

# KIRBY BUILDING SYSTEMS

NUCOR COMPANY

JOB NUMBER: K17B0711

BUILDER:

TENNESSEE INDUSTRIAL MAINTENANCE LLC

CUSTOMER:

TDOT REGION 3

LOCATION:

NASHVILLE, TN

PRIMER COLOR DESIGNATION

RP - STANDARD RED PRIMER

GP - GRAY PRIMER GZ - GALVANIZED

#### TABLE OF CONTENTS

THIS DRAWING PACKET IS TO BE USED FOR PHASE A THRU L

DRAWING NO.

DRAWING TITLE

PRIMER:

COLOR:

STRUCTURAL FRAMING: RP

SECONDARY FRAMING: RP

KIRBY RIB II, 26 Ga., KR2

ZINC ALUMINUM

ROOF PANELS:

E1 E2-E3 E3 E4 E6 FASTNER CHART
ANCHOR BOLT PLAN
CROSS SECTIONS
ROOF FRAMING PLAN
BACK / FRONT SIDEWALL
LEFT / RIGHT ENDWALL

D1-D2

ERECTION DETAILS

# BETTER SOLUTIONS. BETTER BUILDINGS. 124 KIRBY DRIVE, PORTLAND, TN. 37148



MEMBER

TION ACCREDITED

AC472

**GENERAL NOTES:** 

1. MATERIALS
STRUCTURAL STEEL PLATE
HOT ROLLED MILL SHAPES
COLD FORM SHAPES
ROOF AND WALL SHEETING
BOLTS
CARLE

ASTM DESCRIPTION A529 / A572 / A1011 A36 / A529 / A572 / A500 A653 / A1011 A653 / A792 A307 / A325 A475 A572 / A108

2. A325 BOLT TIGHTENING REQUIREMENTS
BOLTED JOINTS SHALL BE CONNECTED AND INSPECTED IN ACCORDANCE WITH THE "SPECIFICATION FOR
STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS," JUNE 30,2004, RESEARCH COUNCIL ON
STRUCTURAL CONNECTIONS. UNLESS NOTED OTHERWISE ON THE KBS ERECTION DRAWINGS, ALL A325 BOLTS
LARGER THAN 1/2" ARE USED IN CONNECTIONS DEFINED AS TURN OF NUT

3. STRUCTURAL SHOP COAT PAINT
THE COAT OF SHOP PRIMER IS INTENDED TO PROTECT THE STEEL FRAMING FOR ONLY A SHORT PERIOD OF
EXPOSURE TO ATMOSPHERIC CONDITIONS. SHOP COAT PRIMER DOES NOT PROVIDE THE APPEARANCE,
DURABILITY AND /OR PROTECTION OF AN APPROPRIATE FIELD APPLIED FINISH. KIRBY STANDARD SHOP COAT
PAINT SHALL MEET OR EXCEED THE REQUIREMENTS OF FEDERAL SPECIFICATION TTP-636.

4. TEMPORARY PANEL STORAGE
PAINTED BUILDING PANELS WITH FLUOROPOLYMER FINISH ARE HIGH—QUALITY CONSTRUCTION MATERIALS.
WHILE IN THE BUNDLE, PANELS SHOULD BE PROTECTED FROM HIGH TEMPERATURE, HUMIDITY AND MOISTURE,
O'THERWISE, DAMAGE CAN OCCUR TO THE PAINTED SURFACE OF THE PANEL. PLEASE REFER TO THE
"WARNING LABEL" THAT KIRBY APPLIES TO EACH BUNDLE OF FLUOROPOLYMER FINISHED PANELS FOR
PROPER STORAGE PROCEDURES.

5. TEMPORARY BRACING
BUILDER/CUSTOMER SHALL SPECIFICALLY NOTE THAT BRACING FURNISHED BY KIRBY IS INTENDED TO BE
USED FOR THE COMPLETED BUILDING; KIRBY DOES NOT REPRESENT OR GUARANTEE THAT THE BRACING WILL
BE ADEQUATE AS TEMPORARY BRACING DURING ERECTION OF THE BUILDING.

6. PANEL HANDLING METAL BUILDING PANELS ARE WAXED OR OILED FOR FINISH PROTECTION DURING SHIPPING AND STORAGE. THE WAX OR OIL MAKES THE PANELS SLIPPERY AND HAZARDOUS TO WALK ON OR STAND ON. THE WAX OR OIL CAN BUILD UP ON SHOES, GLOVES, AND CLOTHING MAKING CLIMBING OR WALKING ON OTHER COMPONENTS HAZARDOUS.

7. ERECTION NOTES

THE BUILDING MUST BE ERECTED ACCORDING TO THE FRAMING PLANS, STANDARD DETAILS, SPECIAL DETAILS, AND NOTES TO ASSURE COMPLIANCE WITH DESIGN LOADS AND BUILDING CODE REQUIREMENTS. FIELD MODIFICATION OF THE BUILDINGS OR BUILDING COMPONENTS WHICH WILL AFFECT THE STRUCTURAL INTEGRITY OF THE BUILDING WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL BY AN AUTHORIZED REPRESENTATIVE OF KIRBY BUILDING SYSTEMS.

8. WELDING SPECIFICATIONS
ALL SHOP WELDS ON MATERIALS GREATER THAN OR EQUAL TO 0.125" IN THICKNESS WERE PRODUCED IN
ACCORDANCE WITHIN THE 2010 AWS D1.1 STRUCTURAL WELDING CODE — STEEL. THE REMAINING WELDS ON
OTHER THINNER MATERIALS WERE PRODUCED IN ACCORDANCE WITH THE 2008 AWS D1.3 STRUCTURAL
WELDING CODE — SHEET STEEL. ALL WELDING WAS PERFORMED BY AWS CERTIFIED WELDERS.

 BUILDING MAINTENANCE MANUAL AVAILABLE AT http://www.kirbybuildingsystems.com/for\_metal\_building\_systems\_builders.asp BUILDING LOADS / DESCRIPTION:

CERTIFICATION EXTENDS ONLY FOR THE LOADS SPECIFIED ON KIRBY'S PURCHASE ORDER TO THE STRUCTURAL COMPONENTS OF THE BUILDING DESIGNED AND SUPPLIED BY KIRBY BUILDING SYSTEMS, INC., IF ERECTED AS INDICATED. NOTE THAT KIRBY'S ENGINEER IS NOT ENGINEER OF RECORD FOR THIS CONSTRUCTION PROJECT. DESIGN LOADS HAVE BEEN APPLIED IN ACCORDANCE WITH THE FOLLOWING.

THIS STRUCTURE IS DESIGNED UTILIZING THE LOADS INDICATED AND APPLIED AS REQUIRED BY: 2006 INTERNATIONAL BUILDING CODE

THE CONTRACTOR IS TO CONFIRM THAT THESE LOADS COMPLY WITH THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT.

 ROOF DEAD LOAD:
 2.0
 PSF (ROOF PANELS & PURLINS)

 OCCUPANCY CATEGORY:
 II - Normal

 COLLATERAL LOAD:
 1
 PSF

 GROUND SNOW LOAD:
 15.0
 PSF Is: 1.0
 Ct: 1.20
 Ce: 0.90

 ROOF SNOW LOAD:
 11.34
 PSF
 MINIMUM SNOW LOAD:
 15.0
 PS

 RAIN ON SNOW SURCHARGE:
 N/A
 PSF
 RAIN W/ SNOW (IF REQ'D)
 N/A

 ROOF SNOW LOAD:
 11.34
 PSF
 MINIMUM SNOW LOAD:
 15.0
 PSF

 RAIN ON SNOW SURCHARGE:
 N/A
 PSF
 RAIN W/ SNOW (IF REQ'D)
 N/A

 ROOF LIVE LOAD:
 20.0
 PSF
 TRIBUTARY REDUCTION
 Yes

 FRAME LIVE LOAD:
 12
 PSF
 BASIC WIND SPEED:
 115
 MPH
 EXPOSURE:
 B
 Iw: 1.0
 KZT: 1.0

 SEISMIC CRITERIA:
 Ss: 0.62
 S1: 0.23
 SDS: 0.54
 SD1: 0.30

 SEISMIC USE GROUP:
 SITE CLASS:
 D
 Ie: 1.00

 SEISMIC DESIGN CATEGORY:
 D
 TL: 12

ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
LATERAL DIRECTION — BASE SHEAR: 1.47 KIPS R:3.50 CS:0.10
STRUCTURAL SYSTEM: ORDINARY STEEL MOMENT FRAMES. OSMF

LONGITUDINAL DIRECTION - BASE SHEAR: 3.57KIPS R:1.25 CS:0.281

STRUCTURAL SYSTEM: CANTILEVERED COLUMN SYSTEM TO CONFORM TO THE REQUIREMENTS OF OSMF, CCS DEAD LOAD: NORMAL WEIGHT OF METAL BUILDING

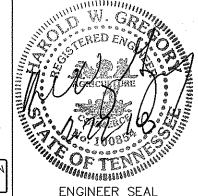
COMPONENTS AS SUPPLIED BY THE MANUFACTURER
THIS BUILDING IS DESIGNED AS AN OPEN STRUCTURE. ALL EXTERIOR COMPONENTS
(DOORS, WINDOWS, ETC.) MUST BE DESIGNED TO WITHSTAND THE WIND LOADINGS
SPECIFIED FOR THE DESIGN OF COMPONENTS AND CLADDING IN THE DESIGN CODE LISTED ABOVE.
ALL EXTERIOR COMPONENTS (WINDOWS, DOORS, ETC) MUST MEET WIND LOADING REQUIREMENTS
FOR THE BUILDING CODE LISTED ABOVE OR MUST BE ADEQUATELY PROTECTED DURING A HIGH
WIND EVENT. ALL GLAZING AND OTHER APPLICABLE OPENINGS IN WINDBORNE DEBRIS REGIONS
MUST BE IMPACT—RESISTANT OR PROTECTED WITH AN IMPACT—RESISTANT COVERING. IMPACT
RESISTANT MATERIALS MUST MEET THE LARGE AND/OR SMALL MISSILE TEST OF ASTM E 1996
AND ASTM E 1886.

OTHER LOADS

ENGINEER NOTES

NO SHEATHING TO BE ADDED WITHOUT AN ENGINEERING REVIEW





STANDING SEAM ROOF SYSTEMS INSULATION & FASTENER RECOMMENDATIONS											
INSULATION											
NO INSULATION THERMAL BLOCK FASTENER	OK 3/8" SYB05A FD26CP	N/R	N/R	OK 3/8* SYB11 FA07 CP	N/R						
R10 THERMAL BLOCK FASTENER	OK NONE FD26CP	OK 1" SYB09 FD26CP	N/R	OK NONE FA07CP	OK 5/8" SYB12 FA07 CP						
R11 THERMAL BLOCK FASTENER	OK NONE FD26CP	OK 1" SYB09 FD26CP	N/R	OK NONE FA07CP	OK 5/8" SYB12 FA07CP						
R13 THERMAL BLOCK FASTENER	OK NONE FD26CP	OK 1" SYB09 FD26CP	N/R	OK NONE FA07CP	ÖK 5/8* SYB12 FA07CP						
R16 THERMAL BLOCK FASTENER	OK' NONE FD29CP	OK 3/4" SYB07 FD29CP	N/R	N/R	0K 3/8" SYB11 FC09CP						
R19 THERMAL BLOCK FASTENER	OK* NONE FD29CP	OK 3/4" SY807 FD29CP	N/R	N/R	0K 3/8* SY811 FC09CP						
R25 THERMAL BLOCK FASTENER	N/R	OK 3/4" SYB07 FD29CP	N/R	N/R	N/R						
R30 THERMAL BLOCK FASTENER	N/R	N/R	OK 1° SY805C FD29CP	N/R	N/R						

#### REFERENCE NOTES

REFERENCE NOTES
OK - Kirby approved application
OK' - Kirby application conditionally approved.
Coverage and may induce oil canning or pillo wing. (REQUIRES DISCLAIMER)
N/R - Not Recommended due to aesthetic issues or difficulty of installation. (REQUIRES MANAGEMENT)

