

GENERAL NOTES:

- The Contractor shall comply with all applicable safety regulations. All construction shall be completed following current City Standard Specifications and Special Provisions.
- 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 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
- 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 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.
- The Water Distribution Division shall field locate water valves one time during construction when requested by the Contractor. It shall be the Contractor's 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.
- The Contractor shall notify the consultant engineer and Tom Mason with the City at 316-268-4574 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.
- If traffic will be impacted by construction, a traffic control plan must be submitted and approved by the City Traffic Engineer, Brian Con at brian.con@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.
- All elevations shown are NAVD 88.
- All areas disturbed during construction that will not be under proposed pavement shall be restored to match existing conditions.

- 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.
- 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 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 tie-ins.
- 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.
- The Contractor must schedule the connections to the existing main with the City such that there is a minimum disruption of service. 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.
- Deflections at pipe joint or couplings shall not exceed the pipe manufactures recommended maximum. Where deflections are greater than the maximum allowed, the contractor shall utilize CI MJ Long Sleeve or Multiple Joints.
- Any extension greater than one length of pipe shall require testing.
- Any existing joint exposed during excavation shall be replaced if within four feet of proposed joint.
- City maintenance of water mains ends at right-of-way or easement line.
- Valves 12 inch and larger are to be operated by the City Water Distribution Division, 48 hours of advance notice is required.
- All wet taps shall be installed by the City of Wichita. The Contractor will reimburse the City for tapping fees.
- The Contractor shall protect from damage and support existing utilities through constructions as approved by the utility owner and the Engineer at the contractors expense.
- Contractor shall limit the extent of trench openings overnight and weekends to less than 50 feet.
- 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.

WATER DISTRIBUTION SYSTEM to serve FIREPOINT ADDITION 3520 NORTH TOBEN STREET CITY OF WICHITA, KANSAS

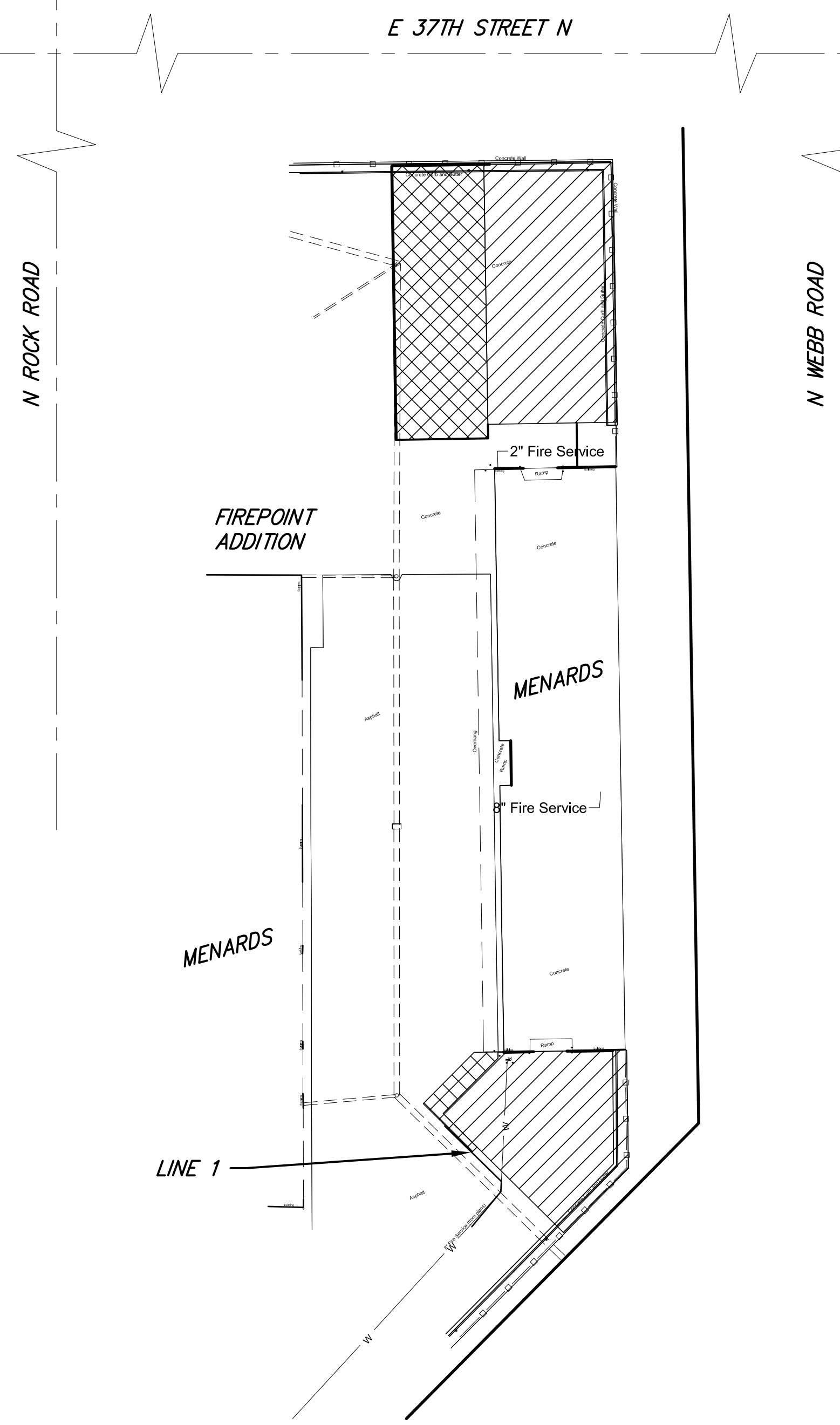
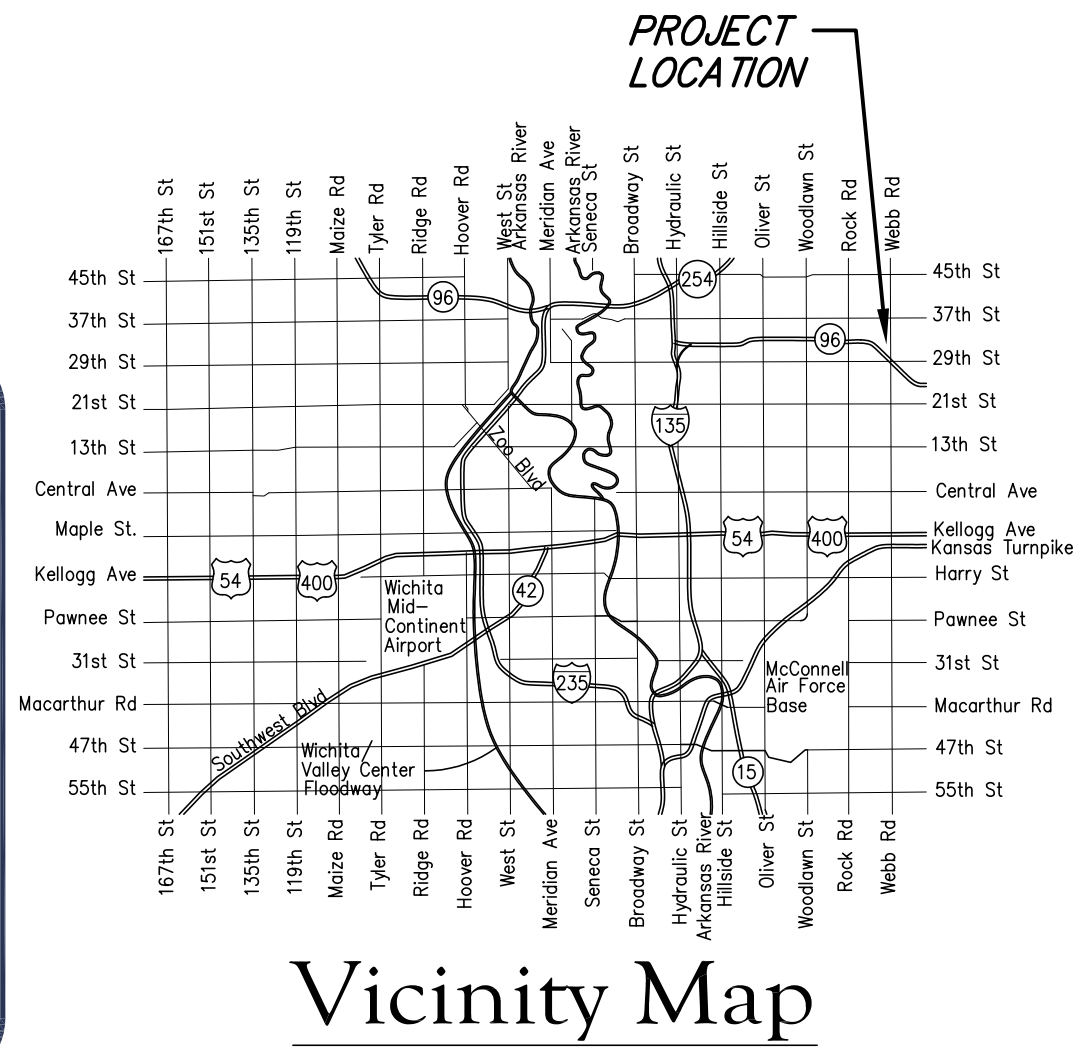
Gary Janzen, P.E. City Engineer
 Project Numer
 1985 PPW (607853)

AS BUILTS

Contractor: McCullough Excavation
 Inspector: Matt Perez
 Date: 8-14-18

KEMILLER
 ENGINEERING PA

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

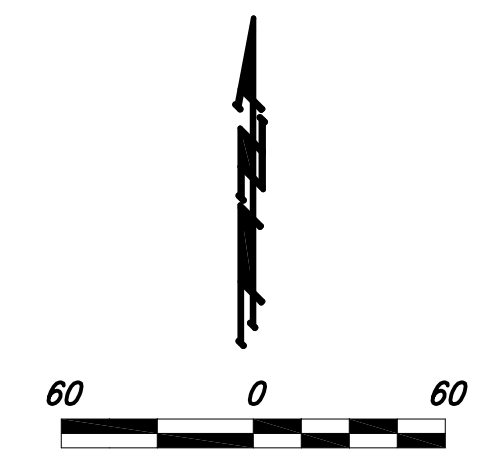


- *8" VinylplexC-900 PVC Pipe
- *CLOW Fire Hydrant
- *Sigma Fitting
- *Sigma Gland Packs
- *Pro-Trace Tracer Wire

Sheet Index

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Standard Water Detail	2
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- NEW BUILDING PAD
- NEW PAVING AREA



Benchmarks

- BM#1: Square Cut on Concrete at Asphalt Joint, South of Inlet
Elev. = 1420.37 NAVD88
- BM#2: West rim of Storm Inlet
Elev. = 1420.09 NAVD88

APPROVED AS NOTED
 BY WICHITA PUBLIC WORKS
 ENGINEERING DIVISION
 & BY WICHITA FIRE DEPARTMENT

Engineering *Ruben Divil* 4/27/16
 Utilities *Don Sulay* 4-28-16
 Fire Dept. *ASVPD* 4/27/16

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 is 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 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.

