

Specializing in Cold-Formed Steel Solutions

# **COLD-FORMED STEEL TRUSS PACKAGE COST PROPOSAL**

Job Name

**Prepared For** 

Prepared by



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# PRICE FOR: Cold Formed Steel Trusses & Metal Deck (Furnish & Install)

		Scope	✓ Included X Excluded
Trusses	<ul><li>Permanent Bracing</li><li>Outlookers</li></ul>	<ul> <li>Bearing Clip</li> <li>Shear blocking</li> </ul>	<ul> <li>Soffit Framing</li> <li>Sealed Truss Calculation</li> </ul>
BentPlate Light Gauge Only	✓ Eaves ✓ Ridges	✓ Valleys	✓ Hips
Roof Deck	1 1/2 Type B 20 gauge G60 Fini 1 1/2 Type B 22 gauge G60 Fini	sh Metal Roof Deck. sh Metal Roof Deck.	
Installation	<ul> <li>Trusses</li> <li>Outlookers</li> <li>Rywood</li> </ul>	<ul> <li>✓ Bracing</li> <li>✓ Clips</li> <li>✓ Bent Plate</li> </ul>	<ul> <li>Metal Deck(Mechanical Fastener)</li> <li>One Mobilization</li> </ul>
			Sales Tax
	Total price including tax FOB: Plant, Freight allowed:		

### TERMS OF SALE AFTER CREDIT APPROVAL:

# WE WILL INVOICE ON A MONTHLY BASIS FOR MATERIALS RECEIVED IN OUR FACILITIES, FOR ENGINEERING, AND FOR SHOP AND FIELD LABOR EXPENDED DURING THE BILLING PERIODS. NO RETENTION ALLOWED. PRICE VALID FOR 30 DAYS FROM THE PROPOSAL DATE ONLY AND MUST SHIP WITHIN 90 DAYS.

\*\*The above pricing is based on current prices for the steel necessary to complete this project as of the date of this quote. Due to the volatility of the steel market, any increase or decrease in the price of the steel to United Structures for this project at the time the material is shipped to United Structures facilities will result in a corresponding dollar for dollar increase or decrease in the subcontract price.\*\*



# THE FOLLOWING INFORMATION WAS USED IN PREPARATION OF THIS PROPOSAL:

Drawings: Entire drawing set as listed on Supplement 7 dated Sept 2, 2015

**Specification:** 053000,054000

Addenda(s): #1,#2,#3,#4z,#5

<b>Building Code:</b>	FBC 2010	
Wind Speed (Mph):	0.00	
	Top chord	Bottom Chord
Live Load (Psf):	20.00	0.00
Dead Load (Psf):	10.00	10.00

### **SPECIAL NOTES:**

Refer to attached United Structures Scope document for job specific inclusion and exclusion information.

- 1) EHPA Bldgs fddesigned with 175 MPH wind and trusses @ 48" oc
- 2 ) Non EHPA Bldgs designed with 135 MPH win and trusses @ 60" oc
- $\boldsymbol{3}$  ) See attached United Structures Scope drawing for inclusions and exclusions/n



# STANDARD QUALIFICATIONS / EXCLUSIONS

### **Cold-Formed Trusses**

- Includes trusses designed with either proprietary or standard cold-formed steel sections as determined by United Structures. Material gauges may vary from 12 ga to 22 ga with minimum yield strength of 33 ksi, unless an alternative minimum gauge is specifically noted on the quote. Galvanization is a minimum of G60 U.N.O.
- Includes truss to structure connections designed by United Structures for applicable loads as specified by EOR on plans. All
  connection materials to be cold-formed steel. Attachment may be accomplished with mechanical fasteners or welding as
  determined by United Structures.
- Includes all truss to truss connections as designed by United Structures with cold-formed steel materials.
- Includes all lateral, and permanent web and bottom chord bracing required by United Structures truss design. Bracing material to conform to industry standards. (Alternate bracing material will be excluded U.N.O.)
- Includes Top Chord bracing at piggyback trusses where applicable.
- Includes sealed engineered truss drawings along with unsealed truss placement and bracing plans submitted in electronic format only. Hard copy submittals will be available at an additional cost.
- Excludes all items not listed above or specifically listed on quote. This includes but is not limited to all red iron plates, angles, beams, bent plates, embed plates, and fasteners.
- Excludes framing materials not specifically shown on the plans as trusses are itemized as additional products on the quote. This includes but is not limited to rafters, dormers, temporary and/or permanent wall bracing, soffit framing, diagonal framing to stabilize beams, and all non-structural material.
- Excludes wind shear bracing, blocking or bridging design and/or materials. Where no shear transfer details are shown on plans United Structures will accept no responsibility for the supply or design shear transfer materials. EOR is responsible at all times to specify the actual loads and locations for United Structures use in the design of trusses.
- Excludes all payment and performance bonds, unless specifically included.



### Metal Deck / Plywood Sheathing

- Includes metal deck or plywood on top of included trusses as quoted U.N.O. Metal deck or plywood material is limited to the product as described in the quote and is shipped in lengths as determined by United Structures. Plywood is assumed to be exterior grade (not fire retardant) U.N.O.
- Includes sheathing material attached directly to trusses. Applications with multiple layers of sheathing will only include the product that directly attaches to the trusses U.N.O.
- Excludes Deck accessories U.N.O.
- Excludes sump pans, cell closures, pour stops.
- Excludes Screws or weld washers U.N.O.
- Applications with plywood sheathing only will not include intermediate support framing. Support for plywood assumed to be on trusses only. No additional blocking, bent angle, clips, etc.
- Applications with fire treated plywood requires a covered storage area to be provided by others.
- Excludes Joint Sealant materials including but not limited to side laps and end laps.

### Installation – Trusses

- Includes labor to install products purchased from United Structures only.
- Excludes all other cold-formed products not specifically noted above.
- Excludes all mechanical/ structural connectors not required for attachment of product supplied by United Structures
- Excludes layout and/or placement of products supplied by others.
- Excludes framing support at vertical faces for deck/sheathing.
- Excludes red iron angle and wood nailers if required at deck edge.
- Excludes all metal stud framing such as dormer framing, vertical stud framing, gable end stud framing, and fascia/soffit framing.
- Excludes all wood work U.N.O.
- Excludes field painting or touch-up painting.
- Includes cleanup of United Structures trash to a central dumpster to be provided and hauled off by others. Composite cleanup is not included.
- Excludes all temporary utilities, water, power and sanitary facilities. These must be provided by others.
- Contractor must provide sufficient access to our work area and around the jobsite.
- Includes one mobilization unless specified otherwise on United Structures' quote. Additional mobilizations will be invoiced at \$3,500.00 each.



