Builder/Contractor Responsibilities

Drawing Validity – These drawings, supporting structural calculations and design certification are based on the order documents as of the date of these drawings. These documents describe the material supplied by the manufacturer as of the date of these drawings. Any changes to the order documents after the date on these drawings may void these drawings, supporting structural calculations and design certification. The Builder/Contractor is responsible for notifying the building authority of all changes to the order documents which result in changes to the drawings, supporting structural calculations and design certification.

Builder Acceptance of Drawings – Approval of the manufacturer's drawings and design data affirms that the manufacturer has correctly interpreted and applied the requirements of the order documents and constitutes Builder/Contractor acceptance of the manufacturer's interpretations of the order documents and standard product specifications, including its design, fabrication and quality criteria standards and tolerances. (AISC code of standard practice Sept 86 Section 4.2.1)(Mar 05 Section 4.4.1)

Code Official Approval – It is the responsibility of the Builder/Contractor to ensure that all project plans and specifications comply with the applicable requirements of any governing building authority. The Builder/Contractor is responsible for securing all required approvals and permits from the appropriate agency as required.

Building Erection – The Builder/Contractor is responsible for all erection of the steel and associated work in compliance with the Metal Building Manufacturers drawings. Temporary supports, such as temporary guys, braces, false work or other elements required for erection will be determined, furnished and installed by the erector (AISC Code of Standard Practice Sept 86 Section 7.9.1) (Mar 05 Section 7.10.3) (CSA/S16-09 Section 29).

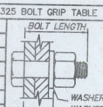
Discrepancies – Where discrepancies exist between the Metal Building plans and plans for other trades, the Metal Building plans will govern. (AISC Code of Standard Practice Sept 86 Section 3.3) (Mar 05 Section 3.3)

Materials by Others – All interface and compatibility of any materials not furnished by the manufacturer are the responsibility of and to be coordinated by the Builder/Contractor or A/E firm. Unless specific design criteria concerning any interface between materials if furnished as a part of the order documents, the manufacturers assumptions will govern.

Modification of the Metal Building from Plans – The Metal Building supplied by the manufacturer has been designed according to the Building Code and specifications and the loads shown on this drawing. Modification of the building configuration, such as removing wall panels or braces, from that shown on these plans could affect the structural integrity of the building. The Metal Building Manufacturer or a Licensed Structural Engineer should be consulted prior to making any changes to the building configuration shown on these drawings. The Metal Building Manufacturer will assume no responsibility for any loads applied to the building not indicated on these drawings.

Foundation Design
The Metal Building Manufacturer is not responsible for the design, materials and workmanship of the foundation. Anchor rod plans prepared by the manufacturer are intended to show only location, diameter and projection of the anchor rods required to attach the Metal Building System to the foundation. It is the responsibility of the end customer to ensure that adequate provisions are made for specifying rod embedment, bearing values, tie rods and or other associated items embedded in the concrete foundation, as well as foundation design for the loads imposed by the Metal Building System, other imposed loads, and the bearing capacity of the soil and other conditions of the building site. (MBMA 06 Sections 3.2.2 and A3)

¾"ø A325 BOLT GRIP TABLE	
GRIP	LENGTH
0 TO 9/16"	1 1/4" F.T.
Over 9/16" TO 1 1/16"	1 3/4" F.T.
Over 1 1/16" TO 1 5/16"	2"
Over 1 5/16" TO 1 9/16"	2 1/4"
Over 1 9/16" TO 1 13/16"	2 1/2"
Over 1 13/16" TO 2 1/16"	2 3/4"
LOCATIONS OF BOLTS LONGER THAN 2 3/4" NOTED ON ERECTION DRAWINGS	
F.T. DENOTES FULLY THREADED	



NOTE:
FULL THREAD ENGAGEMENT IS DEEMED TO HAVE BEEN MET WHEN THE END OF THE BOLT IS FLUSH WITH THE FACE OF THE NUT.

WASHER REQUIRED ONLY WHEN SPECIFIED. WASHER MAY BE LOCATED UNDER HEAD OF BOLT, UNDER NUT, OR AT BOTH AT LOCATIONS NOTED ON ERECTION DRAWINGS. ADD 5/32" FOR EACH WASHER TO MATERIAL THICKNESS TO DETERMINE GRIP.

METALLIC

metallic building company

7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

ENGINEERING DESIGN CRITERIA

Building Code	2010 Florida
Building Risk Category	Normal
Roof Dead Load	
Superimposed	2.10 psf
Collateral	3.00 psf
(2.00 psf Ceiling 1.00 psf Other)	
Roof Live Load	20.00 psf reduction allowed
Wind	
Basic Wind Speed	119.00 mph
Wind Exposure Category	B
Internal Pressure Coef (GCpi)	0.18/-0.18
Loads for components not provided by building manufacturer	
Corner Areas (within 5.00' of corner)	23.31 psf pressure -31.08 psf suction
Other Areas	23.31 psf pressure -25.25 psf suction
These values are the maximum values required based on a 10 sq ft area. Components with larger areas may have lower wind loads.	

PROJECT NOTES

BOLT TIGHTENING – All bolted joints with A325-09 Type 1 bolts are specified as snug-tightened joints in accordance with the Specification for Structural Joints Using ASTM A325 or A490 Bolts, June 30, 2004. Pretensioning methods, including turn-of-nut, calibrated wrench, twist off type tension control bolts or direct tension indicator are NOT required. Installation inspection requirements for Snug Tight Bolts (Specification for Structural Joints Section 9.1) is suggested.

Material properties of steel bar, plate, and sheet used in the fabrication of built-up structural framing members conform to ASTM A529, ASTM A572, ASTM A1011 SS, or ASTM A1011 HSLAS with a minimum yield point of 50 ksi. Material properties of hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with a minimum specified yield point of 50 ksi. Hot rolled angles, other than flange braces, conform to ASTM 36 minimum. Hollow structural shapes conform to ASTM A500 grade B, minimum yield point is 42 ksi for round HSS and 46 ksi for rectangular HSS. Material properties of cold-formed light gage steel members conform to the requirements of ASTM A1011 SS Grade 55, ASTM A1011 HSLAS Grade 55 Class 1, ASTM A653 SS Grade 55, or ASTM A653 HSLAS Grade 55 Class 1 with a minimum yield point of 55 ksi. For Canada, material properties conform to CAN/CSA G40.20/G40.21 or equivalent.

Design criteria as noted is as given within order documents and is applied in general accordance with the applicable provisions of the model code and/or specification indicated. Neither the manufacturer nor the certifying engineer declares or attests that the loads as designated are proper for local provisions that may apply or for site specific parameters. The design criteria is supplied by the builder, project owner, or an Architect and/or Engineer of Record for the overall construction project.

Using 8x8 eave gutter with 4 x 5 downspouts, the roof drainage system has been designed using the method outlined in the MBMA Metal Building Systems Manual. Downspout locations have not been located on these drawings. The downspouts are to be placed on the building sidewalls at a spacing not to exceed 48 Feet with the first downspout from both ends of the gutter run within 24 Feet of the end. Downspout spacing that does not exceed the maximum spacing will be in compliance with the building code. The gutter and downspout system as provided by the manufacturer is designed to accommodate 10 in/hr rainfall intensity.

Framed openings, walk doors, and open areas shall be located in the bay and elevation as shown in the erection drawings. The cutting or removal of girts shown on the erection drawings due to the addition of framed openings, walk doors, or open areas not shown may void the design certifications supplied by the metal building manufacturer.

X-Bracing is to be installed to a taut condition with all slack removed. Do not tighten beyond this state.

Diaphragm action of the wall panels on EWB is being used to provide stability to the wall. Removal of the wall panels may result in less than minimum length of wall panels required. Field installation of x-bracing or other means to provide stability may be required as a result of the removal of wall panels.

The wall construction by others at SWC shall not impose any additional loads to the material supplied by the metal building manufacturer. Design loads accounted for due to the material by others only include additional wind loading due to the 2' parapet between framelines 3 and 4.

The mezzanine, not by metal building manufacturer, in building building shall not attach to material supplied by manufacturer. The stability of the mezzanine for vertical, lateral, and longitudinal loading is not by metal building manufacturer.

DEFLECTION CRITERIA

The material supplied by the manufacturer has been designed with the following minimum deflection criteria. The actual deflection may be less depending on actual load and actual member length. The frame sidesway for wind loading is based on ASCE 7 commentary equation CC-3 of 0.7H. The limits shown are at service loads unless indicated otherwise.

BUILDING DEFLECTION LIMITS.... BLDG-A

Ceiling Type : Acoustical or Other

Roof Limits	Rafters	Purlins	Panels
Live L/	180	150	60
Snow L/	N/A	N/A	60
Wind L/	180	180	60
Total Gravity L/	120	120	60
Total Uplift L/	N/A	N/A	60

Frame Limits	Sidesway	Portal Frame Sidesway
Live H/	100	
Snow H/	100	
Wind H/	100	
Seismic Drift H/	N/A	N/A
Crane H/	100	
Total Gravity H/	100	
Total Wind H/	100	60
Service Seismic H/	100	N/A

Wall Limits	Limit
Total Wind Panels L/	60
Total Wind Girts L/	240
Total Wind EW Columns L/	120

The Service Seismic limit as shown here is at service level loads.

BUILDING DESCRIPTIONS

Building ID	Width	Length	Height	Slope
Building A	50'-0	100'-0	13'-9	1:12

Drawing Index

BUILDING DEPARTMENT COLUMBIA COUNTY FILE COPY Reviewed for Code Compliance APPROVED PLANS EXAMINER

Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company 7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338 (713) 466-7788 ZIP 77041 ZIP 77240

Customer: CHEF GROUP
TRAVIS MEDEIROS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDEIROS
750 A SW MAIN BLVD.
LAKE CITY, FL 32025

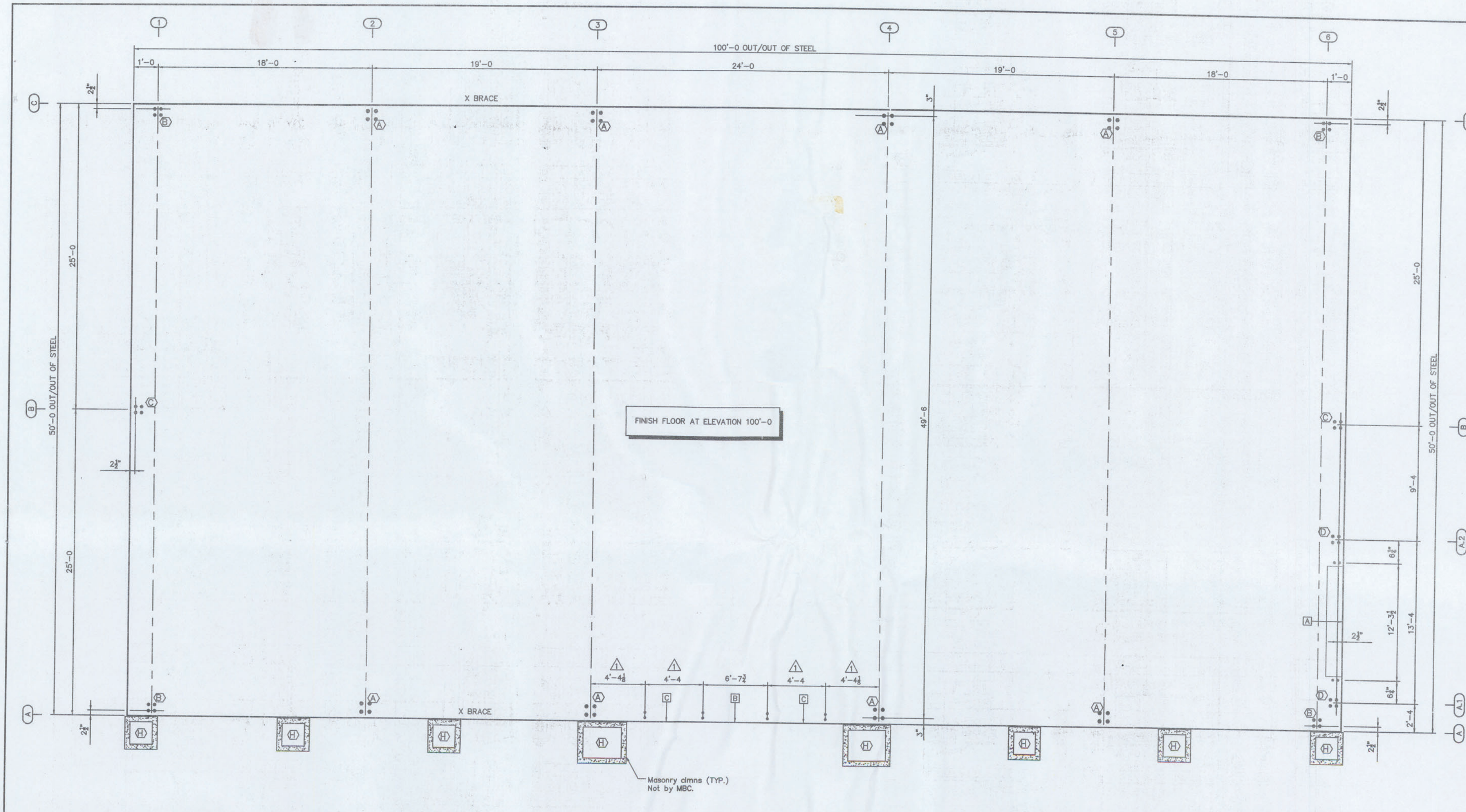
Drawing Status: ☐ Preliminary (Not For Construction) ☒ For Construction Permit ☐ For Approval (Not For Construction) ☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	AWS 2/24/14
Checked by:	SF 2/24/14
Project Engineer:	AXN
Job Number:	14-B-39239-1
Sheet Number:	E1 of 12

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS LICENSE No. 68606 STATE OF FLORIDA PROFESSIONAL ENGINEER Feb 25, 2014

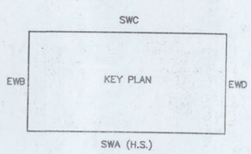


ANCHOR ROD SETTING PLAN

ACCESSORY SCHEDULE			
MARK	DESCRIPTION	DETAIL	QUAN.
A	12'-0 X 10'-0 FRAMED OPENINGS	E	1
B	6'-4¼ X 7'-2¼ FRAMED OPENINGS	F	1
C	4'-0 X 5'-0 FRAMED OPENINGS	I	2
D	3070 SWING DOORS	G	1

ANCHOR BOLTS TO BE DESIGNED BY FOUNDATION ENGINEER USING DIAMETERS SHOWN IN THIS TABLE.

ANCHOR ROD DESCRIPTION	QUANTITY
½ "ø DIAMETER X	4
⅝ "ø DIAMETER X	76
¾ "ø DIAMETER X	32



Anchor Rod Drawings

1) This drawing is for anchor rod placement only and is not foundation design.
2) Foundation must be square and level with all anchor rods true in size, location, and projection.
3) Projection shown must be held to keep threads clear of finished concrete.
4) This structural design data includes magnitude and location of design loads and suppose conditions, material properties, and type and size of major structural members necessary to show compliance with the Order Documents at the time of this issue. Any change to building loads or dimensions may change structural member sizes and locations shown. This structural design data will be superseded and voided by any future mailing.
5) Anchor rod size is determined by shear and tension at the bottom of the base plate. The length of the anchor rod and method of load transfer to the foundation are to be determined by the foundation engineer, and are not provided by the manufacturer.
6) Anchor rods are ASTM F1554 Gr. 36 material unless noted otherwise.

Revision	Date	Description	By	Ck'd
0	02/19/14	FOR ERECTOR INSTALLATION	AWS	SF
1	02/21/14	REVISED FOR ERECTOR INSTALLATION	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

Drawing Status: REVISED
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/19/14
Checked by: SF 2/19/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: F1 of 3

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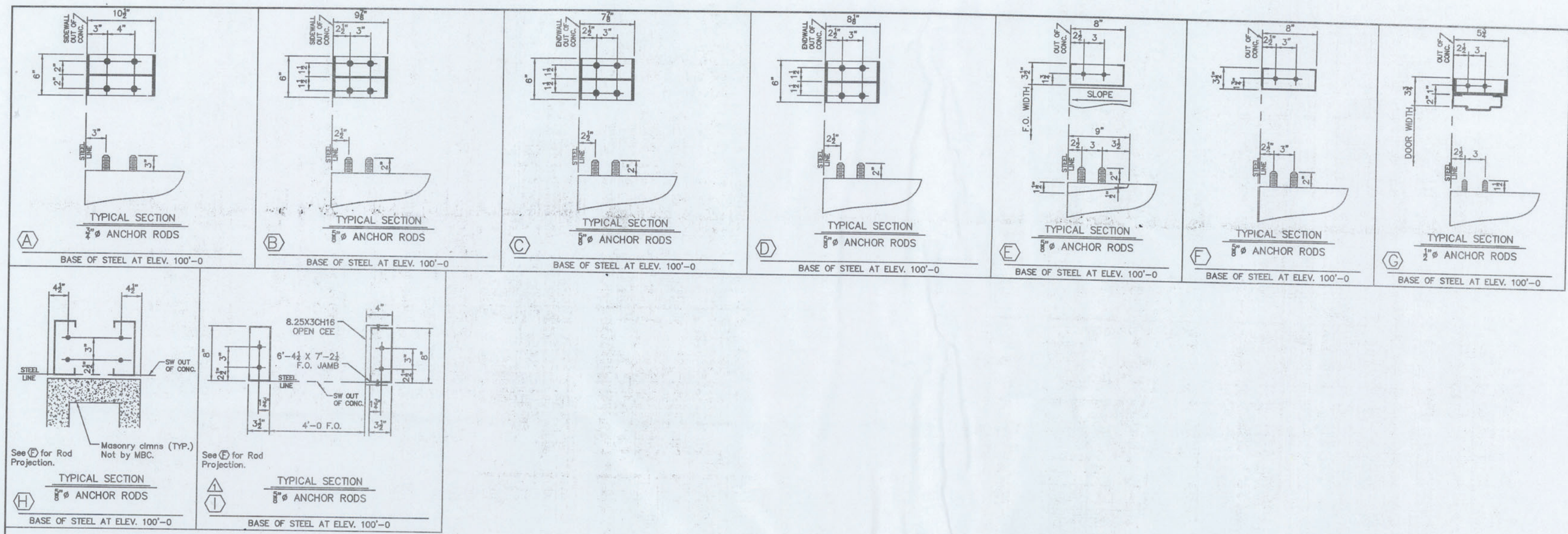
Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS
LICENSE
No. 68606
STATE OF FLORIDA
Feb 25, 2014
PROFESSIONAL ENGINEER



Revision	Date	Description	By	Ck'd
0	02/19/14	FOR ERECTOR INSTALLATION	AWS	SF
1	02/21/14	REVISED FOR ERECTOR INSTALLATION	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40258
ZIP 77041 (713) 466-7788 ZIP 77240

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128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
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Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

REVISED

Scale: NOT TO SCALE
Drawn by: AWS 2/19/14
Checked by: SF 2/19/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: F2 of 3

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Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS LICENSE No. 68606 STATE OF FLORIDA PROFESSIONAL ENGINEER Feb 25, 2014

METALLIC

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Drawing Status:
☐ Preliminary (Not For...
☐ For Appr... (Not For...
REVISED

Scale:	NOT TO SCALE
Drawn by:	AWS 2/19/14
Checked by:	SF 2/19/14
Project Engineer:	AXN
Job Number:	14-B-39239-1
Sheet Number:	F2 of 3

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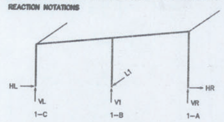
Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS

FRAME DESCRIPTION: Endwall EWB
PATH: R:\Jobs\Active\ENG\14-B-39239\ver02-chxnghlem\Bldg-A\run04\
USER NAME: chxnghle JOB NAME: 39239A
DATE: 2/12/14 FILE: REW3BLDG1 PAGE: EW-1

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and kip-ft.
TIME: 13:34:30

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	1-C			1-A			1-B		
LOAD GROUP	HL	VL	LL	HR	VR	LR	H1	V1	L1
D	0.0	0.5	0.	0.0	0.5	0.	0.	1.2	0.0
C	0.0	0.3	0.	0.0	0.3	0.	0.	0.9	0.0
L	0.1	1.8	0.	0.0	1.8	0.	0.	5.9	-0.3
W+	-0.1	-3.0	0.	0.1	-3.8	0.	0.	-10.7	3.9
W-	-0.1	-3.0	0.	0.1	-3.8	0.	0.	-10.7	-3.3
WR	-0.1	-3.0	0.	0.1	-3.8	0.	0.	-10.7	0.5
WL	-0.1	-3.0	0.	0.1	-3.8	0.	0.	-10.7	0.5

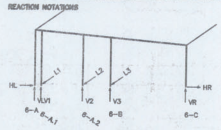
LOAD GROUP DESCRIPTION

D : DEAD LOAD
C : COLLATERAL LOAD
L : LIVE LOAD
W+ : WIND LOAD AS AN INWARD ACTING PRESSURE
W- : WIND LOAD AS AN OUTWARD ACTING SUCTION
WR : WIND FORCE FROM THE RIGHT
WL : WIND FORCE FROM THE LEFT

FRAME DESCRIPTION: Endwall EWD
PATH: R:\Jobs\Active\ENG\14-B-39239\ver02-chxnghlem\Bldg-A\run04\
USER NAME: chxnghle JOB NAME: 39239A
DATE: 2/12/14 FILE: REW4BLDG1 PAGE: EW-2

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and kip-ft.
TIME: 13:34:30

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	6-A			6-C			6-A.1			6-A.2			6-B		
LOAD GROUP	HL	VL	LL	HR	VR	LR	H1	V1	L1	H2	V2	L2	H3	V3	L3
D	0.0	-0.1	0.	0.0	0.5	0.	0.	1.2	0.0	0.	0.6	0.0	0.	0.9	0.0
C	0.0	-0.3	0.	0.0	0.3	0.	0.	0.6	0.0	0.	0.1	0.0	0.	0.8	0.0
L	0.0	-2.1	0.	-0.1	2.0	0.	0.	5.6	0.0	0.	2.2	0.2	0.	4.8	-0.2
W+	0.1	3.8	0.	0.1	-3.3	0.	0.	-4.6	2.5	0.	2.0	2.7	0.	-8.6	2.8
W-	0.1	3.8	0.	0.1	-3.3	0.	0.	-11.7	-2.1	0.	-5.0	-2.7	0.	-8.6	-2.3
WR	0.1	3.8	0.	0.1	-3.3	0.	0.	-8.1	0.3	0.	-1.5	0.1	0.	-8.6	0.4
WL	0.1	3.8	0.	0.1	-3.3	0.	0.	-8.1	0.3	0.	-1.5	0.1	0.	-8.6	0.4
S	0.	0.	0.	0.	0.	0.	0.	0.1	0.0	0.	0.1	0.0	0.	0.	0.

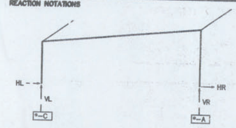
LOAD GROUP DESCRIPTION

D : DEAD LOAD
C : COLLATERAL LOAD
L : LIVE LOAD
W+ : WIND LOAD AS AN INWARD ACTING PRESSURE
W- : WIND LOAD AS AN OUTWARD ACTING SUCTION
WR : WIND FORCE FROM THE RIGHT
WL : WIND FORCE FROM THE LEFT
S : DESIGN SNOW LOAD

FRAME ID #1
ss 50./13.75/18.5 20./119./
USER NAME: chxnghlem JOB NAME: 39239A
DATE: 2/12/14 FILE: frame_2_5.fra PAGE: 1-2

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 2 5
NOTE: All reactions are in kips and kip-ft.
TIME: 09:48:05

REACTION NOTATIONS



LOAD GROUP REACTION TABLE * = 2 5

COLUMN	*-C			*-A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.6	1.6	0.0	-0.6	1.7	0.0
LL	2.4	5.5	0.0	-2.4	5.5	0.0
COLL	0.6	1.4	0.0	-0.6	1.4	0.0
WL1	-6.3	-12.7	0.0	0.8	-6.9	0.0
WL2	-7.7	-9.1	0.0	0.2	-3.3	0.0
LWL1	-2.1	-11.0	0.0	2.6	-8.5	0.0
LWL2	-2.1	-8.3	0.0	2.7	-11.3	0.0
LWL3	-1.5	-7.4	0.0	2.1	-5.0	0.0
LWL4	-1.5	-4.6	0.0	2.1	-7.7	0.0
WL3	1.2	-6.4	0.0	8.1	-13.2	0.0
WL4	1.8	-2.8	0.0	7.6	-9.6	0.0

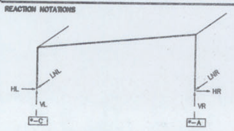
LOAD GROUP DESCRIPTION

DL : Roof Dead Load
LL : Roof Live Load
COLL : Roof Collateral Load
WL1 : Lateral Primary Wind Load
WL2 : Lateral Primary Wind Load
LWL1 : Longitudinal Primary Wind Load
LWL2 : Longitudinal Primary Wind Load
LWL3 : Longitudinal Primary Wind Load
LWL4 : Longitudinal Primary Wind Load
WL3 : Lateral Primary Wind Load
WL4 : Lateral Primary Wind Load

FRAME ID #2
ss 50./13.75/21.5 20./119./
USER NAME: chxnghlem JOB NAME: 39239A
DATE: 2/12/14 FILE: frames_3-4.fra PAGE: 2-2

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 3 4
NOTE: All reactions are in kips and kip-ft.
TIME: 09:45:13

REACTION NOTATIONS



LOAD GROUP REACTION TABLE * = 3 4

COLUMN	*-C			*-A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.7	1.8	0.0	-0.7	1.8	0.0
LL	2.9	6.4	0.0	-2.9	6.5	0.0
COLL	0.7	1.6	0.0	-0.7	1.6	0.0
WL1	-6.6	-10.9	0.0	1.1	-6.8	0.0
WL2	-5.8	-6.4	0.0	0.4	-2.3	0.0
WL3	1.2	-6.0	0.0	6.9	-11.7	0.0
WL4	1.9	-1.5	0.0	6.2	-7.3	0.0
LWL1	-1.6	-9.9	0.0	1.8	-7.8	0.0
RBUPLW	0.0	-2.3	-3.1	-0.0	-3.4	-3.5
LWL2	-1.6	-7.8	0.0	1.8	-9.9	0.0
LWL3	-0.9	-5.4	0.0	1.0	-3.4	0.0
LWL4	-0.9	-3.3	0.0	1.1	-5.4	0.0
RBDWLW	-0.0	2.3	0.0	0.0	3.4	0.0

LOAD GROUP DESCRIPTION

DL : Roof Dead Load
LL : Roof Live Load
COLL : Roof Collateral Load
WL1 : Lateral Primary Wind Load
WL2 : Lateral Primary Wind Load
WL3 : Lateral Primary Wind Load
WL4 : Lateral Primary Wind Load
LWL1 : Longitudinal Primary Wind Load
RBUPLW : Upward Acting Rod Brace Load from Longitud. Wind
LWL2 : Longitudinal Primary Wind Load
LWL3 : Longitudinal Primary Wind Load
LWL4 : Longitudinal Primary Wind Load
RBDWLW : Downward Acting Rod Brace Load from Longit. Wind

NOTES

1) THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOCUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS OR DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUPERSEDED AND VOIDED BY ANY FUTURE MAILING.

2) THE REACTIONS PROVIDED HAVE BEEN CREATED WITH THE FOLLOWING LAYOUT (UNLESS NOTED OTHERWISE).

a) A REACTION TABLE IS PROVIDED WITH THE REACTIONS FOR EACH LOAD GROUP.

b) RIGID FRAMES

(1) GABLED BUILDINGS

(a) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE LEFT SIDE OF THE BUILDING, AS SHOWN ON THE ANCHOR ROD DRAWING, FROM THE OUTSIDE OF THE BUILDING.

(b) INTERIOR COLUMNS ARE SPACED FROM LEFT SIDE TO RIGHT SIDE.

(2) SINGLE SLOPE BUILDINGS

(a) LEFT COLUMN IS THE LOW SIDE COLUMN.

(b) RIGHT COLUMN IS THE HIGH SIDE COLUMN.

(c) INTERIOR COLUMNS ARE SPACED FROM LOW SIDE TO HIGH SIDE.

c) ENDWALLS

(1) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE WALL FROM THE OUTSIDE.

(2) INTERIOR COLUMNS ARE SPACED FROM LEFT TO RIGHT.

d) ANCHOR ROD SIZE IS DETERMINED BY SHEAR AND TENSION AT THE BOTTOM OF THE BASE PLATE. THE LENGTH OF THE ANCHOR ROD AND METHOD OF LOAD TRANSFER TO THE FOUNDATION ARE TO BE DETERMINED BY THE FOUNDATION ENGINEER.

e) ANCHOR RODS ARE ASTM F1554 Gr. 36 MATERIAL UNLESS NOTED OTHERWISE ON THE ANCHOR ROD LAYOUT DRAWING.

f) X-BRACING

(1) ROD BRACING REACTIONS HAVE BEEN INCLUDED IN VALUES SHOWN IN THE REACTION TABLES.

(2) FOR IBC AND UBC BASED BUILDING CODES, WHEN X-BRACING IS PRESENT IN THE SIDEWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ AND RBDWEQ) DO NOT INCLUDE THE AMPLIFICATION FACTOR, Ω_0.

(3) FOR CANADA BUILDING CODE (NBC), WHEN X-BRACING IS PRESENT IN THE SIDEWALL OR ENDWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ & RBDWEQ) ARE MULTIPLIED BY FORCE REDUCTION FACTOR, Rd, WHEN SPECIFIED SHORT-PERIOD SPECTRAL ACCELERATION RATIO $I_E F_a S_a(0.2)$ IS GREATER THAN 0.45.

3) REACTIONS ARE PROVIDED AS UN-FACTORED FOR EACH LOAD GROUP APPLIED TO THE COLUMN. THE FOUNDATION ENGINEER WILL APPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS IN ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICATIONS TO DETERMINE BEARING PRESSURES AND CONCRETE DESIGN. THE FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN MAY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DESIGN.

a) FOR PROJECTS USING ULTIMATE DESIGN WIND SPEEDS SUCH AS 2012 IBC OR 2010 FLORIDA BUILDING CODE, THE WIND LOAD REACTIONS ARE AT A STRENGTH VALUE WITH A LOAD FACTOR OF 1.0.

THE MANUFACTURER DOES NOT PROVIDE "MAXIMUM" LOAD COMBINATION REACTIONS. HOWEVER, THE INDIVIDUAL LOAD REACTIONS PROVIDED MAY BE USED BY THE FOUNDATION ENGINEER TO DETERMINE THE APPLICABLE LOAD COMBINATIONS FOR HIS/HER DESIGN PROCEDURES AND ALLOW FOR AN ECONOMICAL FOUNDATION DESIGN.

Revision	Date	Description	By	Ck'd
0	02/19/14	FOR ERECTOR INSTALLATION	AWS	SF
1	02/21/14	REVISED FOR ERECTOR INSTALLATION	AWS	SF

METALLIC
metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

Drawing Status: REVISED
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

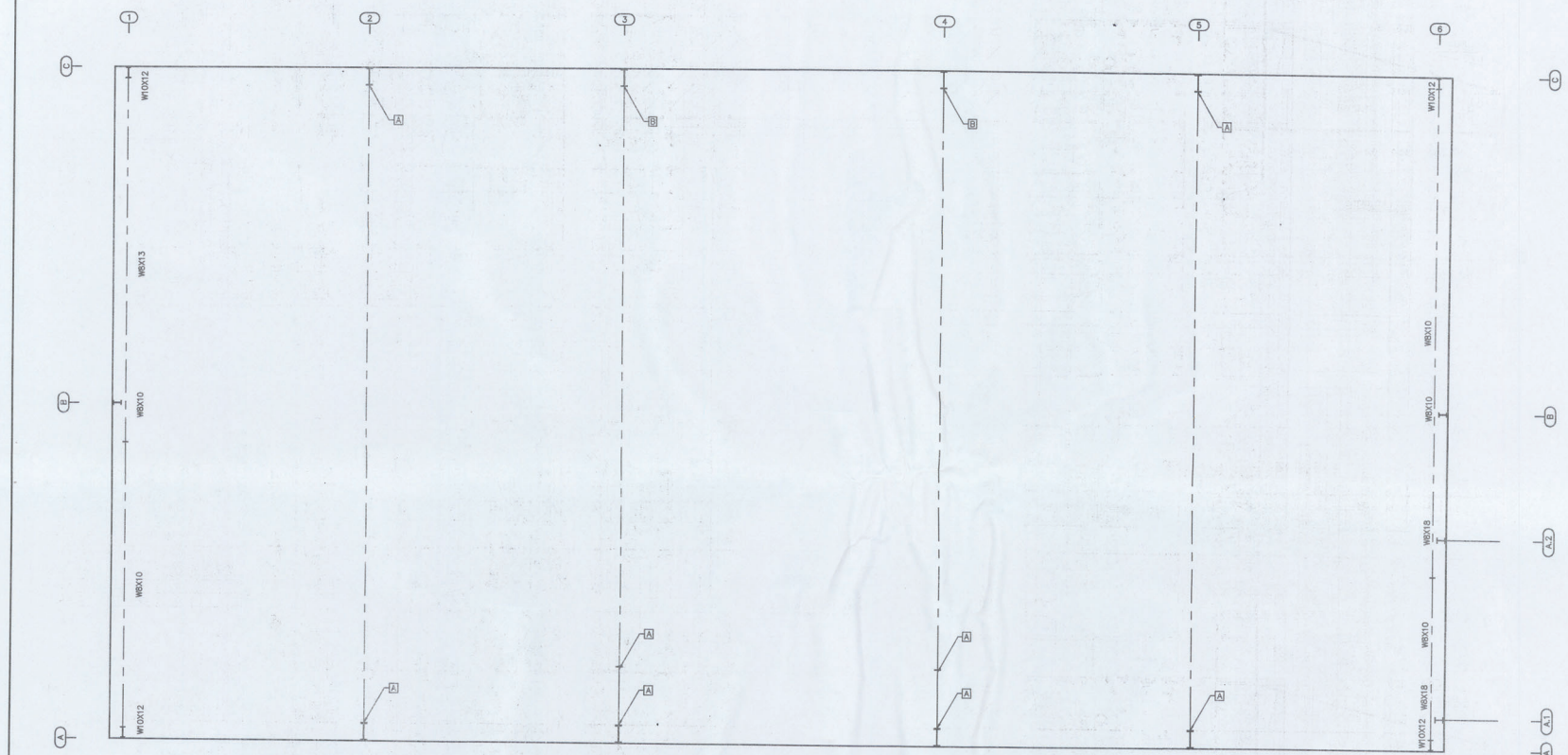
Scale: NOT TO SCALE
Drawn by: AWS 2/19/14
Checked by: SF 2/19/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: F3 of 3

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

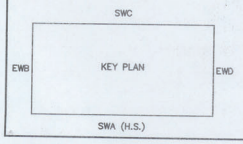
Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS LICENSE No. 68606 STATE OF FLORIDA PROFESSIONAL ENGINEER Feb 25, 2014

SPLICE BOLT TABLE				
CONN.	QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	(8) ¾ X 2"	A325 B&N	0	0
B	(6) ¾ X 2"	A325 B&N	0	0



PRIMARY STEEL LOCATION PLAN



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

metallic building company
7324 FARNKER • HOUSTON, TEXAS • P.O. BOX 40308
ZIP 77041 (713) 466-7788 ZIP 77240

METALLIC

Customer: MONSTA CHIST. GROUP
TRAVIS MEDEIROS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDEIROS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erection, Installation

Scale:	NOT TO SCALE
Drawn by:	AWS 2/24/14
Checked by:	SF 2/24/14
Project Engineer:	AXN
Job Number:	14-B-39239-1
Sheet Number:	E2 of 12

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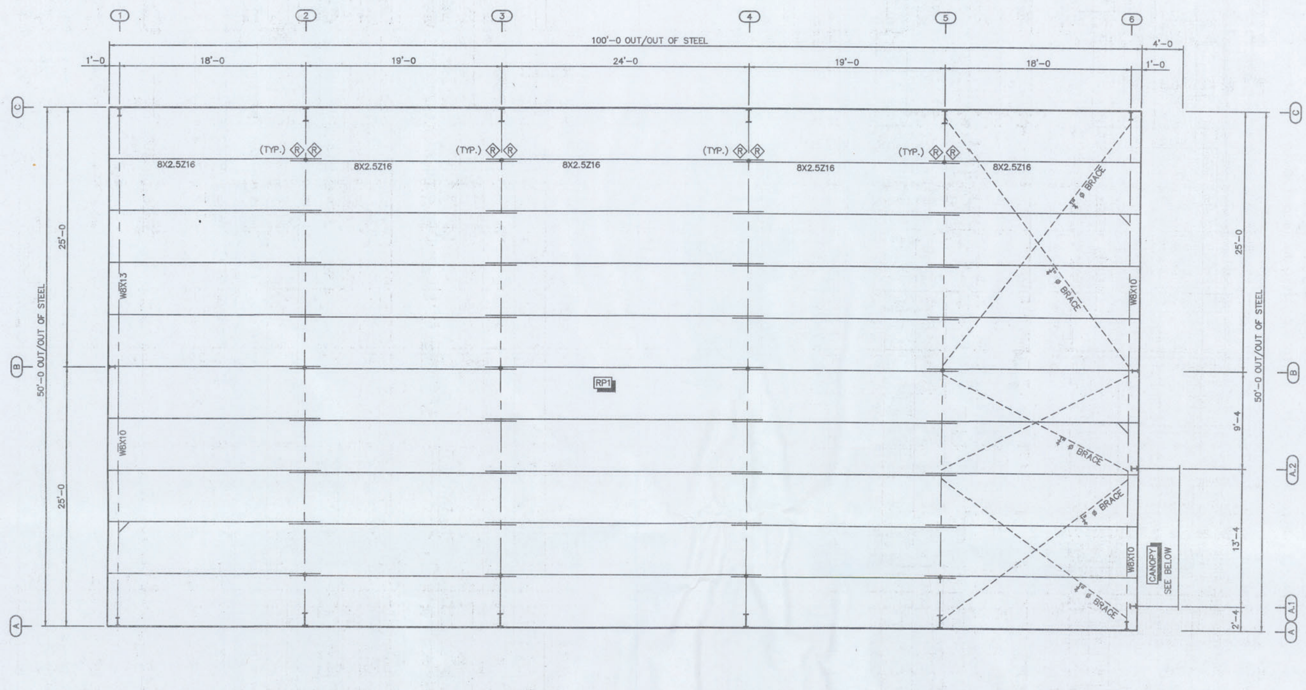
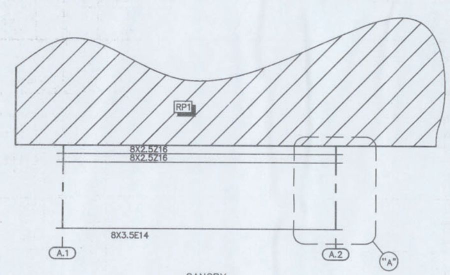
Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS
LICENSE
No. 68606
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
Feb 25, 2014

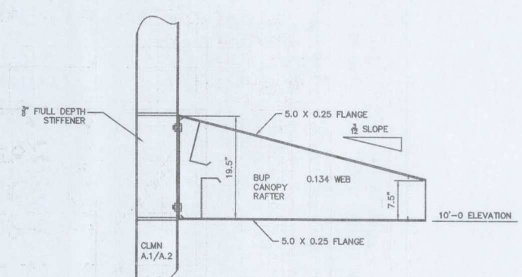
● – DENOTES: CLIP LOCATION
SC90 AT 8" PURLINS
SC92 AT 10" PURLINS
SC94 AT 12" PURLINS



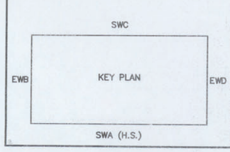
ROOF FRAMING PLAN



CANOPY



DETAIL "A"



Z_SECTION LAP TABLE			
SYMBOL	LAP (LENGTH)	SYMBOL	LAP (LENGTH)
S	0'-2" (3¾")	T	2'-4"(2'-5¾")
R	1'-4"(1'-5¾")	V	3'-0"(3'-1¾")

Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

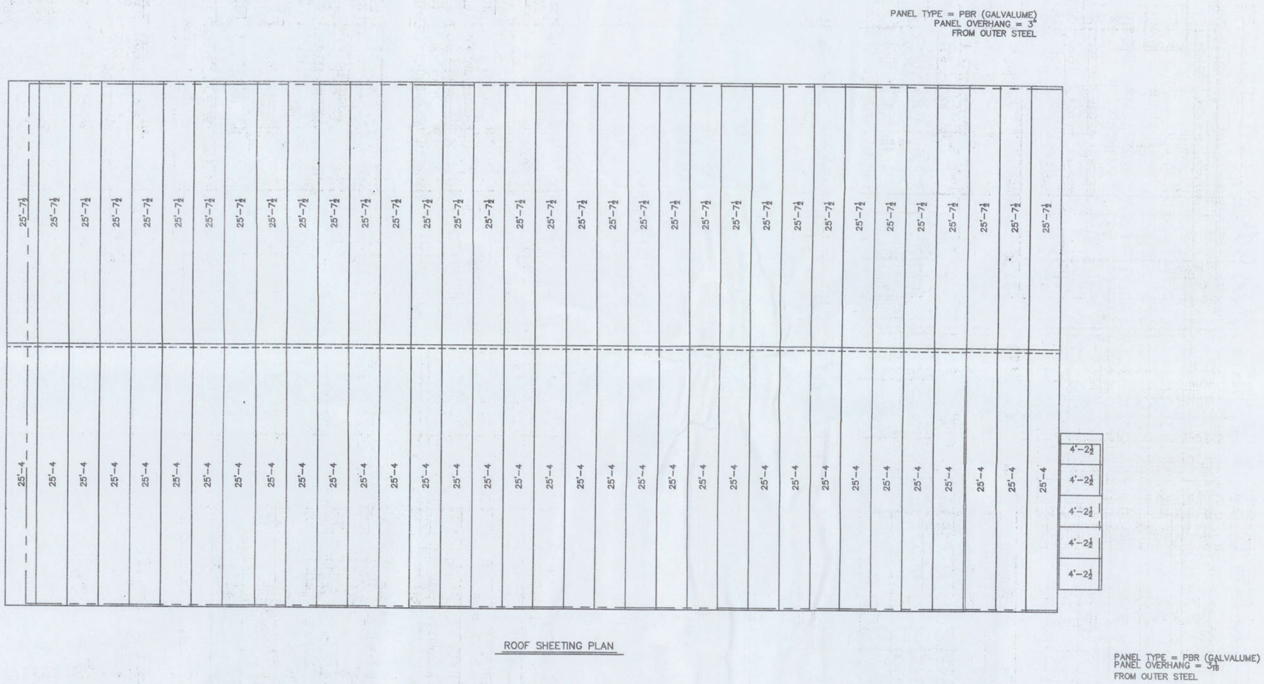
Drawing Status:
☐ Preliminary (Not For Construction)
☒ For Construction Permit
☐ For Approval (Not For Construction)
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: E3 of 12

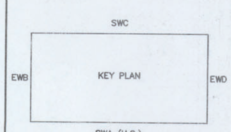
The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only.The undersigned engineer is not the overall engineer of record for this project.

Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS LICENSE No. 68606 ★ STATE OF FLORIDA PROFESSIONAL ENGINEER Feb 25, 2014



ROOF SHEETING PLAN



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC **metallic building company**
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40336
ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL. 32025

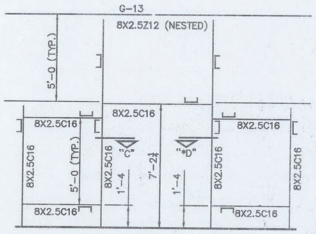
Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: E4 of 12

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

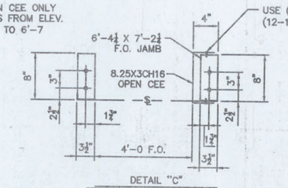
Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS
LICENSE
No. 68606
★
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
Feb 25, 2014



DETAIL "B"
FRAMED OPENING JAMB INFO

OPEN CEE ONLY GOES FROM ELEV. 1'-1 TO 6'-7



DETAIL "C"
WINDOW SECTION

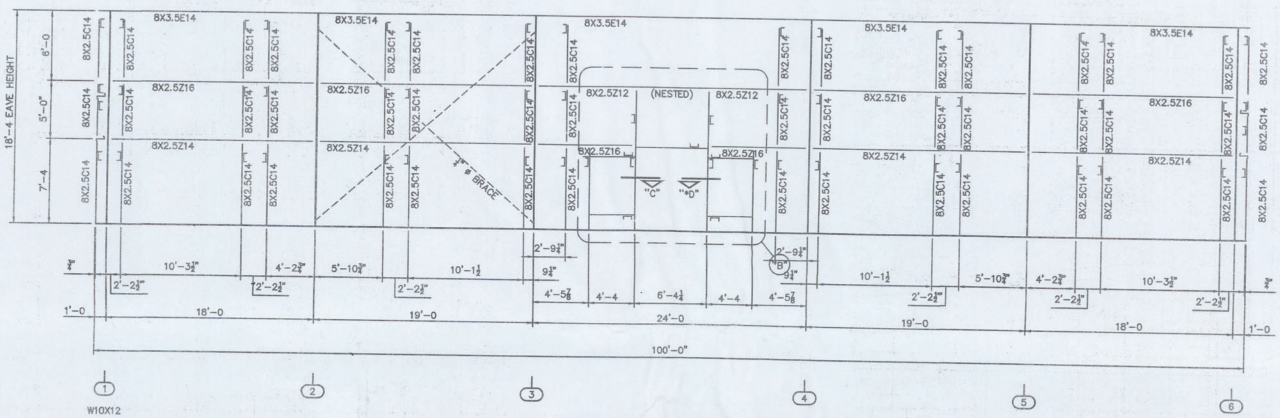
*NOTE:
SECTION "D" MIRRORS SECTION "C"

SCHEDULE OF ACCESSORIES

NO. REQD	DESCRIPTION
1	6'-4½ X 7'-2¼ FACTORY LOCATED FRAMED OPENING
2	4'-0 X 5'-0 FACTORY LOCATED FRAMED OPENINGS
1	12'-0 X 10'-0 FACTORY LOCATED FRAMED OPENING
3	2'-0 X 2'-0 FACTORY LOCATED FRAMED OPENINGS
1	3070 WHITE PRE-ASSEMBLED WALK DOOR W/ CYLINDER LOCKSET, LEFT HAND OUT, CLOSURE, INSULATED
6	2020FLWF FIXED LOUVER W/ BIRD SCREEN (FLORIDA APPROVED), COLOR = BURNISHED SLATE

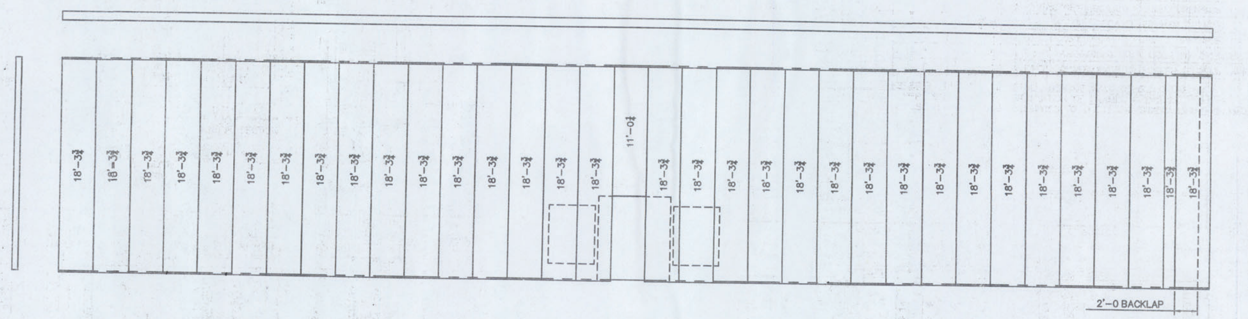
REFER TO DETAILS ON INSTALLATION OF WALK DOOR.
REFER TO DETAILS ON INSTALLATION OF FRAMED OPENINGS.
USE STANDARD WALL PROCEDURES TO ERECT THE SIDEWALL AND ENDWALL PANELS.

CL292- FASTENS BETWEEN THE GIRTS ON EACH SIDE OF THE SIDEWALL COLUMNS, AT ALL GIRT ELEVATIONS. REFER TO DETAILS.

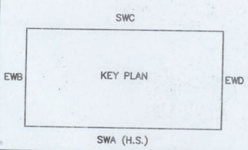


SIDEWALL ELEVATION "SWA" AT GRID LINE "A"

PBR WALL PANELS
PANEL COVERAGE = 3'-0
COLOR = CHARCOAL GRAY
PANEL PKG. REQ'D. = PBS-2



WALL SHEETING ELEVATION "SWA"
BLDG A



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC
metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338 ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDERIOS
750 N. SW MAIN BLVD.
LAKE CITY FL. 32025

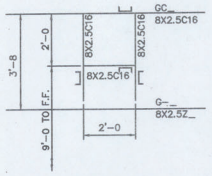
Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: E5 of 12

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS LICENSE No. 68606 STATE OF FLORIDA PROFESSIONAL ENGINEER Feb 25, 2014

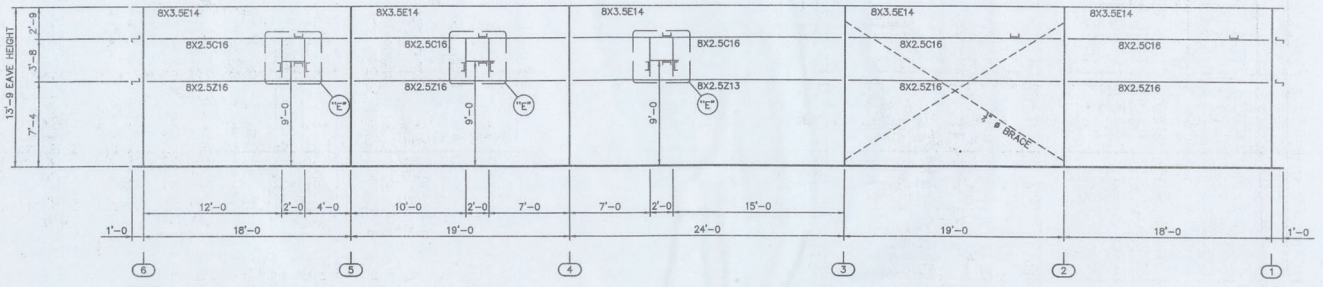


DETAIL "E"

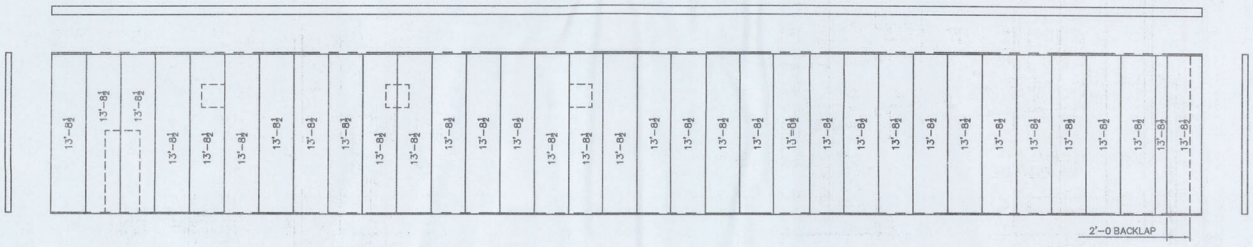
LOUVER JAMB INFO

CL292- FASTENS BETWEEN THE GIRTS ON EACH SIDE OF THE SIDEWALL COLUMNS, AT ALL GIRT ELEVATIONS. REFER TO DETAILS.

