

WATER LINE & FIRE HYDRANT TO SERVE

College Hill Addition

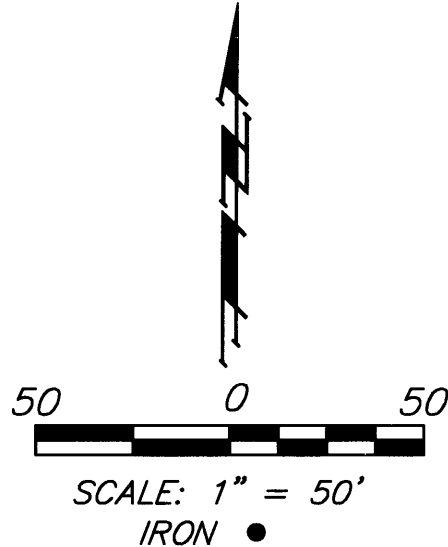
Lots 3 & 4, Block 7

Private Project: 1694 PPW (607853)

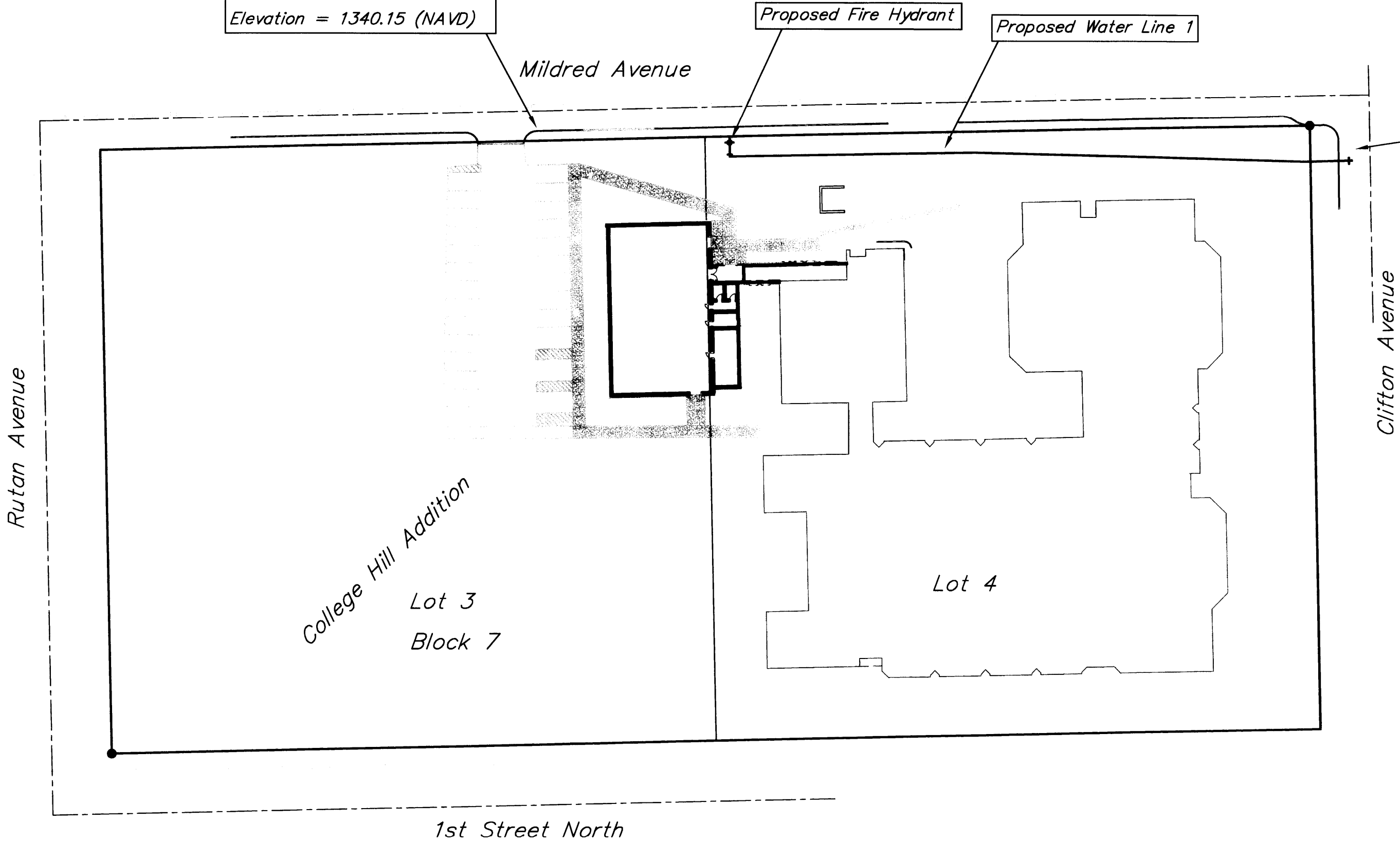
CITY OF WICHITA, KANSAS

Gary Janzen, P.E., Interim City Engineer

October 2012



SITE BENCHMARK
"□" Chiseled On Top Of Curb.
Elevation = 1340.15 (NAVD)



Existing 8" Cast Iron Water Main

Benchmark

SITE BENCHMARK
"□" Chiseled On Top Of Curb.
Elevation = 1340.15 (NAVD)

Legal Description

Lots 3 & 4, Block 7, College Hill Addition, To Wichita.

