYPE WITH MINIMUM COMPRESSIVE STRENGTH OF 6000 PSI IN 28 DAYS.
9. DETAILING AND PLACING OF CONCRETE REINFORCEMENT BARS AND ITS ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI 315 LATEST EDITION.

FILL & SUBGRADE PREPARATION

1. ALL FOOTINGS ARE TO BEAR ON FIRM AND CLEAN SOIL. THE SOIL BEARING AT ALL FOOTING SHALL BE VERIFIED BY AN ACCEPTED TESTING METHOD. THE MINIMUM SOIL BEARING PRESSURE FOR THIS PROJECT IS 2,250 PSF.

STRUCTURAL AND MISCELLANEOUS STEEL

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSION, FIELD CONDITION, ELEVATIONS AND REVIEW THESE DRAWINGS BEFORE FABRICATION OR ORDERING MATERIALS.
2. ALL STRUCTURAL & MISC. SHAPES SHALL BE ASTM A570 GRADE 50
3. ALL DETAILING SHAL BE IN CONFORMANCE WITH THE STANDARDS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
4. UNLESS NOTED OTHERWISE, PROVIDE FRAMED BEAM CONNECTIONS IN ACCORDANCE WITH PART 4, AISC MANUAL – 3/4" ASTM A–325 BOLTS. DESIGN FOR SHEARS IN TABLES FOR ALLOWABLE LOADS ON BEAMS, PART 2.
5. FIELD CONNECTIONS SHALL BE EQUIVALENT TO STARDARD BOLTED CONNECTIONS USING 3/4" ASTM A–325 BOLTS UNLESS OTHERWISE SHOWN. IF CONNECTION BOLTS ARE IN SINGLE SHEAR. BOLTS SHALL BE PLACED IN ONE VERTICAL ROW. CONNECTION SHALL BOLTED OR WELDED. – SEE DETAILS.
6. WELDING SHALL CONFORM TO THE "CODE OF WELDING IN BUILDING CONSTRUCTION" BY THE AMERICAN WELDING SOCIETY, LATEST EDITION. WELDS NOT CALLED OUT ON DRAWINGS SHALL BE 3/16" CONTINOUS FILLET WELDS. WELDING ELECTRODES SHALL CONFORM TO AWS A5.1 OR A5.5 E70XX.
7. ANCHOR BOLTS SHALL CONFORM TO ASTM A–325 FOR HEADED A.B. AND SHALL BE SET USING RIGID TEMPLATES.

STAIR DESIGN CRITERIA

LOADS:

STAIRS SHALL BE DESIGNED FOR FOLLOWING LOADS AS PER REQUIREMENTS OF SECTION 1607.7.1 & 1003.3 OF IBC 2003

HANDRAILS:
(A) 50 LBS/ LFT UNIFORM APPLIED IN ANY DIRECTION AT THE TOP OF RAIL OR
(B) 200 LBS CONCENTRATED LOADS APPLIED IN ANY DIRECTION AT ANY POINT ON TOP RAIL

STAIRS:
(C) 100 PSF LOAD ON STAIRS
(D) 300 LBS CONCENTATED LOAD ON EACH STAIR TREAD

GEOMETRY

REFER TO ARCHITECTURAL DRAWINGS FOR STAIRS GEOMETRY. THE FOLLOWING LIMITATION SHALL APPLY:
MAX RISER: 6.81"
MIN TREAD: 11"
HAND RAIL HEIGH 34"

THE GUARD RAIL SHALL BE DESIGNED PER TABLE 1607.1 & 1607.7

LIGHT GAUGE METAL FRAMING:

1. ALL LIGHT GAUGE METAL FRAMING INCLUDING METAL STUDS, METAL JOISTS, TRACK RUNNERS AND BRIDGING (STRAP OR OTHER) SHALL BE AS MANUFACTURED BY U.S.G. OR EQUAL. ALL SIZE GAUGES AND SPACES SHALL BE AS PER THE DRAWINGS.
2. PAINTED METAL STUDS SHALL BE PAINTED TO CONFORM TO ASTM A570 GRADE 50. GALVANIZED METAL STUDS SHALL CONFORM TO ASTM A446 GRADE D, 50 KSI YIELD. PAINTED METAL STUDS SHALL BE PAINTED TO CONFORM TO FEDERAL SPECIFICATION TT–P664. FIELD ABRASIONS TO MEMBERS DUE TO CUTTING OR WELDING SHALL BE TOUCHED UP WITH THE SAME WITH THE SAME GALVANIZED METAL STUDS SHALL BE FORMED FROM STEEL HAVING A G–60 GALVANIZE COATING. FIELD ABRASIONS TO MEMBERS DUE TO CUTTING OR WELDING SHALL BE BE REPAIRED WITH COLD GALVANIZING COMPOUND PER MANUFACTURES SPECIFICATIONS.
3. PROVIDE HORIZONTAL BRIDGING AND PURLIN CONNECTION AS SUGGESTED BY MBMA.
4. PROVIDE 16 GAUGE CONTINUOUS TRACK AT ENDS OF STUDS. STUDS SHALL BE SEATED SQUARELY IN TRACK.
5. UNLESS NOTED OTHERWISE, PROVIDE 2–NO. 12 SCREWS OR 1/8" FILLET WELDS, 2 INCHES LONG FOR STUD TO STUD OR STUD TO TRACK CONNECTIONS.
6. STUD OR TRACK ATTACHMENTS TO STRUCTURAL STEEL SHALL BE ACCOMPLISHED BY FUSION WELDING 1" EACH SIDE OF STUD/TRACK AT EACH SUPPORT AND CONNECTION.
7. FUSION WELDING OF STUDS SHALL CONFORM TO ASTM E60.
8. WALLS VERTICAL STUD SHALL BE 60CSW16 BY UNIMAST INCORPORATED OR APPROVED EQUAL WITH THE FOLLOWING TYPE, GAGE, AND PHYSICAL PROPERTIES. U.N.O. ON DWGS.

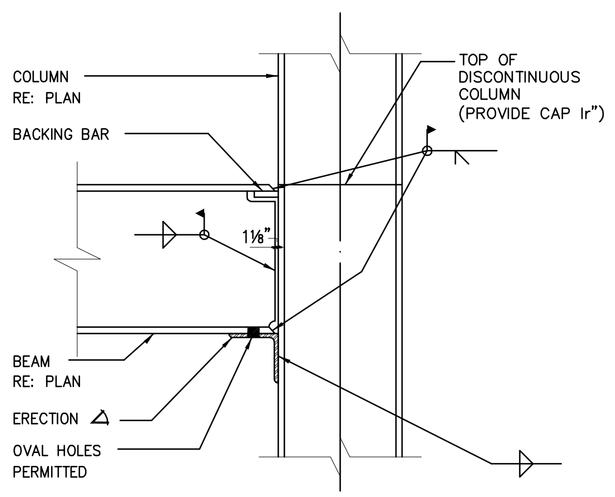
WALL STUDS	GAGE:	16
	MOMENT OF INERTIA:	3.129 IN 4/FT
	SECTION MODULUS:	1.022 IN 3/FT
	MINIMUM DEPTHS:	6 IN (NOMINAL)

STEEL DECK :

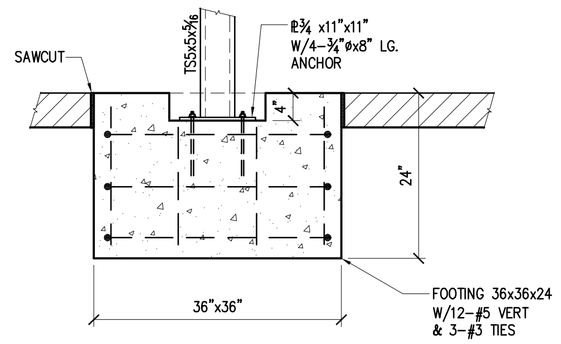
1. DESIGN, FABRICATION AND ERECTION OF METAL DECK SHALL BE CONFORM TO THE STEEL DECK INSTITUTE "CODE OF RECOMMENDED STANDARD PRACTICE AND BASIC DESIGN SPECIFICATION", LATEST EDITION.
2. WELDED MATERIALS AND PROCEDURES SHALL BE MADE TO ENSURE AGAINST BURNING OF HOLES IN THE DECK. WELDS SHALL CONFORM TO THE FOLLOWING PATTERNS USING STANDARD WELDED WASHERS, WHERE REQUIRED, AT SUPPORTING MEMBERS.
   A. WELD AT EACH SIDE LAP AND TWO EVENLY SPACED AT PANEL SEAMS. CORRIGATIONS BETWEEN SIDE LAPS AT INTERMEDIATE SUPPORTS.
   B. WELD AT 12" MAX. AT THE PERIMETER.
   C. #12" TEK FASTENERSAT 1/3 POINTS OF DECK SPAN AT PANEL SEAMS.