PC30- FASTENS BETWEEN THE GIRTS ON EACH SIDE OF THE SIDEWALL COLUMNS, AT ALL GIRT ELEVATIONS.



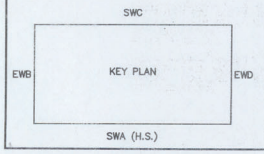
SIDEWALL ELEVATION "SWC" AT GRID LINE "C"



PBR WALL PANELS
PANEL COVERAGE = 3'-0
COLOR = CHARCOAL GRAY
PANEL PKG. REQ'D. = PBS-3

WALL SHEETING ELEVATION "SWC"

BLDG A



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

metallic building company
7201 FARMER • HOUSTON, TEXAS • P.O. BOX 40338 ZIP 77040
(713) 466-7788 ZIP 77240

METALLIC

Customer: TRADEMARK CNST. GROUP
TRAVIS MEDEIROS
1725 SW MAIN BLVD. ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDEIROS
1725 SW MAIN BLVD.
LAKE CITY, FL 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: E6 of 12

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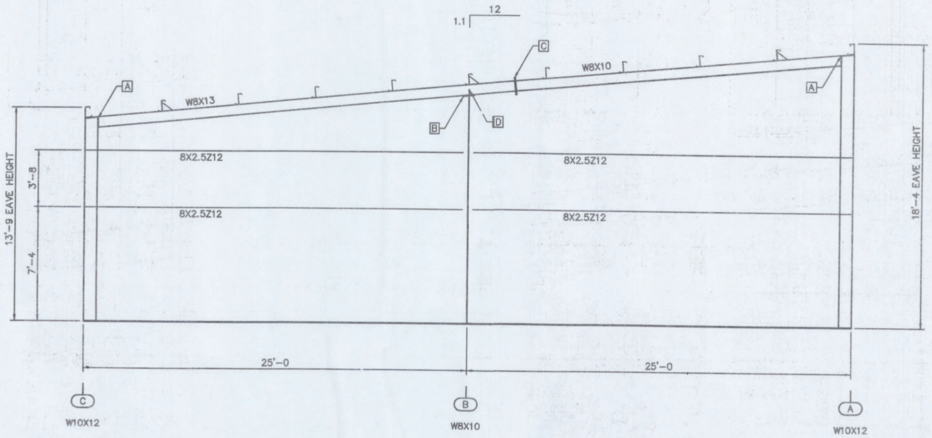
Franz Mutis, P.E.
Florida P.E. 68606

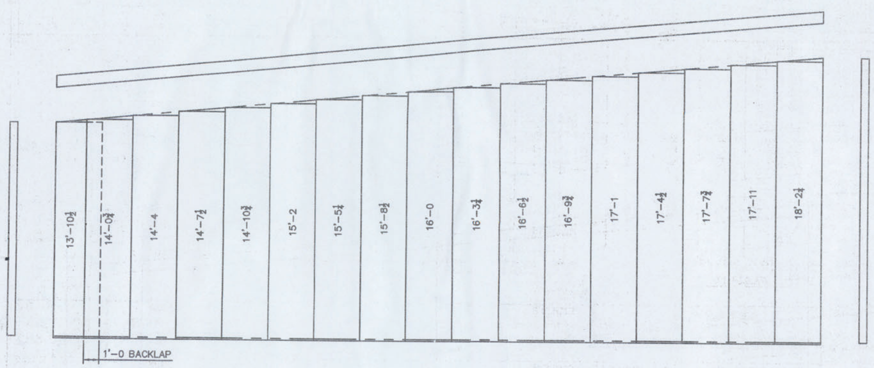
FRANZ MUTIS LICENSE No. 68606 STATE OF FLORIDA Feb 25, 2014 PROFESSIONAL ENGINEER

	SPLICE BOLT TABLE			
CONN.	QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	(2) $\frac{1}{2}$ X 1$\frac{3}{4}$	A325 B&N	0	0
B	(4) $\frac{1}{2}$ X 1$\frac{3}{4}$	A325 B&N	4	0
C	(8) $\frac{1}{2}$ X 1$\frac{3}{4}$	A325 B&N	0	0
D	(4) $\frac{3}{4}$ X 1$\frac{1}{2}$	A325 B&N	0	0



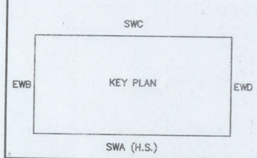
CL292- FASTENS BETWEEN THE GIRTS ON EACH SIDE OF THE ENDWALL COLUMNS, AT ALL GIRT ELEVATIONS. REFER TO DETAILS.

ENDWALL ELEVATION "EWB" AT GRID LINE "1"



PBR WALL PANELS
PANEL COVERAGE = 3'-0
COLOR = CHARCOAL GRAY
PANEL PKG. REQ'D. = PBS-1

WALL SHEETING ELEVATION "EWB"
BLDG A



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC
metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: E7 of 12

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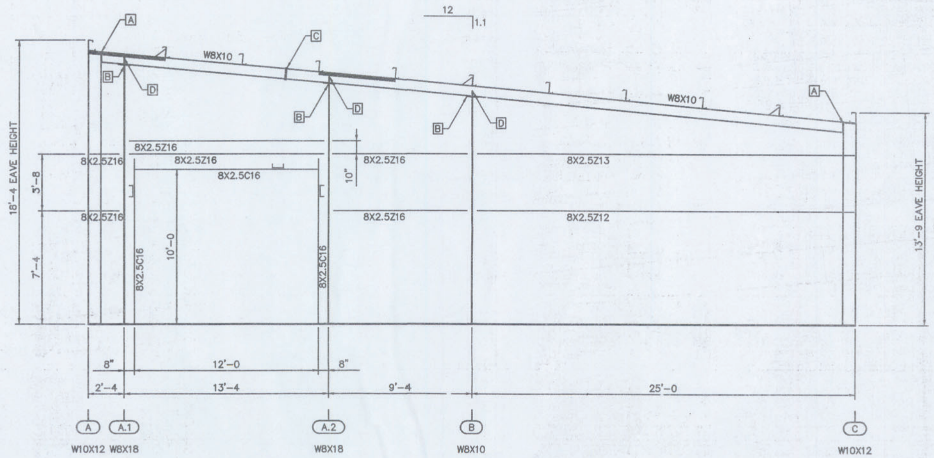
Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS
LICENSE
No. 68606
STATE OF FLORIDA
Feb 25, 2014
PROFESSIONAL ENGINEER

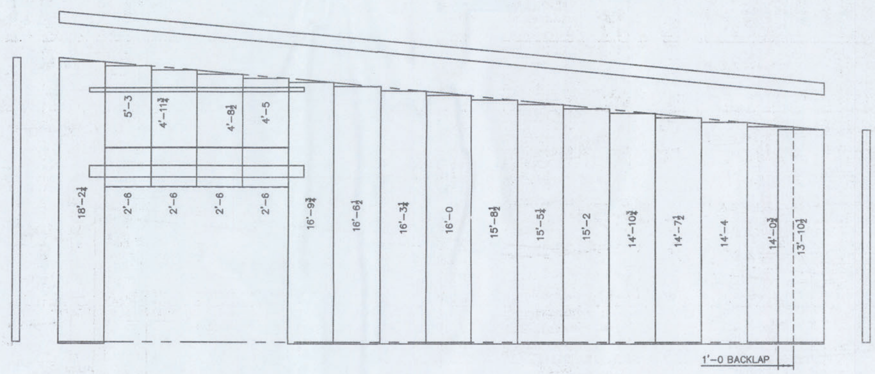
	SPLICE BOLT TABLE			
CONN.	QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	(2) $\frac{1}{2}$ X 1$\frac{3}{4}$	A325 B&N	0	0
B	(4) $\frac{1}{2}$ X 1$\frac{3}{4}$	A325 B&N	4	0
C	(4) $\frac{1}{2}$ X 1$\frac{3}{4}$	A325 B&N	0	0
D	(4) $\frac{3}{4}$ X 1$\frac{1}{2}$	A325 B&N	0	0

CL292– FASTENS BETWEEN THE GIRTS ON EACH SIDE OF THE ENDWALL COLUMNS, AT ALL GIRT ELEVATIONS. REFER TO DETAILS.

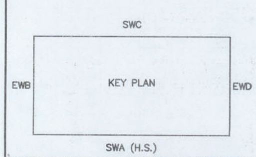


ENDWALL ELEVATION "EWD" AT GRID LINE "6"

PBR WALL PANELS
PANEL COVERAGE = 3'-0
COLOR = CHARCOAL GRAY
PANEL PKG. REQ'D. = PBS-4



WALL SHEETING ELEVATION "EWD"
BLDG A



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40336
ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDEIROS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDEIROS
750 A SW MAIN BLVD.
LAKE CITY, FL 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: E8 of 12

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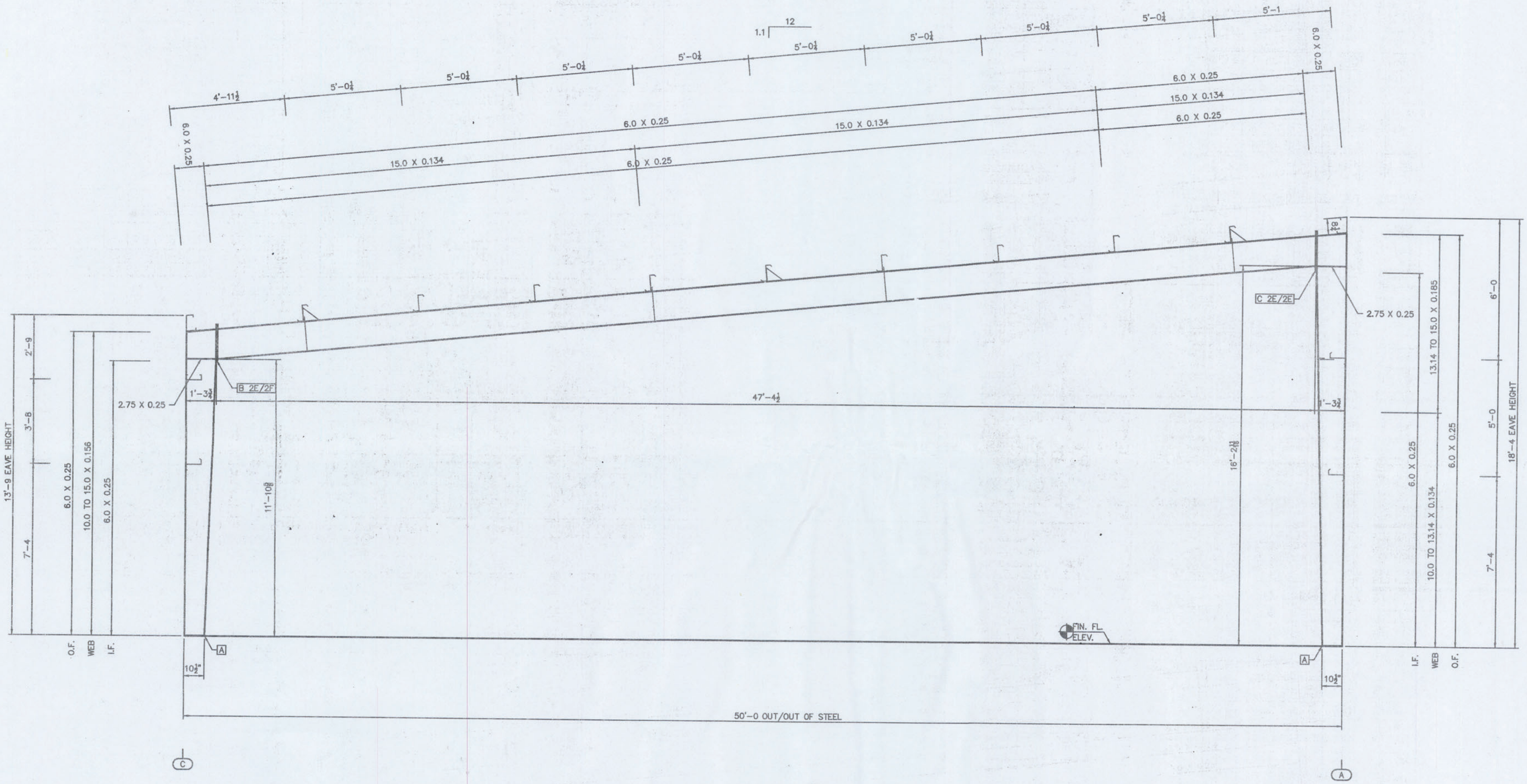
Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS LICENSE No. 68606 STATE OF FLORIDA PROFESSIONAL ENGINEER Feb 25, 2014

Y/PROJECTS\XDS-V462-20131120 FRAME = Active/ENG/14-B-39239/ver02-ahxnghiem/Bldg-A/Drftg/x01L 2/12/14 09:46:05
Y/PROJECTS\XDS-V462-20131120 FB SET = Eng/14-B-39239/ver02-ahxnghiem/Bldg-A/DRFTG/x01L

GENERAL NOTES
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.



CROSS SECTION AT FRAME LINE "2" & "5"

	PLATE SIZE TABLE		SPLICE BOLT TABLE			
CONN.	LOW SIDE	HIGH SIDE	QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	6 X 0.375 X 0'-10½					
B	6 X 0.5 X 1'-7	6 X 0.5 X 1'-6½	(8) ¾ X 2"	A325 B&N	0	0
C	6 X 0.5 X 1'-8½	6 X 0.5 X 1'-9	(8) ¾ X 2"	A325 B&N	0	0

Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC
metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

Drawing Status:
☐ *Preliminary (Not For Construction)*
☐ *For Approval (Not For Construction)*
☒ *For Construction Permit*
☐ *For Erector Installation*

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: E9 of 12

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Franz Mutis, P.E.
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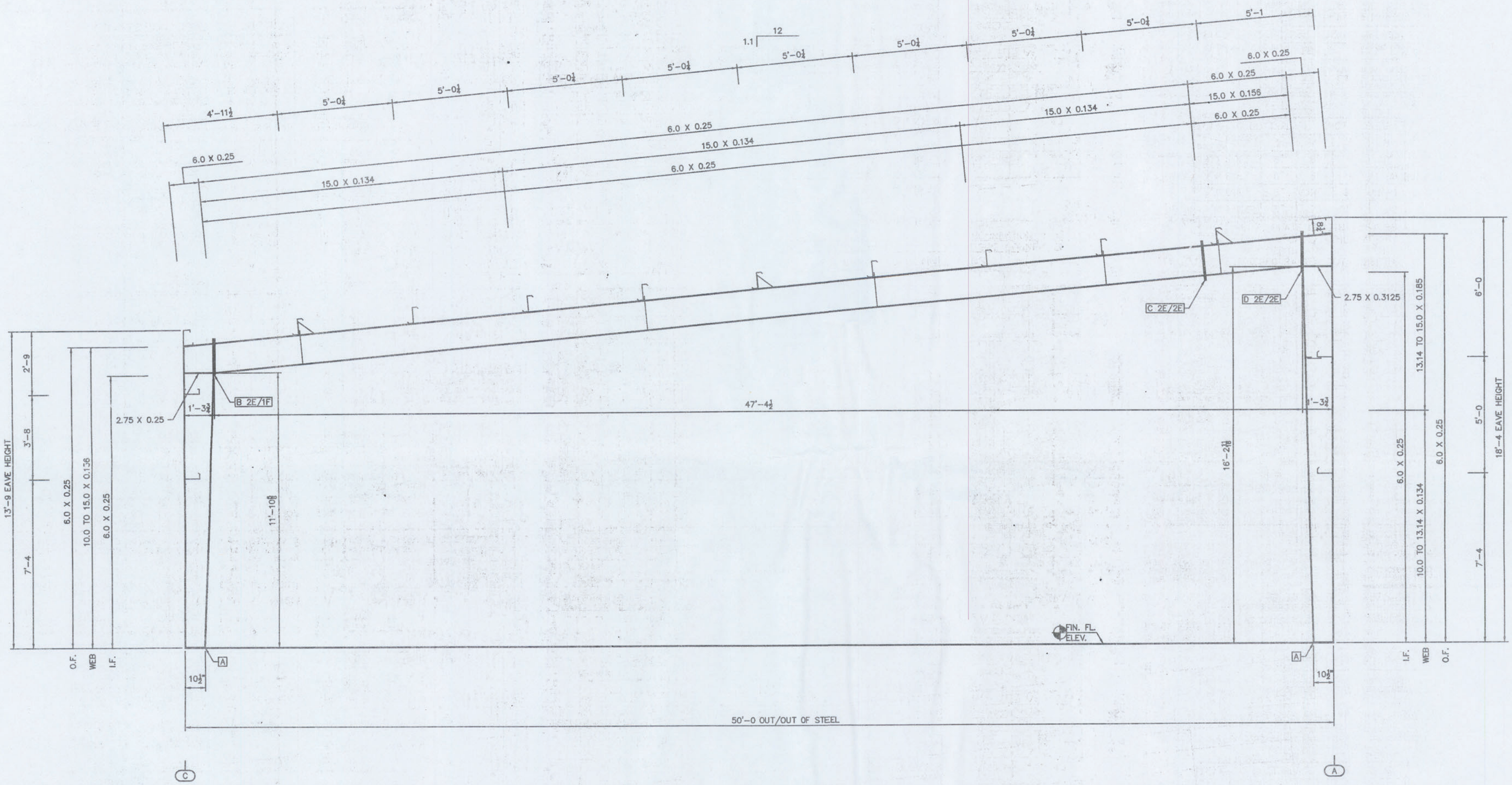
FRANZ MUTIS
LICENSE
No. 68606
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Feb 25, 2014

Y/PROJECTS\XDS-V462-20131120 FRAME = Active/ENG/14-B-39239/ver02-ahxnghiem/Bldg-A/Drftg/x02L 2/12/14 09:45:13
Y/PROJECTS\XDS-V462-20131120 FB SET = Eng/14-B-39239/ver02-ahxnghiem/Bldg-A/DRFTG/x02L

GENERAL NOTES
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.



CROSS SECTION AT FRAME LINES "3" & "4"

	PLATE SIZE TABLE		SPLICE BOLT TABLE			
CONN.	LOW SIDE	HIGH SIDE	QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	6 X 0.375 X 0'-10½					
B	6 X 0.5 X 1'-7	6 X 0.5 X 1'-6½	(6) ¾ X 2"	A325 B&N	0	0
C	6 X 0.375 X 1'-8¼	6 X 0.375 X 1'-8¼	(8) ¾ X 2"	A325 B&N	0	0
D	6 X 0.5 X 1'-8½	6 X 0.5 X 1'-9	(8) ¾ X 2"	A325 B&N	0	0

Revision	Date	Description	By	Ck'd
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Customer:
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TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: E10 of 12

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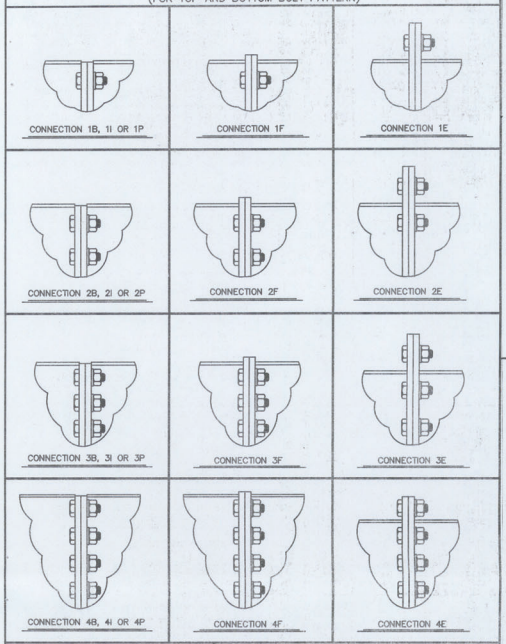
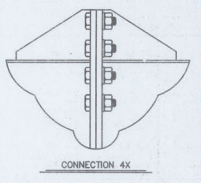
Feb 25, 2014

CONNECTION CODES
(FOR TOP AND BOTTOM BOLT PATTERN)





4 E / 2 E H
- CONNECTION DESIGNATION
  - BLANK = STANDARD CONNECTION
  - H = HEAVY CONNECTION
- BOTTOM CONNECTION CODE
- BOTTOM QUANTITY OF BOLT ROWS
- CONNECTION DESIGNATION
  - BLANK = STANDARD CONNECTION
  - H = HEAVY CONNECTION
- TOP CONNECTION CODE
- TOP QUANTITY OF BOLT ROWS

CONNECTION CODE FORMAT

CONNECTION CODE DESCRIPTION

B = THIS DESCRIPTION CODE IS USED TO DEFINE SHEAR CONNECTIONS. BOLTS ARE LOCATED INSIDE THE OUTER FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE OUTER FLANGE.

I = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED INSIDE THE OUTER FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE OUTER FLANGE.

P = THIS DESCRIPTION CODE IS THE SAME AS B CODE, BUTT PLATE LENGTH MUST BE A MINIMUM OF 1/2" THE RAFTER DEPTH AND SHALL NOT EXCEED RAFTER TOTAL DEPTH.

F = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED INSIDE THE OUTER FLANGE AND CONNECTION PLATE PROJECTS 1/2" ABOVE THE OUTER FLANGE.

E = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED WITH ONE SET OUTSIDE THE OUTER FLANGE AND REMAINDER SETS LOCATED INSIDE THE OUTER FLANGE.

4X = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED WITH TWO SETS EITHER SIDE THE OUTER FLANGE WITH A GUSSET PLATE OUTSIDE THE OUTER FLANGE OR COLUMN CAP PLATE.

CONNECTION BOLT DATA

NAME	DESCRIPTION FOR A325 BOLT DIMENSIONS	A325 CONNECTION BOLT DIMENSIONS					
D	DIAMETER OF THE BOLT	1/2"	3/4"	7/8"	1"	1 1/4"	1 1/2"
HD	BOLT HOLE DIAMETER	9/16"	13/16"	15/13"	1 1/16"	1 5/16"	1 9/16"
G	BOLT GAUGE	2 1/2"	3"	4"	3 1/2"	4"	5 1/2"
	MAX. WEB THICKNESS (Max. 5/16" Fillet Weld) WITHOUT WASHER	1"	1 1/8"	1 7/8"	1 1/4"	1 3/8"	2 1/8"
	MAX. WEB THICKNESS (Max. 5/16" Fillet Weld) WITH WASHER	3/4"	7/8"	1 5/8"	7/8"	7/8"	1 7/8"
HG	HEAVY CONN. BOLT GAUGE	N/A	2 1/4"	2 5/8"	3"	3 3/4"	4"
S	NORMAL BOLT SPACING	2 1/2"	3"	3 1/4"	3 1/2"	4"	4 1/2"
BSMIN	MINIMUM SPACING BETWEEN TOP & BOTTOM SETS OF BOLTS	1 1/2"	2 1/4"	2 5/8"	3"	3 3/4"	4"
BSMAX	MAXIMUM BOLT SPACING BETWEEN TOP AND BOTTOM SETS OF BOLTS ON CONNECTION PLATES LESS THAN OR EQUAL TO 3/4" THICK	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
	SPLICE BOLT SPACING (NOT TO EXCEED 2'-0)	1/2 BSMAX (±1/16") WHEN BSMAX = 2'-0 1/16" TO 4'-0 1/3 BSMAX (±1/16") WHEN BSMAX = 4'-0 1/16" TO 6'-0 1/4 BSMAX (±1/16") WHEN BSMAX = 6'-0 1/16" TO 8'-0					
BFCD	STANDARD BOLT-TO-FLANGE CLEARANCE DIMENSION (LARGER ON SLOPES 2:12 AND GREATER)	7/8"	1 1/8"	1 1/4"	1 3/8"	1 5/8"	1 7/8"
TT	THICKNESS TOP FLANGE	REFER TO FRAME PROFILE FOR LARGEST FLANGE THICKNESS EITHER SIDE OF SPLICE					
TB	THICKNESS BOTTOM FLANGE						
YT	BOLT SPACING TOP (MIN = S)	1 3/4" + TT	2 1/4" + TT	2 1/2" + TT	2 3/4" + TT	3 1/4" + TT	3 3/4" + TT
YB	BOLT SPACING BOTTOM (MIN = S)	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped
EED(S)	MINIMUM SHEARED END EDGE DIMENSION	1 1/4"	1 1/4"	1 1/2"	1 3/4"	2 1/4"	2 5/8"
EED(R)	MINIMUM ROLLED END EDGE DIMENSION	3/4"	1"	1 1/8"	1 1/4"	1 5/8"	2 1/4"
EEDK	END EDGE DIMENSION AT KNEE CONNECTION	1 3/8"	1 3/8"	1 5/8"	1 7/8"	2 3/8"	2 3/4"
BCWM	MIN. BOLT CLEARANCE FROM A FLANGE OR WEB WELD — WITHOUT WASHER	7/16"	5/8"	3/4"	13/16"	1"	1 3/8"
	MIN. BOLT CLEARANCE FROM A FLANGE OR WEB WELD — WITH HARDENED WASHER	9/16"	3/4"	7/8"	1"	1 1/4"	1 1/2"
WCSM	MIN. WIDTH OF CONN. PL. (Standard Connection)	5"	6"	8"	8"	10"	12"
WCHM	MIN. WIDTH OF CONN. PL. (Heavy Connection)	N/A	10"	12"	12"	16"	18"
TCMIN	MINIMUM THICKNESS OF	1/4"	3/8"	7/16"	1/2"	5/8"	1"

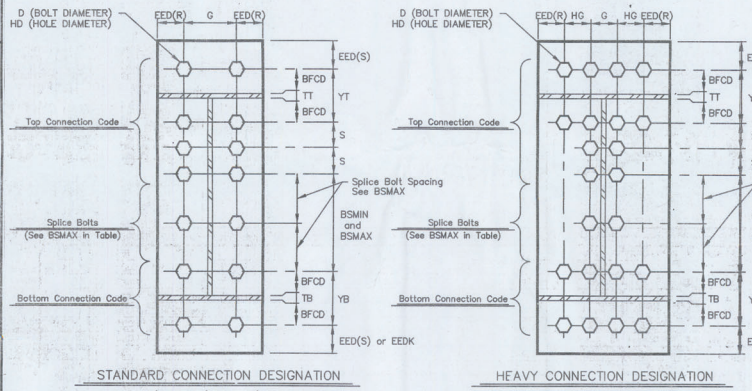
Frame Documentation
Connection Bolt Details (A325)

Page 05-12-10
Date Mar '11 02

B 4E/2EH
- Connection Code (See "Connection Code Format" on this drawing)
- Connection Location

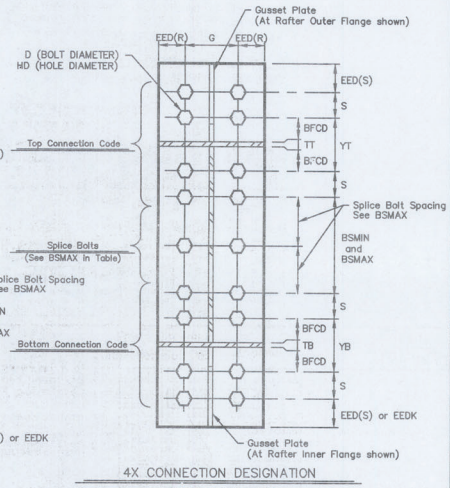
CROSS SECTION CONNECTION CODE KEY
(AS SHOWN AT CONNECTIONS ON FRAME CROSS SECTION DRAWINGS)

Flange Brace Material Schedule	
Part Mark	Material
FB4_	L 2" x 2" x 14 Ga.
FB5_	L 2" x 2" x 14 Ga.
FB6_	L 2" x 2" x 5/16"
FB7_	L 2 1/2" x 2 1/2" x 5/16"

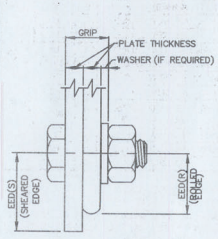


STANDARD CONNECTION DESIGNATION
(CODE 4E/2E SHOWN)

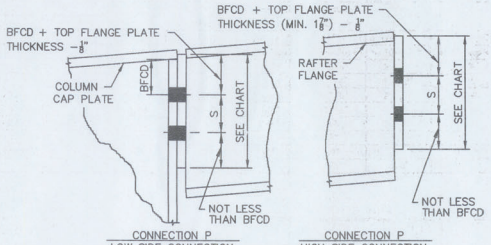
HEAVY CONNECTION DESIGNATION



4X CONNECTION DESIGNATION
(CODE 4X/4X SHOWN)



A325 BOLT EDGE DISTANCE



LEAN-TO CONNECTIONS

LEAN-TO BUTT PLATE LENGTH* CHART				
BOLT DIA \ BOLT QTY	2	4	6	8
1/2" ø BOLT	6"	6"	7 1/2"	10"
5/8" ø BOLT	6"	6"	9"	1'-0
7/8" ø BOLT	6"	6 3/4"	9 3/4"	1'-1
1" ø BOLT	6"	7"	10 1/2"	1'-2

* NOTE: BUTT PLATE LENGTH MUST BE A MINIMUM OF 1/2 THE RAFTER WEB DEPTH AND SHALL NOT EXCEED RAFTER TOTAL DEPTH.

Revision	Date	Description	By	Ck'd
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METALLIC

Customer: TRADEMARK CNST. GROUP
Project Name & Location: MONSTA CLOTHING RETAIL BUILDING 750 A SW MAIN BLVD. LAKE CITY, FL. 32025

Drawing Status: ☐ Preliminary (Not For Construction) ☐ For Approval (Not For Construction) ☒ For Construction Permit ☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
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Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: E11 of 12

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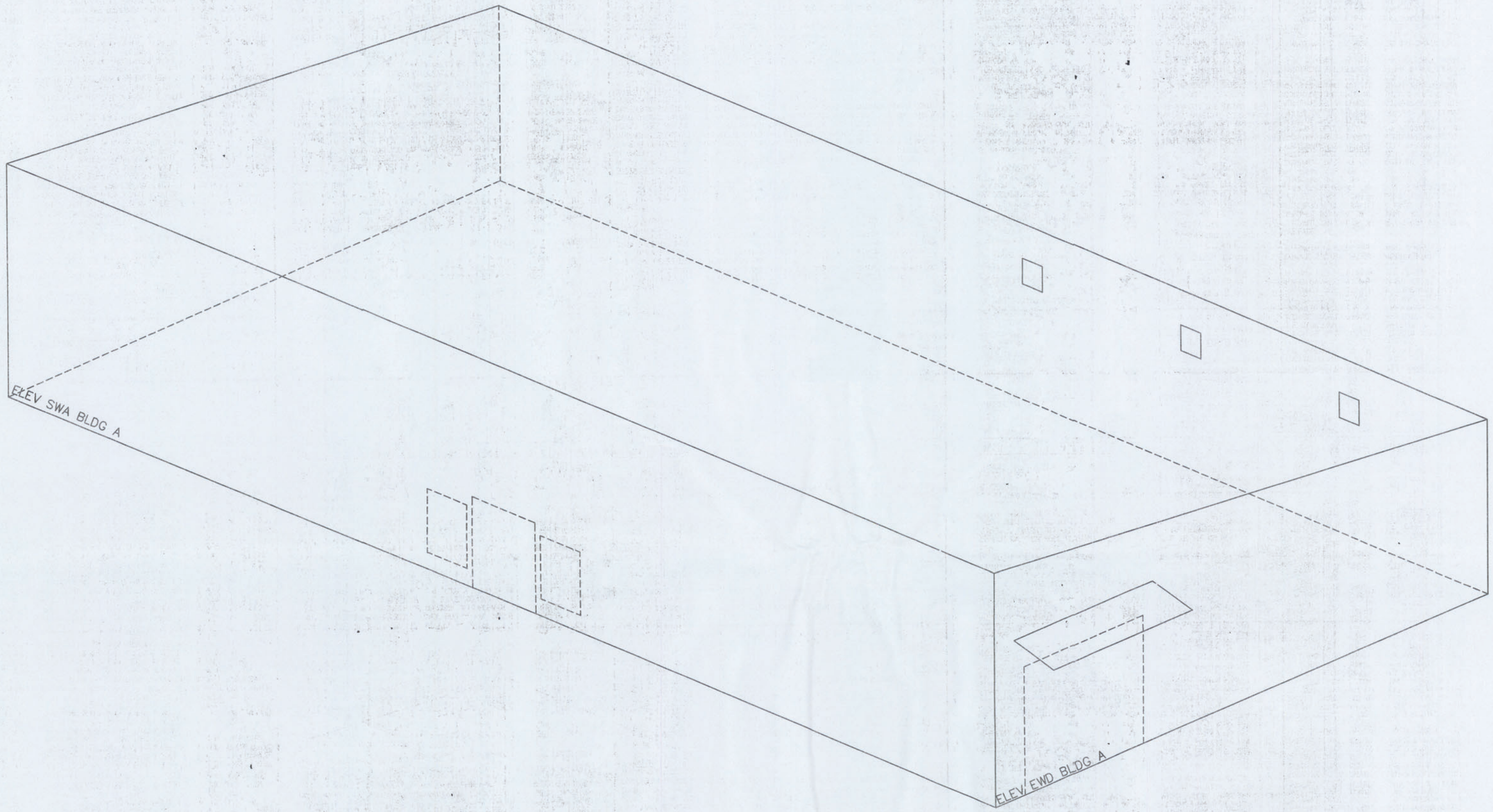
Florida P.E. 68606

FRANZ MUTIS LICENSE No. 68606 STATE OF FLORIDA PROFESSIONAL ENGINEER
Feb 25, 2014



FLASHING LAYOUT

DOWNSPOUT LAYOUT
[4 REQ'D]

Revision	Date	Description	By	Ck'd
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TRAVIS MEDERIOS
128 SW NASSAU ST.
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Checked by: SF 2/24/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: E12 of 12

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FRANZ MUTIS
LICENSE
No. 68606
★
STATE OF
FLORIDA
Feb 25, 2014
PROFESSIONAL ENGINEER

FIELD SERVICE PROCEDURES

IN ORDER TO GIVE YOU PROMPT SERVICES AND KEEP PROBLEMS TO A MINIMUM, PLEASE HANDLE ANY SHORTAGES OR BACK CHARGES IN THE FOLLOWING MANNER: CAREFULLY CHECK YOUR PACKING LIST WHILE UNLOADING. MARK ANY ITEMS, WHICH APPEAR TO BE MISSING AND NOTIFY THE FIELD SERVICE DEPARTMENT AT THE NUMBER SHOWN IN THE TITLEBLOCK AS SOON AS POSSIBLE. CALLING SOMEONE ELSE COULD DELAY THE PROPER RESPONSE.

SHORT MATERIALS – IMMEDIATELY UPON DELIVERY OF MATERIAL, QUANTITIES ARE TO BE VERIFIED BY THE CUSTOMER AGAINST QUANTITIES THAT ARE BILLED ON THE SHIPPING DOCUMENT. NEITHER THE MANUFACTURER NOR THE CARRIER IS RESPONSIBLE FOR THE MATERIAL SHORTAGES AGAINST THE QUANTITIES BILLED ON SHIPPING DOCUMENT IF SUCH SHORTAGES ARE NOT NOTED ON SHIPPING DOCUMENTS WHEN THE MATERIAL IS DELIVERED, AND THEN ACKNOWLEDGED BY THE CARRIER'S AGENT. IF THE CARRIER IS THE MANUFACTURER, CLAIMS FOR SHORTAGES ARE TO BE MADE BY THE CUSTOMER TO THE COMMON CARRIER. IF THE MATERIAL QUANTITIES RECEIVED ARE CORRECT ACCORDING TO THE QUANTITIES THAT ARE BILLED ON THE SHIPPING DOCUMENTS, BUT ARE LESS THAN THE QUANTITIES ORDERED OR THE QUANTITIES THAT ARE NECESSARY TO COMPLETE THE METAL BUILDING ACCORDING TO THE ORDER DOCUMENTS, CLAIM IS TOO BE MADE OF THE MANUFACTURER.

DAMAGED OR DEFECTIVE MATERIAL – DAMAGED OR DEFECTIVE MATERIAL, REGARDLESS OF THE DEGREE OF DAMAGE, MUST BE NOTED ON THE SHIPPING DOCUMENTS BY THE CUSTOMER AND ACKNOWLEDGED IN WRITING BY THE CARRIER'S AGENT. THE MANUFACTURER IS NOT RESPONSIBLE FOR MATERIAL DAMAGED IN UNLOADING OF PACKAGED OR NESTED MATERIALS, INCLUDING, BUT NOT LIMITED TO: FASTENERS, SHEET METAL, "C" & "Z" SECTIONS & COVERING PANELS THAT BECOME WET AND/OR DAMAGED BY WATER WHILE IN THE POSSESSION OF OTHERS. PACKAGED OR NESTED MATERIAL THAT BECOMES WET IN TRANSIT MUST BE UNPACKED, UNSTACKED AND DRIED BY THE CUSTOMER. IF THE CARRIER IS THE MANUFACTURER, THE CUSTOMER MUST MAKE CLAIM FOR DAMAGE DIRECTLY TO THE MANUFACTURER. IF THE CARRIER IS A COMMON CARRIER, THE CUSTOMER MUST MAKE THE CLAIM FOR DAMAGE TO THE COMMON CARRIER. THE MANUFACTURER IS NOT LIABLE FOR ANY CLAIM WHATSOEVER INCLUDING, BUT NOT LIMITED TO LABOR CHARGES OF CONSEQUENTIAL DAMAGES RESULTING FROM THE CUSTOMER'S USE OF DAMAGED OF DEFECTIVE MATERIALS THAT CAN BE DETECTED BY VISUAL INSPECTION.

OIL CANNING IS NOT CAUSE FOR REJECTION

EXCESSIVE MATERIAL – THE MANUFACTURER RESERVES THE RIGHT TO RECOVER ANY MATERIAL DELIVERED IN EXCESS OR THOSE REQUIRED BY THE ORDER DOCUMENTS.

INITIAL CLAIM – IN THE EVENT OF ERROR, THE CUSTOMER MUST PROMPTLY MAKE A WRITTEN OR VERBAL "INITIAL CLAIM" TO THE MANUFACTURER FOR THE CORRECTION OF DESIGN, DRAFTING, BILL OF MATERIALS OF FABRICATION ERROR.
THE "INITIAL CLAIM" INCLUDES:
1. DESCRIPTION OF THE NATURE AND EXTENT OF THE ERRORS,INCLUDING QUANTITIES.
2. DESCRIPTION OF THE NATURE AND EXTENT OF PROPOSED CORRECTIVE WORK INCLUDING ESTIMATED MAN-HOURS.
3. MATERIAL TO BE PURCHASED FROM OTHER THAN THE MANUFACTURER, INCLUDING ESTIMATED QUANTITIES AND COST.
4. MAXIMUM TOTAL COST OF PROPOSED CORRECTIVE WORK AND MATERIAL TO BE PURCHASED FROM OTHER THAN THE MANUFACTURER.

R1-01

AUTHORIZATION FOR CORRECTIVE WORK

NORMAL ERECTION OPERATIONS INCLUDE THE CORRECTION OF MINOR MISFITS BY MODERATE AMOUNTS OF REAMING, CHIPPING, WELDING OR CUTTING AND THE DRAWING OF ELEMENTS INTO LINE THROUGH THE USE OF DRIFT PINS. ERRORS WHICH CANNOT BE CORRECTED BY THE FOREGOING MEANS OR WHICH REQUIRE MAJOR CHANGES IN THE MEMBER CONFIGURATION SHOULD BE REPORTED IMMEDIATELY TO THE OWNER AND FABRICATOR BY THE ERECTOR, TO ENABLE WHOEVER IS RESPONSIBLE EITHER TO CORRECT THE ERROR OR TO APPROVE THE MOST EFFICIENT AND ECONOMICAL METHOD OF CORRECTION TO BE USED BY OTHERS. (AISC 303-10, SECTION 7.14) (MAR 05 SECTION 7.14) IF THE ERROR IS THE FAULT OF THE MANUFACTURER, AN "AUTHORIZATION FOR CORRECTIVE WORK" MUST BE ISSUED IN WRITING BY THE MANUFACTURER TO AUTHORIZE THE CORRECTIVE WORK AT A COST NOT TO EXCEED THE MAXIMUM TOTAL COST SET FORTH. ALTERNATIVE CORRECTIVE WORK OTHER THAN THAT PROPOSED IN THE "INITIAL CLAIM" MAY BE DIRECTED BY THE MANUFACTURER IN THE "AUTHORIZATION OF CORRECTIVE WORK." ONLY THE FIELD SERVICE DEPARTMENT MAY AUTHORIZE CORRECTIVE WORK.

FINAL CLAIM – THE "FINAL CLAIM" IN WRITING MUST BE FORWARDED BY THE CUSTOMER TO THE MANUFACTURER WITHIN TEN (10) DAYS OF COMPLETION OF THE CORRECTIVE WORK AUTHORIZED BY THE MANUFACTURER.

THE "FINAL CLAIM" MUST INCLUDE:
1. ACTUAL NUMBER OF MAN-HOURS BY DATE OF DIRECT LABOR USE ON CORRECTIVE WORK AND ACTUAL HOURLY RATES OF PAY
2. TAXES AND INSURANCE ON TOTAL ACTUAL DIRECT LABOR.
3. OTHER DIRECT COSTS ON ACTUAL DIRECT LABOR.
4. COST OF MATERIAL (NOT MINOR SUPPLIES) AUTHORIZED BY THE MANUFACTURER TO BE PURCHASED FROM OTHER THAN THE MANUFACTURER, INCLUDING COPIES OF PAID INVOICES.
5. TOTAL ACTUAL DIRECT COST OF CORRECTIVE WORK (SUM OF 1, 2, 3 & 4). THE "FINAL CLAIM" MUST BE SIGNED AND CERTIFIED TRUE AND CORRECT BY THE CUSTOMER. "FINAL CLAIMS" ARE CREDITED TO THE CUSTOMER BY THE MANUFACTURER IN AN AMOUNT NOT TO EXCEED THE LESSER OF THE MAXIMUM TOTAL COST SET FORTH IN WRITING IN THE "AUTHORIZATION FOR CORRECTIVE WORK" OR TOTAL ACTUAL DIRECT COST OF CORRECTIVE WORK.

** IMPORTANT NOTE ** – COST OF EQUIPMENT (RENTAL OR DEPRECIATION), SMALL TOOLS, SUPERVISION, OVERHEAD AND PROFIT ARE NOT SUBJECTED TO CLAIMS.

SHIPMENT ARRIVAL TIME – EVERY EFFORT WILL BE MADE TO SEE THAT THE CARRIER ARRIVES AT THE JOBSITE ON THE REQUESTED DAY AND AT THE REQUESTED HOUR. MANUFACTURER MAKES NO WARRANTY AND ACCEPTS NO RESPONSIBILITY FOR COSTS ASSOCIATED WITH A SHIPMENT NOT ARRIVING AT A REQUESTED TIME UNLESS A SEPARATE AGREEMENT HAS BEEN MADE IN WRITING FOR A GUARANTEED ARRIVAL TIME.

R1-02

UNLOADING, HANDLING, AND STORING MATERIALS

STRUCTURAL – A GREAT AMOUNT OF TIME AND TROUBLE CAN BE SAVED IF THE BUILDING PARTS ARE UNLOADED AT THE BUILDING SITE ACCORDING TO A PRE-ARRANGED PLAN. PROPER LOCATION AND HANDLING OF COMPONENTS WILL ELIMINATE UNNECESSARY HANDLING.

NOTE: PIECE MARKS ARE STENCILED ON PRIMARY STRUCTURAL MEMBERS AT LOWER END, 1'-0" FROM END. INSPECT ALL SHIPMENTS PRIOR TO RELEASING THE TIE-DOWNS FOR LOADS THAT MAY HAVE SHIFTED DURING TRANSIT!

REMEMBER, SAFETY FIRST!
BLOCKING UNDER THE COLUMNS AND RAFTERS PROTECTS THE SPLICE PLATES AND THE SLAB FROM DAMAGE DURING THE UNLOADING PROCESS. IT ALSO FACILITATES THE PLACING OF SLINGS OR CABLES AROUND THE MEMBERS FOR LATER LIFTING AND ALLOWS MEMBERS TO BE BOLTED TOGETHER INTO SUB-ASSEMBLIES WHILE ON THE GROUND. EXTRA CARE SHOULD ALWAYS BE EXERCISED IN THE UNLOADING OPERATION TO PREVENT INJURIES FROM HANDLING THE STEEL AND TO PREVENT DAMAGE TO MATERIALS AND THE CONCRETE SLAB. IF WATER IS ALLOWED TO REMAIN FOR EXTENDED PERIODS IN BUNDLES OF PRIMED PARTS SUCH AS GIRTS, PURLINS, ETC., THE PIGMENT WILL FADE AND THE PAINT WILL GRADUALLY SOFTEN REDUCING ITS BOND TO THE STEEL. THEREFORE, UPON RECEIPT OF A JOB, ALL BUNDLES OF PRIMED PARTS SHOULD BE STORED AT AN ANGLE TO ALLOW ANY TRAPPED WATER TO DRAIN AWAY AND PERMIT AIR CIRCULATION FOR DRYING. PUDDLES OF WATER SHOULD NOT BE ALLOWED TO COLLECT AND REMAIN ON COLUMNS OR RAFTERS FOR THE SAME REASON.
THE COAT OF SHOP PRIMER IS INTENDED TO PROTECT THE STEEL FRAMING FOR ONLY A SHORT PERIOD OF EXPOSURE TO ORDINARY ATMOSPHERIC CONDITIONS. THE COAT OF SHOP PRIMER DOES NOT PROVIDE THE UNIFORMITY OF APPEARANCE, OR THE DURABILITY AND CORROSION RESISTANCE OF A FIELD APPLIED FINISH COAT OF PAINT OVER A SHOP PRIMER.

TOUCH-UP OF THESE MINOR ABRASIONS IS THE RESPONSIBILITY OF THE END CUSTOMER. ALL PRIMER SHOULD BE TOUCHED UP AS REQUIRED BEFORE ERECTION! – SEE R1-06 TITLED "SHOP PRIMED STEEL"

TEMPORARY SUPPORTS

TEMPORARY SUPPORTS, SUCH AS TEMPORARY GUYS, BRACES, FALSE WORK, CRIBBING OR OTHER ELEMENTS REQUIRED FOR THE ERECTION OPERATION WILL BE DETERMINED AND FURNISHED AND INSTALLED BY THE ERECTOR. THESE TEMPORARY SUPPORTS WILL SECURE THE STEEL FRAMING, OR ANY PARTLY ASSEMBLED STEEL FRAMING, AGAINST LOADS COMPARABLE IN INTENSITY TO THOSE FOR WHICH THE STRUCTURE WAS DESIGNED, RESULTING FROM WIND, SEISMIC FORCES AND ERECTION OPERATIONS, BUT NOT THE LOADS RESULTING FROM THE PERFORMANCE OF WORK BY OR THE ACTS OF OTHERS, NOR SUCH UNPREDICTABLE LOADS AS THOSE DUE TO TORNADO, EXPLOSION OR COLLISION. (SECT. 7.9.1 AISC CODE OF STANDARD PRACTICE, 9TH ED.).

R1-03

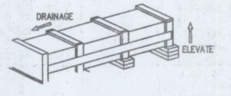
ROOF AND WALL PANELS

MANUFACTURER'S WALL AND ROOF PANELS INCLUDING COLOR COATED, GALVALUME & GALVANIZED, PROVIDE EXCELLENT SERVICE UNDER WIDELY VARIED CONDITIONS. ALL UNLOADING & ERECTION PERSONNEL SHOULD FULLY UNDERSTAND THAT THESE PANELS ARE QUALITY MERCHANDISE, WHICH MERITS CAUTIOUS CARE IN HANDLING.

UNDER NO CIRCUMSTANCES SHOULD PANELS BE HANDLED ROUGHLY. PACKAGES OF SHEETS SHOULD BE LIFTED OFF THE TRUCK WITH EXTREME CARE TAKEN TO INSURE THAT NO DAMAGE OCCURS TO ENDS OF THE SHEETS OR TO SIDE RIBS. THE PACKAGES SHOULD BE STORED OFF THE GROUND SUFFICIENTLY HIGH TO ALLOW AIR CIRCULATION UNDERNEATH THE PACKAGES. THIS AVOIDS GROUND MOISTURE & DETERS PEOPLE FROM WALKING ON THE PACKAGES. ONE END OF THE PACKAGE SHOULD ALWAYS BE ELEVATED TO ENCOURAGE DRAINAGE IN CASE OF RAIN. THE MFGR EXERCISES EXTREME CAUTION DURING FABRICATING AND SHIPPING OPERATIONS TO INSURE THAT ALL PANEL STOCK IS KEPT DRY. HOWEVER, DUE TO CLIMATIC CONDITIONS, WATER FORMED BY CONDENSATION OF HUMID AIR CAN BECOME TRAPPED BETWEEN STACKED SHEETS. WATER CAN ALSO BE TRAPPED BETWEEN THE STACKED SHEETS WHEN EXPOSED TO RAIN. THIS MAY CAUSE DISCOLORATION CAUSED BY TRAPPED MOISTURE. THE STAIN IS USUALLY SUPERFICIAL & HAS LITTLE EFFECT ON THE APPEARANCE OR SERVICE LIFE OF THE PANELS AS LONG AS IT IS NOT PERMITTED TO REMAIN ON THE PANELS. HOWEVER, MOISTURE IN CONTACT WITH THE SURFACE OF THE PANELS OVER AN EXTENDED PERIOD CAN SEVERELY ATTACK THE FINISH & REDUCE THE EFFECTIVE SERVICE LIFE. SEE R1-07 "DAMAGE FROM CONDENSATION OR TRAPPED WATER."

CAUTION: CARE SHOULD ALWAYS BE TAKEN WHEN WALKING ON PANELS. USE SAFETY LINES AND NETS WHEN NECESSARY! PANELS ARE SLIPPERY. WIPE DRY ANY MOISTURE OR SURFACE MATERIAL THAT HAS PUDDLED FROM BUNDLES STORED ON A SLOPE. DEW, FROST, OR OTHER FORMS OF MOISTURE GREATLY INCREASE THE SLIPPERINESS OF THE PANELS. ALWAYS ASSUME PANEL SURFACE IS SLIPPERY & ACT ACCORDINGLY. NEVER WALK OR STEP ON SKYLIGHTS OR TRANSLUCENT PANELS!

