

GENERAL NOTES

- THE CONTRACTOR SHALL CONTAIN HIS OPERATIONS TO PERMIT LOCAL AND EMERGENCY TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT EXISTING ROADWAYS AT ALL TIMES. THE CONTRACTOR SHALL ERECT WARNING SIGNS, FLASHING LIGHTS, AND BARRICADES IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES TO ENSURE SAFETY. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET. ALL OPEN TRENCHES SHALL HAVE SAFETY FENCES ERECTED AROUND THE LIMITS OF THE TRENCH OVERNIGHT OR AT THE DISCRETION OF THE FIELD ENGINEER.
- POSITIVE DRAINAGE SHALL BE PROVIDED FOR ALL AREAS ON OR NEAR WASTE OR BORROW AREAS. NATURAL DRAINAGE WAYS SHALL BE MAINTAINED.
- DEMOLITION MATERIALS SHALL BE SALVAGED TO THE CITY OR REMOVED FROM THE SITE TO THE EXCESS MATERIAL STORAGE AREAS AS DESIGNATED BY THE CITY OF BENTON.
- WHERE REMOVAL OF EXISTING FENCES PARALLEL TO THE CONSTRUCTION IS DEEMED NECESSARY BY THE CONTRACTOR, THE CONTRACTOR SHALL COORDINATE REMOVAL WITH ADJACENT PROPERTY OWNERS. ALL REMOVAL AND RESETTING OF FENCES WILL NOT BE PAID FOR SEPARATELY AND SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.
- ALL BACKFILL SHALL BE TYPE 3 UNLESS OTHERWISE SPECIFIED.
- EXISTING MATERIAL WHICH IS FREE FROM ORGANICS, DEBRIS, ROCK CAN BE SUBSTITUTED FOR COMPACTED EMBEDMENT MATERIAL.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY LOCAL, STATE AND FEDERAL PERMITS AS REQUIRED.
- ALL PIPE FITTINGS BELOW GRADE SHALL BE MECHANICAL JOINT W/ THRUST BLOCKING OR RESTRAINED JOINT.
- THE CONTRACTOR SHALL PROVIDE CONCRETE THRUST BLOCKING FOR FITTINGS WITH DEFLECTIONS OF 22 1/2 DEGREES OR GREATER.
- EXPOSED PIPING WITHIN ALL STRUCTURES SHALL BE PAINTED DUCTILE IRON PIPE, PAINTED STEEL PIPE, OR NON-PAINTED STAINLESS STEEL PIPE.
- PIPING CONNECTIONS WITHIN THE STRUCTURES SHALL BE FLANGED, WELDED, OR VICTAULIC CONNECTIONS UNLESS OTHERWISE NOTED.
- ALL ELEVATIONS SHOWN ARE NAVD 88 DATUM.
- AT LEAST 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION (EXCLUDING WEEKENDS AND HOLIDAY), THE CONTRACTOR SHALL CONTACT THE KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316) 687-2470 TO REQUEST MEMBER UTILITY COMPANIES TO LOCATE ANY EXISTING LINES WITHIN THE PROJECT AREA.
- AT LEAST 72 HOURS PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL CONTACT THE FOLLOWING PERSONNEL TO ADVISE THEM OF THE INTENDED WORK AND OF HIS PROPOSED SCHEDULE:

MR. DALE SHAFFER
CITY OF BENTON
154 S. MAIN
P.O. BOX 388
BENTON, KS 67017
(316) 778-1625
- THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED TO THE PROJECT AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.

