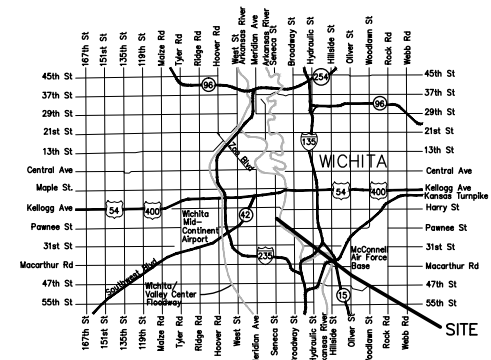


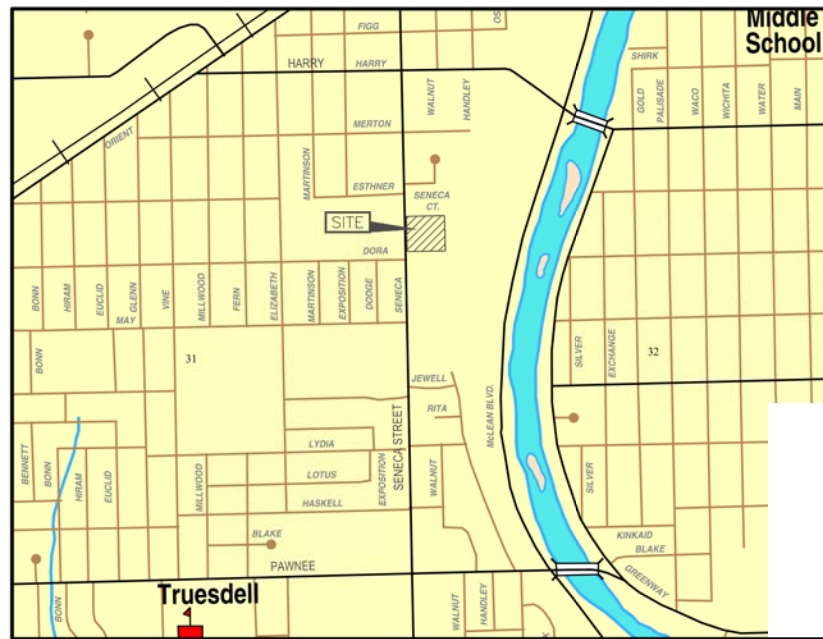
WATER DISTRIBUTION SYSTEM TO SERVE 1812 S. SENECA, LOT 3 THRU 7, BLOCK 1, WEST PARK GARDENS ADDITION CITY OF WICHITA, KANSAS

Gary Janzen, P.E. City Engineer
Project Number
1947 PPW (607853)



Vicinity Map
Not to Scale

Sheet List Table	
Sheet Number	Sheet Title
1	COVER
2	SITE PLAN
3	WL NO. 1 PLAN & PROFILE
4	WL NO. 2 PLAN & PROFILE
5	STANDARD WATER ASSEMBLY DETAILS
6	STANDARD WATER SERVICE DETAIL
7	STANDARD VAULT DETAILS AND METER ASSEMBLIES
8	MISCELLANEOUS WATER DETAILS
9	EROSION CONTROL DETAILS 1
10	EROSION CONTROL DETAILS 2
11	EROSION CONTROL DETAILS 3
12	EROSION CONTROL DETAILS 4
13	EROSION CONTROL DETAILS 5



Vicinity Map
Not to Scale



APPROVED AS NOTED
WICHITA PUBLIC WORKS
ENGINEERING DIVISION
WICHITA FIRE DEPARTMENT
[Signature] 11/16/2015
[Signature] 11-16-15
TO CONTRACTORS

g for the waterline is to be provided
'ting Engineering Firm under contract
oper. Said inspection is to be in
City of Wichita standard construction
and certified by a Professional
the state of Kansas. No work shall
right-of-way by the Contractor without such inspection nor
shall any work be commenced without written authorization
by City Engineering. All Construction and Materials shall
comply with the City or Wichita Specifications and
Standards and Special Provision (on file and available in the
City Engineer's Office) or on the City's Website.