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BMP Erosion Details	Available On Request

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA,
BY WICHITA WATER & SEWER DEPARTMENT,
& BY WICHITA FIRE DEPARTMENT

Public Works *[Signature]* 10-9-12
Water & Sewer *[Signature]* 10-9-12
Fire *[Signature]* 10-11-2012

NOTE TO CONTRACTORS

Public Property:
Inspection and testing for the waterline is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Professional Engineer Licensed in the state of Kansas. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City or Wichita Specifications and Standards (on file and available in the City Engineer's Office).

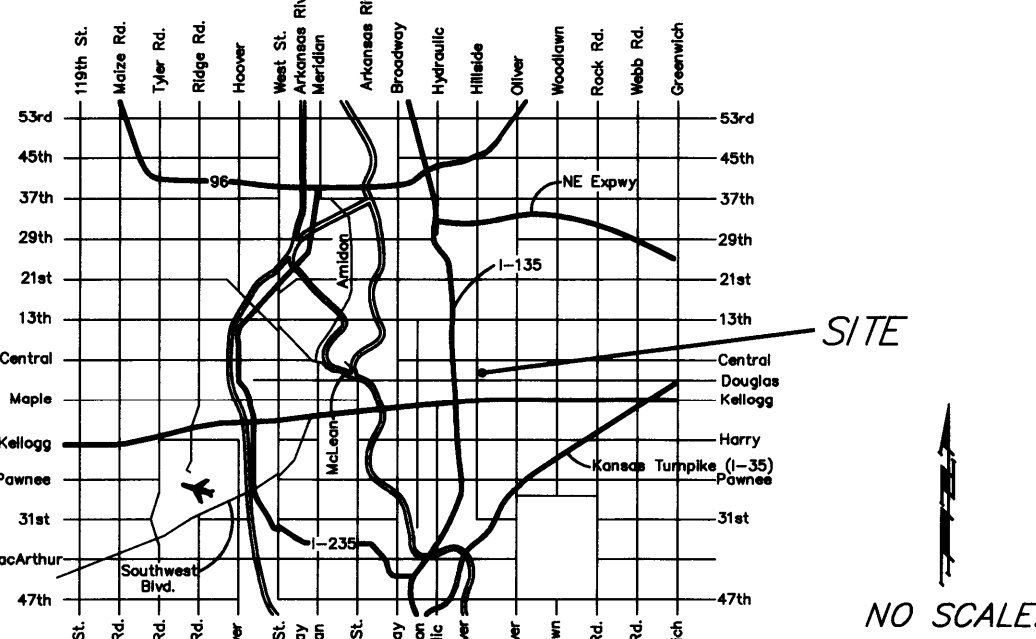
Private Property:
Installation and testing for the fire protection line is to be performed by a City of Wichita licensed fire protection contractor in accordance with the fire codes as adopted by the City of Wichita. All material and construction practices for the fire protection line shall comply with 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.

General Notes

- Contractor will be required to provide notice to utility companies a minimum of forty-eight (48) hours prior to any excavation, as follows:
Kansas One-Call 687-2470
The Contractor must notify the following in case of an emergency:
Cox Communications 262-4270
Kansas Gas Service Company 1-888-482-4950
Westar Energy (Electric) 383-8650
Black Hills Energy (Gas) 1-800-303-0357
Southwestern Bell Telephone Co. 1-800-286-8313
City of Wichita Water Dept. (Water) 262-6000
City of Wichita Sewer Maint. (SS) 262-6000
City of Wichita Storm Sewer Maint. 268-4090
City of Wichita Traffic Maint. 268-4034
- All disturbed R/W areas not intended for pavement or sidewalk construction shall be seeded with Kansas Premium Fescue Blend at a rate of 8 lb./1000 Sq. Ft., fertilized with a 16-20-6 ratio at a rate of 4 lb./1000 Sq. Ft., and mulched with Prairie Hay at a rate of 92 lb./1000 Sq. Ft. Mulch shall be "patted" with forks or punched into soil to reduce loss due to wind.
- Utility service lines, poles, valve boxes, meters, et cetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or 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 and shall be field verified. The contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- Contractor shall furnish the inspector with a copy of the manufacturer's certification for all pipe used on this project after completion of pipe installation. The engineer will not certify the project to the city until pipe certification has been received.
- Properties within the project limits may have underground sprinkler systems which conflict with new construction. Contractor will be required to remove such improvements should they not be removed by their owner at the time of construction. The Contractor will be required to salvage all sprinkler heads and/or valves and give such material to their owner. Portions of underground sprinkler systems not in conflict with new construction shall be protected from damage and shall remain in place. All work in connection with underground sprinkler systems shall be considered as subsidiary to the contract pay items of work.
- Cuts made to paved surfaces on public property will be repaired by the City's contractor and charged against the owner/applciant. Unit repair prices are available from the City at 268-4418. A surcharge may be applicable; call 268-4418 for details. Repair costs to be paid prior to release of sewer service if sewer service is affected. Contractor shall obtain permit prior to construction.
- Clifton Avenue shall remain open. Barriers and detour signage shall be in accordance with the Manual On Uniform Traffic Control Devices.
- Contractor to remove concrete sidewalk to the nearest construction joint if within 3' of joint. Saw cut if over 3' from joint. Removal and replacement of pavement shall not be paid for directly, but shall be considered incidental to other items in the project.
- Contractor shall not start work on the project until the project inspector is assigned to the project and is present on the site. Contractor shall not start on the project until all necessary bonds and permits have been obtained. Bonds may include but are not limited to Statutory, Performance & Maintenance. Any work done without inspection will be required to be uncovered for inspection.
- 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 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 would 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 would require additional archaeological investigations unless buried in a previously approved borrow location.
- All water lines and appurtenances shall be installed in accordance with the most recent edition of City of Wichita, Kansas Standard Specifications for the Construction of City Projects unless otherwise noted.