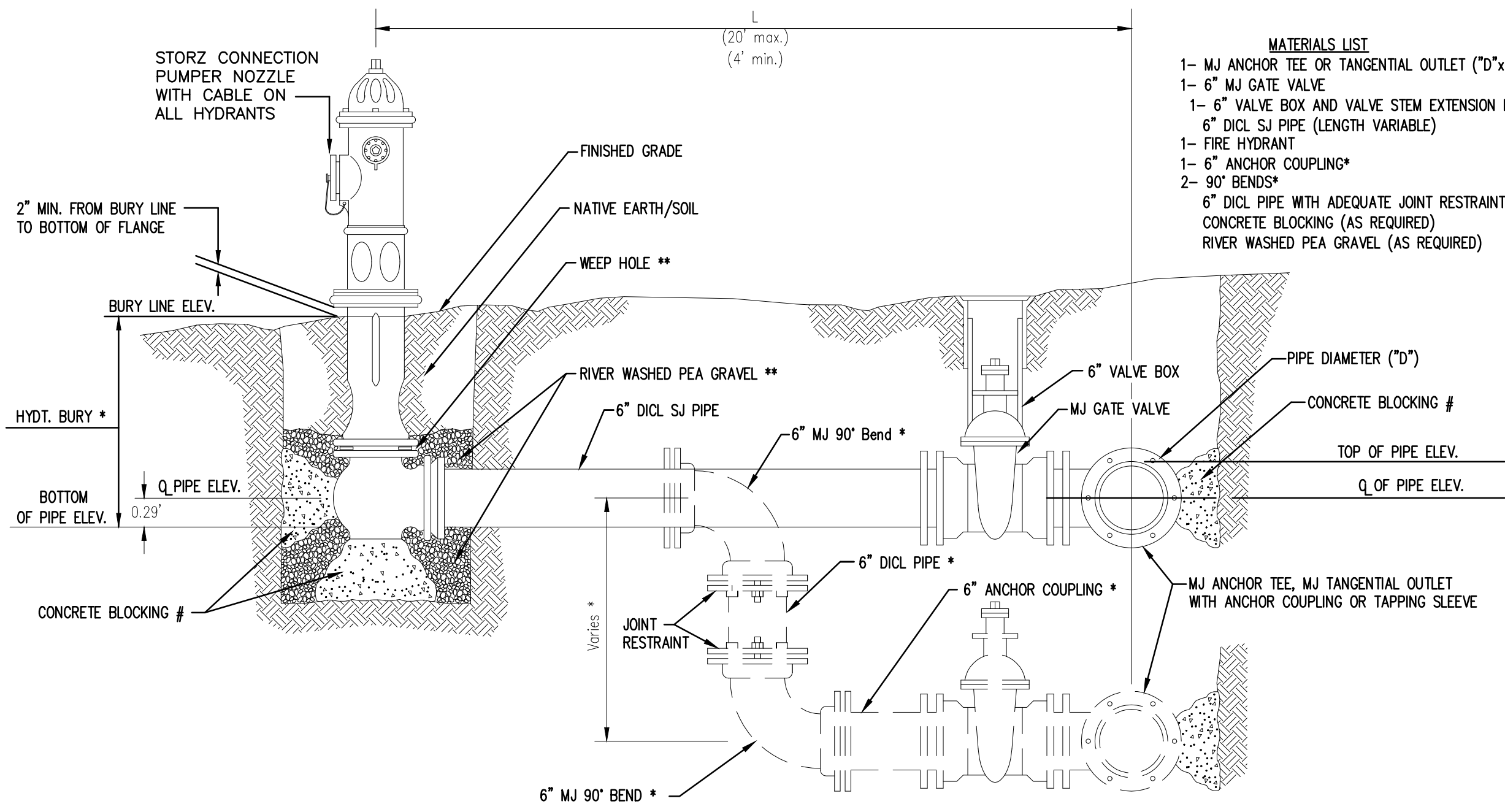
Private Property:
 Installation and testing for the fire protection line is to be performed by a City of Wichita licensed fire protection contractor in accordance with the fire codes as adopted by the City of Wichita. All material and construction practices for the fire protection line shall comply with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

April 2016

POE & ASSOCIATES, INC.
 CONSULTING ENGINEERS
 544 West Douglas Avenue | Wichita, KS 67203
 Phone 316/685-4114 | FAX 316/685-4444





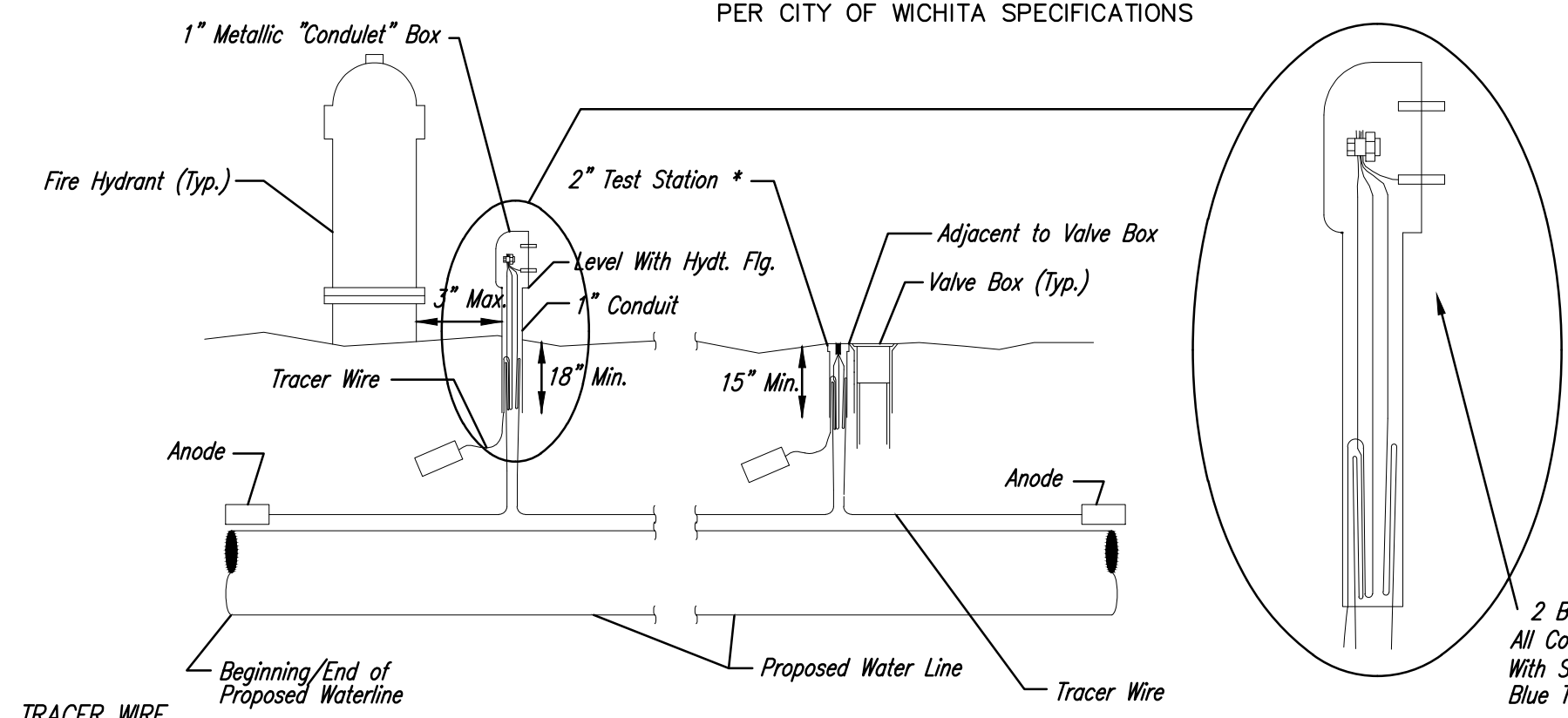
- MATERIALS LIST**
- 1- MJ ANCHOR TEE OR TANGENTIAL OUTLET ("D" x 6")
 - 1- 6" MJ GATE VALVE
 - 1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED *
 - 6" DICL SJ PIPE (LENGTH VARIABLE)
 - 1- FIRE HYDRANT
 - 1- 6" ANCHOR COUPLING*
 - 2- 90° BENDS*
 - 6" DICL PIPE WITH ADEQUATE JOINT RESTRAINT *
 - 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" 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.

WIRE
The tracer wire shall be Blue No. 12 AWG CCS with 3045 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.

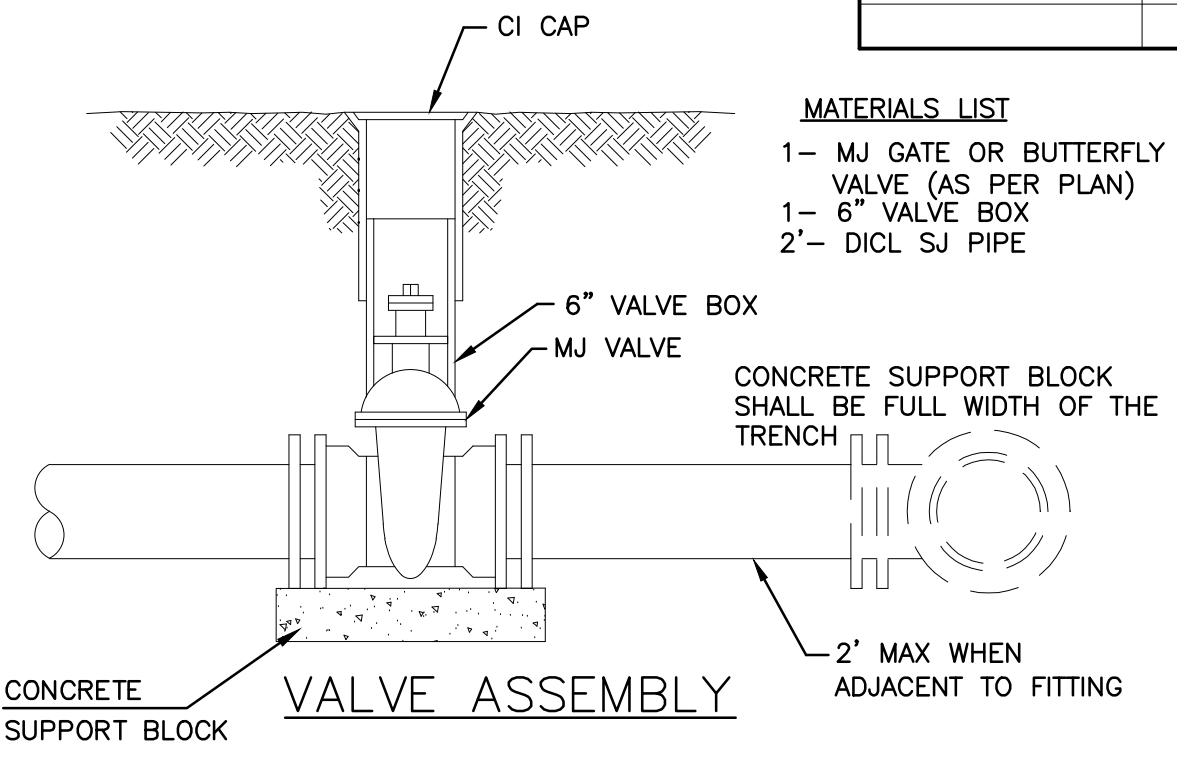
TEST STATIONS
A complete list of approved Tracer Wire can be found on City of Wichita's website at www.wichita.gov. The test station for fire hydrant applications shall be a 1 inch galvanized "condulet" style test station as manufactured by AGRA Industries with a removable solid cover having two leads 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 "conduit" 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 12 AWG ccs which shall be extended to the test station.