### Installation Metal-Deck / Plywood Sheathing

- Includes labor to install deck concurrently with truss installation. Additional mobilizations will be invoiced at \$3,500.00 each.
- Excludes metal deck or plywood sheathing at vertical faces and/or framing support in same locations.
- Includes mechanical fastening of deck product. Welding of deck to trusses is specifically excluded.
- Excludes installation of joint sealing material for metal deck, including but not limited to side laps and end laps.
- Excludes installation of closure strip material for metal deck.
- Plywood to be fastened with power actuated pins. Other fasteners available at additional cost.
- Fire treated plywood becomes the responsibility of the contractor immediately after it is securely fastened to the supporting structures. United Structures is not responsible for warping or delamination of properly installed plywood after installation.

### General

- All Material is guaranteed as specified.
- All work to be completed in a professional manner and in accordance with industry standards.
- Any alteration or deviation from the referenced drawings, specifications and/or submittals involving additional cost will be performed only by written orders, and will become a change order to this contract.
- United Structures reserves the right to determine schedule times and durations for product included in quote.
- This quote is valid only as a whole. Purchase of individual parts is available at the discretion of United Structures and may vary from the pricing shown.
- All agreements are contingent upon strikes, natural disaster, accidents, or delays beyond our control.
- Quoted prices are valid for 30 days from date of the quote U.N.O.
- Product must ship within 90 days of acceptance of quote or will be subject to additional costs.
- This quotation does not have a guarantee of acceptance. Some factors determining final acceptance of order are United Structures' current capacity, best business judgment, and customer's credit.
- Testing, Test reports, Field Inspections, and Shop Inspections are excluded from this quote and if required will incur additional costs.



# **DELIVERY AND ERECTION SCHEDULE:**

The Erection duration for this project will be determined upon issuance of subcontract and review of preliminary project schedule. Erection will commence on a date which must be mutually agreed upon by United Structures and customer.

## Acceptance of Proposal:

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Name:	Signature:	
Date of Acceptance:	Price:	
	Eric Greenfield 229-233-0260 Ext 202 (Office) 229-327-7227 (Cell) Eric.greenfield@unitedstructures.net Ericg247 (Skype)	

www.UnitedStructures.Net

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# **PROJECT INFORMATION**

APPLICABLE CODES:

- -FLORIDA BUILDING CODE, EXISTING (FBC, EB) 2010 EDITION W/ 2012 SUPPLEMENTS
- -FLORIDA BUILDING CODE, BUILDING (FBC, B) 2010 EDITION W/ 2012 SUPPLEMENTS -FBC, CHAPTER 11, FLORIDA ACCESSIBILITY CODE - 2010 EDITION W/ 2012 SUPPLEMENTS
- -FLORIDA BUILDING CODE, MECHANICAL (FBC, M) 2010 EDITION W/ 2012 SUPPLEMENTS
- -FLORIDA BUILDING CODE, FUEL GAS (FBC, FG) 2010 EDITION W/ 2012 SUPPLEMENTS -FLORIDA BUILDING CODE, PLUMBING (FBC P) - 2010 EDITION W/ 2012 SUPPLEMENTS
- -FLORIDA FIRE PREVENTION CODE 2010 EDITION NFPA 101 LIFE SAFETY CODE
- -FLORIDA FIRE PREVENTION CODE 2010 EDITION -NATIONAL ELECTRICAL CODE - 2008 EDITION

-STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES - 2012 EDITION

METHO	O OF	STRUCTURAL	FIRE-PROOFING	
OF PRO	DJECT	AREA		

OF PROJECT AREA		NEW BUILDING HEIGHT AND AREA:	
SELF—PROTECTING RATED MEMBRANE ASSEMBLY SPRAYED ON OTHER	NO NO N/A	OVERALL BUILDING HEIGHT OVERALL BUILDING HEIGHT	TWO (2) STORY ±42'-0"
RATING: EXTERIOR BEARING WALLS	N/A	NEW CONSTRUCTION TYPE:	224,837 SQ. FT. TYPE IIB
EXTERIOR NON-BEARING WALLS COLUMNS	N/A N/A	OVERALL BUILDING	FBC
ROOF ASSEMBLY	N/A	SPRINKLERED	YES
CONSTRUCTION MATERIALS			
FLOOR PARTITIONS EXTERIOR WALLS STRUCTURE	STEEL/CONCRETE CMU CMU / MASONRY STEEL/CONCRETE		
PRINCIPAL OCCUPANCY:			
EDUCATIONAL	YES		
ACCESSORY OCCUPANCIES: ASSEMBLY BUSINESS OTHER	YES N/A N/A		

NEW CONSTRUCTION

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	S0.6 SECTIONS	

UNITED STRUCTURES' INCLUSIONS AND EXCLUSIONS ARE SUBJECT TO CHANGE. ANY ITEMS NOT MARKED ARE NOT CONSIDERED PART OF UNITED STRUCTURES' SCOPE AND ARE EXCLUDED.

SECTIONS ADMINISTRATION (BLDG. 1100) FOUNDATION PLAN MEDIA (BLDG. 2100) SECOND FLOOR FRAMING PLAN MEDIA (BLDDG. 2100) ROOF FRAMING PLAN KINDERGATEN & FIRST GRADE (BLDG. 1100) FOUNDATION PLAN MEDIA (BLDG. 2100) SECOND FLOOR FRAMING PLAN MEDIA (BLDG. 2100) ROOF FRAMING PLAN PRIMARY CLASSROOMS (BLDG. 1200 & 1300) FOUNDATION PLAN PRIMARY CLASSROOMS (BLDGS. 2200 & 2300) SEC. FLOOR FRAMING PLAN PRIMARY CLASSROOMS (BLDGS. 2200 & 2300) ROOF FRAMING PLAN INTERMEDIATE (BLDG. 1400) FOUNDATION INTERMEDIATE (BLDG. 2400) SECOND FLOOR FRAMING PLAN INTERMEDIATE (BLDG. 2400) ROOF FRAMING PLAN GYMNASIUM (BLDG. 1500) FOUNDATION PLAN GYMNASIUM (BLDG. 1500) FRAMING PLAN GYMNASIUM (BLDG. 1500) ROOF FRAMING PLAN CAFETERIA (BLDG. 1600) FOUNDATION PLAN CAFETERIA (BLDG. 1600) ROOF FRAMING PLAN

