

GENERAL NOTES

GENERAL CONSTRUCTION NOTES

1. THESE NOTES COMPLEMENT THE DRAWINGS AND SPECS AND SHOULD NOT BE CONSIDERED INCLUSIVE OF ALL ITEMS. IF A CONFLICT EXISTS BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY.
2. WHERE THE DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS, EVEN THOUGH NOT SPECIFICALLY SHOWN ON THE DRAWINGS.
3. CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE EXECUTING WORK.
4. ALL WALLS RELYING ON TOP OF SLAB FOR SUPPORT SHALL BE BRACED UNTIL SLAB HAS CURED FOR A MINIMUM OF THREE (3) DAYS.
5. DRAWINGS ARE TO BE CAREFULLY COORDINATED AND LINTELS ACCORDING TO THE STANDARD LINTEL SCHEDULE ARE TO BE PROVIDED AT ALL MASONRY OPENINGS SHOWN ON ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STRUCTURAL PLANS.
6. SHOP DRAWINGS SHALL BE INDEPENDENTLY DEVELOPED. REPRODUCTION OF STRUCTURAL DESIGN DRAWINGS FOR USE AS SHOP DRAWINGS IS PROHIBITED. STEEL FABRICATION DRAWINGS SHALL BE SEALED BY AN ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.

APPLICABLE CODES FOR DESIGN

1. INTERNATIONAL BUILDING CODE IBC 2012, WITH 2012 GA. AMENDMENTS
2. AMERICAN INSTITUTE OF STEEL CONSTRUCTION AISC 14th ED
3. AMERICAN CONCRETE INSTITUTE ACI 318-11
4. STEEL JOIST INSTITUTE S.J.2010
5. BUILDING CODE REQUIREMENTS FOR CONCRETE AND MASONRY STRUCTURES ACI 530-11

CLASSIFICATION OF RISK FOR BUILDING

1. RISK CATEGORY II
2. SEISMIC FACTOR, I_e 1.0
3. SNOW FACTOR, S 1.0
4. WIND FACTOR, I_w 1.0

DESIGN LOADS

1. FLOOR LIVE LOAD: CLASSROOMS 40 PSF, RESTROOMS 40 PSF, CORRIDORS 40 PSF, STAIRS & BALCONIES 60 PSF, STORAGE 125 PSF, MECHANICAL & ELECTRICAL (LIVE LOADS HAVE BEEN REDUCED TO ALLOW FOR SECTION 1067.10.1 OF THE 2012 IBC) 15 PSF (PARTIAL LOAD NOT APPLIED WHERE LIVE LOADS EXCEEDS 80 PSF)
2. ROOF LIVE LOAD: 20 PSF (REDUCIBLE PER SECTION 1067.12.2)
3. GROUT FILL LOAD: 12, ASCE 7-10
4. WIND LOAD: PER ASCE 7-10
5. BASIC WIND SPEED: 115 MPH (WIND SPEED GUST)
6. WIND EXPOSURE: B
7. INTERNAL PRESSURE COEFFICIENT: +0.18, -0.18
8. WIND FROM FRONTAL SURFACE TO GROUND LEVEL: 15% (SEE SECTION 1067.10.1 OF THE 2012 IBC)
9. SEISMIC DESIGN CATEGORY: C
10. SEISMIC DESIGN CATEGORY: D
11. SEISMIC DESIGN CATEGORY: C
12. SEISMIC BASE SHEAR: $V = 0.059 \times W @ R = 3; V = 0.0443 @ R = 4$
13. SEISMIC FORCES DETERMINED BY: EQUIVALENT LATERAL FORCE PROCEDURE
14. SEISMIC RESTRAINT SYSTEM: INTERMEDIATE REINFORCED MASONRY SHEAR WALL (R=4, C=3)
15. STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE (R=3, C=3)

FOUNDATION

1. IF AFTER EXCAVATION, THE CONDITION OF SOIL INDICATES A SAFE BEARING CAPACITY OF LESS THAN 2500 PSF, THE ARCHITECT/ENGINEER SHALL BE NOTIFIED PRIOR TO PLACEMENT OF ANY FOUNDATION.
2. FOUNDATIONS AND RETAINING WALLS HAVE BEEN DESIGNED FOR ACTIVE PRESSURE OF 42 PSF AT REST PRESSURE OF 66 PSF. PASSIVE PRESSURE OF 300 PSF AND A COEFFICIENT OF FRICTION OF 0.50. THESE VALUES ARE BASED ON SOIL REPORTS AND TYPICAL VALUES FOR SOILS IN THIS AREA.
3. ALL BACKFILL SHALL BE COMPACTED TO THE REQUIREMENTS OF THE EARTHWORK SPECIFICATION.