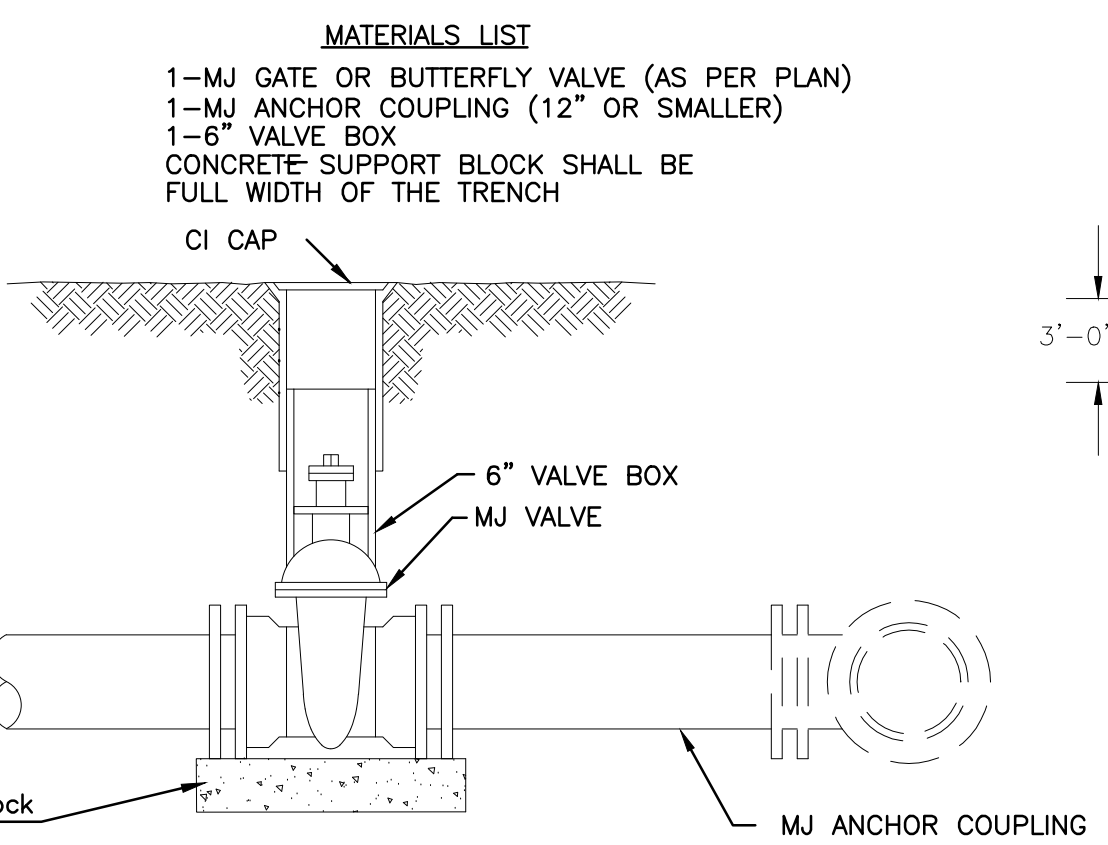
TRACER WIRE DETAIL
COST IS SUBSIDIARY TO PIPE INSTALLATION

FIRE HYDRANTS REQUIRED

STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
0+26.00	1420.61	1417.28	4.0'	-

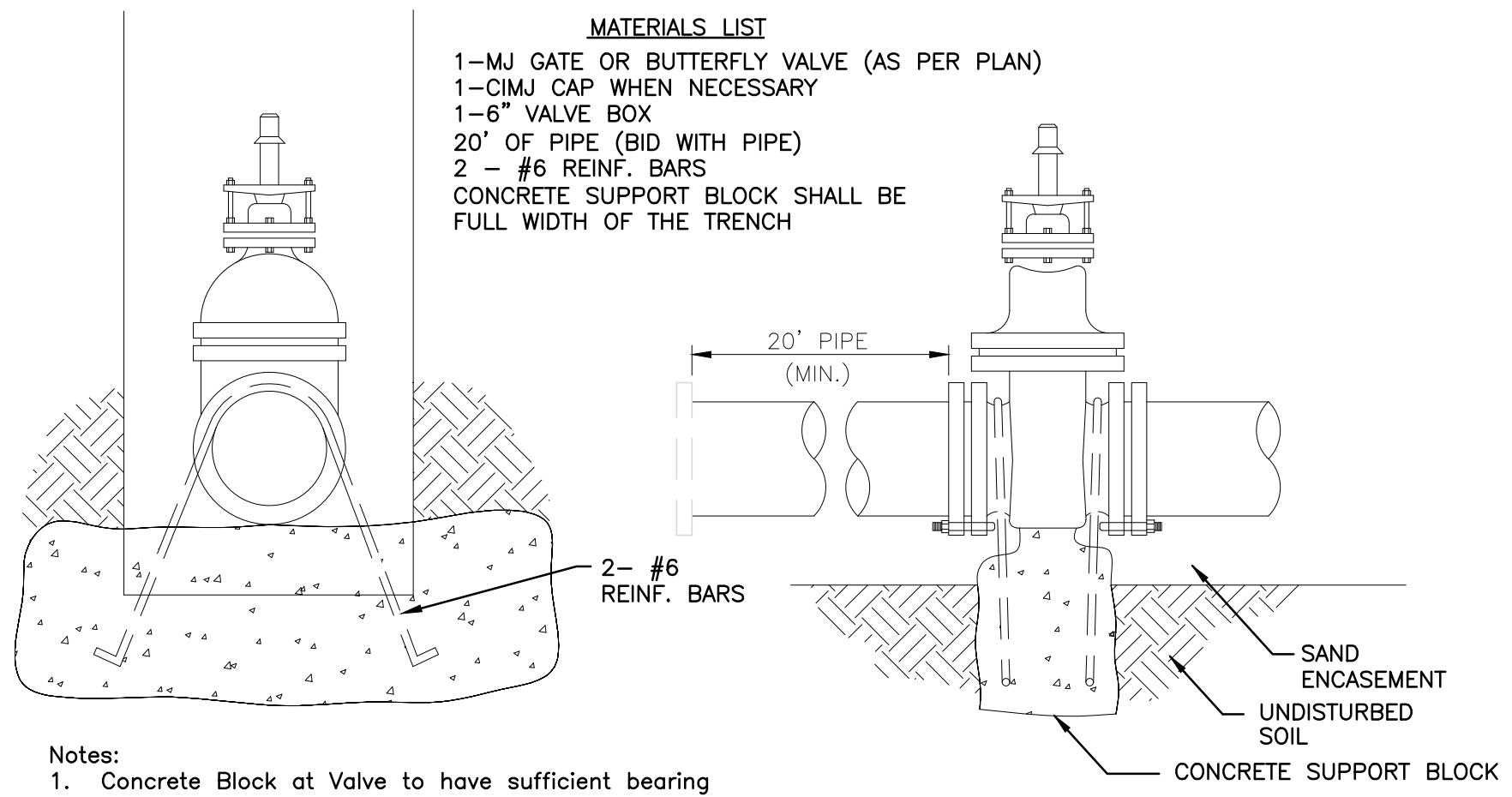


- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1- MJ ANCHOR COUPLING (12" OR SMALLER)
 - 1- 6" VALVE BOX
 - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



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

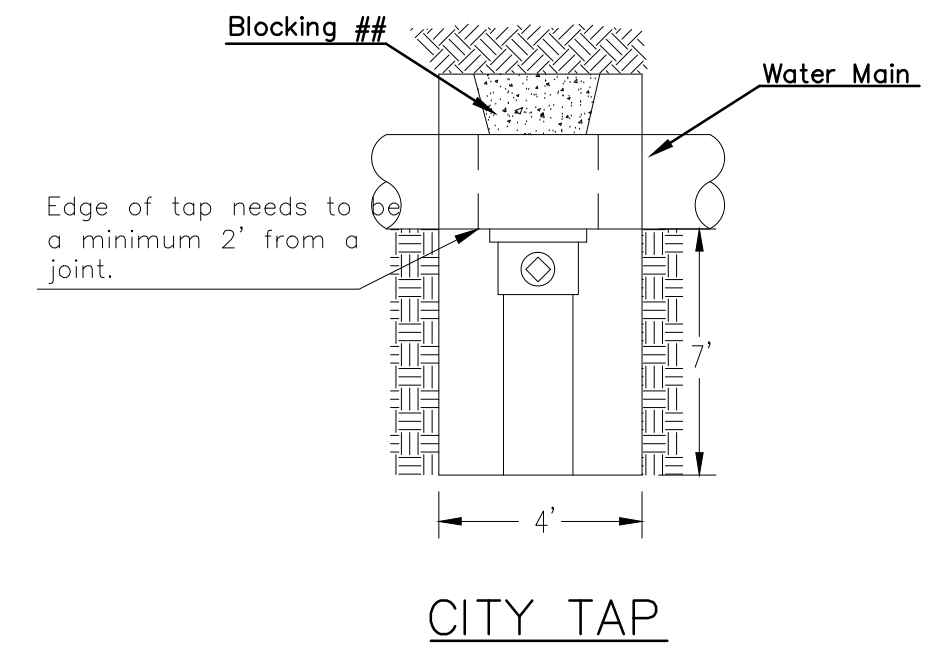


- Notes:**
- Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
 - The thrust block shall be constructed such that bolts, nuts, and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