# <u>IANICAL</u>

NERAL NOTES, LEGENDS & SCHEDULES - HVAC HEDULES - HVAC HEDULES - HVAC HILDING #1 ADMINISTRATION WING -FLOOR PLAN - HVAC NDERGARTEN & FIRST GRADE- FIRST FLOOR PLANS - HVAC MARY FIRST FLOOR PLANS - HVAC TERMEDIATE FIRST FLOOR PLAN - HVAC MNASIUM FIRST & SECOND FLOOR PLANS - HVAC FETORIUM FIRST FLOOR PLANS - HVAC TOIA SECOND FLOOR PLAN - HVAC HMARY SECOND FLOOR PLAN - HVAC TERMEDIATE SECOND FLOOR PLAN - HVAC TAILS - HVAC TAILS - HVAC

# BING

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- FS1.6 EXHAUST HOOD AND FIRE SYSTEM PLAN
- FS1.7 UDS SYSTEM AND WIRING INFORMATION



# GENERAL STRUCTURAL NOTES

GENERAL

- NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL OR CODE (WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONTRACT DOCUMENTS) SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF OUNER. CONTRACTOR, ENGINEER OR SUPPLIER OR ANY OF THEIR CONSULTANTS, AGENTS OR EMPLOYEES FROM THOSE SET FORTH IN THE CONTRACT DOCUMENTS, NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE STRUCTURAL ENGINEER OF RECORD OR ANY OF THE STRUCTURAL ENGINEER OF RECORD'S CONSULTANTS, AGENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONTRACT DOCUMENTS.
- 2. THE GENERAL CONTRACTOR SHALL VERIFY THE DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD SHALL BE NOTIFIED OF ANY DISCREPANCY.
- 3. MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2010 FLORIDA BUILDING CODE WITH 2012 SUPPLEMENT.
- 4. THE CONTRACTOR SHALL COORDINATE THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL WORKS WITH THE STRUCTURAL CONTRACT DOCUMENTS. ARCHITECT/STRUCTURAL ENGINEER OF RECORD SHALL BE NOTIFIED OF ANY DISCREPANCIES OR OMISSIONS.
- THE CONTRACTOR SHALL VERIFY THE FLOOR AND ROOF MOUNTED MECHANICAL EQUIPMENTS WEIGHTS, FLOOR AND/OR ROOF OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS.
- 6. THE CONTRACTOR SHALL NOTIFY IN WRITING THE STRUCTURAL ENGINEER OF RECORD OF CONDITIONS ENCOUNTERED IN THE FIELD CONTRADICTORY TO THOSE SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS.
- FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS SEE THE ARCHITECTURAL.
- 8. STRUCTURAL CONTRACT DRAWINGS SHALL NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR ANY MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR OR SUBCONTRACTOR.
- REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION OR ASSOCIATION TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AND PUBLISHED AT THE DATE OF TAKING BIDS UNLESS SPECIFICALLY STATED OTHERWISE.
- 10. ANY CONTRACTOR INTENDING TO SUPPORT EQUIPMENT, PIPING, DUCT WORK, CRANES OR OTHER ITEMS WHICH SUBJECT THE ROOF OR FLOOR SYSTEMS TO CONCENTRATED LOADINGS NOT SPECIFICALLY INDICATED ON THESE STRUCTURAL DRAWINGS, MUST SUBMIT SHOP DRAWINGS, WEIGHTS, AND PROPOSED SUPPORT LOCATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO ERECTION. ANY CONTRACTOR WHO ERECTS EQUIPMENT WITHOUT OBTAINING SUCH APPROVAL WILL BE REQUIRED EITHER TO REMOVE IT AND SUBMIT SHOP DRAWINGS OR STAND THE COST OF REQUIRED REINFORCEMENT OF MEMBERS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE PERFORMANCE OF THE CONTRACT. THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDER OF PUBLIC AUTHORITIES (ESPECIALLY OSHA) BEARING ON SAFETY OF PERSONS OR PROPERTY OR THEIR PROTECTION FROM DAMAGE, INJURY OR LOSS. THE CONTRACTOR SHALL NOT LOAD OR PERMIT ANY PART OF THE CONSTRUCTION SITE TO BE LOADED SO AS TO ENDANGER ITS SAFETY.
- 12. IN NO CASE SHALL STRUCTURAL ALTERATIONS OR WORK AFFECTING A STRUCTURAL MEMBER BE MADE, UNLESS APPROVED BY JOHNSON AND REEVES ENGINEERING IN WRITING
- THIS BUILDING IS DESIGNED AS AN ENCLOSED STRUCTURE. ALL EXTERIOR COMPONENTS (DOORS, WINDOWS, ETC.) MUST BE DESIGNED TO WITHSTAND THE WIND LOADINGS SPECIFIED FOR THE DESIGN OF COMPONENTS AND CLADDING IN THE APPLICABLE BUILDING CODE.
- THE CONTRACT DOCUMENT DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE SPECIFICATIONS AND/OR CODE OF PRACTICE FOR AISC, ACI, SJI, OR OTHER STANDARDS.
- FOUNDATION
- THE FOUNDATION IS DESIGNED AS RECOMMENDED BY J4M TESTING LAB, INC. IN THE PROJECT GEOTECHNICAL REPORT DATED APRIL 3, 2015.
- FOR BUILDING SITE PREPARATION REQUIREMENTS SEE PROJECT GEOTECHNICAL REPORT AND PROJECT SPECIFICATIONS.
- FOUNDATION SHALL CONSIST OF SPREAD FOOTINGS DESIGNED TO BEAR ON SOIL CAPABLE OF SUPPORTING 2000 PSF. <u>CONCRETE</u>
- CONCRETE WORK SHALL CONFORM TO THE ACI 318-08 AND CRSI STANDARDS.
- PIPES OR DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED WITHIN THE THICKNESS OF CONCRETE WALLS UNLESS SPECIFICALLY DETAILED. SEE MECHANICAL AND/OR ELECTRICAL DRAWINGS FOR LOCATION OF SLEEVES.
- REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENTS, CLIPS, OR GROUNDS REQUIRED TO BE ENCASED IN CONCRETE AND FOR LOCATION AND DETAILS OF FLOOR FINISHES AND SLAB DEPRESSIONS.
- CONSTRUCTION JOINTS IN CONCRETE BEAMS AND FRAMED SLABS SHALL BE PLACED AT MIDSPAN. ALL CONSTRUCTION JOINTS MUST BE KEYED WITH REINFORCING RUN CONTINUOUS THROUGH JOINTS.
- 5. AT COLUMN FOOTINGS, COLUMN ANCHOR RODS WITH TEMPLATE SHALL BE INSTALLED IN PROPER LOCATION PRIOR TO POURING THE FOOTING.
- CONCRETE SHALL HAVE THE FOLLOWING MINIMUM 28 DAY COMPRESSIVE STRENGTH UTILIZING TYPE I CEMENT:

FOUNDATIONS AND SLABS ON GRADE 3000 PSI CONCRETE COLUMNS 4000 PS CONCRETE BEAMS (INCLUDING TIE BEAMS) 4000 PSI

REINFORCING STEEL

- REINFORCING STEEL SHALL CONFORM TO ASTM A615-GRADE 60.
- 2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND HAVE A MINIMUM SIDE LAP OF 8 INCHES.
- REINFORCEMENT SHALL BE SPLICED ONLY AS SHOWN OR NOTED IN THE STRUCTURAL CONTRACT DOCUMENTS. ALL REINFORCING LAP SPLICES SHALL BE A MINIMUM OF 36 BAR DIAMETERS IN LENGTH
- FOR REINFORCED CONCRETE. LAP SPLICES FOR REINFORCED MASONRY SHALL BE A MINIMUM OF 48 BAR DIAMETERS. ALL REINFORCING STEEL AND ACCESSORIES SHALL BE DETAILED, FABRICATED, AND
- PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI MANUAL AND MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.
- MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE IN CONFORMANCE WITH CHAPTER 1 OF ACI 318-08 EXCEPT AS OTHERWISE NOTED. REINFORCING IN ALL CONCRETE WALLS, FOOTINGS AND BOND BEAMS SHALL BE
- CONTINUOUS AT INTERSECTIONS AND CORNERS. WHERE WALL FOOTINGS STEP, REINFORCING SHALL BE CONTINUOUS IN STEP.
- PROVIDE 2-5 EXTRA DIAGONAL REINFORCING BARS AT CORNERS OF ALL OPENINGS IN FRAMED SLABS AND CONCRETE WALLS. EXTEND BARS 2'-O" BEYOND EACH EDGE OF
- AT POURED CONCRETE WALLS, PIERS AND COLUMNS, DOWELS FOR VERTICAL REINFORCING BARS SHALL BE INSTALLED IN THEIR PROPER LOCATION PRIOR TO CONCRETE POUR OF THE FOOTINGS.

STRUCTURAL METALS

- STRUCTURAL STEEL SHALL CONFORM TO ASTM A512 GRADE 50 EXCEPT ANGLES. CHANNELS, PLATES, RODS, ETC SHALL CONFORM TO ASTM A36 AND STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B (Fy=46ksi).
- STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED ACCORDING TO AIGC 360-05 THIRTEENTH EDITION OF THE AISC MANUAL AND SPECIFICATIONS. CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF CONFLICT WITH THE AISC ASPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- FABRICATOR SHALL PREPARE SHOP DRAWINGS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, CONNECTIONS SHALL BE DETAILED BASED ON THE DESIGN INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS. DEVIATION FROM THE CONNECTION DETAILS DEPICTED IN THE CONTRACT DOCUMENTS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER OF RECORD. THE STRUCTURAL ENGINEER OF RECORD SHALL BE COMPENSATED BY THE FABRICATOR FOR THE COST INVOLVED IN THE REDESIGN OF CONNECTIONS FOR THE CONVENIENCE OF THE FABRICATOR.
- UNLESS INDICATED OTHERWISE, ALL BEAM CONNECTIONS SHALL BE AISC DOUBLE ANGLE PER TABLE II OR III OF THE ASD MANUAL OF STEEL CONSTRUCTION. UNLESS OTHERWISE INDICATED, BOLTED CONNECTIONS SHALL UTILIZE MAXIMUM NUMBER OF ROWS AT 3" STANDARD BOLT SPACING.
- BOLTED CONNECTIONS SHALL BE NON-SLIP CRITICAL BEARING TYPE CONNECTIONS (THREADS EXCLUDED FROM THE SHEAR PLANE) USING 3/4" DIAMETER A-325 BOLTS. SLOTTED HOLES ARE PERMITTED ONLY WHERE THE DIRECTION OF THE LOAD IS NORMAL TO THE AXIS OF THE SLOT.
- 6. USE PREQUALIFIED WELDED JOINTS PER AISC AND THE STRUCTURAL WELDING CODE OF THE AMERICAN WELDING SOCIETY. NON QUALIFIED JOINTS SHALL BE QUALIFIED BY THE FABRICATOR PRIOR TO FABRICATION.

STRUCTURAL METALS (CONT.)

