GENERAL STRUCTURAL NOTES

A. FOUNDATIONS

1. GENERAL SOIL CONDITIONS:

A. SUB-SURFACE SOILS HAVE NOT BEEN EXTENSIVELY STUDIED IN THE AREA OF ABUTMENTS AND SHEET PILING. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATEDLY UPON DISCOVERY OF UNUSUAL OR NON-HOMOGENEOUS SUB-SURFACE SOIL CONDITIONS OR ENCOUNTERS WITH A IMPERVIOUS OR ROCK STRATA.

B. CAST-IN-PLACE CONCRETE

1. THE CONCRETE REQUIREMENTS:

A. CEMENT, AGGREGATES AND MIX DESIGNS SHALL CONFORM TO TYPE CONCRETE (GRADE 4.0), SECTION 401 OF THE KDOT STANDARD SPECIFICATIONS.

2. CONCRETE REINFORCING SHALL MEET THE FOLLOWING:

A. REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF THE KDOT STANDARD SPECIFICATIONS FOR GRADE 60 STEEL. WELDING OF ANY REINFORCING IS PROHIBITED. CUTTING REINFORCEMENT WITH HEAT IS PROHIBITED.

B. ALL REINFORCING SHALL BE CONTINUOUS. CONTINUOUS BARS SHALL LAP IN ACCORDANCE WITH THE SPECIFICATIONS.

WHERE MORE THAN ONE LENGTH OF BAR SUPPORT IS REQUIRED, LAP THE END LEGS SO THEY ARE LOCKED OR TIED TOGETHER.

USE ONLY THE FOLLOWING TYPES OF BAR SUPPORTS:

1) WIRE BAR SUPPORTS:

A) EPOXY COATED REINFORCING: CLASS 1 PROTECTION
B) NON-EPOXY COATED REINFORCING: CLASS 1, 2, OR 3 PROTECTION

2) PLASTIC BAR SUPPORTS

3) SUPPLEMENTARY BARS

USE PROPER HEIGHT SUPPORTS TO MAINTAIN THE DISTANCE BETWEEN THE REINFORCING AND THE FORMED OR THE TOP SURFACE.

SPACINGS SHOWN ARE MAXIMUMS. USE SUFFICIENT SUPPORTS, AS DETERMINED BY THE ENGINEER, TO RETAIN THE REINFORCING STEEL IN POSITION.

CONSTRUCT ANY PLATFORMS, REQUIRED FOR THE SUPPORT OF WORKERS AND/OR EQUIPMENT DURING CONCRETE PLACEMENT, DIRECTLY ON THE FORMS AND NOT ON THE REINFORCING STEEL.

3. FORMING AND EMBEDMENTS SHALL MEET THE FOLLOWING:

A. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" INSIDE FORMS OR TOOLED TO 3/4" RAD.

B. STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL MEET THE FOLLOWING REQUIREMENTS OTHERWISE NOTED ON THE DRAWINGS:

TYPE	ASTM
STRUCTURAL SHAPES AND PLATES	A36
ANCHOR BOLTS	A325

2. ALL WELDING SHALL BE IN ACCORDANCE WITH LATEST AWS CODE. ALL WELDS SHALL USE APPROVED ELECTRODES.

C. REQUIRED STRUCTURAL INSPECTIONS

1. ALL REINFORCING STEEL SHALL BE INSPECTED PRIOR TO CONCRETE PLACEMENT. ALL EMBEDDED BOLTS SHALL BE INSPECTED.

D. PREFABRICATED BRIDGE:

1. PREFABRICATED BRIDGE SHALL BE A PONY STYLE TRUSS WITH TOE PLATE, 42" HANDRAIL, RUB RAIL, IRONWOOD DECK; SPAN=25'-0"; WIDTH=6'-0". USE ONE OF THE FOLLOWING MANUFACTURERS:

A. CONTINENTAL BRIDGE, ALEXANDRA, MINNESOTA VIKING MODEL W/ PONY TRUSS.

2. ABUTMENT DIMENSIONS SHOWN ARE FOR CONTINENTAL BRIDGES ONLY.

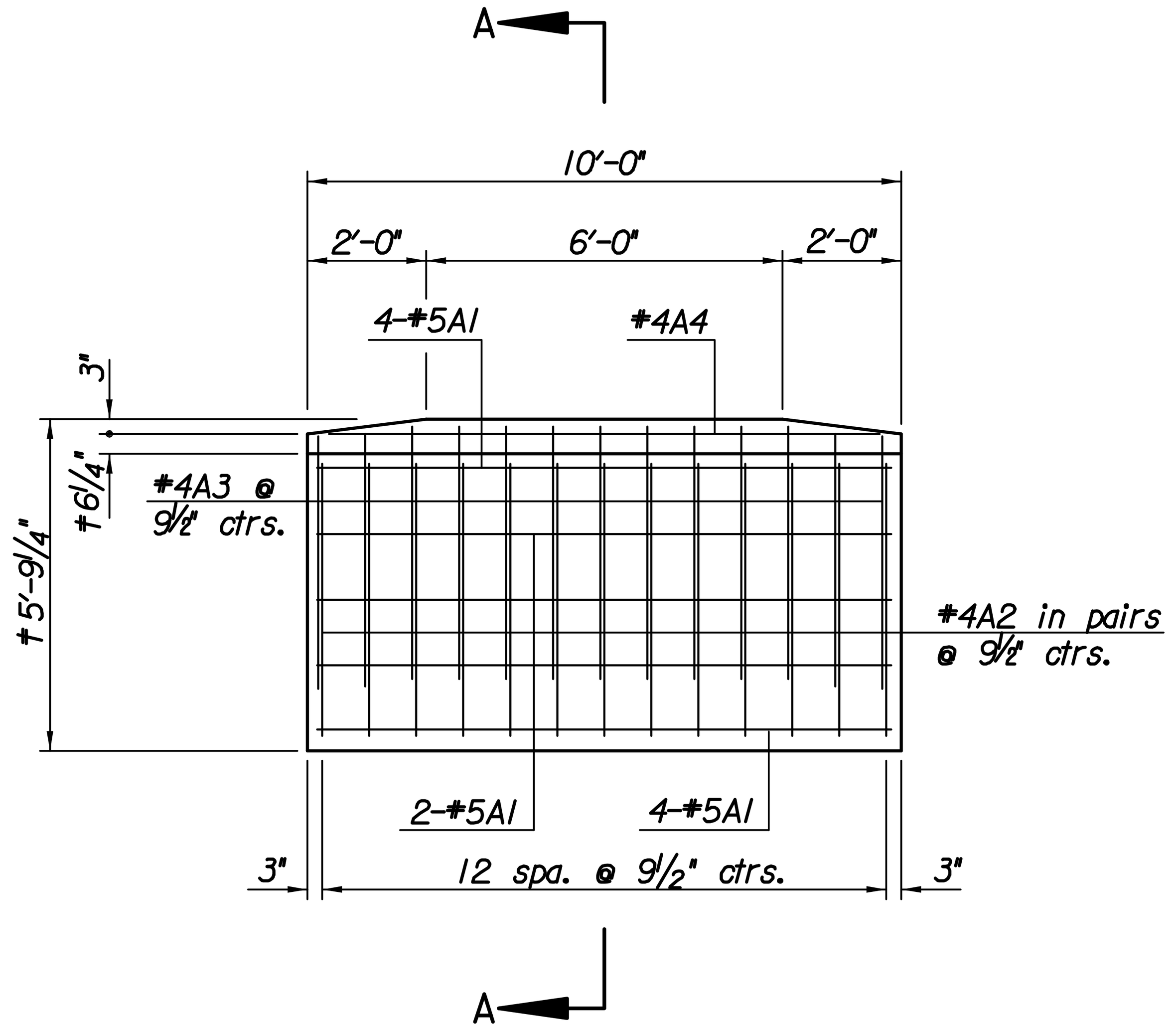
3. ACTUAL BEARING PLATE SIZE AND LOCATION SHALL BE DETERMINED BY THE SELECTED MANUFACTURER. BOLT PLACEMENT VARIES WITH BRIDGE MANUFACTURER; THE CONTRACTOR SHALL VERIFY BOLT PLACEMENT AND ABUTMENT CONFIGURATION WITH SHOP DRAWING FROM THE MANUFACTURER TO BE SURE BEARING PLATE ASSEMBLY WILL FIT ON THE BEARING SEAT PRIOR TO THE PLACEMENT OF CONCRETE IN ABUTMENTS.

