

# GENERAL NOTES:

- The Contractor shall comply with all applicable safety regulations. All construction shall be completed following current City Standard Specifications and Special Provisions.
  - Maintain a minimum of 10-foot horizontal separation between all water lines (mains and services) and fire hydrants and all sanitary sewer lines (mains, services, and manholes). All separation distances are to be measured from edge-to-edge, at the closest point.
  - Maintain a minimum of 2-foot vertical separation between all water lines (mains and services) and all gravity sanitary sewer lines (mains, services, and manholes) at crossings. All separation distances are to be measured from edge-to-edge, at the closest point.
  - Maintain a minimum of 2-foot vertical separation between all water lines (mains and services) and all pressurized sanitary sewer lines (force mains and services) at crossings. Waterlines must always be placed above pressurized sanitary sewer lines where they cross. All separation distances are to be measured from edge-to-edge, at the closest point.
- 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 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 Andover Public Works	1-316-733-1303
City of Wichita Water & Sewer	1-316-219-8921
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
Evergny	1-800-544-4857
- Utility service lines, poles, etc. 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. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- 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.
- 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 City Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
- The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days notice prior to start of construction.
- 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 his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws
- All elevations shown are NAVD88.
- All areas disturbed during construction that will not be under proposed pavement shall be restored to match existing conditions per City specifications.
- Opening and closing of 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. 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.
- The Contractor shall lay a Tracer Wire and Set Test Stations along all water pipe installed in accordance with City Specifications and Tracer Wire Detail on detail sheet WL-101, cost is subsidiary to pipe installation.
- The Contractor shall protect from damage and support existing utilities through construction as approved by the utility owner and the Engineer at the contractor's expense.
- Contractor shall limit the extent of trench openings overnight and weekends to less than 50 feet.
- All existing and proposed erosion control measures including silt fencing, erosion control mat, straw bales, inlet barriers, and const. entrance shall be maintained throughout construction by the contractor and until project is accepted by the City of Wichita. The on-site engineer shall complete weekly reports on the status of erosion control measures. The contractor shall be required to comply with maintenance and/or replacement of erosion control measures as determined by the on-site engineer until project is accepted by City of Wichita. Maintenance and/or replacement of erosion control measures to be paid by L.S. bid item "Maintain Existing BMPs".
- All excess excavation shall remain on-site and shall be stockpiled or spread at a location determined by the engineer.
- All of West Turnpike Road R/W disturbed during construction that is adjacent to developed property shall be seeded and mulched as follows:
 

Seed -- Kansas Premium Fescue Blend; 8 lbs. PLS/1000 Sq. Ft.  
Annual Rye grass; 3 lbs./1000 Sq. Ft.  
Fertilizer -- 12-24-12 Ratio; 45 Lbs./Ac.  
Mulch -- 2 Tons Prairie Hay/Ac.

All other areas disturbed during construction are to be seeded as follows:

Seed -- Rye grass; 5 lbs./1000 Sq. Ft.

All costs associated with seeding including mobilization, preparation of ground, seeding, fertilizing, mulching, etc. shall be included in the L.S. bid item "Seeding".

An additional bid item for "Seeding, Temporary" has been included and may be used at the discretion of the design engineer. Temporary seed shall be Annual Rye at 5 lbs./1000 Sq. Ft. unless otherwise noted and shall be planted when permanent seed or sod cannot be used due to seasonal limitations. If the "Seeding, Temporary" bid item is not used, 100% of the pay item will be deducted from the contract. All costs associated with temporary seeding including mobilization, preparation of ground, seeding, etc., shall be included in the L.S. bid item "Seeding, Temporary".
- The developer for this project is Whitetail Management, LLC, Brandon Hermreck (bhermreck@yahoo.com 316-516-8107) & Zachary Northcutt (gnplumbingllc@gmail.com 316-665-0060)
- The Contractor shall notify the consultant engineer and Dawnita Reinhardt at 316-650-0740 with the City of Wichita with the anticipated construction start date and notify them of project completion. Staking and inspection for this project will be the responsibility of the Contractor.

## Benchmarks

BM-#1: SQUARE CUT WITH "CROSS" ON TOP OF CURB INLET, WEST SIDE OF MAIN STREET, 17.3' E. & 17.8' N. OF NE COR., LOT 3, BLOCK A, HODGES 5TH ADDITION. ELEVATION = 1350.63 NAVD88

BM-#2: SQUARE CUT WITH "CROSS" ON TOP OF CURB INLET, NORTH SIDE OF MAY STREET, 16.5' S. & 2.9' W. OF MOST SOUTHERLY SE. COR., LOT 3, BLOCK A, HODGES 5TH ADDITION. ELEVATION = 1349.38 NAVD88

BM-#3: SQUARE CUT WITH "CROSS" ON TOP OF CURB INLET, NORTH SIDE OF MAY STREET, 65.6' E. 14.6' S. OF SW COR., LOT 1, BLOCK A, HODGES 5TH ADDITION. ELEVATION = 1353.94 NAVD88