- 1. SHOP PAINT FOR STRUCTURAL STEEL SHALL BE TNEMEC 10-33. APPLY TO STRUCTURAL STEEL TO A MINIMUM DRY FILM THICKNESS OF 2.5 MILS. DO NOT PAINT STEEL TO BE FIRE-PROOFED WITH SPRAYED ON CEMENTITIOUS MATERIALS. DO NOT PAINT STEEL SURFACES TO BE EMBEDDED IN CONCRETE.
- 8. ALL STEEL JOISTS SHALL BE MANUFACTURED BY A MEMBER OF THE STEEL JOIST INSTITUTE CERTIFIED TO MANUFACTURE THE SERIES SPECIFIED. STEEL JOISTS SHALL CONFORM TO THE SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI), EACH JOIST SHALL BE WELDED TO SUPPORTING STEEL WITH A MINIMUM OF TWO ONE-EIGHTH INCH FILLET WELDS, ONE INCH LONG FOR SHORT SPAN JOISTS, AND WITH TWO ONE-QUARTER INCH FILLET WELDS, TWO INCHES LONG FOR LONG SPAN JOISTS. CAMBER JOISTS PER SJI RECOMMENDATIONS.
- 9. JOIST DESIGNATIONS SHOWN AT ROOF TOP AC UNITS ARE BASED ON FLEXURAL REQUIREMENTS TO SUIT THE LOADS INDICATED. FABRICATOR'S REGISTERED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR VERIFYING ADEQUATE SHEAR CAPACITY IN JOIST WEB MEMBERS TO CARRY THE LOADS INDICATED. CHECK WITH PROJECT STRUCTURAL ENGINEER OF RECORD IF ADDITIONAL DESIGN DATA IS REQUIRED.
- 10. IF SELECTED ROOF TOP AC UNITS SIZES AND/OR WEIGHTS VARY BY 10% OR MORE FROM THAT SHOWN ON THE ROOF FRAMING PLAN, OBTAIN APPROVAL OF SAME BY THE PROJECT STRUCTURAL ENGINEER OF RECORD PRIOR TO APPROVING STEEL JOISTS FOR FABRICATION.
- 11. ALL STEEL DECK 22 GAGE OR LESS SHALL BE WELDED TO SUPPORTING STRUCTURE USING APPROVED WELDING WASHERS. ROOF DECK PATTERN SHALL BE AS DETAILED. METAL CENTERING SHALL BE WELDED TO SUPPORTS PER MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE INDICATED IN PROJECT CONTRACT DOCUMENTS.
- 12. FRAME ALL ROOF OPENINGS 12 INCHES SQUARE OR LARGER WITH 3-1/2" × 3-1/2" × 1/4" ANGLE FRAME ALL AROUND, UNLESS NOTED OTHERWISE.
- 13. ALL STRUCTURAL STEEL THAT IS OUTSIDE OF CONDITIONED SPACE OR WHICH IS EXPOSED TO THE EXTERIOR ENVIRONMENT SHALL BE GALVANIZED.
- 14. ALL TUBE STEEL CONNECTIONS SHALL BE MADE WITH FILLET WELD ALL AROUND, WITH WELD AND CONNECTION CONFORMING TO THE PROVISIONS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL, PER THE AISC MANUAL.
- 15. METAL ROOF DECK SHALL CONFORM TO ASTM A653, WITH A MINIMUM YEILD STRENGTH OF 33KSI.
- LIGHT GAGE STEEL FRAMING 1. ALL LIGHT GAGE STEEL FRAMING SHALL BE MADE OF THE TYPE, SIZE, GAUGE AND SPACING SHOWN ON THE DRAWINGS AND SHALL BE MANUFACTURED BY UNIMAST INCORPORATED (OR APPROVED EQUAL).
- 2. ALL STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) ASPECIFICATIONS FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, 1986 EDITION, WITH 1989 ADDENDUM.
- 3. ALL STRUCTURAL MEMBERS SHALL BE FORMED FROM CORROSION-RESISTANT STEEL, CORRESPONDING TO THE REQUIREMENTS OF ASTM A653-94 AND SHALL BE ZING COATED MEETING ASTM A924. STRUCTURAL MEMBERS SHALL BE FORMED FROM THE FOLLOWING GRADE OF MATERIAL:
- YIELD STRENGTH: 33,000 psi (33 ksi) FOR ALL CR RUNNERS AND 20-GA. AND 18-GA. STUD OR JOIST MEMBERS, 50,000 psi (50ksi) FOR 16-GA., 14-GA, AND 12-GA. STUD OR JOIST MEMBERS.
- 4. FASTENING OF COMPONENTS SHALL BE WITH SELF-DRILLING SCREWS OR BY WELDING. SCREWS AND WELDS SHALL BE OF SUFFICIENT SIZE TO ENSURE THE STRENGTH OF THE CONNECTION. WIRE TYPING OF COMPONENTS SHALL NOT BE PERMITTED. ALL WELDS SHALL BE TOUCHED-UP WITH ZINC-RICH PAINT.
- 5. SPLICES IN FRAMING COMPONENTS, OTHER THAN RUNNER TRACK SHALL NOT BE PERMITTED.
- 6. ABUTTING LENGTHS OF RUNNER SHALL BE BUTT-WELDED, SPLICED OR EACH LENGTH SECURELY ANCHORED TO A COMMON STRUCTURAL ELEMENT. RUNNERS SHALL BE SECURELY ANCHORED TO THE SUPPORTING STRUCTURE AS SHOWN ON THE DRAWINGS.
- 1. LIGHT GAGE STEEL TRUSSES SHALL HAVE SYMMETRICAL TOP AND BOTTOM CHORD AND 3 MEMBERS AS DESIGNED BY ALPINE TRUSS STEEL OR APPROVED EQUAL. TRUSS
- CHORD MEMBERS SHALL HAVE A MINIMUM THICKNESS OF 16 G.A. usses to be designed and fabricated with C stud Mat 8. ALL LIGHT GAGE STEEL TRUSSES SHALL BE DESIGNED, DETAILED AND FABRICATED I
- ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS OUTLINED IN THE LATEST EDITION OF THE "COLD FORMED STEEL DESIGN MANUAL" AND/OR THE "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS".
- 9. THE LIGHT GAGE STEEL TRUSSES SHALL BE SIZED AND DETAILED TO FIT THE DIMENSIONS AND LOADS INDICATED. TRUSS MANUFACTURER SHALL PROVIDE DESIGN FOR ALL TRUSSES, SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE PROJECT STATE SHOP DRAWINGS SHALL BE PROVIDED INCLUDING A PLACING PLAN WITH MARK NUMBER INDICATING LOCATIONS. DESIGN SHEETS SHALL INDICATE BEARING POINT LOADS (GRAVITY AND UPLIFT), TRUGG MARK NUMBERS, AND PROJECT IDENTIFICATION ENGINEER'S SEAL SHALL BE ORIGINAL WITH RAISED IMPRINT, AND CONTAIN ENGINEER'S SIGNATURE AND DATE. TRUSS JOINTS, SPACINGS, LOCATIONS, OR SIZES INDICATED ON THE PLANS ARE TO BE CONSIDERED SCHEMATIC AND ARE TO BE VERIFIED BY TH MANUFACTURER, HOWEVER, CHANGES SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL. BRIDGING AND BRACING OF THE TRUSSES SHALL BE PROVIDED AS
- REQUIRED BY THE TRUSS DESIGNER. Sealed Drawings will submitted Electronically 10. WELDED TRUSS CONNECTIONS TO SUPPORTING CONSTRUCTION AND JACK TRUSS TO HIF JACK OR GIRDER TRUSS CONNECTIONS SHALL BE DESIGNED AND PROVIDED BY THE TRUSS DESIGNER