FD26CP ¼ - 14 x 1¼ TEK2 W/ WASHER (CADMIÚM PLATED) FD29CP ¼ - 14 x 1¼ TEK2 W/ WASHER (CADMIUM PLATED)

FA07CP 12 - 14 x 1½" HWH BLAZER DP2 NO WASHER (CADMIUM PLATED) FC09CP 12 - 14 x 1½" HWH BLAZER DP2 NO WASHER (CADMIUM PLATED)

Nominal Insulation Thicknesses

R10 - 3.25" (range of 2.95" to 3.4")

R16 - 5" (range of 5.0" to 5.30")

R19 - 6.25" (range of 5.6 " to 6.375")

R11 - 3.5" (range of 3.3" to 3.75") R13 - 4.25" (range of 3.85" to 4.375") R25 - 8" (range of 7,5" to 8.0") R30 – 9,25" (range of 8.7" to 9.50")

#### **FASTENER REQUIREMENTS**

#### ROOF MEMBER FASTENERS



12-14 X 11/4" HWH DP2 BLAZER ZINC HEAD

FA01

#### WALL MEMBER FASTENERS



FA07\_\_

MISCELLANEOUS FASTENERS

12-14 X 1½" HWH BLAZER DP2, NO WASHER SECONDARY TO SECONDARY CONNECTIONS FA07CP

#### THRU-FASTENED **ROOF & WALL SYSTEMS**

INSULATION & FASTENER RECOMMENDATIONS

	• •		
INSULATION /	KIRBY RIB	KR, KW & KRP	
FASTENERS	ROOF PANEL	WALL PANELS	
NO INSULATION	OK	OK	_
FASTENER	FA01	FA07	
R10, R11	OK	OK	
FASTENER	FA01	FA07	
R13, R16	OK	OK	
FASTENER	FA01	FÇ08	
R19	OK*	OK*	_
FASTENER	FA02	FC08	
R19 THERMAL BLOCK FASTENER	OK* 1" SYB08 FA14	N/R	_

#### REFERENCE NOTES: Insulation thicknesses

OK - Kirby approved application

OK\* - Kirby application conditionally approved, Application requires extra effort during erection to hold panel coverage and may induce oil canning, dimpling or pillowing. (REQUIRES DISCLAIMER Not Recommended due to aesthetic issuesor difficulty of installation (REQUIRES MANAGEMENT APPROVAL)

FA01 12 - 14 x 1½" HWH DP2 BLAZER ZINC HEAD FA02 12 - 14 x 1½" HWH DP2 BLAZER ZINC HEAD FA07 12 - 14 x 11/2 HWH DLAZER DR2, NO WASHER FA07 12 - 14 x 11/2 HWH BLAZER DR2, NO WASHER FC08 12 - 14 x 11/2 HWH BLAZER FLANGE DR3 FA14 12 - 14 x 2" HWH DR2 BLAZER ZINC HEAD

#### lominal Insulation Thicknesses

R10 – 3,25" (range of 2,95" to 3,4")

R11 – 3,5" (range of 3,3" to 3.75") R13 – 4.25" (range of 3.85" to 4.375")

R16 - 5" (range of 5.0" to 5.30") R19 - 6.25" (range of 5.6 " to 6.375")

### R25 - 8" (range of 7.5" to 8.0") R30 - 9.25" (range of 8.7" to 9.50"

#### ROOF STITCH/TRIM FASTENERS



1/4-14 X %" HWH VRT DP1 BLAZER ZINC HEAD

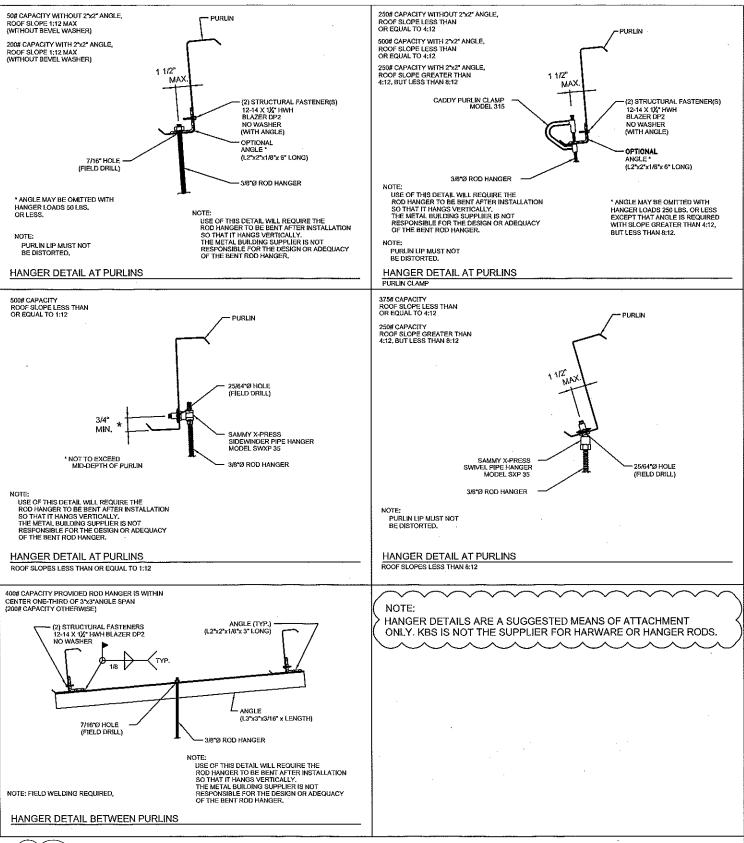
FA03\_\_

#### WALL STITCH/TRIM FASTENERS



1/4-14 X %" HWH BLAZER VRT DP1, NO WASHER

FA11\_\_\_

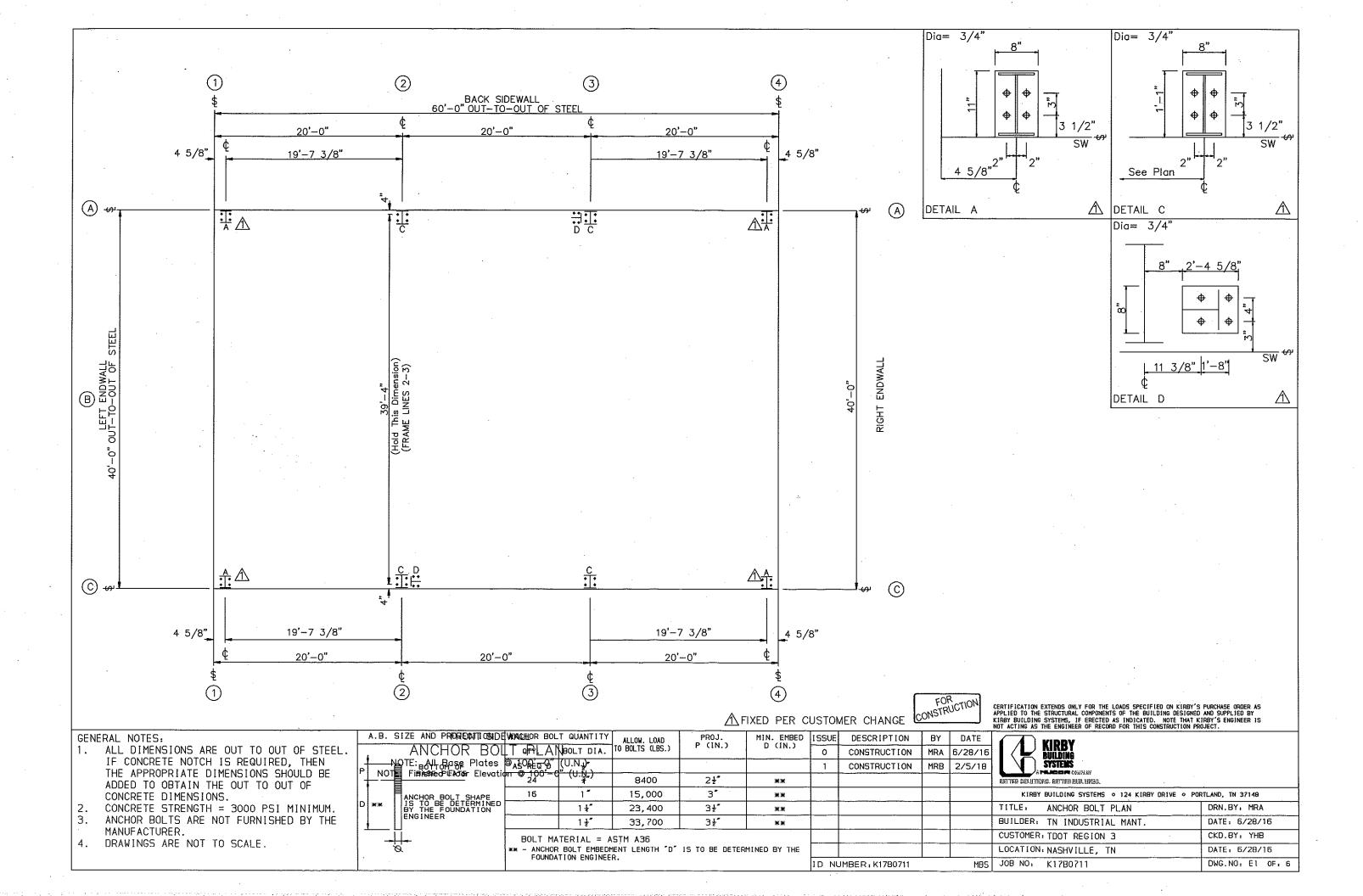


NOTE:

ALL CAPACITIES THAT ARE SHOWN ON THIS DRAWING ARE MAXIMUM HANGER LOADS FOR THESE DETAILS ONLY. THE PURLINS MAY OR MAY NOT BE DESIGNED FOR THE REQUIRED HANGER LOADS, CONTACT KIRBY BUILDING SYSTEMS FOR SUSPENDED LOADS THAT EXCEED THE DESIGN COLLATERAL LOAD SPECIFIED FOR THIS PROJECT.

ISSUE DESCRIPTION BY DATE S STRUCTURAL NLP 07/01/16 O CONSTRUCTION JFT 7/13/16 KIRBY BUILDING SYSTEMS 124 KIRBY DRIVE PORTLAND, TN 37148 TITLE: FASTENER CHART DRN. BY: JFT BUILDER, TH INDUSTRIAL MANT. DATE: 7/13/16 CUSTOMER: TDOT REGION 3 CKO. BY, NRO LOCATION: NASHVILLE, TN DATE: 11/30/17 MBS JOB NO: K1780711 DWG.NO.C1 OF.1 ID NUMBER K1780711





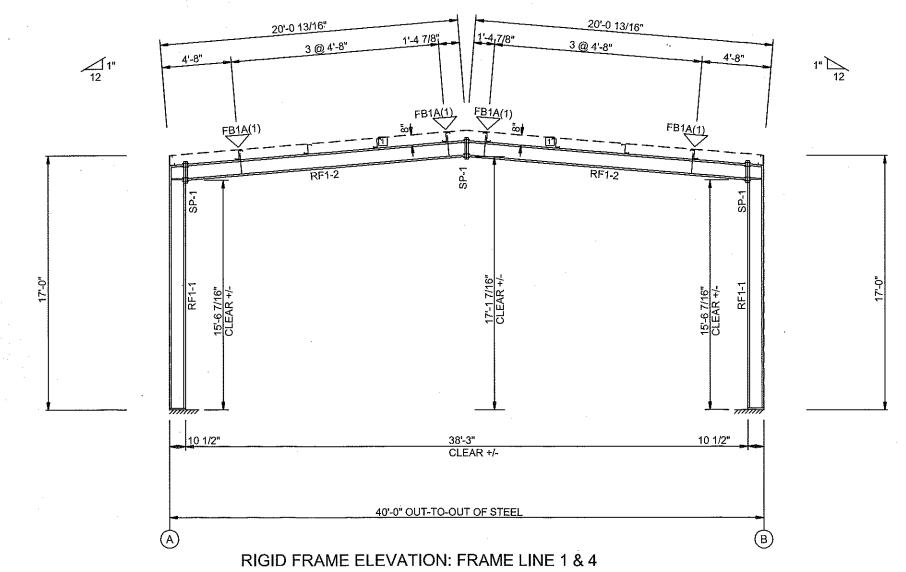
SPLICE PLATE & BOLT TABLE											
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length		
SP-1	4	4	0	A325	3/4"	3"	6"	3/8"	1'-5 1/4"		

MEMBER TABLE											
		Web Depth	Web Plate Outside Flan		Outside Flange	Inside Flange					
Mark	Weight	Start/End	Thick	Length	W x Thk x Length	W x Thk x Length					
RF1-1	236	10.0/10.0	0.135	196.2	5 x 1/4" x 195.3	5 x 1/4" x 182.6					
					5 x 1/4" x 10.3						
RF1-2	234	10.0/10.0-	0.135	230.3	5 x 3/16" x 229.4	5 x 3/16" x 229,4					

STIFFENER TABLE										
Mark	Stiff Mark	Width	Plate Size Thick	e Length						
RF1-1	St- 1	2.500	0.250	9.875						

CON	NECTION PLATES
	Mark/Part
1	PC20

FLANGE BRACES: (1) One Side; (2) Two Sides FBxxA(1)
A - L188x099





CERTIFICATION EXTENDS ONLY FOR THE LOADS SPECIFIED ON KIRBY'S PURCHASE ORDER AS APPLIED TO THE STRUCTURAL COMPONENTS OF THE BUILDING DESIGNED AND SUPPLIED BY KIRBY BUILDING SYSTEMS, IF ERECTED AS INDICATED. NOTE THAT KIRBY'S ENGINEER IS NOT ACTING AS THE ENGINEER OF RECORD FOR THIS CONSTRUCTION PROJECT.