# AS - BUILT PLANS

## WATER DISTRIBUTION SYSTEM to serve HODGES 7TH ADDITION

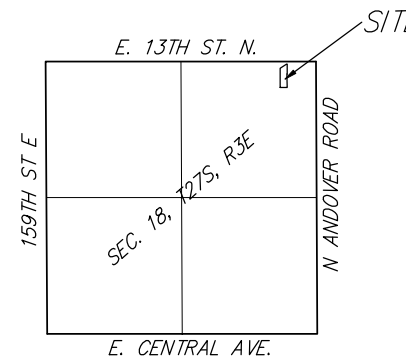
CITY OF WICHITA, KANSAS

Gary Janzen, P.E. City Engineer  
2022-003278PPW  
54030980

Contractor: Mies Construction Co.  
Inspector: Fred Smith - Baughman Company, P.A.  
As-Built By: L. Powell - Baughman Co.  
Date: 2-14-2023 (Revised)

Construction: August / September 2022

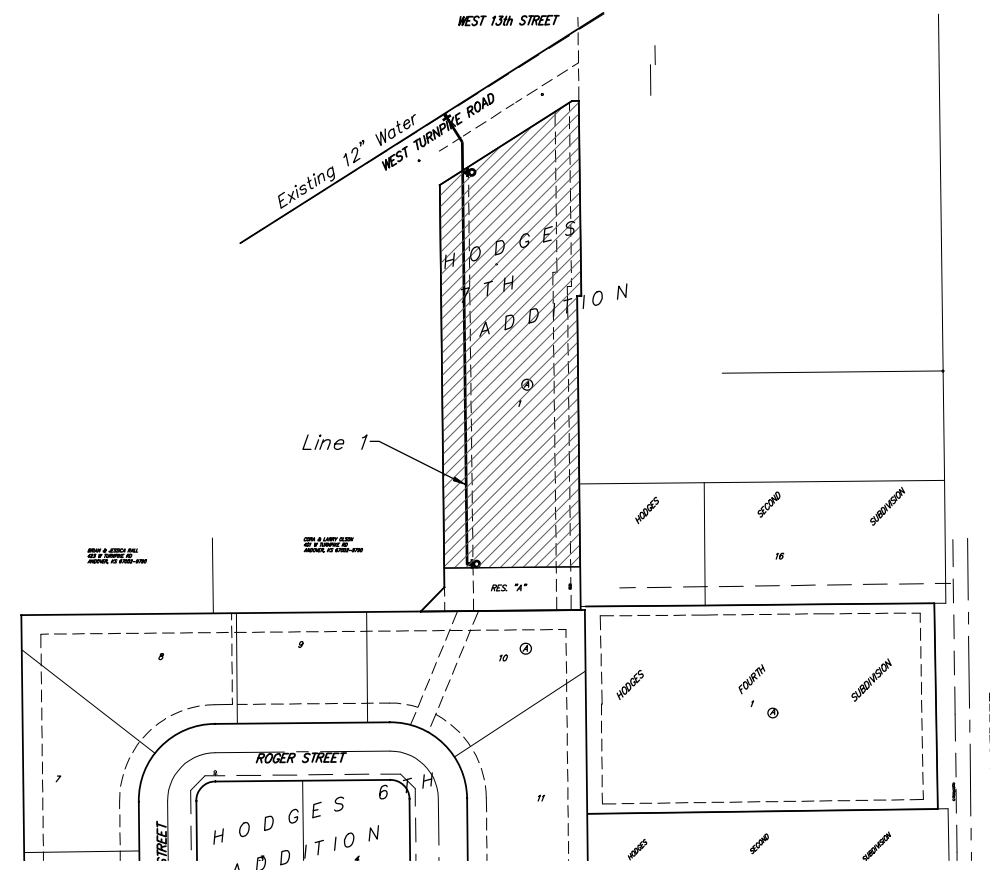
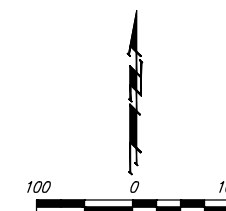
Fire Hydrants and Valves = CLOW  
8" PVC Pipe = Sanderson Pipe Corp.  
6" DICL Pipe = McWane Ductile



Vicinity Map

## Sheet Index

Title Sheet	1
Line 1	2
Erosion Control Plan	3
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Benefit District

APPROVED AS NOTED  
BY WICHITA PUBLIC WORKS  
ENGINEERING DIVISION

Engineering [approved by Shawn Mellies on 04.19.22](#)  
Utilities [approved by Greg Lollev on 04.19.22](#)

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 of Wichita Specifications and Standards and Special Provisions (on file and available in the City Engineer's Office) or on the City's Website.



Baughman Job No.: 21-07-E981

April 11, 2022

**BAUGHMAN COMPANY**  
315 Ellis St. Wichita, KS 67211 316-262-7271  
BaughmanCo.com

**BENCHMARKS:**

BM-#1: SQUARE CUT WITH "CROSS" ON TOP OF CURB INLET, WEST SIDE OF MAIN STREET, 17.3' E. & 17.8' N. OF NE COR., LOT 3, BLOCK A, HODGES 5TH ADDITION. ELEVATION = 1350.63 NAVD88

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VALVE BOX ELEV. = 1365.01

BURY LINE ELEV. = 1363.62  
VALVE BOX ELEV. = 1363.52  
N=1,694,447.16 E=1,706,294.28

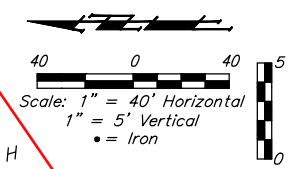
BURY LINE ELEV. = 1362.71  
VALVE BOX ELEV. = 1362.67  
N=1,694,038.25 E=1,706,299.35

Trees in conflict with water line construction to be removed by contractor. To be paid for as lump sum bid item "Site Clearing". All other trees shall remain and be protected from damage during construction. Overhanging limbs shall be trimmed by the Contractor using a chain saw only as necessary for construction and with approval of the Engineer. Cost of tree trimming to be included in bid item "Site Clearing".