MASONRY

- MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ACI 530-08 "BUILDING. CODE REQUIREMENTS FOR MASONRY STRUCTURES AND SPECIFICATION FOR MASONRY STRUCTURES."
- MORTAR AND GROUT SHALL BE IN ACCORDANCE WITH ASTM C416, STANDARD SPECIFICATION FOR MORTAR AND GROUT FOR REINFORCED MASONRY.
- 3. CONCRETE MASONRY UNITS SHALL BE GRADE N, IN ACCORDANCE WITH ASTM C30, STANDARD SPECIFICATIONS FOR HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS.
- 4. THE MINIMUM COMPRESSIVE STRENGTH OF MASONRY ASSEMBLIES AT 28 DAYS SHALL BE
- 1900 PSI ON THE NET SECTION (MORTAR BED AREA), (f=m = 1500 PSI)
- 5. ALL VERTICAL REINFORCING STEEL BARS IN CMU WALLS SHALL BE DOWELED TO THE CONCRETE FOUNDATION.
- 6. ALL CMU REINFORCING STEEL BARS SHALL BE CONTINUOUS WITH LAP SPLICE LENGTHS CONFORMING TO NOTE ABOVE.
- ALL OPENINGS IN CMU WALLS SHALL BE REINFORCED ON EACH SIDE AND TOP AND BOTTOM AS NOTED ON THE DRAWINGS. IF REINFORCING IS NOT SHOWN, CONTACT
- STRUCTURAL ENGINEER OF RECORD FOR REINFORCING. 8. ALL CELLS ADJACENT TO DOORS, WINDOWS, OPENINGS, CORNERS, END OF WALLS OR UNDER CONCENTRATED LOADS SHALL CONTAIN VERTICAL REINFORCING AND SHALL BE
- FILLED WITH 3000 PSI CONCRETE. 9. ALL CMU ELEMENTS SHALL BE ADEQUATELY BRACED TO PROVIDE STABILITY UNTIL THE ENTIRE STRUCTURE IS COMPLETE AND TO PREVENT DAMAGE DURING CONSTRUCTION.
- ESPECIALLY DUE TO BACKFILLING AND SOIL COMPACTION OPERATIONS. 10. ALL VERTICAL REINFORCING SHALL BE CONTINUOUS THROUGH ALL WALL BEAMS AND SHALL BE ANCHORED IN BEAMS AT THE TOP OF WALLS.
- CONTINUOUS CONCRETE FILLED BLOCK BOND BEAMS SHALL BE PROVIDED AT THE TOP OF ALL WALLS AND UNDER FLOORS OR ROOFS, UNLESS OTHERWISE INDICATED BOND BEAMS SHALL BE REINFORCED WITH 2-5 CONTINUOUS.
- 12. ALL VERTICAL REINFORCING IN ALL WALLS SHALL BE INSTALLED AS FOLLOWS UNLESS NOTED OTHERWISE:
- A. PROVIDE CLEAN-OUT SPACE AT BOTTOM OF CELL TO BE REINFORCED AND FILLED (AT LOCATION OF REINFORCING STEEL DOWEL IN FOUNDATIONS OR PREVIOUS CONCRETE PLACEMENT).
- B. COMPLETELY CLEAN OUT AND FLUGH CELL TO BE FILLED.
- C. INSTALL VERTICAL STEEL AND THE TO DOWEL AT BOTTOM AND THE TO PLACE AT
- D. CLOSE CLEAN-OUT OPENING, AND FILL WITH 3000 PSI CONCRETE.
- 13. ALL MORTAR FOR BLOCK MASONRY SHALL BE TYPE S EXCEPT AS OTHERWISE NOTED.
- 14. FILL ALL BLOCK CELLS WITH CONCRETE FROM TOP OF FOOTINGS TO FINISH FLOOR ELEVATION EXCEPT AS INDICATED OTHERWISE.
- 15. PROVIDE CONTINUOUS HORIZONTAL NO. 9 GAGE TRUSS TYPE JOINT REINFORCING AT 16" O.C. IN ALL BLOCK MASONRY WALLS EXCEPT AS OTHERWISE NOTED.
- 16. WHERE INTERIOR MASONRY WALLS ON THICKENED SLABS ABUT MASONRY WALLS ON
- FOOTINGS, RAKE VERTICAL JOINT EACH FACE AND SEAL WITH ELASTOMERIC FILLER. 17. PROVIDE CONTROL JOINTS IN ALL BLOCK MASONRY WALLS. SEE SPEC 042000 FOR SPACING. COORDINATE ALL JOINT LOCATIONS WITH ARCHITECT.
- 18. ALL MASONRY SHALL BE LAID IN RUNNING BOND UNLESS SPECIFICALLY NOTED OTHERWISE ON THE STRUCTURAL CONTRACT DRAWINGS. IF MASONRY BOND OTHER THAN RUNNING BOND IS UTILIZED, HORIZONTAL BOND BEAMS SHALL BE CONSTRUCTED IN THE WALLS AT A MAXIMUM SPACING OF 48 INCHES ON CENTER.

STRUCTURAL SUBMITTALS FURNISH FIVE COPIES OF SHOP DRAWINGS. FURNISH THREE COPIES OF OTHER STRUCTURAL SUBMITTALS.

EXPOSURE CATEGORY

STRUCTURAL SUBMITTALS (CONT.)

2. SEE CONTRACT SPECIFICATIONS FOR ADDITIONAL SUBMITTAL REQUIREMENTS AND PROCEDURES.

- 3. REPRODUCTION OF CONTRACT DOCUMENTS FOR ERECTION AND/OR SHOP DRAWINGS WILL NOT BE PERMITTED.
- 4. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER OF RECORD DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. CONTRACTOR ALSO SHALL BE RESPONSIBLE FOR MEANS, METHOD, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION, SEE SPECIFIC PROVISIONS IN THE CONTRACT DOCUMENTS DEALING WITH THE APPROPRIATE DESIGN RESPONSIBILITIES OF CONTRACTORS, SUBCONTRACTORS, AND SUPPLIERS,
- IN THE EVENT THAT JOHNSON & REEVES ENGINEERING REVIEWS SUBMITTALS (AS A COURTESY TO THE CONTRACTOR TO REDUCE THE TIME PRIOR TO THE START OF FABRICATION) WHICH HAVE NOT FIRST BEEN REVIEWED AND APPROVED BY THE CONTRACTOR, SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM REVIEW AND APPROVE ALL SUCH SUBMITTALS, NOR WILL IT CREATE RESPONSIBILITY OR LIABILITY ON THE PART OF JOHNSON & REEVES ENGINEERING AS TO THE CONTENTS, ACCURACY OR COMPLETENESS OF SUCH SHOP DRAWINGS EXCEPT AS MAY BE SPECIFICALLY DESCRIBED IN THESE GENERAL NOTES. CONTRACTOR IS SOLELY RESPONSIBLE FOR REVIEW AND APPROVAL OF SHOP DRAWINGS AND OTHER SUBMITTALS, AND CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL REQUIREMENTS OF THE WORK OF THE CONTRACTOR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS
- 6. THE SER REVIEW OF SUBMITTALS WILL BE MADE FOR LIMITED PURPOSES AND IS SUBJECT TO THE LIMITATIONS AND DISCLAIMERS SET FORTH IN THESE GENERAL NOTES. THE JOHNSON AND REEVES ENGINEERING REVIEW DOES NOT INVOLVE OR INCLUDE:
- A. REVIEW OF SUBMITTAL DIMENSIONS AND QUANTITIES.
- B. ACCEPTANCE OR ASSUMPTION OF ANY RESPONSIBILITY TO REVIEW, ANALYZE OR EVALUATE ANY SUBMITTALS INCLUDING SHOP DRAWINGS PROVIDED TO JOHNSON AND REEVES ENGINEERING OR ACCEPTANCE OR ASSUMPTION OF ANY PART OF CONTRACTOR'S RESPONSIBILITIES (WHICH INCLUDE THE CONTRACTOR'S RESPONSIBILITY TO REVIEW AND APPROVE SUBMITTAL), WHETHER OR NOT THE JOHNSON AND REEVES ENGINEERING REVIEW WAS MADE PRIOR TO THE REVIEW AND APPROVAL OF THE CONTRACTOR.
- C. ANALYSIS, VERIFICATION OR SUBSTANTIATION OF EQUIPMENT OR SYSTEM INSTALLATION OR PERFORMANCE OF EQUIPMENT OR SYSTEMS.
- D. REVIEW, EVALUATION OR APPROVAL OF PROJECT SAFETY PRECAUTIONS OR SAFETY TRAINING.
- E. REVIEW, EVALUATION OR APPROVAL OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES OR SEQUENCES.