1. REFERENCE ELEVATION = 100'0".

2. ALL BASE PLATES AT REFERENCE ELEVATION UNLESS NOTED.

3. SEE ANCHOR BOLT PLAN FOR ANCHOR BOLT SIZES AND DETAILS.

4. FLANGE BRACES ARE REQUIRED ON TWO SIDES (2) OR ONE SIDE (1) AS NOTED.

5. ALL MAIN FRAME CONNECTION BOLTS ARE A325 BOLTS.

6. FOR FLANGE BRACE CONNECTIONS IN THE ROOF, SEE DETAIL [BR105] FOR FLANGE BRACE CONNECTIONS IN THE WALLS, SEE DETAIL [BR205]

7. ALL FLANGE BRACE LOCATIONS MARKED TWO SIDES
(2) AT EXPANDABLE END FRAMES REQUIRE ONE FLANGE
BRACE TO BE INSTALLED AT THE TIME OF ERECTION,
WHILE THE OTHER IS TO BE STORED AND USED AT THE
TIME OF A FUTURE ADDITION.

8. ALL CONNECTION BOLTS OR FIELD WELDS, PURLINS AND ALL FLANGE BRACES MUST BE PROPERLY INSTALLED ON MAIN FRAMES AS THEY ARE ERECTED AND BEFORE ERECTION LOADS ARE APPLIED.

				I NOOLOT?
DESCRIPTION	BY	DATE	A VIDDY	
STRUCTURAL	NLP	07/01/16	I / L RIKDT	
CONSTRUCTION	JFT	7/13/16	SYSTEMS	•
			BETTER ROLUTIONS. BETTER SUILDINGS.	
			KIRBY BUILDING SYSTEMS • 124 KIRBY DRIVE • F	PORTLAND, TN 37148
			TITLE: RIGID FRAME LINES 2 3	DRN.BY: JFT
			BUILDER: TN INDUSTRIAL MANT.	DATE: 7/13/16
			CUSTOMER: TDOT REGION 3	CKD.BY: MR8
			LOCATION: NASHVILLE, TN	DATE: 11/30/17
JMBER: K1780711	•	MBS	JOB NO. K17B0711	DWG.NO: E2 OF: 6
	STRUCTURAL	STRUCTURAL NLP CONSTRUCTION JFT	STRUCTURAL NLP 07/01/16 CONSTRUCTION JFT 7/13/16	STRUCTURAL NLP 07/01/16  CONSTRUCTION JFT 7/13/16  KIRBY BUILDING SYSTEMS 0 124 KIRBY DRIVE 0 F  TITLE: RIGID FRAME LINES 2 3  BUILDER: TN INDUSTRIAL MANT.  CUSTOMER: TDOT REGION 3  LOCATION: NASHVILLE, TN

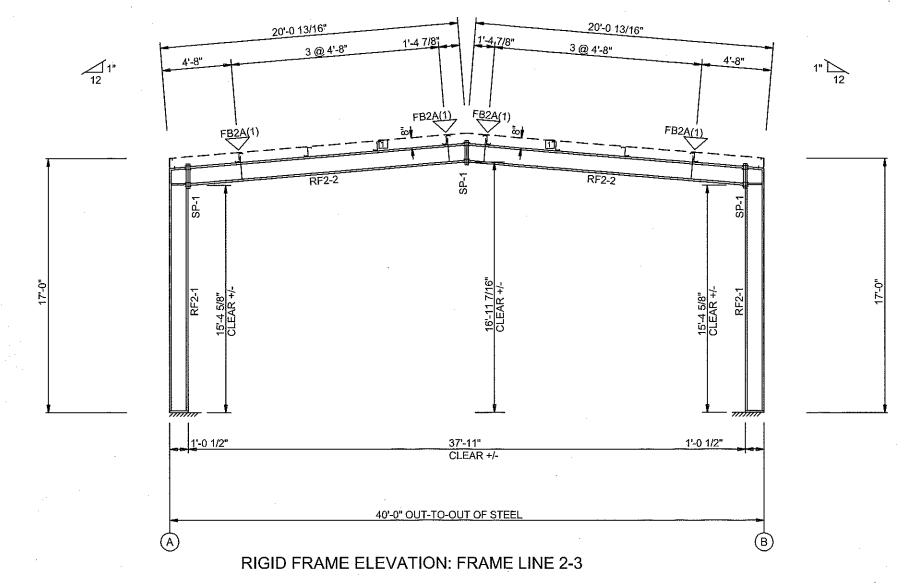
SPLICE PLATE & BOLT TABLE											
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length		
SP-1	4	4	0	A325	3/4"	3"	6"	1/2"	1'-7 5/16"		

ABLE					
141 1 1 1	Web Depth	Web	Plate	Outside Flange	Inside Flange
Weight	Start/End	Thick	Length	W x Thk x Length	W x Thk x Length
319	12.0/12.0	0.188	196.4	6 x 3/16" x 195.4	6 x 5/16" x 180.8
				6 x 3/16" x 12.2	
300	12.0/12.0	0.135	228.1	5 x 1/4" x 227.1	5 x 1/4" x 227.1
	Weight 319	Weight         Web Depth Start/End           319         12.0/12.0	Weight         Web Depth Start/End         Web Thick           319         12.0/12.0         0.188	Weight         Web Depth Start/End         Web Plate Thick         Length           319         12.0/12.0         0.188         196.4	Weight         Web Depth Start/End         Web Plate Thick Length         Outside Flange W x Thk x Length           319         12.0/12.0         0.188         196.4         6 x 3/16" x 195.4           6 x 3/16" x 12.2         6 x 3/16" x 12.2

STIFFENER TABLE											
Mark	Stiff Mark	Width	Plate Siz Thick	e Length							
IVICITY	- IVICAN	Wide	11808	Longan							
RF2-1	St- 1	2.500	0.250	11.88							

CONNECTION PLATES ☐ ID Mark/Part
1 PC20

FLANGE BRACES: (1) One Side; (2) Two Sides FBxxA(1)
A - L188x099





2. ALL BASE PLATES AT REFERENCE ELEVATION UNLESS NOTED.

3. SEE ANCHOR BOLT PLAN FOR ANCHOR BOLT SIZES AND DETAILS.

4. FLANGE BRACES ARE REQUIRED ON TWO SIDES (2) OR ONE SIDE (1) AS NOTED.

5. ALL MAIN FRAME CONNECTION BOLTS ARE A325 BOLTS.

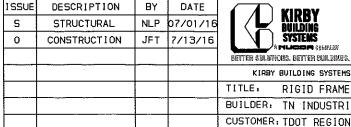
6. FOR FLANGE BRACE CONNECTIONS IN THE ROOF, SEE DETAIL BRIOS FOR FLANGE BRACE CONNECTIONS IN THE WALLS, SEE DETAIL BR205

7. ALL FLANGE BRACE LOCATIONS MARKED TWO SIDES
(2) AT EXPANDABLE END FRAMES REQUIRE ONE FLANGE
BRACE TO BE INSTALLED AT THE TIME OF ERECTION,
WHILE THE OTHER IS TO BE STORED AND USED AT THE TIME OF A FUTURE ADDITION.

8. ALL CONNECTION BOLTS OR FIELD WELDS, PURLINS AND ALL FLANGE BRACES MUST BE PROPERLY INSTALLED ON MAIN FRAMES AS THEY ARE ERECTED AND BEFORE ERECTION LOADS ARE APPLIED.

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TOUCTION
FOR CONSTRUCTION
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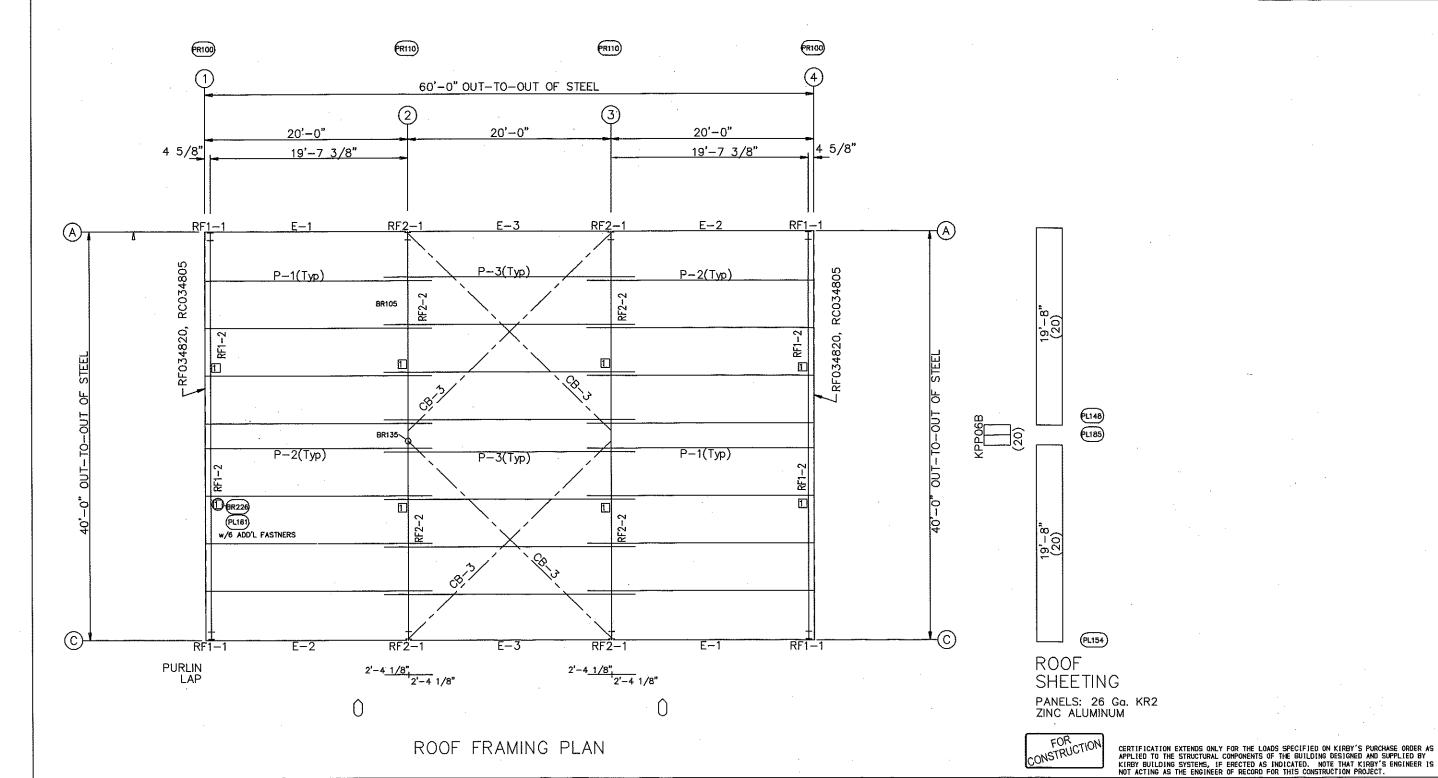
CERTIFICATION EXTENDS ONLY FOR THE LOADS SPECIFIED ON KIRBY'S PURCHASE ORDER AS APPLIED TO THE STRUCTURAL COMPONENTS OF THE BUILDING DESIGNED AND SUPPLIED BY KIRBY BUILDING SYSTEMS, IF ERECTED AS INDICATED. NOTE THAT KIRBY'S ENGINEER IS NOT ACTING AS THE ENGINEER OF RECORD FOR THIS CONSTRUCTION PROJECT.



