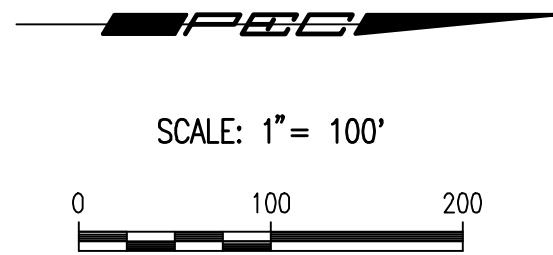
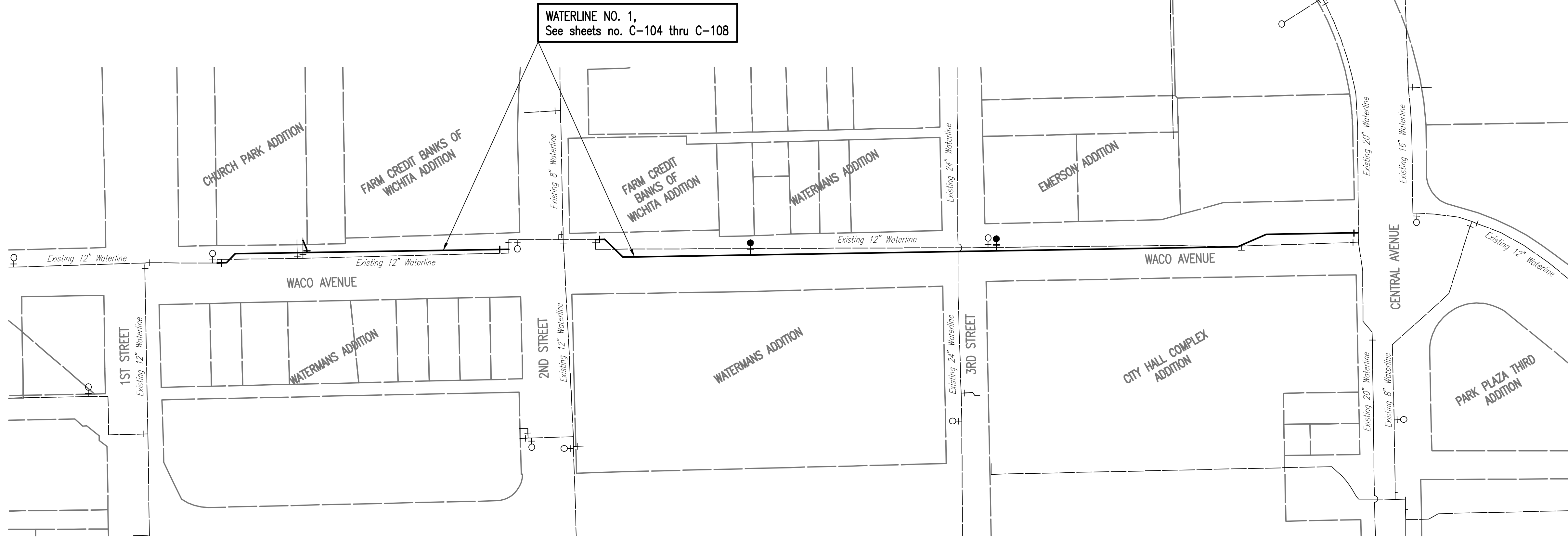




**WATER DISTRIBUTION SYSTEM  
IMPROVEMENTS**  
WACO AVENUE FROM 1ST TO CENTRAL  
GARY JANZEN, P.E. - CITY ENGINEER  
CITY OF WICHITA PROJECT NO. 448-90939



**LEGEND**

EXISTING WATER MAIN	---
PROPOSED WATER MAIN	---
EXISTING WATER VALVE	○
PROPOSED WATER VALVE	○
EXISTING FIRE HYDRANT	○
PROPOSED FIRE HYDRANT	○
EXISTING BLOW OFF	+
PROPOSED BLOW OFF	+

SEE SHEET NO. C103 FOR  
PROPOSED WATERLINE COORDINATES,  
STREET CENTERLINE COORDINATES AND  
HORIZONTAL/VERTICAL CONTROL.