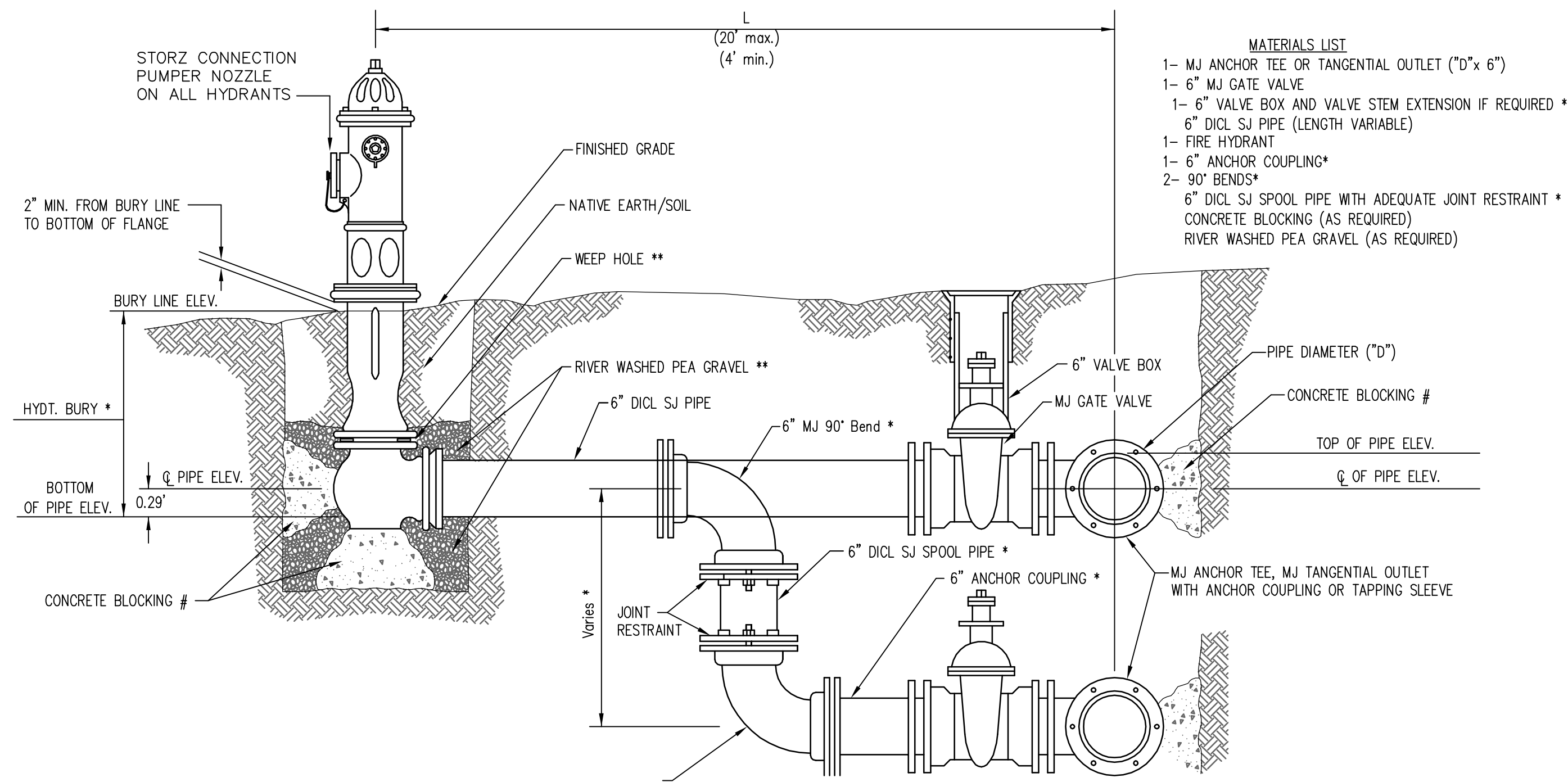
AS BUILTS

Contractor: McCullough Excavation, Inc. 4/17/2013	Project Inspector: Larry Gann kemiller engineering 516 S. Market Wichita, KS 67202 (316)264-0242
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VICINITY MAP