4. MINIMUM UNIFORM LIVE LOAD OF 85 POUNDS PER SQUARE FOOT.

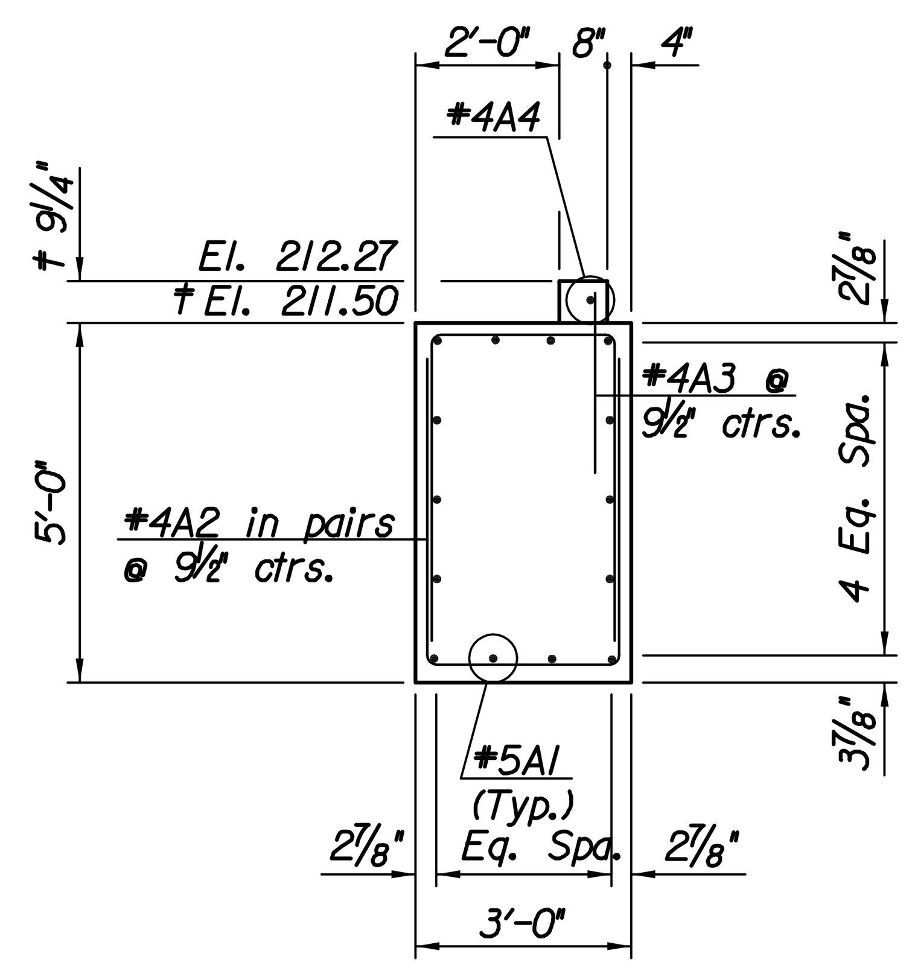
5. ALL SHOP DRAWINGS SUBMITTED SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.

6. CONCRETE STRESSES: f'c= 4,000 p.s.i.
REINFORCING (ASTM A615): Fy= 60 ksi

7. PREFABRICATED BRIDGE SHALL BE MEASURED AND PAID FOR AT THE CONTRACT LUMP SUM PRICE "PREFABRICATED BRIDGE INSTALLATION". THE PAYMENT AS SET FORTH ABOVE SHALL BE CONSIDERED FULL COMPENSATION FOR ALL BRIDGE MATERIALS INCLUDING BUT NOT LIMITED TO PREFABRICATED BRIDGE ATTACHMENT MATERIALS. THE LUMP SUM PRICE SHALL ALSO INCLUDE FULL COMPENSATION FOR ALL LABOR, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE, AND PLACING THE REINFORCED CONCRETE DECK.