**LEGEND:**

TS = Test Station

[Red Dashed Box] = Revised Data



Remove and replace existing gravel road as necessary for water line construction.

WL Sta. 0+00.00, Begin Line 1  
BL Sta. -0+80.12, 5.98' Lt.  
1 - 12"x8" Tapping Saddle  
1 - 8" Tapping Valve & Valve Box  
Valve Box Elev. = 1364.80  
N=1,694,506.31 E=1,706,271.91

WL Sta. 0+34.43, Line 1  
BL Sta. -0+50.78, 24.00' Lt.  
1 - 8" CIMJ 22.5° Bend  
1 - 8" CIMJ 11.25° Bend  
N=1,694,477.18 E=1,706,290.27

22.5 Deg. Bend = 65' N. of SS MH. 3' W. of SS MH.

11.25 Deg. Bend = 50' N. of SS MH. 3' W. of SS MH.

1365.01

Remove and replace existing mailbox and fence as necessary for water line construction.

TEE (8" x 6") = 11' N. of SS MH. 16' E. of SS MH.

Contractor to maintain a minimum of 10' of horizontal separation (O.D.-O.D.) between sanitary sewer and water line.

6" FH VALVE = 11' N. of SS MH. 19' E. of SS MH.

FIRE HYDRANT = 11' N. of SS MH. 21' E. of SS MH.

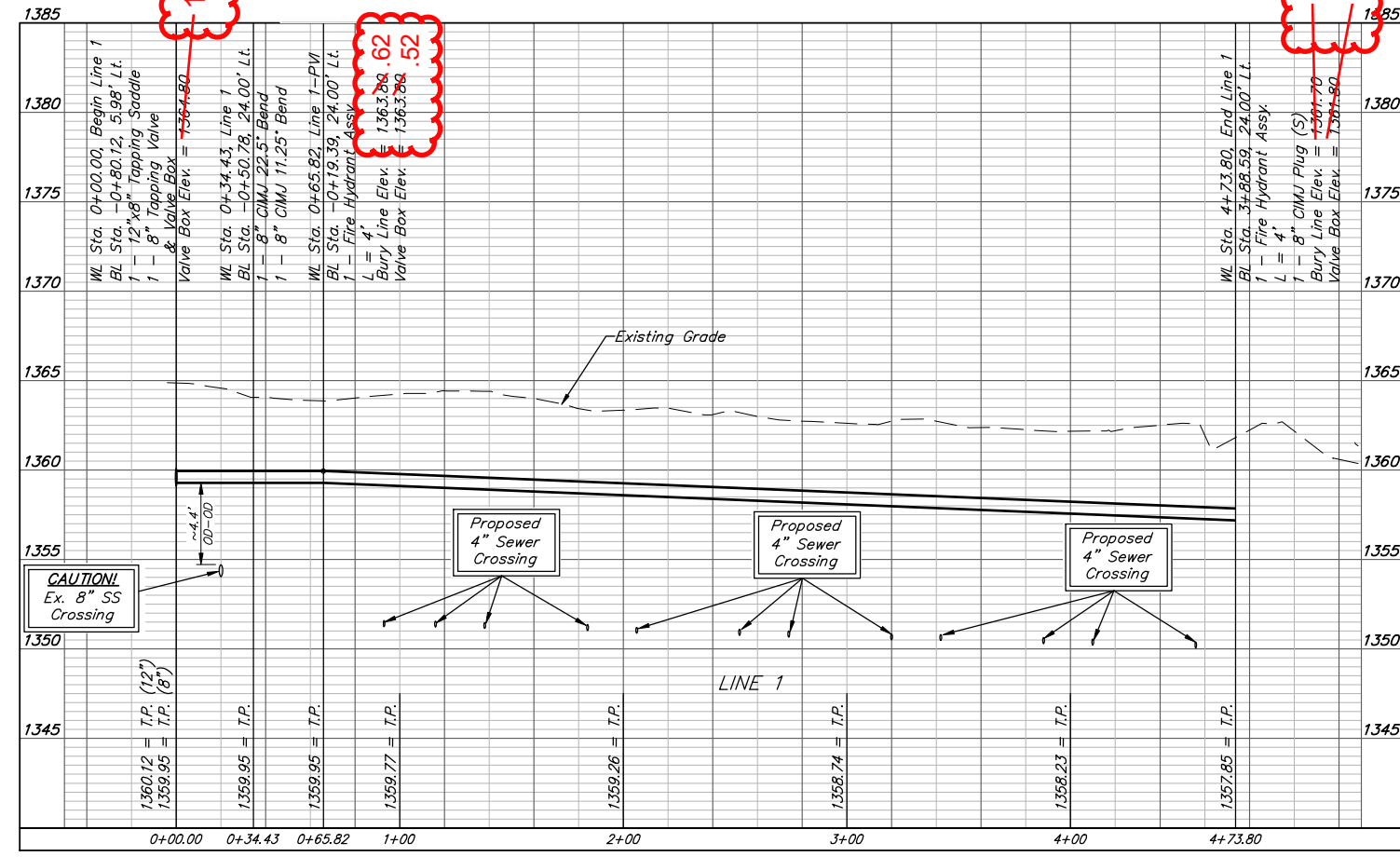
Existing SS MH = Reference Origin. Intersection NOT improved yet.