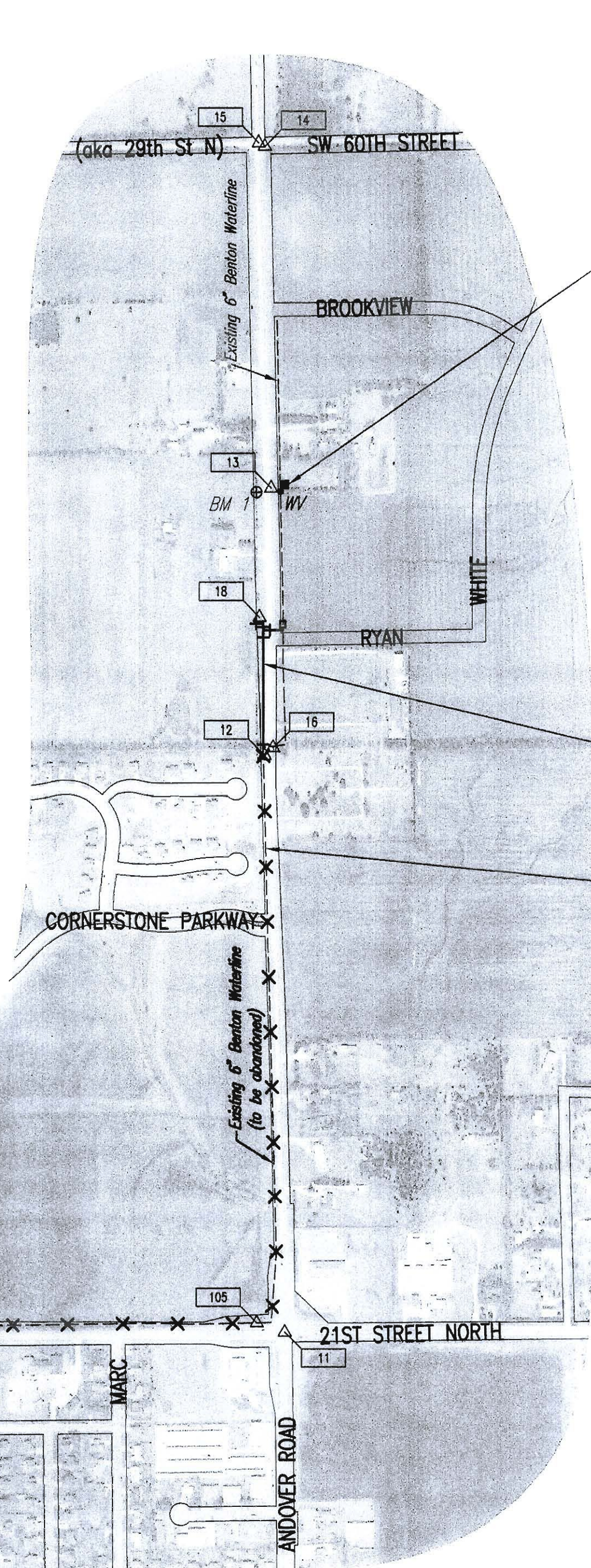
- THE BURIED UTILITIES AS LOCATED ON THE PLANS ARE APPROXIMATE LOCATIONS ONLY. IT SHOULD BE NOTED THAT OTHER BURIED LINES AND CABLES MAY EXIST WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING TRENCHING OPERATIONS TO AVOID DAMAGING THESE LINES. ANY LINES DAMAGED SHALL BE REPLACED OR REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- WHERE THE IMPROVEMENTS CROSS EXISTING PUBLIC OR PRIVATE UTILITIES WHICH ARE NOT TO BE ADJUSTED BY OTHERS, THE CONTRACTOR SHALL PROVIDE THE MATERIAL AND MEANS TO PROTECT AND SUPPORT SAID UTILITIES DURING CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, AND BANKS TO THEIR ORIGINAL SLOPES AND GRADES. WHERE EXISTING ENTRANCE PIPE, DRAINAGE PIPE, SIGNS, FENCES, ETC., CONFLICT WITH THE PROPOSED WORK HEREIN, THEY SHALL BE REMOVED AND REPLACED OR RESET, UNLESS OTHERWISE NOTED ON THE PLANS. THE REPLACEMENT OF ALL THE AFOREMENTIONED ITEMS, INCLUDING SEEDING, FERTILIZER, AND MULCHING SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING AND RESTORATION".
- THE CONTRACTOR SHALL BE RESPONSIBLE TO ACQUIRE THE USE OF STORAGE AND STAGING AREAS FOR MATERIALS AND EQUIPMENT.
- ALL GRASSED AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE REPLANTED WITH GRASS AND FERTILIZED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. EXISTING GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLANTED WITH THE SAME TYPE OF GRASS AS WAS REMOVED. PASTURES AND NATIVE GRASSED AREAS SHALL BE RESEEDING IN ACCORDANCE WITH THE CRITERIA SHOWN BELOW:

NATIVE GRASS MIX:
BIG BLUESTEM - 8 LBS/ACRE
BROME GRASS - 8 LBS/ACRE
SWITCH GRASS - 3 LBS/ACRE
WESTERN WHEATGRASS - 8 LBS/ACRE
INDIAN GRASS - 8 LBS/ACRE
LITTLE BLUESTEM - 5 LBS/ACRE
SIDE OATS GRAMA - 5 LBS/ACRE
TOTAL = 45 LBS/ACRE
SEED APPLICATION = 1 LB/1,000 SQ. FT.
FERTILIZER APPLICATION (N-P-K) = 12-24-12
MULCH = PRAIRIE HAY
MULCH APPLICATION = 90 LBS/1,000 SQ. FT.
- ALL COSTS FOR SEEDING AND FERTILIZING SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING AND RESTORATION".
- THE CONTRACTOR SHALL SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH TEMPORARY RYE GRASS. RYE GRASS SEED SHALL BE PLANTED AT A MINIMUM RATE OF SIX (6) POUNDS PER ONE THOUSAND (1,000) SQUARE FEET. THIS TEMPORARY SEEDING MAY BE OMITTED ONLY IF OTHER SEEDING IS REQUIRED IN ACCORDANCE WITH GENERAL NOTE NO. 15 ABOVE. TEMPORARY SEEDING OR PERMANENT SEEDING/SODDING SHALL BE APPLIED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED. ALL COSTS FOR TEMPORARY RYE GRASS SEEDING SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING AND RESTORATION".

- IT IS THE INTENT OF THE PLANS TO MINIMIZE CONFLICTS WITH EXISTING UNDERGROUND UTILITIES. MINOR CHANGES IN LOCATION AND ALIGNMENT TO AVOID CONFLICTS MAY BE MADE UPON APPROVAL BY THE ENGINEER. WHERE SUCH CHANGES CANNOT BE MADE WITHOUT COMPROMISING THE FUNCTION OF THE WORK, THE CONTRACTOR SHALL ADJUST EXISTING UTILITIES AS REQUIRED. COMPENSATION FOR SUCH ADJUSTMENTS SHALL BE MADE AS PROVIDED FOR IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL ADJUST MANHOLE FRAME AND COVERS, VALVE BOXES, CLEANOUTS, TELEPHONE, ELECTRICAL RISERS AS REQUIRED TO MATCH TOP OF PROPOSED GRADES.
- THE CONTRACTOR SHALL INSTALL APPROPRIATE WALL PIPE FITTINGS IN WALLS & FLOOR WHERE PIPING PENETRATES NEW CONCRETE CONSTRUCTION.
- WASTE EXCAVATION SHALL BE DISTRIBUTED AND PLACED ON-SITE TO AVOID DRAINAGE PROBLEMS AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL COORDINATE ALL TIE-INS, SHUTDOWNS, AND PROCESS STARTUP WITH THE CITY OF BENTON. WATERLINE VALVES TO BE OPERATED BY CONTRACTOR ONLY IF WATER DEPARTMENT REPRESENTATIVE IS ON SITE.
- THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION, TYPE, SIZE AND CLASS OF EXISTING WATERLINES PRIOR TO MAKING CONNECTIONS. EXISTING WATERLINE LOCATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL MAKE ADJUSTMENTS AS REQUIRED. PROVISION AND INSTALLATION OF PIPE ADAPTORS, SHORT SECTION OF PIPE, AND COUPLERS SHALL BE SUBSIDIARY TO THE PRICE BID FOR PIPE IN PLACE.
- WATERLINES SHALL HAVE A MINIMUM DEPTH OF BURY OF 42 INCHES, UNLESS SHOWN OTHERWISE.
- EACH BIDDER SHALL VISIT THE SITE OF THE PROJECT BEFORE SUBMITTING THE PROPOSAL FOR THIS WORK SO THAT HE WILL BE FULLY INFORMED OF THE EXISTING FIELD CONDITIONS AND THE OBSTACLES WHICH MIGHT BE ENCOUNTERED. UPON AWARD OF THE CONTRACT THE CONTRACTOR WILL NOT BE GRANTED ANY ADDITIONAL COMPENSATION WITH REGARDS TO TIME AND MONEY FOR CONDITIONS THAT MAY HAVE BEEN EVALUATED DURING ANY INSPECTION OF THE SITE.
- THE CONTRACTOR SHALL INSTALL AND/OR MAINTAIN EROSION CONTROL METHODS AS DETAILED. THE GENERAL LOCATION OF THE REQUIRED EROSION CONTROL IS ILLUSTRATED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EROSION CONTROL INSTALLED BY THE SANITARY SEWER CONTRACTOR THROUGH THE COMPLETION OF THIS PROJECT, AS SHOWN ON THE KEY MAP. INSTALLATION OF THESE EROSION CONTROL DEVICES DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION. APPROXIMATE QUANTITIES OF EROSION PROTECTION DEVICES IS AS FOLLOWS, TO BE INCLUDED IN THE LUMP SUM BID PRICE FOR EROSION PROTECTION:

122 L.F. SILT FENCE (TO BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION)
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ADJUTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO THE START OF CONSTRUCTION.
- ALL WATER VALVES, AIR RELEASE VALVES AND OTHER MATERIALS ALONG THE EXISTING 6" CITY OF BENTON WATERLINE TO BE ABANDONED SHALL BE SALVAGED AS DIRECTED BY THE CITY OF BENTON.

Cross Connection and Blowoff Assembly to be installed by the Wichita Water Utilities. Contractor shall contact Greg Lolley at 316-268-6555 for more information.



PROPOSED BOOSTER PUMP STATION, See sheet no. 10.

PROPOSED 16" WATER MAIN LINE NO. 1, See sheet no. 5.

Abandon Existing 6" Waterline *

* Contractor shall abandon the existing 6" waterline as shown on this sheet. Waterline shall be cut and capped at each end of the abandoned section and shall be paid for at the lump sum bid price for "Waterline Abandonment".

SECTION CORNER
PT. 15
NW CORNER SEC 5, T27S, R3E
N: 1,705,319.9621, E: 1,706,959.2668
3/4" DIA. BAR WITH STANDARD 2" ALUMINUM COUNTY CAP, 1.0' DEEP
61.98' NE, TO SW CORNER OF A 4" x 4" CONCRETE BLOCK
59.26' NE, TO CHISELED "+" IN S FACE OF STEEL FENCE CORNER POST
63.35' SE, TO NW CORNER OF A 4" x 4" CONCRETE BLOCK
62.05' SE, TO PK NAIL IN FENCE CORNER POST
60.34' SW, TO NAIL AND WASHER ON TOP OF FENCE POST
57.27' NW, TO NAIL AND WASHER ON TOP OF FENCE POST

PT. 16
NW COR. SW 1/4, SEC 5, T27S, R3E
N: 1,702,574.1013, E: 1,707,023.2558
3/4" DIA. BAR WITH STANDARD 2" ALUMINUM COUNTY CAP, 1.2' DEEP
19' W, TO CENTERLINE OF ANDOVER ROAD
78.26' NW, TO NAIL AND WASHER IN TOP OF HEDGE FENCE POST
70.22' W, TO #5 REBAR WITH MKEC I.D. CAP
79.40' SW, TO PK NAIL IN N FACE OF POWER POLE
29.64' E, TO PK NAIL IN N FACE OF TELEPHONE MARKER POST
26.48' E, TO NW CORNER OF CONCRETE WITNESS POST
90.36' NE, TO 60D NAIL IN E FACE OF HEDGE POST AT S FACE OF 24" DIA. TREE IN-LINE WITH HEDGEROW TO E

PT. 11
SW CORNER SEC 5, T27S, R3E
N: 1,699,918.5212, E: 1,707,076.7290
3/4" IRON PIPE IN THIMBLE AT CENTER OF INTERSECTION OF ANDOVER ROAD AND 21ST ST. N
71.90' SW, TO CHISELED "+" ON NE CORNER OF STEEL BASE PLATE FOR TRAFFIC SIGNAL LIGHT POLE
64.09' SW, TO CHISELED "+" ON TOP OF CURB
74.66' NW, TO CHISELED "+" ON S EDGE OF STEEL BASE PLATE FOR TRAFFIC SIGNAL LIGHT POLE
74.95' NE, TO CHISELED "+" ON SW CORNER OF STEEL BASE PLATE FOR TRAFFIC SIGNAL LIGHT POLE
75.23' NE, TO CHISELED "+" ON W EDGE OF STEEL BASE PLATE FOR TRAFFIC SIGNAL LIGHT POLE
75.56' NE, TO CHISELED "+" ON NW CORNER OF CONCRETE PAD FOR TRAFFIC SIGNAL LIGHT POLE
68.05' SE, TO CHISELED "+" ON TOP CURB AT S SIDE OF SIDEWALK RAMP
74.91' SE, TO CHISELED "+" ON W EDGE OF STEEL BASE PLATE FOR TRAFFIC SIGNAL LIGHT POLE