USE WOOD BLOCKING TO ELEVATE & SLOPE THE PANELS IN A MANNER THAT WILL ALLOW MOISTURE TO DRAIN. WOOD BLOCKING PLACED BETWEEN BUNDLES WILL PROVIDE ADDITIONAL AIR CIRCULATION. WHEN HANDLING OR UNCRATING THE PANELS, LIFT RATHER THAN SLIDE THEM APART. BURRED EDGES MAY SCRATCH THE COATED SURFACES WHEN SHEETS ARE SLID OVER ONE ANOTHER. NEVER ALLOW PANELS TO BE WALKED ON WHILE ON THE GROUND.



R1-04

DAMAGE DURING CONSTRUCTION

THE QUALITY OF WORKMANSHIP IN STEEL ERECTION, CONSTRUCTION PRACTICES, AND HANDLING METHODS USED DURING THE CONSTRUCTION OF THE METAL BUILDING CAN SIGNIFICANTLY AFFECT THE APPEARANCE AND PERFORMANCE OF THE BUILDING PANELS. PANEL DAMAGE DURING CONSTRUCTION CAN BE THE RESULT OF FAULTY INSTALLATION METHODS AND/OR CARELESSNESS.

OVERDRIVEN FASTENERS CAUSE INDENTATIONS OR SHALLOW POCKETS IN THE PANEL AROUND THE FASTENER HEAD. RAIN WATER OR CONDENSED MOISTURE COMBINED WITH ATMOSPHERIC POLLUTANTS (PRINCIPALLY SULFUR DIOXIDES) AND DIRT PARTICLES COLLECT IN THESE POCKETS. THE COMBINATION OF POLLUTANTS AND WATER CREATES ACID SOLUTIONS THAT WILL CAUSE CORROSION DAMAGE TO THE PANEL AND FASTENER. RAIN MAY WASH SOME POLLUTANTS AWAY, BUT MOISTURE IN THE FORM OF HIGH HUMIDITY CAN KEEP THESE AREAS WET AND CONTINUE THE PROBLEM. OVERDRIVING THE FASTENER ALSO FORCES THE SEALING WASHER FROM UNDER THE FASTENER HEAD CREATING A LEAK AT THIS POINT. PROPER TORQUE ADJUSTMENT OF THE SCREW GUN OR PREFERABLY THE USE OF A DEPTH GAUGE WILL ELIMINATE THE PROBLEM OF OVERDRIVEN FASTENERS.

IT IS EXTREMELY IMPORTANT THAT ALL DRILL SHAVINGS FROM THE INSTALLATION OF PANEL FASTENERS AND FILLINGS FROM THE SAW CUTTING OF PANELS BE REMOVED FROM THE PANEL SURFACE. CORROSION CAN OCCUR IN A MATTER OF HOURS WHEN THESE SHAVINGS OR FILLINGS ARE NOT REMOVED AND ARE ALLOWED TO COME IN CONTACT WITH WATER OR CONDENSED MOISTURE. WHEN PANELS ARE PRE-DRILLED OR CUT IN THE STACK PRIOR TO ERECTION ALL SHAVINGS OR FILLINGS MUST BE CLEANED FROM BOTH SIDES OF THE PANEL. TO PREVENT CORROSION OF THE PANEL BY THESE PARTICLES IT IS IMPERATIVE THAT THE ROOF BE SWEPT CLEAN AT LEAST DAILY AND CERTAINLY AT JOB COMPLETION. THE FINAL CLEANING OF THE ROOF SHOULD BE DONE PRIOR TO INSTALLING THE GUTTER SO THAT THE SHAVINGS ARE NOT DEPOSITED INTO THE GUTTER AND LEFT TO CORRODE. ANY OTHER FOREIGN OBJECTS OR DEBRIS LEFT BY CONSTRUCTION PERSONNEL SHOULD ALSO BE REMOVED FROM THE ROOF. DURING THE ERECTION OF THE ROOF AND THE INSTALLATION OF EQUIPMENT SUCH AS AIR CONDITIONING UNITS, ETC...

PERSONNEL WALKING ON THE PANELS CAN CAUSE DAMAGE. WORKMEN SHOULD STEP OR WALK IN THE BROAD FLAT AREAS OF THE PANEL AND AVOID STEPPING ON THE PANEL ENDS AND EDGES WHICH CAN BE BENT BY CARELESS HANDLING. IF THIS DAMAGE IS SEVERE, THE EDGES MUST BE STRAIGHTENED PRIOR TO ERECTION SINCE THE APPEARANCE AND/OR WEATHER TIGHTNESS OF THE PANEL COULD BE AFFECTED. DRAGGING ONE PANEL ACROSS ANOTHER CAN CUT OR ABRADE THE COATING CAUSING UNSIGHTLY MARKS ON THE PANEL SURFACE.

ATTEMPTS TO ERECT PANELS DURING WINDY CONDITIONS SHOULD BE AVOIDED TO PREVENT DAMAGE AND FOR SAFETY CONSIDERATIONS.

LEAVING DIRT PILED AGAINST THE EXTERIOR WALL PANELS AT THE FOUNDATION WILL CAUSE PANEL DAMAGE. THIS DIRT MAY BE WET OR AT LEAST WILL CONTAIN SOME MOISTURE. MUD MAY HAVE BEEN SPLASHED ONTO THE WALL DURING CONSTRUCTION. CORROSION DAMAGE MAY OCCUR WHERE THIS DIRT OR MUD CONTACTS THE PANELS. IN AREAS WHERE LIME STABILIZATION OF THE SOIL IS REQUIRED, CORROSION DAMAGE FROM THE SOIL'S CONTENT WILL BE ACCELERATED AND MOST LIKELY BE SEVERE. ALL DIRT MUST BE REMOVED FROM THE PANEL WALLS AT THE COMPLETION OF THE WORK. PRE-PAINTED PANELS MAY REQUIRE TOUCH-UP IF THE COATING HAS BEEN DAMAGED DURING HANDLING OR ERECTION.

THE APPEARANCE OF THE BLDG. MAY BE AFFECTED IF DAMAGED SPOTS OR SCRATCHES ARE LOCATED IN HIGHLY VISIBLE PLACES SUCH AS AROUND DOORS, WINDOWS, ETC... IF THE DAMAGE IS EXTENSIVE THEN REPLACEMENT OF THE ENTIRE PANEL SHOULD BE CONSIDERED.

R1-05

TYPES OF FINISHES

SHOP PRIMED STEEL
ALL STRUCTURAL MEMBERS OF THE METAL BUILDING SYSTEM NOT FABRICATED OF CORROSION RESISTANT MATERIAL OR PROTECTED BY A CORROSION RESISTANT COATING ARE PAINTED WITH ONE COAT OF SHOP PRIMER MEETING THE PERFORMANCE REQUIREMENTS OF SSPC PAINT SPECIFICATION NO. 15. THE COAT OF SHOP PRIMER IS INTENDED TO PROTECT THE STEEL FRAMING FOR ONLY A SHORT PERIOD OF EXPOSURE TO ORDINARY ATMOSPHERIC CONDITIONS. SHOP PRIMED STEEL WHICH IS STORED IN THE FIELD PENDING ERECTION SHOULD BE KEPT FREE OF THE GROUND AND SO POSITIONED AS TO MINIMIZE WATER-HOLDING POCKETS, DUST, MUD AND OTHER CONTAMINATION OF THE PRIMER FILM. REPAIRS OF DAMAGE TO PRIMED SURFACES AND/OR REMOVAL OF FOREIGN MATERIAL DUE TO IMPROPER FIELD STORAGE OR SITE CONDITIONS ARE NOT THE RESPONSIBILITY OF THE MANUFACTURER. THE MANUFACTURER IS NOT RESPONSIBLE FOR DETERIORATION OF THE SHOP COAT OF PRIMER OR CORROSION THAT MAY RESULT FROM EXPOSURE TO ATMOSPHERIC AND ENVIRONMENTAL CONDITIONS, NOR THE COMPATIBILITY OF THE PRIMER TO ANY FIELD APPLIED COATING. MINOR ABRASIONS TO THE SHOP COAT (INCLUDING GALVANIZING) CAUSED BY HANDLING, LOADING, SHIPPING UNLOADING AND ERECTION AFTER PAINTING OR GALVANIZING ARE UNAVOIDABLE. (MBMA 06 IV 4.2.4)

GALVALUME
GALVALUME IS THE TRADE NAME FOR A PATENTED STEEL SHEET & COIL PRODUCT HAVING A COATING OF CORROSION RESISTANT ALUMINUM-ZINC ALLOY. THE ALLOY MIXTURE IS BALANCED TO OBTAIN THE COATING THAT RETAINS THE CORROSION RESISTANCE & HEAT REFLECTIVITY OF ALUMINUM & THE SACRIFICAL ACTION OF GALVANIZED. THE BEST PROPERTIES OF BOTH ALUMINUM & ZINC ARE COMBINED IN THIS COATING & OFFER ADDED SERVICE LIFE FOR BUILDING PANELS.

PRE-PAINTED
USING GALVALUME STEEL AS A SUBSTRATE, PRE-PAINTED STEEL IS GIVEN AN ADDITIONAL RUST INHIBITOR PRIMER COAT. THIS PRIMER COAT FURTHER INCREASES THE CORROSION RESISTANCE. THESE COATINGS ARE APPLIED TO THE EXTERIOR SURFACE OF THE PANELS AND THE WASH COAT, DESIGNED ONLY FOR INTERIOR USE, IS APPLIED ON THE OPPOSITE SIDE. GALVALUME AND PRE-PAINTED STEEL CAN GIVE EXCELLENT SERVICE FOR MANY YEARS IF A FEW RULES CONCERNING THEIR CARE AND MAINTENANCE ARE OBSERVED. ALL OF THESE FINISHES ARE EQUALLY SUBJECT TO DAMAGE AND CORROSION WHEN CARE IS NOT PROVIDED.

PAINT AND COATING MAINTENANCE

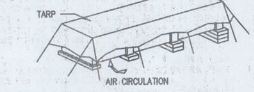
REMOVE SMUDGE MARKS FROM BARE GALVALUME®. FORMULA 409 HAS PROVEN TO BE SOMEWHAT EFFECTIVE. LIGHTLY RUB WITH A CLEAN CLOTH AND RINSE WITH WATER. DO NOT RUB MORE THAN REQUIRED TO REMOVE SMUDGE. NO PRODUCT WILL REMOVE ALL SMUDGE MARKS. REMOVE RUST STAINS. SOFT SCRUB WITHOUT BLEACH HAS PROVEN TO BE SOMEWHAT EFFECTIVE. LIGHTLY RUB WITH A SOFT CLOTH AND RINSE WITH WATER. DO NOT RUB MORE THAN REQUIRED TO REMOVE STAIN. NO PRODUCT WILL COMPLETELY REMOVE RUST STAINS. TO TOUCH-UP SCRATCHES IN PAINT (NOT TO BARE METAL), CLEAN AREA TO BE PAINTED WITH MILD DETERGENT. RINSE THOROUGHLY AND DRY. USING A SMALL ARTIST'S BRUSH, LIGHTLY APPLY A MINIMAL AMOUNT OF COLOR MATCHED TOUCH-UP PAINT REQUIRED TO FILL/COVER THE SCRATCH. CONTACT BUILDING MANUFACTURER FOR ASSISTANCE WITH ORDERING/PURCHASING TOUCH-UP PAINT AS NEEDED.

R1-06

DAMAGE FROM CONDENSATION OR TRAPPED WATER

IT IS EXTREMELY IMPORTANT THAT THE PANELS BE MONITORED FOR EVIDENCE OF TRAPPED WATER OR MOISTURE CONDENSATION WHILE AWAITING ERECTION. HIGH HUMIDITY CONDITIONS WITH TEMPERATURE CYCLING WILL CAUSE CONDENSATION BETWEEN THE PANELS WITHIN THE BUNDLE. CONDENSATION CAN OCCUR FREQUENTLY NEAR THE SEA COAST OR OTHER LARGE BODIES OF WATER.

IF JOBSITE COVERS ARE USED, THEY SHOULD BE TIED AWAY FROM THE BUNDLE AT THE CORNERS TO ALLOW AIR CIRCULATION AROUND THE BUNDLE. THIS WILL HELP PREVENT MOISTURE EVAPORATING FROM THE GROUND OR BUILDING FLOOR FROM CONDENSING ON THE PANELS. PLASTIC OR OTHER IMPERMEABLE COVERS ARE NOT RECOMMENDED. IMMEDIATE ACTION IS REQUIRED IF THE PANELS ARE FOUND TO BE WET FROM ANY CAUSE. THE BUNDLES MUST BE OPENED AND EACH PANEL UNSTACKED AND THOROUGHLY DRIED ON BOTH SIDES. RE-STACKING THE PANELS AT A SLIGHT ANGLE TO EACH OTHER TO PREVENT NESTING WILL ALLOW AIR CIRCULATION AND ASSIST IN KEEPING THE PANELS DRY. IN SEVERE CONDITIONS LARGE FANS CAN BE USED TO CIRCULATE AIR BETWEEN THE UNSTACKED PANELS AND ACCELERATE DRYING. DAMAGE TO THE PANEL COATING OCCURS WHEN PANELS BECOME WET AND ARE ALLOWED TO STAY WET. DAMAGE CAN OCCUR TO NESTED PANELS WITHIN 24-48 HOURS. THIS DAMAGE SHOWS AS CORROSION AND DISCOLORATION OF THE PANEL SURFACE AND IS COMMONLY CALLED WET STORAGE STAIN, ZINC OXIDATION, OR "WHITE RUST".



A SOFTENING OF THE PAINT FILM CAN OCCUR WITH PRE-PAINTED STEEL UNDER WET STORAGE CONDITIONS AND THE DURABILITY OF THE PANEL FINISH SUBSTANTIALLY DECREASED. BARE GALVANIZED AND GALVALUME PANELS REACT MORE QUICKLY TO SURFACE OXIDATION SINCE THEY LACK THE ADDITIONAL PROTECTION OF PAINT. ZINC COATED OR GALVALUME PANELS UNDER NORMAL EXPOSURE FORM A ZINC OR ALUMINUM OXIDE FILM ON THEIR SURFACE ALLOWING A SLOW OXIDATION PROCESS CALLED "WEATHERING" TO OCCUR THAT INHIBITS FURTHER CORROSION. IN NESTED BUNDLES CONSTANT CONTACT OF THE PANELS WITH CONDENSED OR TRAPPED WATER PREVENTS THIS WEATHERING PROCESS.

RAPID OXIDATION OF THE ZINC OR ZINC ALUMINUM COATING CAN NOW OCCUR AND MAY LEAD TO "RED RUST" IN A SHORT TIME. IF DISCOLORATION OR STAINS ARE MINOR, A HOUSEHOLD CLEANER OF THE TYPE USED ON PORCELAIN SINKS AND BATHTUBS MAY BE USED TO REMOVE THE STAINS. WIRE BRUSHING OR USING ABRASIVE MATERIALS SHOULD BE AVOIDED SINCE SCRATCHING OR REMOVAL OF THE COATING COULD OCCUR. PANELS WITH SIGNIFICANT DAMAGE SHOULD BE REPLACED BY THE BUYER BEFORE ERECTION.

R1-07

SAFETY COMMITMENT

THE BUILDER/CONTRACTOR IS RESPONSIBLE FOR APPLYING AND OBSERVING ALL PERTINENT SAFETY RULES AND OSHA STANDARDS AS APPLICABLE.
THE BUILDING MANUFACTURER HAS A COMMITMENT TO MANUFACTURE QUALITY BUILDING COMPONENTS THAT CAN BE SAFELY ERECTED. HOWEVER, THE SAFETY COMMITMENT AND JOB SITE PRACTICES OF THE ERECTOR ARE BEYOND THE CONTROL OF THE BUILDING MANUFACTURER.
IT IS STRONGLY RECOMMENDED THAT SAFE WORKING CONDITIONS AND ACCIDENT PREVENTION PRACTICES BE THE TOP PRIORITY OF ANY JOB SITE.
LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, WHETHER STANDARD STATUTORY OR CUSTOMARY, SHOULD ALWAYS BE FOLLOWED TO HELP INSURE WORKER SAFETY.
MAKE CERTAIN ALL EMPLOYEES KNOW THE SAFEST AND MOST PRODUCTIVE WAY OF ERECTING A BUILDING. EMERGENCY PROCEDURES SHOULD BE KNOWN TO ALL EMPLOYEES. DAILY MEETINGS HIGHLIGHTING SAFETY PROCEDURES ARE ALSO RECOMMENDED. THE USE OF HARD HATS, RUBBER SOLE SHOES FOR ROOF WORK, PROPER EQUIPMENT FOR HANDLING MATERIAL AND SAFETY NETS WHERE APPLICABLE, ARE RECOMMENDED.
FOR PURPOSES OF DETERMINING LIFT REQUIREMENTS, NO BUNDLE SUPPLIED BY THE MANUFACTURER WILL EXCEED 4,000 POUNDS. FOR FURTHER INFORMATION ALSO REFERENCE THE BILL OF MATERIALS FOR INDIVIDUAL MEMBER WEIGHTS OF OTHER STRUCTURAL MEMBERS. IF ADDITIONAL INFORMATION IS REQUIRED CONTACT THE FIELD SERVICE DEPARTMENT.

ICE AND SNOW REMOVAL

EXCESSIVE ICE AND SNOW SHOULD BE REMOVED FROM ROOF IMMEDIATELY TO PREVENT DAMAGE TO ROOF AND POSSIBLE COLLAPSE. DO NOT USE METAL TOOLS TO REMOVE THE ICE OR SNOW AS THIS CAN DAMAGE THE PAINT AND/OR GALVALUME COATINGS. ALSO, BE CAREFUL AROUND PLUMBING PIPES AND FLASHINGS.
BE EXTREMELY CAREFUL IF YOUR ROOF HAS LIGHT TRANSMITTING PANELS. THESE PANELS WILL NOT SUPPORT A PERSON'S WEIGHT AND WILL BE DIFFICULT OR IMPOSSIBLE TO SEE IF THEY ARE COVERED WITH ICE AND SNOW. SEE 2002 MBMA LOW-RISE BUILDING SYSTEMS MANUAL APPENDIX A8 FOR DETAILS ON SNOW REMOVAL PROCEDURES. THESE PROCEDURES SHOULD COMMENCE WHEN HALF OF THE DESIGN ROOF SNOW LOAD SHOWN ON THIS SHEET IS REALIZED.

DEBRIS REMOVAL

ANY FOREIGN DEBRIS SUCH AS SAWDUST, DIRT, LEAVES, ANIMAL DROPPINGS, ETC. WILL CAUSE CORROSION OF THE ROOF, GUTTERS, TRIM, ETC. IF LEFT ON BUILDING SURFACE FOR A LONG ENOUGH TIME. THE ROOF SHOULD BE PERIODICALLY INSPECTED FOR SUCH CONDITIONS AND IF FOUND, THEY SHOULD BE RECTIFIED IN A MANNER CONSISTENT WITH THESE ROOF MAINTENANCE GUIDELINES. NEVER ALLOW TREATED LUMBER OR CONCRETE/MORTAR/GROUT TO COME IN CONTACT WITH ROOF PANELS, ESPECIALLY GALVALUME®, FOR EXTENDED PERIODS OF TIME.
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PERIODIC INSPECTION

ALL HIGH-STRENGTH BOLTS SHALL BE PERIODICALLY INSPECTED FOR TIGHTNESS, PARTICULARLY IN CRANE BUILDINGS AND AFTER ANY SEISMIC ACTIVITY OR WIND ACTIVITY. THE CRANE MANUFACTURER WILL SPECIFY A MINIMUM PERIOD BUT IT SHOULD NOT EXCEED 2 YEARS.

DRAINAGE

* KEEP ROOF FREE OF DEBRIS AND KEEP DEBRIS OUT OF GUTTER TO ALLOW WATER TO QUICKLY DRAIN FROM ROOF.
* DO NOT USE WOOD BLOCKING TO HOLD EQUIPMENT OFF OF PANEL SEAMS. THIS BLOCKS THE FLOW OF WATER AND HOLDS MOISTURE.
* DO NOT ALLOW ROOFTOP AC UNITS OR EVAPORATIVE COOLERS TO DRAIN ONTO THE ROOF.
* ANYTHING THAT TRAPS OR HOLDS MOISTURE ON A ROOF WILL CAUSE PREMATURE CORROSION.

R1-08

ROOF MAINTENANCE GUIDELINES

* INSPECT ROOF FOR DAMAGE AFTER HEAVY STORMS.
* INSPECT AND RESEAL AS NECESSARY ALL ROOF CURBS AND OTHER PENETRATIONS WITH URETHANE SEALANT.
* ALWAYS GET MANUFACTURER APPROVAL BEFORE MAKING ANY MODIFICATIONS TO THE ROOF.
* REPAINT ANY AREAS THAT ARE SUSCEPTIBLE TO RUST AS REQUIRED.
* WHEN PERFORMING ROOF MAINTENANCE, ALWAYS TAKE THE FOLLOWING PRECAUTIONS:
  * USE FALL PROTECTION AND OTHER SAFETY EQUIPMENT AS REQUIRED.
  * DO NOT WALK ON ROOF FLASHINGS SUCH AS GUTTER, RAKE, HIP OR RIDGE FLASH.
  * DO NOT WALK ON LIGHT TRANSMITTING PANELS (LTPS). THEY WILL NOT SUPPORT A PERSON'S WEIGHT.
  * GUARD ALL LTPS AND ROOF OPENINGS.
* STEP ONLY IN THE PANEL FLAT DIRECTLY ON OR IN CLOSE PROXIMITY TO A SUPPORTING ROOF STRUCTURAL.
* AFTER OTHER TRADES HAVE BEEN ON THE ROOF FOR ANY REASON. INSPECT THE ROOF FOR DAMAGE CAUSED BY WORKERS INCLUDING CHEMICAL OR SOLVENT SPILLS, SCRATCHES IN THE PAINT OR GALVALUME R COATING, EXCESSIVE FOOT TRAFFIC AND PUNCTURES. MAKE SURE THAT ANY DEBRIS OR SCRAP LEFT BEHIND BY THE WORKERS IS REMOVED FROM THE ROOF IMMEDIATELY. AVOID USING CUTOFF SAWS AND WELDING EQUIPMENT OVER THE ROOF. IN CASES WHERE THIS IS NOT POSSIBLE, THE ROOF MUST ADEQUATELY PROTECTED.

FOOT TRAFFIC

KEEP FOOT TRAFFIC TO A MINIMUM. HEAVY FOOT TRAFFIC CAN CAUSE PONDING ON LOW PITCHED ROOFS. THIS IS PARTICULARLY TRUE JUST UPSLOPE FROM THE EAVE AND AT ENDLAPS. ALWAYS WALK IN THE FLAT OF THE PANEL NEAR A SUPPORTING ROOF STRUCTURAL. DO NOT WALK ON TRIM OR IN GUTTERS. ON BARE GALVALUME R ROOFS, EXCESSIVE FOOT TRAFFIC MAY CAUSE BLACK BURNISH MARKS. IF REGULAR FOOT TRAFFIC IS PLANNED FOR A ROOF, PROVISIONS SHOULD BE MADE FOR A PROPERLY DESIGNED AND INSTALLED ROOF WALKWAY SYSTEM. IN ORDER TO LIMIT ACCESS TO THE ROOF, ROOF HATCHES OR ACCESS LADDERS SHOULD BE LOCKED AT ALL TIMES. A SIGN SHOULD BE POSTED AT THE POINT OF ACCESS, STATING THAT ONLY AUTHORIZED PERSONNEL ARE ALLOWED ONTO THE ROOF. IN ADDITION, A LOG BOOK SHOULD BE KEPT OF ALL VISITS TO THE ROOF AND THE REASON FOR SUCH VISITS.

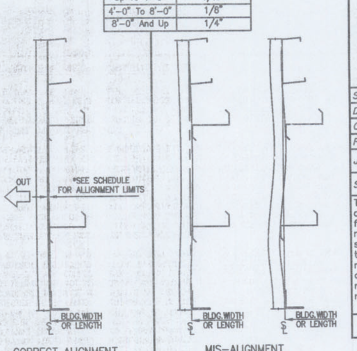
DISSIMILAR METALS

NEVER ALLOW YOUR ROOF TO COME IN CONTACT WITH, OR WATER RUNOFF FROM, ANY DISSIMILAR METAL INCLUDING BUT NOT LIMITED TO: COPPER, LEAD OR GRAPHITE. THIS INCLUDES COPPER AND ARSENIC SALTS USED IN TREATED LUMBER, CALCIUM USED IN CONCRETE, MORTAR AND GROUT.

R1-09

SECONDARY STEEL ALIGNMENT FOR ALL IMP PROJECTS

SUPPORT ALIGNMENT LIMITS	
SUPPORT SPAN	MAX DEVIATION LIMIT
Up To 4'-0"	1/16"
4'-0" To 8'-0"	1/8"
8'-0" And Up	1/4"



CORRECT ALIGNMENT

MIS-ALIGNMENT
(Unacceptable, Avoid These Conditions)

R1-10

Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338 ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MENDERIOS
750 A SW MAIN BLVD.
LAKE CITY, FL 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R1 of 15

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Erection Guide

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Date Nov '13	Rev. 04

AISC CODE OF STANDARD PRACTICE TOLERANCES FOR SETTING ANCHOR RODS

7.5.1. Anchor rods, foundation bolts and other embedded items shall be set by the owner's designated representative for construction in accordance with embedment drawings that have been approved by the owner's designated representatives for design and construction. The variation in location of these items from the dimensions shown in the embedment drawings shall be as follows:

(a) The variation in dimension between the centers of any two anchor rods within an anchor-rod group shall be equal to or less than 1/8 in. [3 mm].

(b) The variation in dimension between the centers of adjacent anchor-rod groups shall be equal to or less than 1/4 in. [6 mm].

(c) The variation in elevation of the tops of ancnor rods shall be equal to or less than plus or minus 1/2 in. [13 mm].

(d) The accumulated variation in dimension between centers of the anchor-rod groups along the column line through multiple anchor-rod groups shall be equal to or less than 1/4 in. per 100 ft [2 mm per 10000 mm], but not to exceed a total of 1 in. [25 mm]

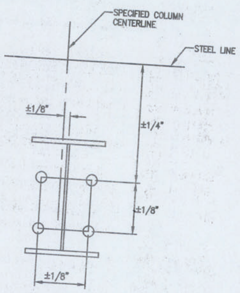
(e) The variation in dimension from center of any anchor-rod group to the column line through that group shall be equal to or less than 1/4 in. [6 mm].

The tolerances that are specified in (b), (c) and (d) shall apply to offset dimensions shown in the structural design drawings, measured parallel and perpendicular to the nearest column line, for individual columns that are shown in the structural design drawings as offset from colu.nn lines.

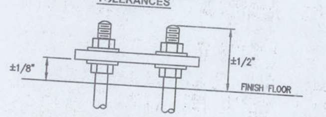
7.5.2. Unless otherwise specified in the contract documents, anchor rods shall be set with their longitudinal axis perpendicular to the theoretical bearing surface.

7.5.3. Embedded items and connection materials that are part of the work of other trades, but that will receive structural steel, shall be located and set by the owner's designated representative for construction in accordance with an approved embedment drawing. The variation in location of these items shall be limited to a magnitude that is consistent with the tolerances that are specified in Section 7.13 for the erection of the structural steel.

7.5.4. All work performed by the owner's designated representative for construction shall be completed so as not to delay or interfere with the work of the fabricator and the erector. The owner's designated representative for construction shall conduct a survey of the as-built locations of anchor rods, foundation bolts and other embedded items, and shall verify that all items covered in Section 7.5 meet the corresponding tolerances. When corrective action is necessary, the owner's designated representative for construction shall obtain the guidance and approval of the owner's designated representative for design.



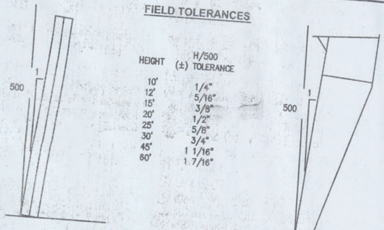
ANCHOR ROD SETTING TOLERANCES



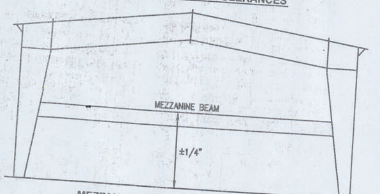
BASE PLATE AND ANCHOR ROD TOLERANCES

FIELD TOLERANCES

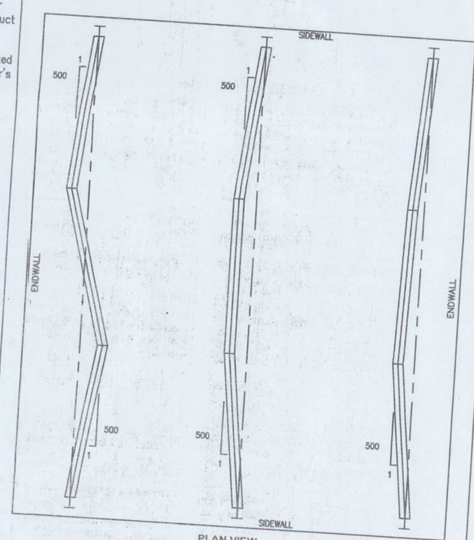
HEIGHT	H/500 (±) TOLERANCE
10'	1/4"
12'	5/16"
15'	3/8"
20'	1/2"
25'	5/8"
30'	3/4"
45'	1 1/16"
60'	1 7/16"



COLUMN ALIGNMENT TOLERANCES

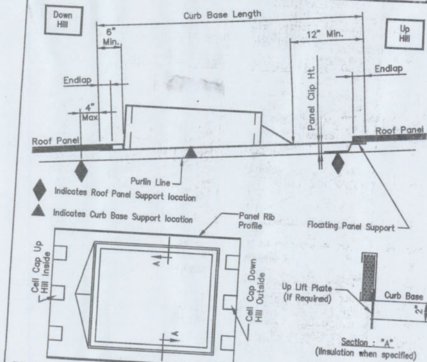


MEZZANINE BEAM HEIGHT TOLERANCE



PLAN VIEW

ALIGNMENT TOLERANCE FOR MEMBERS WITH FIELD SPLICES



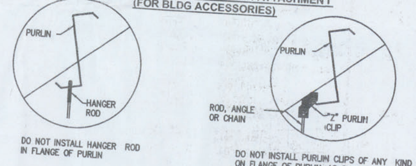
The curb details shown illustrate the building manufacturers recomended curb style and installation method. It is the erector / installer's responsibility to provide the proper curb style and install them in accordance with the procedures established by these details. Failure by the erector / installer to follow these recommendations may result in the curbs damaging the roof system or excluded from warranties.

All roof curbs to be:

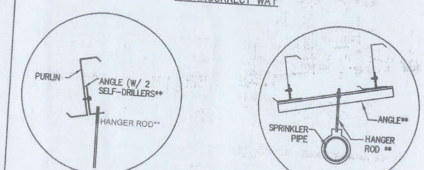
1. .080 Aluminum or 18ga. Stainless (No Galvalume/No Galvanized)
2. Panel rib to rib installation (No flat skirt or lay-over Curbs)
3. Installed over low end / under high end application for water flow at panel splice
4. Up lift prevention for clip applied roof systems are required if:
   a. Wind load exceeds 110 mph or
   b. Curb base crosses a purlin
5. Supported on (4) four side by primary or secondary framing 6. Max Single Curb weight Recommend = 1500#

Roof Curbs
(When not Supplied by Building Manufacturer)

SUGGESTED METHOD OF PURLIN ATTACHMENT (FOR BLDG ACCESSORIES)



THE INCORRECT WAY



SUGGESTED METHODS
** (Not by Metal Bldg Manufacturer)

An angle is self-tapped to the web of the purlin to catch hanger rod. This method does not preclude other forms of attachment to the purlin web.

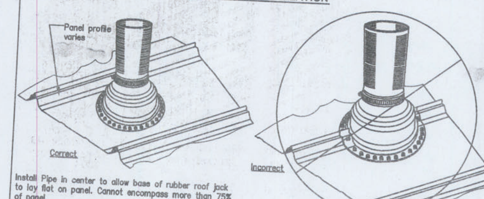
The total hanger load shall not exceed the design collateral load for the building. A sample calculation is shown below:

5' (purlin spacing) x 5' (hanger spacing) x 6 psf (collateral load) = 150 lbs.

See cover sheet for design collateral load for this building.

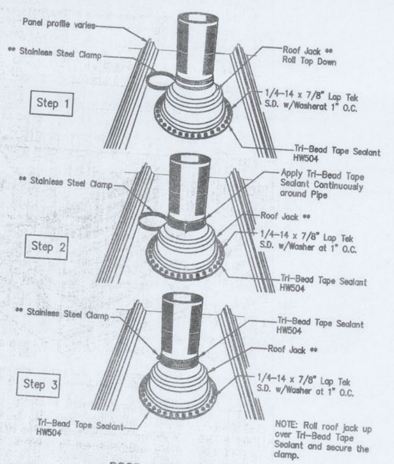
Note: If this building is designed for 0 psf collateral load, then adding any suspended system (ie. duct work, piping, lights, ceilings, etc.) will correspondingly reduce the design live load.

ROOF JACK INSTALLATION



Install Pipe in center to allow base of rubber roof jack to lay flat on panel. Cannot encompass more than 75% of panel.

- ☐ Do not use galvanized roof jacks, lead hats or other residential grade roof jacks. These roof jacks do not have 20-year service life and, in the case of lead hats, will cause galvanic corrosion of the roof panels.
- ☐ Use EPDM rubber roof jacks with an integral aluminum band bonded into the perimeter of the base. For high temperature applications (200-400 degrees Fahrenheit) use silicone rubber roof jacks. Retrofit rubber roof jacks are available for applications in which the top of the pipe is inaccessible, eliminating the possibility of sliding the roof jack over the top of the pipe.
- ☐ Do not use tube caulk/silicone to seal roof jack to the roof panels. Use only tape sealant as supplied by Metal Bldg Manufacturer. Fasten the roof jack to the roof panels with 1/4"-14 x 7/8" Lap Tek Stitch Screws at 1" on center around base of roof jack.
- ☐ Roll down the top of the roof jack and apply tape sealant continuously around the exposed portion of the pipe. Roll the top of the roof jack back over the tape sealant. Apply the stainless steel clamp over top of roof jack and firmly tighten to form a secure compression seal.
- ☐ Do not install a pipe through the standing seam of the roof panel. Keep pipe penetration in center of panel to allow the base of the rubber roof jack to seal to the pan of the panel.
  If a pipe must be installed through a panel seam, or if the pipe diameter is so large to block the flow of water down the roof panel, you must install a "pipe curb" into the roof and then seal the pipe curb with rubber roof jack. For pipes in which top cannot be accessed, a two-piece pipe curb is available.
- ☐ In Northern climates, protect all pipe penetrations from moving ice or snow with a snow retention system immediately up slope from the pipe.



ROOF JACK INSTALLATION
(Not by Metal Bldg Manufacturer) **

Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338 ZIP 77041 (713) 466-7788 ZIP 77240

Customer: TRADEMARK CNST. GROUP, TRAVIS MENDEROS, 128 SW NASSAU ST., LAKE CITY, FL 32025

Project Name & Location: MONSTA CLOTHING, TRAVIS MENDEROS, 750 A SW MAIN BLVD., LAKE CITY, FL 32025

Drawing Status: ☐ Preliminary (Not For Construction) ☐ For Approval (Not For Construction) ☒ For Construction Permit ☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R2 of 15

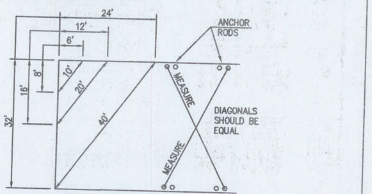
The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

PRE-ERECTION NOTES:

The following notes, procedures and suggested recommendations are important parts of the pre-erection process.

1.) Prior to the time the erection crew arrives, a responsible person should check the job site for foundation readiness, square, and accuracy and Anchor Rod size and location.

The drawing shown below indicates a method which may be used to check the foundation and bolts for square.



Measure along adjacent sides of foundation using a pair of dimensions shown. If the diagonal distance between these points is as noted, the corner is square. Diagonal measurements between opposite Anchor Rods will indicate if these bolts are set square.

2.) When unloading the building, carefully check off each item from the packing list. Bundles and boxes will have a list attached indicating the contents.

3.) Unload and layout the building columns on the foundation.

4.) Unload the rafters onto the foundation so that they can be erected from whichever end of the building you wish to start. Your crane will move from one end of the building to the other while standing columns and hanging rafters

5.) Layout the girts and purlins on dunnage or wood blocking around the foundation as near as possible to where they will be installed.

6.) Unload and place trim crates out of the way, since these will be the last required.

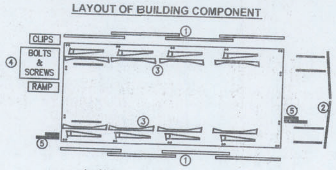
7.) Unload and place panels and insulation out of the way.

NOTE: In extremely cold conditions, the vinyl facing on insulation will become brittle, requiring very careful handling.

8.) Avoid lifting panel stacks with cables, chains or other devices which could damage the panel. Upon unloading, and every morning thereafter, inspect he panel bundles for moisture between the panels. This is especially important with galvalume or galvanized panels. The panel finish must be protected at all times before and during erection to preserve the appearance and function of the panels.

9.) All hardware boxes should be protected from theft and moisture, especially items such as tube caulking and locksets. Store mastic away from heat.

LAYOUT OF BUILDING COMPONENT



1. Girts, Eave Struts and Purlins
2. End Frames and Endpost
3. Main Frames
4. Clips, Bolts, Screws, ETC.
5. Endwall Girts

1.) Layout primary and secondary framing around the slab as shown.

2.) Place components and crates on the slab or on wood blocking to prevent contact with the ground.

3.) Block one end of components higher than other end to allow drainage of rain water.

4.) Leave one end of the building open for erection equipment access.

5.) Construct temporary ramp of timbers from grade to slab to prevent damage to concrete edge from equipment traffic.

6.) Install clips and flange braces onto columns and rafters before these members are in the air. Clip and flange brace locations are shown on erection drawings.

GENERAL ERECTION NOTES

1.) All clips, flange braces, bolts, bracing systems, ETC. must be installed as shown on erection drawings.

2.) It is extremely important, especially during construction, that panels at the eaves, rakes and ridges be kept secure.

3.) Column bases must not be lag screwed or "RED HEADED" to concrete unless specified on erection drawings for the building.

4.) Tighten column wind brace rods/cables (exterior and interior) before tightening roof rods/cables. Roof rods/cables are tightened from eave to peak. 5.) High strength bolts (A325) must be used where specified.

TEMPORARY CONSTRUCTION BRACING

1.) It is the responsibility of the erector to maintain stability of the structure during all stages of erection, particularly when left overnight.

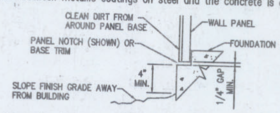
2.) Temporary supports, such as temporary guys, braces or other elements shall be the total and complete responsibility of the erector. The temporary supports required shall be determined and furnished by the erector.

3.) Temporary construction supports shall be provided wherever necessary to accommodate all construction loads to which the structure may be subjected, left in place as long as may be required for safety.

PANEL CAUTIONS AND NOTES

To minimize potential of corrosive action at the bottom edge of wall panels, the contractor must assure that the following procedures are followed:

1.) The concrete foundation should be cured for a minimum of seven (7) days before wall panels are installed. (un-cured concrete is highly alkaline and metal panels can undergo varying degrees of corrosive attack when in direct contact with the concrete.) After the first week of the curing cycle, the reaction between metallic coatings on steel and the concrete is essentially halted.



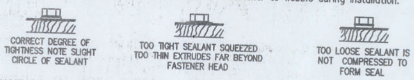
2.) Top of finish grade at building to be a minimum of four (4) inches below bottom of panel.

3.) Finish grade is to slope away from building to insure proper drainage.

4.) Upon completion of finish grading, all dirt is to be cleaned from around base of wall panel where it may have collected in panel notch or on base trim.

FASTENER INSTALLATION

Correct fastener installation is one of the most critical steps when installing roof/wall panels. Drive the fastener in until it is tight and the washer is firmly seated. Do not overdrive fasteners. A slight extrusion of neoprene around the washer is a good visual tightness check. Always use the proper tool to install fasteners. A fastener driver (screw gun) with a RPM of 1700-2000 should be used for self-drilling screws. A 500-600 RPM fastener driver should be used for self-tapping screws. Discard worn sockets, these can cause the fastener to wobble during installation.



NOTE: Always remove metal filings from surface of panels at the end of each work period. Rusting filings can destroy the paint finish and void any warranty.

MASTIC SEALANT

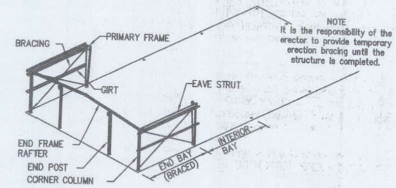
Proper mastic application is critical to the weather tightness of a building. Mastic should not be stretched when installed. Apply only to clean, dry surfaces. Keep only enough mastic on the roof that can be installed in a day. During warm weather, store mastic in a cool dry place. During cold weather (below 60°) mastic must be kept warm (60°-90°) until application. After mastic has been applied, keep protective paper in place until panel is ready to be installed.

IMPORTANT NOTE:

All details, recommendations and suggestions contained in the ERECTION GUIDE portion of this drawings set are for general guidelines only, and not meant to be all-inclusive. Industry accepted installation practices with regard to all areas not specifically discussed in this section should be followed. Only experienced, knowledgeable installers familiar with accepted practices should be used to assure a quality project.

It is emphasized that the Manufacturer is only a manufacturer of metal building components and is not engaged in the installation of its products. Opinions expressed by the Manufacturer about installation practices noted in the ERECTION GUIDE are intended to represent only a guide as to the sequencing and how the components could be assembled to create a building. Both the quality and safety of installation and the ultimate customer satisfaction with the completed building are determined by the experience, expertise, and skills of the installation crews, as well as the equipment available for handling the materials. Actual installation operations, techniques and site conditions are beyond the Manufacturers control.

STEP 1: ERECT FIRST BAY WALL FRAMING



1A: Determine from erection drawings furnished with the building the location of the first braced bay. Framing for this bay will be erected first.

1B: Stand adjacent primary frame column and corner column over the anchor rods. Shim or chip out under the base plate if required to ensure that the base is level, at the correct elevation, and is in full contact with the foundation. Plumb and align the columns and install washers and nuts onto the Anchor Rods. The end frame may be a bearing frame with the rafter supported by end

NOTE: posts, or a rigid frame with the rafter self-supporting, and not attached to the end posts. The procedure shown is for a bearing frame. If the building has a rigid end frame, it is erected the same as interior frames as described in steps 1 and 2.

1C: Attach wall girts to the primary frame column and corner column. Bolt girts to the corner column with two bolts. Bolt girt to primary frame column with one bolt through the column flange and secure bolt with sub-nut (see detail on erection drawings).

1D: Install the eave strut by bolting to the top of the columns. Refer to the erection drawings and attach column flange brace where shown. Flange braces may be required on one or, both sides of the columns. If a flange brace connects to a girt in the adjacent bay, that brace will be bolted to the girt after the adjacent bay girts are installed. As wall girts are installed around the building, framing for factory located

NOTE: framed openings and accessory framing to which the girts attach should be installed. Field located accessory framing may be installed at the same time as girts or at a later time.

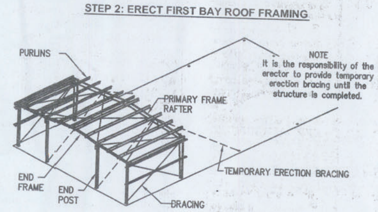
1E: Install wall bracing systems (rods, cables, knee bracing, portal bracing) at this time but do not tighten completely until the bay is plumbed.

1F: Repeat steps 1B thru 1E for wall framing on the opposite side of the building.

1G: Attach clips to the end posts and stand these posts over the Anchor Rods. Follow the procedure as described for corner columns in step 1B.

1H: Bolt required clips and flange braces to the end frame rafter sections and lift into place atop the end posts. Bolt rafter sections to corner column and end post cap plates. Bolt rafter sections together at peak.

STEP 2: ERECT FIRST BAY ROOF FRAMING



CAUTION

Until rafters are bolted in place with purlins and flange braces installed, they are easily damaged by incorrect or careless handling procedures. Use extreme caution when lifting rafters. Two booms should be used to lift any pinched rafter section 80 feet or more in length.

2A: Bolt primary frame rafter together at peak connection (unless rafter length requires lifting in sections). Attach the required clips and flange braces to the rafter before lifting since these items are more easily installed on the ground. Lift rafter into place between sidewall columns and install bolts in rafter to column knee connections.

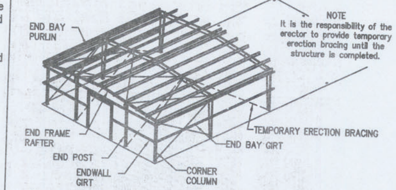
2B: Install end bay purlins from end frame rafter to the first interior frame rafter. The end bay purlins will overlap the interior bay purlins at the frame as described in step 1C. Complete flange brace connection to purlins.

2C: Install roof bracing systems but do not tighten completely until the bay is plumbed.

2D: Plumb and square the first bay. After alignment, tighten wall bracing first and the roof bracing working from eave to peak. Tighten any remaining bolts.

Plumbing and aligning a total structural system begins with the first braced bay and continues through completion. Accurate alignment of the first bay is essential for correct alignment of succeeding bays. The installer is responsible for choosing the best method suited for plumbing and aligning the structural system.

STEP 3: ERECT ENDWALL GIRTS AND FIRST INTERIOR BAY



3A: After end frame is plumb and square, install endwall girts and flange braces for end post if required.

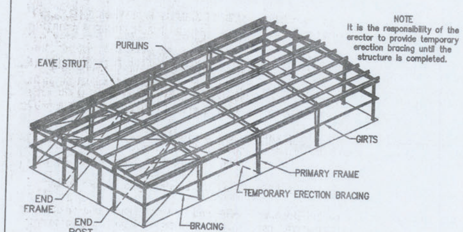
3B: Attach wall girts to the primary frame columns (see step 1C).

3C: Install eave struts (see step 1D).

3D: Attach roof purlins for this bay to the two rafters. Purlins will bolt to the rafter flange in the same manner as girts to column flanges (see step 1C). Connect flange braces to purlins.

3E: Check alignment, plumb and square the two bays just erected. Tighten all bolts and bracing.

STEP 4: ERECT REMAINING STRUCTURAL FRAMING



Starting at the opposite end of the first bay erected, install the remaining interior frames, girts, purlins, eave struts, bracing, end frames and end posts using the procedures described in the preceding steps. Be sure all wall girts, roof purlins and flange braces as shown on the erection drawings are installed. Constant checks should be made to ensure the building is square, plumb and aligned.

All X-Bracing should be checked that it is installed to a taut condition with all slack removed. Do not tighten beyond this state.

Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

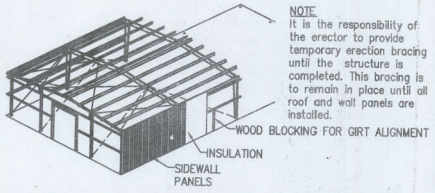
Project Name & Location:
MONSTA CLOTHING
TRAVIS MENDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R3 of 15

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

STEP 5: INSTALL SIDEWALL PANELS

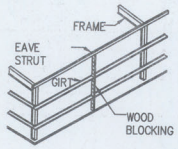


NOTE
It is the responsibility of the erector to provide temporary erection bracing until the structure is completed. This bracing is to remain in place until all roof and wall panels are installed.

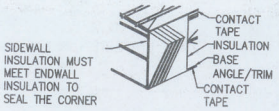
5A: Before installing wall panels, the girts must be aligned to a level position so that there is no visible sag. This should be done directly ahead of panel installation.

Girt leveling may be accomplished by standing a section of gable angle vertically against the outside girt flanges at approximate mid-bay location. When girts are level, attach the girt flanges to the angle with vise grip pliers or temporary screws. Wood blocking cut to fit the spaces may also be used for alignment.

NOTE: Temporary girt blocking is not recommended on concealed fastener panels. The removal of the blocks after panel installation can cause oil canning.

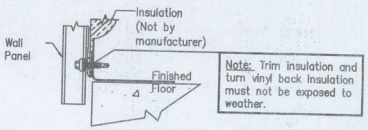


NOTE:
Wall panel type and installation details will vary. Refer to the erection drawings and details for the specific panel used for your building.



5B: If walls are to be insulated, place a continuous run of contact tape along the eave strut and base member.

NOTE:
At the base, cut off the insulation a minimum of 1/2" above the bottom of the wall panel. This will prevent the insulation from hanging below the wall panel and wicking moisture.



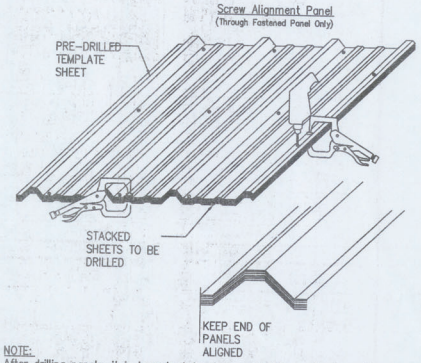
Base Detail
(See Erection Drawings)

Starting at a building corner, attach the first piece of blanket insulation to the contact tape on the eave strut. Pull tight and adhere to tape at the base. It is recommended that insulation not be installed more than 6 feet ahead of panels.

5C: Sidewall panels should be installed so that the panel sidelap is in a direction away from the prevailing wind. (refer to appropriate lap detail included with erection drawings.)

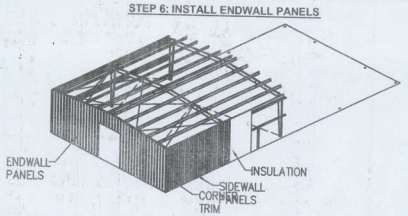
5D: Install remaining sidewall insulation and panels, being careful to maintain correct panel coverage. It is suggested that the foundation be marked in increments of panel width to allow visual checking of panel coverage as installation progresses.
NOTE:
Check periodically to ensure that all panels are aligned and plumb.

5E: At the finishing corner of a sidewall, the last panel may required additional lap or trimming for installation of corner trim refer to the details in the erection drawings.



NOTE:
After drilling panels, it is important to clean metal filings off all panel surfaces, including between panels that are not installed that day, to avoid rust stains.

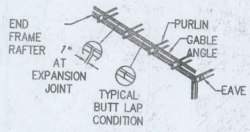
STEP 6: INSTALL ENDWALL PANELS



6A: Install gable angles/supports onto the ends of purlins and eave struts. This angle is to butt-up to each other or is spliced as required except at expansion joints where a one inch gap is maintained between ends of adjacent sections to allow for expansion.

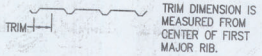
Gable angle splices may occur on or between purlins and the angle must be attached to each purlin and the eave strut.