CONCRETE & REINFORCING

1. ALL CONCRETE TO HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI WITH A MAXIMUM AGGREGATE SIZE OF 1" UNLESS NOTED OTHERWISE ON PLANS. ALL CONCRETE IS NORMAL WEIGHT (NW) CONCRETE.
2. CONSTRUCTION OF CONTROL JOINTS SHALL BE PROVIDED IN FLOOR SLABS ON GRADE SUCH THAT THE MAXIMUM SPAN BETWEEN JOINTS IS 12.0 FT. OR AS NOTED ON THE DRAWINGS.
3. PROVIDE REBAR #4 OF LONG AT THE MID-DEPTH OF SLAB AT ALL RE-ENTRANT CORNERS AND INTERSECTIONS AND AT ALL DISCONTINUOUS CONTROL JOINTS IN SLAB ON GRADE.
4. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60.
5. ALL BAR SPLICES SHALL BE AT A MINIMUM THE FOLLOWING LENGTHS (UNLESS NOTED OTHERWISE ON THE DRAWINGS): 36" FOR #5 BARS, 30" FOR #6 BARS, AND 24" FOR #4 BARS.
6. CORNER BARS ARE TO BE PROVIDED AT ALL CORNERS AND INTERSECTIONS OF REINFORCEMENT. EXTEND WALL FOOTING REINFORCING BARS CONTINUOUSLY THROUGH COLUMN FOOTINGS.

CONCRETE MASONRY WALL

1. THE DESIGN COMPRESSIVE STRENGTH, f_m , IS 1500 PSI.
2. GROUT FOR MASONRY FILL SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI @ 28 DAYS. COMPLY WITH ASTM C476-02, WITH PROPORTIONS BY VOLUME OF 1 PART PORTLAND CEMENT TO 1.14 TO 1.34 PARTS FINE AGGREGATE.
3. ALL MASONRY WALLS SHALL HAVE HORIZONTAL JOINT REINFORCEMENT AT 16" O.C.
4. ALL MORTAR FOR CONCRETE MASONRY UNITS SHALL BE TYPE S.
5. REINFORCE WALLS AS SHOWN ON PLANS. REINFORCED WALLS MUST BE REINFORCED AS SHOWN IN TYPICAL REINFORCED MASONRY WALLS WITH BOND BEAM DETAIL ON S002.
6. UNLESS NOTED OTHERWISE, ALL BAR SPLICES SHALL BE AS NOTED IN TYPICAL REINFORCED MASONRY WALLS WITH BOND BEAM DETAIL ON S002.
7. REPAIR OF LAP SPLICES, ANY OF THE FOLLOWING MECHANICAL SPLICES MAY BE USED:
 - A. LENTON STANDARD COUPLERS-A2 (ERICO PRODUCTS, INC. 1-800-248-2677)
 - B. BAR-LOCK S-SERIES COUPLER (BAR-LOCK COUPLER SYSTEMS 1-800-755-8888)
 - C. DOUBLE BARREL ZAP SCREWLOCK (BAR-LOCK COUPLER SYSTEMS, INC. - SOLD THROUGH REBAR SUPPLIER)
 - D. OTHER COUPLERS TO BE APPROVED BY THE ENGINEER OF RECORD.

STEEL

1. ALL WIDE FLANGE STRUCTURAL STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 ksi (ASTM A992), UNLESS NOTED OTHERWISE. ALL STRUCTURAL STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 46 ksi (ASTM A500), ANGLES AND CHANNELS SHALL BE ASTM A36.
2. ALL WELDS ARE TO BE MADE TO THE FOLLOWING SPECIFICATIONS:
3. ALL CONNECTIONS EXCEPT THOSE INDICATED ON THE DRAWINGS AS "WELDED CONNECTIONS," ARE TO BE MADE USING 3/4" DIA. EPOXY BOLTS OR TENSION-CONTROL BOLTS. DESIGN ALL CONNECTIONS FOR AS SHOWN IN REACTIONS SHOWN ON THE PLANS.