KIRBY BUILDING SYSTEMS

			KIRBY	BUILDING SYSTEMS	o 124 KIRBY DRIVE	E o PORT	TLAND, TN	37148
			TITLE:	RIGID FRAME	LINES 2 3	-	DRN.BY	. JFT
			BUILDER:	TN INDUSTRIA	L MANT.		DATE:	7/13/16
			CUSTOMER	: TDOT REGION	3		CKD.BY	: MR8
			LOCATION	: NASHVILLE, T	N		DATE:	11/30/17
D N	JMBER: K17B0711	 MBS	JOB NO:	K17B0711			DWG.NO	. E3 OF.

CONNECTION PLATES ROOF PLAN
DID QUAN MARK/PART
1 8 PC20



#### GENERAL NOTES:

- 1. USE # DIA. X 1# A325 BOLTS FOR ALL PURLIN LAP CONNECTIONS.
- 2. USE # DIA. X 1# A325 BOLTS
- FOR PURLIN AND EAVE STRUT TO FRAME CONNECTIONS. 3. THE DIAMETER OF THE BRACING IS DENOTED BY THE THIRD AND FOURTH DIGITS OF THE PIECE MARK. (CABLE EX. 08 = # Ø AND 10 = # Ø)
- (ROD EX. 08 = # # AND 10 = # #) 4. ADEQUATE TEMPORARY BRACING MUST BE PROVIDED BY THE ERECTOR DURING THE ERECTION OF THE BUILDING.
- 5. ALL PRIMARY AND SECONDARY FRAMING, WIND BRACING, ETC. MUST BE INSTALLED, PROPERLY ALIGNED, BOLTED OR WELDED PRIOR TO THE INSTALLATION OF THE ROOF PANELS.
- 6. IT MAY BE NECESSARY DURING ERECTION TO MAKE MINOR ADJUSTMENTS AND ALIGNMENTS TO BOTH PURLINS AND GIRTS PRIOR TO INSTALLING PANELS.
- 7. DO NOT STAND OR WALK ON SECONDARY FRAMING MEMBERS SUCH AS GIRTS, PURLINS AND EAVE STRUTS UNLESS THEY ARE FIRMLY SECURED AT BOTH ENDS AND LATERALLY SUPPORTED.
- 8. DO NOT USE METAL BUILDING PANELS AS WALK BOARDS OR WORKING PLATFORMS, NEVER STAND OR WALK ON METAL BUILDING PANELS BETWEEN SUPPORTS UNLESS THE PANELS ARE FIRMLY FASTENED AT BOTH ENDS AND BOTH SIDES.
- 9. DRAWINGS ARE NOT TO SCALE.
- 10. FOR KIRBYLOK OR ROOFLOK ROOF PANELS, REF. APPROPRIATE ERECTION MANUAL FOR ERECTION PROCEDURES.
- 11. WARNING P

12. A COPY OF KIRBY'S STANDING SEAM CHECKLIST CAN BE FOUND IN THE STANDING SEAM ERECTION MANUAL SENT WITH EACH PROJECT. TO ENSURE YOUR INSTALLER HAS A THOROUGH UNDERSTANDING OF THE STANDING SEAM SYSTEM, PLEASE REVIEW THE

DETAILS PROVIDED IN THE ERECTION DRAWINGS AND THE STANDING SEAM MANUAL

HAVE THE ERECTOR OR YOUR PROJECT SUPERINTENDENT COMPLETE THE CHECKLIST

PENCIL LEAD WILL CAUSE GALV.	DETAIL KEY	ISSUE	DESCRIPTION	BY	DATE
D TRIM PIECES TO RUST. E PENCILS TO MARK ON PARTS.	DETAIL NO.	5	STRUCTURAL	NLP	07/01/1
		0	CONSTRUCTION	JFT	7/13/16
	REFERENCE ERECTION				
	DETAILS				
_				1	

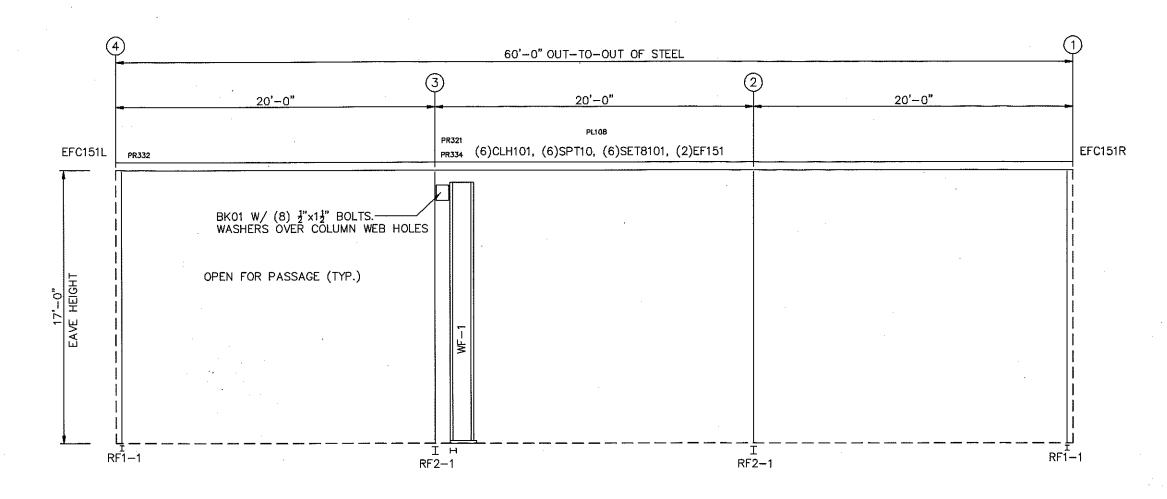
ID NUMBER: K1780711

KIRBY BUILDING SYSTEMS

BETTER SOLUTIONS. BETTER BUILDINGS.

KIRBY BUILDING SYSTEMS • 124 KIRBY DRIVE • PORTLAND, TN 37148 DRN.BY: JFT TITLE: ROOF FRAMING PLAN DATE: 7/13/16 BUILDER: TN INDUSTRIAL MANT. CKD.BY: MRB CUSTOMER. TDOT REGION 3 LOCATION, NASHVILLE, TN DATE: 11/30/17 DWG.NO: E4 OF: 6 MBS JOB NO: K17B0711

BOLT TABLE FRAME LINE QUAN TYPE DIA \*W/ WASHERS OVER COLUMN HOLES



BACK SIDEWALL FRAMING: FRAME LINE A (AS SHOWN) FRONT SIDEWALL FRAMING: FRAME LINE C (OPPOSITE HAND)

TRIM: 26 Ga., Color: BURNISHED SLATE

ONSTRUCTION

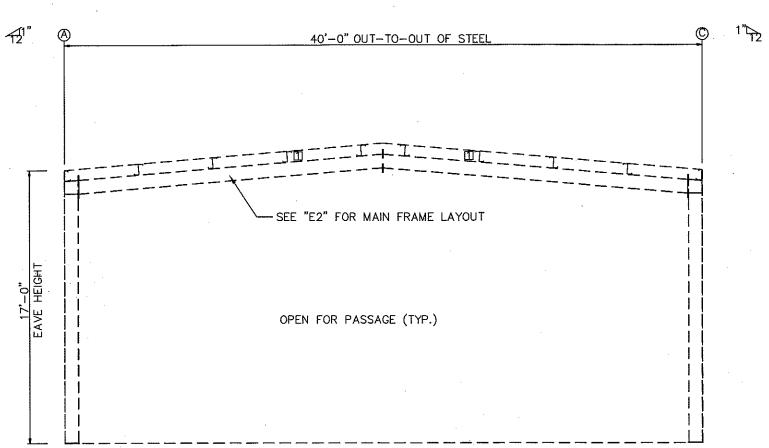
CERTIFICATION EXTENDS ONLY FOR THE LOADS SPECIFIED ON KIRBY'S PURCHASE ORDER AS APPLIED TO THE STRUCTURAL COMPONENTS OF THE BUILDING DESIGNED AND SUPPLIED BY KIRBY BUILDING SYSTEMS, IF ERECTED AS INDICATED, NOTE THAT KIRBY'S ENGINEER IS NOT ACTING AS THE ENGINEER OF RECORD FOR THIS CONSTRUCTION PROJECT.

- 1. USE & ø x 1 x A325 BOLTS FOR ALL GIRT LAP AND GIRT TO CLIP CONNECTIONS.
- 2. THE DIAMETER OF THE BRACING IS DENOTED BY THE THIRD AND FOURTH DIGITS OF THE PIECE MARK.  $(EX. 08 = \frac{1}{2} 0 10 = \frac{1}{2} 0)$
- 3. ADEQUATE TEMPORARY BRACING MUST BE PROVIDED BY THE ERECTOR DURING THE ERECTION OF THE BUILDING.
- 4. ALL PRIMARY AND SECONDARY FRAMING, WIND BRACING, ETC. MUST BE INSTALLED, PROPERLY ALIGNED, BOLTED OR WELDED 10. DRAWINGS ARE NOT TO SCALE. PRIOR TO THE INSTALLATION OF THE PANELS.
- 5. IT MAY BE NECESSARY DURING ERECTION TO MAKE MINOR ADJUSTMENTS AND ALIGNMENTS TO BOTH PURLINS AND GIRTS PRIOR TO INSTALLING PANELS.
- 6. ERECTOR TO FIELD SLOT FLUSH FRAME GIRTS FOR CABLE
- 7. BUILDER TO FIELD CUT OR BACK LAP PANELS AS REQUIRED. 8. BEFORE INSTALLATION OF WALL PANELS, IT IS IMPORTANT TO REFERENCE WALL PANEL FASTENER LAYOUT DETAILS (PL153) KIRBYWALL PL149) KIRBYRIB II) TO INSURE CORRECT
- USAGE OF FASTENERS. 9. USE RVTCP AT 5'0" C/C FOR TEMPORARY INSTALLATION OF CLH TRIM.
- 11. REF. PL357 FOR CAULKING AT TRIM LAPS 12. WARNING, PENCIL LEAD AND MARKER WILL CAUSE GALV. PANELS AND TRIM PIECES TO RUST. DO NOT USE THESE
- DETAIL KEY DESCRIPTION BY DATE STRUCTURAL. NLP 07/01/16 DETAIL NO. CONSTRUCTION JFT 7/13/16 REFERENCE ERECTION

KIRBY BUILDING SYSTEMS

BETTER SOLUTIONS, BETTER BUILDINGS. KIRBY BUILDING SYSTEMS . 124 KIRBY DRIVE . PORTLAND, TN 37148 DRN.BY: JFT TITLE: BACK SIDEWALL/FRONT SIDEWALL NOTE: ALL GIRT LAPS NOT INDICATED WILL BE 0'21" DATE: 7/13/16 BUILDER: TN INDUSTRIAL MANT. DOOR GIRTS: CUSTOMER: TDOT REGION 3 CKD.BY: MRB ALL GIRTS ATTACHED AT ONE LOCATION: NASHVILLE, TN DATE: 11/30/17 END TO A DOOR JAMB ARE 16 GAGE DWG.NO: E5 OF: 6 J08 NO: K17B0711 UNLESS NOTED OTHERWISE. ID NUMBER: K1780711

1" Φ PL101 RF15, RF10, RST815, RST810 RF15, RF10, RST815, RST810



LEFT ENDWALL FRAMING: FRAME LINE 1 (AS SHOWN) RIGHT ENDWALL FRAMING: FRAME LINE 3 (OPPOSITE HAND) TRIM: 26 Ga., Color: BURNISHED SLATE

FOR CONSTRUCTION

CERTIFICATION EXTENDS ONLY FOR THE LOADS SPECIFIED ON KIRBY'S PURCHASE ORDER AS APPLIED TO THE STRUCTURAL COMPONENTS OF THE BUILDING DESIGNED AND SUPPLIED BY KIRBY BUILDING SYSTEM, IF ERECTED AS INDICATED. NOTE THAT KIRBY'S ENGINEER IS NOT ACTING AS THE ENGINEER OR RECORD FOR THIS CONSTRUCTION PROJECT.