Baughman
Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE



- MATERIALS LIST**
- 1- MJ ANCHOR TEE OR TANGENTIAL OUTLET ("0" x 6")
 - 1- 6" MJ GATE VALVE
 - 1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED *
 - 6" DICL SJ PIPE (LENGTH VARIABLE)
 - 1- FIRE HYDRANT
 - 1- 6" ANCHOR COUPLING*
 - 2- 90° BENDS*
 - 6" DICL SJ SPOOL PIPE WITH ADEQUATE JOINT RESTRAINT *
 - CONCRETE BLOCKING (AS REQUIRED)
 - RIVER WASHED PEA GRAVEL (AS REQUIRED)

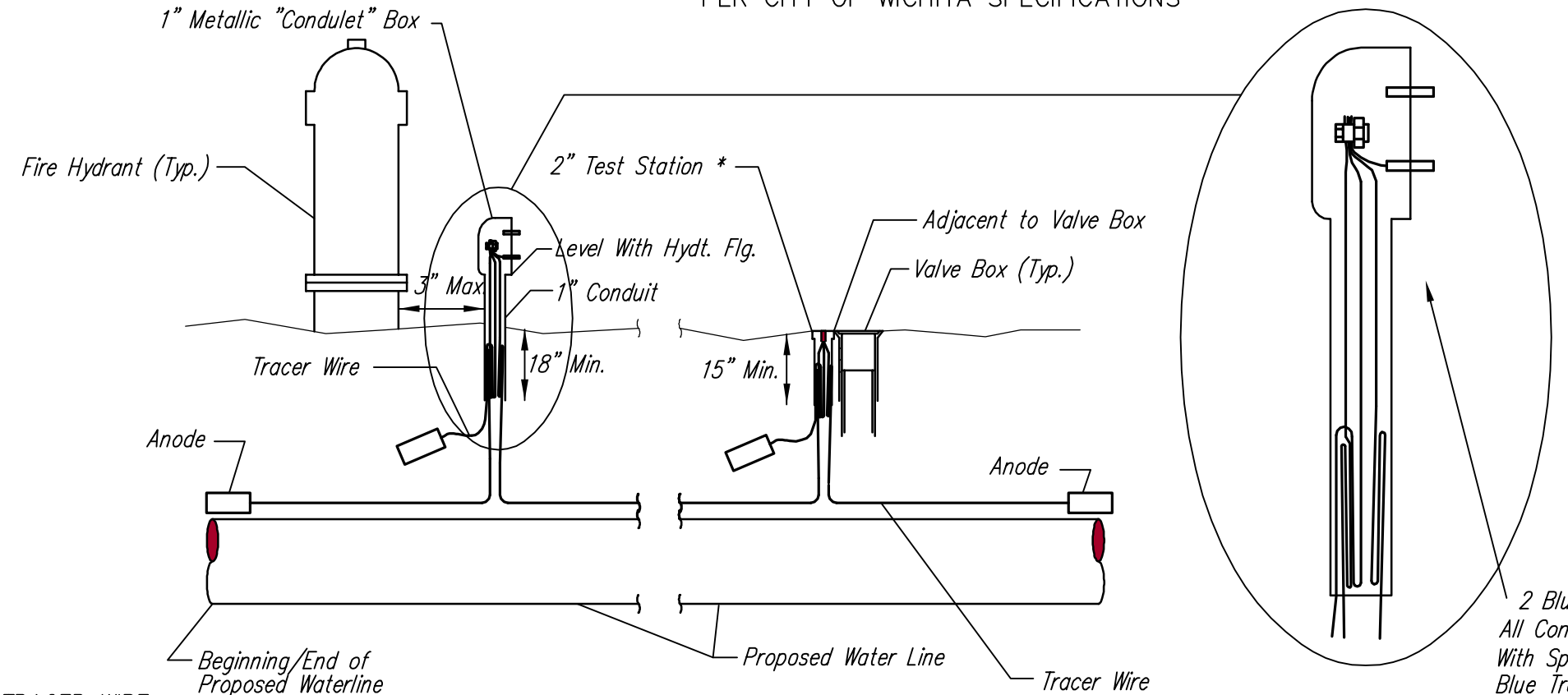
FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
3+11.99, Line 1	1342.30	1339.01	4.0'	

* 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 SPOOL PIPE AS NECESSARY FOR VERTICAL ADJUSTMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING AT HYDRANT AND MEGALUGS, ROD AND LUG 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