Contractor to maintain a minimum of 2' of vertical separation (O.D.-O.D.) between sanitary sewer and water line.

TEE (8" x 6") = 419' S. of SS MH. 16' E. of SS MH.  
6" FH VALVE = 419' S. of SS MH. 19' E. of SS MH.  
FIRE HYDRANT = 419' S. of SS MH. 21' E. of SS MH.

1362.71  
1362.67

**WATER LINE 1**



DEPTH UNKNOWN  
Contractor to Verify Depth & Location of Existing Water Line Prior to Construction.

**BAUGHMAN COMPANY**  
315 Ellis St.  
Wichita, KS 67211  
316-262-7271  
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HODGES 7TH ADDITION

**LINE 1**

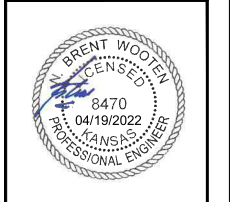
WATER DISTRIBUTION SYSTEM

PROJECT NUMBER: 21-07-E977

DESIGN: AEG DRAWN: TMS

DATE: April 13, 2022

SHEET 2 OF 12



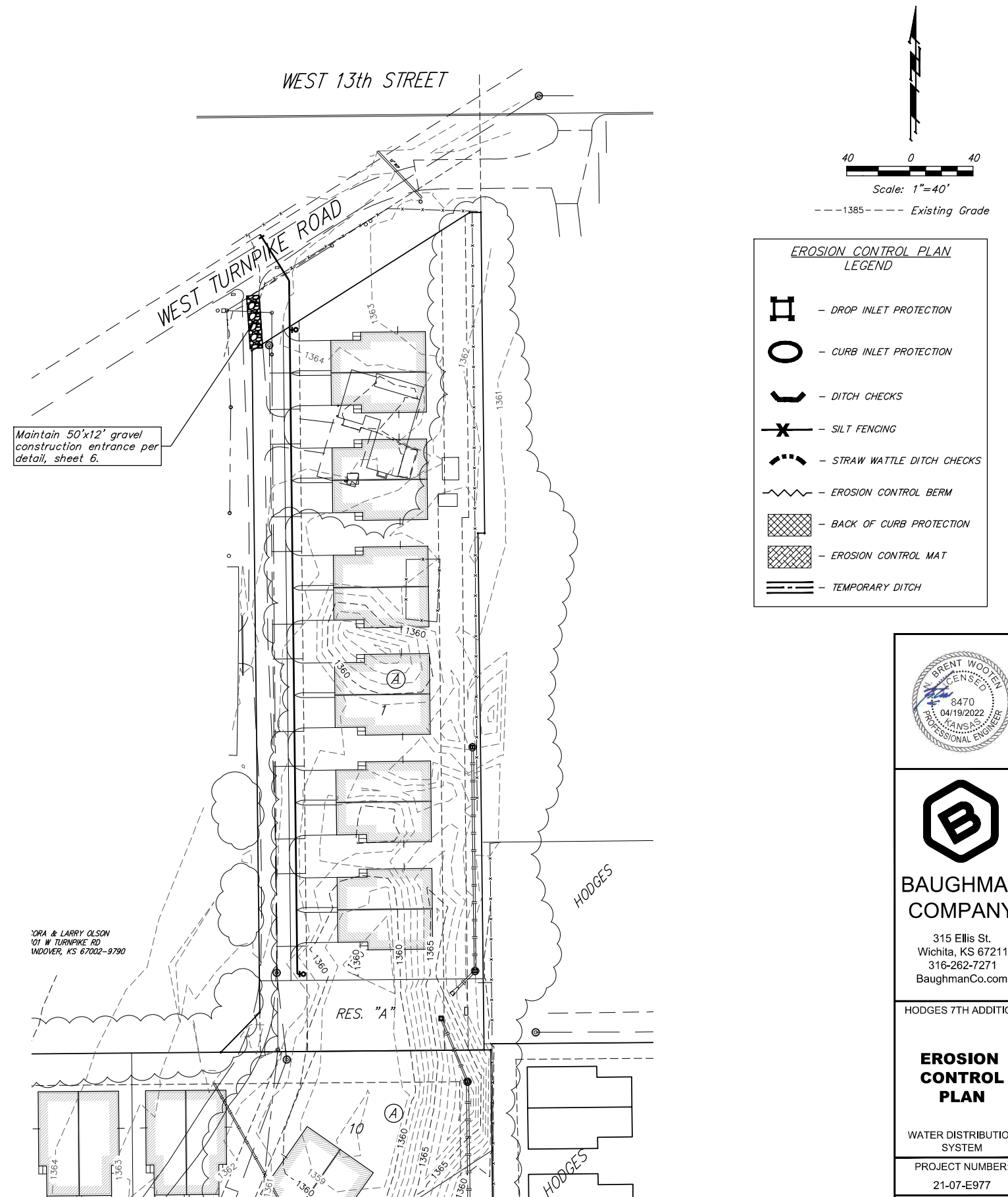
File: E:\Projects\Hodges 7th Add\_20-06-F572\Engineering\Phase 1\WTR 21-07-E977\Water.dwg