METAL DECK

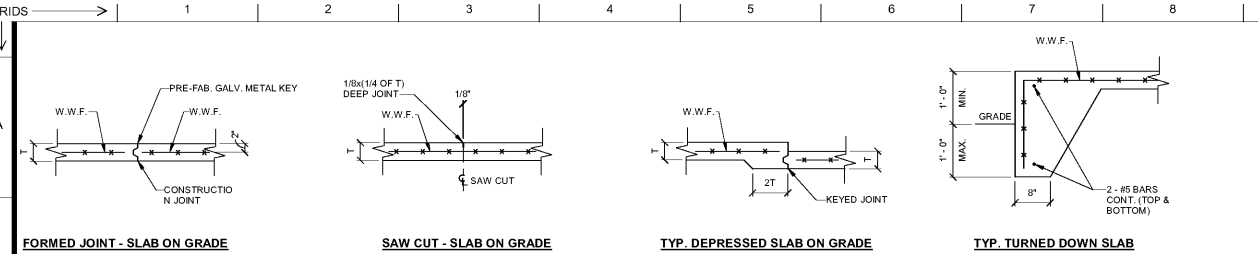
1. ROOF METAL DECKING SHALL BE 1 1/2" 22 GA., WIDE RIB WITH $F_y = 33.0$ ksi.
2. AT THE ROOF DECK ATTACHMENT, IN LIEU OF THE 50' PUDDLE WELDS, THE HLT DECK FASTENING SYSTEM CAN BE USED WITH THE X-ENP-19 L15 PIN. ONE ADDITIONAL SDE LAP PER PANEL MUST BE INSTALLED WHEN THE HLT FASTENING SYSTEM IS USED. SEE PLANS FOR THE NUMBER OF SDE LAPS REQUIRED WHEN THE DECKING IS ATTACHED USING THE 50' PUDDLE WELD.
3. FLOOR NON-COMPOSITE METAL DECKING SHALL BE 911" 26 GA., MEETING THE FOLLOWING CRITERIA: $I = 0.015 \text{ in}^4$; $S_x = 0.043 \text{ in}^3$; $S_y = 0.043 \text{ in}^3$; $F_y = 60.0$ ksi.
4. AT THE NON-COMPOSITE FLOOR DECK ATTACHMENT, IN LIEU OF THE 50' PUDDLE WELDS, THE HLT DECK FASTENING SYSTEM CAN BE USED WITH X-ENP-19 L15 PIN AS AN EQUIVALENT (NO ADDITIONAL SDE LAPS REQUIRED ATTACHMENT TO THE 50' PUDDLE WELD).