Private Property:
Installation and testing for the fire protection line is to be
performed by a City of Wichita licensed fire protection
contractor in accordance with the fire codes as adopted
by the City of Wichita. All material and construction
practices for the fire protection line shall comply with the
fire codes as adopted by the City of Wichita (available from
the City of Wichita Fire Department). The Contractor shall
not commence work without notification and approval of
the Wichita Fire Department. Inspection of the fire
protection line is to be provided by a licensed Engineering
Firm under contract with the Owner/Developer and the Fire
Department. The contractor shall not start work until the
project inspector is assigned to the project and present on
the site. Any work done without inspection will be required
to be uncovered for inspection.

An approved copy of these plans signed by City staff are
required on-site.

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

2. CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS:

KANSAS ONE CALL 1-800-344-7233
OR 1-316-687-2470

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

AT&T	1-800-246-8464
BLACK HILLS ENERGY	1-800-694-8989
CITY OF WICHITA WATER	1-316-268-4555
CITY OF WICHITA SEWER	1-316-268-4073
CITY OF WICHITA STORMWATER	1-316-268-4090
CITY OF WICHITA TRAFFIC	1-316-268-4034
COX COMMUNICATIONS	1-888-249-3530
KANSAS GAS SERVICE	1-888-482-4950
WESTAR ENERGY	1-800-544-4857

3. UTILITY SERVICE LINES, POLES, ETC. ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

4. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, IN THE OPINION OF THE ENGINEER, THAT 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 WILL REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

5. 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.

6. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ADJUTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY THE CONSTRUCTION OPERATIONS, SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

8. THE WATER DISTRIBUTION DIVISION SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FIELD GRADES.

9. THE CONTRACTOR SHALL NOTIFY THE CONSULTANT ENGINEER AND TOM MASON WITH THE CITY OF WICHITA AT 316-268-4574 WITH THE ANTICIPATED CONSTRUCTION START DATE AND NOTIFY THEM OF THE PROJECT COMPLETION. STAKING AND INSPECTION FOR THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

10. IF TRAFFIC IS IMPACTED BY CONSTRUCTION, A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY TRAFFIC ENGINEER, BRIAN COON AT TRAFFIC@WICHITA.GOV BEFORE CONSTRUCTION CAN BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES TO FACILITATE CONSTRUCTION. ALL CONSTRUCTION ZONE MARKINGS AND SIGNAGE SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE US DEPT. OF TRANSPORTATION. FEDERAL HIGHWAY ADMINISTRATION. ALL COSTS ASSOCIATED WITH CONSTRUCTION MARKINGS AND SIGNAGE SHALL BE THE CONTRACTORS RESPONSIBILITY.

11. ALL ELEVATIONS SHOWN ARE NAVD 88.

12. ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE RESTORED TO MATCH EXISTING CONDITIONS.

13. OPENING AND CLOSING OF WATER VALVES SHALL BE DONE SLOWLY TO PREVENT DAMAGE TO THE WATER DISTRIBUTIONS SYSTEM FROM WATER HAMMER. ALL VALVES CLOSED BY THE CONTRACTOR MUST BE REOPENED AS NEW CONSTRUCTION PERMITS. THE PROJECT INSPECTOR MUST ASCERTAIN THAT ANY VALVE CLOSED BY THE CONTRACTOR IS REOPENED. THE CONTRACTOR WILL BE PERMITTED TO OPERATE WATER VALVES ONLY WHEN THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT.

14. THE CONTRACTOR SHALL LAY A TRACER WIRE AND SET TEST STATIONS ALONG ALL WATER PIPE INSTALLED IN ACCORDANCE WITH THE CITY SPECIFICATIONS AND TRACER WIRE DETAIL ON DETAIL SHEET WL-101. COST IS SUBSIDIARY TO PIPE INSTALLATION.

15. THE CONTRACTOR SHALL PROVIDE MATERIALS FOR TEMPORARY BLOWOFF OF WATERLINES. CONNECTIONS TO THE EXISTING WATERLINE(S) SHALL BE MADE WITH CLEAN, SWABBED PIPE AND FLUSHED UPON COMPLETION OF THE TIE-INS.