GENERAL NOTES:

- 1. USE 1 x x 11 A325 BOLTS FOR ALL GIRT LAP AND GIRT TO CLIP CONNECTIONS.
- 2. REFER TO BEARING FRAME DETAILS BF FOR CONNECTION REQUIREMENTS OF RAFTER TO RAFTER AND RAFTER TO COLUMN. 3. ADEQUATE TEMPORARY BRACING MUST BE PROVIDED BY THE
- ERECTOR DURING THE ERECTION OF THE BUILDING. 4. ALL PRIMARY AND SECONDARY FRAMING, WIND BRACING, ETC. MUST BE INSTALLED, PROPERLY ALIGNED, BOLTED OR WELDED
- PRIOR TO THE INSTALLATION OF THE WALL PANELS.

  5. IT MAY BE NECESSARY DURING ERECTION TO MAKE MINOR ADJUSTMENTS AND ALIGNMENTS TO BOTH PURLINS AND GIRTS PRIOR TO INSTALLING PANELS.
- 6. BUILDER TO FIELD CUT OR BACK LAP PANELS AS REQUIRED.
- 7. BUILDER TO FIELD CUT PANELS AS REQ'D
- 8. DRAWINGS ARE NOT TO SCALE. 9. REF. PL357 FOR CAULKING AT TRIM LAPS
- 10. WARNING, PENCIL LEAD AND MARKER WILL CAUSE GALV. PANELS AND TRIM PIECES TO RUST. DO NOT USE THESE TO MARK ON PARTS.

•	DETAIL KEY	I SSUE	DESCRIPTION	BY	DATE	
Ī	DETAIL NO.	S	STRUCTURAL	NLP	07/01/16	
ŀ		0	CONSTRUCTION	JFT	7/13/16	
	REFERENCE ERECTION					
l	DETAILS					
- <b>-</b> -	ALL GIRT LAPS NOT					_
<b>C</b> :	ALL GIRT LAPS NOT					-

ID NUMBER: K1780711

E	A VIDDY
/16	NIKDY BUILDING
16	SYSTEMS
	RETTER SALUTADAS ARTTERALS

MBS JOB NO: K1780711

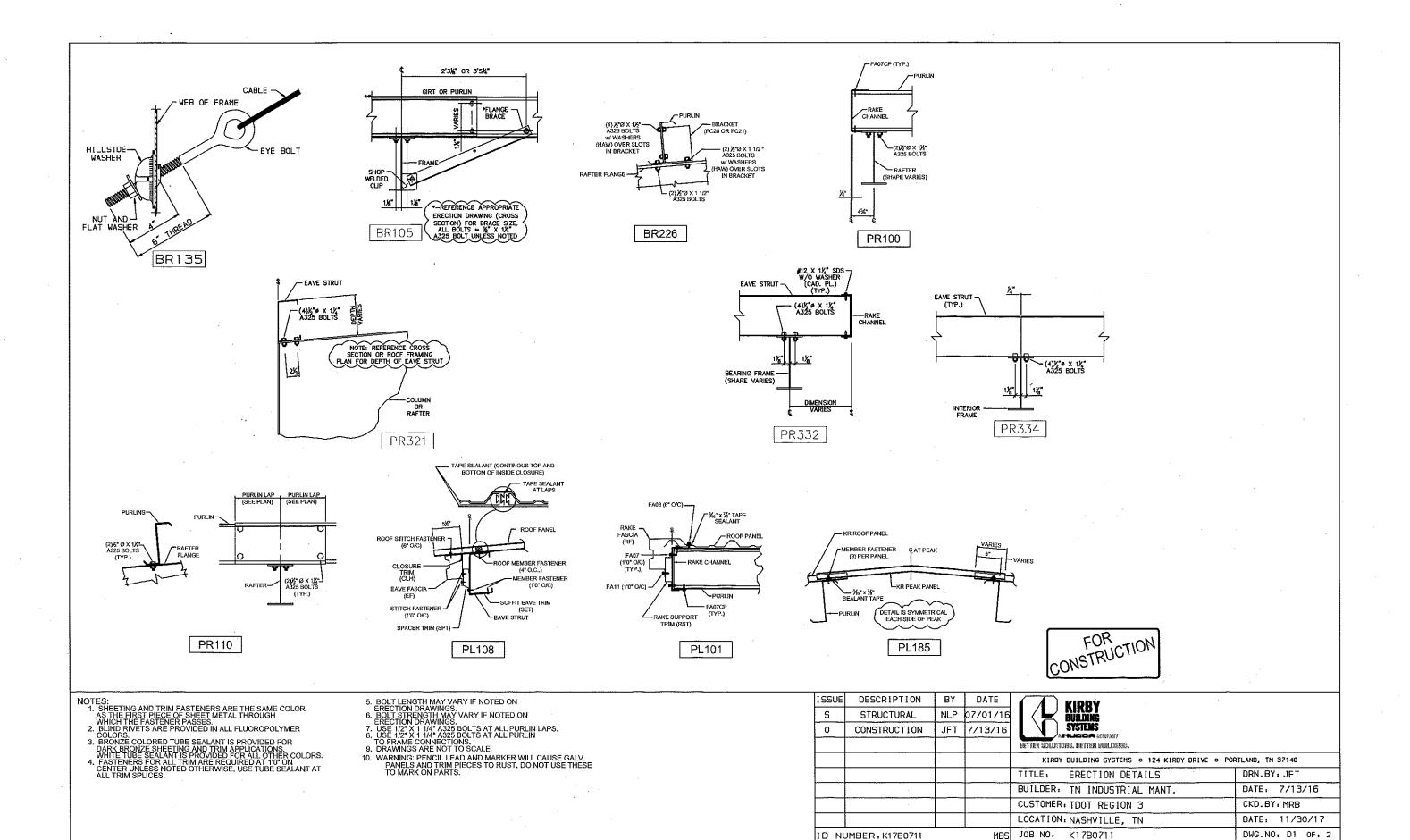
KIRBY BUILDING SYSTEMS . 124 KIRBY DRIVE . PORTLAND, TN 37148 DRN.BY: JFT TITLE: LEFT ENDWALL/RIGHT ENDWALL BUILDER: TN INDUSTRIAL MANT. DATE: 7/13/16 CUSTOMER: TOOT REGION 3 CKD.BY: MRB LOCATION: NASHVILLE, TN DATE: 11/30/17

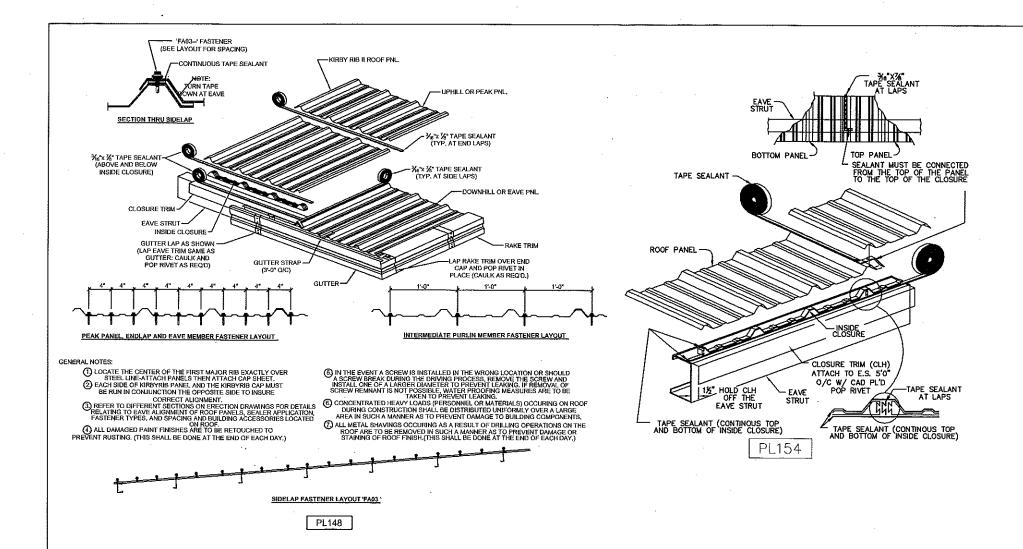
DWG.NO: E6 OF. 6

INDICATED WILL BE 0'24" DOOR GIRTS: ALL GIRTS ATTACHED AT ONE

END TO A DOOR JAMB ARE 16 GAGE

UNLESS NOTED OTHERWISE.





FOR CONSTRUCTION

- NOTES:

  1. SHEETING AND TRIM FASTENERS ARE THE SAME COLOR AS THE FIRST PIECE OF SHEET METAL THROUGH WHICH THE FASTENER PASSES.

  2. BLIND RIVETS ARE PROVIDED IN ALL FLUOROPOLYMER COLORS.

  3. BRONZE COLORED TUBE SEALANT IS PROVIDED FOR DARK BRONZE SHEETING AND TRIM APPLICATIONS. WHITE TUBE SEALANT IS PROVIDED FOR ALL OTHER COLORS.

  4. FASTENERS FOR ALL TRIM ARE REQUIRED AT 10° ON CENTER UNLESS NOTED OTHERWISE, USE TUBE SEALANT AT ALL TRIM SPLICES.

- 5. BOLT LENGTH MAY VARY IF NOTED ON ERECTION DRAWINGS.
  6. BOLT STRENGTH MAY VARY IF NOTED ON ERECTION DRAWINGS.
  7. USE 1/2" X 1 1/4" A325 BOLTS AT ALL PURLIN LAPS.
  8. USE 1/2" X 1 1/4" A325 BOLTS AT ALL PURLIN .
  TO FRAME CONNECTIONS.
  9. DRAWINGS ARE NOT TO SCALE.

- 10. WARNING: PENCIL LEAD AND MARKER WILL CAUSE GALV. PANELS AND TRIM PIECES TO RUST, DO NOT USE THESE TO MARK ON PARTS.