EROSION CONTROL MEASURE	INSTALL	MAINTAIN	REMOVE
BACK OF CURB PROTECTION (LF)	0	0	0
CONSTRUCTION ENTRANCE (EA)	0	1	0
CURB INLET BARRIER (EA)	0	0	0
DITCH CHECK (EA)	0	0	0
DROP INLET PROTECTION (EA)	0	0	0
EROSION CONTROL (LS)	0	0	0
EROSION CONTROL BERM (LF)	0	0	0
SILT FENCE (LF)	0	0	0
EROSION CONTROL MAT (SY)	0	0	0

QUANTITIES ARE FOR INFORMATION ONLY! CONTRACTOR SHALL VERIFY QUANTITIES PER FINAL BID QUANTITY SHEET.

\* ALL EXISTING BMPs INCLUDING CONSTRUCTION ENTRANCE, SEDIMENT BARRIERS, SILT FENCE, EROSION CONTROL BERM, AND EROSION CONTROL MAT SHALL BE MAINTAINED AND REPAIRED IF NECESSARY. REPLACEMENT OR REMOVAL OF EROSION CONTROL MEASURES TO BE PAID FOR BY L.S. BID ITEM "MAINTAIN EXISTING BMPs"

Areas to be seeded as indicated on the cover sheet. The approximate seeding area is 0.5 acres. This area is based on 474 L.F. pipe at 40' wide and is for information only.



BAUGHMAN COMPANY

315 Ellis St.  
Wichita, KS 67211  
316-262-7271  
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HODGES 7TH ADDITION