16. REQUESTS FOR SHORT TERM WATER INTERRUPTIONS SHALL BE MADE TO THE CITY WATER DISTRIBUTION DIVISION AND WILL BE SUBJECT TO THEIR APPROVAL. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO ANY PROPERTY OWNER, BUSINESS, AND/OR TENANTS THAT WILL HAVE WATER SERVICE INTERRUPTED AT LEAST 5 DAYS IN ADVANCE. SUCH NOTIFICATIONS SHOULD INDICATE THE TIME AND DATE THAT THE WATER WILL BE TURNED OFF AND WHEN THE SERVICE WILL BE RESTORED. NO BUSINESS, PROPERTY OWNER, AND/OR TENANTS SHALL BE WITHOUT WATER SERVICE FOR MORE THAN 8 HOURS. PROPOSED TIE IN LOCATIONS WHICH WILL AFFECT WATER SERVICE TO PROPERTY OWNERS SHALL BE PERFORMED DURING NON-PEAK HOURS.

17. THE CONTRACTOR MUST SCHEDULE THE CONNECTIONS TO THE EXISTING MAIN WITH THE CITY SUCH THAT THERE IS A MINIMUM DISRUPTION OF SERVICES. CONNECTIONS SHALL BE MADE DURING PERIODS OF LOW WATER USAGE. THE CONTRACTOR SHALL SUBMIT HIS PROPOSED SCHEDULE FOR COMPLETING WORK FOR CITY APPROVAL AT LEAST 10 DAYS PRIOR TO BEGINNING CONSTRUCTION.

18. DEFLECTIONS AT PIPE JOINT OR COUPLINGS SHALL NOT EXCEED THE PIPE MANUFACTURERS RECOMMENDED MAXIMUM. WHERE DEFLECTIONS ARE GREATER THAN THE MAXIMUM ALLOWED, THE CONTRACTOR SHALL UTILIZE CI MJ LONG SLEEVE OR MULTIPLE JOINTS.

19. ANY EXTENSION GREATER THAN ONE LENGTH OF PIPE SHALL REQUIRE TESTING.

20. ANY EXISTING JOINT EXPOSED DURING EXCAVATION SHALL BE REPLACED IF WITHIN FOUR (4) FEET OF PROPOSED JOINT.

21. CITY MAINTENANCE OF WATER MAIN ENDS AT RIGHT-OF-WAY OR EASEMENT LINE.

22. VALVES 12 INCH AND LARGER ARE TO BE OPERATED BY THE CITY WATER DISTRIBUTION DIVISION. 48 HOURS OF ADVANCED NOTICE IS REQUIRED.

23. ALL WET TAPS SHALL BE INSTALLED BY THE CITY OF WICHITA. THE CONTRACTOR WILL REIMBURSE THE CITY FOR TAPPING FEES.

24. THE CONTRACTOR SHALL PROTECT FROM DAMAGE AND SUPPORT EXISTING UTILITIES THROUGH CONSTRUCTION AS APPROVED BY THE UTILITY OWNER AND THE ENGINEER AT THE CONTRACTORS EXPENSE.

25. CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH OPENINGS OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.

26. ANY SIDEWALK, DRIVE APPROACH, CURB, OR STREET PAVEMENT REMOVED TO CONSTRUCT PROJECT MUST HAVE A PAVEMENT CUT PERMIT AND BE REPLACED BY THE CITY CONTRACTOR. PERMITS CAN BE OBTAINED BY CALLING 316-268-4501 OR 316-268-4480.

27. CONTRACTOR IS RESPONSIBLE FOR PROVIDING EROSION CONTROL AS NEEDED REGARDLESS OF WHAT THE CONSTRUCTION PLANS SHOW. EROSION CONTROL BMP DETAILS CAN BE FOUND AT
[HTTP://WWW.WICHITA.GOV/GOVERNMENT/DEPARTMENTS/IPWU/PAGES/REGULATIONS.ASPX](http://WWW.WICHITA.GOV/GOVERNMENT/DEPARTMENTS/IPWU/PAGES/REGULATIONS.ASPX)



SITE BENCHMARK:
SQUARE CUT ON S.E. CORNER OF THE CONCRETE SLAB OF THE KGE TRANSFORMER PAD, 24'E & 4.5'S OF THE S.E. CORNER OF BUILDING #1812 S. SENECA STREET.
ELEVATION = 1290.80 (NAVD88)

AS BUILTS	
Contractor: McCullough Excavation	Project Inspector: Matt Perez
2/4/2016	KEMILLER ENGINEERING PA <small>117 E. Lewis, Wichita, KS 67202 (316)264-0242</small>