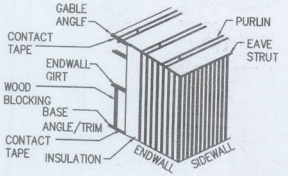
NOTE: Wall panel type and installation details will vary. Refer to the erection drawings and details for the specific panel used for your building.



NOTE
Detail shown for ribbed roof panel only. For standing seam rake and gable angle installation, see erection details.

6B: See erection drawings sheeting layouts for panel starting dimensions, panel trim locations, and lap locations.





6C: Align and level girts on endwall.

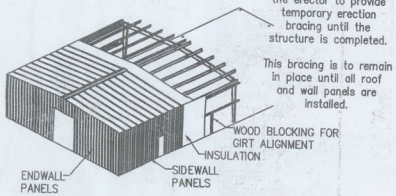
6D: If the walls are to be insulated, place a continuous run of contact tape along the gable angle and base member. Starting at the corner of the endwall, attach the first piece of insulation to the contact tape on the gable angle, pull tight and adhere to tape at the base. Cut off excess insulation. It is recommended that insulation not be installed more than 6 feet ahead of panels.

NOTE:
At the base cut off the insulation a minimum of 1/2 inch above the bottom of the wall panel. This will prevent the insulation from hanging below the wall panel and wicking moisture.

6E: Start at the corner, trim panel (if required) and set in place. Refer to corner details in the erection drawings for the panel starting distance from the corner, When the panel is located and plumb, install fasteners.
6F: Install remaining endwall insulation and panels, being careful to maintain the correct panel coverage as suggested in step 5D.

6G: Install corner trim.

STEP 7: INSTALL ROOF PANELS



NOTE
It is the responsibility of the erector to provide temporary erection bracing until the structure is completed.

This bracing is to remain in place until all roof and wall panels are installed.

7A: Install eave trim over top of sidewall panels and eave struts with fasteners per erection drawings eave detail.

7B: If the roof is insulated, place a continuous run of contact tape along top of eave struts at both sidewalls. Lay a starter roll of blanket insulation from eave to eave across roof and secure to contact tape. (refer to packing list for width of insulation starter roll). It is recommended that insulation be installed nno more than 6 feet ahead of panels.

7C: Install the first run of roof panels across the building from eave to eave, or eave to ridge. To allow proper installation of rake trim, the starting location for the first panel must be as shown in rake details included with the erection drawings. When the first run is properly located and aligned with the correct endlaps and eave overhang, fasten to purlins. Roof panels should be installed so that the sidelap is in a direction away from the prevailing wind. Refer to appropriate lap detail.

7D: Install remaining roof insulation and panels. To avoid accumulative error due to panel coverage gain or loss, properly align each panel before it is fastened. Occasional checks should be made to ensure that correct panel coverage is maintained. Special attention should be given to fastener, mastic and closure requirements. Refer to details with erection drawings.

7E: At finishing end of roof, the last panels may require field modification for installation of rake trim. Refer to rake details. DO NOT BACK LAP THROUGH FASTENED ROOF SHEETS.

NOTE: Roof panel types and installation requirements will vary. Refer to the appropriate details for the specific panel used.

IMPORTANT: Loose fasteners, blind rivets, drill shaving, ETC.. must be removed from roof to guard against corrosion.

NEVER STEP ON LIGHT TRANSMITTING PANELS, TRANSLUCENT PANELS, OR UNATTENDED ROOF PANELS.

Panels May Collapse If Not Properly Secured!

Roof panels must be completely attached to the purlins and to panels on either side before they can be a safe walking surface. Light transmitting panels or translucent panels can never be considered as a walking surface.

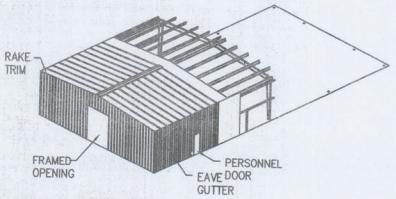
Partially attached or unattached panels should never be walked on!

Do Not:

1. Step on rib at edge of panel.
2. Step near crease in rib at edge of panel.
3. Step within 5 feet of edge on unsecured panel.

A single roof panel must never be used as a work platform. An OSHA approved runway should be used for work platforms! (Consult OSHA Safety and Health Regulations for the Construction Industry). Safety First!

STEP 8: INSTALL TRIM AND ACCESSORIES



8A: Install rake trim and gable closure.

8B: If included with the building, install the eave gutter, corner closures and downspouts.

NOTE:
Remove all loose fasteners, blind rivets, drill shavings, etc... from gutter to guard against corrosion.

8C: Install accessories (doors, windows, louvers, etc...) not previously installed. Refer to the appropriate details for installation instructions.

IMPORTANT: Remove debris from roof and wall surfaces during installation and after. Clean surface of sheeting as required to remove smudges and touch-up any minor/mild scratches with manufacturer color match touch-up paint if purchased.

Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

metallic building company
7201 FARMER • HOUSTON, TEXAS • P.O. BOX 60338 ZIP 77260
(713) 466-7788
METALLIC

Project Name & Location:
MONSTA CLOTHING
TRAVIS MENDEROS
730 A SW MAIN BLVD.
LAKE CITY, FL 32025

Customer:
TRADEMARK CNST. GROUP
TRAVIS MENDEROS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	AWS 2/24/14
Checked by:	SF 2/24/14
Project Engineer:	
Job Number:	14-B-39239-1
Sheet Number:	R4 of 15

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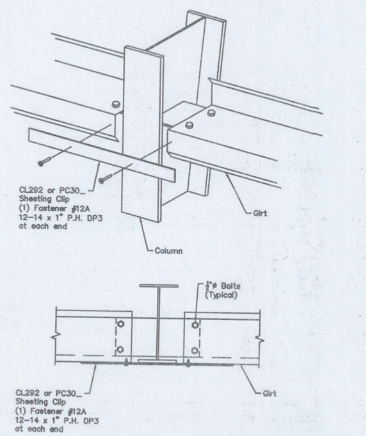
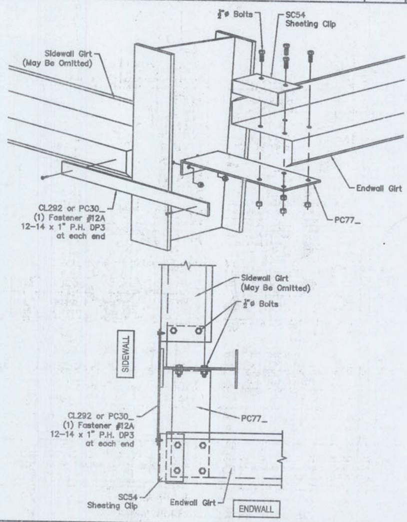
Girts at Column
Flush Sidewall or Endwall Girts

CF01123 Feb '11 01



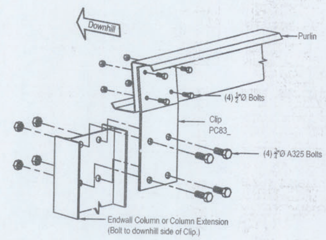
Flush Sidewall and Endwall Girts at Corner Column
Endwall Girt By-Passes Column

EF03020 Feb '11 00



Endwall Column connection to Purlin Web

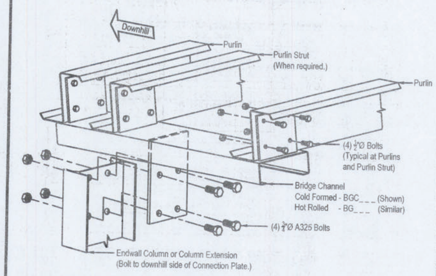
EF09101 May '11 01



Endwall Column attachment located between Purlins at Slope

EF09102 Dec '12 01

Notes:
1.) See AC00916 / AC00920 for Jamb/Support Column attachment when located at same Purlin space (or adjacent Purlin space) as Endwall Column.
2.) Bridge Channel may span multiple Purlin spaces when required.
3.) Wind Edge Strip Purlins, when required, do not attach to Bridge Channel.
4.) Purlins and Purlin Strut extends past Bridge Channel flange when "Optional" Overhang or Facade is required at endwall.

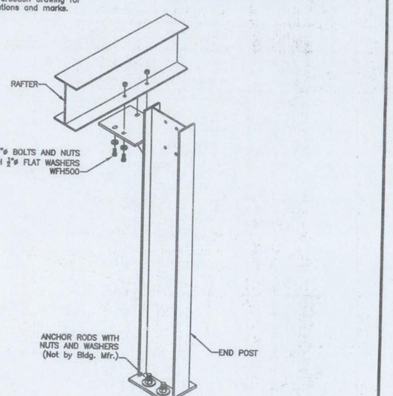


Bearing Frame Endwall
Flush or Inset with Girt - End Post not at Peak

EF07010X Feb '11 01

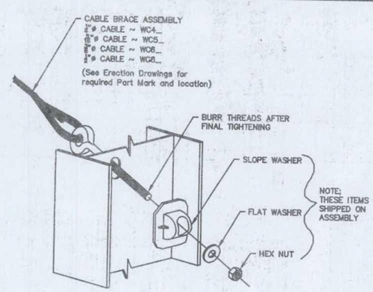
NOTES:
- Washers are to be located as shown. The washers are used to cover slotted holes.
- Use 1/2"ø Bolts unless noted otherwise.
- Frame shapes may vary.
- See erection drawing for elevations and marks.

NOTE: SEE END POST TO PURLIN/BRIDGE CLIP CONNECTION

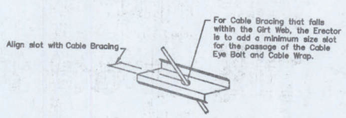


Cable Brace
Attachment at Web

PF04111 Jan '14 01

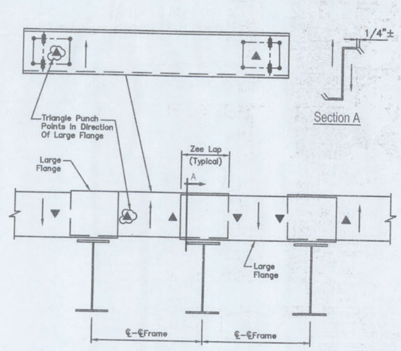


ERECTION NOTE: DETAIL SHOWN AT COLUMN SIMILAR AT RAFTER.



By-Pass Zee Installation

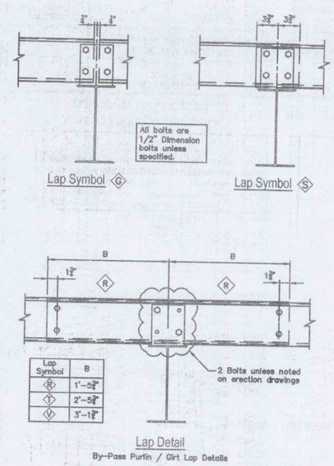
CF01121 Dec '10 00



The large leg of the Zee must be alternated from top to bottom in order to nest the member correctly. A triangle has been added to the end of the Zee near the connection holes, that will point to the large leg of the member.

By-Pass Purlin and Girt Connections

CF01122 Dec '10 00



Lap Detail
By-Pass Purlin / Girt Lap Details

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A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC **metallic building company**
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Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MENDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

Drawing Status:
- [ ] Preliminary (Not For Construction)
- [ ] For Approval (Not For Construction)
- [x] For Construction Permit
- [ ] For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R5 of 15

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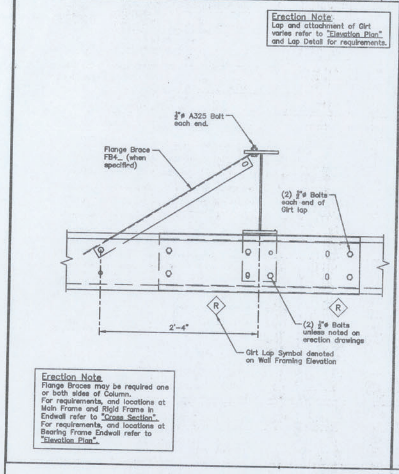
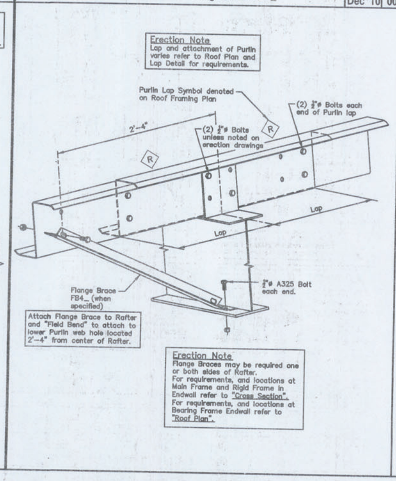
By-Pass Girt to Column Standard Connection - Flange Brace FB4_

CF01124 Jan '14 01



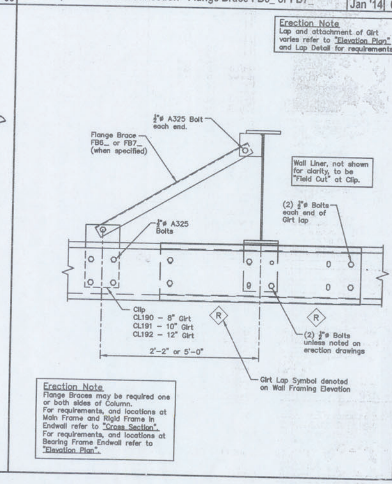
Purlin to Rafter Standard Connection - Flange Brace FB4_

CF02036 Dec '10 00



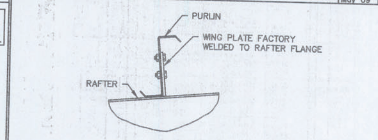
By-Pass Girt to Column "Optional" Liner Connection - Flange Brace FB6_ or FB7_

CF01128 Jan '14 01



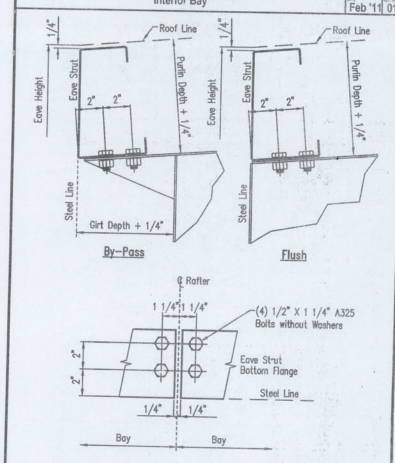
PRIMARY FRAME DETAIL PURLIN ATTACHMENT DETAIL TO WING PLATE

CF02020 May 09 00



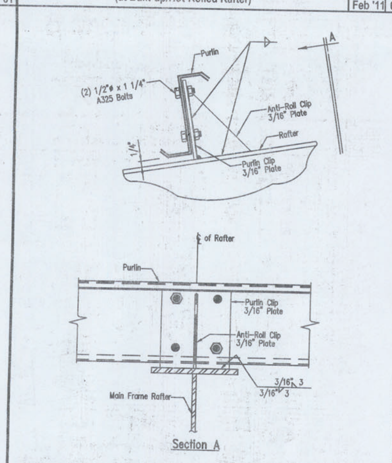
Eave Strut Connection at Main Frame Interior Bay

CF02030 Feb '11 01



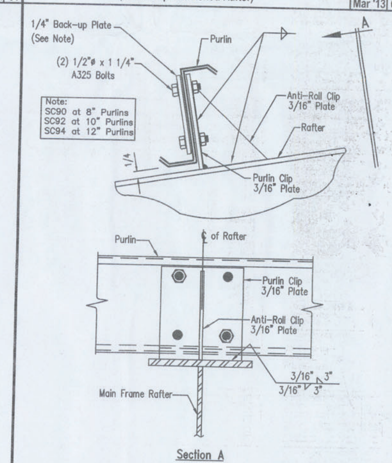
Purlin Anti-Roll Clip (at Built-up/Hot-Rolled Rafter)

CF02034 Feb '11 01



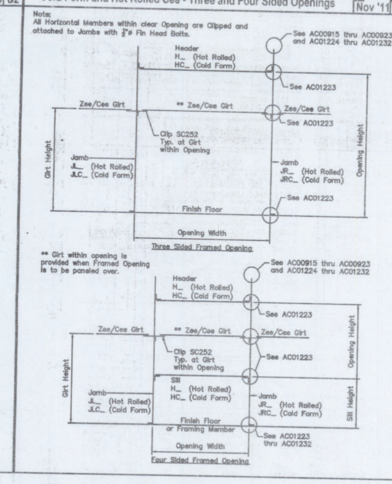
Purlin Anti-Roll Clip (W/Back-up Plate) (at Built-up/Hot-Rolled Rafter)

CF02035 Mar '13 02



Welded Clips - Framed Opening Connections Cold Form and Hot Rolled Cee - Three and Four Sided Openings

AC01220 Nov '11 01



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A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC **metallic building company**
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338 ZIP 77041 (713) 466-7788 ZIP 77240

Customer: TRADEMARK CNST. GROUP, TRAVIS MEDERIOS, 128 SW NASSAU ST., LAKE CITY, FL 32025

Project Name & Location: MONSTA CLOTHING, TRAVIS MENDERIOS, 750 A SW MAIN BLVD., LAKE CITY FL, 32025

Drawing Status: ☐ Preliminary (Not For Construction) ☐ For Approval (Not For Construction) ☒ For Construction Permit ☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R6 of 15

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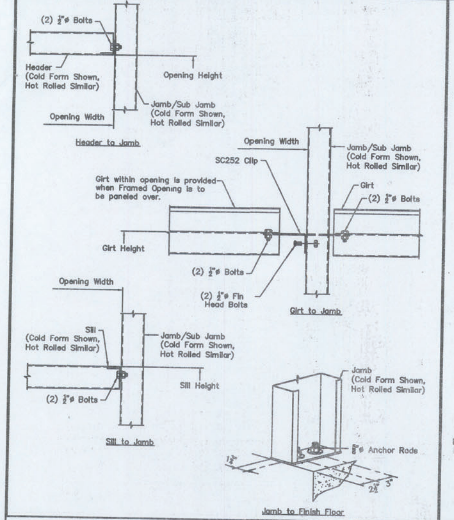
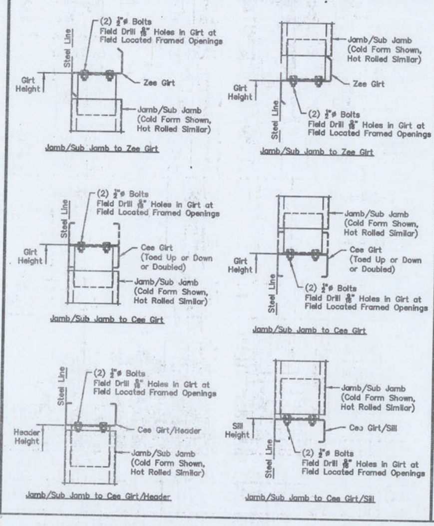
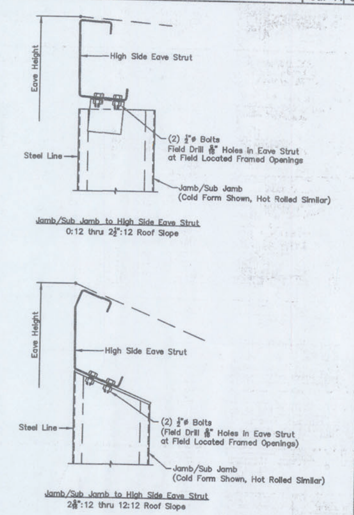
Welded Clips - Framed Opening Connections
Cold Form and Hot Rolled - Base, Girt, Header, and Sill to Jamb
Page AC01223 — Date Nov '11 — Rev. 01



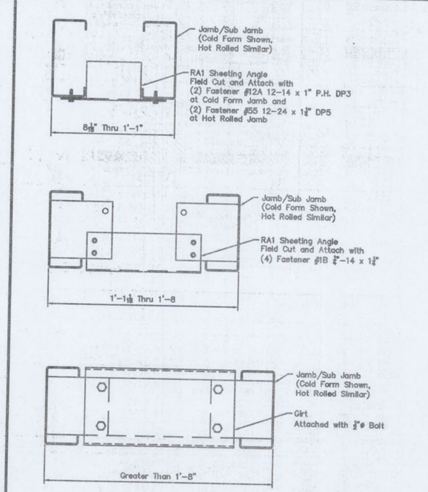
Welded Clips - Framed Opening Connections
Cold Form and Hot Rolled - Jamb/Sub Jamb to Zee/Cee Girt or Header/Sill
Page AC01224 — Date Jul '11 — Rev. 00



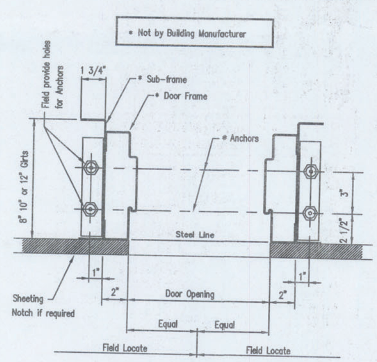
Welded Clips - Framed Opening Connections
Cold Form and Hot Rolled Cee - Jamb/Sub Jamb to High Side Eave Strut
Page AC01226 — Date Jul '11 — Rev. 00



Welded Clips - Framed Opening Connections
Cold Form and Hot Rolled Cee - Framing Between Jambs
Page AC01233 — Date Jul '11 — Rev. 00

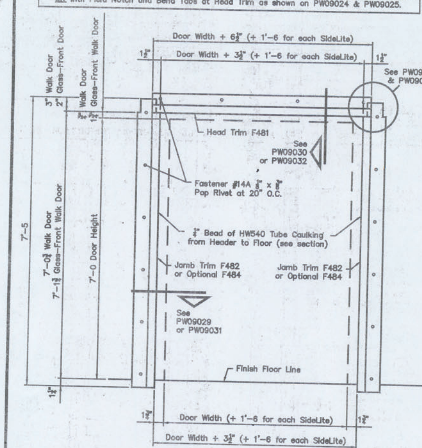


Pre-Assembled Walk Door Anchor Placement
Page AC05110 — Date Dec '11 — Rev. 00



The base anchors required to attach the door frame to the foundation are not the responsibility of the building manufacturer. It is recommended that (2) 1/2" diameter anchors per base be used. The type and length of the anchor should be determined by a qualified foundation engineer.

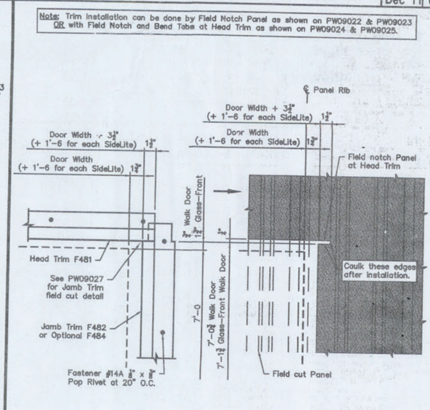
PBR Wall Panel - Walk Door & Glass-Front Walk Door
Trim Installation with Field Notch Panel at Head Trim
Page PW09022 — Date Dec '11 — Rev. 00



Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Door Width and Height before making field cuts and adjust cut dimensions accordingly.

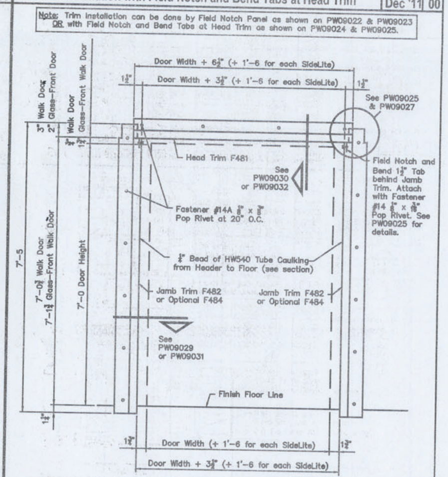
PBR Wall Panel - Walk Door & Glass- Front Walk Door
Field Notch Panel at Head Trim
Page PW09023 — Date Dec '11 — Rev. 00



Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Panel position is shown with Panel Rib and Door on 1'-0 module. Location of Rib may vary depending on the Door Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Walk Door & Glass-Front Walk Door
Trim Installation with Field Notch and Bend Tabs at Head Trim
Page PW09024 — Date Dec '11 — Rev. 00



Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Door Width and Height before making field cuts and adjust cut dimensions accordingly.

Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338 ZIP 77041 (713) 466-7788 ZIP 77240

Customer: TRADEMARK CNST. GROUP, TRAVIS MENDERIOS, 128 SW NASSAU ST., LAKE CITY, FL 32025

Project Name & Location: MONSTA CLOTHING, TRAVIS MENDERIOS, 750 A SW MAIN BLVD., LAKE CITY, FL 32025

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Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R7 of 15

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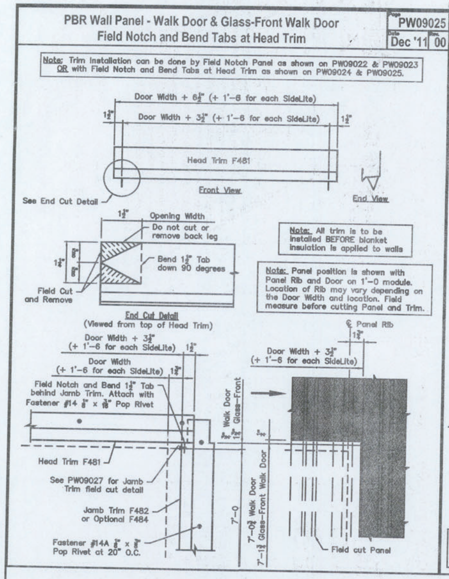

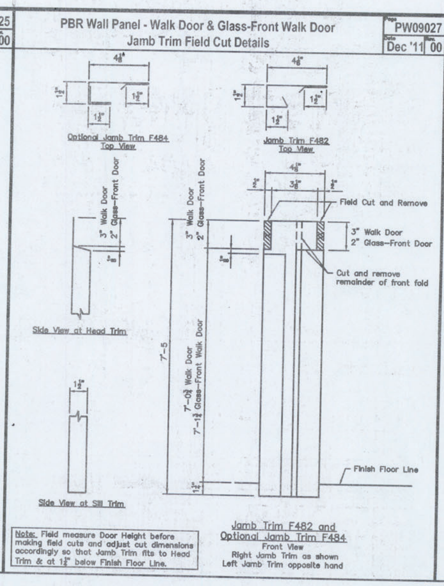

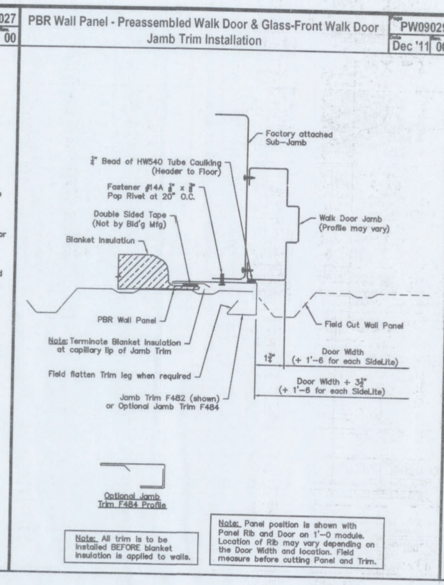

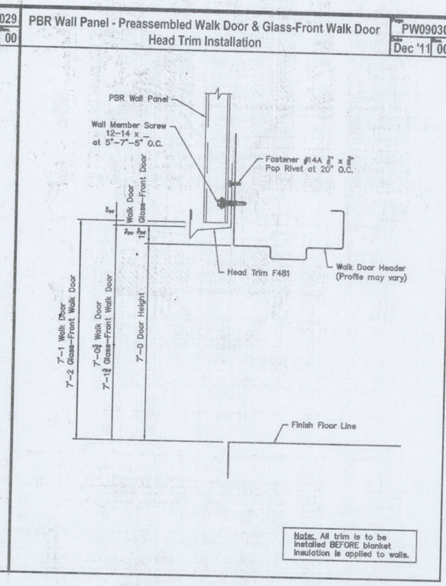

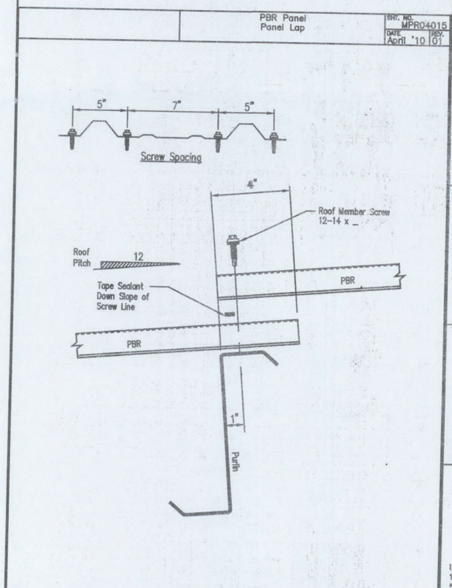

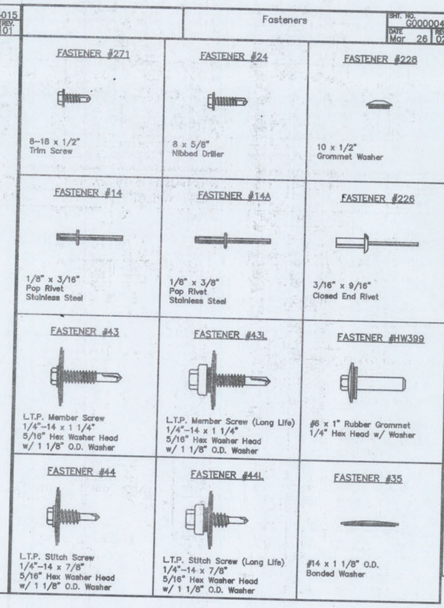

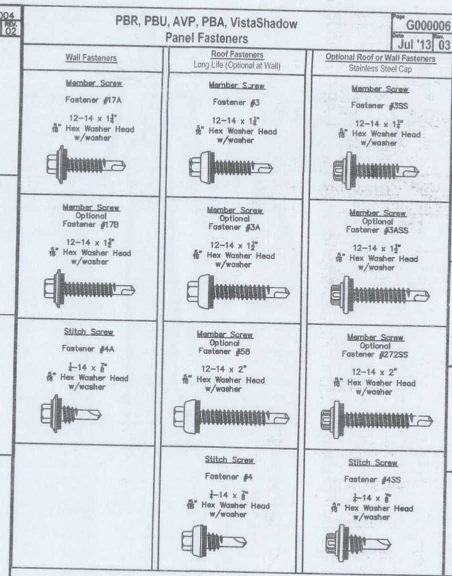

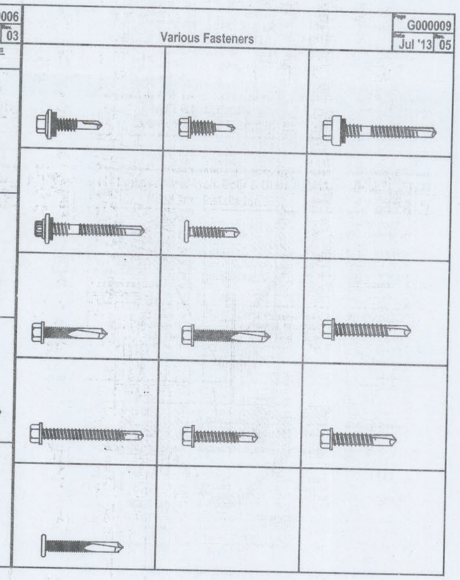

Revision	Date	Description	By	Ck'd
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Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R8 of 15

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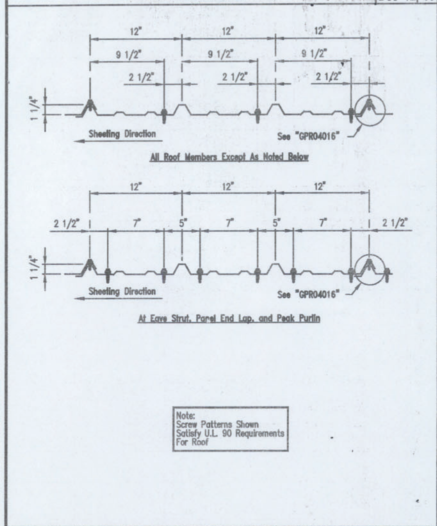
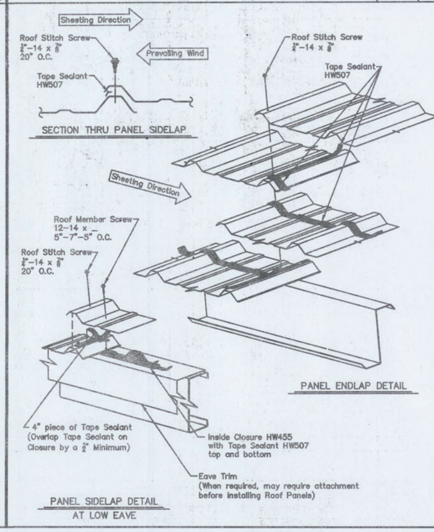
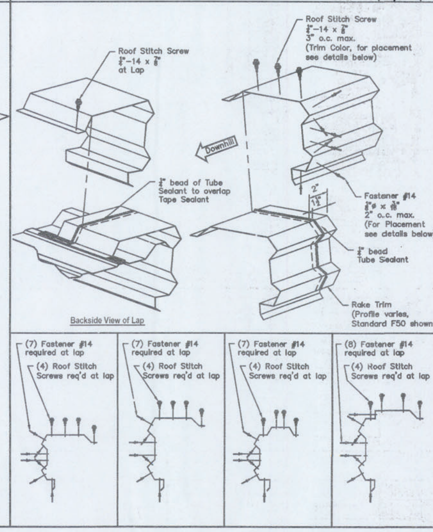
PBR Roof Panel Fastener and Tape Sealant Location — GPR00011, Dec '12, 00



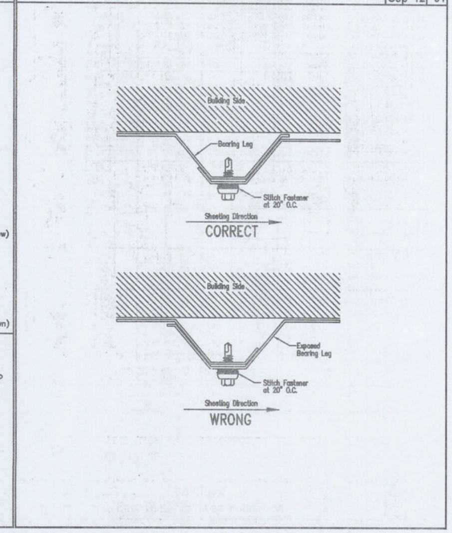
PBR Panel Side Lap and End Lap Details — GPR04016, Dec '12, 00



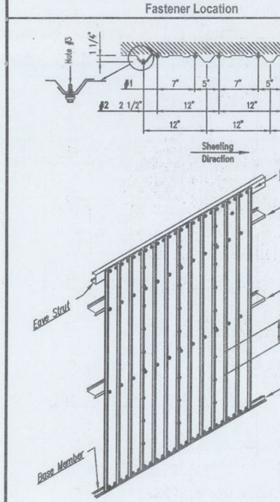
PBR Roof Rake End Lap Installation - 1¼" Wall Panel — MPR05010, Dec '12, 01



PBR Wall Panel Side Lap Erection Sequence — PW05002, Sep '12, 01



PBR Wall Panel Fastener Location — PW05003, Nov. '11, 01

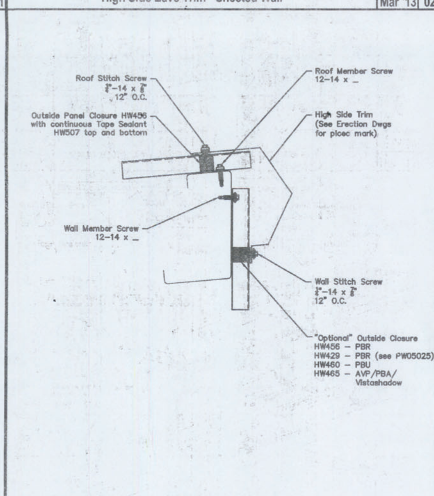


Note #1
Wall Member Screw
12-14 x _
5", 7", 5" pattern

Note #2
Wall Member Screw
12-14 x _
at 12" O.C.

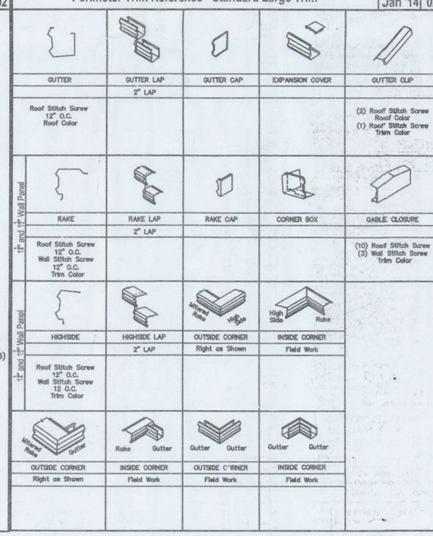
Note #3
Wall Stitch Screw
1/4-14 x 7/8
at 20" on center

PBR Panel High Side Eave Trim - Sheeted Wall — GPR06008, Mar '13, 02

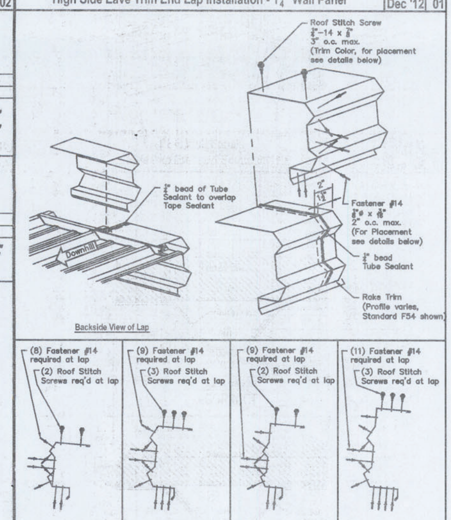


Flashing profile may vary dependent upon project order. Attachment as illustrated are applicable for all profiles.

PBR Roof Perimeter Trim Reference - Standard Large Trim — MPR00002, Jan '14, 02



PBR Roof High Side Eave Trim End Lap Installation - 1¼" Wall Panel — MPR06012, Dec '12, 01



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40335 (713) 466-7788 ZIP 77041 ZIP 77240

Customer: TRADEMARK CNST. GROUP, TRAVIS MENDEROS, 128 SW NASSAU ST., LAKE CITY, FL 32025

Project Name & Location: MONSTA CLOTHING, TRAVIS MENDEROS, 750 A SW MAIN BLVD., LAKE CITY, FL 32025

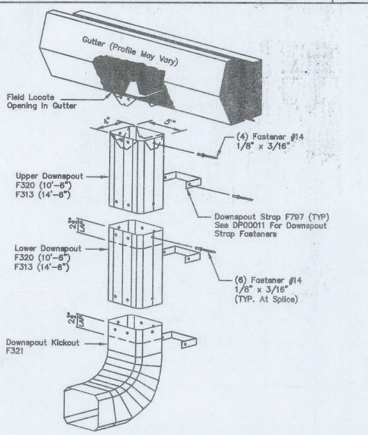
Drawing Status: ☐ Preliminary (Not For Construction) ☐ For Approval (Not For Construction) ☒ For Construction Permit ☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R9 of 15

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Roll Form Downspout Layout

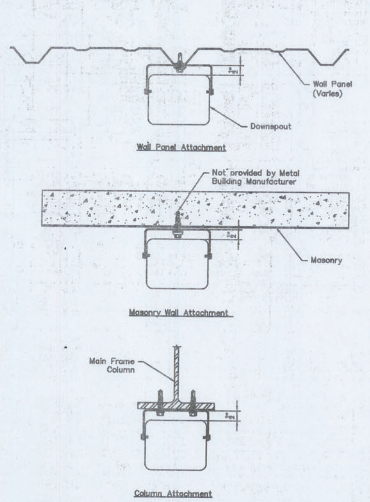
DP00001 | Dec '12 | 00



Note:
1. Refer to the building erection drawings for the spacing of the downspouts.
2. Locate all downspouts over a panel major rib if possible.
3. A field splice is required for eave heights greater than 16'-0". Always measure the required length starting at the swaged end. After cutting to length, insert the swaged end of the cut downspout into the top of the lower downspout.
4. Downspout straps F797 are Located at the bottom of a downspout, below a splice, and at mid point of downspout longer than 10'-6". See DP00011 for downspout strap fasteners.

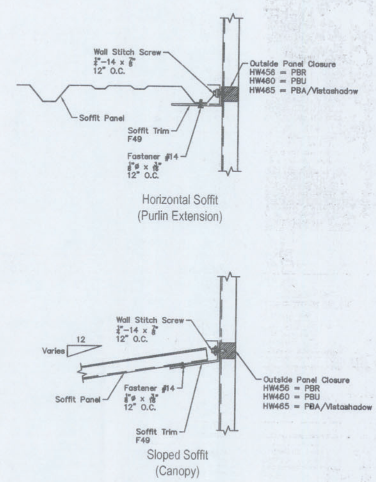
Downspout Strap Attachment To Wall

DP00011 | Feb '14 | 01



PBR Soffit at Sheeted Wall

GD14000 | Feb '12 | 00



PBR Panel Perimeter Trim Reference Trim Fastener/Mastic

SHT. NO. GPR00009 | DATE DEC '12 | REV. 00

1¼" and 1½" Wall Panel

Eave/Rake Trim	Eave/Rake Trim	Rake Trim	Eave and Rake Masonry Trim
F2901,F2914,F2927	F2902,F2915,F2928	F2903,F2916,F2929	F2940,F2942,F2944
F2901-12" Sealant F2914-14" Sealant F2927-16" Sealant (6) #14 per Lap Trim Color	F2902-12" Sealant F2915-14" Sealant F2928-16" Sealant (7) #14 per Lap Trim Color	F2903-12" Sealant F2916-14" Sealant F2929-16" Sealant (7) #14 per Lap Trim Color	F2940-12" Sealant F2942-14" Sealant F2944-16" Sealant (7) #14 per Lap Fastener #17A 24" O.C. at Top Trim Color
Eave-No Soffit	Eave-With Soffit	Rake-3/4" Soffit	
Fastener #17A 24" O.C. at Top 12" O.C. at Bottom Trim Color	Fastener #17A 24" O.C. at Top #14 12" O.C. at Bottom Trim Color	Fastener #17A 24" O.C. at Top and Each Purlin at Bottom With Soffit #4 12" O.C. Trim Color	
Rake	Rake		
Fastener #17A 24" O.C. at Top and Each Purlin at Bottom With Soffit #4 12" O.C. Trim Color	Fastener #17A 24" O.C. at Top and Each Purlin at Bottom With ¾" or 1½" Soffit #4 12" O.C. With 1" Soffit #14 12" O.C. Trim Color		
High Side-No Soffit Eave Trim	HighSide-¾",1",1½" Soffit High Eave Trim	High Side Masonry Trim	
F2904,F2917,F2930	F2905,F2918,F2931	F2941,F2943,F2945	
F2904-12" Sealant F2917-14" Sealant F2930-16" Sealant (7) #14 per Lap Fastener #17A 24" O.C. at Top 12" O.C. at Bottom Trim Color	F2905-12" Sealant F2918-14" Sealant F2931-16" Sealant (7) #14 per Lap Fastener #17A 24" O.C. at Top and Each Purlin at Bottom With Soffit #14 12" O.C. Trim Color	F2941-12" Sealant F2943-14" Sealant F2945-16" Sealant (7) #14 per Lap Fastener #17A 24" O.C. at Top Trim Color	

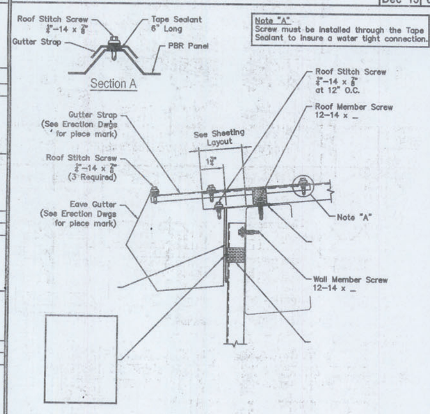
PBR Panel Perimeter Trim Reference Tirm Fastener / Mastic

MPR00008 | Mar '13 | 02

Eave Trim	Eave Trim LAP	Closure Vented Ridge	Metal Closure	Back-Up Plate Longitudinal Ridge
F89	2" LAP	HW4040	HW4041	HW2996
Wall Stitch Screw 12" O.C. Fastener #14A at 10'-0" O.C. Trim Color	6" Tube Sealant (12) Fastener #14 Trim Color	(3) Roof Member Screw (2) Roof Stitch Screw Roof Color 28" Tape Mastic	(3) Roof Member Screw (2) Roof Stitch Screw Roof Color 28" Tape Mastic	20'-0" Long
Expansion Ridge Trim	Ridge Closure	Floating Eave Trim	Inside Closure	Outside Closure
F675	F679	F2955	HW455	HW456
Roof Stitch Screw 2 runs at 6" O.C. (16) Roof Stitch Screw per lap Trim Color 68" Tube Sealant	30" Tube Caulking (12) Roof Stitch Screw Trim Color	13" Tube Sealant (2) #14 per 2" Lap #14 36" o.c w/out Closure #14A 12" o.c. w/Closure Trim Color		
Rake Slide Trim	Ridge Cap	Parapet High Side		
F215	F52	F195		
Wall Stitch Screw 12 O.C. Trim Color	121" Tape Mastic (12) Roof Member Screw (6) Roof Stitch Screw Panel Color	14" Tube Sealant (2) Fastener #14 & (2) Roof Stitch Screw at Lap Roof Stitch Screw 12" O.C. Trim Color		

PBR Panel Standard and Standard Large Gutter - Sheeted Wall

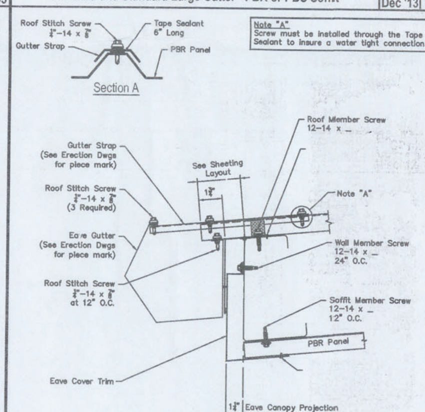
GPR02001 | Dec '13 | 03



Flashing profile may vary dependent upon project order. Attachment as illustrated are applicable for all profiles.

PBR Panel - Structural Canopy Standard and Standard Large Gutter - PBR or PBU Soffit

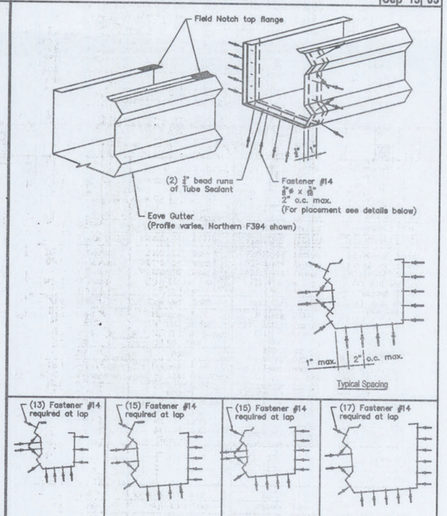
GPR21003 | Dec '13 | 02



Flashing profile may vary dependent upon project order. Attachment as illustrated are applicable for all profiles.

PBR Roof Eave Gutter End Lap Installation

MPR04002 | Sep '13 | 03



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company

7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338 (713) 466-7788 ZIP 77041 ZIP 77240

Customer: TRADEMARK CNST. GROUP TRAVIS MEDERIOS 128 SW NASSAU ST. LAKE CITY, FL 32025

Project Name & Location: MONSTA CLOTHING TRAVIS MEDERIOS 750 A SW MAIN BLVD. LAKE CITY, FL 32025

Drawing Status: ☐ Preliminary (Not For Construction) ☐ For Approval (Not For Construction) ☒ For Construction Permit ☐ For Erector Installation

Scale: NOT TO SCALE

Drawn by: AWS 2/24/14

Checked by: SF 2/24/14

Project Engineer:

Job Number: 14-B-39239-1

Sheet Number: R10 of 15

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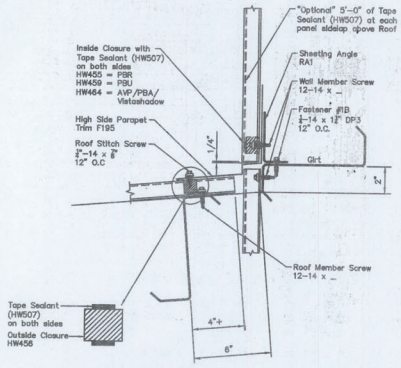
PBR Roof Panel - Below Eave Tie-In
Sheeted Wall - Girt Leg Down

Type GPR07001 | Date Mar '13 | Rev 01



SEALANT

Sht. no. 0000005 | Date SEP. 09 | Rev 00

TRI-BEAD TAPE SEALER HW504
3/16" X 7/8" X 25'-0"

FLAT TAPE SEALER HW507
3/32" X 1/2" X 50'-0"

TAPE SEALER - SWAGED HW515
3/16" X 2 1/4" X 6"
6"
BattenLok HS

TRIPLE BEAD TAPE SEALER HW502
3/16" X 2 1/2" X 20'-0"

FLAT TAPE SEALER HW506
3/32" X 1" X 45'-0"

TUBE SEALANT
HW540 (White)
HW541 (Gray)
HW542 (Bronze)

TAPE SEALER MINOR RIB HW512
4"
7/32" X 1 3/8" X 4"
DoubleLok

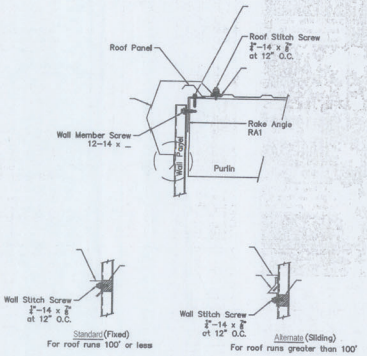
DEKSTRIP 7" WIDE = HW5227
DEKSTRIP 9" WIDE = HW5228
DEKSTRIP 12" WIDE = HW5229

COLOR = Gray
SCREWS 2" O.C. MAX. PERIMETER
TAPE SEALANT BOTH SIDES
TUBE SEALANT EACH END
2" x 24GA. TERMINATION STRIP EACH END

DEKSTRIP LENGTH WILL BE AS REQUIRED.
Example:
(3) 7" X 1'-0"
(2) 7" X 3'-0"
ROUND UP TO NEXT 12"

PBR Panel
Standard and Standard Large Rake Trim - Sheeted Wall

Type GPR05002 | Date Nov '13 | Rev 04

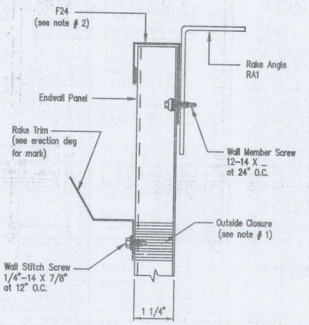


PBR Panel
End Panel Cap Trim
Sheeted Wall

Sht. no. GPR05005 | Date Apr '13 | Rev 02

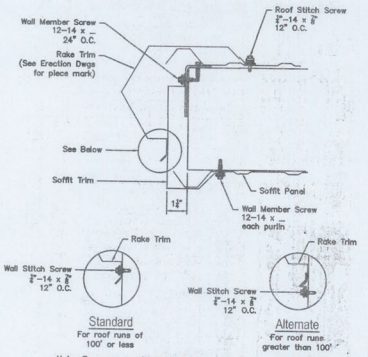
Note # 1: Outside panel closures are required on all sheeted endwalls with a roof slope of 4:12 or less.