FLOOR DECK	GAGE:	22
	MOMENT OF INERTIA:	0.12 IN 4/FT.
	SECTION MODULUS:	1.111 IN 3/FT.
	MINIMUM DEPTHS:	1 INCH (NOMINAL)
	USE "VULCRAFT 1.0C22 OR APPROVED EQUAL.	

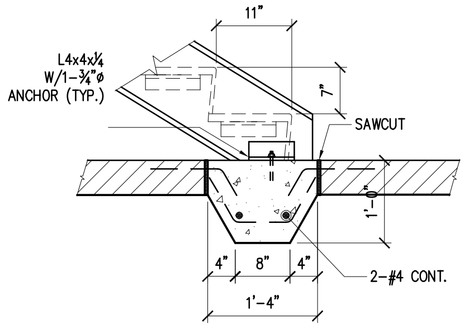
3. MAJOR OPENINGS ARE SHOWN ON THE DRAWINGS. ALL OPENINGS LARGER THAN 12" SQUARE OR ROUND, SHALL HAVE STRUCTURAL STEEL FRAMING AROUND OPENINGS FOR DECK SUPPORT.



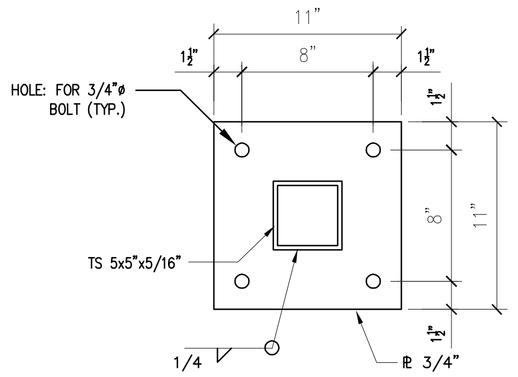
TYPICAL DETAILS
WELDED MOMENT CONNECTION



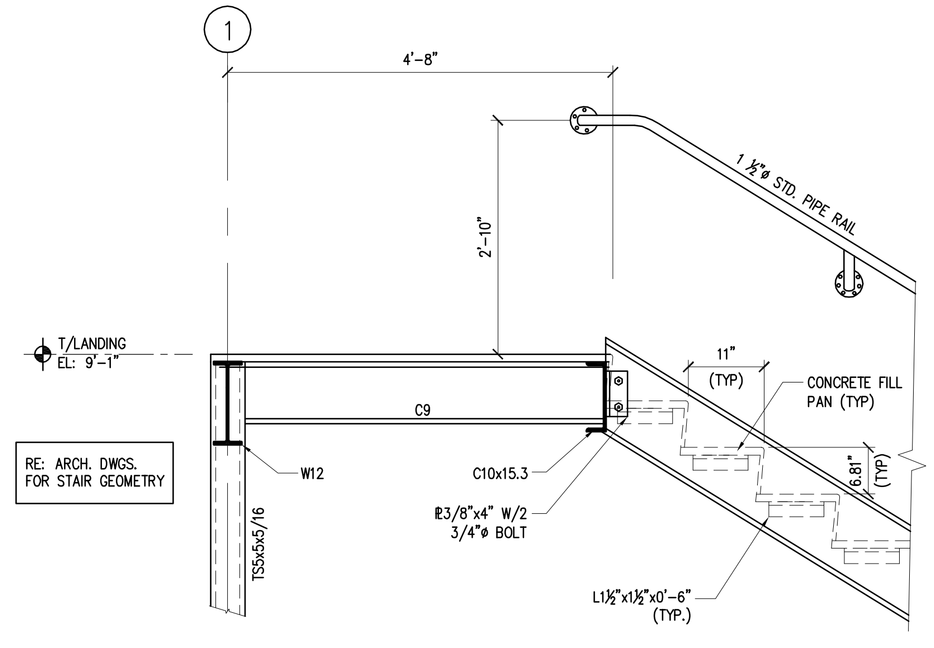
1 **DETAIL:** TYPICAL MEZZ. COLUMN FOOTING



