

SUMMARY OF BRIDGE QUANTITIES

| ITEM | ITEM QUANTITY | UNIT |
|-----------------------------|---------------|------|
| Excavation (Class III) | 64 | CY |
| Concrete Grade 4.0 (AE) | 49 | CY |
| Reinforcing Steel (Gr. 60) | 20,350 | LBS |
| Steel Piles (HP 14x89) | 694 | LF |
| Steel Test Piles (HP 14x89) | 116 | LF |

| DATE | BY |
|------|----|
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Plotted on: 04-JAN-2005 13:47 *time\$
 djamlson Plot Queue: #queue\$
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 Design Filename: K:\B29049\BridgesDec2004\Base Bld\11thStreet\Drawings\e03.dgn.

BRIDGE GENERAL NOTES

RAILROAD BRIDGE DESIGN SPECIFICATIONS:
 AREMA Manual for Railway Engineering, 2002.
 CONSTRUCTION SPECIFICATIONS
 Wichita Central Corridor Railroad Grade Separation Project, 25th Street to Waterman, Wichita,
 Kansas-Project Specifications*, HNTB Corporation, 2004.

MATERIAL and TESTING SPECIFICATIONS:
 The material and test specifications, current as of the publication of the project specifications, will be used. In cases of discontinuance or material changes to the specification, the engineer will be contacted for guidance.

REFERENCES:
 Wichita Central Corridor Railroad Grade Separation Project, Douglas Avenue to 21st Street, Wichita, Kansas-Final Geotechnical Investigation Report*, HNTB Corporation, September 2003.

Wichita Central Corridor Railroad Grade Separation Project, Douglas Avenue to 21st Street, Wichita, Kansas-Hazardous Materials Screening Report*, HNTB Corporation, September 2000.

BNSF Railway Guidelines, 2002.

BNSF Railway / Union Pacific Railroad Standard Drawings

HORIZONTAL & VERTICAL GEOMETRY CONTROL:

Refer to Railroad and Street plans for horizontal and vertical geometry control.

The track profile grade is at the top of rail.

All elevations shown are U.S.G.S. Datum (NGVD 29) City Datum = U.S.G.S. Datum - 1187.41.

STRUCTURAL EXCAVATION:

Structural excavation shall be in accordance with the plans and specifications.

STRUCTURAL BACKFILL:

Structural backfill shall be located within the limits identified in the plans and specifications. Backfill shall consist of a compacted granular fill with a minimum effective internal friction angle of 32 degrees. The material should be free of organic matter and debris and less than 10% by weight should pass the No. 200 sieve. The fill should be placed in loose lifts of 8 inches or less and compacted. At the time of placement and compaction, the moisture content of the fill should be within the range of 3% below to 3% above the optimum moisture content value (MR-3-3) determined by the standard Proctor Test (ASTM D-698). The fill should be compacted to at least 100% of the material's maximum standard Proctor dry density (ASTM D-698).

REINFORCING:
 All bar bending dimensions and tolerances are in accordance with CRSI's Manual of Standard Practice*.

Reinforcing bars will be designated as follows: SSCOM
 SS = Bar Size (No. 3 to No. 18)

CC = Component Designator, as follows:

A-Abutment F-Footing D-Dowel
 P-Pier PB-Pier Beam PC-Pier Column
 PW-Pier Wall S-Slab/Deck R-Railing
 C-Curb

IN = Bar Mark Sequence (00-99)

Reinforcing Bar Annotation Example:

11A12

A #11 Bar, located in the abutment, 12th bar in bar size/location sequence

PROTECTIVE SHORING:

Provide protective shoring as required by Federal, state and local regulations.

Provide protective shoring as indicated in the plans and specifications.

Additional shoring may be required.

Protective shoring plans & calculations shall be designed and sealed by a professional engineer licensed in the State of Kansas.

Protective shoring calculations, plans and details shall be submitted eight (8) weeks prior to commencing shoring operations.