Note # 2: F24 Cap Trim will replace the outside panel closures on all sheeted endwalls with a roof slope greater than 4:12.



PBR Panel - Standard and Standard Large Rake Trim
Purlin Extension - PBR Soffit

Type GPR17002 | Date Nov '13 | Rev 03

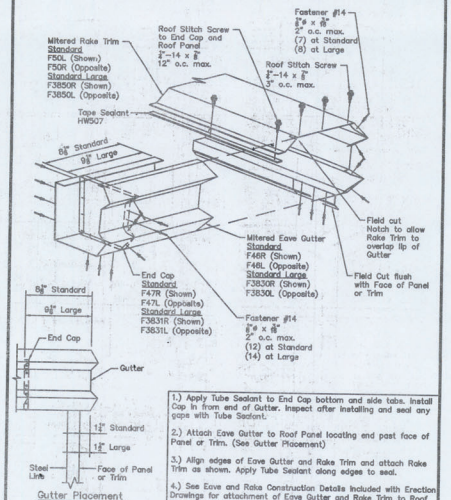


Note: For some special conditions the outside rib of the finish panel may fall short of the rake trim. Use the rake extension trim for this condition. Field cut the rake trim and rake extension trim if required.

Flashing profile may vary dependent upon project order. Attachment as illustrated are applicable for all profiles.

PBR Roof Panel - Standard and Standard Large
Low Eave Rake Corner with Eave Gutter - 1 1/4" Wall Panel

Type MPR04004 | Date Dec '12 | Rev 02



1.) Apply Tube Sealant to End Cap bottom and side tabs. Install Cap in from end of Gutter. Inspect after installing and seal any gaps with Tube Seafant.

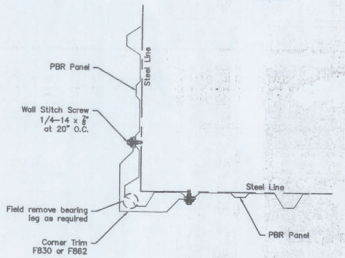
2.) Attach Eave Gutter to Roof Panel locating end past face of Panel or Trim. (See Gutter Placement)

3.) Align edges of Eave Gutter and Rake Trim and attach Rake Trim as shown. Apply Tube Sealant along edges to seal.

4.) See Eave and Rake Construction Details included with Erection Drawings for attachment of Eave Gutter and Rake Trim to Roof and Walls.

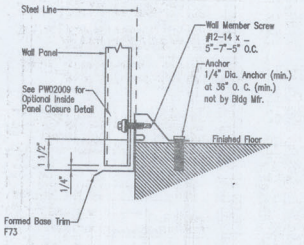
PBR Wall Panel
Outside Corner Trim

Type PW03001 | Date Sep '13 | Rev 03



PBR Wall Panel
Formed Base Trim
Without Panel Recess

Sht. no. PW02001 | Date Jun '11 | Rev 02



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338 ZIP 77240
(713) 466-7788

METALLIC

Project Name & Location:
MONSTA CLOTHING
TRAVIS MEDEIROS
750 A SW MAIN BLVD.
128 SW NASSAU ST.
LAKE CITY, FL. 32025

Customer:
METALLIC CONST. GROUP
TRAVIS MEDEIROS
128 SW NASSAU ST.
LAKE CITY, FL. 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erection Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R11 of 15

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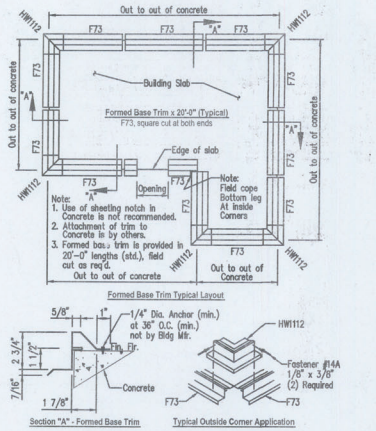
Formed Base Trim Details

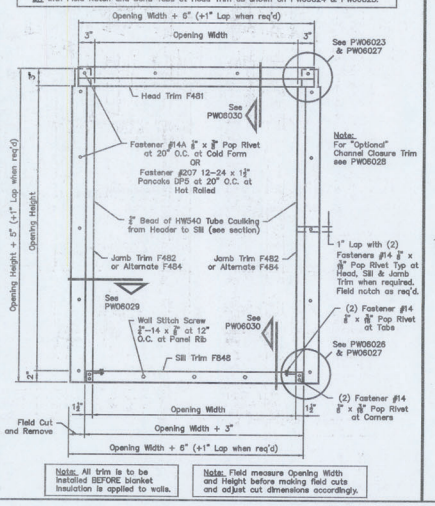
PW02010 | Sep '10 | 00



PBR Wall Panel - Four Sided Framed Opening
Trim Installation with Field Notch Panel at Head Trim

PW06022 | Jan '12 | 00

Note: Trim installation can be done by Field Notch Panel as shown on PW06022 & PW06023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW06024 & PW06025.



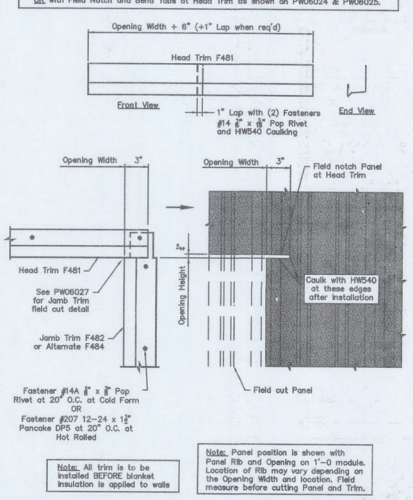
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Four Sided Framed Opening
Field Notch Panel at Head Trim

PW06023 | Jan '12 | 00

Note: Trim installation can be done by Field Notch Panel as shown on PW06022 & PW06023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW06024 & PW06025.



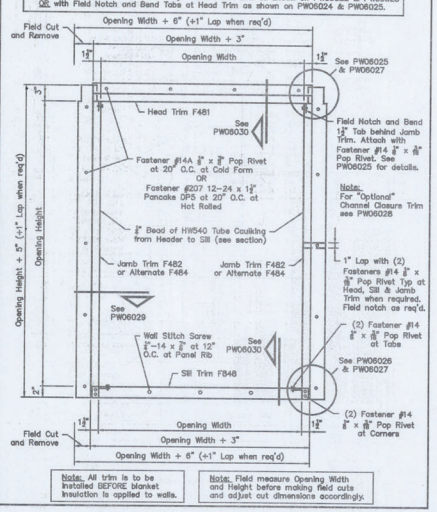
Note: All trim is to be installed BEFORE blanket insulation is applied to walls

Note: Panel position is shown with Panel Rib and Opening on 1'-0 module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Four Sided Framed Opening
Trim Installation with Field Notch and Bend Tabs at Head Trim

PW06024 | Jan '12 | 00

Note: Trim installation can be done by Field Notch Panel as shown on PW06022 & PW06023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW06024 & PW06025.



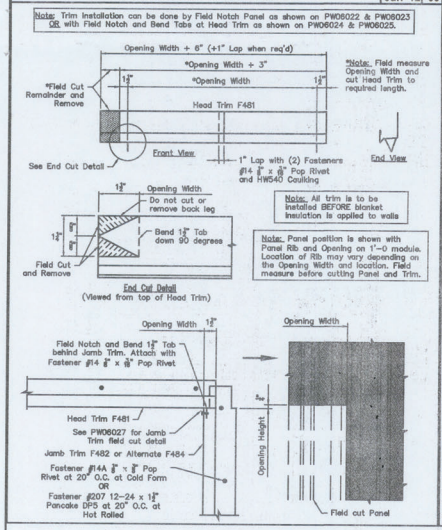
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Four Sided Framed Opening
Field Notch and Bend Tabs at Head Trim

PW06025 | Jan '12 | 00

Note: Trim installation can be done by Field Notch Panel as shown on PW06022 & PW06023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW06024 & PW06025.



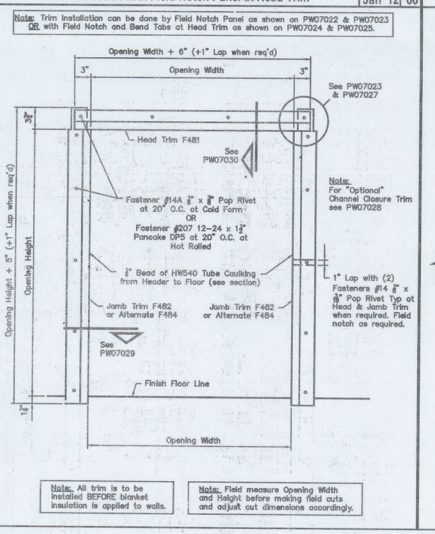
Note: All trim is to be installed BEFORE blanket insulation is applied to walls

Note: Panel position is shown with Panel Rib and Opening on 1'-0 module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Three Sided Framed Opening
Trim Installation with Field Notch Panel at Head Trim

PW07022 | Jan '12 | 00

Note: Trim installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



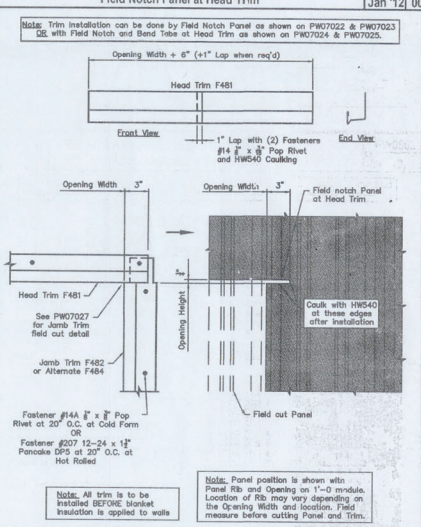
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Three Sided Framed Opening
Field Notch Panel at Head Trim

PW07023 | Jan '12 | 00

Note: Trim installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



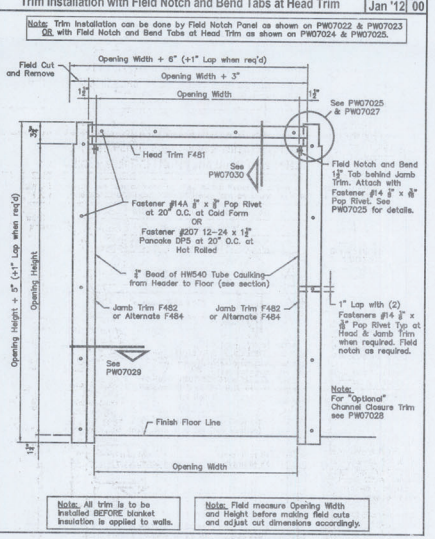
Note: All trim is to be installed BEFORE blanket insulation is applied to walls

Note: Panel position is shown with Panel Rib and Opening on 1'-0 module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

PBR Wall Panel - Three Sided Framed Opening
Trim Installation with Field Notch and Bend Tabs at Head Trim

PW07024 | Jan '12 | 00

Note: Trim installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

metallic building company
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Drawing Status:
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☒ For Construction Permit
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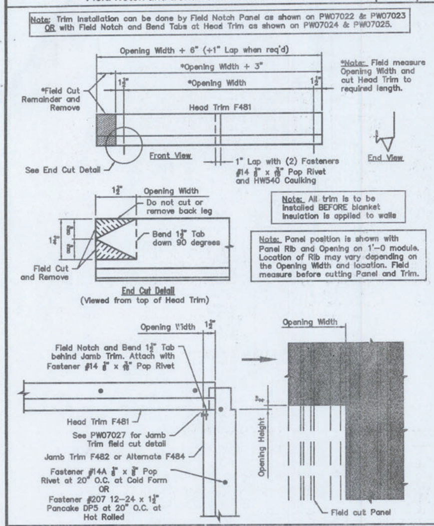
Scale:	NOT TO SCALE
Drawn by:	AWS 2/24/14
Checked by:	SF 2/24/14
Project Engineer:	
Job Number:	14-B-39239-1
Sheet Number:	R12 of 15

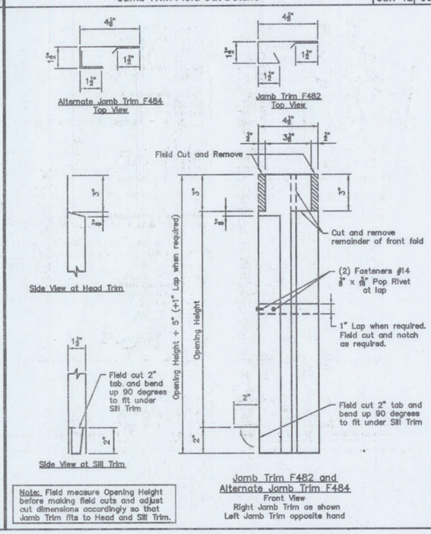
PBR Wall Panel - Three Sided Framed Opening Field Notch and Bend Tabs at Head Trim

PW07025 | Date Jan '12 | Rev. 00



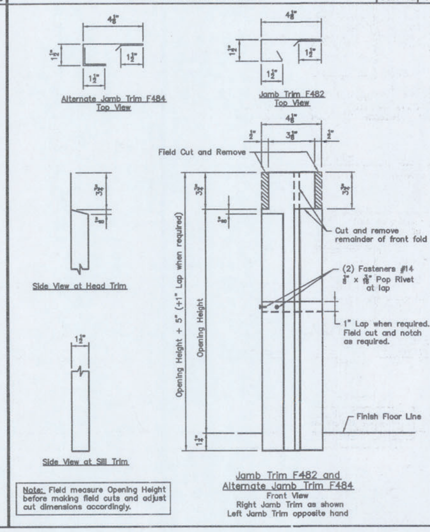
PBR Wall Panel - Four Sided Framed Opening Jamb Trim Field Cut Details

PW06027 | Date Jan '12 | Rev. 00



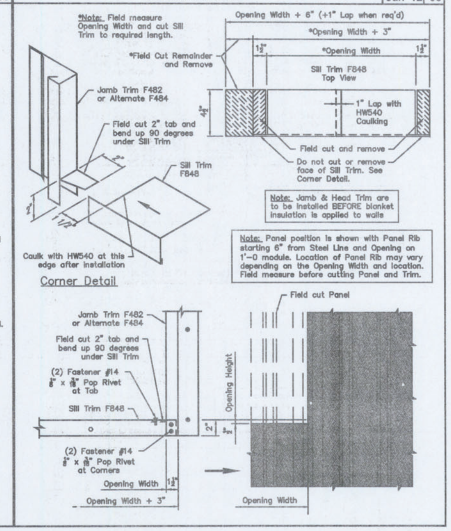
PBR Wall Panel - Three Sided Framed Opening Jamb Trim Field Cut Details

PW07027 | Date Jan '12 | Rev. 00



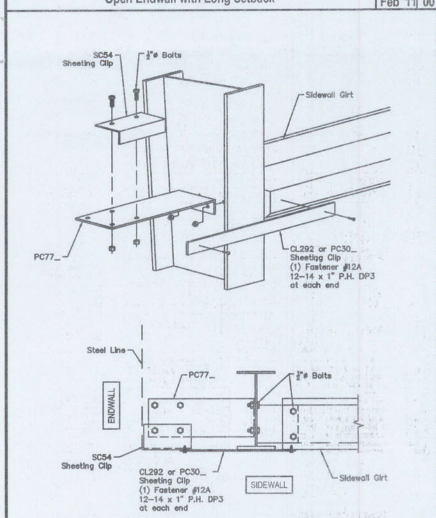
PBR Wall Panel - Four Sided Framed Opening Sill Trim Installation

PW06026 | Date Jan '12 | Rev. 00



Flush Sidewall Girts at Corner Column Open Endwall with Long Setback

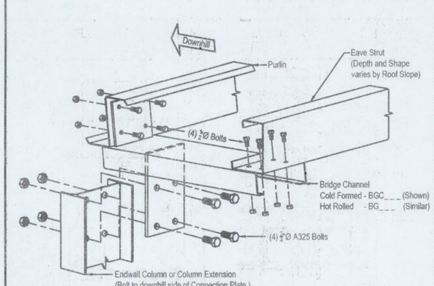
EF03023 | Date Feb '11 | Rev. 00



Endwall Column attachment at High Eave located between Eave Strut and Purlin

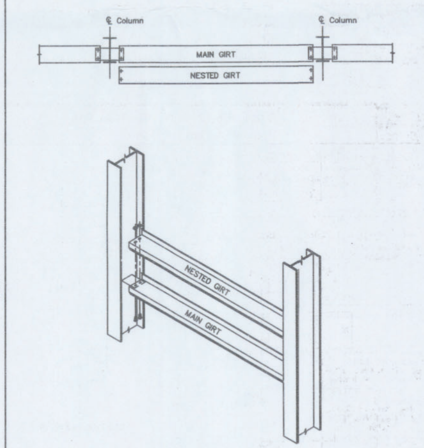
EF09108 | Date Dec '12 | Rev. 01

Notes:
1.) See AC00919 / AC00923 for Jamb/Support Column attachment when located at same Purlin space (or adjacent Purlin space) as Endwall Column.
2.) Bridge Channel may span multiple Purlin spaces when required.
3.) Wind Edge Strip Purlins, when required, do not attach to Bridge Channel.
4.) Purlins, Purlin Strut and Eave Strut extends past Bridge Channel flange when "Optional" Overhang or Facade is required at endwall.



Welded Clip Interior Bay with Nested Zee Girt

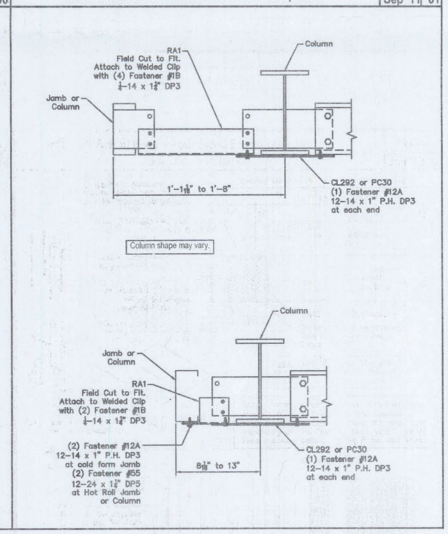
CF01113 | Date Sep '13 | Rev. 00



SEE ERECTION DRAWINGS FOR GIRT ELEVATIONS

Flush Girt Column to Jamb or Column Less Than or Equal 20"

CF01116 | Date Sep' 11 | Rev. 01



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

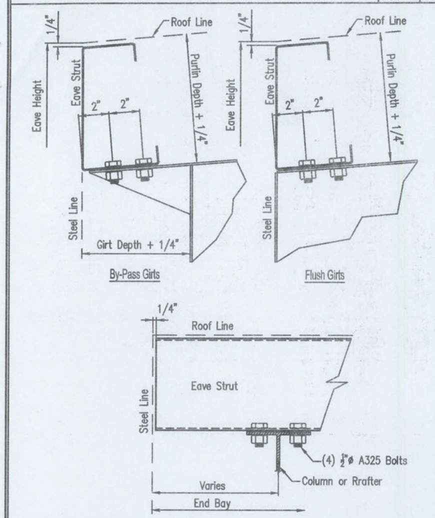
Project Name & Location:
MONSTA CLOTHING
TRAVIS MENDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☒ For Construction Permit
☐ For Approval (Not For Construction)
☐ For Erector Installation

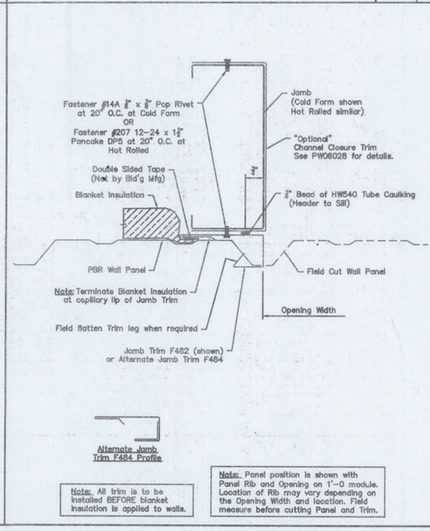
Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R13 of 15

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

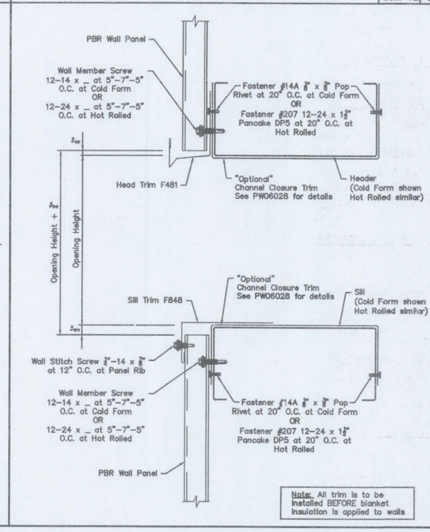
Eave Strut Connection at End Bay ByPass And Flush Girts	CF02033 Feb '12 03



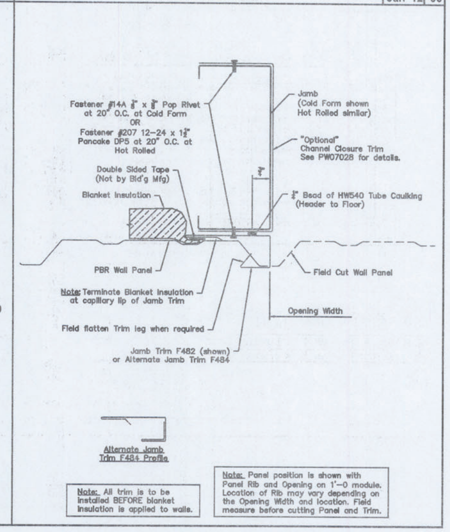
PBR Wall Panel - Four Sided Framed Opening Jamb Trim Installation	PW06029 Jan '12 00



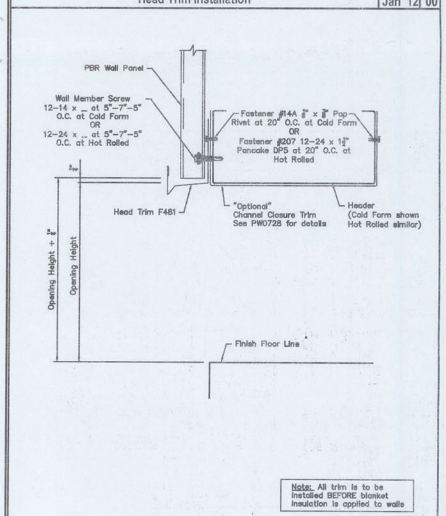
PBR Wall Panel - Four Sided Framed Opening Head and Sill Trim Installation	PW06030 Jan '12 00



PBR Wall Panel - Three Sided Framed Opening Jamb Trim Installation	PW07029 Jan '12 00



PBR Wall Panel - Three Sided Framed Opening Head Trim Installation	PW07030 Jan '12 00



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC **metallic building company**
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338 (713) 466-7788 ZIP 77041 ZIP 77240

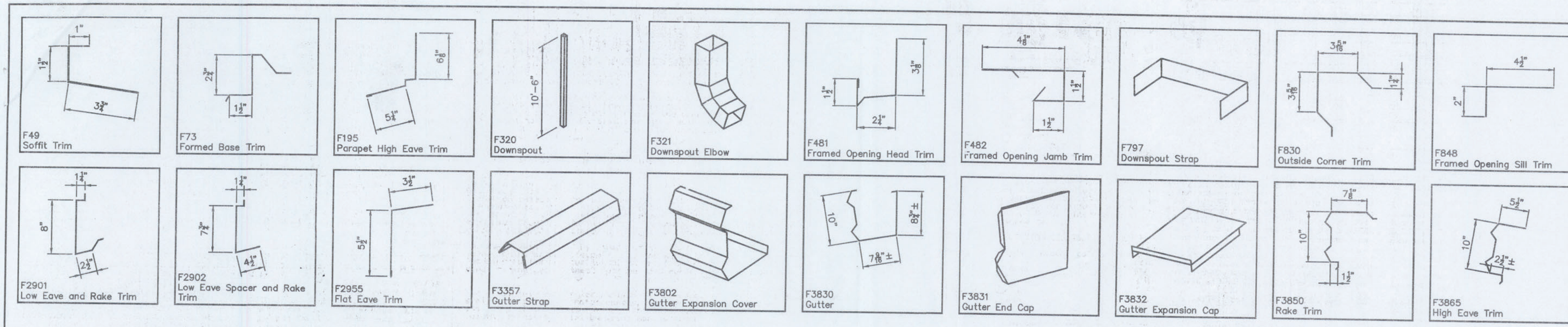
Customer: TRADEMARK CNST. GROUP TRAVIS MEDEIROS 128 SW NASSAU ST. LAKE CITY, FL 32025

Project Name & Location: MONSTA CLOTHING TRAVIS MEDEIROS 750 A SW MAIN BLVD. LAKE CITY, FL 32025

Drawing Status: ☐ Preliminary (Not For Construction) ☐ For Approval (Not For Construction) ☒ For Construction Permit ☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R14 of 15

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.



Revision	Date	Description	By	Ck'd
A	02/24/14	FOR CONSTRUCTION PERMIT	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

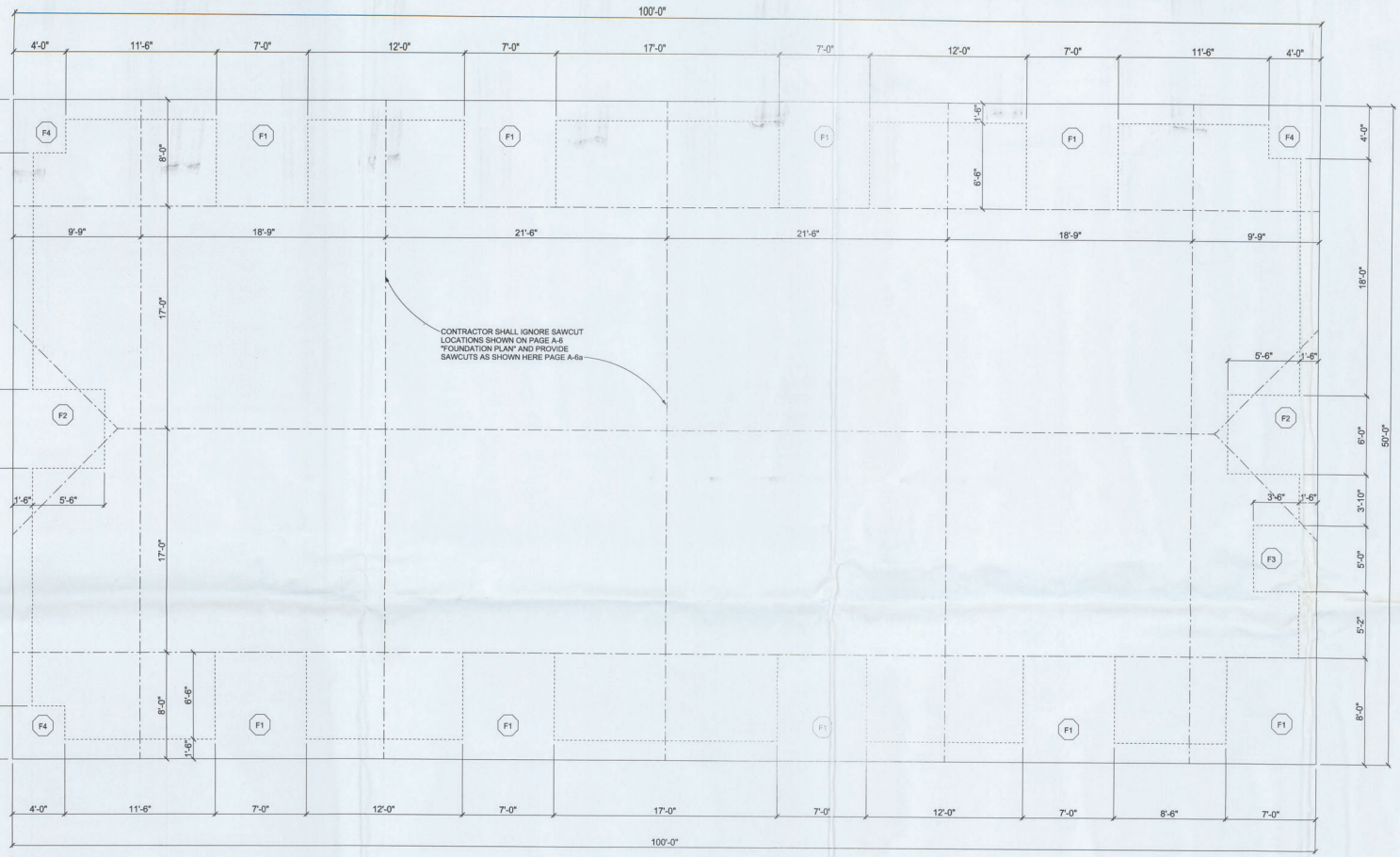
Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDERIOS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MENDERIOS
750 A SW MAIN BLVD.
LAKE CITY FL, 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: AWS 2/24/14
Checked by: SF 2/24/14
Project Engineer:
Job Number: 14-B-39239-1
Sheet Number: R15 of 15

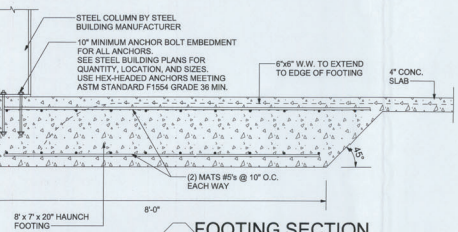
The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.



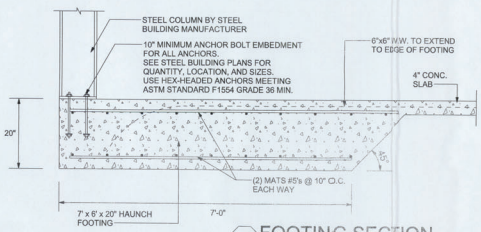
Revision
31878

NOTE:
ALL INTERIOR SAWCUTS AND ISOLATION JOINTS SHALL BE FILLED WITH JOINT SEALANT COMPOUND. SAW CUT SHALL BE MADE WITHIN 24 HOURS OF POUR

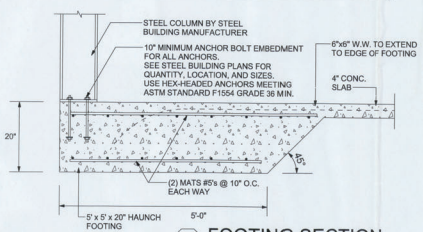
SAWCUT DETAIL
NTS



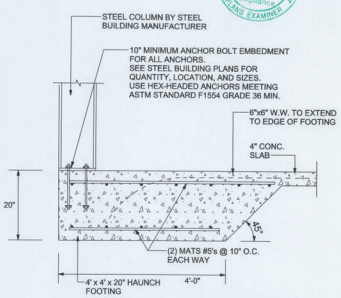
F1 FOOTING SECTION
SCALE: 3/4" = 1'-0"



F2 FOOTING SECTION
SCALE: 3/4" = 1'-0"



F3 FOOTING SECTION
SCALE: 3/4" = 1'-0"



F4 FOOTING SECTION
SCALE: 3/4" = 1'-0"

REVISIONS

DESCRIPTION	DATE	BY	DESCRIPTION

CES
Crews Engineering Services, LLC

CERTIFICATE OF AUTHORIZATION
NO. 28022

P.O. BOX 970
LAKE CITY, FL 32056
PHONE: 386.754.4085

4-17-2014
Brett A. Crews, P.E. 65592

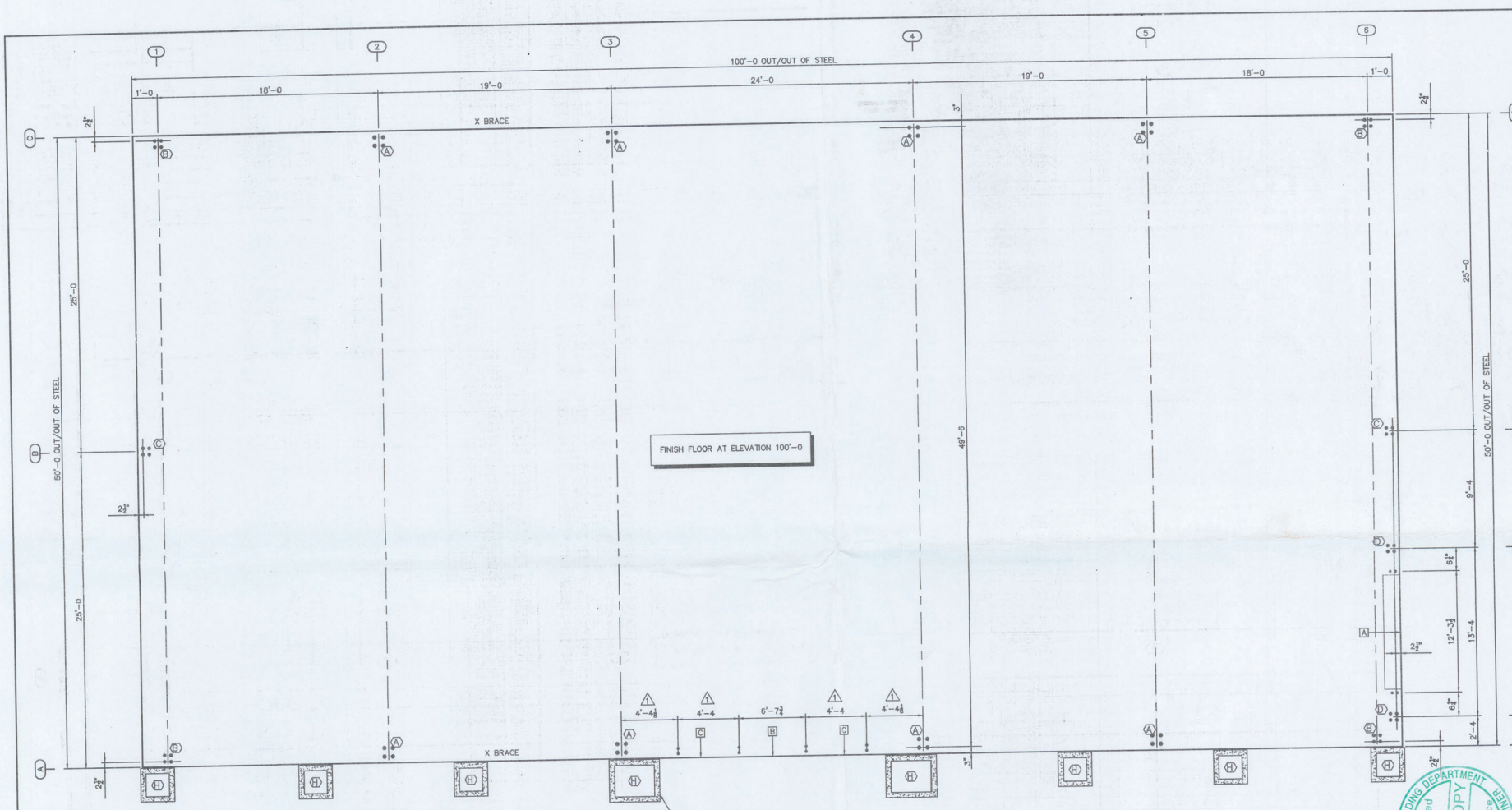
DRAWN BY: TM
APPROVED BY: BC

MONSTA CLOTHING

FOOTING PLAN FOR STEEL COLUMNS

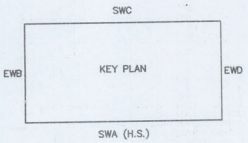
CES PROJECT NO.: 2013-015

SHEET: A-6a



ACCESSORY SCHEDULE			
MARK	DESCRIPTION	DETAIL	QUAN.
A	12'-0 X 10'-0 FRAMED OPENINGS	E	1
B	6'-4½ X 7'-2½ FRAMED OPENINGS	F	1
C	4'-0 X 5'-0 FRAMED OPENINGS	I	2
D	3070 SWING DOORS	G	1

ANCHOR BOLTS TO BE DESIGNED BY FOUNDATION ENGINEER USING DIAMETERS SHOWN IN THIS TABLE.	
ANCHOR ROD DESCRIPTION	QUANTITY
1/2 "ø DIAMETER X	4
5/8 "ø DIAMETER X	76
3/4 "ø DIAMETER X	32



ANCHOR ROD SETTING PLAN

Anchor Rod Drawings

1) This drawing is for anchor rod placement only and is not foundation design.
2) Foundation must be square and level with all anchor rods true in size, location, and projection.
3) Projection shown must be held to keep threads clear of finished concrete.
4) This structural design data includes magnitude and location of design loads and suppose conditions, material properties, and type and size of major structural members necessary to show compliance with the Order Documents at the time of this issue. Any change to building loads or dimensions may change structural member sizes and locations shown. This structural design data will be superseded and voided by any future mailing.
5) Anchor rod size is determined by shear and tension at the bottom of the base plate. The length of the anchor rod and method of load transfer to the foundation are to be determined by the foundation engineer, and are not provided by the manufacturer.
6) Anchor rods are ASTM F1554 Gr. 36 material unless noted otherwise.

Revision	Date	Description	By	Ck'd
0	02/19/14	FOR ERECTOR INSTALLATION	AWS	SF
1	02/21/14	REVISED FOR ERECTOR INSTALLATION	AWS	SF

metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

METALLIC

Customer: TRADEMARK CNST. GROUP
TRAVIS MEDEROS
128 SW NASSAU ST.
LAKE CITY, FL. 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MENDEROS
730 A PALATKA BLVD.
LAKE CITY, FL. 32025

Drawing Status: ☐ Preliminary (Not For Construction) ☐ For Approval (Not For Construction) ☐ For Construction Permit ☒ For Erector Installation

REVISED

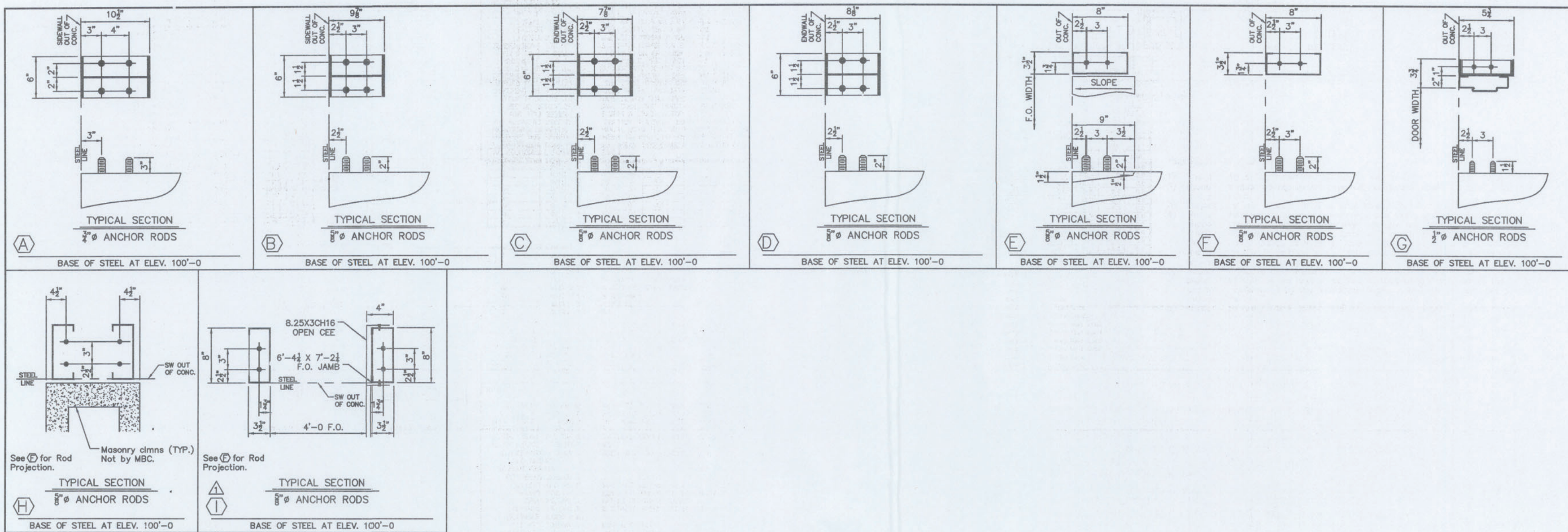
Scale:	NOT TO SCALE
Drawn by:	AWS 2/19/14
Checked by:	SF 2/19/14
Project Engineer:	AXN
Job Number:	14-B-39239-1
Sheet Number:	F1 of 3

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Franz Mutis, P.E.
Florida P.E. 68606

COLUMBIA COUNTY BUILDING DEPARTMENT — Received for FILE COPY — Code Compliance — PLANS EXAMINER

FRANZ MUTIS LICENSE No. 68606 ★ STATE OF FLORIDA PROFESSIONAL ENGINEER Feb 21, 2014



Revision	Date	Description	By	Ck'd
0	02/19/14	FOR ERECTOR INSTALLATION	AWS	SF
1	02/21/14	REVISED FOR ERECTOR INSTALLATION	AWS	SF

METALLIC metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40336 ZIP 77041 (713) 466-7788 ZIP 77240

Customer:
TRADEMARK CNST. GROUP
TRAVIS MEDEROS
128 SW NASSAU ST.
LAKE CITY, FL 32025

Project Name & Location:
MONSTA CLOTHING
TRAVIS MENDERIOS
750 A SW MAIN BLVD.
LAKE CITY, FL 32025

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

REVISED

Scale: NOT TO SCALE
Drawn by: AWS 2/19/14
Checked by: SF 2/19/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: F2 of 3

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS LICENSE No. 68606 STATE OF FLORIDA PROFESSIONAL ENGINEER Feb 21, 2014

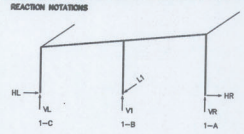
PATH: R:\jobs\Active\ENG\14-B-39239\ver02-shanghlem\Bldg-A\run04\

FRAME DESCRIPTION: Endwall_END
USER NAME: shanghle
JOB NAME: 39239A
DATE: 2/12/14
FILE: REW38L001
PAGE: EW-1

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and kip-ft.

TIME: 13:34:30

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	1-C			1-A			1-B		
LOAD GROUP	HL	VL	LL	HR	VR	LR	H1	V1	L1
D	0.0	0.5	0.	0.0	0.5	0.	0.	1.2	0.0
C	0.0	0.3	0.	0.0	0.3	0.	0.	0.9	0.9
L	0.1	1.8	0.	0.0	1.8	0.	0.	5.9	−0.3
W+	−0.1	−3.0	0.	0.1	−3.8	0.	0.	−10.7	3.9
W−	−0.1	−3.0	0.	0.1	−3.8	0.	0.	−10.7	−3.3
WR	−0.1	−3.0	0.	0.1	−3.8	0.	0.	−10.7	0.5
WL	−0.1	−3.0	0.	0.1	−3.8	0.	0.	−10.7	0.5

LOAD GROUP DESCRIPTION

D : DEAD LOAD
C : COLLATERAL LOAD
L : LIVE LOAD
W+ : WIND LOAD AS AN INWARD ACTING PRESSURE
W− : WIND LOAD AS AN OUTWARD ACTING SUCTION
WR : WIND FORCE FROM THE RIGHT
WL : WIND FORCE FROM THE LEFT

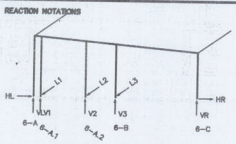
PATH: R:\jobs\Active\ENG\14-B-39239\ver02-shanghlem\Bldg-A\run04\

FRAME DESCRIPTION: Endwall_END
USER NAME: shanghle
JOB NAME: 39239A
DATE: 2/12/14
FILE: REW48L001
PAGE: EW-2

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and kip-ft.

TIME: 13:34:30

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	6-A			6-C			6-A_A.1			6-A_A.2			6-B		
LOAD GROUP	HL	VL	LL	HR	VR	LR	H1	V1	L1	H2	V2	L2	H3	V3	L3
D	0.0	−0.1	0.	0.0	0.5	0.	0.	1.2	0.0	0.	0.8	0.0	0.	0.9	0.0
C	0.0	−0.3	0.	0.0	0.3	0.	0.	0.6	0.0	0.	0.1	0.0	0.	0.8	0.0
L	0.0	−2.1	0.	−0.1	2.0	0.	0.	5.6	0.0	0.	2.2	0.2	0.	4.8	−0.2
W+	0.1	3.8	0.	0.1	−3.3	0.	0.	−4.6	2.5	0.	2.0	2.7	0.	−8.6	2.8
W−	0.1	3.8	0.	0.1	−3.3	0.	0.	−11.7	−2.1	0.	−5.0	−2.7	0.	−8.6	−2.3
WR	0.1	3.8	0.	0.1	−3.3	0.	0.	−8.1	0.3	0.	−1.5	0.1	0.	−8.6	0.4
WL	0.1	3.8	0.	0.1	−3.3	0.	0.	−8.1	0.3	0.	−1.5	0.1	0.	−8.6	0.4
S	0.	0.	0.	0.	0.	0.	0.	0.1	0.0	0.	0.1	0.0	0.	0.	0.

LOAD GROUP DESCRIPTION

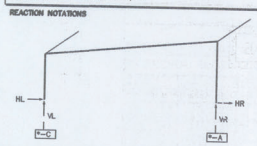
D : DEAD LOAD
C : COLLATERAL LOAD
L : LIVE LOAD
W+ : WIND LOAD AS AN INWARD ACTING PRESSURE
W− : WIND LOAD AS AN OUTWARD ACTING SUCTION
WR : WIND FORCE FROM THE RIGHT
WL : WIND FORCE FROM THE LEFT
S : DESIGN SNOW LOAD

FRAME ID: jf1
ss 50./13.75/18.5 20./119./
USER NAME: shanghle
JOB NAME: 39239A
DATE: 2/12/14
FILE: frame_2_5.fra
PAGE: 1-2

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 2 5
NOTE: All reactions are in kips and kip-ft.

TIME: 09:46:05

REACTION NOTATIONS



LOAD GROUP REACTION TABLE * = 2 5

COLUMN	*--C			*--A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.6	1.6	0.0	−0.6	1.7	0.0
LL	2.4	5.5	0.0	−2.4	5.5	0.0
COLL	0.6	1.4	0.0	−0.6	1.4	0.0
WL1	−8.3	−12.7	0.0	0.8	−6.9	0.0
WL2	−7.7	−9.1	0.0	0.2	−3.3	0.0
LWL1	−2.1	−11.0	0.0	2.6	−8.5	0.0
LWL2	−2.1	−8.3	0.0	2.7	−11.3	0.0
LWL3	−1.5	−7.4	0.0	2.1	−5.0	0.0
LWL4	−1.5	−4.6	0.0	2.1	−7.7	0.0
WL3	1.2	−6.4	0.0	8.1	−13.2	0.0
WL4	1.8	−2.8	0.0	7.6	−9.6	0.0

LOAD GROUP DESCRIPTION

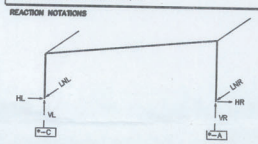
DL : Roof Dead Load
LL : Roof Live Load
COLL : Roof Collateral Load
WL1 : Lateral Primary Wind Load
WL2 : Lateral Primary Wind Load
LWL1 : Longitudinal Primary Wind Load
LWL2 : Longitudinal Primary Wind Load
LWL3 : Longitudinal Primary Wind Load
LWL4 : Longitudinal Primary Wind Load
WL3 : Lateral Primary Wind Load
WL4 : Lateral Primary Wind Load

FRAME ID: jf2
ss 50./13.75/21.5 20./119./
USER NAME: shanghle
JOB NAME: 39239A
DATE: 2/12/14
FILE: frame_3-4.fra
PAGE: 2-2

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 3 4
NOTE: All reactions are in kips and kip-ft.