6" C-900 PVC Pipe
CLOW (Storz) Fire Hydrant
8" DICL Pipe
Sigma Fittings

REV.	DESCRIPTION	DATE

**WEST PARK
GARDENS**
1812 S. SENECA STREET
WICHITA, SEDGWICK COUNTY, KANSAS

CERTIFIED ENGINEERING DESIGN, P.A.
CIVIL ENGINEERING



1935 WEST MAPLE
WICHITA, KANSAS 67213
PH.(316)262-8808 FAX.(316)262-1669



ISSUED FOR CONSTRUCTION

PROJECT NO.: 20152226
ISSUE DATE: NOVEMBER 16, 2015
CONTACT: H. FORAKER, L. MILLS
CHECKED BY:

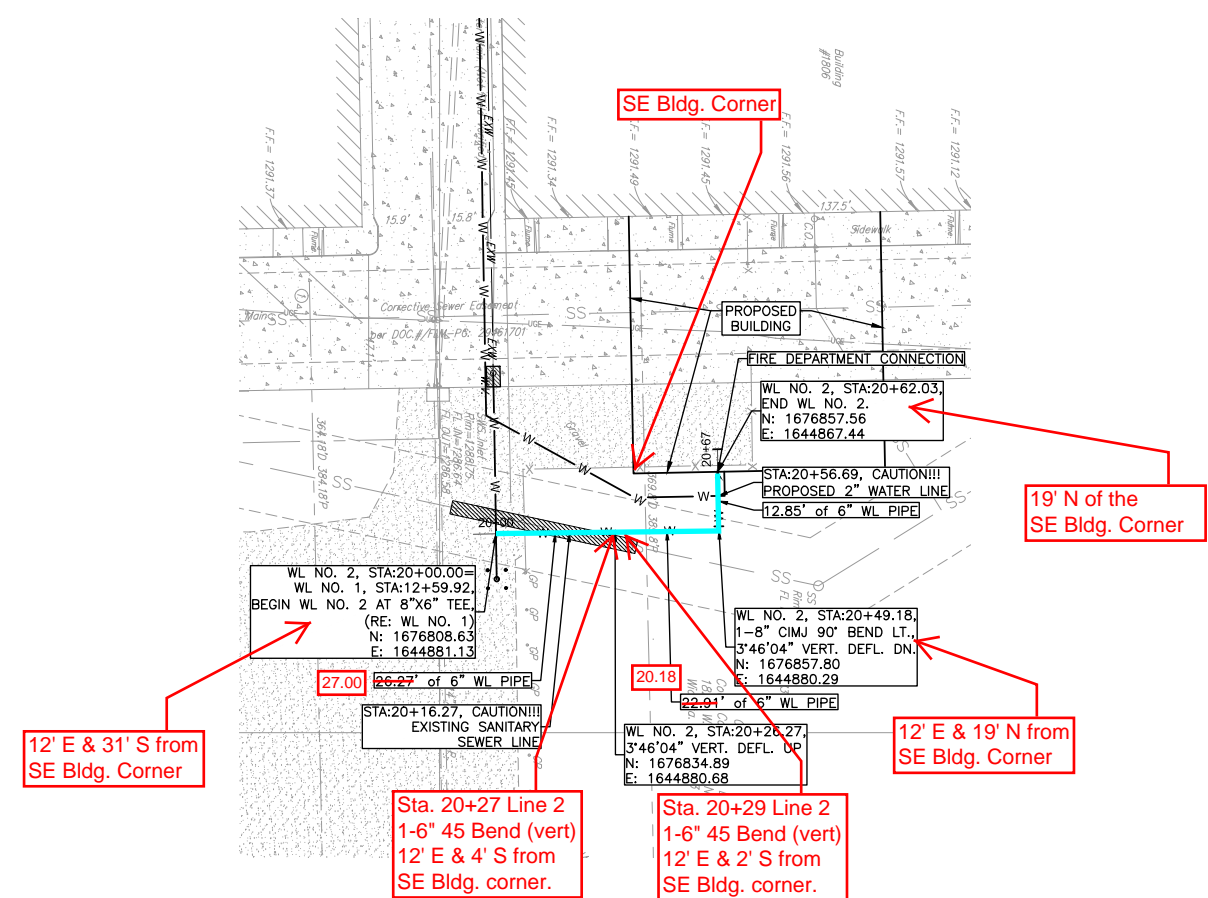
COVER

FILE LOCATIONS: Drawing Files\Land Projects_HDF_1-14-00\LarryCook (20061452)\Dwgs_PPW_20152226-PPW.dwg TAB NAME: COVER USER: cecorcorates SAVED: 11/16/2015 5:15 PM PLOTTED: 11/16/2015 5:16 PM