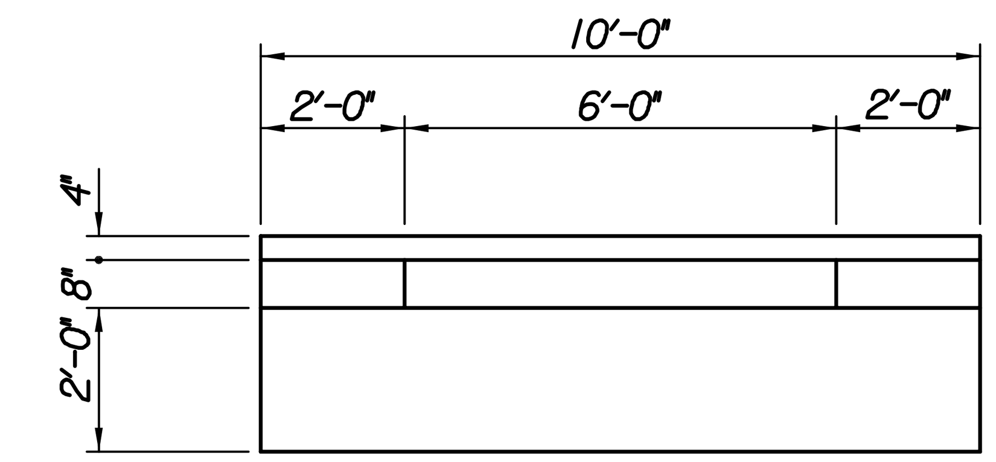


ELEVATION



SECTION A-A

† To be modified based on coordination with the bridge manufacturer.



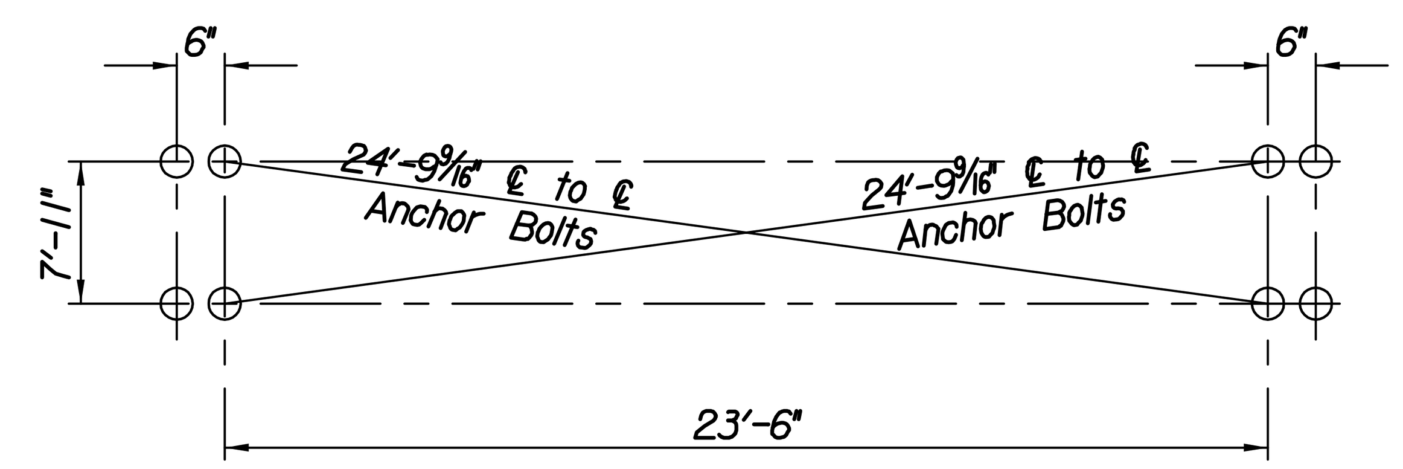
PLAN

Concrete Dimensions Only

BILL OF MATERIALS (ONE ABUTMENT)							
REINFORCING STEEL							
Straight Bars				Bent Bars			
Mark	No.	Size	Length	Mark	No.	Size	Length
A1	14	#5	9'-6"	A2	26	#4	11'-2"
A3	13	#4	2'-6"				
A4	1	#4	9'-6"				

SUMMARY OF QUANTITIES*		
Item	Quantity	Unit
Concrete (AE)	5.8	Cu. Yds.
Reinforcing Steel (Gr. 60)	361	Lbs.