TIME: 09:40:13

REACTION NOTATIONS



LOAD GROUP REACTION TABLE * = 3 4

COLUMN	*--C			*--A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.7	1.8	0.0	−0.7	1.8	0.0
LL	2.9	6.4	0.0	−2.9	6.5	0.0
COLL	0.7	1.6	0.0	−0.7	1.6	0.0
WL1	−6.6	−10.9	0.0	1.1	−6.8	0.0
WL2	−5.8	−6.4	0.0	0.4	−2.3	0.0
WL3	1.2	−6.0	0.0	6.9	−11.7	0.0
WL4	1.9	−1.5	0.0	6.2	−7.3	0.0
LWL1	−1.6	−9.9	0.0	1.8	−7.8	0.0
RBUPLW	0.0	−2.3	−3.1	−0.0	−3.4	−3.5
LWL2	−1.6	−7.8	0.0	1.8	−9.9	0.0
LWL3	−0.9	−5.4	0.0	1.0	−3.4	0.0
LWL4	−0.9	−3.3	0.0	1.1	−5.4	0.0
RBDWLW	−0.0	2.3	0.0	0.0	3.4	0.0

LOAD GROUP DESCRIPTION

DL : Roof Dead Load
LL : Roof Live Load
COLL : Roof Collateral Load
WL1 : Lateral Primary Wind Load
WL2 : Lateral Primary Wind Load
WL3 : Lateral Primary Wind Load
WL4 : Lateral Primary Wind Load
LWL1 : Longitudinal Primary Wind Load
RBUPLW : Upward Acting Rod Brace Load from Longitud. Wind
LWL2 : Longitudinal Primary Wind Load
LWL3 : Longitudinal Primary Wind Load
LWL4 : Longitudinal Primary Wind Load
RBDWLW : Downward Acting Rod Brace Load from Longit. Wind

NOTES

1) THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOCUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS OR DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUPERSEDED AND VOIDED BY ANY FUTURE MAILING.
2) THE REACTIONS PROVIDED HAVE BEEN CREATED WITH THE FOLLOWING LAYOUT (UNLESS NOTED OTHERWISE).
a) A REACTION TABLE IS PROVIDED WITH THE REACTIONS FOR EACH LOAD GROUP.
b) RIGID FRAMES
(1) GABLED BUILDINGS
(a) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE LEFT SIDE OF THE BUILDING, AS SHOWN ON THE ANCHOR ROD DRAWING, FROM THE OUTSIDE OF THE BUILDING.
(b) INTERIOR COLUMNS ARE SPACED FROM LEFT SIDE TO RIGHT SIDE.
(2) SINGLE SLOPE BUILDINGS
(a) LEFT COLUMN IS THE LOW SIDE COLUMN.
(b) RIGHT COLUMN IS THE HIGH SIDE COLUMN.
(c) INTERIOR COLUMNS ARE SPACED FROM LOW SIDE TO HIGH SIDE.
c) ENDWALLS
(1) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE WALL FROM THE OUTSIDE.
(2) INTERIOR COLUMNS ARE SPACED FROM LEFT TO RIGHT.
d) ANCHOR ROD SIZE IS DETERMINED BY SHEAR AND TENSION AT THE BOTTOM OF THE BASE PLATE. THE LENGTH OF THE ANCHOR ROD AND METHOD OF LOAD TRANSFER TO THE FOUNDATION ARE TO BE DETERMINED BY THE FOUNDATION ENGINEER.
e) ANCHOR RODS ARE ASTM F1554 Gr. 36 MATERIAL UNLESS NOTED OTHERWISE ON THE ANCHOR ROD LAYOUT DRAWING.
f) X-BRACING
(1) ROD BRACING REACTIONS HAVE BEEN INCLUDED IN VALUES SHOWN IN THE REACTION TABLES.
(2) FOR IBC AND UBC BASED BUILDING CODES, WHEN X-BRACING IS PRESENT IN THE SIDEWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ AND RBDWEQ) DO NOT INCLUDE THE AMPLIFICATION FACTOR, Ω_0.
(3) FOR CANADA BUILDING CODE (NBC), WHEN X-BRACING IS PRESENT IN THE SIDEWALL OR ENDWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ & RBDWEQ) ARE MULTIPLIED BY FORCE REDUCTION FACTOR, R_d, WHEN SPECIFIED SHORT-PERIOD SPECTRAL ACCELERATION RATIO $I_E F_a S_a(0.2)$ IS GREATER THAN 0.45.
3) REACTIONS ARE PROVIDED AS UN-FACTORED FOR EACH LOAD GROUP APPLIED TO THE COLUMN. THE FOUNDATION ENGINEER WILL APPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS IN ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICATIONS TO DETERMINE BEARING PRESSURES AND CONCRETE DESIGN. THE FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN MAY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DESIGN.
a) FOR PROJECTS USING ULTIMATE DESIGN WIND SPEEDS SUCH AS 2012 IBC OR 2010 FLORIDA BUILDING CODE, THE WIND LOAD REACTIONS ARE AT A STRENGTH LEVEL WITH A LOAD FACTOR OF 1.0.
THE MANUFACTURER DOES NOT PROVIDE "MAXIMUM" LOAD COMBINATION REACTIONS, HOWEVER, THE INDIVIDUAL LOAD REACTIONS PROVIDED MAY BE USED BY THE FOUNDATION ENGINEER TO DETERMINE THE APPLICABLE LOAD COMBINATIONS FOR HIS/HER DESIGN PROCEDURES AND ALLOW FOR AN ECONOMICAL FOUNDATION DESIGN.

Revision	Date	Description	By	Ck'd
0	02/19/14	FOR ERECTOR INSTALLATION	AWS	SF
1	02/21/14	REVISED FOR ERECTOR INSTALLATION	AWS	SF

metallic building company
7324 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40339 ZIP 77240
(713) 466-7788

METALLIC

Project Name & Location:
MONSTA CLOTHING
TRAVIS MENDEROS
750 A SW MAIN BLVD.
LAKE CITY, FL. 32025

Customer:
TRADEMARK CNST. GROUP
TRAVIS MENDEROS
LAKE CITY, FL. 32025

☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☐ For Construction Permit
☒ For Erector Installation

Drawing Status: REVISED

Scale: NOT TO SCALE
Drawn by: AWS 2/19/14
Checked by: SF 2/19/14
Project Engineer: AXN
Job Number: 14-B-39239-1
Sheet Number: F3 of 3

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Franz Mutis, P.E.
Florida P.E. 68606

FRANZ MUTIS LICENSE No. 68606 STATE OF FLORIDA PROFESSIONAL ENGINEER
02/21/2014

CONSTRUCTION DOCUMENTS

THE CUSTOMER IS RESPONSIBLE FOR DELIVERING THE REQ'D SETS OF CONSTRUCTION DOCUMENTS TO THE PERMIT ISSUING AUTHORITIES, FOR THE ISSUANCE OF CONSTRUCTION PERMITS. THE CONTRACTOR SHALL REVIEW THE CONSTRUCTION DOCUMENTS AND VERIFY ALL DIMENSIONS, ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORK OR FABRICATION OF ANY MATERIALS.

DO NOT SCALE OFF THESE PLANS

AMPLE DIMENSIONS ARE SHOWN ON THE PLANS TO LOCATE ALL ITEMS. SIMPLE ARITHMETIC MAY BE USED TO DETERMINE THE LOCATIONS OF THOSE ITEMS NOT DIMENSIONED.

CHANGES TO FINAL PLAN SETS

PLEASE DO NOT MAKE ANY STRUCTURAL CHANGES TO THESE PLANS WITHOUT CONSULTING THE ENGINEER. THE OWNER SHALL ASSUME ANY AND ALL LIABILITY FOR STRUCTURAL DAMAGE RESULTING FROM CHANGES MADE TO THE PLANS OR BY SUBSTITUTION OF MATERIALS DIFFERENT FROM SPECIFICATIONS ON THE PLANS.

MISC. NOTES

THE CONTRACTOR SHALL INDEMNIFY THE OWNER AGAINST ALL CLAIMS, WHETHER FROM PERSONAL INJURY OR PROPERTY DAMAGE, ARISING FROM EVENTS ASSOCIATED WITH THE WORK PERFORMED UNDER THE CONTRACT FOR THIS PROJECT.

THE CONTRACTOR AND/OR SUB-CONTRACTORS SHALL WAR-RANTY ALL WORK FOR A PERIOD OF ONE YEAR FOLLOWING THE DATE OF FINAL COMPLETION AND ACCEPTANCE BY THE OWNER. DEFECTS IN MATERIALS, EQUIPMENT, COMPONENTS AND WORK-MANSHIP SHALL BE CORRECTED AT NO FURTHER COST TO THE OWNER DURING THE ONE YEAR WARRANTY PERIOD.

AT THE OWNER'S OPTION, A WARRANTY INSPECTION SHALL BE PERFORMED DURING THE ELEVENTH MONTH FOLLOWING THE COMMENCEMENT OF THE WARRANTY PERIOD, FOR THE PURE-POSE OF DETERMINING ANY WARRANTY WORK THAT MAY BE REQUIRED. THE CONTRACTOR SHALL BE PRESENT DURING THIS INSPECTION IF REQUESTED BY THE OWNER.

THE OWNER SHALL PAY FOR ALL PERMITS, LICENSES, TESTS AND THE LIKE THAT MAY BE REQUIRED BY THE VAR-IOUS AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT BE THEY CITY, COUNTY, STATE OR FEDERAL.

THE OWNER SHALL FILE A "NOTICE OF COMMENCEMENT" PRIOR TO THE BEGINNING THE THE PROJECT AND THE CONTRACTOR(S) SHALL FILE "NOTICE TO OWNER" AND PROVIDE "RELEASE OF LIEN" FOR ALL PAYMENT REQUESTS PRIOR TO DISBURSEMENT OF ANY FUNDS.

ANY AND ALL DISPUTES ARISING FROM EVENTS ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT BETWEEN THE OWNER, CONTRACTOR(S) AND SUPPLIERS SHALL BE RESOLVED THROUGH BINDING ARBITRATION.

ALL WORK SHALL BE IN ACCORDANCE W/ APPLICABLE CODES AND LOCAL REGULATIONS, INCLUDING APPLICABLE ENERGY CODES. ALL COMPONENTS OF THE BUILDING SHALL MEET WITH THE MINIMUM ENERGY REQUIREMENTS OF THE BUILDING CODE. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IN WRITING PRIOR TO THE COMMENCEMENT OF THE WORK.

ALL INSULATION SHALL BE LEFT EXPOSED AND ALL LABLES LEFT INTACT ON THE WINDOWS AND DOORS UNTIL INSPECTED BY THE BUILDING OFFICIAL.

MEANS OF EGRESS FBC CHAPTER 10		
OCCUPANCY CLASSIFICATION	UNSPRINKLERED & UNPROTECTED	
GROUP B (ASSEMBLY LESS THAN 50)	REQUIRED	PROVIDED
MAX. TRAVEL DIST. (TABLE 1016.1)	200 FT	MAX. 144'
MAX. DEAD-END CORRIDOR (FBC 1018.4)	N/A	N/A
TOTAL # OF EXITS (TABLE 1021.1)	2	4
EGRESS WIDTH PER PERSON (LEVEL) (TABLE 1005.1)	0.2 37 x 0.2 = 7.4"	104"
MIN. CLEAR OPENING OF EXIT DOORS (FBC 1008.1.1)	32"	34"

LIFE SAFETY NOTES

ALL EXIT AND EMERGENCY LIGHTING SHALL BE INSTALLED PER NEC 700-12, 2011 EDITION.

ACCESS TO EXITS SHALL BE MARKED BY APPROVED READILY VISIBLE SIGNS IN ALL CASES WHERE THE EXIT OR WAY TO REACH THE EXIT IS NOT READILY APPARENT TO THE OCCUPANTS. SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN THE EXIT ACCESS CORRIDOR IS MORE THAN 100 FT FROM THE NEAREST EXTERNALLY ILLUMINATED SIGN AND IS NOT IN EXCESS OF THE MARKED RATING FOR INTERNALLY ILLUMINATED SIGNS.

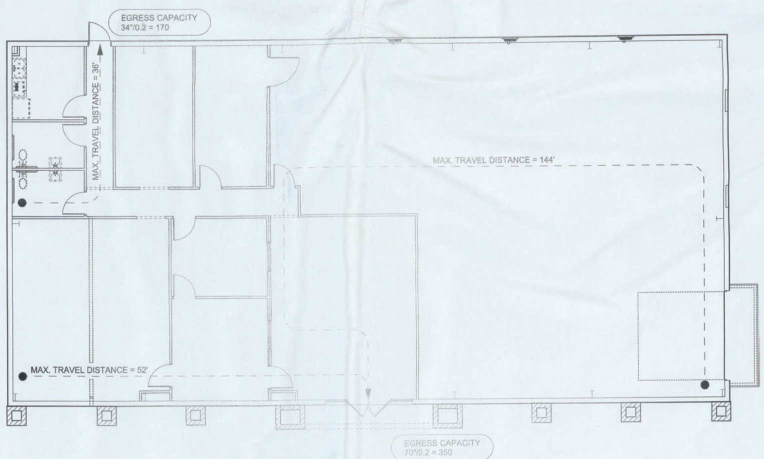
ALL FIRE EXTINGUISHERS SHALL BE TYPE 2A-20BC AND SHALL BE LOCATED SO THAT NO POINT IN THE DIRECTION OF TRAVEL FROM ANY POINT IS MORE THAN 75 FT TO THE FIRE EXTINGUISHER.

NOTE:

SEE ELECTRICAL DRAWINGS FOR LOCATIONS OF ALL EMERGENCY EXIT LIGHTING

PROJECT LOCATION

MONSTA CLOTHING CO. WORLD HEADQUARTERS



LIFE SAFETY

SCALE: 1/8" = 1'-0"

ABBREVIATIONS

A.B.	Anchor Bolt	Flr.	Floor	Plt. Ht.	Plate Height
Abv.	Above	Fdn.	Foundation	Plt Sh.	Plant Shelf
A/C	Air-Conditioner	Flr. Sys.	Floor System	PSF	Pounds per square foot
Adj.	Adjustable	F.Pl.	Fireplace	P.T.	Pressure Treated
A.F.F.	Above Finished Floor	Ft.	Foot / Feet	Pwd.	Powder Room
A.H.U.	Air Handler Unit	Ftg.	Footing	Rad.	Radius
ALT.	Alternate	FX	Fixed	Ref.	Refrigerator
B.C.	Base Cabinet	Galv.	Galvanized	Req'd.	Required
B.F.	Bifold Door	G.C.	General Contractor	Rm.	Room
Bk Sh	Book Shelf	G.F.I.	Ground Fault Interrupter	Rnd.	Round
Bm.	Beam	G.T.	Girder Truss	R/SH	Rod and Shelf
BOT.	Bottom	Hdr.	Header	SD.	Smoke Detector
B.P.	Bypass door	Hgt.	Height	S.F.	Square Ft.
Brg.	Bearing	HB	Hose Bibb	Sh.	Shelves
Cir.	Circle	Int.	Interior	SHT	Sheet
Clg.	Ceiling	K/Wall	Kneewall	S.L.	Side Lights
Col.	Column	K.S.	Knee Space	S.P.F.	Spruce Pine Fir
Comp.	A/C Compressor	Laun.	Laundry	Sq.	Square
C.T.	Ceramic Tile	Lav.	Lavatory	S.Y.P.	Southern Yellow Pine
D	Dryer	L.F.	Linear Ft.	Temp.	Tempered
Dec.	Decorative	L.T.	Laundry Tub	Thik'n.	Thicken
Ded.	Dedicated Outlet	Mas.	Masonry	T.O.B.	Top of Block
Dbl.	Double	Max	Maximum	T.O.M.	Top of Masonry
Dia.	Diameter	M.C.	Medicine Cabinet	T.O.P.	Top of Plate
Disp.	Disposal	MDP	Master Distribution Panel	Trans.	Transom Window
Dist.	Distance	Mfgr.	Manufacturer	Typ.	Typical
D.S.	Drawer Stack	Micro.	Microwave	UCL	Under Cabinet Lighting
D.V.	Dryer Vent	Min	Minimum	U.N.O.	Unless Noted Otherwise
D.W.	Dishwasher	M.L.	Microlam	VB	Vanity Base
Ea.	Each	Mir.	Mirror	Vert.	Vertical
E.W.	Each Way	Mono	Monolithic	V.L.	Versalam
Elec.	Electrical	N.T.S.	Not to Scale	VTR	Vent through Roof
Elev.	Elevation	Opn'g.	Opening	W	Washer
Ext.	Exterior	Opt.	Optional	W/	With
Exp.	Expansion	Pc.	Piece	W/C	Water Closet
F.B.C.	Florida Bldg. Code	Ped.	Pedestal	W.A.	Wedge Anchor
Fin. Flr.	Finished Floor	P.L.	Parallam	Wd	Wood
F.G.	Fixed Glass	PLF	Pounds per linear foot	WP	Water Proof

BUILDING USE, CLASSIFACATION & OCCUPANCY AS PER TABLES 503 & 1004.1.1, FLORIDA BUILDING CODE, 2010 ED.	
BUILDING GROUP OCCUPANCY	GROUP B
TABLE 503 TYPE OF CONSTRUCTION	TYPE V
TABLE 503 AREA/HEIGHT LIMITATIONS	9,000 SF/1 STORY

OCCUPANT LOAD:

BUSSINESS OCCUPENCY 2370 SF @ 100 SF/PERSON	24
MECHANICAL/STOCK/STORAGE USE 3758 SF @ 300 SF/PERSON	13
TOTAL OCCUPANT LOAD:	37 PERSONS

COLUMBIA COUNTY BUILDING DEPARTMENT — FILE COPY — Received for Code Compliance — PLANS EXAMINER

INDEX OF SHEETS

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CES

Crows Engineering Services, LLC

CERTIFICATE OF AUTHORIZATION NO. 28022

P.O. BOX 970
LAKE CITY, FL 32056
PHONE: 386.754.4085

Brett A. Crews, P.E. 65592

DRAWN BY: TM

APPROVED BY: BC

MONSTA CLOTHING

COVER SHEET AND LIFE SAFETY

CES PROJECT NO.: 2013-015

SHEET: LS-1

GENERAL NOTES:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER PROJECT DRAWINGS BY OTHER DISCIPLINES. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT LOCAL BUILDING CODE. THESE DRAWINGS ARE NOT TO BE USED IN LIEU OF SHOP DRAWINGS AND ARE NOT INTENDED TO BE SCALED.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS RELATING TO EXISTING CONDITIONS BY MAKING FIELD SURVEYS AND MEASUREMENTS PRIOR TO COMMENCING FABRICATION OR CONSTRUCTION.
3. THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION METHODS USED WILL NOT CAUSE DAMAGE TO ADJACENT BUILDINGS, UTILITIES, OR OTHER PROPERTY. THIS REQUIREMENT IS PARTICULARLY IMPORTANT DURING FOUNDATION INSTALLATION.
4. THE GENERAL CONTRACTOR IS ADVISED TO CONSIDER PERFORMING PHOTOGRAPHIC SURVEYS AND OTHER DOCUMENTATION OF THE CONDITION OF ADJACENT BUILDINGS AND OTHER STRUCTURES BEFORE THE START OF CONSTRUCTION.
5. THE GENERAL CONTRACTOR SHALL OBTAIN COPIES OF THE LATEST CONTRACT DOCUMENTS, INCLUDING ALL ADDENDA, AND PROVIDE THE RELEVANT PORTIONS TO ALL SUB-CONTRACTORS AND SUPPLIERS PRIOR TO SUBMITTAL OF SHOP DRAWINGS AND FABRICATION AND ERECTION OF STRUCTURAL MEMBERS.
6. THE GENERAL CONTRACTOR SHALL COMPARE AND COORDINATE THE DRAWINGS OF ALL DISCIPLINES AND REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS TO THE ENGINEER.
7. DETAILS LABELED "TYPICAL" SHALL APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SEE DETAIL TITLES FOR APPLICABILITY OF A PARTICULAR DETAIL. TYPICAL DETAILS SHALL APPLY WHETHER OR NOT THEY ARE SPECIFICALLY KEYED AT EACH LOCATION. THE ENGINEER SHALL HAVE FINAL AUTHORITY TO DETERMINE APPLICABILITY OF TYPICAL DETAILS.
8. WHERE CONFLICTS EXIST BETWEEN STRUCTURAL DOCUMENTS THE STRICTEST REQUIREMENTS, AS INDICATED BY THE STRUCTURAL ENGINEER SHALL GOVERN.
9. THE GENERAL CONTRACTOR SHALL REVIEW AND DETERMINE THAT DIMENSIONS ARE COORDINATED BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO FABRICATION OR START OF CONSTRUCTION.
10. NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED OR OTHERWISE REDUCED IN STRENGTH UNLESS APPROVED BY THE STRUCTURAL ENGINEER.

RESPONSIBILITY:

1. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE, AND ARE NOT INTENDED TO INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCES, AND FOR JOB SAFETY.
2. THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. PERIODIC SITE OBSERVATION VISITS MAY BE PROVIDED BY THE STRUCTURAL ENGINEER. THE SOLE PURPOSE OF THESE OBSERVATIONS IS TO REVIEW THE GENERAL CONFORMANCE OF THE CONSTRUCTION WITH THE STRUCTURAL CONTRACT DOCUMENTS. THESE LIMITED OBSERVATIONS SHOULD NOT BE CONSTRUED AS CONTINUOUS OR EXHAUSTIVE TO VERIFY THAT ALL CONSTRUCTION IS IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL WORK IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.

FOUNDATIONS:

1. ALL VEGETATION, TOPSOILS, ROOTS AND ORGANIC ZONES SHALL BE STRIPPED AND REMOVED FROM THE CONSTRUCTION AREA FOR A DISTANCE OF AT LEAST 5 FEET BEYOND THE EXTERIOR OF BUILDING FOUNDATION LIMITS. THE DEPTH OF STRIPPING SHALL BE THAT REQUIRED TO REMOVE SIGNIFICANT ROOT ZONES, SMALL TREE STUMPS AND OTHER UNACCEPTABLE MATERIALS, BUT IN NO CASE LESS THAN 6 INCHES.
2. EXCAVATIONS FOR LARGE STUMPS, ABANDONED UTILITIES, UNDERGROUND TANKS, ETC.. SHALL BE BACKFILLED IN LAYERS WITH COMPACTION AND TESTING OF EACH LAYER AS DESCRIBED FOR PLACEMENT AND COMPACTION OF FILL MATERIAL. USE LOOSE BACKFILL LAYER THICKNESS APPROPRIATE FOR THE SIZE OF COMPACTOR BEING USED.
3. THE EXPOSED SOILS AT THE STRIPPED SURFACE WITHIN AND TO A POINT 5 FEET OUTSIDE THE BUILDING CONSTRUCTION AREA SHALL BE COMPACTED WITH OVERLAPPING PASSES WITH A LIGHT WEIGHT VIBRATORY DRUM ROLLER. DENSITIES OF AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) SHALL BE UNIFORMLY OBTAINED TO A DEPTH OF AT LEAST 24 INCHES BELOW THE COMPACTED SURFACE. REGARDLESS OF THE DEGREE OF COMPACTION ACHIEVED, A MINIMUM OF EIGHT COMPLETE COVERAGES SHALL BE MADE WITHIN THE BUILDING AREA. THE ROLLER COVERAGES SHALL BE DIVIDED EVENLY INTO TWO PERPENDICULAR DIRECTIONS. THE CONTRACTOR IS ADVISED NOT TO USE THE VIBRATORY MODE OF COMPACTORS IN CLOSE PROXIMITY TO EXISTING STRUCTURES. THE CONTRACTOR SHALL COORDINATE COMPACTION EFFORTS AND FOUNDATION INSTALLATIONS TO INSURE THAT NO DAMAGE OCCURS TO ADJACENT STRUCTURES.
4. AFTER COMPLETION OF DENSIFICATION OF EXISTING SOILS, STRUCTURAL FILL SHALL THEN BE PLACED IN LIFTS NOT EXCEEDING 6 INCHES IN LOOSE THICKNESS WHEN USING THE ROLLER PREVIOUSLY DESCRIBED. EACH LIFT SHALL BE THOROUGHLY COMPACTED WITH THE VIBRATORY ROLLER UNTIL DENSITIES EQUIVALENT TO AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY ARE UNIFORMLY OBTAINED. STRUCTURAL FILL SHALL CONSIST OF AN INORGANIC, NON-PLASTIC, GRANULAR SOIL CONTAINING LESS THAN 10 PERCENT MATERIAL PASSING THE NO. 200 MESH SIEVE, A RELATIVELY CLEAN SAND WITH A UNIFIED SOIL CLASSIFICATION OF SP OR SP-SM.
5. FOOTINGS AND MAT HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 4000 PSF. THE UPPER 12 INCHES OF SANDY BEARING SOILS IN THE FOOTING EXCAVATION BOTTOMS SHALL BE COMPACTED TO DENSITIES EQUIVALENT TO 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. COMPACTION, OR RECOMPACTION OF THE FOOTING EXCAVATION BEARING LEVEL SOILS LOOSENED BY THE EXCAVATION PROCESS, SHALL BE ACHIEVED BY MAKING SEVERAL PASSES WITH A RELATIVELY LIGHTWEIGHT, WALKBEHIND VIBRATORY SLED OR ROLLER COMPACTOR.
6. UNLESS NOTED, ALL FOOTINGS SHALL BE CENTERED UNDER COLUMNS, PIERS AND WALLS.
7. SLAB-ON-GRADE CONSTRUCTION SHALL BE SUPPORTED ON SUBGRADE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) TO A DEPTH OF AT LEAST 12 INCHES. INTERIOR SLABS-ON-GRADE SHALL BE CAST OVER A VAPOR RETARDER. SEE SPECIFICATIONS.
8. RETAINING WALLS HAVE BEEN DESIGNED FOR AN ASSUMED LATERAL EARTH PRESSURE OF 110 PSF PER FOOT OF DEPTH AND AN ASSUMED SURCHARGE OF 200 PSF. DESIGN ASSUMES WELL GRADED AND DRAINED BACKFILL.

AS - BUILT DRAWING REQUIREMENTS:

1. ELECTRICAL CONTRACTOR SHALL PREPARE "AS-BUILT" SHOP DRAWINGS INDICATING ALL ELECTRICAL WORK, INCLUDING ANY CHANGES TO THE ELECTRIC PLAN, ADDITIONS, RISER DIAGRAM, AS-BUILT PANEL SCHEDULE WITH ALL CIRCUITS IDENTIFIED WITH CIRCUIT NUMBER, DESCRIPTION, AND BREAKER, & ALL UNDERGROUND WIRE LOCATIONS/ROUTING/DEPTH. RISER DIAGRAM SHALL INCLUDE WIRE SIZES/TYPE AND EQUIPMENT TYPE WITH RATINGS AND LOADS.
2. PLUMBING CONTRACTOR SHALL PREPARE "AS-BUILT" SHOP DRAWINGS INDICATING ALL PLUMBING WORK, INCLUDING ALL PLUMBING LINE LOCATIONS AND RISER DIAGRAM

CONCRETE MASONRY:

1. SEE NOTES ON PRIMAY CODES AND SPECIFICATIONS.
2. CONCRETE MASONRYNITS SHALL BE LOAD BEARING TYPE CONFORMING TO ASTM C-90 HAVING A MINIMUM CCPRESSIVE STRENGTH OF 1900 PSI (NET AREA).
3. MORTAR SHALL CONFRM TO ASTM C-270 TYPE S.
4. PLAIN END TWO CELLEUNITS SHALL BE USED FOR BLOCKS THAT ARE TO HAVE CELLS REINFORCED AND FILLD. WEB SHELLS ADJACENT TO CELLS THAT ARE TO BE FILLED ARE TO BE BEDDED IN MORTR.
5. FILL CELLS AS NOTED C DRAWINGS WITH 3000 PSI GROUT, OR GROUT CONFORMING TO ASTM C-476,SPECIFICAL DESIGNED FOR FILLING OF CELLS.
6. IN SPLICING VERTICAL BRS, LAP ENDS, PLACE IN CONTACT AND WIRE-TIE TOGETHER OR USE BAR POSITIONERS. AP BARS SIDE BY SIDE IN THE PLANE OF THE WALL TO MAINTAIN PROPER COVE.
7. SEE PRIMARY CODES, SFCIFICATIONS AND DRAWINGS FOR GROUTING PROCEDURES.
8. INSTALLATION OF CONCRTE MASONRY SHALL BE COMPATIBLE WITH ALL APPLIED FINISHES SUCH AS STUCCO OR PAIT. DO NOT SPONGE WALLS WITHOUT PROPER CLEANING COMPATIBLE WITH FINISHS.
9. PROVIDE GALVANIZED WIE TYPE HORIZONTAL JOINT REINFORCING AT 16" O.C. (MAX) AND AS INDICATED ON ARCHITCTURAL DRAWINGS. PROVIDE HOT DIP GALVANIZED HJR ON ALL EXTERIOR WALLS. IN ADDIION TO SCHEDULED OR DETAILED LINTEL AND SILL REINFORCING, PROVIDE TO LAYERS OF HJR AT 8 INCHES ON CENTER ABOVE AND BELOW ALL LINTELS AND SILLS WICH SPAN MORE THAN 12 INCHES. EXTEND ADDED HJR 24 INCHES BEYOND THE OPEING JAMBS EXCEPT AT WCJ.
10. MASONRY BOND BEAMS AD CONCRETE TIE BEAMS CAST ON MASONRY WALLS SHALL BE CONSTRUCTED SO AS TO EY AND BOND INTO BLOCK CELLS. THE USE OF BUILDING PAPER OR SHEET PLASTIC TO CLSE VOIDS BELOW BEAMS IS NOT ALLOWED DUE TO BREAKAGE OF MORTAR BOND.
11. SEE ENGINEER'S DRAWINGS FOR THE EXTENT AND EXACT LOCATION OF MASONRY WALLS.

    WALL CONTROL JOINTS (WCJ):
    A. WALL CONTROL JOINTS SHALL BE PROVIDED IN ALL CONCRETE MASONRY CONSTRUCTION AT LOCATIONS INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS BUT UNLESS NOTED OTHERWISE AT A SPACING NOT GREATER THAN 24' O.C.
    B. HORIZONTAL JOINT REINFORCING SHALL BE INTERRUPTED EACH SIDE OF WALL CONTROL JOINTS.
    C. WALL CONTROL JOINTS SHALL NOT BE PLACED OVER OPENINGS OR WITHIN AN OPENING JAMB WIDTH. SEE PLANS AND/OR JAMB REINFORCING SCHEDULE FOR MINIMUM JAMB WIDTHS.
    D. SEE ARCHITECTURAL DRAWINGS FOR SEALANT REQUIREMENTS AT WALL CONTROL JOINTS.
    E. SEE THESE DRAWINGS FOR ADDITIONAL REQUIREMENTS.
12. MASONRY WALLS SHALL BE BRACED EITHER BY OTHER INTERSECTING WALLS OR BY ANCHORAGE OR BRACING TO THE STRUCTURE ABOVE, OR TO ADJACENT WALLS, AS DETAILED ON THE STRUCTURAL DRAWINGS.
13. BLOCK LINTELS SHALL BE SPECIALLY FORMED U-SHAPED LINTEL OR LOW WEB LINTEL UNITS WITH REINFORCING BARS, OR PRECAST UNITS DESIGNED FOR THE WEIGHT OF MASONRY ABOVE AND OTHER APPLIED LOADS.
14. ALL MASONRY WALLS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES IN THE FINAL CONSTRUCTED CONFIGURATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY BRACE THE WALLS FOR VERTICAL AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF LATERAL SUPPORT BY CONNECTIONS AT FLOORS OR ROOF FRAMING LEVELS.
15. QUALITY ASSURANCE: ALL REINFORCED MASONRY SHALL BE TESTED/INSPECTED IN CONFORMANCE WITH THE REFERENCED ACI 530/ASCE 5/TMS 402 CODES AND THE PROJECT SPECIFICATIONS.
16. TYPICAL SCHEDULED VERTICAL WALL REINFORCING SIZE AND SPACING SHALL ALSO BE CONTINUED ABOVE AND BELOW ALL OPENINGS.

REINFORCING STEEL:

1. REINFORCING STEEL: ASTM A 615, GRADE 60.
2. WELDED WIRE FABRIC: ASTM A 185 (FLAT SHEETS), MINIMUM YIELD STRENGTH OF 70,000 PSI.
3. MINIMUM REINFORCING STEEL CLEAR COVER (U.N.O.):
   A. CONCRETE CAST DIRECTLY AGAINST EARTH .... 3"
   B. INTERIOR SLABS .... 1"
   C. INTERIOR BEAMS .... 1-1/2" TO TIES
   D. SLABS ON GRADE .... 1-1/2" FROM TOP
4. WHERE REINFORCING BARS ARE NOTED AS CONTINUOUS, THE FOLLOWING SHALL BE COMPLIED WITH:
   A. THE TERMINATION OF ALL CONTINUOUS REINFORCING BAR RUNS SHALL BE A STANDARD HOOK UNLESS NOTED OTHERWISE.
   B. SPLICES IN CONTINUOUS TOP BARS, IF REQUIRED, SHALL OCCUR OVER PARALLEL CMU WALLS OR AT THE CENTER OF THE OPENING SPAN.
   C. SPLICES IN CONTINUOUS BOTTOM BARS, IF REQUIRED, SHALL OCCUR OVER CMU WALLS OR CENTERED OVER COLUMNS.
5. WHERE SPLICE LENGTHS ARE NOT SPECIFIED, USE 48 BAR DIAMETERS IN MASONRY AND 40 BAR DIAMETERS IN CAST CONCRETE.
6. REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL SPLICES ARE NOT PERMITTED
7. LAP ALL WELDED WIRE FABRIC A MINIMUM DISTANCE OF ONE CROSS WIRE SPACING PLUS 2 INCHES.
8. ALL REINFORCING STEEL SHALL BE SUPPORTED ON STANDARD ACCESSORIES, HELD RIGIDLY AND ACCURATELY IN PLACE, AND PROTECTED AGAINST DISPLACEMENT BEFORE AND DURING PLACEMENT OF CONCRETE. SUPPORTING ACCESSORY LEGS THAT REST ON CONCRETE SURFACES THAT WILL BE EXPOSED IN THE FINISHED STRUCTURE SHALL BE FABRICATED OF STAINLESS STEEL.
9. DOWELS AND OTHER MISCELLANEOUS STEEL EMBEDDED ITEMS SHALL BE LOCATED AND HELD IN SPECIFIED POSITION PRIOR TO PLACEMENT OF CONCRETE AND SHALL NOT BE PUSHED INTO CONCRETE FOLLOWING CONCRETE POUR.
10. FOUNDATION AND GRADE BEAM REINFORCING SHALL BE SUPPORTED ON SPECIALLY CAST 3-1/2 INCH HIGH CONCRETE BLOCKS CAST IN ACCORDANCE WITH DETAILS FURNISHED ON DRAWINGS. SLAB-ON-GRADE REINFORCING, INCLUDING WIRE FABRIC, SHALL BE SUPPORTED ON PRECAST BLOCKS OR 3000 PSI CONCRETE BRICK OF THE PROPER THICKNESS.

STRUCTURAL STEEL (SHOP DRAWINGS REQ'D):

1. SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
2. MATERIALS:
   W-SHAPES & WT-SHAPES.......................... ASTM A992
   S-SHAPES, M-SHAPES, HP-SHAPES.................. ASTM A36
   ST-SHAPES & MT-SHAPES.......................... ASTM A36
   C-SHAPES & MC-SHAPES.......................... ASTM A36
   ANGLES & PLATES.......................... ASTM A36
   HSS SHAPES.......................... ASTM A500, GRADE B
   STEEL PIPE.......................... ASTM A53 (TYPE E OR S), GRADE B
   HIGH STRENGTH BOLTS.......................... ASTM A325
   MACHINE BOLTS.......................... ASTM A307
   ANCHOR RODS..........................ASTM F1554, GRADE 55 TYPE S1(UNO)
   WELDED HEADED STUDS.......................... ASTM A108
   DEFORMED BAR ANCHORS.......................... ASTM A496
   WELDING ELECTRODES.......................... AWS D1.1, E70 SERIES
3. NON-SHRINK, NON-METALLIC GROUT WITH A 28 DAY STRENGTH OF 5000 PSI SHALL BE USED UNDER BASE PLATES AND SHALL CONFORM TO CORPS OF ENGINEERS CRD-C621, FACTORY PREMIX GROUT. SEE SPECIFICATIONS FOR TESTING REQUIREMENTS.
4. ENGINEER SHALL BE CONTACTED FOR APPROVAL OF ANY FIELD MODIFICATIONS OF ANCHOR BOLTS OR RODS AND COLUMN BASE PLATES (PER OSHA).
5. TEMPORARY BRACING OF STRUCTURAL STEEL ELEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURAL STABILITY SHALL BE MAINTAINED AT ALL TIMES DURING THE ERECTION PROCESS.
   CONTRACTOR MUST PROVIDE NOTIFICATION TO THE ERECTOR THAT, BY TESTING, THE FOUNDATION AND SUPPORTING WALLS HAVE ATTAINED SUFFICIENT STRENGTH TO SUPPORT THE STEEL TO BE ERECTED BEFORE ERECTING STRUCTURAL STEEL.
6. PROVIDE ONE SHOP COAT OF PRIMER (TT-P-636) ON ALL STEEL EXCEPT FOR ITEMS TO BE HOT DIPPED GALVANIZED OR SPRAY FIREPROOFED. DO NOT PAINT PORTIONS EMBEDDED IN CONCRETE.
7. FRAMING CONNECTIONS NOT DETAILED, OR CONNECTIONS THAT ARE MODIFIED FROM THOSE DETAILED, SHALL BE DESIGNED BY SUPPLIER FOR THE END REACTION SHOWN ON THE PLAN. IF NO REACTION IS PROVIDED, DESIGN FOR 1/2 THE BEAM MAXIMUM UNIFORM LOAD PER AISC MANUAL FOR STEEL CONSTRUCTION. SUBMIT SIGNED AND SEALED CALCULATIONS.
8. ALL WELD OPERATORS SHALL BE CURRENTLY AWS QUALIFIED.
9. SHOP CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED. USE 1/8" FILLET WELD MINIMUM.
10. FIELD CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED AS DETAILED. NO FIELD WELDING OF HOT DIPPED GALVANIZED MEMBERS WILL BE ALLOWED. USE 3/16" FILLET WELD MINIMUM.
11. DURING THE ERECTION OF STEEL BEAMS AND DIAGONAL BRACING, ALL BOLTING AND FIELD WELDING SHALL BE COMPLETE BEFORE RELEASING HOISTING CABLES.
12. SUBMIT FOR REVIEW SHOP DRAWINGS OF STEEL DETAILS PRIOR TO FABRICATING STRUCTURAL STEEL.
13. ALL EXTERIOR ELEMENTS AND THOSE ELEMENTS NOTED TO BE GALVANIZED SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER SANDBLAST CLEANING PER SSPC-SP10. USE ASTM A325 BOLTS HOT DIPPED GALVANIZED WITH GALVANIZED HARDENED WASHERS AND GALVANIZED HEAVY HEX NUTS FOR BOLTING OF GALVANIZED ITEMS.
14. STEEL COLUMNS, BASE PLATES AND ALL STEEL BELOW GRADE SHALL HAVE A MINIMUM 3" CONCRETE COVER PROTECTION.
15. MEMBERS NOTED AS "CONTINUOUS" SHALL BE FULLY WELDED AT ALL BUTT SPLICES OR CONNECTIONS SHALL BE DETAILED TO PROVIDE CONTINUITY.

CONCRETE FORMWORK:

1. SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
2. ALL FORMWORK SHALL BE DESIGNED, ERECTED, SUPPORTED, BRACED, AND MAINTAINED ACCORDING TO ACI 347, RECOMMENDED STANDARD PRACTICE FOR CONCRETE FORMWORK.
3. RESPONSIBILITY: THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.
4. TOLERANCES: UNLESS SPECIFIED OTHERWISE, ALL TOLERANCES FOR CONCRETE FORMWORK SHALL CONFORM TO ACI STANDARD 117, STANDARD TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS. THE CONTRACTOR SHALL ENGAGE A LICENSED SURVEYOR TO VERIFY THAT WORK IS WITHIN SPECIFIED TOLERANCES UNLESS WRITTEN AUTHORIZATION IS OBTAINED FROM THE ENGINEER TO PROVIDE TOLERANCE CONTROL USING THE CONTRACTOR'S OWN FORCES PRIOR TO BEGINNING WORK.
5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED WHERE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS.
6. PLUMBING SLEEVE SPACING SHALL BE THE LARGER OF THREE (3) DIAMETERS CENTER TO CENTER OF THE LARGER SLEEVE, OR 6" CLEAR BETWEEN SLEEVES. SUBMIT SLEEVE LOCATIONS AND SIZES TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
7. PENETRATIONS SHALL NOT BE PERMITTED IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS WITHOUT THE WRITTEN REVIEW OF THE STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR SHALL SUBMIT DRAWINGS TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW INDICATING ANY CONCENTRATION OF PIPES, OPENINGS OR PENETRATIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS PRIOR TO CONCRETE POURS.

SLABS ON GRADE

1. ALL CONCRETE SLABS ON GRADE SHALL BE REINFORCED PER PLANS.
2. ALL CONCRETE SLABS ON GRADE SHALL BE IN ACCORDANCE WITH "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" (ACI 302)
3. JOINTS SHALL BE PROVIDED IN ALL SLABS ON GRADE WHERE INDICATED ON DRAWINGS. CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL BE SUBJECTED TO ENGINEER'S APPROVAL.
4. PROVIDE SAWCUT JOINTS IN ALL SIDEWALKS AT A MAXIMUM SPACING OF 5 FEET O.C. AND ISOLATION JOINTS AT A MAXIMUM SPACING OF 20 FEET APART.
5. DEPTH OF SAWCUT JOINTS SHALL BE AS FOLLOWS: 4" & 6" SLABS = 1-1/2" AND 8" SLABS = 2". CUTTING SHOULD BE DONE AS SOON AS POSSIBLE AFTER THE CONCRETE HARDENS, NORMALLY WITHIN 6 HOURS. THE CONCRETE IS HARD ENOUH WHEN THE BLADE DOES NOT DISLODGE AGGREGATE AND WHEN THE EDGES OF THE CUT DO NOT RAVEL.
6. CONCRETE SLABS SHALL BE SLOPED AS SHOWN ON THE DARWINGS.

CAST-IN-PLACE CONCRETE:

1. THE LATEST EDITION OF THE FOLLOWING ACI STANDARDS APPLY:

ACI 318 (CODE)	ACI 304 (PLACING)
ACI 306 (WINTER CONCRETING)	ACI 315 (DETAILING)
ACI 305 (HOT WEATHER CONCRETING)	ACI 347 (FORMWORK)
ACI 211.1 (MIX PROPORTIONING)	ACI 301 (SPECIFICATIONS)

2. ALL CONCRETE SHALL BE NORMAL WEIGHT (148 PCF DRY DENSITY, MIN), WITH MIXES DESIGNED TO MEET THE FOLLOWING CRITERIA FOR USE IN VARIOUS ELEMENTS OF THE

STRUCTURAL ELEMENT	28-DAY COMPRESSIVE STRENGTH (PSI)	MAX. SIZE AGGREGATE	MAX. W/C RATIO	SLUMP RANGE (IN)
A. FOOTINGS	3000	3/4"	0.45	3-5
B. FOUNDATION WALLS	3000	3/4"	0.45	3-5
C. SLAB-ON-GRADE	3000	3/4"	0.50	3-5
D. ELEVATED BEAMS	3000	3/4"	0.45	3-5

3. CONCRETE SLUMP IS TAKEN AT POINT OF PLACEMENT INTO STRUCTURE.
4. WATER REDUCING AND AIR ENTRAINING AGENTS SHALL BE INCLUDED IN DESIGN MIXES. SUPERPLASTICIZERS MAY BE USED AT THE CONTRACTOR'S OPTION.
5. A CONCRETE MIX DESIGN FOR EACH UNIQUE COMBINATION OF STRENGTH, COARSE AGGREGATE GRADATION AND WATER CEMENT RATIO SPECIFIED SHALL BE PREPARED BY THE SUPPLIER OR AN INDEPENDENT TESTING LABORATORY AND BE SUBMITTED FOR REVIEW PRIOR TO CASTING ANY CONCRETE. MIXES THAT WILL BE TRANSPORTED AT THE PROJECT SITE BY PUMPING SHALL BE SPECIFICALLY DESIGNED FOR PUMPING.
6. SLABS ON GRADE: UNLESS NOTED OTHERWISE, CONCRETE SLABS ON GRADE SHALL BE A MINIMUM OF 4" THICK, REINFORCED WITH 6x6 W1.4Xw1.4 WWF PLACED 1-1/2" CLEAR FROM THE TOP OF THE SLAB. SLABS SHALL BE PLACED OVER PROPERLY COMPACTED EARTH.
7. CONCRETE TIE BEAMS: UNLESS NOTED OTHERWISE, CONCRETE TIE BEAMS SHALL BE A MINIMUM OF 16" DEEP BY THE SUPPORTING WALL WIDTH, REINFORCED WITH 2 #5 CONTINUOUS TOP AND BOTTOM AND #3 TIES AT 24" O.C.

TERMITE PROTECTION:

1. A PERMANENT SIGN WHICH IDENTIFIES THE TERMITE TREATMENT PROVIDER AND NEED FOR REINSPECTION AND TREATMENT CONTRACT RENEWAL SHALL BE PROVIDED. THE SIGN SHALL BE POSTED NEAR THE WATER HEATER OR ELECTRIC PANEL. FBC 104.2.6
2. CONDENSATE AND ROOF DOWNSPOUTS SHALL DISCHARGE AT LEAST 1'-0" AWAY FROM BUILDING SIDE WALLS. FBC 1503.4.4
3. IRRIGATION/SPRINKLER SYSTEMS INCLUDING ALL RISERS AND SPRAY HEADS SHALL NOT BE INSTALLED WITHIN 1'-0" FROM BUILDING SIDE WALLS. FBC 1503.4.4
4. TO PROVIDE FOR INSPECTION FOR TERMITE INFESTATION, BETWEEN WALL COVERINGS AND FINAL EARTH GRADE SHALL NOT BE LESS THAN 6". EXCEPTION: PAINT AND DECORATIVE CEMENTIOUS FINISH LESS THAN 518" THICK ADHERED DIRECTLY TO THE FOUNDATION WALL. FBC 1403.1.6
5. INITIAL TREATMENT SHALL BE DONE AFTER ALL EXCAVATION AND BACKFILL IS COMPLETE. FBC 1816.1.1
6. SOIL DISTURBED AFTER THE INITIAL TREATMENT SHALL BE RETREATED INCLUDING SPACES BOXED OR FORMED. FBC 1818.1.2
7. BOXED AREAS IN CONCRETE FLOOR FOR SUBSEQUENT INSTALLATION OF TRAPS, ETC., SHALL BE MADE WITH PERMANENT METAL OR PLASTIC FORMS. PERMANENT FORMS MUST BE OF A SIZE AND DEPTH THAT WILL ELIMINATE THE DISTURBANCE OF SOIL AFTER THE INITIAL TREATMENT. FBC 1816.1.3
8. MINIMUM 6 MIL VAPOR RETARDER MUST BE INSTALLED TO PROTECT AGAINST RAINFALL DILUTION. IF RAINFALL OCCURS BEFORE VAPOR RETARDER PLACEMENT, RETREATMENT IS REQUIRED. FBC 1816.1.4
9. CONCRETE OVERPOUR AND MORTAR ALONG THE FOUNDATION PERIMETER MUST BE REMOVED BEFORE EXTERIOR SOIL TREATMENT. FBC 1816.1.5
10. SOIL TREATMENT MUST BE APPLIED UNDER ALL EXTERIOR CONCRETE OR GRADE WITHIN 1'-0" OF THE STRUCTURE SIDEWALLS. FBC 1816.1.6
11. AN EXTERIOR VERTICAL CHEMICAL BARRIER MUST BE INSTALLED AFTER CONSTRUCTION IS COMPLETE INCLUDING LANDSCAPING AND IRRIGATION. ANY SOIL DISTURBED AFTER THE VERTICAL BARRIER IS APPLIED,SHALL BE RETREATED. FBC 1816.1.6
12. ALL BUILDINGS ARE REQUIRED TO HAVE PER CONSTRUCTION TREATMENT. FBC 1816.1.7
13. A CERTIFICATE OF COMPLIANCE MUST BE ISSUED TO THE BUILDING DEPARTMENT BY LICENSED PEST CONTROL COMPANY BEFORE A CERTIFICATE OF OCCUPANCY WILL BE ISSUED. THE CERTIFICATE OF COMPLIANCE SHALL STATE: "THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. THE TREATMENT IS IN ACCORDANCE WITH THE RULES AND LAWS OF THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES". FBC 1816.1.7
14. AFTER ALL WORK IS COMPLETED, LOOSE WOOD AND FILL MUST BE REMOVED FROM BELOW AND WITHIN 1'-0" OF THE BUILDING. THIS INCLUDES ALL GRADE STAKES, TUB TRAP BOXES, FORMS, SHORING OR OTHER CELLULOSE CONTAINING MATERIAL. FBC 2303.1.3
15. NO WOOD, VEGETATION, STUMPS, CARDBOARD, TRASH, ETC., SHALL BE BURIED WITHIN 15'-0" OF ANY BUILDING OR PROPOSED BUILDING. FBC 2303.1.4

MISCELLANEOUS:

1. CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE DRAWINGS, ARE SUBJECT TO THE APPROVAL FOR THE ENGINEER.
2. CONTRACTOR TO COORDINATE EXACT SIZE AND LOCATION OF CONCRETE EQUIPMENT PADS, PIPES, PIPE ENCASEMENT, PIPE SUPPORTS, CHASES, AND OTHER MISCELLANEOUS ITEMS TO BE PLACED PRIOR TO POURING CONCRETE, WITH MECHANICAL AND ELECTRICAL DRAWINGS AND MANUFACTURERS REVIEWED SHOP DRAWINGS.
3. NO CONDUITS, PIPES, SLEEVES OR ANY OTHER ITEM SHALL BE EMBEDDED IN CONCRETE ALONG, THROUGH OR UNDER ANY BEAM, COLUMN, FOOTING, GRADE BEAM, SLAB, WALL OR ANY OTHER STRUCTURAL MEMBER WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
4. ALL PHASES OF CONCRETE CONSTRUCTION INCLUDING MATERIALS, FOUNDATIONS, CAST-IN-PLACE AND PRECAST CONCRETE, REINFORCING STEEL, MASONRY, FORM WORK AND ALL OTHER RELATED PROCEDURES AND MATERIALS SHALL COMPLY WITH THE MOST STRINGENT ALLOWED TOLERANCES OF ACI-301 AND ACI-117 STANDARDS. (LATEST VERSION)

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CES
Crews Engineering Services, LLC

CERTIFICATE OF AUTHORIZATION
NO. 28022

P.O. BOX 970
LAKE CITY, FL 32056
PHONE: 386.754.4085

BRETT ALAN CREWS LICENSE NO. 65592 STATE OF
Brett A. Crews, P.E. 65592

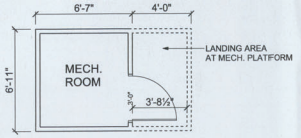
DRAWN BY: TM
APPROVED BY: BC

MONSTA CLOTHING

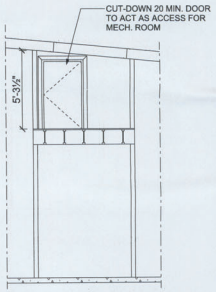
GENERAL NOTES

CES PROJECT NO.: 2013-015
SHEET: A-1

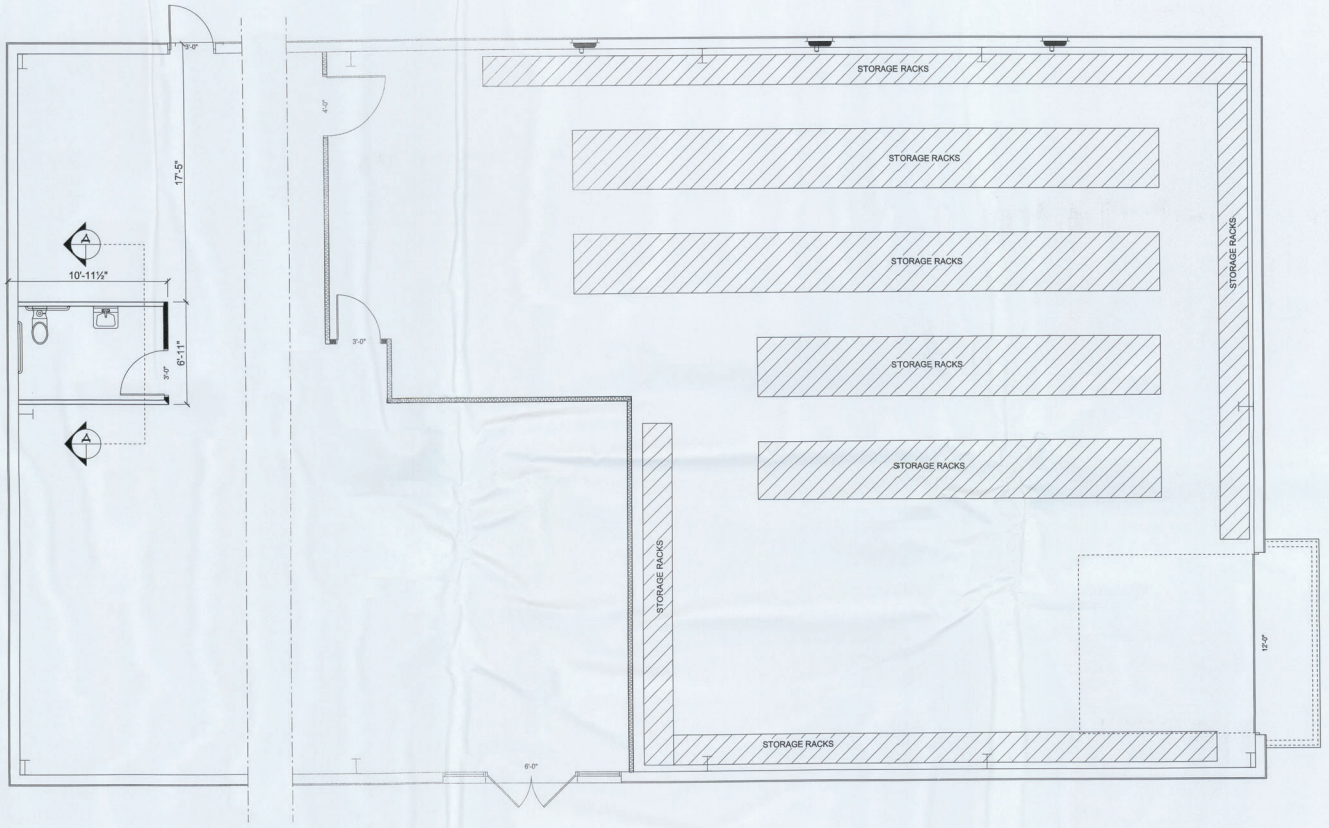
NOTE:
WALLS AND CEILING OF MECAHANICAL ROOM SHALL BE CONSTRUCTED TO MEET 1 HOUR FIRE RATING