ISSUE	DESCRIPTION	BY	DATE	<b>KIRBY</b>	
S	STRUCTURAL	NLP	07/01/16	BUILDING .	
0	CONSTRUCTION	JFT	7/13/16	SYSTEMS A PLACED IN COMPANY	
	-		•	better sclutions. Better buildings.	
				KIRBY BUILDING SYSTEMS • 124 KIRBY DRIVE • PO	ORTLAND, TN 97148
				TITLE: ERECTION DETAILS	DRN.8Y.JFT
				BUILDER: TN INDUSTRIAL MANT.	DATE: 7/13/16
				CUSTOMER: TDOT REGION 3	CKD. BY: MRB
				LOCATION: NASHVILLE, TN	DATE: 11/30/17
ID NU	JMBER : K17B0711		MBS	JOB NO: K17B0711	DWG.NO: D2 OF: 2

## DESIGN CRITERIA:

DESIGN PER 2012 INTERNATIONAL BUILDING CODE, UNLESS NOTED OTHERWISE BUILDING OCCUPANCY CLASSIFICATION: II

SEISMIC LOADS: IMPORTANCE FACTOR, I=1.0SITE CLASS D SEISMIC DESIGN CATEGORY, D

MAPPED SPECTRAL RESPONSE ACCELERATION, S1=0.231 SPECTRAL DESIGN COEFFICIENTS: Sds=0.539, Sd1=0.299

BASIC SEISMIC FORCE RESISTING SYSTEM: ORDINARY STEEL MOMENT FRAMES RESPONSE MODIFICATION FACTOR:

WIND COLUMNS, R=1.25 RIGID FRAMES, R=3.5 SEISMIC RESPONSE COEFFICIENT: WIND COLUMNS, Cs=0.4310

RIGID FRAMES, Cs=0.1539 SEE P.E.M.B. REACTION CALCULATIONS FOR ADDITIONAL INFORMATION

WIND LOADS (ASCE 7-10): BASIC WIND SPEED (Vult): 115 MPH BASIC WIND SPEED (Vasd): 93 MPH RISK CATEGORY: II WIND EXPOSURE CATEGORY: B

P.E.M.B. FOUNDATIONS WERE DESIGNED USING THE DESIGN CRITERIA SHOWN ABOVE. THESE DESIGN CRITERIA WERE SELECTED TO REPRESENT APPROPRIATE LOADING SCENARIOS FOR TDOT REGIONS 1, 2, AND 3. DESIGNS REPRESENTED IN THIS DOCUMENT SHALL NOT BE CONSTRUCTED IN REGIONS OR AREAS THAT DO NOT ADHERE TO THE DESIGN CRITERIA OF THIS DOCUMENT.

CONCRETE (DESIGN PER TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION)

MIX CLASS 3,000 PSI MIXA

0.45 REFER TO TDOT SPEC SECTION 604 FOR ADDITIONAL INFORMATION.

ALL REINFORCING STEEL ASTM A615 GRADE 60. REFER TO TDOT SPEC SECTION 907 FOR ADDITIONAL INFORMATION.

SOIL BEARING (DESIGN MAXIMUM): SPREAD FOOTINGS 2,000 PSF

PRE-ENGINEERED METAL BUILDINGS:

ALL METAL BUILDING COMPONENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE MBMA MANUAL AND THE 2012 INTERNATIONAL BUILDING CODE INCLUDING BUT NOT LIMITED TO THE LOADS LISTED UNDER "DESIGN LOADS"

W/CM RATIO (MIN)

THE METAL BUILDING MANUFACTURER SHALL BE SOLELY RESPONSIBLE FOR THE STRUCTURAL DESIGN AND FABRICATION OF THE SUPERSTRUCTURE, THIS INCLUDES, BUT IS NOT LIMITED TO, PURLINS, RIGID FRAMES, PORTAL FRAMES, WIND COLUMNS, GIRTS, BASEPLATES, ALL BRACING, AND ANCHOR BOLTS.

THE METAL BUILDING SHALL BE DESIGNED IN ACCORDANCE WITH THE 2012 IBC INCLUDING BUT NOT LIMITED TO DEFLECTION CRITERIA, LOADS, LOAD COMBINATIONS, ALLOWABLE STRESSES, ANALYSIS METHODS AND DESIGN REQUIREMENTS.

LATERAL DRIFT SHALL BE IN ACCORDANCE WITH THE CRITERIA CONTAINED IN "SERVICEABILITY DESIGN CONSIDERATIONS FOR STEEL BUIDINGS" PUBLISHED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. (COPYRIGHT 2003).

THE METAL BUILDING MANUFACTURER SHALL BE RESPONSIBLE FOR THE OVERALL DESIGN OF ANCHOR BOLTS TO ADEQUATELY TRANSFER BUILDING COLUMN REACTIONS TO THE FOUNDATION. THIS INCLUDES ANCHOR BOLT QUANTITY, LOCATION, DIAMETER, AND MATERIAL GRADE. MINIMUM EMBEDMENT LENGTH SHALL BE THE RESPONSIBILITY OF THE FOUNDATION ENGINEER AS SHOWN ON THESE PLANS.

ANCHOR BOLTS MUST BE LOCATED BY MEANS OF A TEMPLATE, DO NOT HAND SET ANCHOR BOLTS, ANCHOR BOLT LAYOUT, QUANTITY, DIAMETER, PROJECTION, EMBEDMENT AND MATERIAL IS AS SHOWN ON THE METAL BUILDING DRAWINGS.

CONTRACTOR SHALL VERIFY QUANTITY AND PLACEMENT LOCATIONS OF ANCHOR BOLTS WITH METAL BUILDING MANUFACTURER.

REFER TO DESIGN CRITERIA ABOVE FOR LOADING AND OTHER STRUCTURAL INFORMATION.

# CONCRETE:

UNLESS NOTED OTHERWISE (UNO) ON THE DRAWINGS, MINIMUM COVER FOR REINFORCING SHALL BE AS FOLLOWS:

FOOTINGS: BOTTOM AND SIDES - 3" TOP - 2"

PEDESTALS: 2"

ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES IN CONFORMANCE W/ THE CRSI MANUAL OF STANDARD PRACTICE AND ACI 315 DURING THE PLACING OF THE CONCRETE.

ALL HOOKS IN REINFORCING BARS SHALL BE ACI STANDARD HOOKS, U.N.O.

PROVIDE 3/4" CHAMFER AT ALL EXPOSED CORNERS OF FOUNDATION PEDESTALS.

DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL, UNLESS OTHERWISE NOTED, SHALL CONFORM TO ACI 315, "DETAILS AND DETAILING OF REINFORCED CONCRETE STRUCTURES" AND THE CRSI, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.

REINFORCING STEEL SHALL NOT BE HEATED OR WELDED AND MUST BE DRY AND FREE OF CONTAMINANTS SUCH AS RUST, DIRT, GREASE, AND PROTECTIVE COATINGS.

ALL CONCRETE SHALL BE MECHANICALLY VIBRATED IN ACCORDANCE WITH ACI 304 AND ACI 309 OR TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

# FOUNDATIONS:

IF FOOTING ELEVATIONS SHOWN OCCUR IN A DISTURBED, UNSUITABLE, OR UNSTABLE SOIL, THE ENGINEER SHALL BE NOTIFIED.

A SITE SPECIFIC SOILS EXPLORATION REPORT WAS NOT PERFORMED FOR THIS PROJECT. AS A RESULT, ALL FOUNDATIONS WERE DESIGNED BASED ON AN ALLOWABLE BEARING CAPACITY OF 2000 PSF. THE ALLOWABLE BEARING PRESSURES ARE BASED ON BEARING AGAINST FIRM, NON-EXPANSIVE, UNDISTURBED SOIL. WHERE UNACCEPTABLE MATERIAL OCCURS, EXCAVATE OR STAMP OR HAVE BEEN MERELY "RUBBER STAMPED" SHALL BE RETURNED WITHOUT REVIEW. AND REPLACE WITH ENGINEERED FILL AS DIRECTED BY A LOCAL GEOTECHNICAL ENGINEER ALL FOUNDATION BEARING SURFACES SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER PRIOR TO STEEL OR CONCRETE PLACEMENT TO INSURE THE BEARING SURFACES ARE CONSISTENT WITH THE ASSUMED ALLOWABLE BEARING PRESSURES NOTED.

FOUNDATION CONCRETE SHOULD BE PLACED DURING THE SAME DAY EXCAVATION IS MADE. IN THE EVENT FOOTING EXCAVATIONS ARE LEFT OPEN FOR MORE THAN ONE DAY, THEY SHALL BE PROTECTED TO REDUCE EVAPORATION OR ENTRY OF MOISTURE.

CONTRACTOR SHALL KEEP ALL FREE STANDING WATER OUT OF EXCAVATION. CONTRACTOR SHALL PROVIDE DEWATERING MEASURES AS NECESSARY PRIOR TO PLACING CONCRETE.

IN THE EVENT OF INCLEMENT WEATHER, CONTRACTOR MAY PROVIDE A LEAN 2" THICK CONCRETE (2500 PSI) MUD MAT BELOW THE FOOTING TO STABILIZE THE SOIL PRIOR TO PLACING REINFORCING STEEL. MUD MAT SHALL EXTEND 1'-0'' BEYOND FOOTPRINT OF FOOTING.

REINFORCEMENT PLACEMENT SHALL BE APPROVED BY THE TESTING AGENCY PRIOR TO CONCRETE PLACEMENT.

BACKFILL SHALL BE CLEAN, CRUSHED STONE (#57 STONE CONFORMING TO ASTM D448 OR EQUAL), SOIL APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER, OR CLASS "A" GRADING "D" MATERIAL PER TDOT STANDARD SPECIFICATION. INSTALL AND COMPACT PER 207.04 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

EXCAVATED/STRIPPED AREAS SHALL BE PROOF-ROLLED WITH SOFT AREAS BEING REPLACED BY APPROVED BACKFILL AS DIRECTED BY TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

## SUPPLEMENTARY NOTES:

PROVIDE ALL TEMPORARY BRACING, GUYING OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION. THE STRUCTURE SHALL NOT BE CONSIDERED STABLE UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN CONSTRUCTED.

THE STRUCTURAL ENGINEER SHALL NOT HAVE CONTROL OR BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES OR SEQUENCES. FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, OR ANY OTHER PERSONS PERFORMING THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

VERIFY ALL DIMENSIONS WITH OTHER DISCIPLINE DRAWINGS PRIOR TO CONSTRUCTION OR FABRICATION.

××	×-×-××	x(xx)	2018	
			REVISIONS	
NO.	DATE	BY	BRIEF [	DESCRIPTION

YEAR

PROJECT NO.

SHEET NO.

SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR EMBEDS, OPENINGS, SLEEVES, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS.

ALL STRUCTURAL OPENINGS AROUND OR AFFECTED BY MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT SHALL BE VERIFIED WITH EQUIPMENT PURCHASED BEFORE PROCEEDING WITH STRUCTURAL WORK AFFECTED.

CONTACT ENGINEER IN WRITING FOR STRUCTURALLY-RELATED POST-INSTALLED ANCHORS NOT SPECIFICALLY DETAILED ON THE DRAWINGS.

ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF AN ENGINEER LICENSED IN THE PROJECT STATE.

GENERAL CONTRACTOR MUST REVIEW AND APPROVE SHOP DRAWINGS PRIOR TO SUBMITTAL TO ARCHITECT/ENGINEER. SUBMITTALS WHICH DO NOT CONTAIN THE CONTRACTORS SHOP DRAWING

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND JOB SITE CONDITIONS PRIOR TO BEGINNING WORK, ARCHITECT/STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY.

THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS, FOR DIMENSIONS TO BE CONFIRMED AT THE JOB SITE, FOR FABRICATION PROCESSES, FOR SAFE CONDITIONS AT THE JOB SITE, AND FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION.

NO SUBSTITUTIONS OF MATERIAL WILL BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ENGINEER BEFORE CONTINUING WITH CONSTRUCTION.

ALL EXCAVATIONS SHALL BE PROPERLY SHORED IN ACCORDANCE WITH O.S.H.A. STANDARDS AND REQUIREMENTS.

CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITIES SUCH AS CONDUIT AND PIPING WHICH INTERFERE WITH THE INSTALLATION OF THE NEW FOUNDATIONS. ALL INTERFERENCES SHALL BE REPORTED TO THE OWNER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT ANY DAMAGE DURING EXCAVATION.

CONTRACTOR SHALL COMPLY WITH LOCAL, STATE, FEDERAL AND OWNERS SAFETY REGULATIONS WHILE WORKING, ENGINEER DOES NOT ASSUME ANY RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.

TDOT MATERIALS AND TESTS OR A GEOTECHNICAL TESTING AND INSPECTION FIRM SHALL BE RESPONSIBLE FOR PERFORMING A SOIL SURVEY FOR SATISFACTORY SOIL MATERIALS, SAMPLING AND TESTING FOR QUALITY CONTROL AS PER THE RECOMMENDATIONS OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR THIS PROJECT. ALL EARTHWORK OPERATIONS SHALL BE PERFORMED TO THE SATISFACTION OF TDOT MATERIALS AND TESTS OR THE GEOTECHNICAL TESTING FIRM.

CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITIONS. EXCEPT AS MODIFIED BY THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

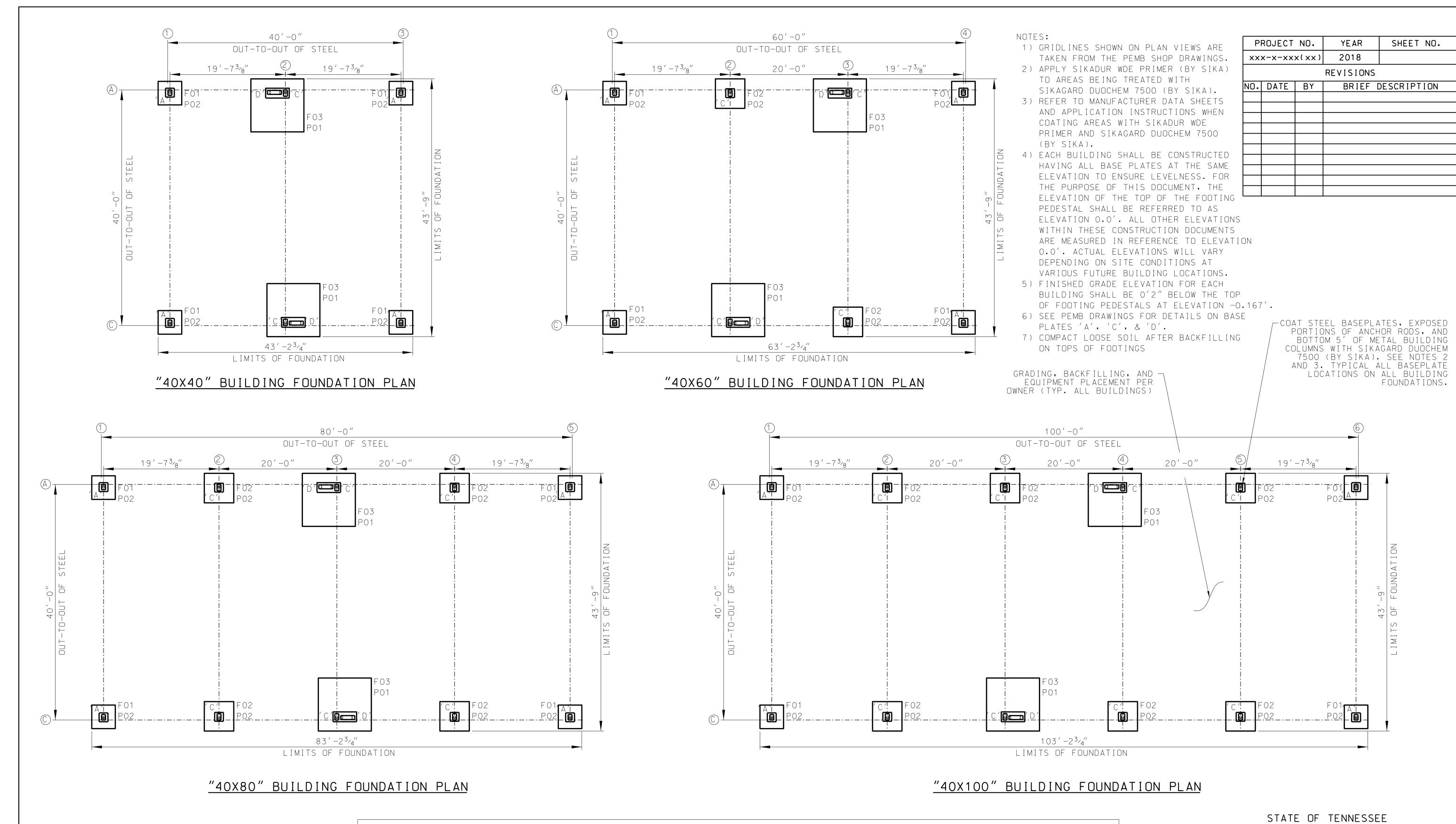
PROVIDE COMPRESSIVE STRENGTH TESTS CONFORMING TO TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SUBMIT RESULTS DIRECTLY TO ENGINEER,

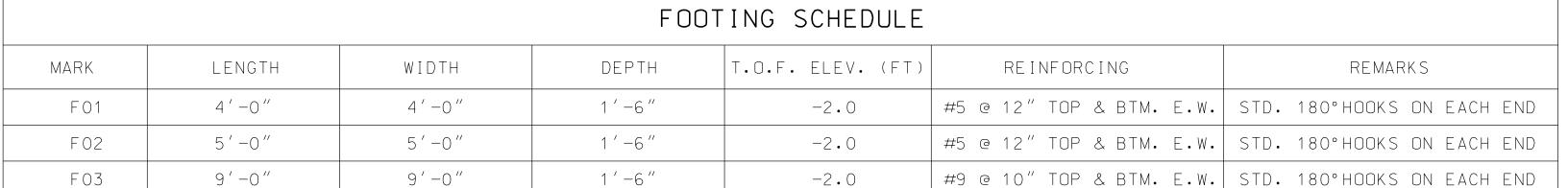
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

GENERAL NOTES TDOT BRINE SHED STANDARD FOUNDATION REQUIREMENTS REGIONS 1,2,&3 2018

CONSULTING ENGINEERS AJ MATHEWS DESIGNED BY

W. HENKE DRAWN BY \_DATE<u>06-20</u> I. ENGSTROM
B. HOLLANDER SUPERVISED BY CHECKED BY DATE 06-2018







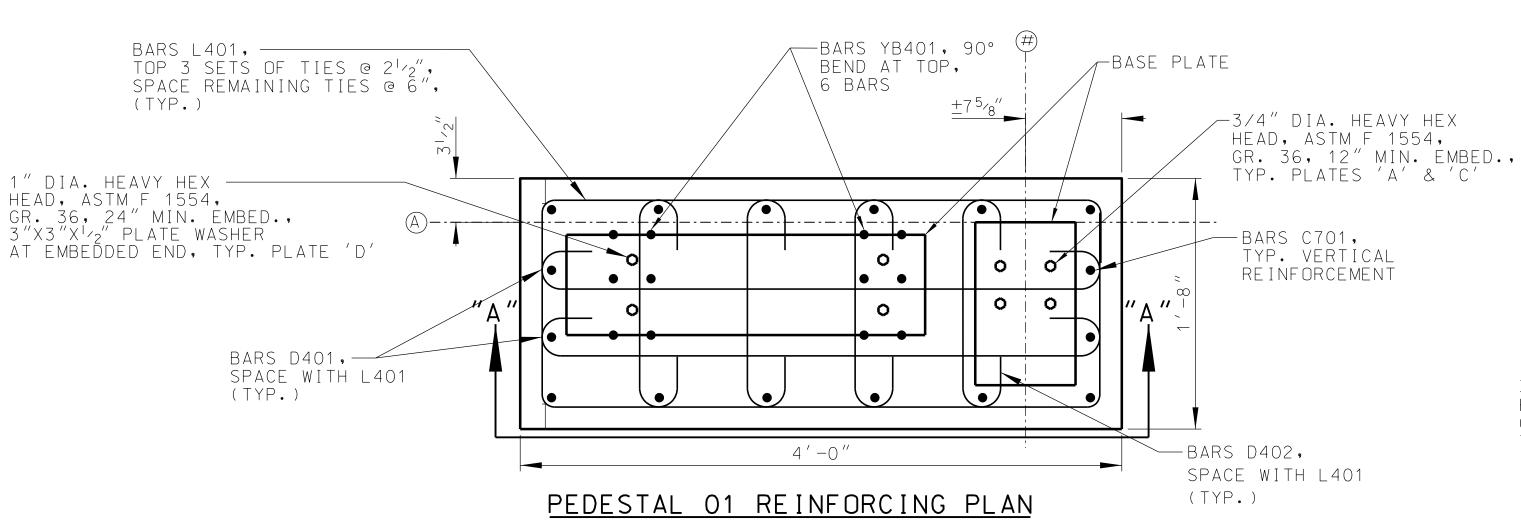
DEPARTMENT OF TRANSPORTATION

FOUNDATION PLAN

TROT BRINE SUED STANDARD

TDOT BRINE SHED STANDARD FOUNDATION REQUIREMENTS REGIONS 1,2,&3
2018

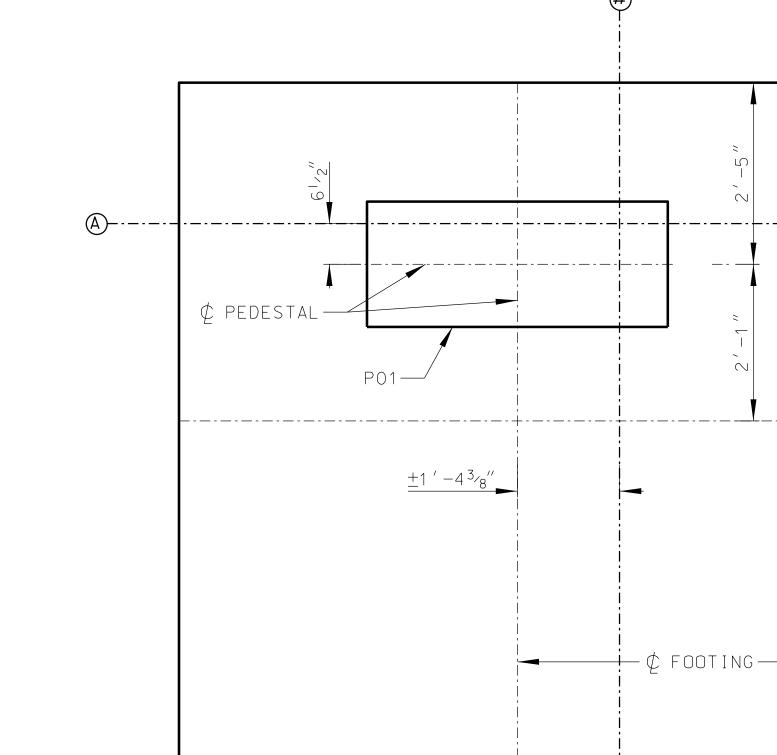




SIMILAR 2) '#' REPRESENTS VERTICAL GRIDLINES FOR:

1) DETAILS SHOWN FOR GRIDLINE 'A', GRIDLINE 'C'

- 40X40 BUILDING, GRIDLINE 2
- 40X60 BUILDING, GRIDLINES 2C & 3A
- 40X80 BUILDING, GRIDLINE 3 - 40X100 BUILDING, GRIDLINES 3C & 4A
- 4) SEE BUILDING PLAN VIEW FOR POSITION OF VERTICAL ∉ PEDESTAL IN RELATION TO VERTICAL GRIDLINE



# FO2 ECCENTRIC PEDESTAL

P02 —

¢ PEDESTAL —

1) SEE FOOTING SCHEDULE FOR FOOTING SIZES.