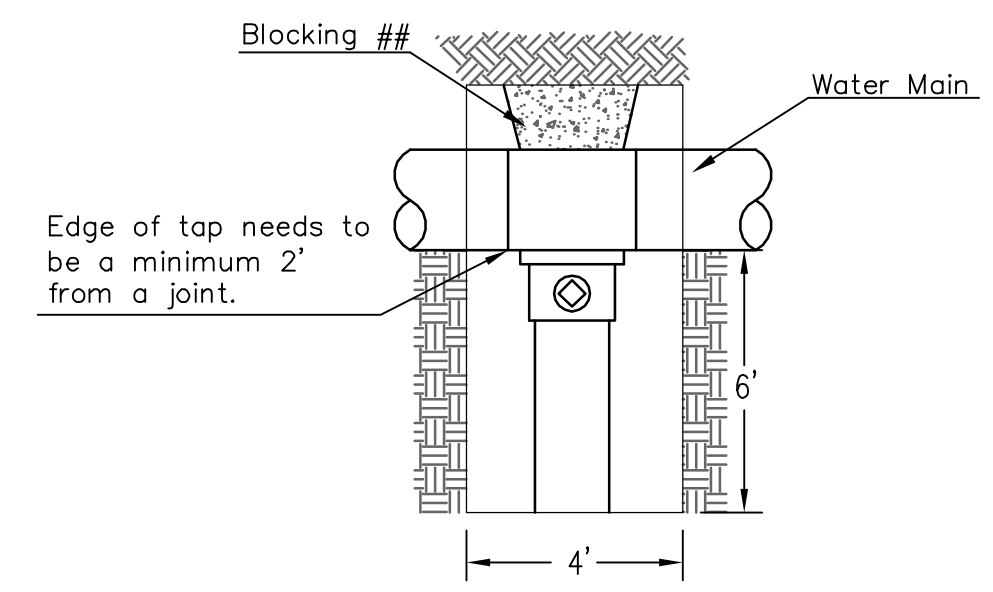
TRACER WIRE
Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. Split-bolt connectors shall be used at splice locations. Electrical tape shall cover all splices so no bare wire is exposed. Test stations shall be installed adjacent to all fire hydrants along the waterline and at blowoffs or valves near the ends of the waterlines. Any exceptions to the location of test stations 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.

WIRE
The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation or Blue No. 12 AWG CCS with 30 mil HDPE insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. The insulation sheathing shall be removed such that 1" bare copper wire at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

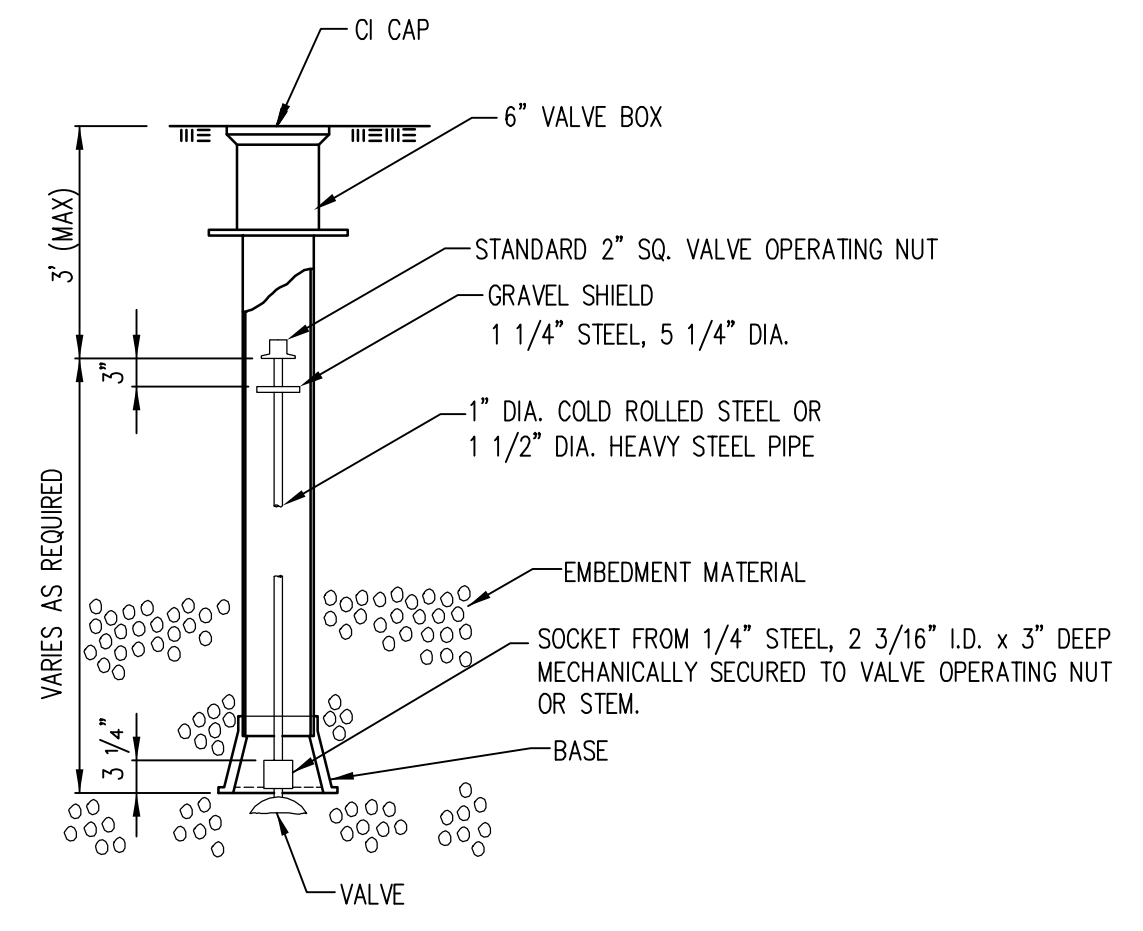
TEST STATIONS
The test station for fire hydrant applications shall be a 1 inch galvanized "condulet" style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PS3B as manufactured by HANDLEY Industries or approved equal. The "condulet" style test station shall be attached to a 1 inch rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be installed to allow 10 inches of wire within the test station. In concrete environments such as sidewalks or in the downtown area the contractor shall use the flush style test station. The location of all test stations shall be approved by the engineer, recorded, and shown in the as-built drawings.