FILE LOCATION: \\Drawing_Files\Land_Planets_HDF_1-14-00\LarryCook (20061452)\Dwgs\PPW\201522263-PPW.dwg TAB NAME: WL NO. 2 PLAN & PROFILE USER: rccarntes SAVETIME: 1/16/2015 11:54 AM PLOTTED: 1/16/2015 11:54 AM



REV.	DESCRIPTION	DATE

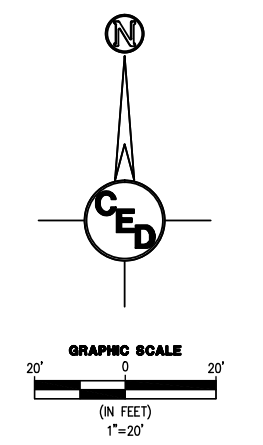


AS BUILTS

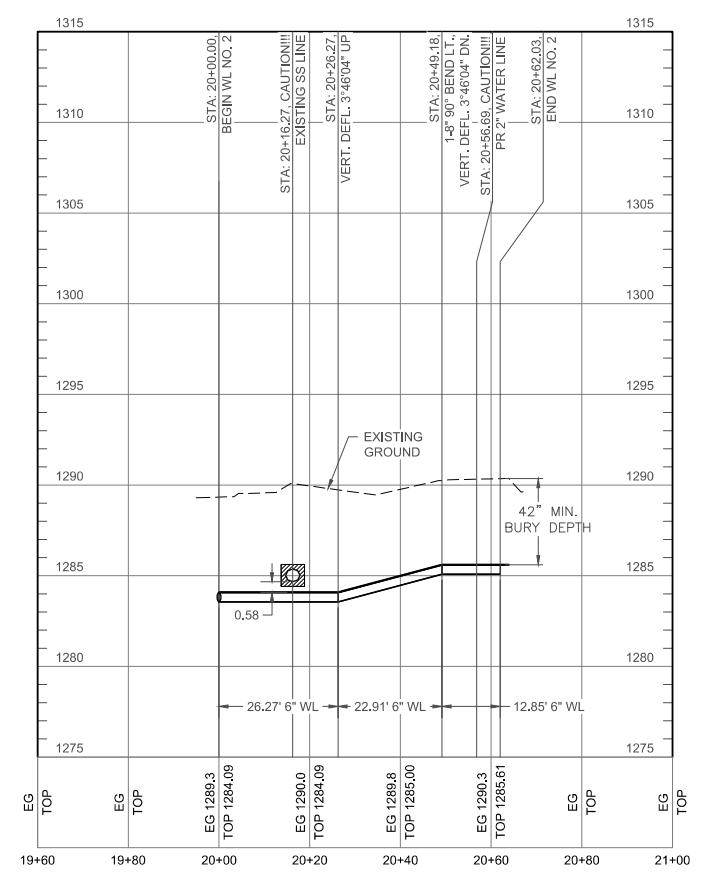
Contractor: **McCullough Excavation** 2/4/2016

Project Inspector: **Matt Perez**

KEMILLER ENGINEERING PA
117 E. Lewis, Wichita, KS 67202 (316)264-0242



WEST PARK GARDENS
1812 S. SENECA STREET
WICHITA, SEDGWICK COUNTY, KANSAS



SURVEY DISCLAIMER:
TOPOGRAPHIC SURVEY AND CONTOUR MAP USED IN PREPARING PLANS WAS PROVIDED BY SAVOY COMPANY, P.A., 433 S. HYDRAULIC, WICHITA, KS. ENGINEER DOES NOT GUARANTEE SURVEY ELEVATIONS FOR ACCURACY. CONTRACTOR SHALL VERIFY ELEVATIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

UTILITIES SHOWN REPRESENT THE BEST INFORMATION AVAILABLE FOR DESIGN. ADDITIONAL UTILITIES MAY BE PRESENT ON THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH AND SIZE OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE CAUSED BY THE FAILURE TO DO SO.