**GENERAL NOTES**

- ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- EACH BIDDER SHALL VISIT THE SITE OF THE PROJECT BEFORE SUBMITTING THE PROPOSAL FOR THIS WORK SO THAT THEY 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.
- AT LEAST 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION (EXCLUDING WEEKENDS AND HOLIDAYS), THE CONTRACTOR SHALL CONTACT THE KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT 1-316-687-2470 OR 811 TO REQUEST THE LOCAL UTILITY COMPANIES TO LOCATE ANY EXISTING LINES WITHIN THE PROJECT AREA.
- THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:
 

EMERGENCY DISPATCH	911
AT&T	800-246-8464
CITY OF WICHITA WATER & SEWER	316-219-8921
CITY OF WICHITA STORMWATER	316-268-4090
CITY OF WICHITA TRAFFIC	316-268-4034
BLACK HILLS ENERGY	800-694-8989
COX COMMUNICATIONS	888-249-3530
KANSAS GAS SERVICE	888-482-4950
WESTAR ENERGY	800-544-4857
- 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.
- THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION AT THE CONTRACTORS EXPENSE
- ALL ELEVATIONS SHOWN ARE NAVD88 DATUM. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL RE-ESTABLISH CONTROL POINTS AND BENCH MARKS AND VERIFY THEIR ACCURACY.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE DRAWINGS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. IT SHOULD BE NOTED THAT OTHER BURIED LINES AND CABLES MAY EXIST WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL HAVE ALL BURIED LINES LOCATED AND FLAGGED IN THE FIELD PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND REVIEW ALL BURIED LINES LOCATED TO DETERMINE IF CONFLICTS EXIST. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION. 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.
- 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 THEIR CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS. ALL COSTS FOR THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO "SITE RESTORATION"
- EASEMENTS AND RIGHT-OF-WAY PROVIDED BY THE OWNER FOR THE PROJECT ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION OF ANY ADDITIONAL TEMPORARY EASEMENTS OR RIGHT-OF-WAY DESIRED TO USE IN COMPLETING THE WORK.
- THE CONTRACTOR SHALL CONTAIN THEIR OPERATIONS TO PERMIT LOCAL AND EMERGENCY TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT ALL TIMES. INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA AND LOCAL BUSINESS OR RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA ARE TO BE CARRIED THROUGH CONSTRUCTION. THE CONTRACTOR SHALL UTILIZE WARNING SIGNS, FLASHING LIGHTS, BARRICADES, AND FLAGMEN IN COMPLIANCE WITH LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) TO ENSURE SAFETY
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED, TREE TRIMMINGS, AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL ALSO BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS MAY REQUIRE ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED DISPOSAL LOCATION.
- THE CONTRACTOR SHALL AVOID REMOVAL OR TRIMMING OF ANY TREES OR SHRUBS WHERE POSSIBLE. TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE. THE COST FOR ANY NECESSARY TREE TRIMMING, CLEARING AND/OR GRUBBING SHALL BE SUBSIDIARY TO "SITE CLEARING". FULL TREE REMOVAL SHALL BE NOTED ON THE PLANS AND SHALL BE BID AS "TREE REMOVED, LARGE", "TREE REMOVED, SMALL", OR "TREE ROW REMOVED".
- THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, AND BANKS TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE. WHERE EXISTING ENTRANCE PIPE, DRAINAGE PIPE, SIGNS, FENCES, IRRIGATION, LANDSCAPING, ETC., CONFLICT WITH THE PROPOSED WORK HEREIN, THEY SHALL BE REMOVED AND REPLACED OR RESET, UNLESS OTHERWISE NOTED ON THE DRAWINGS. THE REPLACEMENT OF ALL THE AFOREMENTIONED ITEMS, INCLUDING SEEDING, FERTILIZER, AND MULCHING SHALL BE CONSIDERED SUBSIDIARY TO "SITE RESTORATION".
- THE CONTRACTOR SHALL INSTALL AND/OR MAINTAIN EROSION CONTROL METHODS AS SPECIFIED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL THROUGH THE COMPLETION OF THIS PROJECT. INSTALLATION OF THESE EROSION CONTROL DEVICES DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION. THE FOLLOWING QUANTITIES ARE ESTIMATED, AND SHOULD BE CONSIDERED THE MINIMUM EFFORT REQUIRED.  
  