* For Information Only

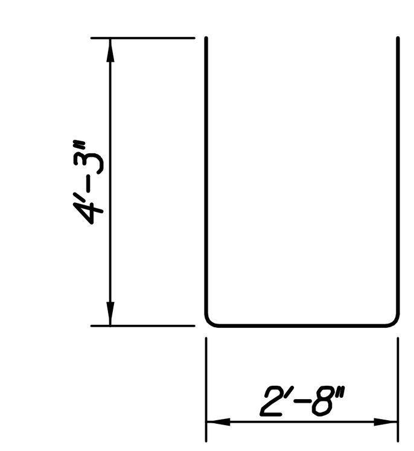


ANCHOR BOLT LAYOUT

Provide 3/4 Dia. A.S.T.M. A307 Galvanized Swedge Anchor Bolts with 2 Nuts and 1-2" O.D. Washer Each. Minimum Thread Length = 3/4.

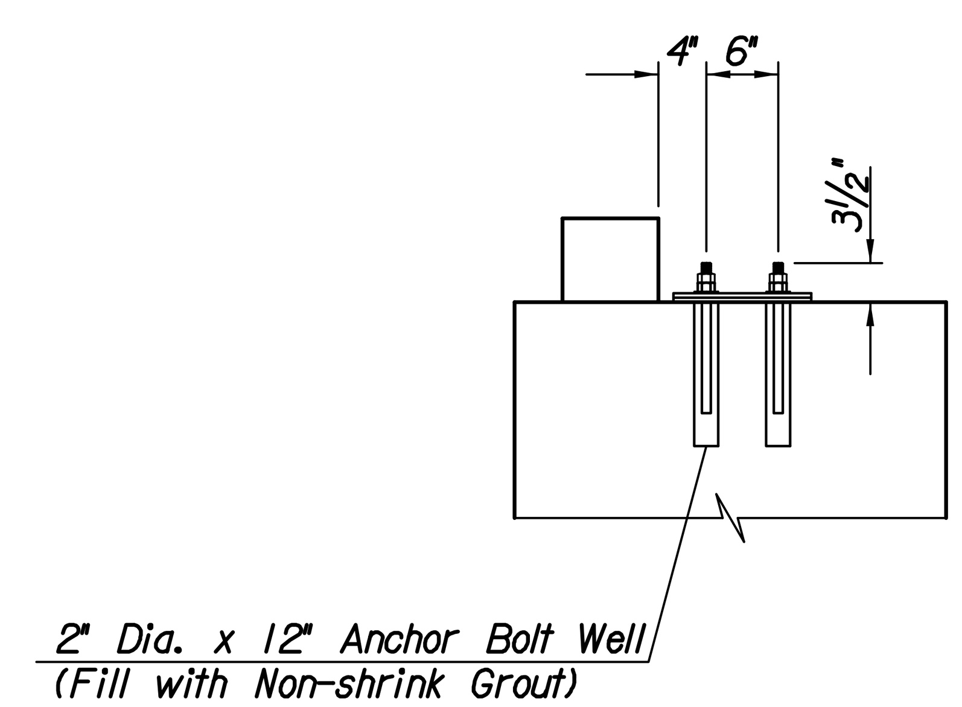
ABUTMENT LOADING

	Design
Group I Loading	1.12 Kips/Sq. Ft.



A2

BENDING DIAGRAM



SIDE VIEW BEARING ASSEMBLY

No.	Revision	By	Date

WEBB BUSINESS PARK
STORM WATER DRAIN NO. 337

ABUTMENT DETAILS

JAMES L. ARMOUR, P.E.– CITY ENGINEER
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303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Designed by BMM	Job No. 35-07593-003	Sheet 15 of 29
Drawn by BJS, TAT	Date June 2007	