JOHNSON AND REEVES ENGINEERING REVIEW OF A SPECIFIC ITEM DOES NOT INCLUDE OR INDICATE OR CONSTITUTE REVIEW OF A GROUP OR AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT.

THE CONTRACTOR MUST NOTIFY JOHNSON AND REEVES ENGINEERING, IN WRITING, RELATIVE TO ANY DEVIATION FROM THE CONTRACT DOCUMENTS, WHICH APPEARS IN THE SHOP DRAWINGS, SAMPLES, AND PRODUCT DATA. APPROVAL OF THE SUBMITTAL CONTAINING SUCH DEVIATION DOES NOT CONSTITUTE APPROVAL OF THE DEVIATION. APPROVAL OR REJECTION OF THE DEVIATION WILL ONLY BE PROVIDED BY JOHNSON AND REEVES ENGINEERING IN A SEPARATE WRITTEN COMMUNICATION TO THE CONTRACTOR. JOHNSON AND REEVES ENGINEERING IS NOT RESPONSIBLE FOR DISCOVERY OF DEVIATIONS NOT COMMUNICATED BY THE CONTRACTOR.

### STRUCTURAL SUBMITTALS: STRUCTURAL STEEL, STEEL JOISTS, METAL ROOF AND FLOOR DECKING, LIGHT GAUGE METAL TRUSSES, CONCRETE REINFORCING BARS, ANCHOR RODS AND CONCRETE MIX DESIGNS.

- THE FOLLOWING SUBMITTALS MUST BE MADE TO THE STRUCTURAL ENGINEER OF RECORD: ERECTION DRAWINGS, FABRICATION DRAWINGS, COMPONENT DETAILS, AND
- CONNECTION DETAILS. B. CALCULATIONS FOR ALL COMPONENTS SIZED BY THE FABRICATOR'S SPECIALTY
- DESIGN ENGINEER 2. THE STRUCTURAL SUBMITTALS FOR STEEL JOISTS, METAL ROOF AND FLOOR DECKING AND LIGHT GAUGE METAL TRUSSES SHALL BEAR THE IMPRESSED SEAL AND SIGNATURE OF
- THE SPECIALTY DESIGN ENGINEER LICENSED IN THE PROJECT STATE. 3. THE PROJECT STRUCTURAL ENGINEER OF RECORD WILL REVIEW THE SUBMITTALS FOR INDICATION THAT HIS INTENT HAS BEEN UNDERSTOOD AND THAT THE SPECIFIED CRITERIA

= 50 PSF

### HAVE BEEN USED. DESIGNLOADS

	-SIGN LOADS	
1.	ROOF LIVE LOAD	= 20

# 2. ME77ANINE LIVE LOAD

	HEZZANINE LIVE LOAD		
b.	WIND LOADING CRITERIA (PER ASC	E 7-10)	
	NON-EHPA BUILDINGS:		
	BUILDING RISK CATEGORY		
	BASIC IUND SPEED	V(ULT)	

### INTERNAL PRESSURE COEFF .: Gcpi = ±Ø.18

NON-EHPA	CLADDING	
LOCATION	TRIBUTARY AREA	DESIGN WIND PRESSURE (PSF)
ROOF (CORNER ZONE)	< 10 SF. 10 - 20 SF. 20 - 50 SF. 50 - 100 SF. 2 100 SF.	112 PSF 112 PSF 104 PSF 96 PSF 88 PSF
ROOF (EDGE ZONE)	< 10 SF. 10 - 20 SF. 20 - 50 SF. 50 - 100 SF. 2 100 SF.	16 P9F 16 P9F 68 P9F 64 P9F 56 P9F
ROOF (INTERIOR ZONE)	< 10 SF. 10 - 20 SF. 20 - 50 SF. 50 - 100 SF. ≥ 100 SF.	44 PSF 44 PSF 44 PSF 40 PSF 40 PSF

NON-EHPA	COMPONENTS \$	CLADDING
LOCATION	TRIBUTARY AREA	DESIGN WIND PRESSURE (PSF)
UALL (EDGE ZONE) 5	< 10 SF. 10 - 20 SF. 20 - 50 SF. 50 - 100 SF. ≥ 100 SF.	64 PSF 64 PSF 60 PSF 56 PSF 52 PSF
	< 10 SF. 10 - 20 SF. 20 - 50 SF. 50 - 100 SF. 2 100 SF.	52 PSF 52 PSF 48 PSF 48 PSF 44 PSF

### <u>EHPA BUILDINGS (BLDGS. 1100/2100, 1400/2400, 1500/2500 \$ 1600).</u> BUILDING RISK CATEGORY = 111 V(ULT) BASIC WIND SPEED: = 175 MPH EXPOSURE CATEGORY: = C INTERNAL PRESSURE COEFF .: Gcpi = ±0.18