Protective shoring calculations, plans and details shall be submitted to the Engineer and distributed to the BNSF, UPRR and WUTA for approval.

Protective shoring construction shall not begin until approved by the Engineer and the railroads.

QUANTITIES:

Items not listed separately in the Summary of Bridge Quantities are subsidiary to other items.

| STATE | PROJECT NO. | YEAR | TOTAL SHEETS |
|--------|-------------|------|--------------|
| KANSAS | 472-84071 | 2005 | B9.2 |

ABBREVIATIONS:
 AASHTO American Association of State Highway & Transportation Officials
 ACI American Concrete Institute
 AISC American Institute of Steel Construction
 ANSI American National Standards Institute
 AREMA American Railway Engineering and Maintenance-of-Way Association
 ASME American Society of Mechanical Engineers
 ASTM American Society of Testing and Materials
 AWS American Welding Society

IN, Inches
 KIP, 1000 Pounds
 KSF, Kips per Square Foot
 L.F., Linear Feet
 Lbs., Pounds

0.001 inches
 Min., Minimum
 Max., Maximum

N/A, Not Applicable
 N.F., Near Face

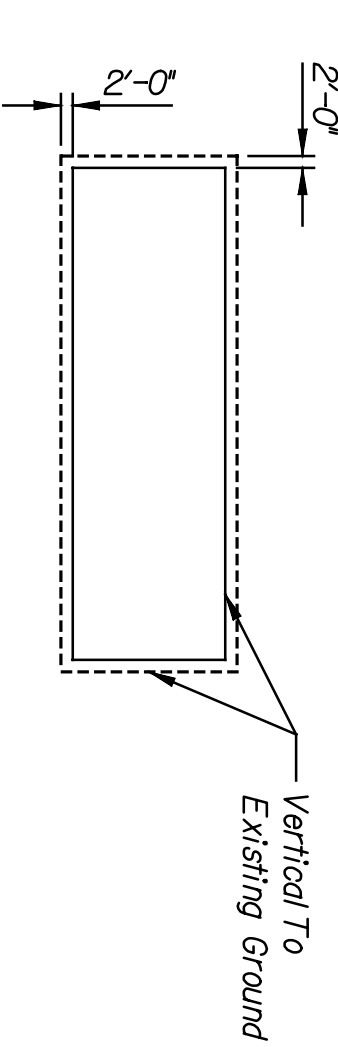
PCF, Concrete per Cubic Foot
 P.L.F., Pounds per Linear Foot
 P.V.C., Point of Vertical Curvature (Horizontal Curves)
 P.V.I., Point of Vertical Intersection
 P.V.T., Point of Vertical Tangency
 R, Radius

S.C., Spiral to Curve Point
 Sim., Similar
 S.T., Spiral to Tangent Point
 SSFC, The Society for Protective Coatings
 SY, Square Yards

T/, Top of
 T.S., Tangent to Spiral Point
 TYP., Typical

U.N.O., Unless Noted Otherwise
 U.S.A.C.O.E., U.S. Army Corps of Engineers
 UPRRR, Union Pacific Railroad Association

WUTA, Wichita Union Terminal Association



EXCAVATION FOR PAYMENT

This sheet designed by:

CITY OF WICHITA
 II TH STREET
 SUMMARY OF QUANTITIES AND GENERAL NOTES

| SHEET NO. | OF | SCALE AS NOTED | APP'D. |
|------------|-----|----------------|--------|
| DESIGNED | EKD | DETAILED | DJL |
| DESIGN GR. | BWH | DETAILED GR. | DJL |

| NO. | DATE | REVISIONS | BY | APP'D. |
|-----|------|-----------|----|--------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |

SYMBOLS

∅ Diameter Symbol
 Geotechnical Boring Symbol
 Detail Identification
 Detail Symbol
 Drawing w/ Detail

View/Section Identification
 View & Section Symbol
 Drawing w/ View/Section

View/Section Or Detail Identification
 View/Section/Detail Title
 Drawing That Locates View, Section or Detail

Water Surface Elevation Symbol