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 Black No. 12 THHN annealed soft copper wire which shall be extended to the test station.

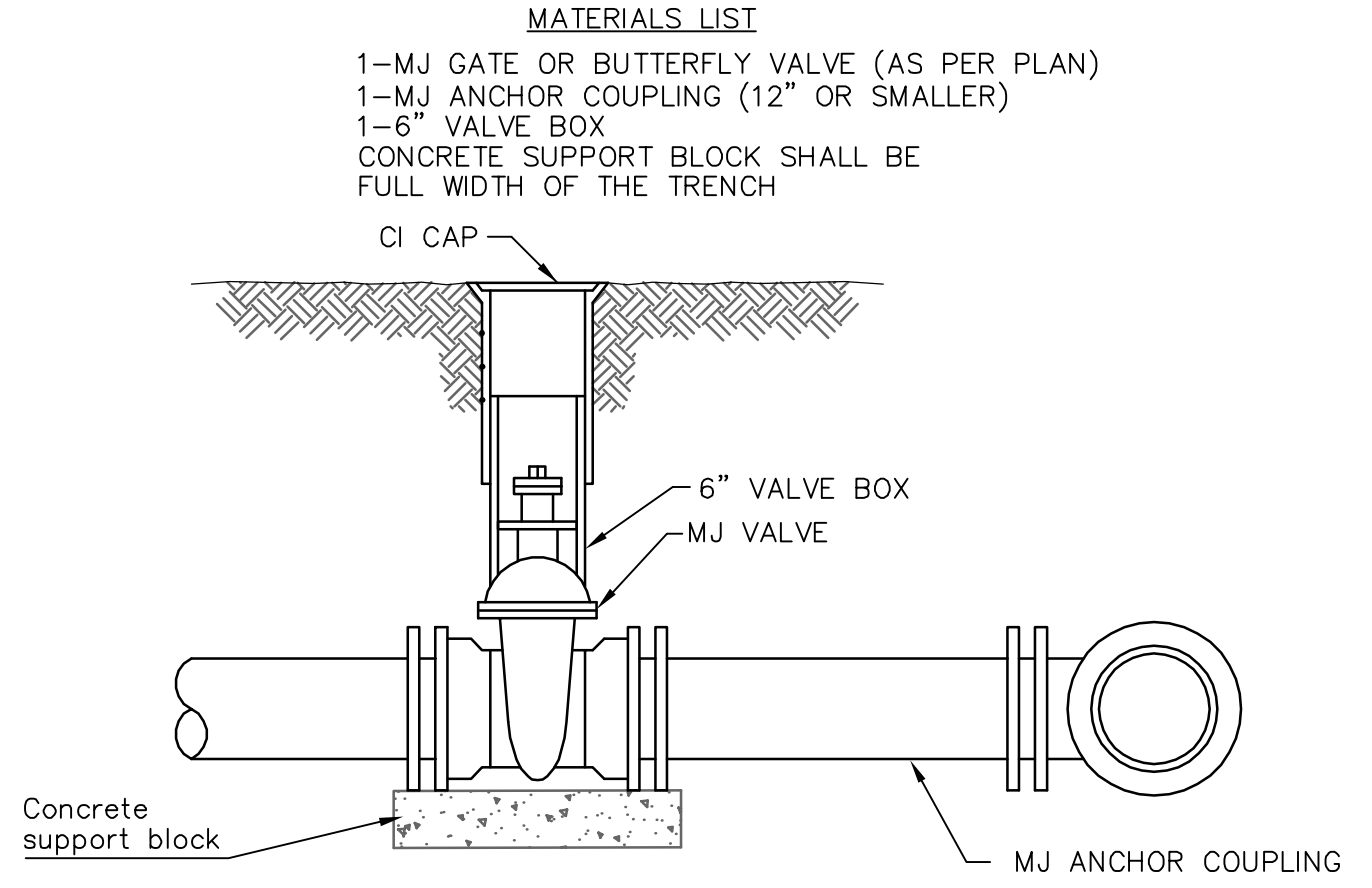
TRACER WIRE DETAIL
COST IS SUBSIDIARY TO PIPE INSTALLATION



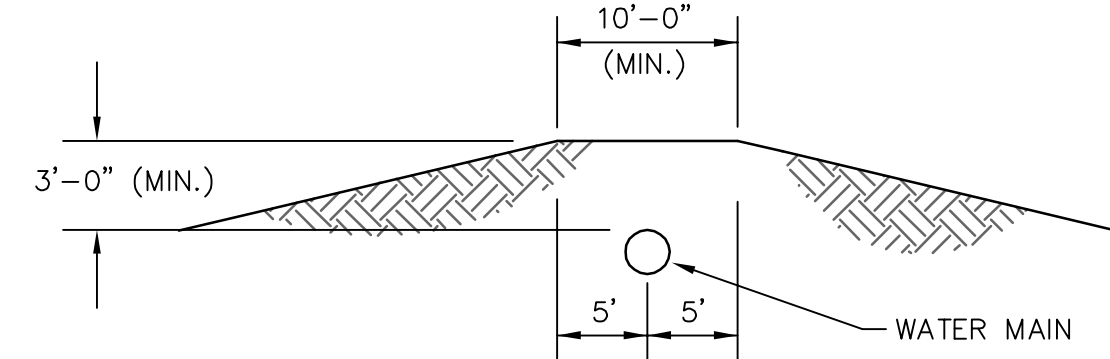
CITY TAP
When the City of Wichita makes tap, blocking is to be done by Contractor



VALVE STEM EXTENSION DETAIL
NOTE: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.



ANCHORED VALVE ASSEMBLY



PROTECTIVE FILL DETAIL
MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN 3". (COST SUBSIDIARY TO PIPE INSTALLATION)

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STANDARD WATER ASSEMBLY DETAIL		
CITY ENGINEER Gary Janzen, P.E. Interim City Engineer		
PROJECT NUMBER 1694-PPW	OCA NUMBER NA	DATE 10/2012
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET 2 of 4

E:\Projects\College Hill Elementary FH\PPW.dwg

Poly gas line 50" deep
Steel gas line 20" deep

CAUTION! VERIFY!
Existing Gas Line Crossing. Depth Unknown. Adjust Proposed Water Line If Necessary. See Note #1 This Sheet.