BAR JOISTS

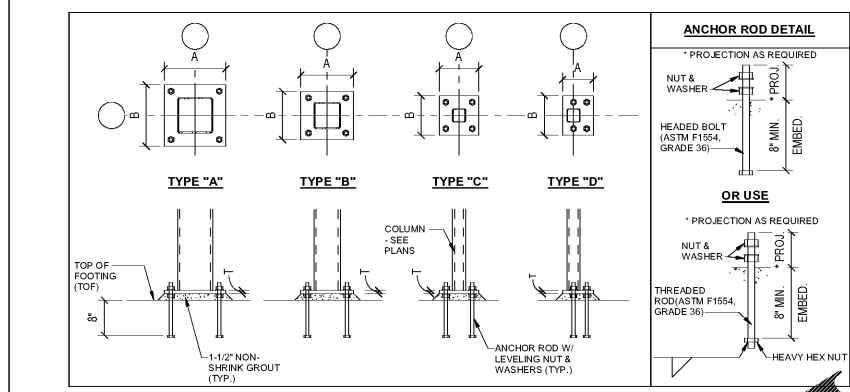
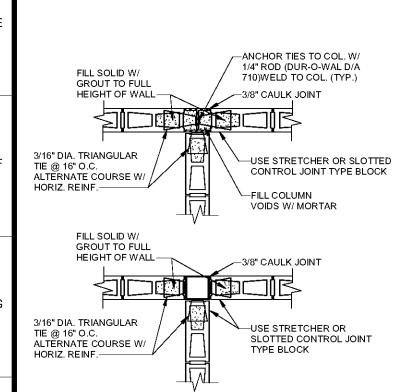
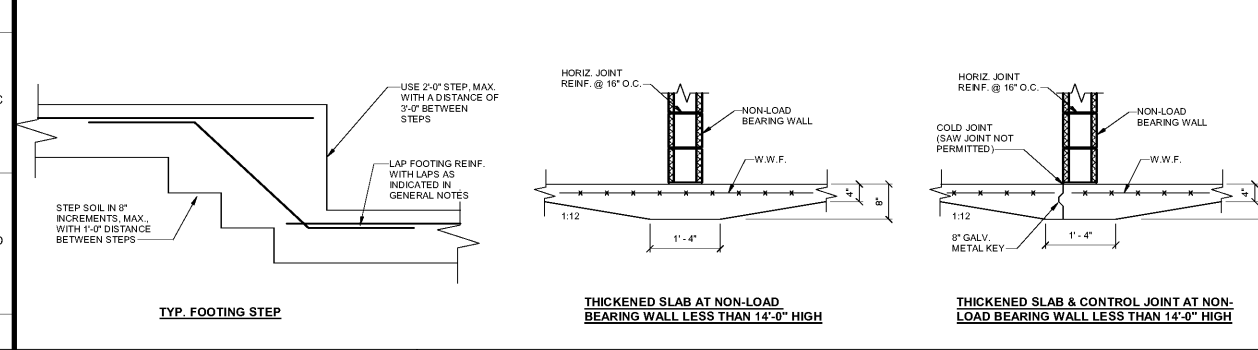
1. JOIST MANUFACTURER IS TO CHECK ADEQUACY OF THE JOIST DESIGN AND JOIST SYSTEM MODIFY SYSTEM AS REQUIRED FOR A NET UPLIFT (0.60 + 0.80) BASED ON THE STRENGTH LEVEL LOADS SHOWN IN THE WIND PRESSURE PLAN ON DRAWING S601 COMBINED WITH A DEAD LOAD OF 10 psf (0.80 + 5 psf).
2. IN STEEL FRAMING, WHERE BAR JOISTS ARE UTILIZED, AN COLUMN ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS. A BAR JOIST SHALL BE FIELD-BOLT AT COLUMNS TO PROVIDE LATERAL STABILITY DURING CONSTRUCTION.
3. WHERE POINT LOADS ARE APPLIED TO TOP OR BOTTOM CHORD OF JOISTS BETWEEN PANEL POINTS, AN L2 X 2 X 1/8 ANGLE SHALL BE WELDED BETWEEN POINT LOAD OPPOSITE CHORD PANEL POINT.

SPECIAL INSPECTIONS

1. SEE SPECIFICATIONS SECTION 01 41 00 FOR REQUIREMENTS.



TYP. CONTROL JOINTS



BASE PLATE SCHEDULE

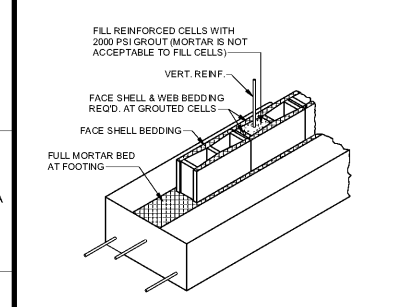
MARK	A	B	T	ANCHOR BOLT DIMETER	PLATE TYPE
BP-1	1'-2"	1'-2"	0'-0.34"	0'-0.34"	A
BP-2	1'-0"	1'-0"	0'-0.34"	0'-0.34"	B
BP-3	0'-9"	0'-9"	0'-0.34"	0'-0.34"	C
BP-4	0'-8 1/2"	0'-9"	0'-0.34"	0'-0.34"	D

BEAM & PLATE LINTEL SCHEDULE

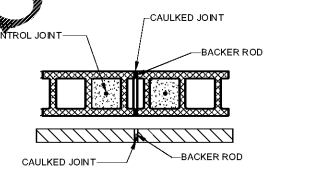
MARK	BEAM SIZE	PLATE SIZE	DETAIL
L1	HSS16x14	39" x 15 1/2"	7S303
L2	HSS16x14	39" x 15 1/2"	7S303
L3	HSS20x12	39" x 14"	6S303

FOOTING SCHEDULE

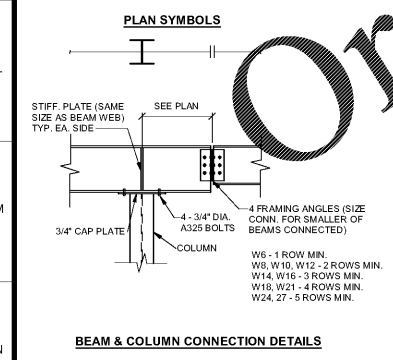
MARK	DIMENSIONS	REINFORCEMENT
F-1	2'-0" x 2'-0" x 1'-0"	3-#4 EACH WAY, BOT
F-3	3'-0" x 3'-0" x 1'-0"	4-#4 EACH WAY, BOT
F-5	5'-0" x 5'-0" x 1'-0"	7-#4 EACH WAY, BOT
F-8	8'-0" x 8'-0" x 1'-0"	8-#7 EACH WAY, BOT