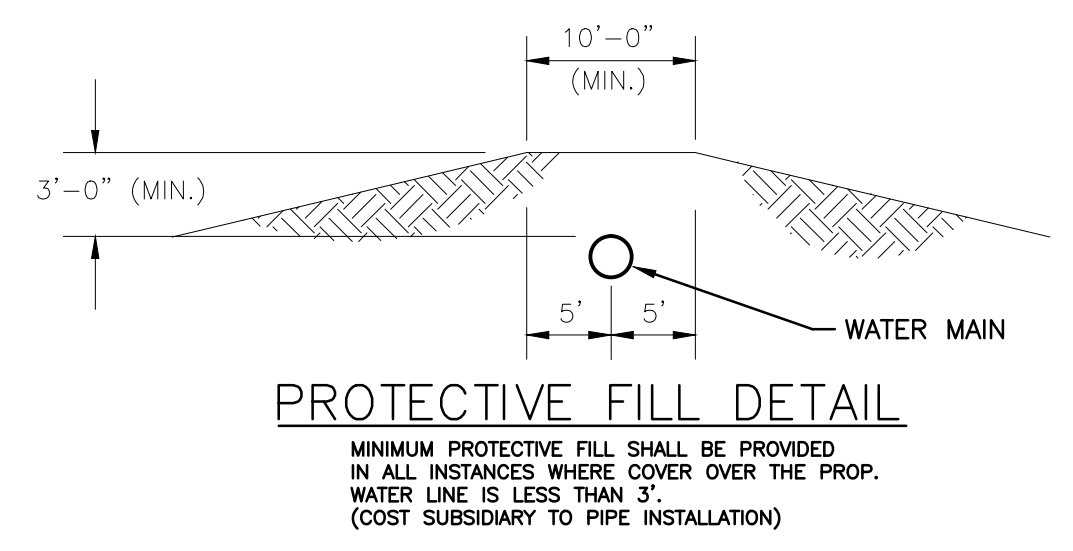
THRUST AT VALVES

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

ANCHORED VALVE ASSEMBLY, SPECIAL

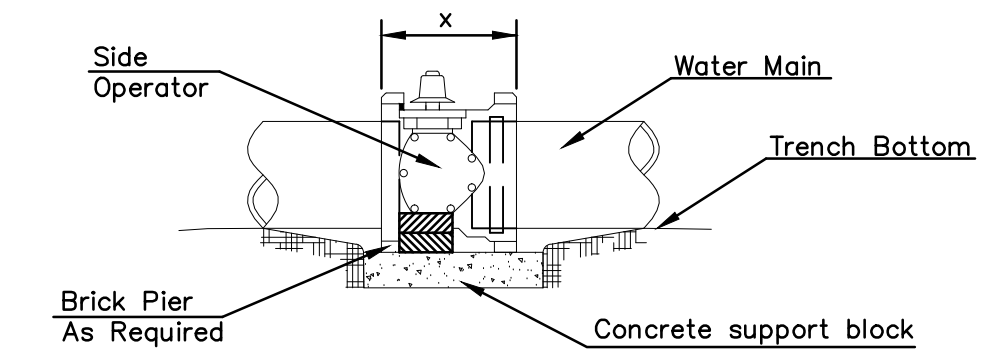


When the City of Wichita makes tap, blocking is to be done by Contractor



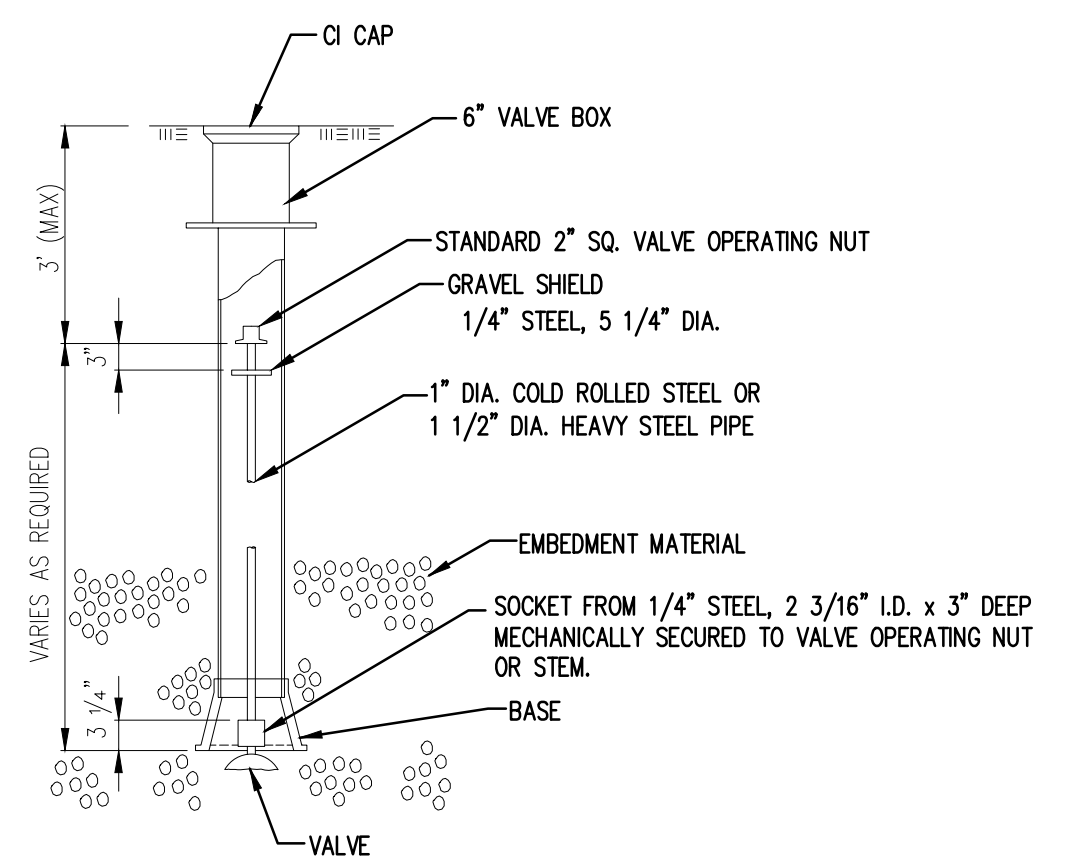
PROTECTIVE FILL DETAIL

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)



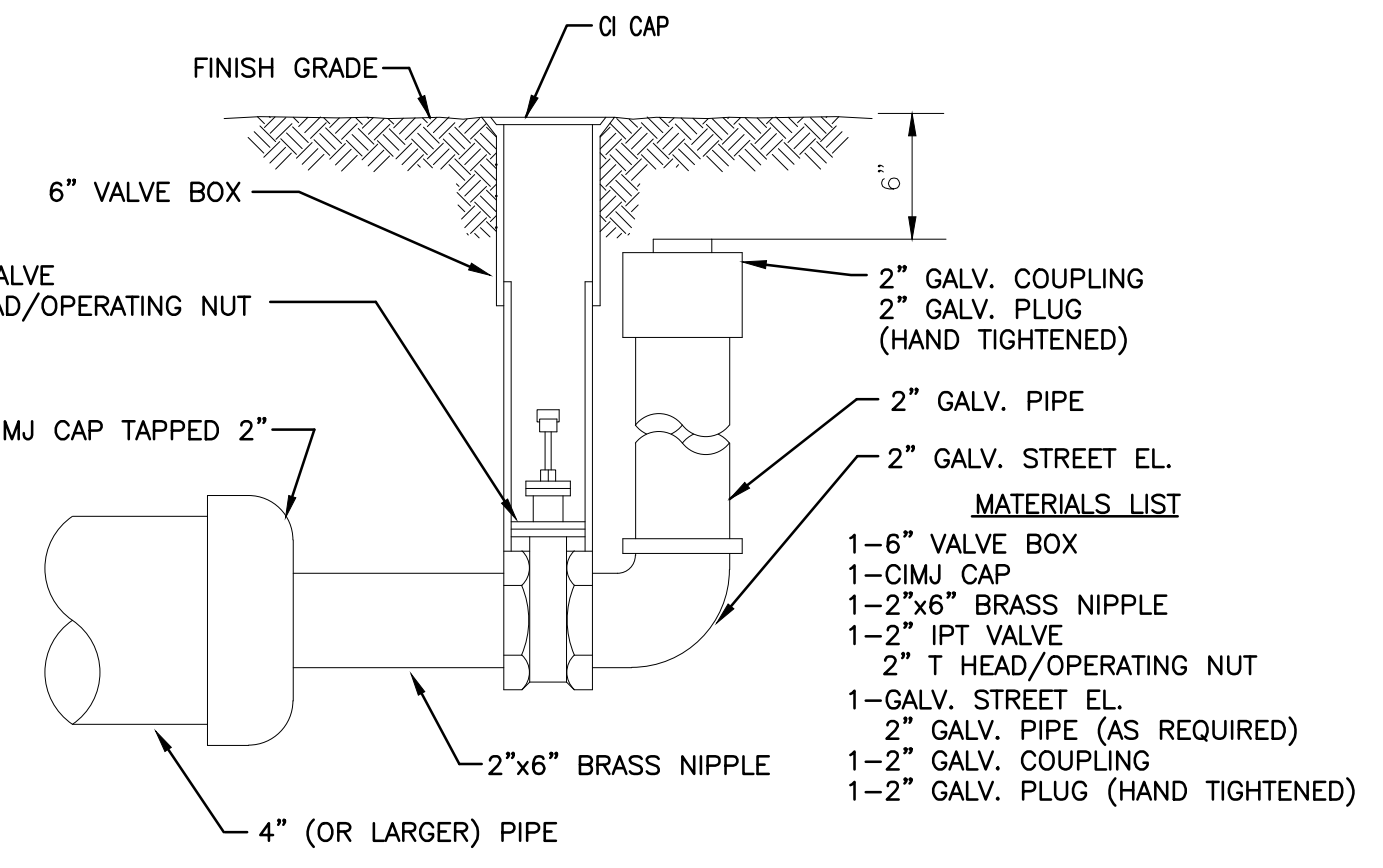
- NOTES**
- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
 - 6" Valve Box and Cover required per City of Wichita Std. Specifications.
 - Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



VALVE STEM EXTENSION DETAIL

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



2" BLOWOFF ASSEMBLY

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

MENARDS WAREHOUSE EXPANSION
EAST WATERLINE DETAIL
CITY OF WICHITA, KANSAS
GARY JANZEN, P.E. - CITY ENGINEER
C.O.M. Project #1985-P.W. O.C.A. #607853