W.L. Sta. 0+00.00, Begin Line 1 = B.L. Sta. 4+79.17, 17.77' Lt. Tap Existing 8" Cast Iron Water Main. 1-8" X8" Tapping Sleeve. 1-8" Tapping Valve w/Valve Box To Be Furnished & Installed By The City Of Wichita (Contractor To Reimburse City Of Wichita For Tapping Sleeve, Valve & Installation \$1830.00.) Valve Box Elevation = 1350.40 Extend 8" Water Line West.

Remove & Replace Existing Pavement, & Curb As Necessary For Water Line Construction. See Notes #6 & #7 On Sheet 1.

Remove & Replace Existing Sidewalk As Necessary For Water Line Construction. See Notes #7 & #8 On Sheet 1.

Existing 8" Cast Iron Water Main.

Northeast Corner Lot 4, Block 7, College Hill Addition = B.L. Sta. 5+00.

CAUTION! VERIFY!
Existing Gas Line.

CAUTION! VERIFY!
Existing 4" PVC Crossing.

Remove & Replace Existing Sidewalk As Necessary For Water Line Construction. See Note #8.

CAUTION! VERIFY!
Existing Electric & Gas Lines Near.

CAUTION! VERIFY!
4-Existing 4" PVC Crossings.

10'X32' KG&E Elec. Esm't. (Film 239, Page 339)

Sand Backfill, Flush, & Vibrate Under Pavement.

W.L. Sta. 0+22.77, Line 1 = B.L. Sta. 5+01.94, 17.94' Lt. Deflect Pipe 3'00"00" Rt.

197.84 L.F. 8" Water Pipe w/Tracer Wire.

CAUTION! VERIFY!
Existing Electric, A1&T, & Cable Line Crossings. Depths Unknown. See Note # 1 This Sheet. Adjust Proposed Water Line As Necessary.

W.L. Sta. 1+88.83, Line 1 = B.L. Sta. 6+67.83, 10.46' Lt. Deflect Pipe 2'22"58" Lt.