- CONTROL POINTS**
CP #105
N: 1,699,961.9453, E: 1,706,949.1058
#4 REBAR
46.0' N & 126.7' W OF THIMBLE IN INTERSECTION OF 21ST & ANDOVER ROAD.
- CP #12
N: 1,702,538.4375, E: 1,706,984.6922
#4 REBAR
8.4' E, TO W EDGE OF ASPHALT PAVEMENT FOR ANDOVER ROAD
30.22' NE, TO W 1/4 CORNER, SECTION 5 T27S R3E
40.04' NW, TO #5 REBAR AT W RIGHT OF WAY LINE AND 1/4 SECTION LINE
136' N, TO Q.C. OF ENTRANCE N OF OLD CEMETERY
- CP #13
N: 1,703,749.7670, E: 1,707,015.1777
#4 REBAR W OF PROPOSED BOOSTER PUMP STATION
6.6' W, TO E EDGE OF ASPHALT ROAD FOR ANDOVER ROAD
33.6' ESE, TO N END OF FENCE
15' S, TO LINE OF PROPERTY LINE TO E
- CP #14
N: 1,705,303.6405, E: 1,706,987.8023
PK NAIL
IN ASPHALT IN SE AREA OF INTERSECTION OF 60TH STREET AND ANDOVER ROAD, A.K.A. BUTLER ROAD
32.87' NW, TO NW CORNER OF SECTION 5 T27S R3E

- CONTROL POINTS**
CP #18
N: 1,703,165.2806, E: 1,706,962.0598
#4 REBAR IN W DITCH
44.0' E, TO Q.C. OF ANDOVER ROAD
169' S, TO Q.C. OF N ENTRANCE FOR NEW CEMETERY LAND
11.65' SW TO HEDGE FENCE POST IN W RIGHT OF WAY FENCE WITH BARBED WIRE GOING S AND NON-BARBED-WIRE GOING N
10.2' W, TO LINE OF W RIGHT OF WAY FENCE
88.4' S, TO CENTER OF POWER POLE
- CP #31
N: 1,696,995.2078, E: 1,696,685.9353
PK NAIL IN ASPHALT DRIVEWAY
2' S, TO S EDGE OF ASPHALT DRIVEWAY
40' W, TO Q.C. OF 143RD STREET
77' N, TO Q.C. OF RAILROAD BED
25.36' NNE, TO 2 STEP NAILS IN W FACE OF POWER POLE
- CP #32
N: 1,696,955.3312, E: 1,696,591.5044
#4 REBAR AT NE TOE OF BERM
24.43' NE, TO SW CORNER OF CONCRETE VAULT
56' E, TO Q.C. OF 143RD STREET E
45' N, TO LINE OF S WALL OF WATER BUILDING TO E

RECORD DRAWING
CONTRACTOR: Dondlinger and Sons Construction Co., Inc.
INSPECTOR: Clint Rogers (Allied Laboratories)
.pdf by: R. Johnson (PEC) 08/30/2011



No.	Revision	By	Date
WATER DISTRIBUTION SYSTEM AND BOOSTER PUMP STATION IMPROVEMENTS CITY OF BENTON, BUTLER COUNTY, KANSAS KEY MAP AND GENERAL NOTES CITY OF WICHITA CITY ENGINEER - JAMES L. ARMOUR, P.E. CITY OF WICHITA PRIVATE PROJECT NO. 1594 PPW (607853)			
		PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com	
Designed by	MDK, JDG	Job No.	35-10093-1558
Drawn by	RFJ, JAN	Date	September 2010
			Sht. 2 of 18

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