Site Benchmark:
Square Cut on the S.E. Corner of the Concrete Slab of the KGE Transformer Pad, 24'E. & 4.5'S. of the S.E. Corner of Building #1812 S. Seneca St. Elevation = 1290.82 (NAVD88)

CERTIFIED ENGINEERING DESIGN, P.A.
CIVIL ENGINEERING



1935 WEST MAPLE
WICHITA, KANSAS 67213
PH.(316)262-8808 FAX.(316)262-1669

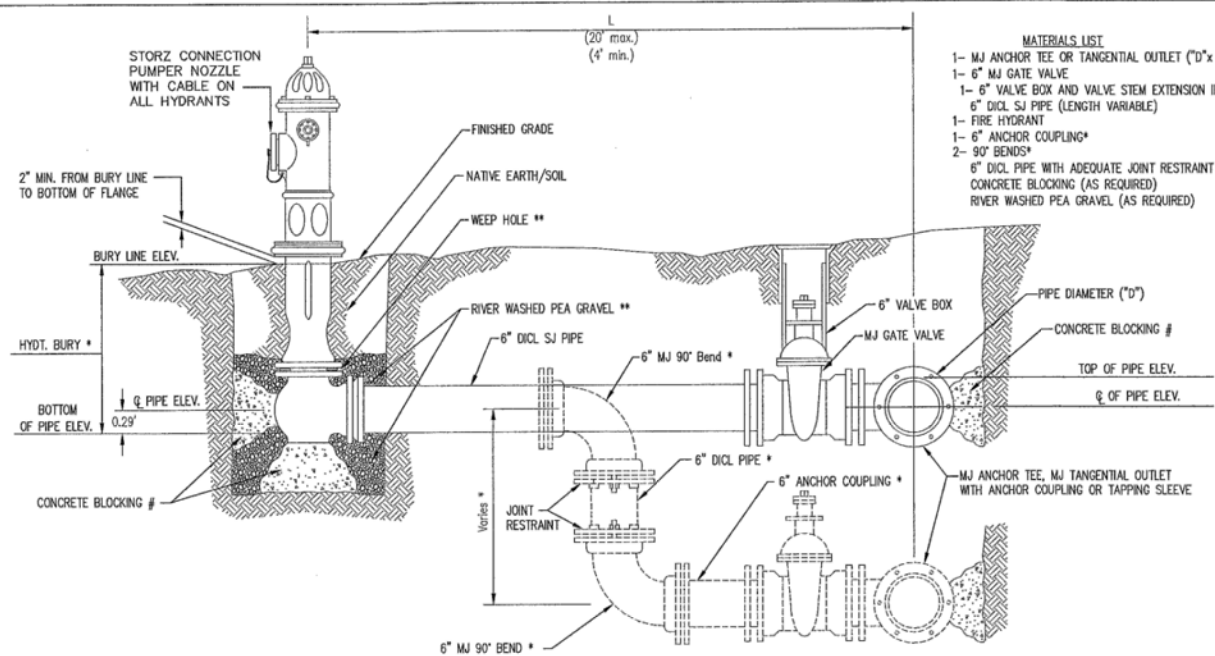


ISSUED FOR CONSTRUCTION

PROJECT NO.: 20152226
ISSUE DATE: NOVEMBER 16, 2015
CONTACT: H. FORAKER, L. MILLS
CHECKED BY:

WL NO. 2 PLAN & PROFILE

FILE LOCATION: S:\Drawing Files\Land Projects\1-14-00\LocoCook (20081452)\Details PPA\20152283-PPW DETAILS.dwg TAB NAME: STANDARD WATER ASSEMBLY DETAILS USER: cccorcoran DATE: 11/16/2015 11:55 AM