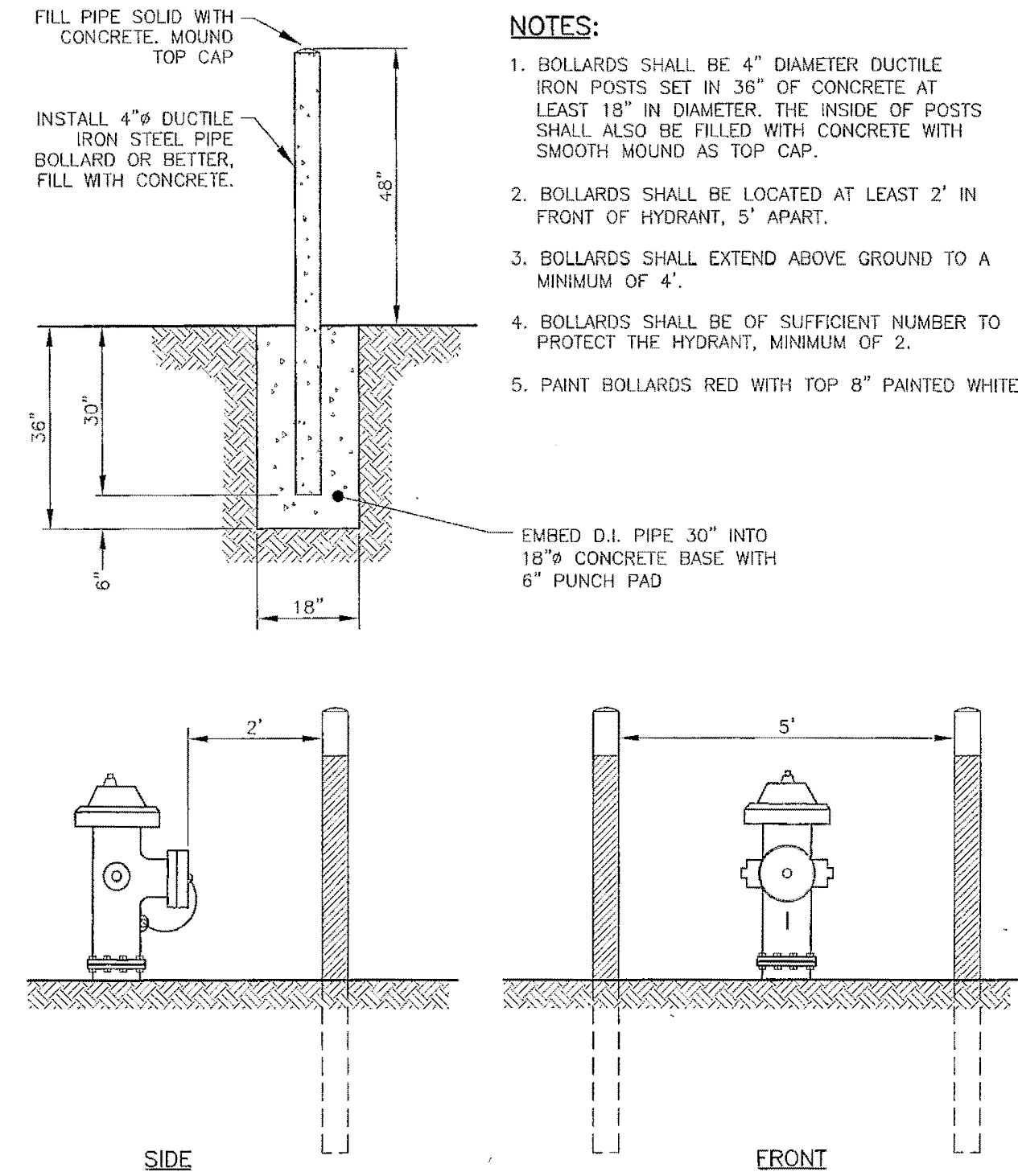
POE & ASSOCIATES, INC.
CONSULTING ENGINEERS
544 West Douglas Avenue | Wichita, KS 67203
Phone 316/685-4114 | FAX 316/685-4444

PE

WICHITA PROFESSIONAL ENGINEER
18137
12 APR 17 2015

FINAL
Engineer: J. DICKMAN
Designer: J. UNRUH
Poc Job No: 102113
Date: APRIL 2016

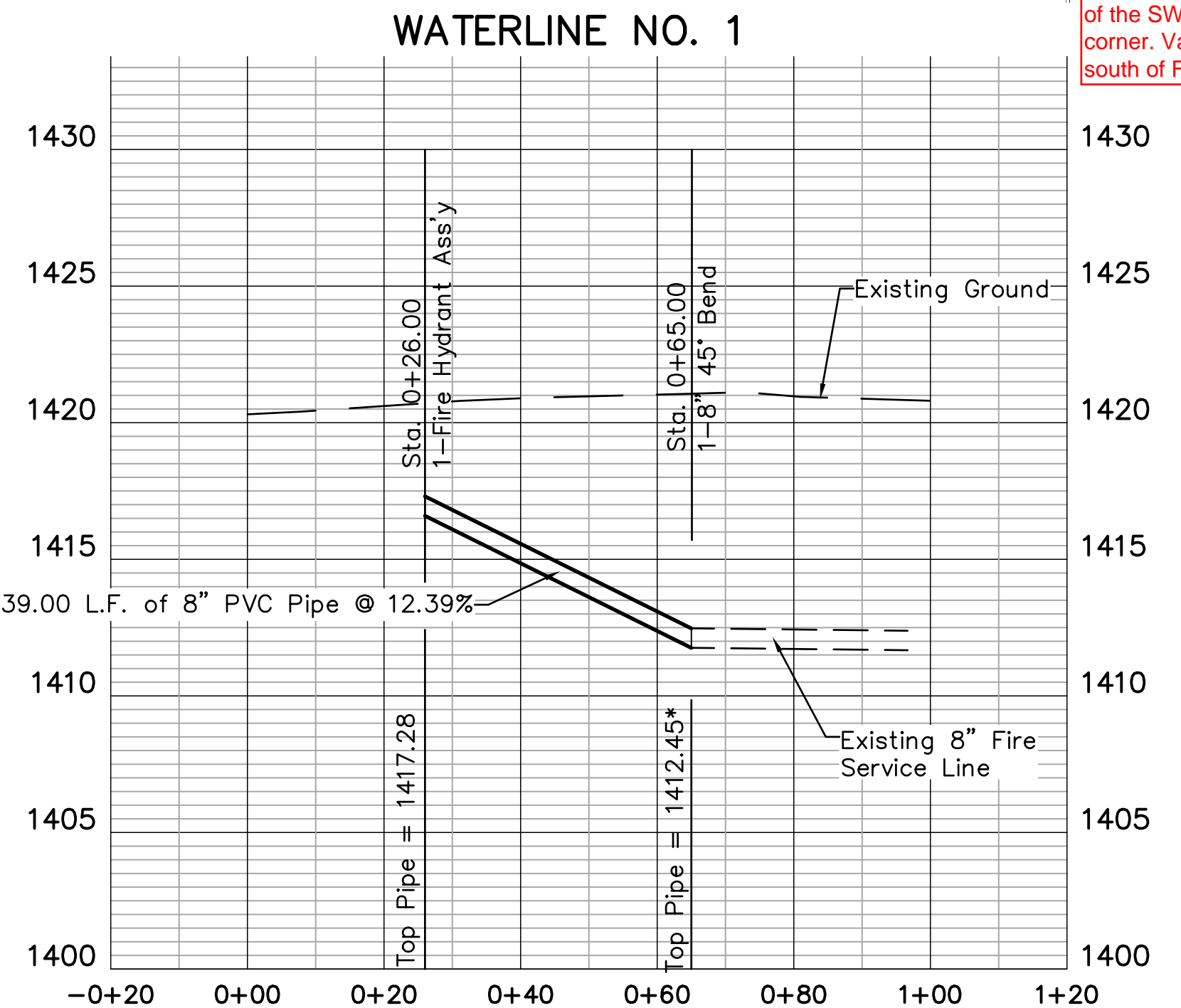
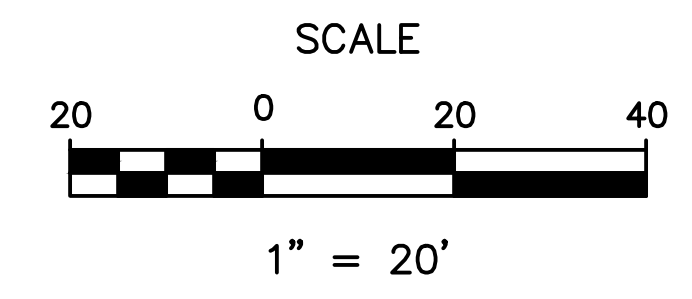
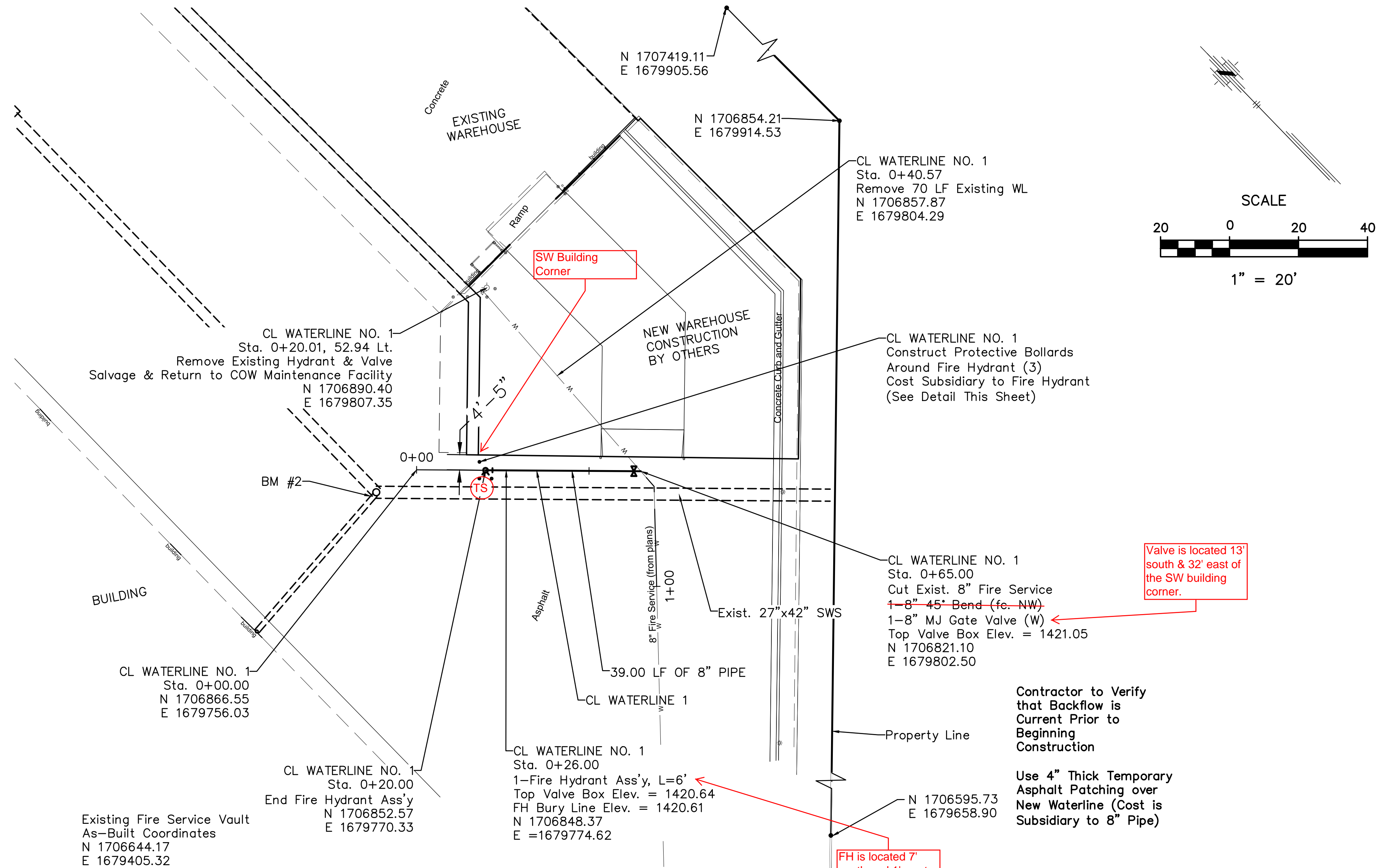
Sheet of 11