INLET PROTECTION 5 EACH
- THE CONTRACTOR SHALL TAKE CARE TO PREVENT SILT AND DEBRIS FROM ENTERING ANY STORM DRAINAGE SYSTEM DURING CONSTRUCTION. PIPES OR STRUCTURES WHICH CONTAIN MATERIALS FROM THE CONTRACTORS ACTIVITIES SHALL BE THOROUGHLY CLEANED BY THE CONTRACTOR, AT THEIR OWN EXPENSE, PRIOR TO THE FINAL INSPECTION.
- ALL LAWN/TURF AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS/SOD AS EXISTING. AREAS DISTURBED ON THE LEFT AND RIGHT OF THE WATERLINE SHALL BE REPLACED WITH BERMUDA SODDING, EXCEPT ALONG STA. 14+90 TO STA. 10+00 AND STA. 17+10 TO STA. 18+59 LEFT. SODDING RESTORATION OF DISTURBED AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP SOIL PREPARATION, SODDING, MULCHING, AND/OR RE-SODDING. ALL SODDING WORK SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. AR6.5 WHICH GOVERNS CLEANUP AND RESTORATION OR REPLACEMENT FOLLOWING CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE INCLUDED IN THE BID ITEM "SODDING".
- 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 PERMANENT SEEDING/SODDING IS APPLIED. 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 RESTORATION".
- 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 DRAWINGS 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.
- THE CONTRACTOR MUST SCHEDULE THE CONNECTIONS TO THE EXISTING WATER MAINS WITH THE CITY SUCH THAT THERE IS MINIMUM DISRUPTION TO THE CITY.
- CONTRACTOR SHALL PROVIDE MATERIALS AS NECESSARY FOR TEMPORARY BLOW OFF OF WATERLINE FOR CONNECTIONS TO THE EXISTING WATERLINE. WATERLINE MATERIALS AT TIE-INS SHALL BE CONSTRUCTED WITH CLEAN, SWABBED PIPE AND FLUSHED UPON COMPLETION OF TIE-INS.
- WATERLINES SHALL HAVE A MINIMUM DEPTH OF BURY OF 48 INCHES, UNLESS SHOWN OTHERWISE.
- FIRE HYDRANT BURY DEPTHS ARE BASED ON THE TOP ELEVATION OF THE PROPOSED WATER MAIN AND THE APPROXIMATE GROUND ELEVATION AT THE LOCATION OF THE FIRE HYDRANT. THE CONTRACTOR SHALL VERIFY THESE ELEVATIONS PRIOR TO INSTALLING FIRE HYDRANTS. ANY MODIFICATIONS REQUIRED TO THE FIRE HYDRANT BURY DEPTH DUE TO THE CONTRACTOR'S FIELD ADJUSTMENTS TO THE WATER MAIN PROFILE SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY. PROPOSED ADJUSTMENTS MUST BE APPROVED BY THE RESIDENT INSPECTOR PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL VALVE BOX COVERS.
- THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- OPENING AND CLOSING WATER VALVES SHALL BE DONE SLOWLY TO PREVENT DAMAGE TO THE WATER DISTRIBUTION SYSTEM FROM WATER HAMMER. ALL VALVES CLOSED BY THE CONTRACTOR MUST BE REOPENED AS NEW CONSTRUCTION PERMITS. PROJECT INSPECTOR MUST ASCERTAIN THAT ANY VALVE CLOSED BY THE CONTRACTOR IS REOPENED. CONTRACTOR WILL BE PERMITTED TO OPERATE WATER VALVES ONLY WHEN THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT.
- WHERE INDICATED THE CONTRACTOR SHALL RESTRAIN BENDS, VALVES, AND TEES THROUGH THE USE OF A RESTRAINED JOINT PIPE AS SPECIFIED, AT THE MINIMUM LENGTHS AS SHOWN IN THE PLANS. OTHER METHODS OF RESTRAINT MAY BE SUBMITTED FOR APPROVAL AT LEAST 14 DAYS PRIOR TO BIDDING. RESTRAINED JOINT DUCTILE IRON PIPE SHALL BE U.S. PIPE TR FLEX, AMERICAN FLEX RING, OR APPROVED EQUAL, IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS. RESTRAINED JOINT PVC PIPE SHALL BE NORTH AMERICAN CERTA-LOK PIPE, OR APPROVED EQUAL, IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS. THE CONTRACTOR MAY USE SIGMA PV-LOK SERIES FPM OR APPROVED EQUAL FOR RESTRAINT OF FITTINGS ON THE PROJECT. CLAMPING RING SHALL BE OF HIGH STRENGTH DUCTILE IRON AND SHALL CONFORM TO ASTM A536, GRADE 65-45-12. SIDE CLAMPING BOLT AND HEX NUTS SHALL BE A HIGH STRENGTH, LOW ALLOY STEEL AND SHALL CONFORM TO AWWA/ANSI C111/A21.11 AND PRORATE A MINIMUM 45,000 PSI YIELD AND 60,000 PSI TENSILE STRENGTH.

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Issue:	

JOB NO.	35-187042-007-0042
DATE	JUNE 2019
PM	JAG
DESIGNED BY	TBK
DRAWN BY	KTD
CHECKED BY	RWG

KEY MAP AND GENERAL NOTES

**NOTE: WATERLINE VALVES TO BE OPERATED BY CONTRACTOR ONLY IF WATER DEPARTMENT REPRESENTATIVE IS ON SITE.**