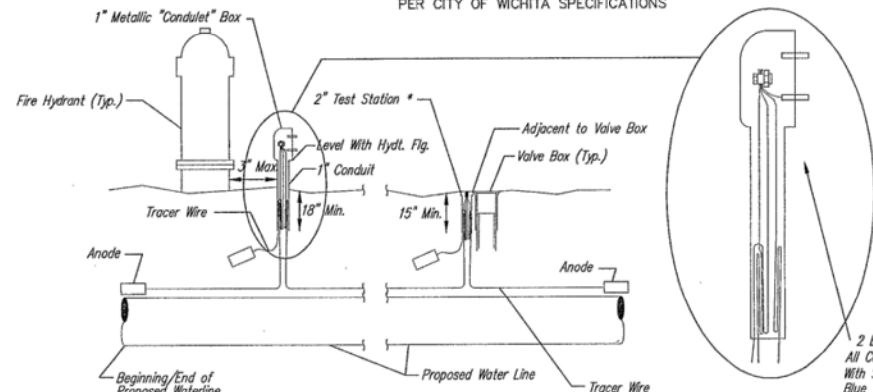


* IF THE REQUIRED HYDRANT BURY IS IN EXCESS OF 5', BUT LESS THAN 7', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY. IF THE REQUIRED HYDRANT BURY IS GREATER THAN 7', CONTRACTOR SHALL USE 5' HYDRANT BURY, 2-MJ 90° BENDS, 6" ANCHOR COUPLING AND 6" DICL PIPE AS NECESSARY FOR VERTICAL ADJUSTMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING AT HYDRANT AND MEGALUGS, OR SIMILAR RESTRAINT BETWEEN 90° BENDS TO SECURE ALL FITTINGS DURING TESTING AND OPERATION. THE CONTRACTOR SHALL PROVIDE A VALVE STEM EXTENSION PER DETAIL THIS SHEET.

** CAUTION: WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES. PLACE 1 CUBIC FOOT OF RIVER WASHED PEA GRAVEL AROUND EACH WEEP HOLE.

CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

FIRE HYDRANT ASSEMBLY
PER CITY OF WICHITA SPECIFICATIONS

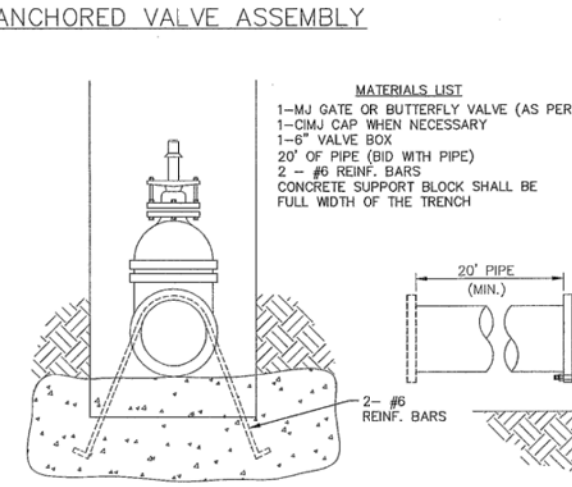
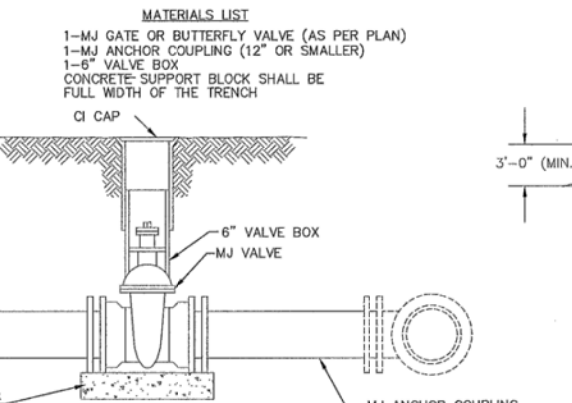
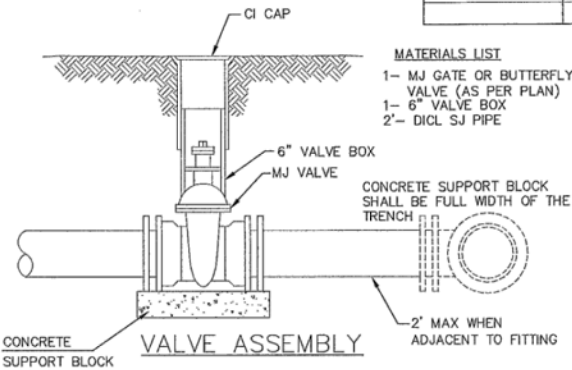


TRACER WIRE
Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. A waterproof connector shall be used at splice locations. Test stations shall be installed adjacent to all fire hydrants along the waterline and at blowoffs or valves near the ends of waterlines. Any exception to the location shall be approved by the engineer. At each test station, the tracer wire shall be connected to a 3 lb. Zinc or magnesium anode. Anodes shall also be attached to the tracer wire at both the beginning and the end of the proposed waterline. A typical layout of the tracer wire and test station is provided in the above figure.