UPPER MECHANICAL ROOM
NTS



SECTION A
NTS



PHASE I FLOOR PLAN
NTS SEE PAGE A-2 FOR DIMENSIONS

REVISIONS

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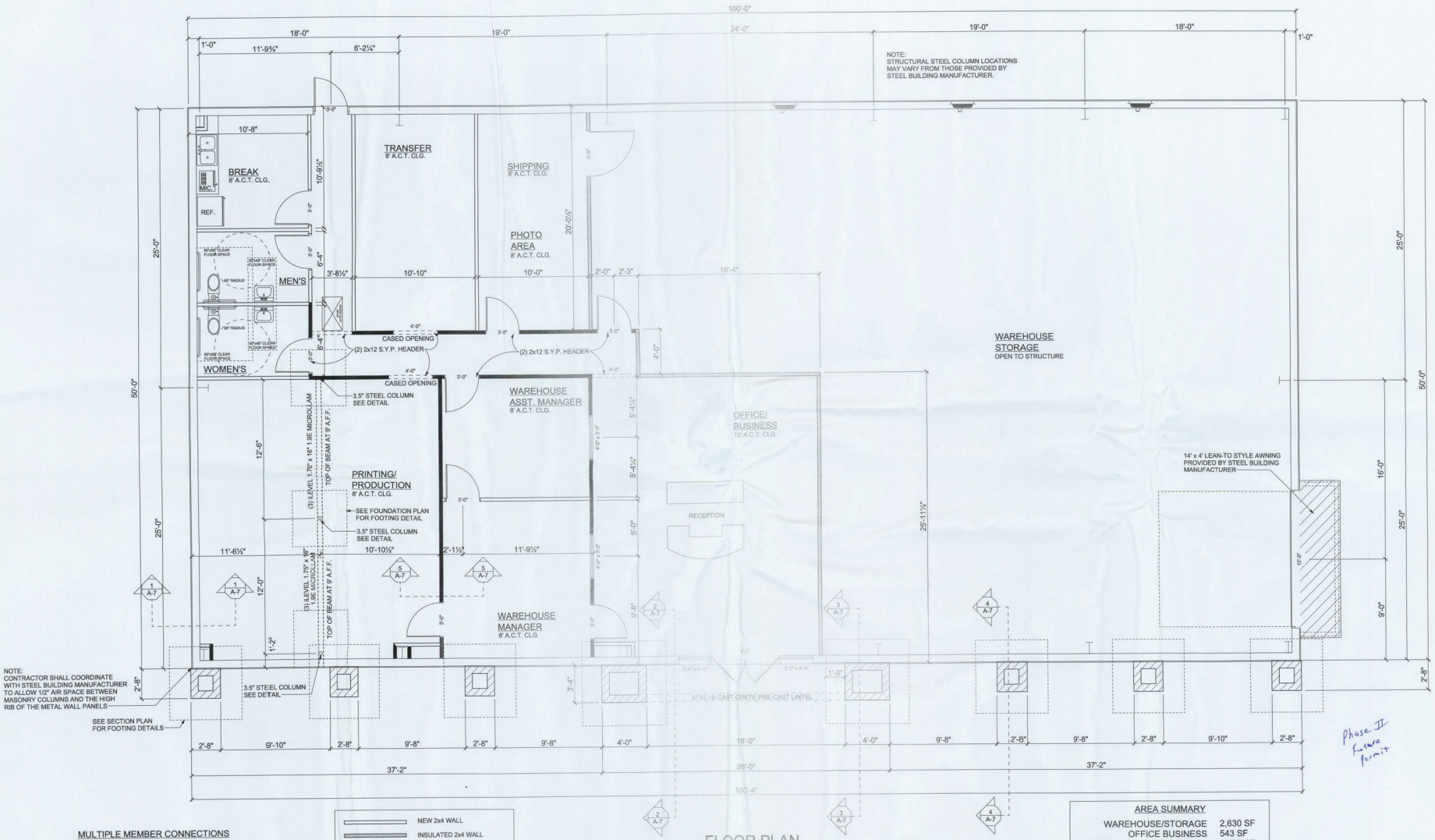
APPROVED BY: BC

MONSTA CLOTHING

PHASE I FLOOR LAYOUT

CES PROJECT NO.: 2013-015
SHEET: A-2a



Phase II
Future Permit

MULTIPLE MEMBER CONNECTIONS

FOR 2 MEMBER BEAMS USE MIN. 3 ROWS OF 10D 3" NAILS @ 12" O.C.
FOR 3 MEMBER BEAMS USE MIN. 3 ROWS OF 10D 3" NAILS @ 12" O.C. BOTH SIDES

NEW 2x4 WALL
INSULATED 2x4 WALL
INTERIOR BEARING WALL
8" STEEL BUILDING WALL

FLOOR PLAN
SCALE: 1/4" = 1'-0"

AREA SUMMARY	
WAREHOUSE/STORAGE	2,630 SF
OFFICE BUSINESS	543 SF
PRINTING AND PRODUCTION	1,827 SF
TOTAL HABITABLE AREA	5,000 SF
ADDITIONAL ATTIC STORAGE	1,128 SF

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CES
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STATE OF FLORIDA — LICENSE NO. 65592 — PROFESSIONAL ENGINEER
Brett A. Crews, P.E. 65592

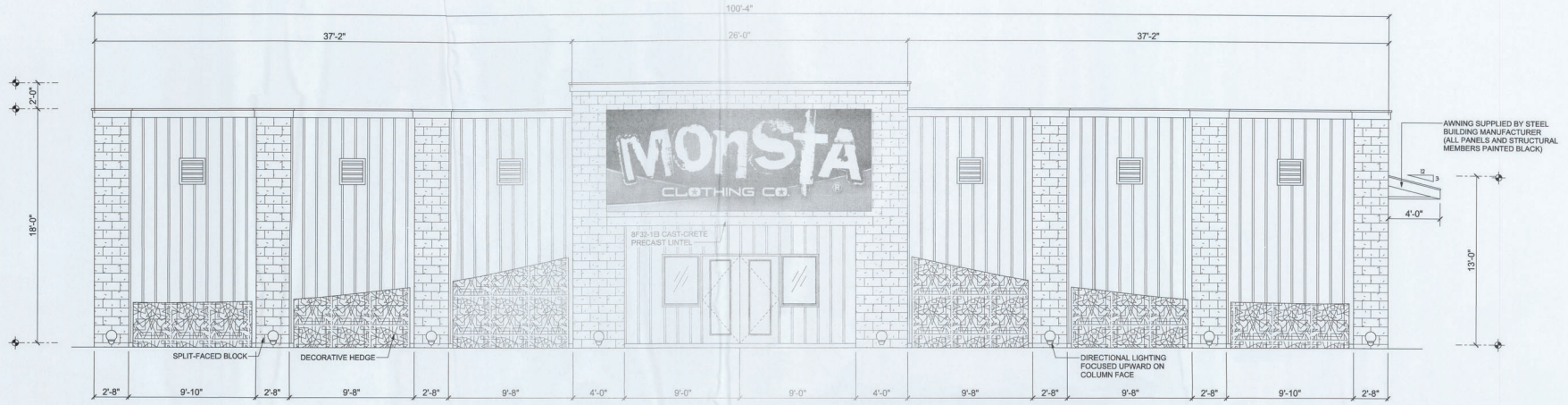
DRAWN BY:	TM
APPROVED BY:	BC

MONSTA CLOTHING

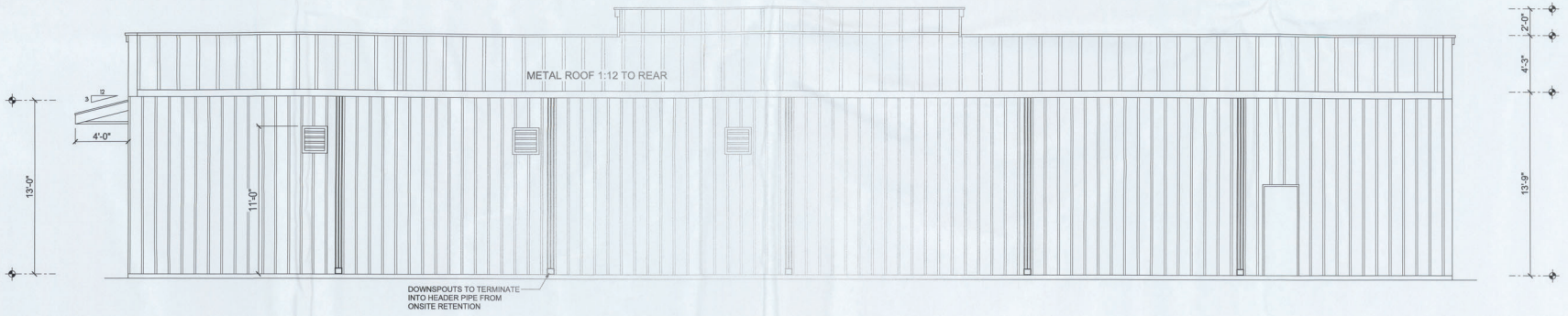
FLOOR LAYOUT

CES PROJECT NO.: 2013-015

SHEET: A-2



FRONT ELEVATION
SCALE: 1/4" = 1'-0"



REAR ELEVATION
SCALE: 1/4" = 1'-0"

REVISIONS					
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CES
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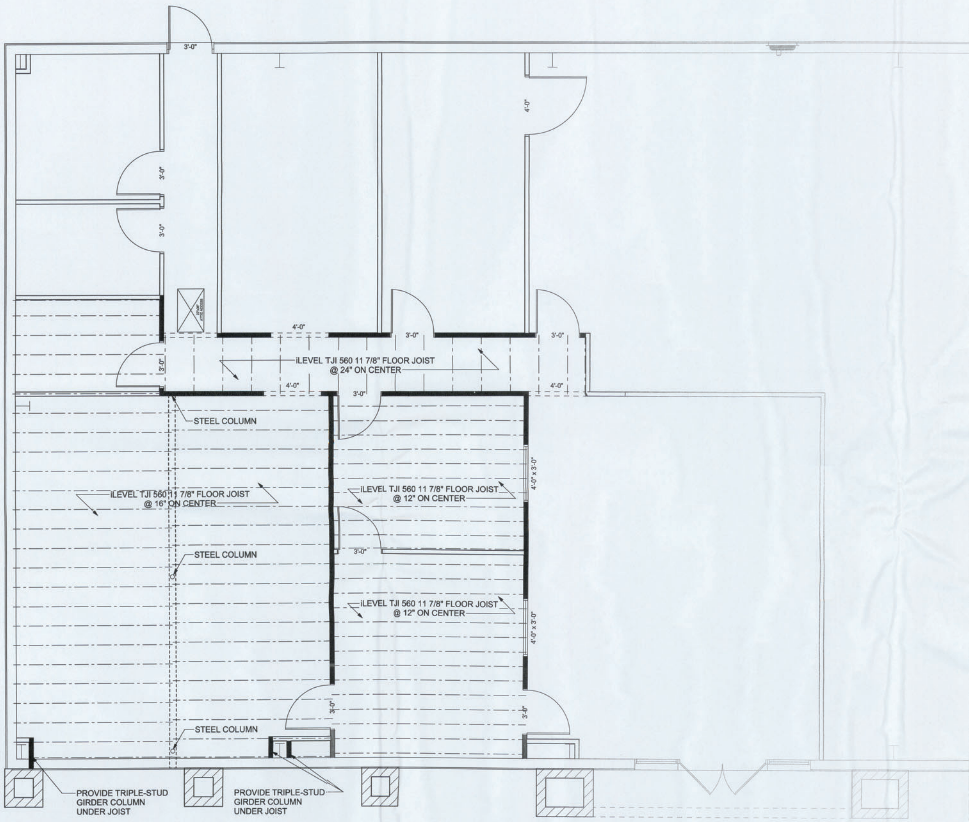
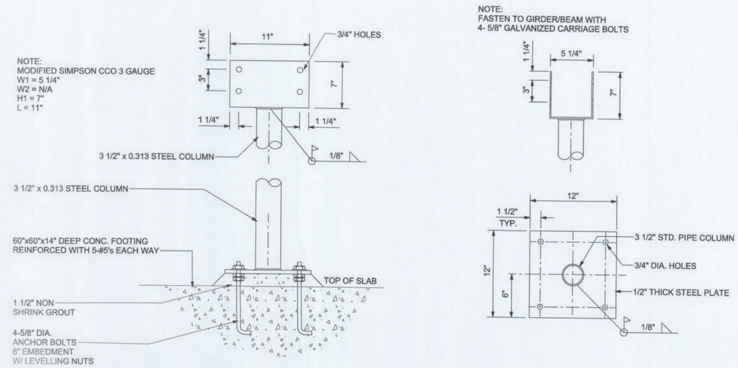
STATE OF FLORIDA — LICENSED — NO. 65592 — Brett A. Crews, P.E. 65592

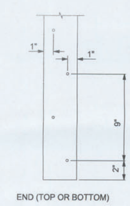
DRAWN BY: TM	**MONSTA CLOTHING**	CES PROJECT NO.: 2013-015
APPROVED BY: BC	ELEVATIONS FRONT AND REAR	SHEET: A-3



JOIST LAYOUT
SCALE: 1/4" = 1'-0"



STEEL COLUMN DETAILS
SCALE: 1 1/2" = 1'-0"



WOODEN STUD GIRDER COLUMN DETAIL
SCALE: 1/2" = 1'-0"

STRUCTURAL STEEL

S1 GENERAL CONTRACTOR SHALL ENGAGE A CERTIFIED TESTING AGENCY TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS. SUBMIT REPORT TO A/E.

S2 STEEL WORK SHALL CONFORM TO THE AISC "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL BUILDINGS", LATEST EDITION.

S3 MATERIAL

BEAMS & CHANNELS	ASTM A572, GRADE 50
STEEL TUBING	ASTM A500, GRADE B
PLATES	ASTM A36
BOLTS	ASTM A325
ANCHOR BOLTS	ASTM A36 THREADED ROD - 6" MIN. EMBEDMENT WITH 2" HOOK
EXPANSION ANCHORS	RAMSET/REDHEAD TRUBOLT OR APPORVED EQUIVALENT
NON-SHRINK GROUT	5000 PSI

S4 BRACE AND MAINTAIN ALL STEEL IN ALIGNMENT UNTIL OTHER PARTS OF CONSTRUCTION NECESSARY FOR PERMANENT SUPPORT ARE COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TEMPORARY SHORING AS REQUIRED FOR THE STABILITY OF THE STEEL FRAME UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN COMPLETED AND BUILDING IS ENCLOSED.

S5 ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF "THE STANDARD CODE FOR WELDING IN BUILDING CONSTRUCTION: OF THE AMERICAN WELDING SOCIETY. WELDING ELECTRODES SHALL BE E70XX-LOW HYDROGEN FOR SHIELD AND METAL ARC WELDING.

S6 PROVIDE NUT & WASHER FOR ALL BOLTS AND ANCHOR BOLTS

S7 ALL WELDED CONNECTIONS SHALL BE 1/4 " FILLET ALL AROUND, UNO. ALL BOLTED CONNECTIONS SHALL BE 1/2 " DIA. A325 BOLTS, UNO.

SHOP PAINTING: SHOP PAINTING AND SURFACE PREPARATION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE CODE OF STANDARD PRACTICE OF AISC.

TOUCH-UP PAINTING: AFTER JOIST INSTALLATION, PAINT FIELD BOLT HEADS AND NUTS, AND WELDED AREAS, ABRADED OR RUSTY SURFACES ON JOISTS AND STEEL SUPPORTING MEMBERS. WIRE BRUSH SURFACES AND CLEAN WITH SOLVENT BEFORE PAINTING. USE SAME TYPE OF PAINT AS USED FOR SHOP PAINTING.

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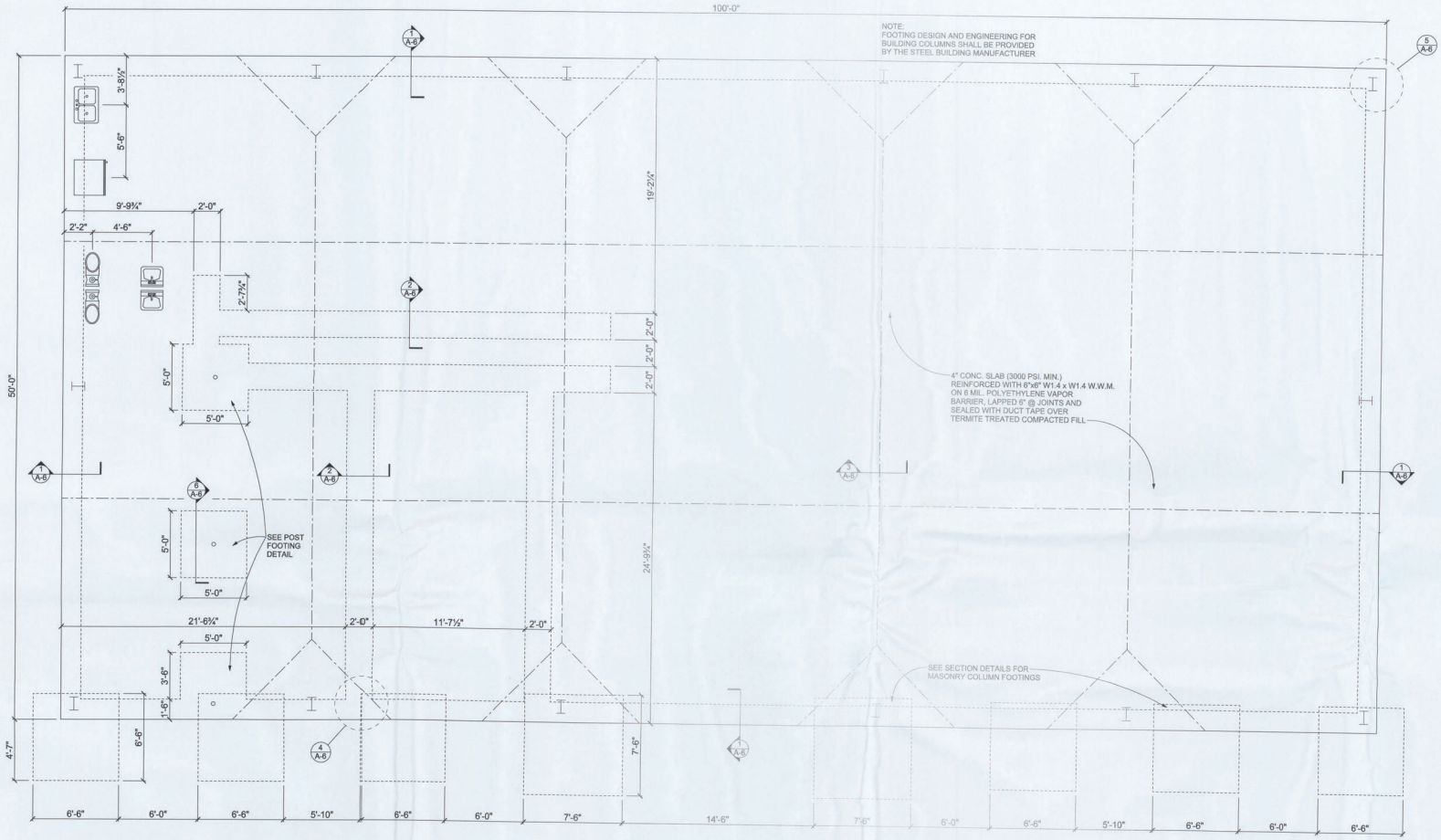
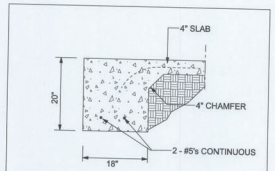
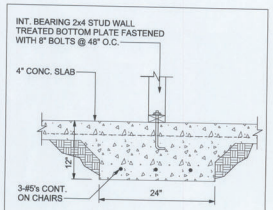
DRAWN BY: TM		MONSTA CLOTHING	CES PROJECT NO.:	2013-015
APPROVED BY: BC		UPPER STORAGE PLAN	SHEET:	A-5



FOUNDATION LAYOUT
SCALE: 1/4" = 1'-0"

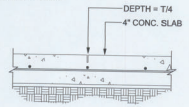


1 CONTINUOUS FOOTING
SCALE: 3/4" = 1'-0"

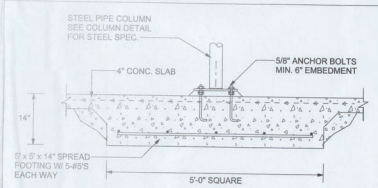


2 INTERIOR FOOTING
SCALE: 3/4" = 1'-0"

NOTE:
ALL INTERIOR SAWCUTS AND ISOLATION JOINTS SHALL BE FILLED WITH JOINT SEALANT COMPOUND. SAW CUT SHALL BE MADE WITHIN 24 HOURS OF POUR

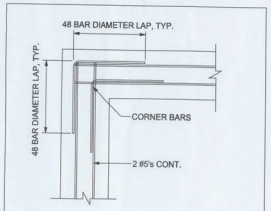


3 SAWCUT DETAIL
NTS

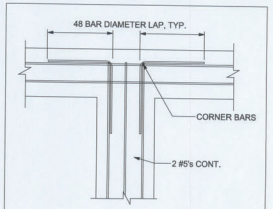


6 POST FOOTING DETAIL
SCALE: 3/4" = 1'-0"

NOTE:
CENTER OF COLUMN MAY BE OFFSET A MAXIMUM OF 1'-6" FROM CENTER OF FOOTING



5 FOOTING REINFORCING AT CORNER (NTS)



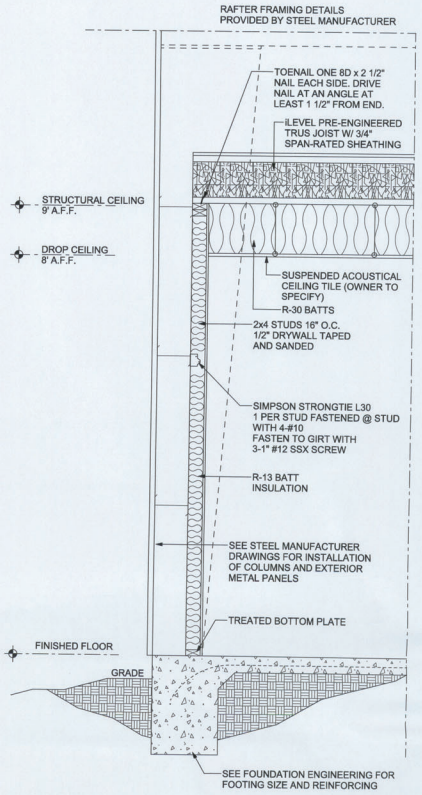
4 FOOTING REINFORCING AT INTERSECTION (NTS)

REVISIONS

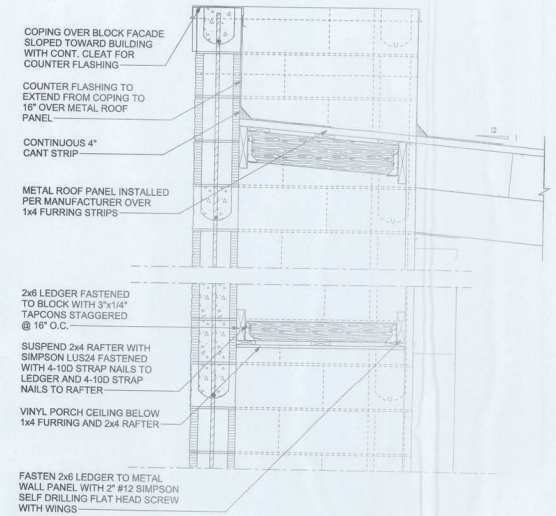
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CES
Crews Engineering Services, LLC
CERTIFICATE OF AUTHORIZATION NO. 28022
P.O. BOX 970
LAKE CITY, FL 32056
PHONE: 386.754.4085
LICENSE NO. 65592 STATE OF FLORIDA
Brett A. Crews, P.E. 65592

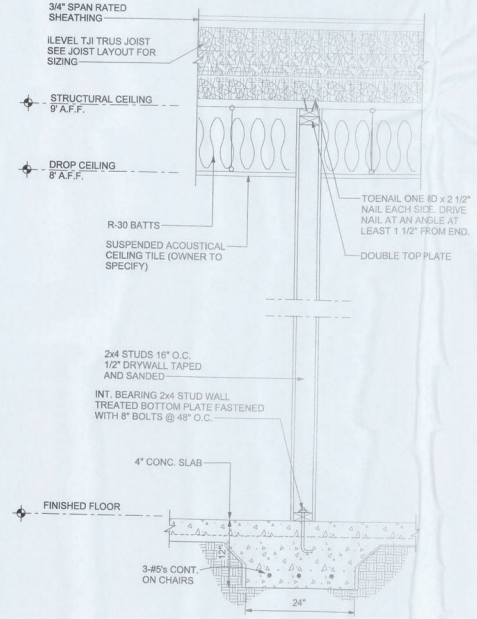
DRAWN BY:	TM	MONSTA CLOTHING	CES PROJECT NO.: 2013-015
APPROVED BY:	BC	FOUNDATION PLAN	SHEET: A-6



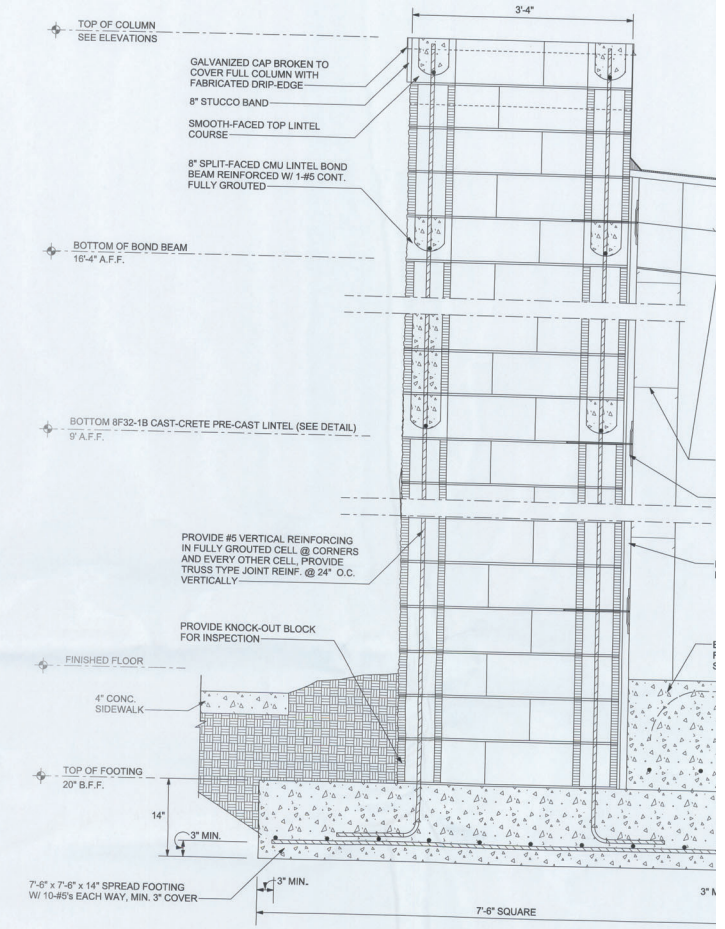
1 EXTERIOR SIDE WALL
SCALE: 3/4" = 1'-0"



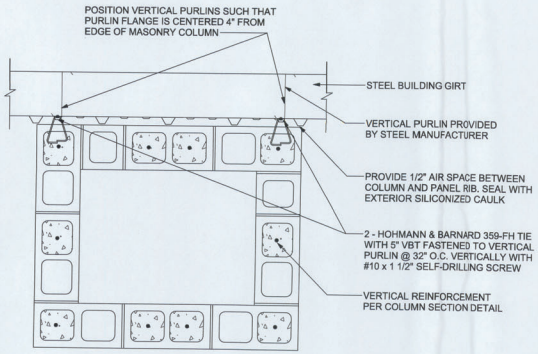
2 ROOF AND CEILING SECTION FRONT FACADE
SCALE: 1" = 1'-0"



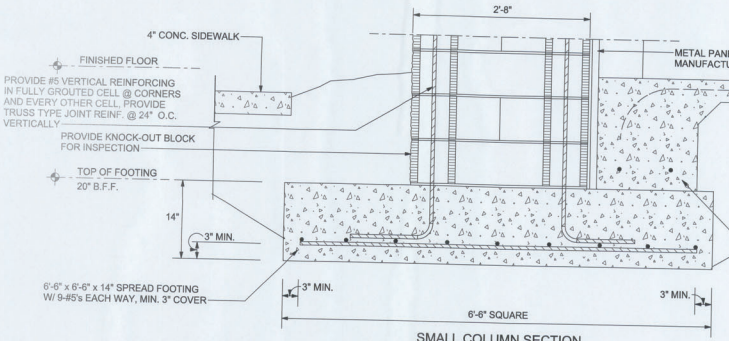
5 INTERIOR BEARING WALL
SCALE: 1" = 1'-0"



3 COLUMN SECTION FRONT FACADE
SCALE: 1" = 1'-0"



6 MASONRY ANCHORING DETAIL
SCALE: 1" = 1'-0"



4 SMALL COLUMN SECTION DETAIL
SCALE: 1" = 1'-0"

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CES
Crews Engineering Services, LLC
CERTIFICATE OF AUTHORIZATION NO. 28022
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APPROVED BY: BC

MONSTA CLOTHI

SECTIONS AND DETA

PLUMBING SPECIFICATIONS

A. It is the intent of these specifications to define the work and materials typically installed by a Plumbing Contractor. However, it is not intended to define a subcontract between the Plumbing Contractor and General. The General Contractor is responsible for the entire project and any questions regarding scope of work shall be directed to the General Contractor.
B. Work shall include all labor, materials, fixtures, equipment, tools and service necessary for installation, testing and adjusting of all mechanical systems shall be furnished and installed in compliance with the Drawings. Specifications, and any Addenda thereto.
C. Drawings and Specifications shall be understood to cover, according to their intent and meaning, complete mechanical systems. Work shown and not specified, or work specified and not shown shall be performed as though mentioned in both.
D. Minor items and accessories reasonably inferred as necessary for the complete and proper operation of any system shall be provided by contractor or subcontractor for such system whether or not they are specifically called for.
E. Before submitting a bid, the Plumbing Contractor is to coordinate with the utility company to ascertain, in detail, the division of work, and the extent of performance by the Utility Company shall be furnished and performed by the Plumbing Contractor.
1. If well and septic, contractor shall coordinate with General Contractor and review civil drawings to coordinate his scope of work.
F. All work shall be performed or installed in strict accordance with Standard Plumbing Code all applicable rules, regulations and codes of local state and Federal Governments having lawful jurisdiction, and each contractor and subcontractor shall be responsible for such compliance.
G. Fees for permits, Inspections, patent use, royalties, etc. shall be paid by the contractor.
1. Furnish all equipment and personnel and conduct all tests required to secure approval of the installation.
2. Any repairs or changes required to secure the approval of the installation shall be done at no additional expense to the Owner.
H. All work shall be installed in accordance with the appropriate codes and satisfy the local inspector having jurisdiction.
1. Furnish all equipment and personnel and conduct all tests required to secure approval of the installation.
2. Any repairs or changes required to secure the approval of the installation shall be done at no additional expense to the Owner.
I. Upon completion of each part of the mechanical system, the contractor shall demonstrate to the Engineer that each item on that system is installed with proper covers, safeties, controls, etc., and that all are in proper working order.
J. A set of "red-lined" mechanical drawings shall be carefully maintained at the job site. Actual conditions are to be put on the drawings in red on a daily basis so the drawings will continuously show locations and routings of piping, ducts, grilles, equipment, valves, and any equipment specified on the drawings or in these specifications.
K. Equipment and materials shall be new and meet or exceed specification requirements.
1. All product shall be current model for which replacement parts are available.
L. Acceptable manufacturers are listed, additional manufacturers may request approval for their products up to 10 days in advance of bid. Engineer may require supplemental information prior to accepting or requesting an alternate.
M. All work shall be performed in compliance with OSHA regulations.
N. Shop drawings and product data shall be submitted on all equipment, fixtures, etc.
1. Submittals shall include all equipment to be installed by the subcontractor and all submittals must be made at same time.
2. Each package must have the General Contractors review stamp prior to submittal.
3. The Engineer will review one submittal and one resubmittal; subsequent resubmittals may require a review charge to be paid by subcontractor.
4. Shop drawings shall be labeled in the same designation as the drawings.
O. Job conditions shall be inspected to determine prior to bidding in the following manner:
1. Site visit to determine:
a. Existing conditions.
b. How and where materials will be delivered and stored.
c. Special problems encountered during construction.
2. Examine all Contract Drawings and Specifications to determine:
a. Type of construction to be used.
b. How construction or work will affect the work of this Section.
c. Nature and extent of work of other trades.
P. Failure to determine existing conditions or nature of construction will not be considered as a basis for granting additional compensation.
Q. Installation
1. Contract Drawings show the arrangements and sizes of principal apparatus and devices to be provided under this Contract and connection thereto. These shall be followed as closely as actual building construction will permit.
2. Dimensions of work as indicated on Plans are not guaranteed to be as-built d dimensions.
3. No measurements shall be scaled from Drawings and used as definite dimensions for layout or fitting work in place.
4. Layout of equipment, as shown on the plans, shall be checked and exact location determined by dimension if equipment approved by the Engineer.
5. Consult the Drawings for all dimensions, locations of partitions, sizes of structural member, foundations, etc.
6. Do not make final layouts until shop or equipment drawings are approved and job conditions verified.
R. Excavation and Backfill:
1. Plumbing Contractor shall coordinate with General Contactor to determine the extent or has work regarding excavation and backfill.
S. Rough-in:
1. Contractor shall rough-in for all equipment, fixtures, etc., in building whether or not such equipment is furnished by this Contractor or by Owner.
2. Determine in advance the location and size of all openings and chases necessary for proper installation of all work and have openings and chases provided during construction.
3. Install all inserts for hangers and supports of mechanical work and equipment work as general construction progresses.
4. Rough-in openings in masonry or stud walls shall be cut, not broken or chiseled.
5. Sleeves shall be required at all points where piping passes through concrete walls, slabs or masonry walls; sleeves installed before grade or where subject to high water conditions shall be installed watertight.
T. Coordination:
1. Work shall be coordinated between all Contractors, Subcontractors, Installers, Suppliers, Trades, etc., to:
a. Insure a neatly fitted installation.
b. Determine the nature and extent of the work of others.
c. Eliminate interferences.
d. Maintain maximum headroom and clearances.
2. Any interference which developed or is foreseen and cannot be resolved by the affected trades, etc. shall be handled as follows:
a. Cease installation of that portion of the work which is in conflict as no additional compensation will be allowed for any relocation, etc.
b. Continue work only on other portions of the work which are not in conflict.
c. Notify the Engineer immediately.
d. Engineer's decision shall be final as to any relocation, rerouting, removal, etc.
e. No additional compensation will be allowed for removal, relocation, repairs or changes required by interferences.
U. Clear away all debris, surplus materials, etc., resulting from work on operations, leaving job and equipment in clean first-class condition.
V. Where factory finish is provided on equipment, all marred or damaged surfaces shall be touched-up or refinished hereunder as approved.
W. All plumbing fixures shall be thoroughly cleaned of all plaster, stickers, rust stains, and other foreign matter, and be left ready for use.
X. Surfaces of all floor drains, cleanouts and other equipment shall be cleaned and left in first-class condition.

CHLORINATION OF DOMESTIC WATER LINES

A. Disinfection of all water piping which shall carry potable water or any other piping connected thereto which is not separated by a backflow preventor.
B. Disinfection shall be chlorine, either in the form of hypochlorite solution or in the form of compressed gas applied through an approved cholorinator.
C. After completion of all tests, replacement, and repairs, all water supply systems shall be thoroughy flushed with water to remove sediment and other debris.
D. Begin disinfection only after flushing system.
E. The system shall be filled with a solution containing 50 parts per million available chlorine and allowed to stand for twenty-four hours, or as required by local authorities, whichever is greater.
F. During Chlorination all valves and equipment shall be operated to insure that chlorine reaches all parts of the system.
G. Following disinfection all treated water shall be flushed from the system through its extremities until the quality of water delivered is comparable with the quality of the public water supply and satisfactory to the public health authority having jurisdiction.
H. Disinfection and flushing shall be repeated if samples taken daily over a period of three days show that water quality is not being maintained.
I. Samples shall be taken only from taps located and installed in such a manner that they will not contribute any contamination.
J. Samples shall not be drawn from hydrants or through unsterilized hose.
K. If disinfection and flushing has been repeated three times and water quality cannot be maintained, the Engineer shall have the authority to require disassembly of piping as he shall deem necessary to determine the cause of contamination.
1. Any disassembly, cleaning or repair shall be at no additional expense to the Owner.
2. Disinfection, flushing and testing shall be repeated upon reassembly of the piping.

PIPE AND FITTINGS

A. Refer to "PIPING SCHEDULE" on drawings.
B. Any manufacturer engaged in the production of pipe, fittings and associated materials and who test, inspect and certify that said materials meet or exceed the ASTM designation for that material shall be acceptable.
C. Inspection for Underground Piping:
1. Examine areas to receive underground piping for:
a. Complete excavation to elevations and slopes indicated.
b. Obstructions which would interfere with drainage system installation.
2. Begin work only when conditions are satisfactory.
D. Inspection for above-Ground Piping:
1. Examine areas to receive piping for:
a. Obstructions.
b. Work to be done prior to other construction.
c. Work of other trades in other areas.
2. Begin work only when conditions are corrected satisfactorily.
E. Installation of Underground Piping
1. Excavation:
a. Excavate trenches of sufficient width for proper installation of pipe.
b. Sheet and brace trenches as necessary to protect workmen and adjacent structures.
c. Comply with current OSHA standards.
2. Final grading of trench:
a. Perform final grading of trench bottoms by hand tools; carry machine excavation only to such depth that soil bearing for pipes will not be disturbed.
b. Grade bottom of trenches evenly to insure uniform bearing for all piping.
c. Cut holes as necessary for joint making.
d. Keep trenches free from water while construction is in progress.
e. Use surveyor's level to establish elevations and grades.
f. Machine excavation shall be held a sufficient distance from foundations and footings.
g. Provide and maintain barricades and temporary bridges around excavations as required for safety.
h. Water lines may be benched above sanitary lines in same trench if they are 18 inches or more above the sanitary line.
i. Minimum bury depth for water piping shall be 24 inches.
j. Grade horizontal drainage 1/4 inch per foot minimum.
k. Install same type material specified for the inside building to 8 feet outside building.
3. Backfill:
a. Backfill for all sewer lines shall be placed in accordance with manufacturer's printed instructions.
b. Backfill trenches only after piping has been inspected.
c. The backfill below paved areas and walks shall be brought to within 6 inches of finished grade; the remaining six inches shall be backfilled with clean topsoil.
d. The backfill below sodded or seeded areas shall be brought to within 6 inches of finished grade; the remaining six inches shall be backfilled with clean topsoil.
e. Provide and place any additional fill material from off the site as may be required for backfill.
F. Installation of above-Ground Piping:
1. Pipe supports.
a. Pipe shall be adequately supported during construction with blocking or slings to prevent injury to personnel or damage to equipment or materials.
2. Exposed piping.
a. Run exposed piping true and level.
b. Run vertical exposed piping plumb.
c. Run exposed piping with as few elbows and bends as possible.
d. Group piping wherever practical at common elevations.
e. Install concealed pipes close to building's structure to keep furring to a minimum.
f. Slope water piping 1 inch in 40 feet and arrange to drain at low points.
g. On closed systems, equip low points with 3/4 inch drain valves and hose nipples.

COPPER PIPE

A. Domestic Water Supply Above Grade or Slab
1. Type L, Hard copper
2. Joints
a. Solder using lead-free solder and non-corrosive flux
3. Fittings
a. Wrought copper or cast brass
b. Steel fittings prohibited.
B. Water Supply Below Grade or Under Slab (Larger than 3/4")
1. Type K hard drawn copper tubing.
2. Joints
a. Solder using Silver solder or "Sil-Fos."
3. Fittings:
a. Wrought copper or cast brass

PLASTIC PIPE AND FITTINGS

A. Vent piping (Above grade).
1. Piping shall be PVC
2. Polyvinyl Chloride (PVC) - ASTM D-1784-60T
a. Schedule 80
b. Type 1, Grade 1
c. Pipe shall bear NSF seal and ASTM designation
3. Joints
a. Bonded joints using adhesive per manufacturer's recommendations
4. Fittings
a. PVC - ASTM D-2665-69.
b. ABS - ASTM D-2661-69.
B. Sanitary piping (Below Grade).
1. PVC
a. Schedule 40,
b. Type 1, Grade 1
c. Pipe shall bear ASTM designation and NSF seal
2. Joints
a. Bonded joints using adhesive per manufacturer's recommendations
3. Fittings
a. PVC - ASTM D-2665-69

TRAPS

A. General
1. All fixtures shall be trapped according to the Standard Plumbing Code.
2. All traps shall be the same size as the pipe in which they are installed or as sized on the Drawings.
3. All traps above grade shall have a clean-out plug in the bottom of the trap.
4. All traps above grade shall be cast brass with chrome finish.
5. All traps below grade shall be cast iron.
6. No trap below grade shall be less than 2 inches.
7. No fixture shall be double trapped.

SHOCK ABSORBERS

A. Furnish and install shock absorbers on all domestic water piping as shown on the drawings, and/or specified in this section.
B. Acceptable Manufactures
1. Wade
2. Josam
C. Description
1. Heavy duty casing
2. Minimum burst pressure - 4500 psig.
3. Nested bellows with built in stop.
4. Operating temperature 100 to 300 degrees F.
5. Permanently sealed charge of non-combustible gas.
6. All stainless steel.
7. Designed and built in accordance with plumbing and drawing standard PDI-WH201.
D. Model Numbers (Zum numbers used for reference only)
1. SS-1, MODEL 1250 - A - 1/2"
2. SS-2, MODEL 1250 - B - 3/4"
3. SS-3, MODEL 1250 - C - 1"
4. SS-4, MODEL 1250 - D - 1"
5. SS-5, MODEL 1250 - E - 1"
6. SS-6, MODEL 1250 - F - 1"

PIPE HANGERS AND SUPPORTS

A. All piping shall be supported by pipe hangers, clamps, clips or supports as specified in this Section.
B. All clevis type hangers shall have a minimum of 1 1/2 inches of vertical adjustment by using turnbuckles and/or threaded rods.
C. All adjustments shall be positively secured by a locknut or setscrew.
D. Hangers shall support the pipe size for which they are manufactured.
E. Acceptable Manufactures
1. Grinell
2. Fee and Mason

F. All clamps, hangers, clevis, etc. shall be steel.
G. Pipe hangers in direct contact with copper shall be copper or lead plated, or of an approved dielectric material.
H. Installation:
1. All piping shall be supported from structural building members, i.e. block, beams, columns, purlines, floor joists, etc.
2. Hangers shall not be supported from ceiling tile or grids, conduit, mechanical equipment, ductwork or non-structural steel.
3. Perforated strapping may be used only for piping 3/4 in. or smaller and only when concealed in walls or ceilings.
4. Hangers for piping run flush along the walls shall be stamped steel straps similar to conduit straps for pipe sizes two(2) inches and smaller.
5. Hangers for piping run flush along the walls shall be steel wall brackets with steel clevis type hangers and threaded rod supports for pipe over two (2) inches.
6. Hangers for piping not run along walls shall be clevis type hangers with threaded rod supports for all piping over 3/4 inches.
I. Spacing:
1. Vertical runs of piping not over 15 feet long shall be supported by hangers placed not over one foot from elbows or connecting horizontal run.
2. Hangers shall be placed as said to prevent sag and permit proper drainage.
3. Hangers shall not be placed at more than the maximum distances shown on the Table below.

Pipe Size	Max. Span - Ft.
1/2 and 3/4	6
1 and 1-1/4	8
1-1/2, 2, 2-1/2	10
3 and 4	12
5 and 6	14
8 and larger	16

4. Concentrations of valves and fittings will require closer spacing.
J. Hanger Attachments:
1. Pipe hangers shall be attached to structural steel by heavy steel clamps.
a. Clamps shall be bolted to steel or welded.
2. Pipe hangers or clamps shall be attached to walls by means of expansion bolts (shields).

UNIONS

A. Size
1. All unions shall be the same size as the line in which they are installed unless noted otherwise.
B. Location
1. Unions shall be located between the shut-off valve and each of the following:
a. Inlet and outlet to all water heaters
b. Lavoratories and sinks
c. Water coolers
d. Water closets and toilets
e. Inlet and outlet of cooling coil
f. Inlet and outlet of pumps
2. Where final fixture connection is made by compression-type fitting, unions shall not be required.
a. This exception does not apply to water heater.
C. Acceptable Manufacturers
1. Crane
2. Jenkins
3. Vogt
4. Stockman
D. Unions for 2-1/2 inches and smaller copper
1. Brass ground joints, brass body
2. 150# rated
3. Sweat to threaded to match the system in which they are installed
E. Install in locations where strap-up can be used on each half of the union with enough clearance for at least 180 degrees of rotation on a 6" pipe wrench.

VALVES, COCKS AND FAUCETS

A. Hot, cold, and/or tempered water
1. Shutoff valves above grade
a. Bronze Gate Valve
2. Shutoff valves below grade
a. Bronze Gate Valve
(1) Install in fiberglass box with cover
3. Drain valves
a. Bronze Gate Valves
B. Acceptable Manufacturers
1. Crane
2. Vogt
3. Stering
4. Nibco
C. Bronze gate valves:
1. 3 inch and smaller
a. Rising stem, wedge disc gate, bronze body
b. 200 psi, water, oil, gas
c. Stuffing, box and brass gland, screw-in bonnet
d. Threaded ends
e. Model equal to Nibco T-111
D. Bronze Globe Valve
1. 3 inch and smaller
a. Rising stem, bronze only
b. 150 psi, water oil gas
c. Stuffing box, brass gland, screw-in bonnet
d. Threaded ends
E. Hose bibbs
1. 3/4" Female thread inlet
2. 3/4" Male thread hose outlet
3. Rough chrome plated
4. Loose-key type
5. Provide with vacuum breaker
6. Model
a. Equal to Chicago No. 3877-E27, Nibco 763-LS or equal
7. Provide with vacuum breaker
F. Check Valve
1. Swing check valve
2. Screwed ends and cap
3. Bronze ground disc
4. 200 lb WOG
5. NIBCO T413 or equal
G. Wall Hydrant WH
1. Fully recessed with "key" operated cover.
2. 3/4" felmale inlet
3. 3/4" male threaded hose outlet
4. Rough chrome plated
5. Vacuum breaker.

PRESSURE - TEMPERATURE RELIEF VALVE

A. Supply a pressure relief valveon each hot water heater and hot water booster heater tank.
B. Valve size, pressure, and temperature rating shall be as specified by the tank manufacturer, except that in no case shall the valve be smaller than 3/4 inches inlet and outlet.
C. Valve shall have a handle for manual operation and testing.
D. Valve shall be cast brass or bronze.
E. Pipe the outlet of the pressure-temperature relief valve to outside of building and terminate 2" above grade or per local code.

INSULATION

A. Provide piping insulation on all piping designated on the "Piping Schedule" shown on drawings and per Florida Energy Code. Min R4 per inch.
B. Acceptable Manufacturers
1. Johns-Manville
2. Certainteed
C. Fiberglass Insulation
1. Rigid lightweight heavy density fiberglass with jacket.
2. Temperature applications to 650 F.
3. Insulation, jacket, and adhesive shall be tested under procedure ASTM E-84, NFPA 255, and UL 723, not exceeding
a. Flame spread - 25.
b. Smoke developed - 50.
4. Equal to Johns-Manville Micro-Lok 650 AP-T.
D. Closed Cell Rubber Insulation
1. Closed cell, elastomeric tubular pipe insulation.
2. Tested under procedure ASTM E-84, NFPA 255, and UL 723 not exceeding
a. Flame spread - 30.
b. Smoke density - 100.
3. Adhesive
a. Air drying contact cement
b. Equal to Johns-Manville "Aerotube Elastomeric Pipe Insulation."
E. Install insulation only after pipe has been thoroughly inspected and tested and accepted by the Engineer and State or local inspectors.

F. All surfaces to receive insulation shall be cleaned of all dirt, grease, and moisture prior to installing any insulation.
G. Installation of Fiberglass Insulation:
1. All insulation shall be continuous through wall and ceiling openings.
2. Vapor barrier jackets shall be used on piping except domestic hot water.
3. Hangers, supports, anchors, etc., that are secured directly to cold surfaces must be adequately insulated and vapor sealed to prevent condensation.
4. Metal shields shall be applied between hangers or supports and the pipe insulation.
5. Shields shall be formed to fit the insulation and shall extend up to the centerline of the pipe and a minimum of 9 inches long.
6. Shields shall be 18 gauge aluminum.
7. Fittings shall be covered equivalent density insulation and covered with preformed PVC insulation fitting covers.
a. Wrap fittings with insulation.
b. Pop the preformed cover in place, tape or tack.
H. Installation of Closed-Cell Rubber:
1. Make all cuts neatly with a razor blade or sharp knife.
2. All longitudinal cuts shall be sealed with adhesive.
3. All butt joints shall be made neatly and sealed with adhesive.
4. Tape shall not be allowed on joints or seams.
5. Insulation shall be applied in a relaxed state, not stretched or crushed.
6. Fittings shall be insulated by fabricating tees, elbows or crosses as required from the tube insulation as described in manufacturer's literature.
7. Valves shall be insulated up to the packing nut.
8. All insulation on exposed piping shall receive two (2) coats of paint, the same color as the wall against which it is mounted.
9. Joints shall be sealed with adhesive as recommended by the manufacturer.