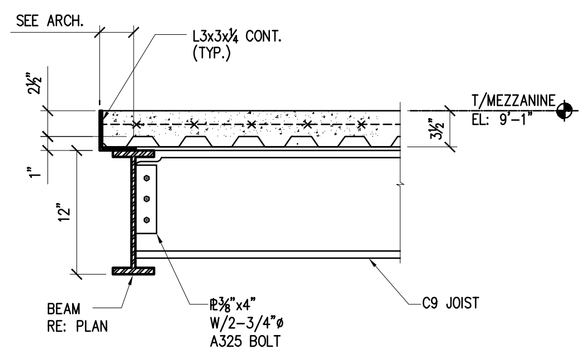
2 **DETAIL:** STRAIR/SLAB ATTACHENT DETAIL



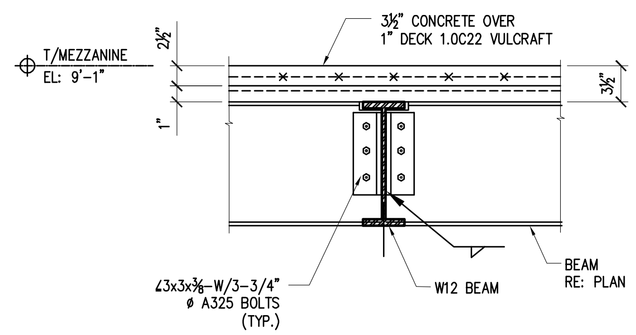
BASE DETAIL (TYP)



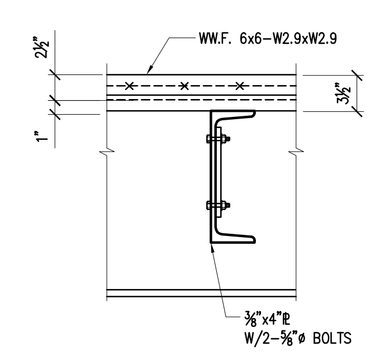
3 **DETAIL:** AT LANDING



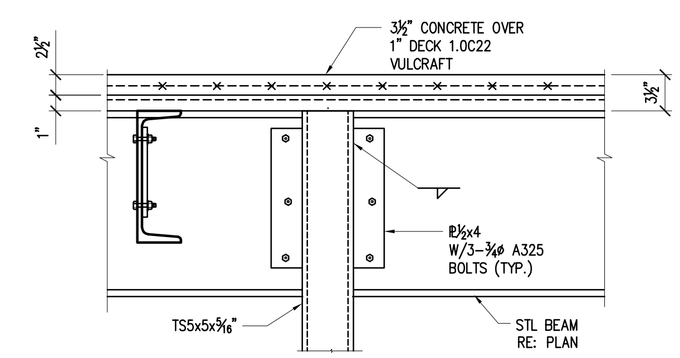
1 **SECTION:** AT EDGE BEAM



2 **SECTION:** AT BEAM TO BEAM CONNECTION



3 **SECTION:** AT JOIST TO BEAM CONNECTION



4 **SECTION:** AT COLUMN/BEAM CONNECTION

CONNECTION DETAILS & NOTES

MEZZANINE AT SIENNA

9009 SIENNA CHRISTUS DR.
MISSOURI CITY TEXAS 77459

ISSUE HISTORY

DATE	ISSUED FOR
	CLIENT REVIEW
	PERMIT
	CONSTRUCTION

PE

BUILDINGS
BRIDGES
INSPECTIONS
MARINE STRUCTURES
CIVIL ENGINEERING &
STRUCTURAL ENGINEERING

PARAMOUNT ENGINEERING LLC

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TYPE REGISTRATION # F–3394

DRAWN BY: K.S. | CHECKED BY: M.M.

PROJ. NO.: PE10–103

SHEET: S2