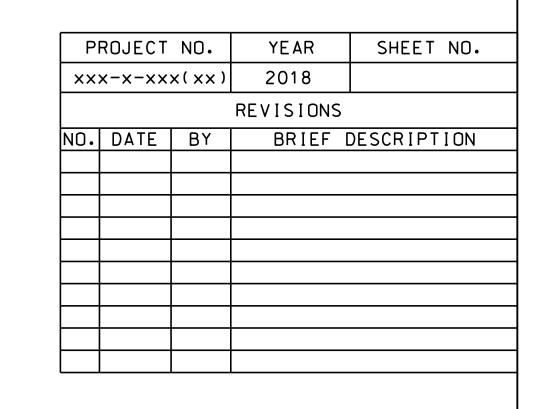
-¢ FOOTING —

- 2) DETAILS SHOWN FOR GRIDLINE 'A', GRIDLINE 'C' SIMILAR.
- 3) '#' REPRESENTS VERTICAL GRIDLINES FOR:
  - 40X60 BUILDING, GRIDLINES '2A' & '3C'
  - 40X80 BUILDING, GRIDLINES '2' & '4'
  - 40X100 BUILDING, GRIDLINES '2', '3A', '4C' & '5'

# FO3 ECCENTRIC PEDESTAL

- 1) SEE FOOTING SCHEDULE FOR FOOTING SIZES.
- 2) DETAILS SHOWN FOR GRIDLINE 'A', GRIDLINE 'C' SIMILAR.
- 3) '#' REPRESENTS VERTICAL GRIDLINES FOR:
  - 40X40 BUILDING, GRIDLINE 2
  - 40X60 BUILDING, GRIDLINES 2C & 3A
  - 40X80 BUILDING, GRIDLINE 3
- 40X100 BUILDING, GRIDLINES 3C & 4A 4) SEE BUILDING PLAN VIEW FOR POSITION OF

VERTICAL  $\phi$  pedestal in relation to VERTICAL GRIDLINE



# PEDESTAL 02 REINFORCING PLAN

- 1) DETAILS SHOWN FOR GRIDLINE 'A', GRIDLINE 'C' SIMILAR
- 2) '#' REPRESENTS VERTICAL GRIDLINES FOR: - 40X40 BUILDING, GRIDLINES 1 & 3

O <</p>

PLATE PLATE

BASE BASE

00

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3/4" DIA. HEAVY HEX —

GR. 36, 12" MIN. EMBED., TYP. PLATES 'A' & 'C'

HEAD, ASTM F 1554,

- 40X60 BUILDING, GRIDLINES 1, 2A, 3C & 4
- 40X80 BUILDING, GRIDLINES 1, 2, 4 & 5
- 40X100 BUILDING, GRIDLINES 1, 2, 3A, 4C, 5 & 6

-BASE PLATE

-BARS L403,

(TYP.)

-BARS L402,

(TYP.)

-BARS C701,

SPACE WITH L402,

TYP. VERTICAL

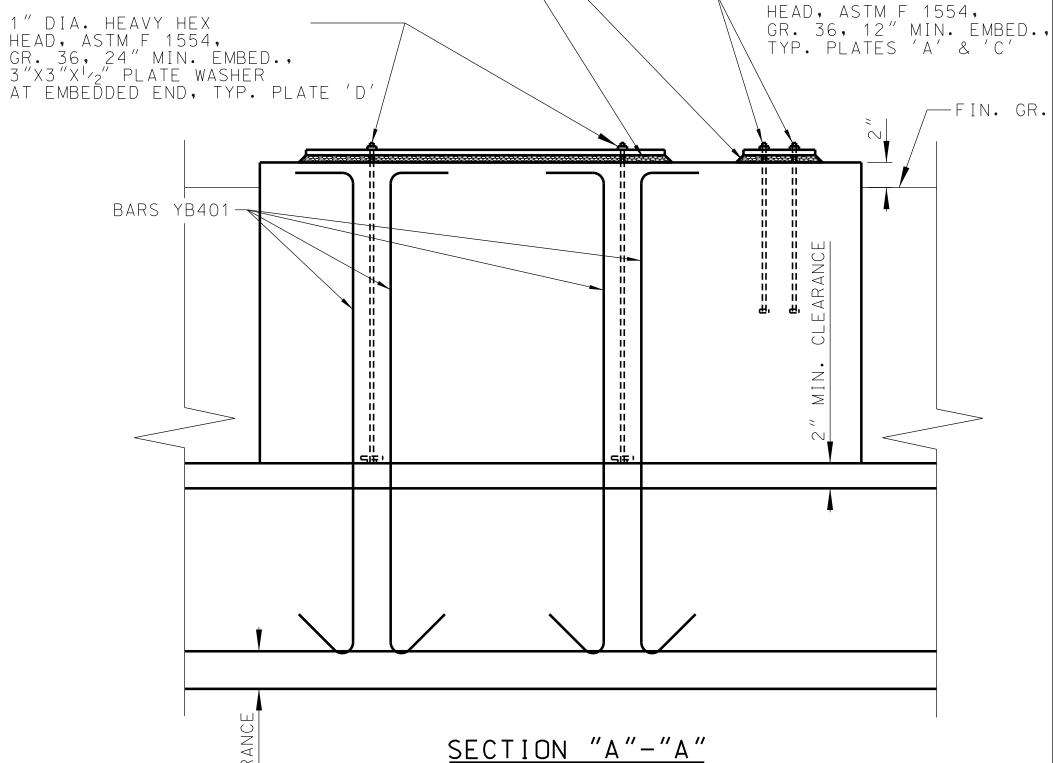
REINFORCEMENT

TOP 3 SETS OF TIES @  $2^{1/2}$ ,

SPACE REMAINING TIES @ 6",

- 1) SEE PEMB DRAWINGS FOR ANCHOR SPACINGS, PLATE DIMENSIONS, AND PLATE PLACEMENT FOR ALL COLUMN BASES.
- 2) ALL ANCHOR BOLTS, NUTS, WASHERS, AND PLATES SHALL BE ASTM A36, GALVANIZED.

PROVIDE MIN. 1 1/2" NON-METALLIC NON-SHRINK GROUT MEETING ASTM C-1107 UNDER COLUMN BASE PLATES, LEVEL COLUMNS UTILIZING LEVELING NUT OR SHIM PLATES PRIOR TO GROUTING. — 3/4" DIA. HEAVY HEX



(TYPICAL FOR ALL "YB" BARS)

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION



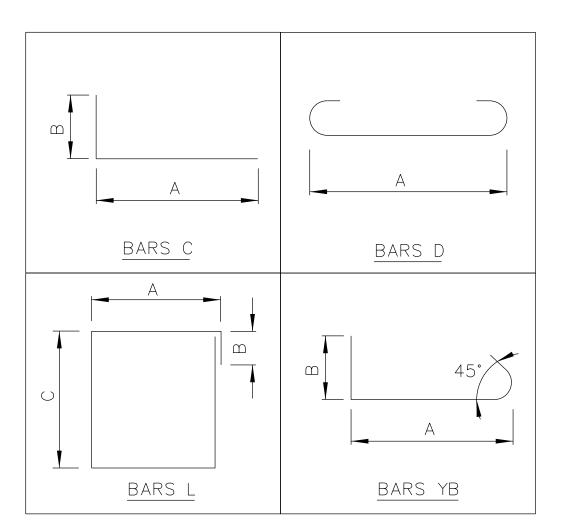
FOUNDATION DETAILS TDOT BRINE SHED STANDARD FOUNDATION REQUIREMENTS REGIONS 1,2,&3 2018

# AJ MATHEWS

DESIGNED BY W. HENKE I. ENGSTROM DATE 06-2018
DATE 06-2018
DATE 06-2018 DRAWN BY SUPERVISED BY B. HOLLANDER CHECKED BY

							BILL C	OF STEE	EL							
		4	0′X40′	BUILDING						4	10′X60′	BUILDING				
5.15		6.1.7.5	NO.	BEND	ING DIM	ENSIONS		5.15		6.1.7.5	NO.	BENDI	NG DIME	NSIONS		
BAR	LOCATION	SIZE	REQ'D	А	В	С	D LENGTH	BAR	LOCATION	SIZE	REQ'D	А	В	С	D	LENGTH
C701	PO1 & PO2 VERT. BARS	7	64	3′-0″	1 ' -2 "		4'-2"	C701	PO1 & PO2 VERT. BARS	7	80	3'-0"	1'-2"			4'-2"
D401	PO1 TIE	4	24				3′-8″	D401	PO1 TIE	4	24					3′-8″
D402	PO1 TIE	4	48				1 ' -4 "	D402	PO1 TIE	4	48					1 ' -4 "
D501	FO1 REINFORCING	5	80				3′-6″	D501	FO1 REINFORCING	5	80					3′-6″
D502	FO2 REINFORCING	5	0				4′-6″	D502	FO2 REINFORCING	5	48					4′-6″
D901	FO3 REINFORCING	9	96				8′-6″	D901	FO3 REINFORCING	9	96					8'-6"
L401	PO1 STIRRUP	4	12	3′-8″	0′-5″	1'-4"	10′-5″	L401	PO1 STIRRUP	4	12	3′-8″	0'-5"	1'-4"		10′-5″
L402	PO2 STIRRUP	4	24	1'-2"	0′-5″	1'-2"	5′-1″	L402	PO2 STIRRUP	4	36	1'-2"	0'-5"	1'-2"		5'-1"
L403	PO2 STIRRUP	4	24	0'-10.5"	0′-5″	0'-10.5"	3′-11″	L403	PO2 STIRRUP	4	36	0'-10.5"	0′-5″	0'-10.5"		3′-11″
YB401	ANCHOR REINFORCING	4	24	3′-1″	0′-8″		3′-9″	YB401	ANCHOR REINFORCING	4	24	3′-1″	0'-8"			3′-9″
		4(		BUILDING						4(	<u> </u> )′ X100′	BUILDING				
C701	PO1 & PO2 VERT. BARS	7	96	3'-0"	1'-2"		4'-2"	C701	PO1 & PO2 VERT. BARS	7	112	3'-0"	1'-2"			4'-2"
D401	PO1 TIE	4	24				3′-8″	D401	PO1 TIE	4	24					3′-8″
D402	PO1 TIE	4	48				1 ' -4 "	D402	PO1 TIE	4	48					1 ' -4 "
D501	FO1 REINFORCING	5	80				3′-6″	D501	FO1 REINFORCING	5	80					3′-6″
D502	FO2 REINFORCING	5	96				4′-6″	D502	FO2 REINFORCING	5	144					4'-6"
D901	FO3 REINFORCING	9	96				8′-6″	D901	FO3 REINFORCING	9	96					8'-6"
L401	PO1 STIRRUP	4	12	3′-8″	0'-5"	1'-4"	10′-5″	L401	PO1 STIRRUP	4	12	3'-8"	0′-5″	1 ' -4 "		10′-5″
L402	PO2 STIRRUP	4	48	1'-2"	0'-5"	1'-2"	5′-1″	L402	PO2 STIRRUP	4	60	1'-2"	0'-5"	1'-2"		5′-1″
L403	PO2 STIRRUP	4	48	0'-10.5"	0'-5"	0'-10.5"	3'-11"	L403	PO2 STIRRUP	4	60	0'-10.5"	0'-5"	0'-10.5"		3'-11"
YB401	ANCHOR REINFORCING	4	24	3′-1″	0′-8″		3′-9″	YB401	ANCHOR REINFORCING	4	24	3'-1"	0′-8″			3′-9″

PI	ROJECT	NO.	YEAR	SHEET NO.					
××	×-×-××	x(xx)	2018						
			REVISIONS						
NO.	DATE	BY	BRIEF [	DESCRIPTION					



# ESTIMATED QUANTITIES (PER BUILDING)

DESCRIPTION	UNIT	40′X40′	40′X60′	40′X80′	40′X100′
DRY EXCAVATION	С.Ү.	94	118	142	166
GRANULAR BACKFILL	TON	9	12	14	17
REINFORCING STEEL	LB.	4974	5468	5962	6456
CLASS A CONCRETE	С.Ү.	15	18	21	24

# NOTES:

- 1) GRANULAR BACKFILL SHALL BE CLASS "A" GRADING "D" MATERIAL PER TDOT STANDARD SPECIFICATION, INSTALL AND COMPACT BACKFILL MATERIAL UNDERNEATH GRADE BEAM PER 207,04 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 2) A MAXIMUM SPACING OF 6" SHALL NOT BE EXCEEDED BETWEEN YB BARS AND ITS NEAREST CORRESPONDING ANCHOR BOLT.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

QUANTITIES AND BILL OF STEEL TDOT BRINE SHED STANDARD FOUNDATION REQUIREMENTS REGIONS 1,2,&3 2018

SSR
CONSULTING ENGINEERS
2650 THOUSAND DAXS BLVD SUITE 1600
MEMPHIS. TN. 38118 \* (901) 683-3900

SNED BY

AJ MATHEWS

DATE OF

DESIGNED BY AJ MATHEWS DATE 06-2018
DRAWN BY W. HENKE DATE 06-2018
SUPERVISED BY I. ENGSTROM DATE 06-2018
CHECKED BY B. HOLLANDER DATE 06-2018