EHPA COMPONENTS & CLADDING		
LOCATION	TRIBUTARY AREA	DESIGN WIND PRESSURE (PSF)
ROOF (CORNER ZONE)	< 10 SF. 10 - 20 SF. 20 - 50 SF. 50 - 100 SF. ≥ 100 SF.	188 PSF 188 PSF 175 PSF 161 PSF 148 PSF
ROOF (EDGE ZONE)	< 10 SF. 10 - 20 SF. 20 - 50 SF. 50 - 100 SF. ≥ 100 SF.	128 PSF 128 PSF 114 PSF 108 PSF 94 PSF
(INTERIOR ZONE)	< 10 SF. 10 - 20 SF. 20 - 50 SF. 50 - 100 SF. ≥ 100 SF.	14 PSF 14 PSF 14 PSF 61 PSF 61 PSF 61 PSF

EHPA COMPONENTS & CLADDING		
LOCATION	TRIBUTARY AREA	DESIGN WIND PRESSURE (PSF)
UALL (EDGE ZONE) 5	< 10 SF. 10 - 20 SF. 20 - 50 SF. 50 - 100 SF. 2 100 SF.	108 PSF 108 PSF 101 PSF 94 PSF 88 PSF
(INTERIOR ZONE)	< 10 SF. 10 - 20 SF. 20 - 50 SF. 50 - 100 SF. 2 100 SF.	88 PSF 88 PSF 81 PSF 81 PSF 14 PSF

COMPONENTS AND CLADDING PRESSURES SHOWN IN THE TABLES ABOVE ARE STRENGTH DESIGN (ULTIMATE) PRESSURES PER THE ASCE 1-10. USE OF THESE PRESSURES FOR ALLOWABLE STRESS DESIGN (ASD) SHALL BE IN ACCORDANCE WITH THE LOAD COMBINATIONS SHOWN IN THE ASCE 7-10.

PREENGINEERED SYSTEMS

- THE DESIGN OF PREENGINEERED SYSTEMS SPECIFIED IN THE CONTRACT DOCUMENTS WHICH ARE DESIGNED/ENGINEERED BY OTHERS IS THE SOLE RESPONSIBILITY OF THE SUPPLIER AND ITS DESIGN ENGINEER, LICENSED IN THE PROJECT STATE. SUBMITTALS OF SUCH SYSTEMS TO THE STRUCTURAL ENGINEER OF RECORD SHALL BE REVIEWED FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS WITH REGARD TO THE ARRANGEMENT, AND/OR SIZES OF MEMBERS SHOWN ON THE CONTRACT DOCUMENTS AND TO INSURE CORRECT INTERPRETATION OF THE DESIGN INFORMATION INCLUDED IN THE CONTRACT DOCUMENTS, SUCH REVIEW BY THE STRUCTURAL ENGINEER OF RECORD SHALL NOT IMPLY ANY RESPONSIBILITY FOR THE ACTUAL DESIGN OF SUCH SYSTEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DIMENSIONAL ACCURACY AND CONFORMANCE WITH THE INFORMATION CONTAINED IN THE CONTRACT DOCUMENTS.
- SEE SPECIFIC SECTIONS OF GENERAL NOTES ABOVE AND SPECIFICATIONS FOR THE APPROPRIATE DESIGN RESPONSIBILITIES OF THE SUPPLIER AND ITS LICENSED ENGINEER.
- 3. THE CONTRACT DOCUMENT DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE SPECIFICATIONS AND/OR CODE OF

PRACTICE FOR AISC, ACI, SJI OR OTHER STANDARDS.

# ERECTION, BRACING AND FORMWORK

- 1. THE DESIGN, ADEQUACY AND SAFETY OF ERECTION BRACING, FORMWORK, SHORING, AND TEMPORARY SUPPORTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 2. ANCHOR BOLTS AND FOUNDATIONS HAVE NOT BEEN DESIGNED FOR ANY CONDITION OF LOADING OTHER THAN THAT OF THE COMPLETED STRUCTURE. VERIFICATION OF ADEQUACY OF ANCHOR BOLT AND FOUNDATIONS TO RESIST ERECTION INDUCED FORCES IS SOLELY THE RESPONSIBILITY OF THE STEEL ERECTOR AND CONTRACTOR.
- UNLESS OTHERWISE NOTED STEEL FRAMEWORKS FOR THIS PROJECT ARE CLASSIFIED PER AISC CODE OF STANDARD PRACTICE AS A "NON-SELF-SUPPORTING STEEL FRAME". PROVIDE TEMPORARY SUPPORT SYSTEMS NECESSARY TO SECURE ANY ELEMENT OR ELEMENTS OF THE STEEL FRAMING UNTIL ALL PERMANENT STEEL BRACING, DECKING AND/OR MASONRY WALLS ARE IN-PLACE AND CONNECTED TO THE STEEL FRAMEWORKS.

# JOB SITE SAFETY

THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND FOR CONFORMANCE WITH THE HEALTH AND SAFETY PROVISIONS REQUIRED BY ANY REGULATORY AGENCIES. THE STRUCTURAL ENGINEER OF RECORD HAS NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR, OR THEIR EMPLOYEES WITH THEIR WORK OR ANY HEALTH OR SAFETY PRECAUTIONS.



ISOMETRIC VIEW

SCHEMATIC GENERALIZED WIND ZONE IDENTIFICATION MODEL (FOR USE WITH COMPONENT & CLADDING WIND PRESSURES)

# SAMPLE NOTES SHEET









L-3x3x<sup>1</sup>4xØ'-6" LG. AT

w/L-3x3 BRACE. CONNECT

TO WALL w/2-3/4" & HILTI KWIK

BOLTS (MIN. EMBED=31/4").

8" BLK.

TYP. NON LOADBEARING MASONRY WALL CONN.

TO ROOF OR FLOOR STRUCTURE (STEEL JOIST CONDITION)

12'-0" O.C. MAX., ALIGN

SEE ARCH'I

VERT. REINF., AS

OCCURS

8" DP. CONC. FILLED

BOND BEAM, REINF.

w/2-5 BOTT., CONT.

(12'-Ø" MAX

FOR WALL HEIGHTS OVER 12 CONTACT STRUCTURAL ENGI

SUPPLEMNTARY FRAMING

MEMBER BETWEEN JOIST

TOP CHORDS AT EA. WALL

BRACE, ATTACH TO JOIST

SUPPLEMENTARY FRAMING

TOP CHORDS EA. END.

L-3x3x14 BRACE AT 12'-0" O.C

MAX. BETWEEN INTERSECTING

WALLS, WELD TO CLIP ANGLE

AT LOW END. WELD TO JOIST

TOP CHORD AT HIGH END.

INSTALL AFTER ALL ROOF

DEAD LOADS ARE IN PLACE.

RECORD FOR DESIGN.

NOTES:

ATTACH ANGLE TO







a=8'-0", THIS BLI FRAMING PLAN



SAMPLE SECTION SHEET