FLOOR AND SHOWER DRAINS

A. Acceptable Manufactures
1. Wade
2. Josam
3. Zurn
B. Floor Drains:
1. Cast iron floor drain with integral clamping collar.
2. Seepage openings.
3. Heavy duty grate, with vandalproof screws.
4. Square top, polished brass.
5. Adjustable top.
6. 4-inch outlet unless otherwise noted on Drawings.
7. Model - equal to Wade, Series W - 1390.
C. Shower Drains:
1. Cast iron floor drain with integral clamping collar.
2. Seepage openings.
3. Heavy duty grate, with vandalproof screws.
4. Square top, polished brass.
5. Adjustable top.
6. 4-inch outlet unless otherwise noted on Drawings.
7. Model - equal to Wade, Series W - 1390.
D. Floor Sinks
1. Cast iron floor drain with integral clamping collar.
2. Sized as noted on Drawings.
E. Installation
1. Floor drains shall be installed in the locations show on Plans.
2. Care shall be taken that rim of floor drain is not higher than finished floor in order to prevent "Puddling" of water around the drain.
3. Floor drain top shall be flush with finished floor.
4. Hub drains shall extend 1 inch above finished floor per details.

CLEANOUTS AND ACCESS COVERS

A. Provide cleanouts as shown on the Drawings or as required by Standard Plumbing Code.
B. Acceptable Manufacturers
1. Wade
2. Josan
3. Zurn
C. Floor Cleanouts:
1. Same size as drain pipe through 4 inches.
2. Adjustable housing to match finished floor.
3. Heavy duty top.
4. Nickel brass secured cover.
5. Ferrule as required to match soil pipe.
6. Cast iron.
7. Cover shall be marked "C.O."
8. Model Number:
a. Synthetic floor covering:
(1) Wade W-7030-D Series or equal
b. Finished slab - no covering:
(1) Equal to Wade W-7030 Series
c. Terrazzo finish:
(1) Wade W-7010-U Series, or equal.
D. Concealed Cleanouts:
1. Cleanouts in crawl space or in unfinished mechanical rooms.
2. Cast iron cleanout tee on T-wall with ferrule fitting and neoprene seal raised plug head.
3. Same size as drain pipe through 4 inches.
4. Position cleaout plug for easy access by electric eel.
5. Model Number:
a. Cleanout ferrule.
(1) Wade W-8530-B Series or equal.
E. Exposed Wall Cleanouts
1. Same size as pipe.
2. Polished chrome cleanout cover over wall opening.
F. Install all cleanouts and coverplates flush with the finished floor in which they are installed.
1. Any cleanout which presents a tripping hazard due to improper installation shall be removed and reinstalled.

DOMESTIC WATER HEATERS - ELECTRIC

A. Water heaters shall be UL listed, ASME constructed,and meet ASHRAE 90-80 energy efficiency standards.
B. Acceptable Manufacturers
1. A.O. Smith
2. Lochinvar
3. Teledyne Laars
C. Water Heaters
1. Glass lining fused to steel tank
2. Natures Gas
3. Working pressure - 150 PSI
4. Fully automatic thermostat controls with high temperature limit safety shutoff
5. Pvc combustion air and vent, per. mfgr Instructions
6. Three-year warranty
7. 3/4" inlet, outlet, and relief opening
8. Outer jacket of baked enamel finish

D. Model and Capacity
1. REFER TO WATER HEATER SCHEDULE.

E. Install per manufacturer's recommendations
F. Mount units on wall shelf where noted
F. Provide thermostatic relief valve on each unit

PLUMBING FIXTURES

A. Furnish and install plumbing fixtures per owner's Plumbing Fixture Selections.
1. Manufacturers and Model Numbers establish quality; equivalent fixtures by other manufacturers are acceptable.

ELECTRIC WATER COOLERS (EWC)

A. Acceptable Manufacturers
1.. Oasis
2. Halsey Taylor
3.. Elkay
B. Regular Model - dual height, ada
1. Semi-recessed
2. Stainless steel top, sides and front
3. 14 inches from wall to front
4. Self-closing pushbutton valve with optional "soft touch" handle (Part No. 023754.001, wrist blade).
5. Automatic pressure regulating valve
6. Mounting height - 31" floor to top of basin
7. Water delivery:
a. 14 GPH of 50 degrees F water
8. Model and Manufacturer:
a. Equal to Oasis Model ODP-14M
9. Accessories:
a. Furnish with 1-1/4" ground joint tubular, 17 gauge, chrome-plated P-trap, deep flange with brass nuts; less cleanout, Sterling 50190 or Dearborn 207-D-F-BN.
b. Furnish with supply assembly equal to Kohler 7666 with loosekey stop and flexible 3/8" tube risers.
C. Unit shall be installed on wall using bracket supplied by the manufacturer.
D. Unit shall be blocked and supported per manufacturer recommendations.
E. Unit shall be installed per ANSI Standard 117.1-1980, Section 4.15.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CES
Crews Engineering Services, LLC
CERTIFICATE OF AUTHORIZATION NO. 28022
P.O. BOX 970
LAKE CITY, FL 32056
PHONE: 386.754.4085

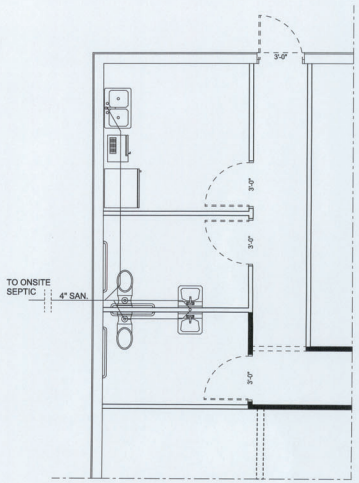
LICENSE NO.: 65592
STATE OF FLORIDA
Brett A. Crews, P.E. 65592

DRAWN BY: TM
APPROVED BY: BC

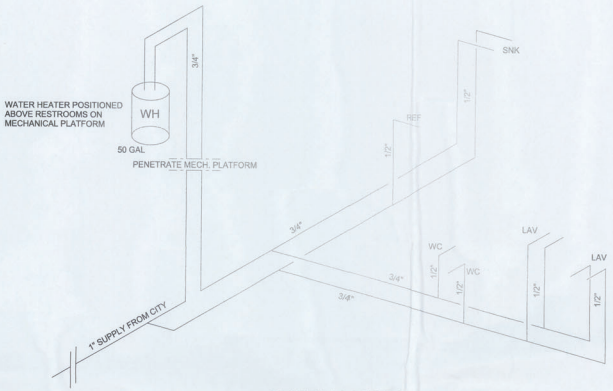
MONSTA CLOTHING

PLUMBING NOTES

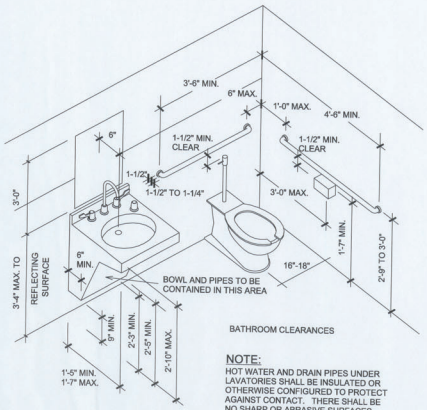
CES PROJECT NO.: 2013-015
SHEET: P-1



DWV PLAN
SCALE: 3/16" = 1'-0"

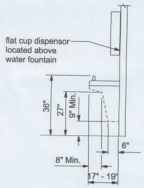


SUPPLY RISER
NTS

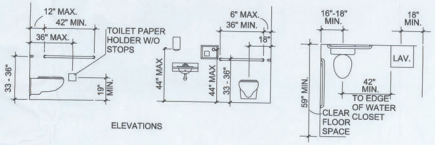


BATHROOM CLEARANCES

NOTE:
HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.



WATER COOLER OR BUBBLER CLEARANCES

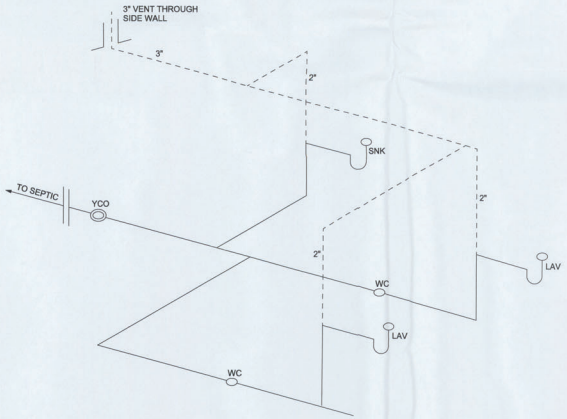


ELEVATIONS

WATER CLOSETS CLEARANCES

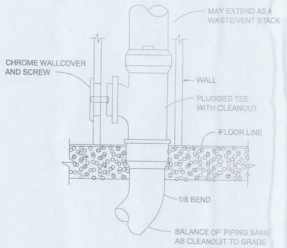
NOTE:
FLORIDA LAW, SECTION 553.504(5), F.S., STIPULATES THAT "... REQUIRED BATHING ROOMS AND TOILET ROOMS IN NEW CONSTRUCTION SHALL BE DESIGNED AND CONSTRUCTED..." WITH AN ACCESSIBLE LAVATORY IN THE WHEELCHAIR ACCESSIBLE COMPARTMENT AND THE WATER CLOSET LOCATED IN A CORNER DIAGONAL TO THE DOOR. THE ADA STANDARDS FOR ACCESSIBLE DESIGN AND THEREFORE THIS CODE REQUIRE WHEELCHAIR ACCESSIBLE COMPARTMENTS IN NEW CONSTRUCTION AND IN ALTERATIONS OF EXISTING BUILDINGS TO HAVE SELF CLOSING DOORS.

ADA CLEARANCE REQUIREMENTS
NTS



NOTE:
PROVIDE PLUMBING CLEAN-OUTS AT THE BASE OF ALL STACKS, A MAXIMUM OF 75' O.C. ALONG ALL MAIN DRAIN RUNS AND THE UP-STREAM ENDS OF MAIN DRAIN RUNS, WHERE THE MAIN BUILDING DRAIN EXITS THE BUILDING AND AT 75' INTERVALS TO THE DISPOSAL SITE.

DWV RISER
NTS



WALL CLEANOUT DETAILS
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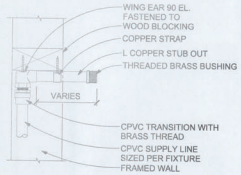

WALL STUBOUT DETAIL
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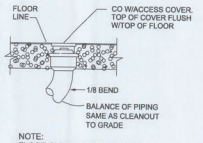
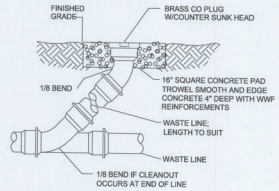


NOTE:
FLOOR CLEANOUT SHALL NOT BE PLACED IN A CARPETED AREA

FLOOR CLEANOUT
NTS



YARD CLEANOUT
NTS

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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DRAWN BY:	TM
APPROVED BY:	BC
	MONSTA CLOTHING
	PLUMBING PLAN
CES PROJECT NO.:	2013-015
SHEET:	P-2

ELECTRICAL SPECIFICATIONS

BASIC ELECTRICAL MATERIALS AND METHODS
PART 1 GENERAL
1.1 SUMMARY
A. GROUNDING AND BONDING.
B. CONNECTION OF UTILIZATION EQUIPMENT.
C. SUPPORTS.
D. IDENTIFICATION.
1.2 SUBMITTALS
A. PRODUCT DATA: FOR REVIEW; PROVIDE CATALOG DATA FOR GROUNDING AND BONDING DEVICES.
1.3 REGULATORY REQUIREMENTS
A. CONFORM TO REQUIREMENTS OF NFPA 70.
B. FURNISH PRODUCTS LISTED BY UL OR OTHER TESTING FIRM ACCEPTABLE TO AUTHORITY HAVING JURISDICTION.
C. FLORIDA BUILDING CODE
1.4 PROJECT CONDITIONS
A. VERIFY FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS ARE AS SHOWN ON DRAWINGS.
PART 2 PRODUCTS
2.1 GROUNDING MATERIALS
A. GROUND ROD: PER ELECTRICAL PLAN
B. MECHANICAL CONNECTORS: BRONZE. ABOVE GRADE ONLY.
C. EXOTHERMIC WELDS: BELOW GRADE CONNECTORS.
2.2 BASIC MATERIALS
A. STEEL CHANNEL: GALVANIZED
B. MISCELLANEOUS HARDWARE: TREAT FOR CORROSION RESISTANCE.
C. NAMEPLATES: ENGRAVED THREE-LAYER LAMINATED PLASTIC, BLACK LETTERS ON WHITE BACKGROUND.
D. WIRE AND CABLE MARKERS: CLOTH MARKERS, SPLIT SLEEVE OR TUBING TYPE.
PART 3 EXECUTION
1 INSTALLATION
A. INSTALL WORK ACCORDING TO NECA "STANDARD OF 2.5 BUILDING WIRE AND CABLE INSTALLATION."
B. PROVIDE BONDING TO MEET REGULATORY REQUIREMENTS.
C. MAKE ELECTRICAL CONNECTIONS TO UTILIZATION EQUIPMENT IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S INSTRUCTIONS.
1. VERIFY THAT WIRING AND OUTLET ROUGH-IN WORK IS COMPLETE AND THAT UTILIZATION EQUIPMENT IS READY FOR ELECTRICAL CONNECTION, WIRING, AND ENERGIZING.
2. MAKE WIRING CONNECTIONS IN CONTROL PANEL OR IN WIRING COMPARTMENT OF PRE-WIRED EQUIPMENT. PROVIDE INTERCONNECTING WIRING WHERE INDICATED.
3. INSTALL AND CONNECT DISCONNECT SWITCHES, CONTROLLERS, CONTROL STATIONS, AND CONTROL DEVICES AS INDICATED.
4. MAKE CONDUIT CONNECTIONS TO EQUIPMENT USING FLEXIBLE CONDUIT. USE LIQUIDTIGHT FLEXIBLE CONDUIT IN DAMP OR WET LOCATIONS.
5. INSTALL PRE-FABRICATED CORD SET WHERE CONNECTION WITH ATTACHMENT PLUG IS INDICATED OR SPECIFIED, OR USE ATTACHMENT PLUG WITH SUITABLE STRAIN-RELIEF CLAMPS.
6. PROVIDE SUITABLE STRAIN-RELIEF CLAMPS FOR CORD CONNECTIONS TO OUTLET BOXES AND EQUIPMENT CONNECTION BOXES.
D. INSTALL SUPPORT SYSTEMS SIZED AND FASTENED TO ACCOMMODATE WEIGHT OF EQUIPMENT AND CONDUIT, INCLUDING WIRING, WHICH THEY CARRY.
3.1 EXAMINATION AND PREPARATION
1. FASTEN HANGER RODS, CONDUIT CLAMPS, AND OUTLET AND JUNCTION BOXES TO BUILDINGS STRUCTURE USING PRECAST INSERT SYSTEM BEAM CLAMPS.
2. USE TOGGLE BOLTS OR HOLLOW WALL FASTENERS IN HOLLOW MASONRY, PLASTER, OR GYPSUM BOARD PARTITIONS AND WALLS; EXPANSION ANCHORS OR PRESET INSERTS IN SOLID MASONRY WALLS; SELF-DRILLING ANCHORS OR EXPANSION ANCHOR ON CONCRETE SURFACES; SHEET METAL SCREWS IN SHEET METAL STUDS; AND WOOD SCREWS IN WOOD CONSTRUCTION.
3. DO NOT FASTEN SUPPORTS TO PIPING, CEILING SUPPORT WIRES, DUCTWORK, MECHANICAL EQUIPMENT, OR CONDUIT.
4. DO NOT USE POWER-ACTUATED ANCHORS.
5. DO NOT DRILL STRUCTURAL STEEL MEMBERS.
6. FABRICATE SUPPORTS FROM STRUCTURAL STEEL OR STEEL CHANNEL.
E. IDENTIFY ELECTRICAL DISTRIBUTION AND CONTROL EQUIPMENT, AND LOADS SERVED, TO MEET REGULATORY REQUIREMENTS AND AS SCHEDULED.
1. DEGREASE AND CLEAN SURFACES TO RECEIVE NAMEPLATES AND TAPE LABELS.
2. SECURE NAMEPLATES TO EQUIPMENT FRONTS USING SCREWS, RIVETS, OR ADHESIVE, WITH EDGES PARALLEL TO EQUIPMENT LINES. SECURE NAMEPLATE TO INSIDE FACE OF RECESSED PANELBOARD DOORS IN FINISHED LOCATIONS.
3. USE NAMEPLATES WITH 1/8 INCH LETTERING TO IDENTIFY INDIVIDUAL SWITCHES AND CIRCUIT BREAKERS, RECEPTACLE CIRCUITS, AND LOADS SERVED.
4. USE NAMEPLATES WITH 1/4 INCH TO IDENTIFY DISTRIBUTION AND CONTROL EQUIPMENT.
F. INSTALL WIRE MARKERS ON EACH CONDUCTOR IN PANELBOARD GUTTERS, PULL BOXES, OUTLET AND JUNCTION BOXES, AND AT LOAD CONNECTIONS.
1. USE BRANCH CIRCUIT OR FEEDER NUMBER TO IDENTIFY POWER AND LIGHTING CIRCUITS.
2. USE CONTROL WIRE NUMBER AS INDICATED ON FROM FOUNDATION WALL: PLASTIC CONDUIT. PROVIDE EQUIPMENT MANUFACTURER'S SHOP DRAWINGS TO IDENTIFY CONTROL WIRING.

WIRING METHODS
PART 1 GENERAL
1.1 REGULATORY REQUIREMENTS
A. CONFORM TO REQUIREMENTS OF NFPA 70.
B. FURNISH PRODUCTS LISTED BY UL OR OTHER TESTING FIRM ACCEPTABLE TO AUTHORITY HAVING JURISDICTION.
PART 2 PRODUCTS
2.1 PRODUCT REQUIREMENTS
A. USE ONLY SPECIFIED RACEWAY IN THE FOLLOWING LOCATIONS:
1. INSTALLATIONS IN OR UNDER CONCRETE SLAB, OR UNDERGROUND WITHIN 5 FEET FROM FOUNDATION WALL: PVC SCHDULE 40 CONDUIT.
2. IN SLAB ABOVE GRADE: PLASTIC CONDUIT.
3. EXPOSED OUTDOOR LOCATIONS: RIGID STEEL CONDUIT OR ELECTRICAL METALLIC TUBING. USE THREADED OR RAINTIGHT FITTINGS.
4. WET INTERIOR LOCATIONS: RIGID STEEL CONDUIT OR ELECTRICAL METALLIC TUBING. USE THREADED OR RAINTIGHT FITTINGS FOR METAL CONDUIT.
5. DRY INTERIOR LOCATIONS: RIGID STEEL CONDUIT OR ELECTRICAL METALLIC TUBING.
6. EXPOSED LOCATIONS IN WAREHOUSE AT CEILING JOISTS AND CONCEALED BRANCH CIRCUITS IN OFFICES MAY BE MC CABLE. ALL HOMERUNS SHALL BE CONDUCTORS IN CONDUIT.
B. USE WIRE AND CABLE IN LOCATIONS AS FOLLOWS:
1. ALL POWER WIRES AND CABLES SHALL BE IN RACEWAY D. USE NO WIRE SMALLER THAN 12 AWG FOR POWER AND LIGHTING CIRCUITS, AND NO SMALLER THAN 14 AWG FOR CONTROL WIRING. USE 10 AWG CONDUCTOR FOR 20 AMPERE, 120 VOLT BRANCH CIRCUIT HOME RUNS LONGER THAN 75 FEET; AND FOR 20 AMPERE.
2.2 CONDUIT AND FITTINGS
A. CONDUIT:
1. METAL CONDUIT AND TUBING: GALVANIZED STEEL.
2. FLEXIBLE CONDUIT: STEEL
3. LIQUID TIGHT FLEXIBLE CONDUIT: FLEXIBLE CONDUIT WITH PVC JACKET.
4. PLASTIC CONDUIT AND TUBING: NEMA TC 2, PVC. USE SCHEDULE 40 CONDUIT.
B. CONDUIT FITTINGS:
1. METAL FITTINGS AND CONDUIT BODIES: NEMA FB 1.
2. PLASTIC FITTINGS AND CONDUIT BODIES: NEMA TC 3.
3. EMT FITTINGS: STEEL COMPRESSION TYPE FOR WET LOCATION. SET SCREW FOR DRY LOCATION
2.3 ACCESS PANELS
A. PROVIDE CEILING ACCESS PANELS FOR EQUIPMENT, DEVICES, BOXES AND OTHER LIKE ITEMS REQUIRING ADJUSTMENT, MAINTENANCE OR ACCESSIBILITY IF THEY ARE NOT LOCATED OVER LAY-IN TYPE CEILING OR ARE NOT OTHERWISE ACCESSIBLE. OBTAIN APPROVAL FROM ARCHITECT FOR TYPE AND LOCATION OF ACCESS PANELS.
2.4 ELECTRICAL BOXES
A. BOXES:
1. SHEET METAL: NEMA OS 1, GALVANIZED STEEL, 4" x 4" x 1 1/4" deep.
2. CAST METAL: CAST FERALLOY, DEEP TYPE, GASKETED COVER, THREADED HUBS.
2.5 BUILDING WIRE AND CABLE
A. FEEDERS AND BRANCH CIRCUITS LARGER THAN 6 AWG: COPPER STRANDED CONDUCTOR, 600 VOLT INSULATION, THHN/THWN AND XHHW.
B. FEEDERS AND BRANCH CIRCUITS 6 AWG AND SMALLER: COPPER CONDUCTOR, 600 VOLT INSULATION, THHN/THWN, XHHW 6 AND 8 AWG, STRANDED CONDUCTOR; SMALLER THAN 8 AWG, SOLID CONDUCTOR.
C. CONTROL CIRCUITS: COPPER, STRANDED CONDUCTOR, 600 VOLT INSULATION, THW.
2.6 REMOTE CONTROL AND SIGNAL CABLE
A. CONTROL CABLE FOR CLASS 1 REMOTE CONTROL AND SIGNAL CIRCUITS: COPPER CONDUCTOR, 600 VOLT INSULATION, RATED 60 DEGREE C, INDIVIDUAL CONDUCTORS TWISTED TOGETHER, SHIELDED, AND COVERED WITH PVC JACKET. (PLENUM RATED)
B. CONTROL CABLE FOR CLASS 2 OR CLASS 3 REMOTE CONTROL AND SIGNAL CIRCUITS: COPPER CONDUCTOR, 300 VOLT INSULATION, RATED 60 DEGREEC, INDIVIDUAL CONDUCTORS TWISTED TOGETHER, SHIELDED, AND COVERED WITH PVC JACKET; UL LISTED. (PLENUM RATED)
PART 3 EXECUTION
3.1 EXAMINATION AND PREPARATION
A. VERIFY THAT INTERIOR OF BUILDING IS PHYSICALLY PROTECTED FROM WEATHER.
B. VERIFY THAT MECHANICAL WORK THAT IS LIKELY TO DAMAGE CONDUCTORS HAS BEEN COMPLETED.
C. COMPLETELY AND THOROUGHLY SWAB RACEWAY SYSTEM BEFORE INSTALLING CONDUCTORS.
D. ELECTRICAL BOXES ARE SHOWN ON DRAWINGS IN APPROXIMATE LOCATIONS UNLESS DIMENSIONED.
1. OBTAIN VERIFICATION FROM ENGINEER OF JUNCTION BOX LOCATIONS, AND LOCATIONS OF OUTLETS IN OFFICES AND WORK AREAS, PRIOR TO ROUGH-IN.
2. IT SHALL BE UNDERSTOOD THAT ANY OUTLET MAY BE RELOCATED A DISTANCE NOT EXCEEDING 5FT FROM THE LOCATION SHOWN ON THE DRAWINGS PRIOR TO OR DURING ROUGH-IN, IF SO DIRECTED BY THE ARCHITECT-ENGINEER WITHOUT ADDITIONAL COST TO THE OWNER.
3. LOCAL SWITCHES WHICH ARE SHOWN NEAR DOORS SHALL BE LOCATED AT THE STRIKE SIDE OF THE DOOR AS FINALLY HUNG, REGARDLESS OF SWING ON THE DRAWINGS.
3.2 INSTALLATION
A. PERFORM WORK ACCORDING TO NECA STANDARD OF INSTALLATION.
B. ARRANGE CONDUIT TO MAINTAIN HEADROOM AND TO PRESENT NEAT APPEARANCE.
1. ROUTE EXPOSED RACEWAY PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING.
2. MAINTAIN MINIMUM 6-INCH CLEARANCE TO PIPING AND 12" CLEARANCE TO HEAT SURFACES SUCH AS FLUES, STEAM PIPES, AND HEATING APPLIANCES.
3. MAINTAIN REQUIRED FIRE, ACOUSTIC, AND VAPOR BARRIER RATING WHEN PENETRATING WALLS, FLOORS, AND CEILINGS.
4. ROUTE CONDUIT THROUGH ROOF OPENINGS FOR PIPING AND DUCTWORK WHERE POSSIBLE; OTHERWISE, ROUTE THROUGH ROOF JACK WITH PITCH POCKET.
5. GROUP IN PARALLEL RUNS WHERE PRACTICAL. USE RACK CONSTRUCTED OF STEEL CHANNEL. MAINTAIN SPACING BETWEEN RACEWAYS OR DERATE CIRCUIT AMPACITIES TO NFPA 70 REQUIREMENTS.
6. USE CONDUIT HANGERS AND CLAMPS; DO NOT FASTEN WITH WIRE OR PERFORATED PIPE STRAPS.
7. USE CONDUIT BODIES TO MAKE SHARP CHANGES IN DIRECTION.
8. TERMINATE CONDUIT STUBS WITH INSULATED BUSHINGS.
9. USE SUITABLE CAPS TO PROTECT INSTALLED RACEWAY AGAINST ENTRANCE OF DIRT AND MOISTURE.
10. PROVIDE NO. 12 AWG INSULATED CONDUCTOR OR SUITABLE PULL STRING IN EMPTY RACEWAYS, EXCEPT SLEEVES AND NIPPLES.
11. INSTALL EXPANSION JOINTS WHERE RACEWAY CROSSES BUILDING EXPANSION OR SEISMIC JOINTS.
12. INSTALL PLASTIC CONDUIT AND TUBING ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
13. USE STEEL COMPRESSION TYPE FITTINGS WITH EMT CONDUITS.
C. INSTALL ELECTRICAL BOXES AS SHOWN ON THE DRAWINGS, AND AS REQUIRED FOR SPLICES, TAPS, WIRE PULLING, EQUIPMENT CONNECTIONS AND REGULATORY REQUIREMENTS.
1. USE CAST OUTLET BOX IN EXTERIOR LOCATIONS EXPOSED TO WEATHER AND WET LOCATIONS.
2. USE HINGED COVER ENCLOSURE FOR INTERIOR PULL AND JUNCTION BOX LARGER THAN 12 INCHES IN ANY DIMENSION.
3. LOCATE AND INSTALL ELECTRICAL BOXES TO ALLOW ACCESS. PROVIDE ACCESS PANELS IF REQUIRED.
4. LOCATE AND INSTALL ELECTRICAL BOXES TO MAINTAIN HEADROOM AND TO PRESENT NEAT MECHANICAL APPEARANCE.
5. INSTALL PULL BOXES AND JUNCTION BOXES ABOVE ACCESSIBLE CEILINGS OR IN UNFINISHED AREAS.
6. PROVIDE KNOCKOUT CLOSURES FOR UNUSED OPENINGS.
7. ALIGN WALL-MOUNTED OUTLET BOXES FOR SWITCHES, THERMOSTATS, AND SIMILAR DEVICES.
8. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF OUTLETS ABOVE COUNTERS AND BACKSPLASHES.
9. USE RECESSED OUTLET BOXES IN FINISHED AREAS AND WHERE INDICATED.
10. SECURE BOXES TO INTERIOR WALL AND PARTITION STUDS, ACCURATELY POSITIONING TO ALLOW FOR SURFACE FINISH THICKNESS.
11. USE STAMPED STEEL STUD BRIDGES FOR FLUSH OUTLETS IN HOLLOW STUD WALL, AND ADJUSTABLE STEEL CHANNEL FASTENERS FOR FLUSH CEILING OUTLET BOXES.
12. LOCATE BOXES IN MASONRY WALLS TO REQUIRE CUTTING CORNER ONLY. COORDINATE MASONRY CUTTING TO ACHIEVE NEAT OPENINGS FOR BOXES.
13. DO NOT INSTALL BOXES BACK-TO-BACK IN WALLS; PROVIDE 6 INCHES SEPARATION, MINIMUM; EXCEPT PROVIDE 24 INCHES SEPARATION, MINIMUM IN ACOUSTIC-RATED WALLS.
14. DO NOT DAMAGE INSULATION.
D. INSTALL CABLE AND WIRE ACCORDING TO MANUFACTURER'S INSTRUCTIONS
1. NEATLY TRAIN AND SECURE WIRING INSIDE BOXES, EQUIPMENT, AND PANELBOARDS.
2. USE WIRE PULLING LUBRICANT FOR PULLING 4 AWG AND LARGER WIRES.
3. SUPPORT CABLES ABOVE ACCESSIBLE CEILINGS TON KEEP THEM FROM RESTING ON CEILING TILES.
4. MAKE SPLICES, TAPS, AND TERMINATIONS TO CARRY FULL AMPACITY OF CONDUCTORS WITHOUT PERCEPTIBLE TEMPERATURE RISE.
5. TERMINATE SPARE CONDUCTORS WITH ELECTRICAL TAPE.
E. INSTALL WIRING DEVICES ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
F. INSTALL WALL PLATES FLUSH AND LEVEL.
1. INSTALL PLATES ON SWITCH, RECEPTACLE, AND BLANK OUTLETS IN FINISHED AREAS, USING JUMBO SIZE PLATES FOR OUTLETS INSTALLED IN MASONRY WALLS.
2. INSTALL GALVANIZED STEEL PLATES ON OUTLET BOXES AND JUNCTION BOXES IN UNFINISHED AREAS, ABOVE ACCESSIBLE CEILINGS, AND ON SURFACE-MOUNTED OUTLETS.
G. INSTALL SERVICE FITTINGS ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
H. BEFORE INSTALLING RACEWAYS AND PULLING WIRE TO ANY MECHANICAL EQUIPMENT OR PLUMBING EQUIPMENT, VERIFY ELECTRICAL CHARACTERISTICS WITH FINAL SUBMITTAL ON EQUIPMENT TO ASSURE PROPER NUMBER AND AWG OF CONDUCTORS.
I. UNDERGROUND CABLE AND CONDUIT INSTALLATION SHALL CONFORM TO ANSI C2 AND NEC EXCEPT AS OTHERWISE INDICATED. THE CONTRACTOR SHALL PROMPTLY REPAIR ANY UTILITY LINES OR SYSTEM DAMAGED BY HIS OPERATION. THE TOP OF UNDERGROUND CONDUIT SHALL NOT BE LESS THAN 24 INCHES BELOW GRADE. THE BOTTOM OF CONDUITS TRENCH SHALL BE GRADED SMOOTH, WHERE ROCK AND SHARP EDGED MATERIAL ARE ENCOUNTERED, THE BOTTOM SHALL BE EXCAVATED FOR ADDITIONAL 3 INCHES, FILLED AND TAMPED LEVEL TO THE ORIGINAL BOTTOM WITH SAND OR EARTH FREE FROM ROCKS AND SHARP MATERIALS. PROVIDE MAGNETIC YELLOW WARNING TAPE ABOVE THE ENTIRE LENGTH OF UNDERGROUND CONDUITS TAPE SHALL BE BURIED 12" BELOW GRADE.
J. SURFACES DISTURBED DURING THE INSTALLATION OF UNDERGROUND CONDUITS SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS. PROVIDE SOD OF QUALITY EQUAL TO THAT REMOVED, PATCH PAVEMENT, SIDEWALK CURB, ETC. EXCAVATED MATERIAL NOT REQUIRED OR SUITABLE FOR BACKFILL SHALL BE REMOVED FROM PROJECT SITE. REMOVE WATER FROM EXCAVATION BY PUMPING OR OTHER APPROVED METHOD. BACKFILL SHALL BE FREE FROM LARGE CLODS OF EARTH OR STONES OVER 1 INCH IN SIZE.

SERVICE AND DISTRIBUTION
PART 1 GENERAL
1.1 SUBMITTALS
A. SHOP DRAWINGS: FOR REVIEW; INDICATE CONSTRUCTION DETAILS FOR THE FOLLOWING:
1. PANELBOARDS.
B. PRODUCT DATA: FOR REVIEW; PROVIDE RATINGS AND COMPONENT DETAILS FOR THE FOLLOWING:
1. ENCLOSED SWITCHES.
2. FUSES.
3. CIRCUIT BREAKERS.
1.2 REGULATORY REQUIREMENTS
A. CONFORM TO REQUIREMENTS OF NFPA 70.
B. FURNISH PRODUCTS LISTED BY UL OR OTHER TESTING FIRM ACCEPTABLE TO AUTHORITY HAVING JURISDICTION.
C. CONFORM TO REQUIREMENTS OF UTILITY COMPANY.
PART 2 PRODUCTS
2.1 ENCLOSED SWITCHES
A. MANUFACTURERS: SQUARE D, GE, SIEMENS
B. ENCLOSED SWITCH ASSEMBLIES: HEAVY DUTY FUSE CLIPS DESIGNED TO ACCOMMODATE CLASS R OR J FUSES.
C. ENCLOSURES: NEMA-1 FOR INTERIOR LOCATIONS, NEMA-3R FOR EXTERIOR LOCATIONS.
2.2 FUSES
A. FUSES 600 AMPERES AND LESS: CURRENT LIMITING, ONE-TIME FUSE, 250 VOLT, UL CLASS RK 1, RK 5 OR J
2.3 PANELBOARDS
A. MANUFACTURERS: SQUARE D, GE, SIEMENS
B. DISTRIBUTION PANELBOARDS: NEMA PB 1; CIRCUIT BREAKER TYPE.
1. ENCLOSURE: TYPE 1
2. PROVIDE SURFACE CABINET FRONT WITH SCREW COVER AND HINGED DOOR.
3. BUS: COPPER.
C. LIGHTING AND APPLIANCE BRANCH CIRCUIT PANELBOARDS: NEMA PB 1; CIRCUIT BREAKER TYPE.
1. ENCLOSURE: NEMA PB 1; TYPE 1
2. PROVIDE FLUSH OR SURFACE CABINET FRONT WITH LOCKABLE DOOR, KEYED ALIKE.
3. BUS: COPPER BUS.

PART 3 EXECUTION
3.1 INSTALLATION
A. COORDINATE WITH UTILITY COMPANY TO OBTAIN PERMANENT ELECTRIC SERVICE TO THE PROJECT. PROVIDE CONCRETE PAD FOR UTILITY TRANSFORMER.
B. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
C. INSTALL PANELBOARDS TO NEMA PB 1.1.
D. CLEAN EQUIPMENT
E. PROVIDE TYPED CIRCUIT CARDS AT THE COMPLETION OF THE PROJECT.

INTERIOR LUMINAIRES
PART 1 GENERAL
1.1 REGULATORY REQUIREMENTS
A. CONFORM TO REQUIREMENTS OF ANSI/NFPA 70.
B. CONFORM TO REQUIREMENTS OF NFPA 101.
C. FURNISH PRODUCTS LISTED AND CLASSIFIED BY UNDERWRITERS LABORATORIES, INC. AS SUITABLE FOR PURPOSE SPECIFIED AND SHOWN.
PART 2 PRODUCTS
2.1 LUMINARIES
A. FURNISH PRODUCTS AS SPECIFIED IN SCHEDULE ON DRAWINGS.
B. INSTALL BALLASTS, LAMPS, AND SPECIFIED ACCESSORIES AT FACTORY.
PART 3 EXECUTION
3.1 INSTALLATION
A. INSTALL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
B. INSTALL SUSPENDED LUMINARIES USING PENDANTS SUPPORTED FROM SWIVEL HANGERS. PROVIDE PENDANT LENGTH REQUIRED TO SUSPEND LUMINAIRE AT INDICATED HEIGHT.
C. LOCATE RECESSED CEILING LUMINARIES AS INDICATED ON REFLECTED CEILING PLAN.
D. INSTALL SURFACE MOUNTED LUMINARIES AND EXIT SIGNS PLUMB AND ADJUST TO ALIGN WITH BUILDING LINES AND WITH EACH OTHER. SECURE TO PROHIBIT MOVEMENT.
E. EXPOSED GRID CEILINGS: SUPPORT SURFACE MOUNTED LUMINARIES ON GRID CEILING DIRECTLY FROM BUILDING STRUCTURE OR PROVIDE AUXILIARY MEMBERS SPANNING CEILING T(S) TO SUPPORT SURFACE MOUNTED LUMINARIES.
F. INSTALL RECESSED LUMINARIES TO PERMIT REMOVAL FROM BELOW.
G. INSTALL CLIPS TO SECURE RECESSED GRID-SUPPORTED LUMINARIES IN PLACE. PROVIDE A MINIMUM OF 2 GALVANIZED STEEL WIRES TO SUPPORT LIGHTING FIXTURE FROM BUILDING STRUCTURE. PLACE WIRES DIAGONALLY AT LONG SIDES OF FIXTURE.
H. INSTALL SPECIFIED LAMPS IN EACH LUMINAIRE, EMERGENCY LIGHTING UNIT AND EXIT SIGN.
I. ADJUST EXIT SIGN DIRECTIONAL ARROWS AS INDICATED.
J. RELAMP LUMINARIES THAT HAVE FAILED LAMPS AT SUBSTANTIAL COMPLETION.
K. CLEAN ELECTRICAL PARTS TO REMOVE CONDUCTIVE AND DELETERIOUS MATERIALS. REMOTE DIRT AND DEBRIS FROM ENCLOSURE. CLEAN FINISHES AND TOUCHUP DAMAGE.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

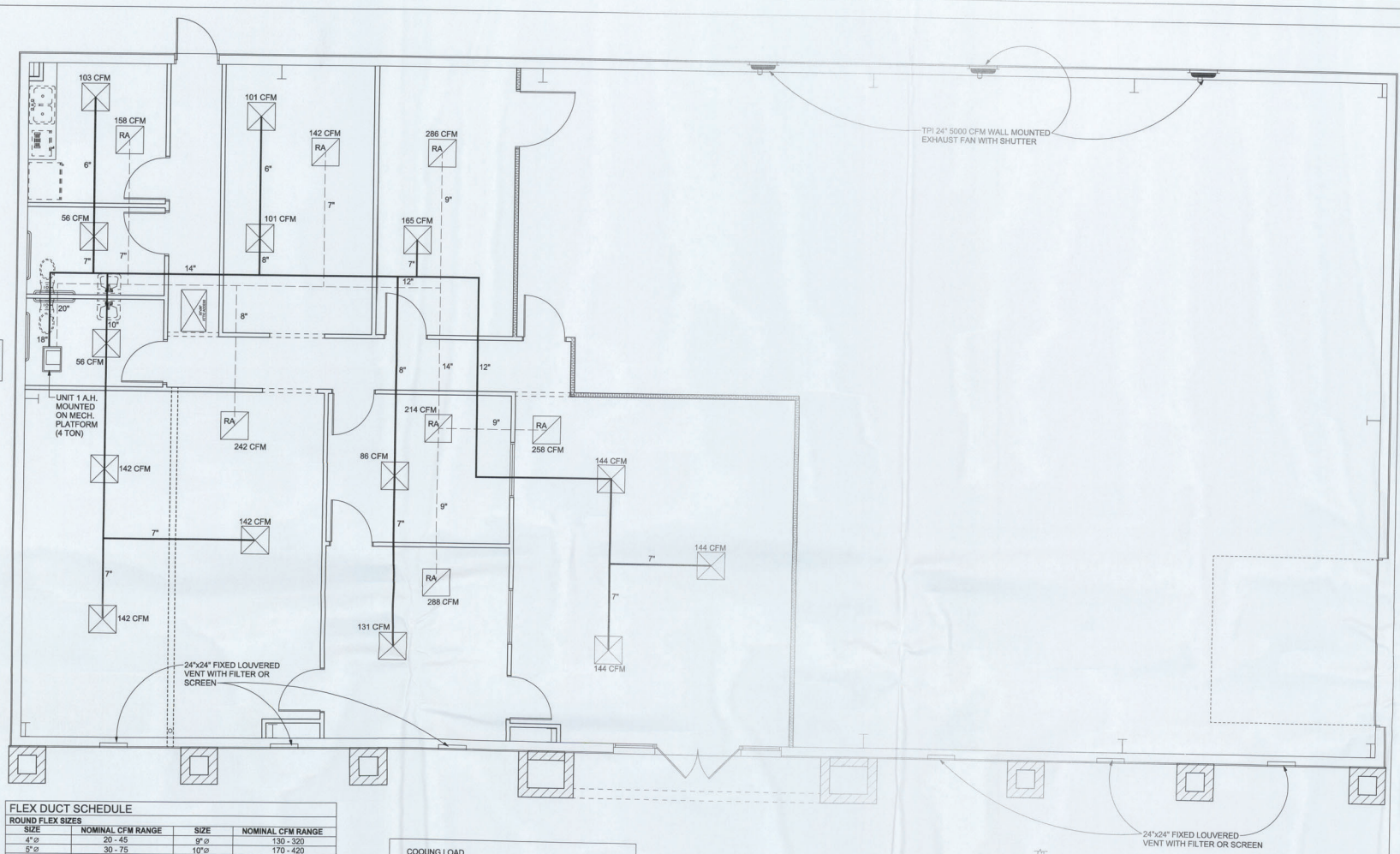
CES
Crews Engineering Services, LLC
CERTIFICATE OF AUTHORIZATION NO. 28022
P.O. BOX 970
LAKE CITY, FL 32056
PHONE: 386.754.4085

STATE OF FLORIDA LICENSED PROFESSIONAL ENGINEER NO. 65592 BRETT ALAN CREWS
Brett A. Crews, P.E. 65592

DRAWN BY: TM
APPROVED BY: BC

MONSTA CLOTHING

ELECTRICAL NOTES



FLEX DUCT SCHEDULE

ROUND FLEX SIZES			
SIZE	NOMINAL CFM RANGE	SIZE	NOMINAL CFM RANGE
4"ø	20 - 45	9"ø	130 - 320
5"ø	30 - 75	10"ø	170 - 420
6"ø	50 - 125	12"ø	270 - 650
7"ø	70 - 160	14"ø	350 - 880
8"ø	100 - 250	16"ø	480 - 1200

DIFFUSER SCHEDULE

SUPPLY (CD)			RETURN (CR)	
CFM RANGE	NECK SIZE (INCH)	FLEX DUCT DIA. (INCH)	CFM RANGE	NECK SIZE (INCH)
0 - 100	6 x 6	6" ø	0 - 200	8 x 8
101 - 200	8 x 8	8" ø	201 - 500	12 x 12
201 - 300	10 x 10	9" ø	501 - 800	15 x 15
301 - 500	12 x 12	12" ø	801 - 1100	18 x 18
501 - 800	15 x 15	14" ø	1101 - 1700	22 x 22
801 - 1100	18 x 18	16" ø		

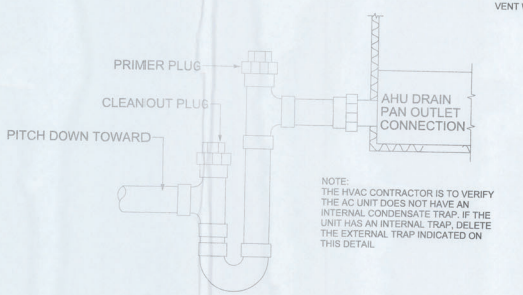
AIR DISTRIBUTION DEVICE SCHEDULE

TYPE		DESCRIPTION	NECK	FACE SIZE	MANUF.	NOMINAL CFM RANGE
SUPPLY	A	aluminum, concentric-cone ceiling diffuser model TMS-AA	6"ø	12" x 12"	Titus	0 - 150
			8"ø	12" x 12"	Titus	151 - 275
			6"ø	24" x 24"	Titus	0 - 150
			8"ø	24" x 24"	Titus	151 - 275
			10"ø	24" x 24"	Titus	276 - 425
			12"ø	24" x 24"	Titus	426 - 625
			14"ø	24" x 24"	Titus	626 - 850
RETURN	B	aluminum eggcrate ceiling return grill, model 50F	12 x 12	12 x 12	Titus	0 - 450
			24 x 24	24 x 24	Titus	0 - 1875
EXHAUST	C	aluminum eggcrate ceiling return grill, model 50F	12 x 12	12 x 12	Titus	0 - 450
			16 x 16	16 x 16	Titus	451 - 800
			20 x 20	20 x 20	Titus	801 - 1300
			24 x 24	24 x 24	Titus	1301 - 1875

COOLING LOAD DESIGN CONDITIONS INSIDE TEMP: 75'F	OUTSIDE TEMP: 92'F
HEATING LOAD DESIGN CONDITIONS INSIDE TEMP: 70'F	OUTSIDE TEMP: 33'F
UNIT REQUIREEMENTS UNIT 1 TOTAL CFM NOMINAL TONAGE OF EACH UNIT UNIT 1 (46,548 Btuh)	1,459 4 TON

NOTE:
DUCT SMOKE DETECTORS SHALL BE WIRED TO SHUT DOWN AHU UPON DETECTION OF SMOKE

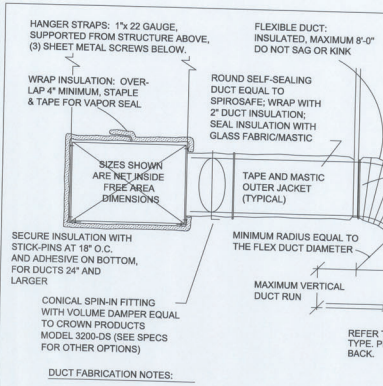
NOTE:
ALL BUILDING CAVATIES WHICH WILL BE USED AS RETURN AIR PLENUMS SHALL MEET SECTION M1601.4.1.8 OF THE FBC AND BE LINED WITH A CONTINUOUS AIR BARRIER MADE OF DURABLE NONPOROUS MATERIALS. ALL PENETRATIONS TO THE AIR BARRIER SHALL BE SEALED WITH A SUITABLE LONG-LIFE MASTIC MATERIAL.



NOTE:
THE HVAC CONTRACTOR IS TO VERIFY THE AC UNIT DOES NOT HAVE AN INTERNAL CONDENSATE TRAP. IF THE UNIT HAS AN INTERNAL TRAP, DELETE THE EXTERNAL TRAP INDICATED ON THIS DETAIL

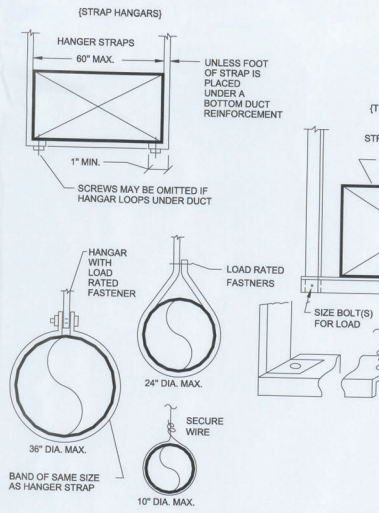
CONDENSATE TRAP DETAIL

NTS



DUCT FABRICATION NOTES:

1. SHEET METAL DUCTS SHALL BE FABRICATED & INSTALLED PER THE LATES DUCT CONSTRUCTION STANDARDS.
2. ALTERNATE INTERPRETATIONS OF SMACNA DUCT MATERIAL, HANGERS AN SUBJECT TO ENGINEER APPROVAL, AND REQUIRE SEPARATE SUBMITTAL C
3. FLEXIBLE DUCT CONNECTORS SHALL BE PROVIDED WHERE SHOWN ON TH
4. SUPPLY AIR DROPS FROM ROOFTOP UNITS SHALL TRANSITION FROM THE SQUARE NECK ELBOWS, WITH SIZES AS SHOWN ON THE PLAN. IF TWO SU ARE AT THE UNIT, THEN TWO SEPERATE DROPS & ELBOWS SHALL BE PRO
5. RETURN AIR DROPS FROM THE ROOFTOP UNITS SHALL BE FULL SIZE OF TH
6. ELBOWS SHALL BE SQUARE NECK (SAME IN OUT DIMENSION) WITH 2" DOUB TURNING VANES.
7. OFFSETS SHALL NOT REDUCE THE FREE AREA, AND SHALL NOT EXCEED 30 HEEL SHALL BE PROVIDED ON 30° OFFSETS. SMALLER OFFSETS SHALL BE THE HEEL & THROAT.
8. TRANSITIONS SHALL NOT EXCEED 1:3 RATIO (4" TRANSITION PER FOOT SIN TRANSITION, AND 8" PER FOOT DOUBLE SIDED TRANSITION).
9. INSULATION SHALL BE NFPA 90 APPROVED, WITH MINIMUM 4.2 R VALUE. WR BE 2" THICK WITH ALUMINUM FOIL FACING. LINER SHALL BE 1" THICK, 1-1/2 I
10. RECTANGULAR BRANCH CONNECTIONS SHALL BE 45° ENTRY TYPE PER SM
11. ROUND DUCT CONNECTIONS SHALL BE WITH "CROWN PRODUCTS COMPAN FITTINGS, DAMPER AND HANDLE. SPRAY PAINT LOCATIONS OF HANDLES.
12. FLEXIBLE DUCT SHALL INCLUDE AN INNER POLYETHYLENE LINER, A SPRING BLANKET INSULATION (R-6.0), A FOIL OUTER VAPOR BARRIER, AND BE UL-18
13. SEAL ALL SUPPLY, RETURN & OUTSIDE AIR DUCT JOINTS WITH DUCT SEALE INSULATION JOINTS WITH GLASS FABRIC AND MASTIC.



CONCEALED DUCTWORK D

NTS

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

CES
Crews Engineering Services, LLC
CERTIFICATE OF AUTHORIZATION NO. 28022
P.O. BOX 970
LAKE CITY, FL 32056
PHONE: 386.754.4085
Brett A. Crews, P.E. 65592

DRAWN BY: TM
APPROVED BY: BC

MONSTA CLOTHING

HVAC LAYOUT