34.61 L.F. 8" Restrained Joint Pipe w/Tracer Wire By Directional Drill From W.L. Sta. 1+97.84 To W.L. Sta. 2+32.45

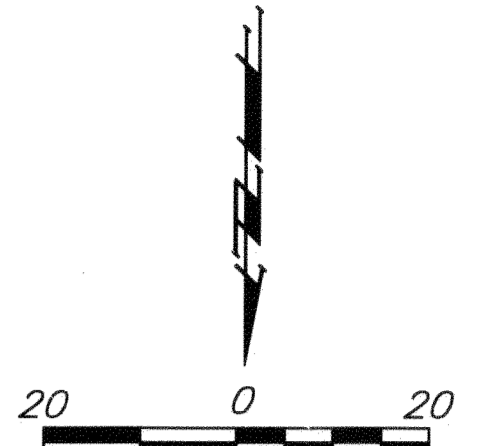
79.54 L.F. 8" Water Pipe w/Tracer Wire.

W.L. Sta. 3+11.99, End Line 1 = B.L. Sta. 7+90.99, 10.04' Lt. 1-Fire Hydrant Assembly (L=7.0') Clow (storz) Valve Box Elevation = 1342.70 Hydrant Bury Elevation = 1342.30 1-8" CIMJ Plug.

NOTE:
This Is A Fire Line Only. No Domestic Services Can Be Installed On This Line.

NOTE #1:
Contractor To Use Extreme Caution When Excavating Near Utility Lines. Contractor To Hand Dig To Expose All Utility Lines Prior To Construction. Verify Depth To Determine Conflict If Any.

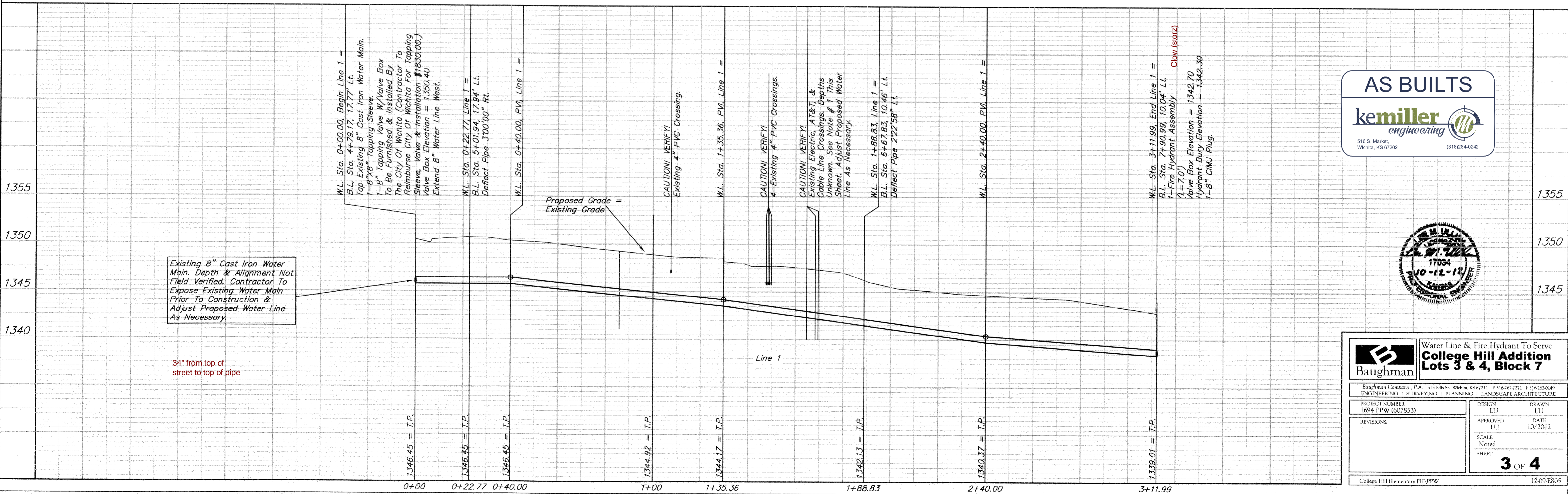
NOTE #2:
Contractor Shall Follow All Applicable Best Management Practices (BMP) For Erosion Control.



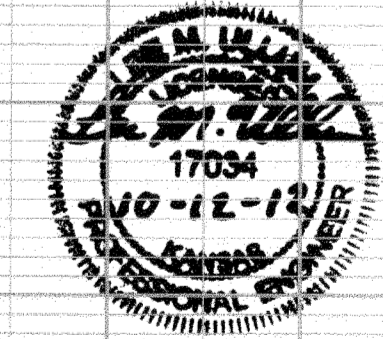
SCALE:
1" = 20' (Hor.)
1" = 5' (Ver.)

Benchmark

SITE BENCHMARK
1" Chiseled On Top Of Curb.
Elevation = 1340.15 (NAVD)



AS BUILTS
kemiller engineering
516 S. Market, Wichita, KS 67202 (316)264-0242



Baughman Water Line & Fire Hydrant To Serve College Hill Addition Lots 3 & 4, Block 7

Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

PROJECT NUMBER 1694 PPW (607853)	DESIGN LU	DRAWN LU
REVISIONS:	APPROVED LU	DATE 10/2012
	SCALE Noted	SHEET 3 OF 4

College Hill Elementary FH\PPW 12-09-E805