EROSION CONTROL PLAN

WATER DISTRIBUTION SYSTEM

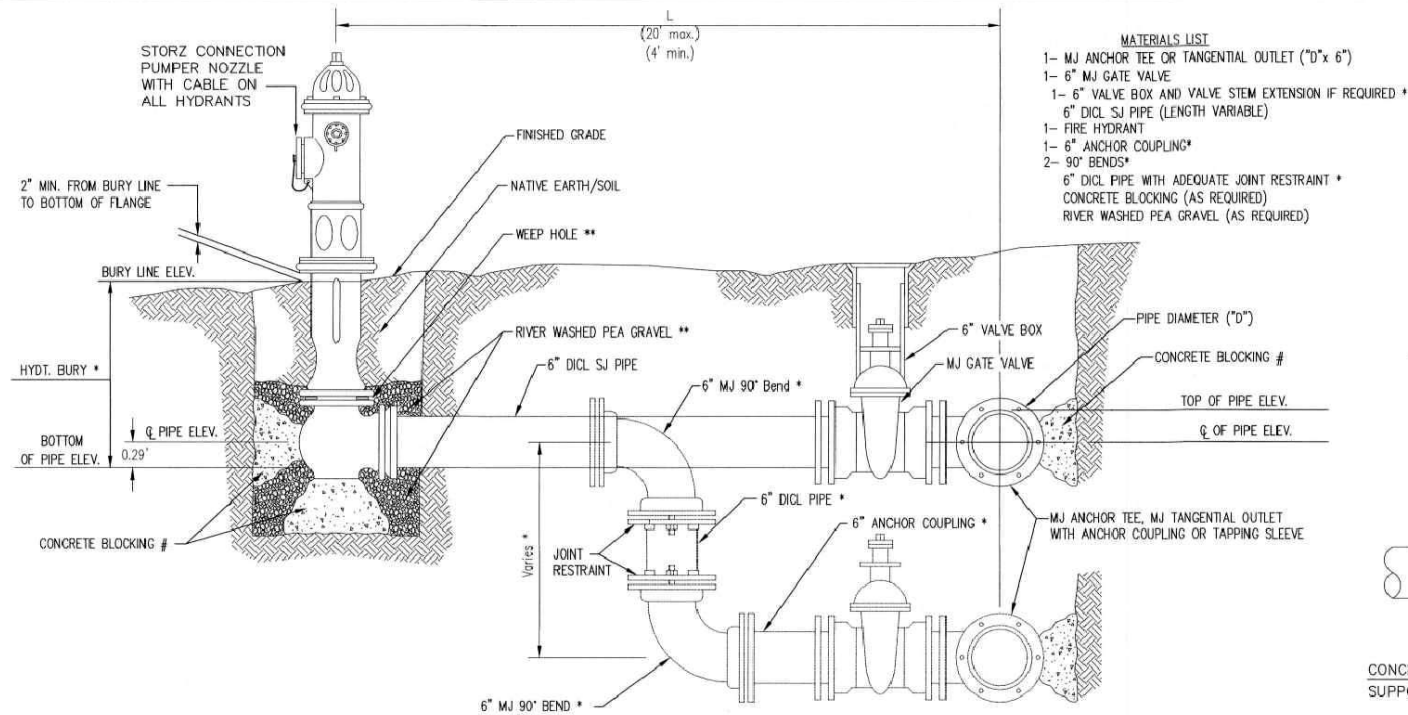
PROJECT NUMBER:  
21-07-E977

DESIGN: AEG DRAWN: TMS

DATE: November 16, 2021

SHEET 3 OF 12

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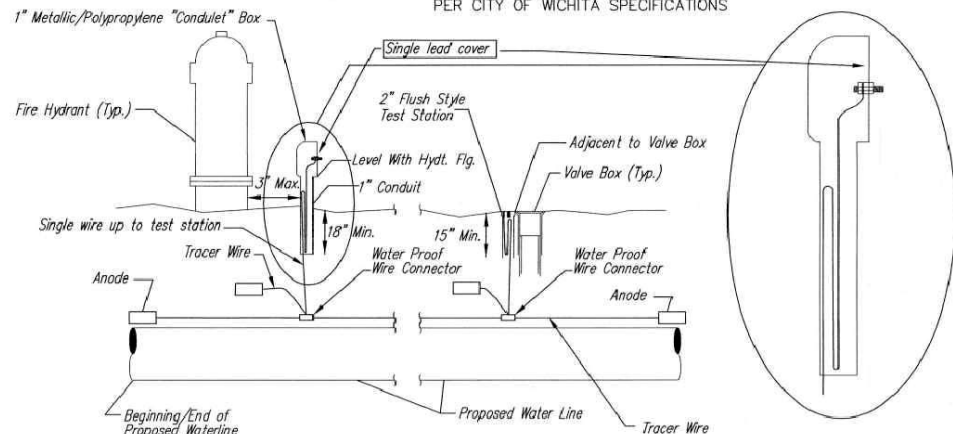
- MATERIALS LIST**
- 1- MJ ANCHOR TEE OR TANGENTIAL OUTLET (10" x 6")
  - 1- 6" MJ GATE VALVE
  - 1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED \*
  - 6" DI CL SJ PIPE (LENGTH VARIABLE)
  - 1- FIRE HYDRANT
  - 1- 6" ANCHOR COUPLING\*
  - 2- 90° BENDS\*
  - 6" DI CL PIPE WITH ADEQUATE JOINT RESTRAINT \*
  - CONCRETE BLOCKING (AS REQUIRED)
  - RIVER WASHED PEA GRAVEL (AS REQUIRED)

\* 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" DI CL 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. A complete list of approved tracer wire and waterproof connectors can be found on the City of Wichita's website at [www.wichita.gov](http://www.wichita.gov).

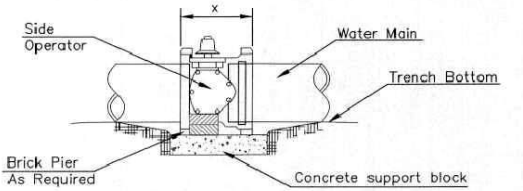
**WIRES**  
The tracer wire shall be Blue No. 12 AWG CCS with 45 mil HDPE insulation. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. Wire connectors shall be installed per manufacturer recommendations. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

**TEST STATIONS**  
The test station for fire hydrant application shall be a 1" "conduit" style station as manufactured by AGRA Industries with a removable solid cover having a single lead extending from the face or approved equal. The "conduit" style test station shall be attached to a 1" 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. The test station for valve applications shall be a 2" flush style test station with wire connector on lid. Model # T2PH7B1LP Handley Industries or CD14\*TP SnakePit as manufactured by Copperhead Industries or approved equal. 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 12" of wire within the test station. The location of all test stations shall be recorded, and shown in the as-built drawings. Flush style test stations shall not be installed in pavement or sidewalk unless approved by the Engineer. Contractor shall extend tracer wire & move flush mount test station to nearest location out of pavement or sidewalk.

**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.

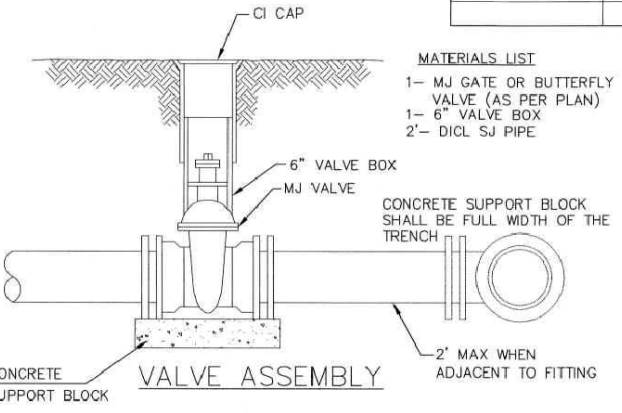
**TRACER WIRE DETAIL**  
COST IS SUBSIDIARY TO PIPE INSTALLATION

FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
0+65.82	1363.80	1359.95	4.5'	- No
4+73.80	1361.70	1357.85	4.5'	12" - No

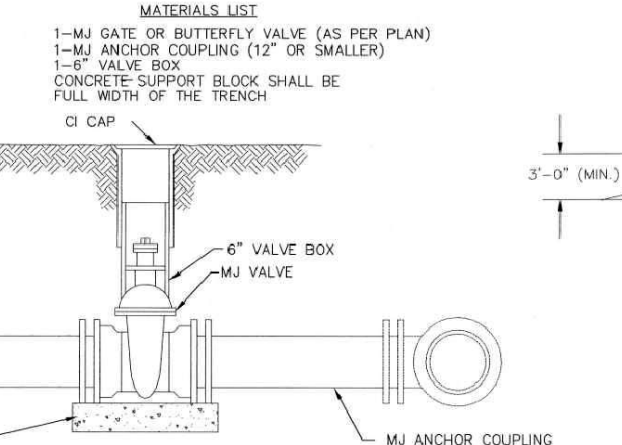


- NOTES**
- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
  - 6" Valve Box and Cover required per City of Wichita Std. Specifications.
  - Conc. Support Block to be full width of trench.

**CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION**

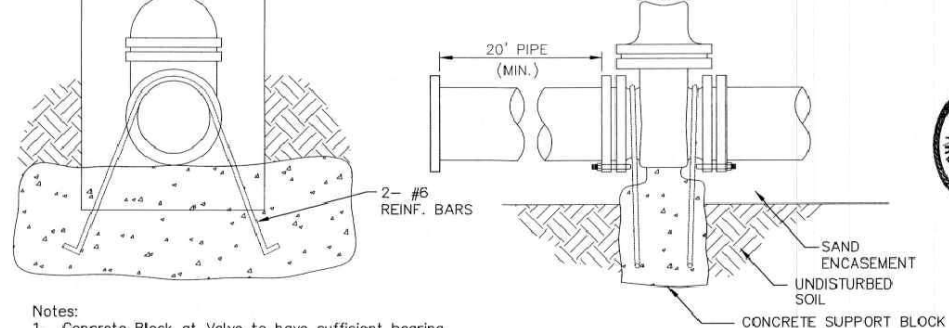


- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
  - 1- 6" VALVE BOX
  - 2'- DI CL SJ PIPE



**ANCHORED VALVE ASSEMBLY**

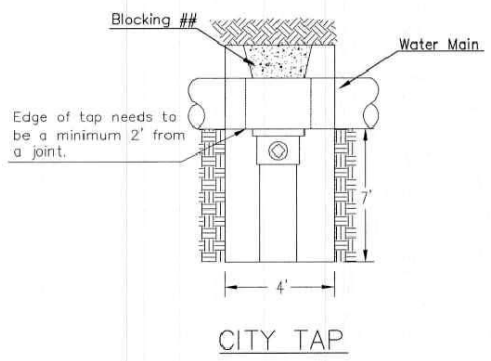
- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
  - 1- CIMJ CAP WHEN NECESSARY
  - 1- 6" VALVE BOX
  - 20' OF PIPE (BID WITH PIPE)
  - 2 - #6 REINF. BARS
  - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



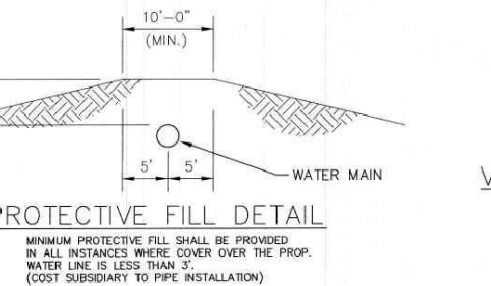
- Notes:**
- Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
  - The thrust block shall be constructed such that bolts, nuts, and 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.

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

**ANCHORED VALVE ASSEMBLY, SPECIAL**

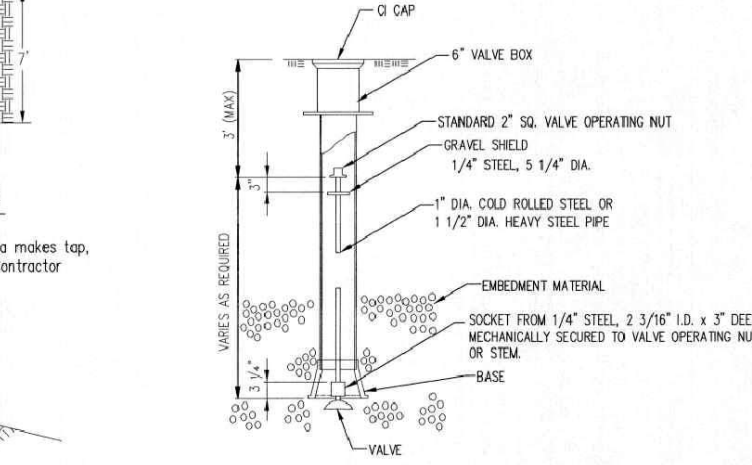


## When the City of Wichita makes tap, blocking is to be done by Contractor



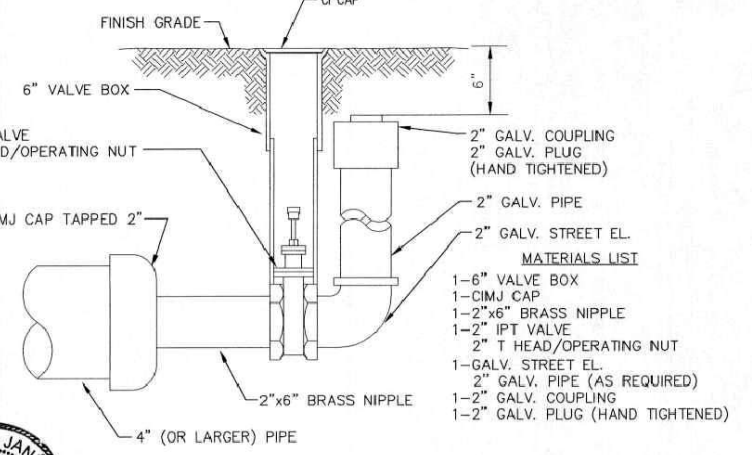
**PROTECTIVE FILL DETAIL**

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)