PROTECTIVE BOLLARD DETAILS
INSTALL THREE (3) BOLLARDS

NOTES:

1. BOLLARDS SHALL BE 4" DIAMETER DUCTILE IRON POSTS SET IN 36" OF CONCRETE AT LEAST 18" IN DIAMETER. THE INSIDE OF POSTS SHALL ALSO BE FILLED WITH CONCRETE WITH SMOOTH MOUND AS TOP CAP.
2. BOLLARDS SHALL BE LOCATED AT LEAST 2' IN FRONT OF HYDRANT, 5' APART.
3. BOLLARDS SHALL EXTEND ABOVE GROUND TO A MINIMUM OF 4'.
4. BOLLARDS SHALL BE OF SUFFICIENT NUMBER TO PROTECT THE HYDRANT, MINIMUM OF 2.
5. PAINT BOLLARDS RED WITH TOP 8" PAINTED WHITE.



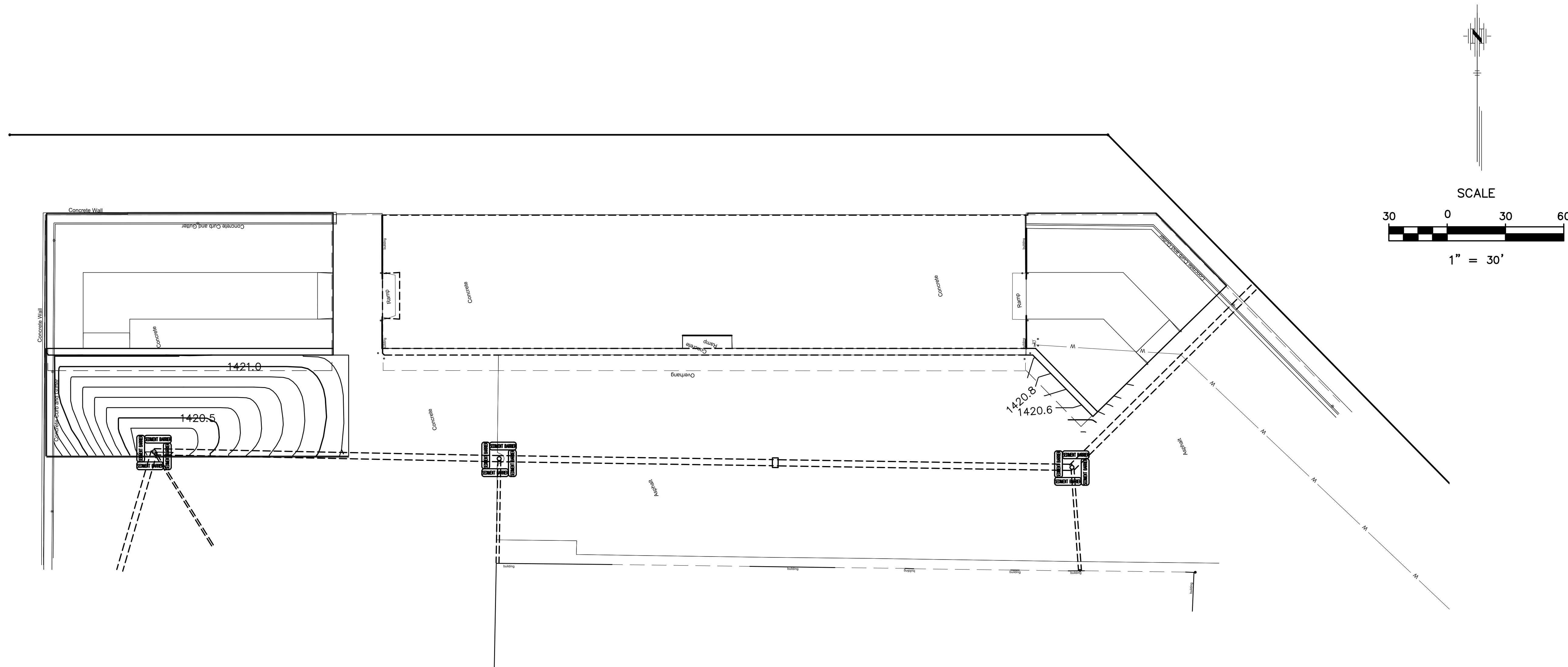
* Top Elev. from Design Plans
Proj. 1525PPW
OCA# 607853
April 28th, 2010

AS BUILTS

Contractor: McCullough Excavation
Inspector: Matt Perez
Date: 8-14-18

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

REVISION	DATE	BY	APPROVED	REVISION	DATE	BY	APPROVED	REVISION	DATE
No.	Date	By	Approved	No.	Date	By	Approved	No.	Date
<p>MEMARDS WAREHOUSE EXPANSION</p> <p>EAST WATERLINE</p> <p>CITY OF WICHITA, KANSAS</p> <p>GARY JANZEN, P.E. - CITY ENGINEER C.O.M. Project #1985 PPW, O.C.A. #607853</p>									
<p>POE & ASSOCIATES, INC. CONSULTING ENGINEERS 544 West Douglas Avenue Wichita, KS 67203 Phone 316.685.4114 FAX 316.685.4444</p>									
<p>FINAL</p> <p>Engineer: J. DICKMAN Designer: J. UNRUH Dwg. P:\102113\Memards Warehouse Expansions Poe Job No. 102113 Date: APRIL 2016</p>									
04									11



ORIGINAL SITE INFORMATION

DESCRIPTION	AREA	PERCENTAGE
LOT 2, BLOCK A	727,391 SF (16.7 AC)	100%
IMPERVIOUS AREA	616,858 SF (14.2 AC)	84.8%
PERVIOUS AREA	110,533 SF (2.5 AC)	15.2%

NO CHANGE IN IMPERVIOUS AREA WITH THIS PROJECT

Estimated Seeding Areas

Temporary Bromegrass seed areas = Approximately 0.00 acres
 Permanent Fescue seed areas = Approximately 0.00 acres

Erosion Control Notes:

- Erosion control is to meet all federal, state, county and local code standards.
- Contractor shall provide erosion protection throughout project construction. The plan provided here is for final protection. Various phases of this plan shall be implemented or modified to control erosion. Modifications of the plan shall be approved by the owner's representative.
- All areas disturbed shall be seeded and fertilized as follows:
 Temporary: Bromegrass @ 200 lbs/acre
 10-20-10 @ 100 lbs/acre

 Permanent: Fescue Grass @ 440 lbs/acre
 16-20-0 @ 80 lbs/acre
- All seed shall be distributed with an acceptable drill intended for such operations, or other equipment approved by the owner's representative. Seeding depth shall be 1/4" maximum.
- All seeded areas shall be immediately mulched w/prairie hay at 2 tons/acre. Anchor mulch by crimping into topsoil with suitable mechanical equipment.
- Contractor is responsible for maintaining and implementing all erosion control.

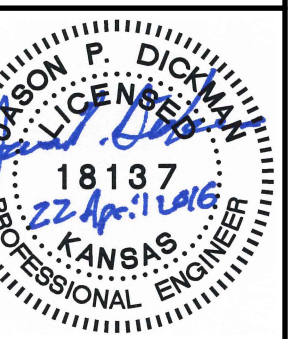
Legend

- Flow Arrow
- Estimated Seeding Limits
- X—X— Silt Fence
- SEEDMENT BARRIER Curb Inlet Protection (3 ea)
- Back of Curb Protection
- 1343 — Proposed Contours
- 1343 — Existing Contours

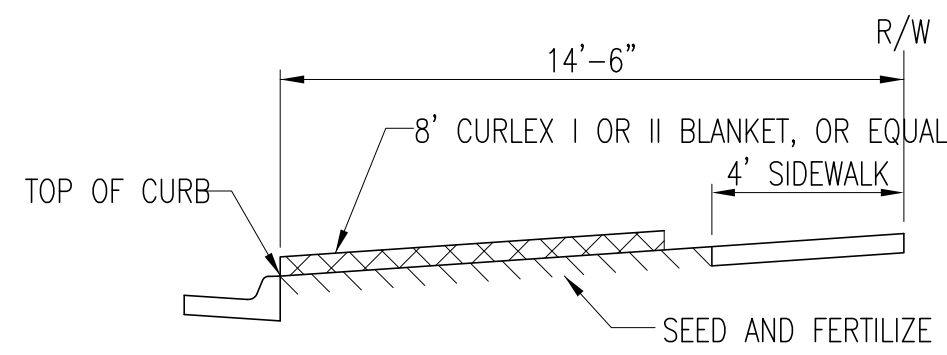
No.	Date	By	Approved	Revision

MENARDS WAREHOUSE EXPANSION
 EAST EROSION PLAN
 CITY OF WICHITA, KANSAS
 GARY JANZEN, P.E. - CITY ENGINEER
 C.O.M. Project #1985 PW, O.C.A. #607853