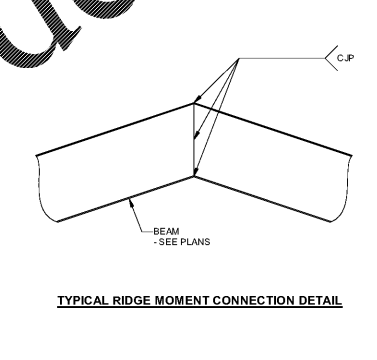
TYPICAL MORTAR REQUIREMENTS



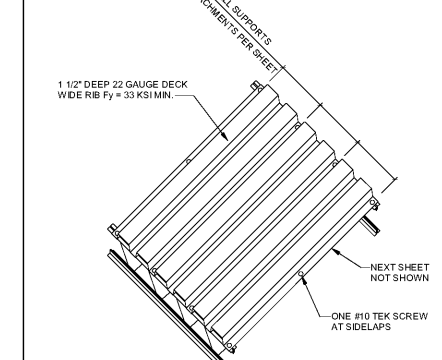
TYPICAL WALL CONTROL JOINT



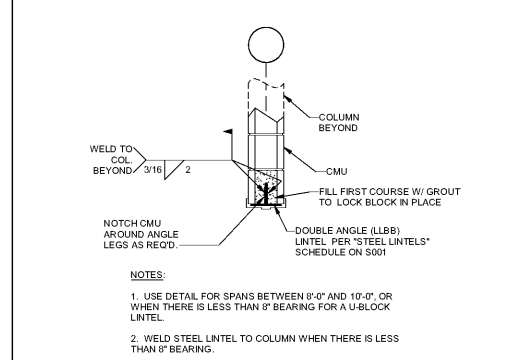
BEAM & COLUMN CONNECTION DETAILS



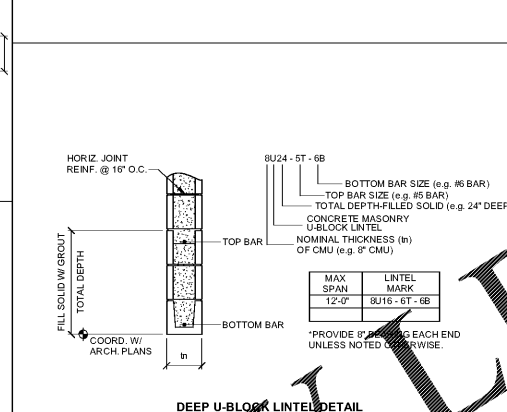
TYPICAL RIDGE MOMENT CONNECTION DETAIL



TYPICAL STEEL DECK ATTACHMENT DETAIL



TYPICAL INTERIOR STEEL LINTEL



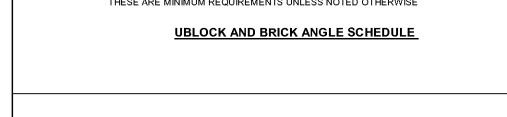
DEEP U-BLOCK LINTEL DETAIL

U-BLOCK AND BRICK ANGLE SCHEDULE

MAX. SPAN	6" LIGHT BRICK OR BLOCK WEIGHT BLOCK	8" LIGHT BRICK OR BLOCK WEIGHT BLOCK	12" LIGHT BRICK OR BLOCK WEIGHT BLOCK
8'-0"	1-#4	1-#4	1-#4
10'-0"	1-#4	1-#4	1-#4
12'-0"	1-#6	1-#6	2-#5
14'-0"	1-#6	1-#6	2-#5

STEEL LINTELS (NON-LOAD BEARING WALLS)

MAX. SPAN	6" LIGHT BRICK OR BLOCK WEIGHT BLOCK	8" LIGHT BRICK OR BLOCK WEIGHT BLOCK	12" LIGHT BRICK OR BLOCK WEIGHT BLOCK
8'-0"	L3	L3	L3
10'-0"	L3	L3	L3
12'-0"	L3	L3	L3
14'-0"	L3	L3	L3



TYPICAL REINFORCED MASONRY WALL WITH BOND BEAMS