ANODES
The anodes shall be 3 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to 12 AWG ccs which shall be extended to the test station.

TRACER WIRE DETAIL
COST IS SUBSIDIARY TO PIPE INSTALLATION

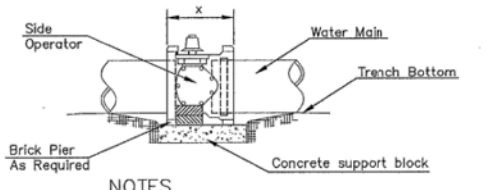
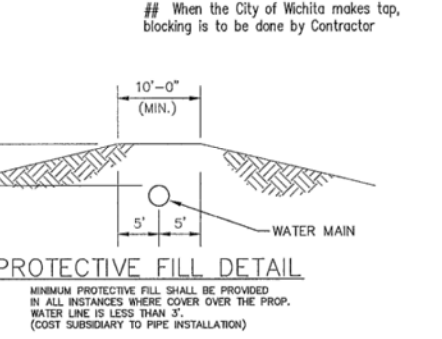
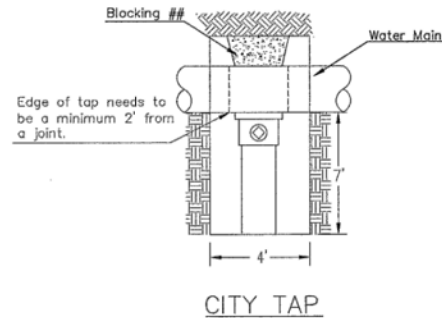
FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
12+59.92	1289.32	1284.13	6.0'	1



Notes:

- Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
- The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.
- All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

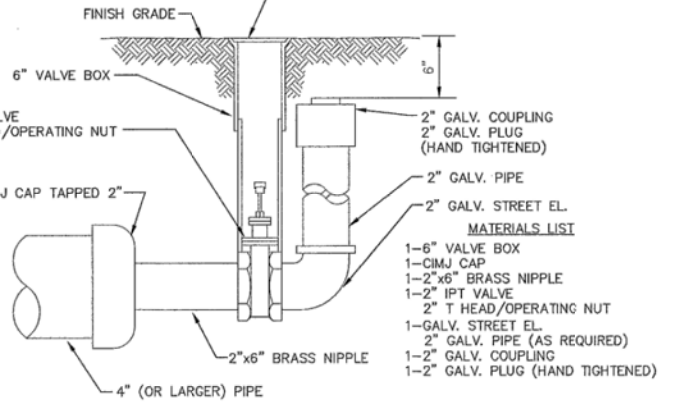
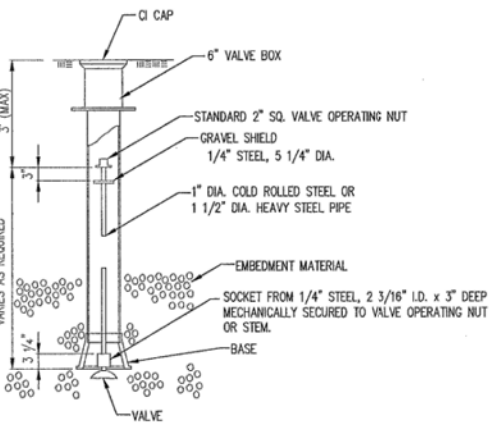
THRUST AT VALVES	
VALVE	THRUST AT 150 #/sq ft
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.



NOTES

- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
- 6" Valve Box and Cover required per City of Wichita Std. Specifications.
- Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



2" BLOWOFF ASSEMBLY

REVISED: JULY 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STANDARD WATER ASSEMBLY DETAIL

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
----------------	------------	------

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
5 13