**VALVE STEM EXTENSION DETAIL**

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



**2\"/>**



**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  
**4 of 12**

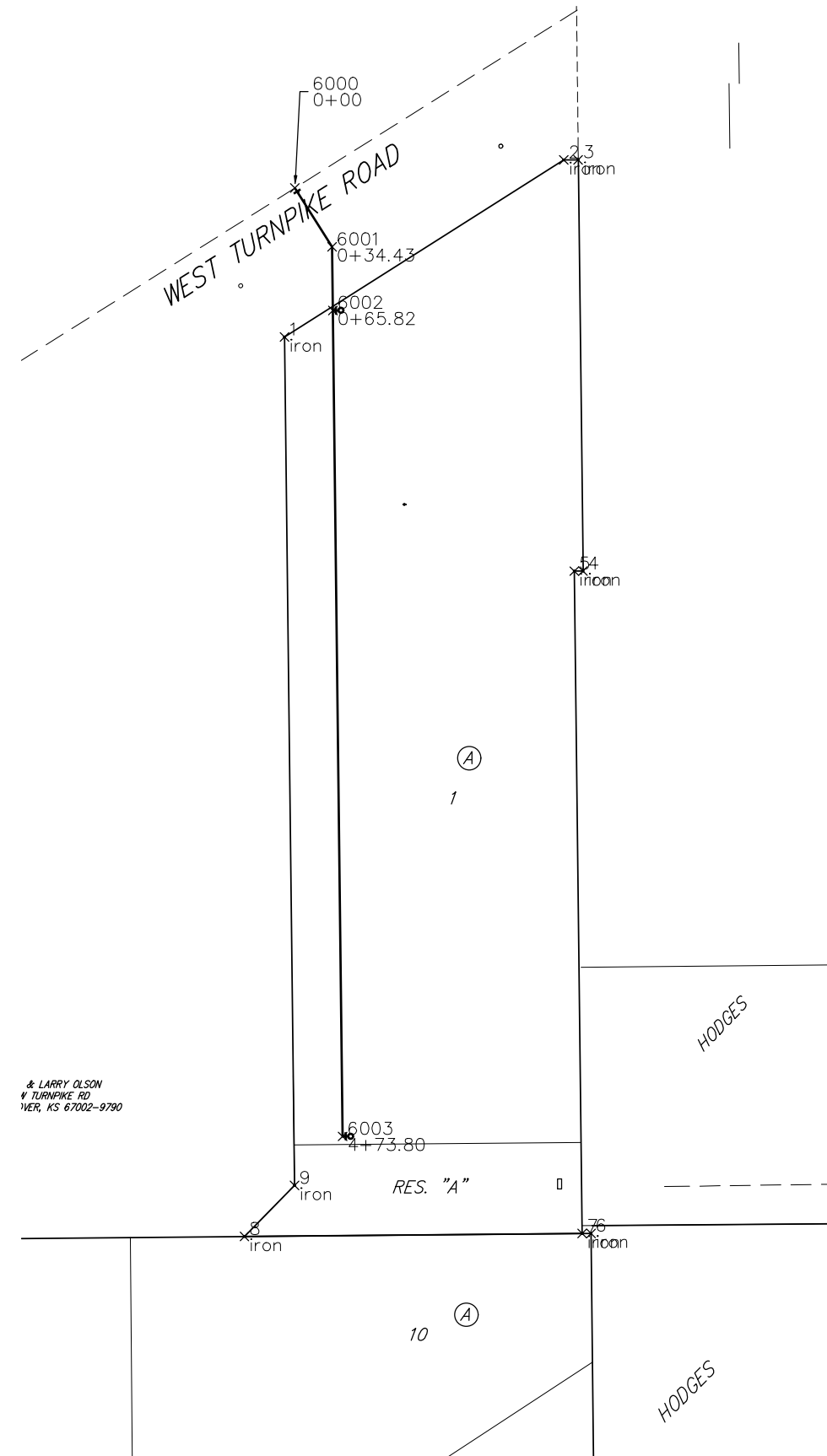
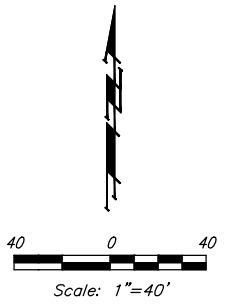
REVISED: OCTOBER 2016

IRONS

Point Table			
Point #	Northing	Easting	Raw Description
1	1694432.68	1706266.79	iron
2	1694520.15	1706404.66	iron
3	1694520.21	1706411.77	iron
4	1694317.09	1706414.16	iron
5	1694317.05	1706409.85	iron
6	1693989.94	1706418.02	iron
7	1693989.90	1706413.68	iron
8	1693988.40	1706247.02	iron
9	1694013.63	1706271.73	iron

WATER DISTRIBUTION SYSTEM

Point Table			
Point #	Northing	Easting	Raw Description
6000	1694506.31	1706271.91	0+00
6001	1694477.18	1706290.27	0+34.43
6002	1694445.80	1706290.64	0+65.82
6003	1694037.84	1706295.44	4+73.80



**BAUGHMAN  
COMPANY**

315 Ellis St.  
Wichita, KS 67211  
316-262-7271  
BaughmanCo.com

HODGES 7TH ADDITION

**COORDINATE  
SHEET**

WATER DISTRIBUTION  
SYSTEM

PROJECT NUMBER:  
21-07-E977

DESIGN: AEG DRAWN: TMS  
DATE: November 16, 2021

SHEET  
**11** OF **12**

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