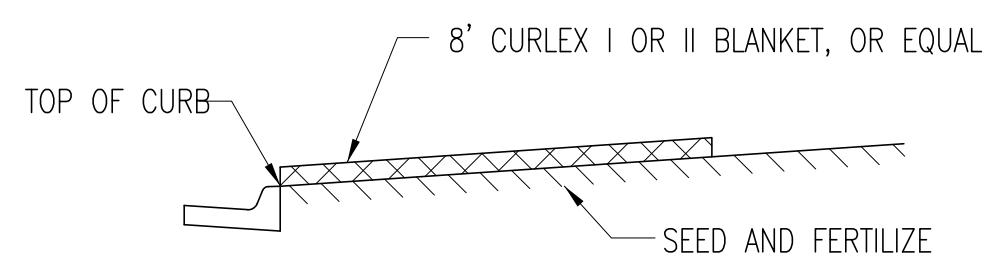
POE & ASSOCIATES, INC.
 CONSULTING ENGINEERS
 544 West Douglas Avenue | Wichita, KS 67203
 Phone 316.685-4114 | FAX 316.685-4444



FINAL
 Engineer: J. DICKMAN
 Designer: J. UNRUH
 Dwg. P:\102113\Menards Warehouse Expansions
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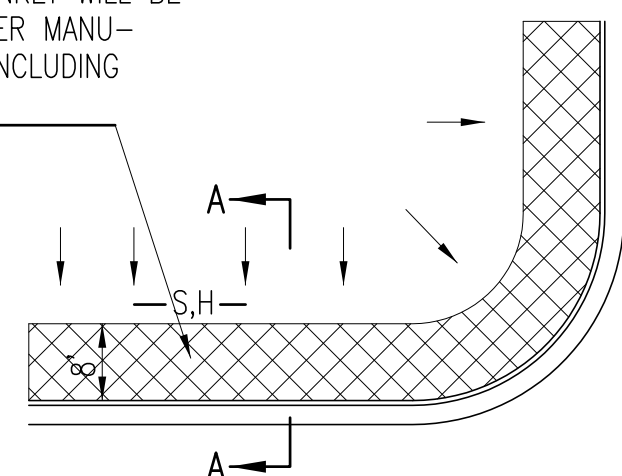


SECTION B-B

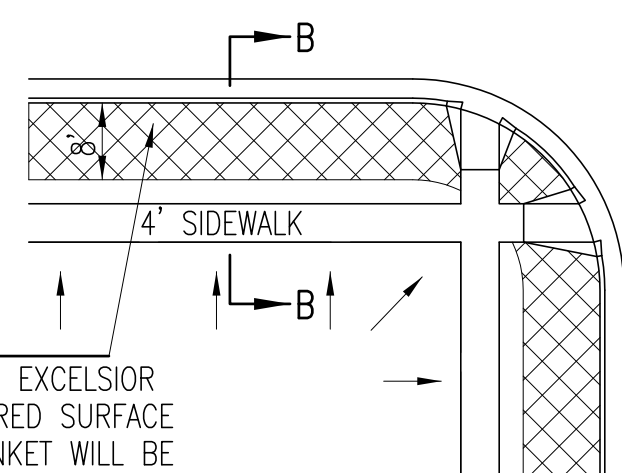


SECTION A-A

INSTALL 8' WIDE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL, ON PREPARED SURFACE BACK OF CURB. EDGE OF BLANKET WILL BE AT BACK OF CURB. INSTALL PER MANUFACTURER'S RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)



SOUTH STREET

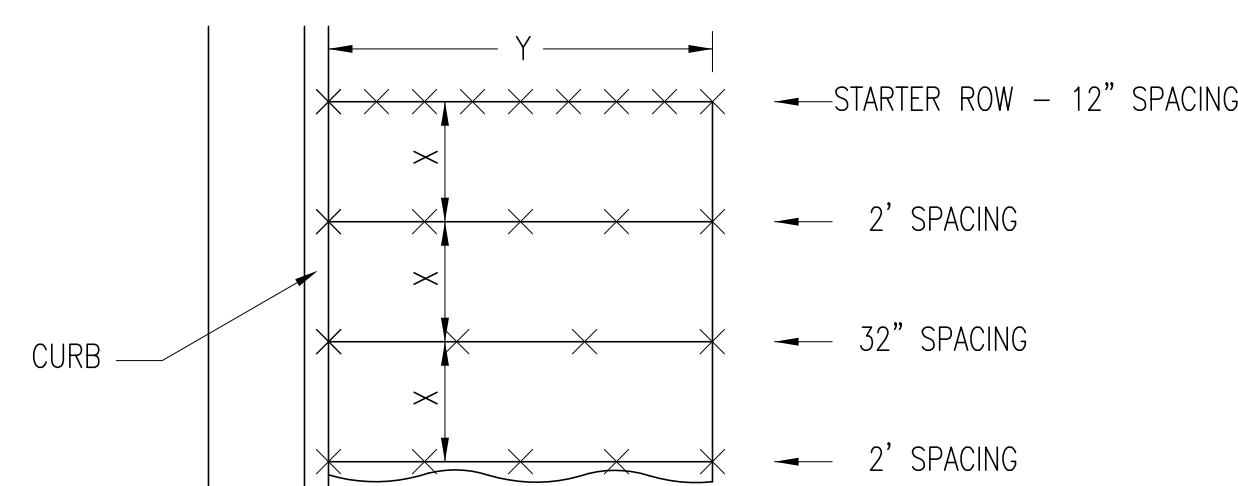


INSTALL 8' WIDE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL, ON PREPARED SURFACE BACK OF CURB. EDGE OF BLANKET WILL BE AT BACK OF CURB. INSTALL PER MANUFACTURER'S RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)

GENERAL NOTES

- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
- EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE GUTTER, SUPPLEMENTAL EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS NEEDED, TO FIX THE PROBLEM.

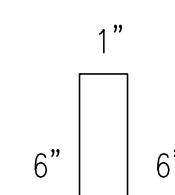
BACK OF CURB PROTECTION DETAIL



NOTES: USE 6" SEAM OVERLAP

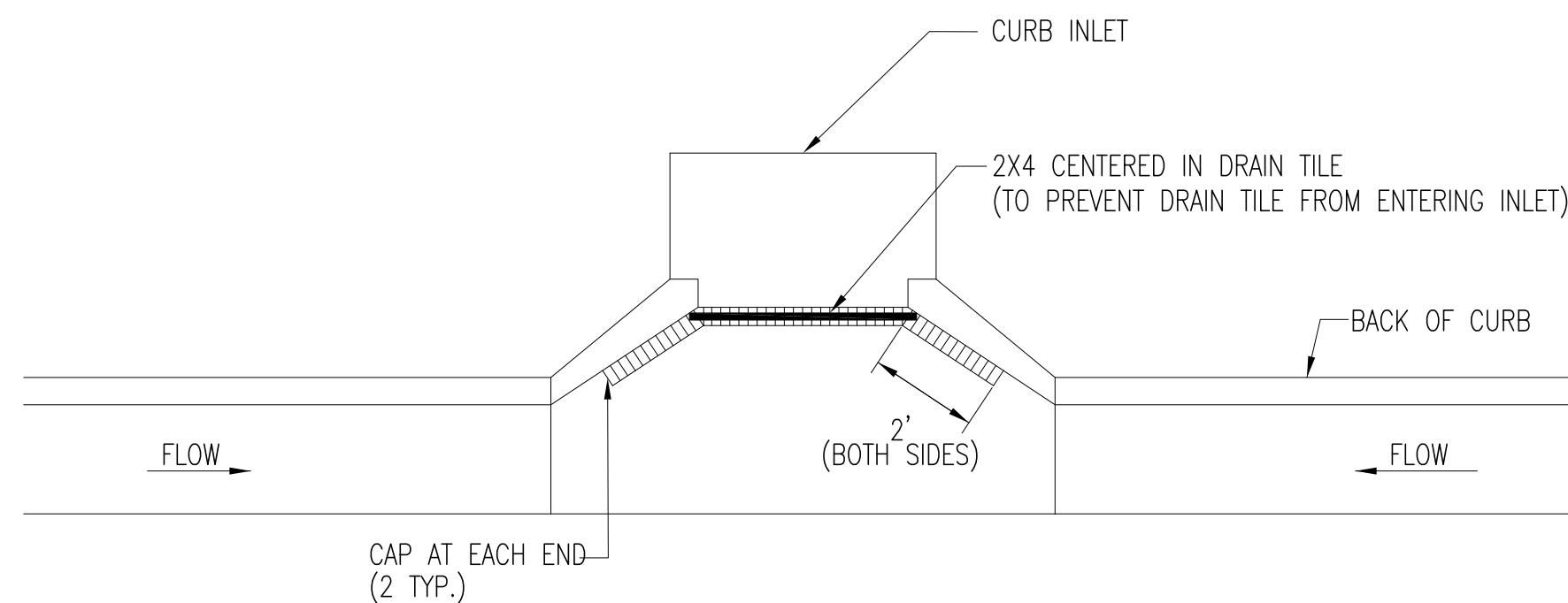
(X & Y = RECOMMENDED BY MANUFACTURE)

DETAILS FOR APPROVED EROSION CONTROL MAT



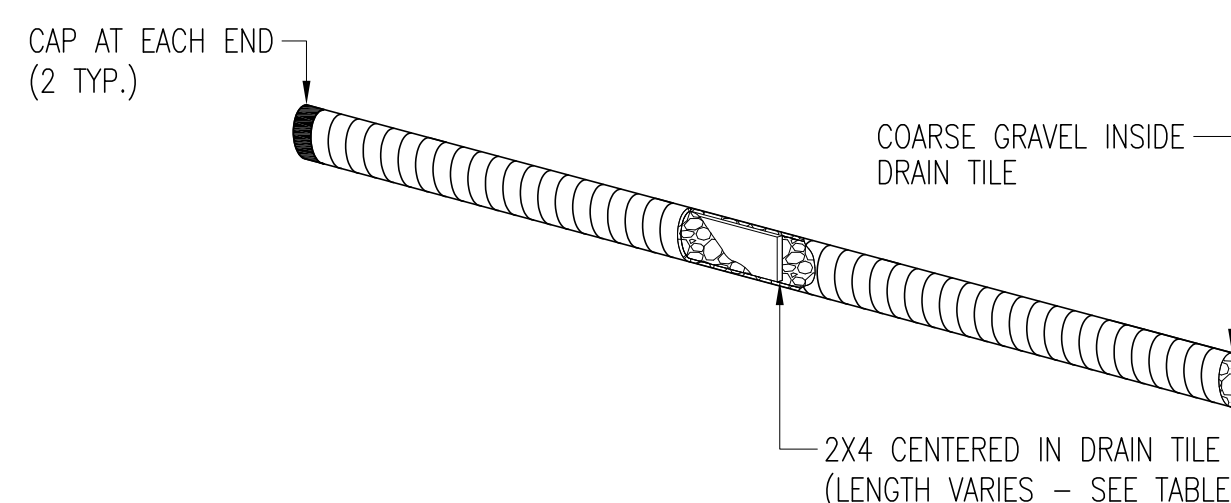
11 GA. WIRE

STAPLE



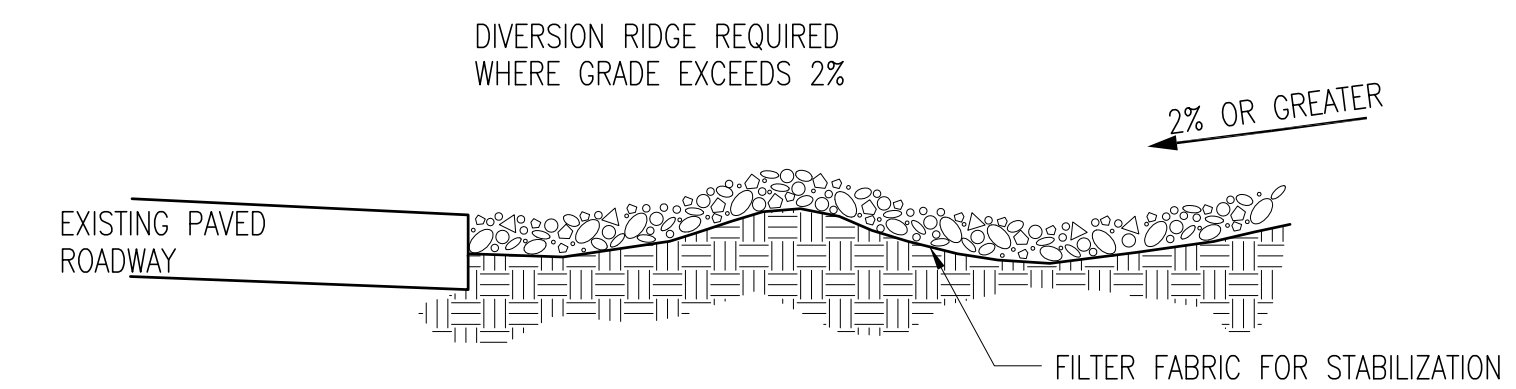
NOTE: PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"

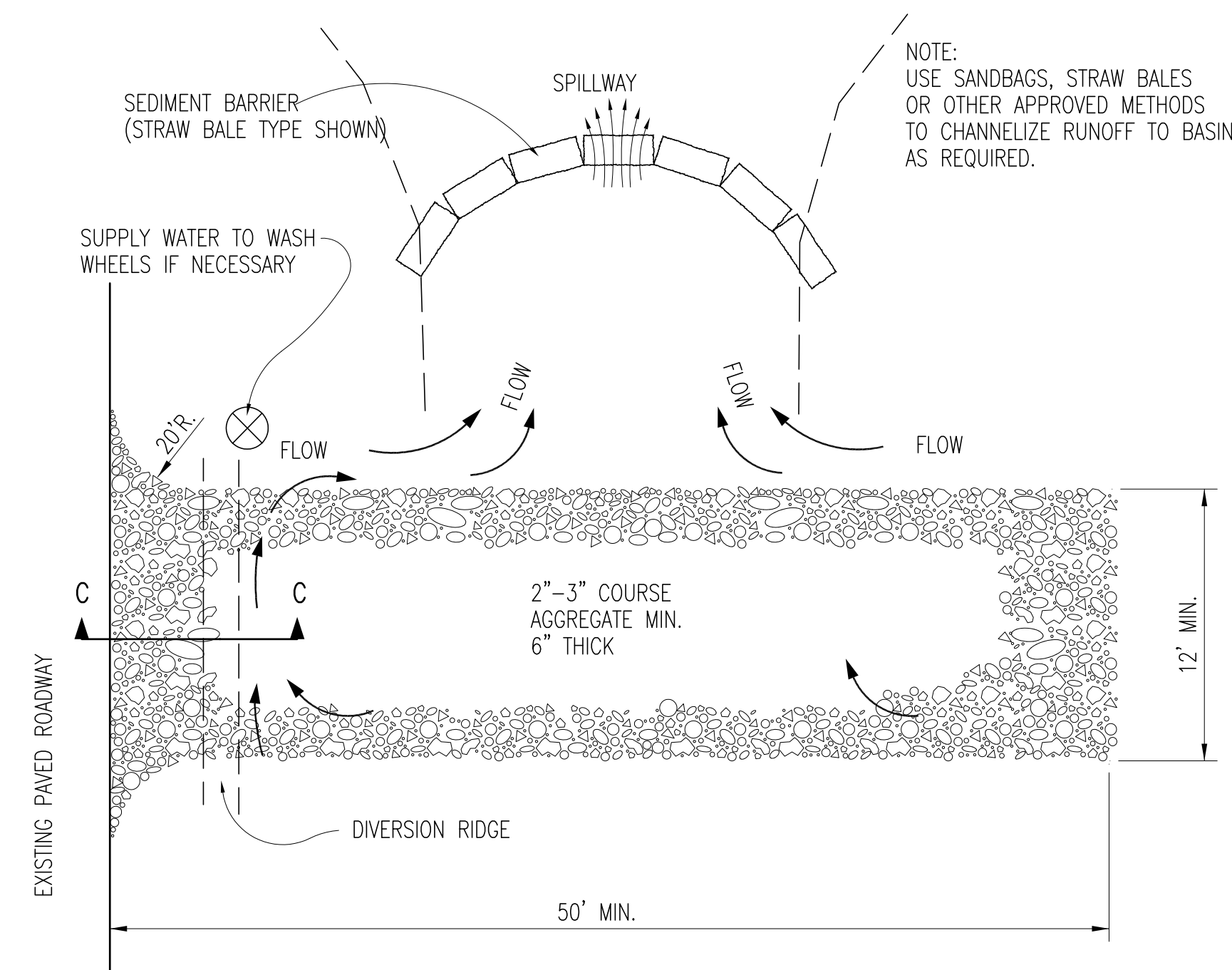


CURB INLET PROTECTION

4" PERFORATED PIPE W/ GRAVEL



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES

- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
- DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.



CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

REVISION DATE: MAY 2013

**BACK OF CURB PROTECTION,
CURB INLET PROTECTION AND
CONSTRUCTION ENTRANCE**

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

FINAL

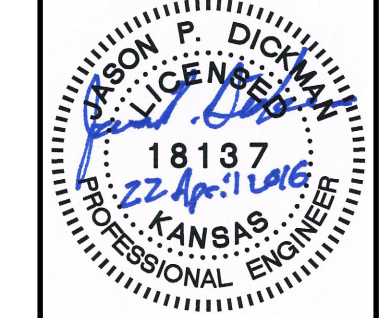
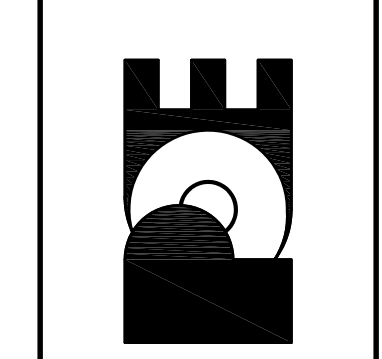
Engineer: J. DICKMAN
Designer: J. UNRUH
Poe Job No: 102113
Date: APRIL 2016

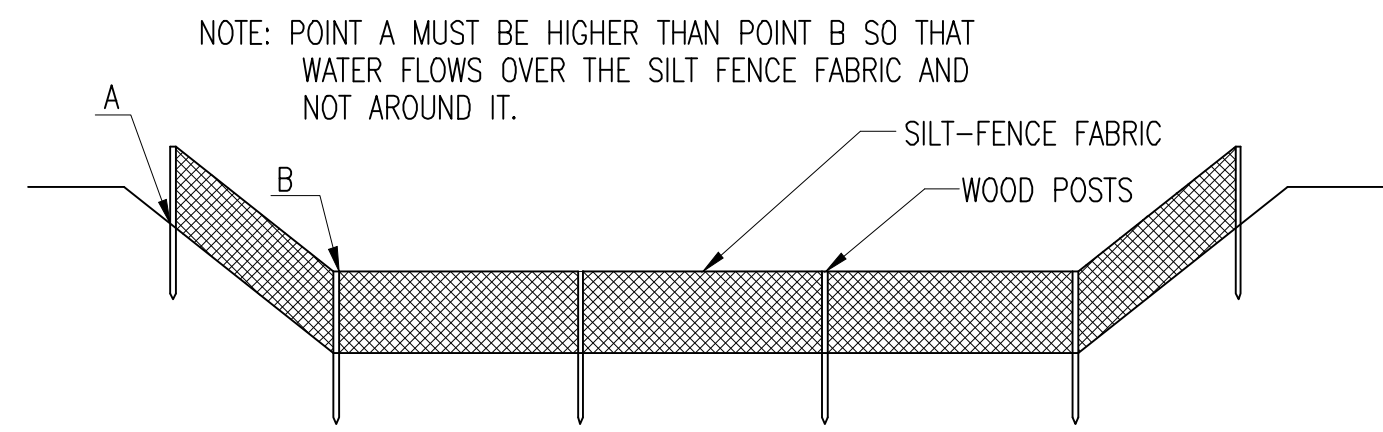
Sheet of 11

Revision	
By	
Date	
No.	

MEMAROS WAREHOUSE EXPANSION
BMP
CITY OF WICHITA, KANSAS
GARY JANZEN, P.E. - CITY ENGINEER
C.O.M. Project #1985-PW, O.C.A. #607853

POE & ASSOCIATES, INC.
CONSULTING ENGINEERS
544 West Douglas Avenue
Wichita, KS 67203
Phone 316/685-4114 FAX 316/685-4444





ELEVATION
SILT FENCE DITCH CHECKS
(STREAM PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK, NOT OVER IT. SILT FENCE DITCH CHECKS OFTEN FAIL WHEN OVERTOPPED. SILT FENCE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE SILT FENCE SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE TOP OF THE LOW POINT OF THE FENCE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. SILT FENCE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. SILT FENCE SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED.

THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

DITCH CHECK DITCH GRADE (%)	SPACING CHECK SPACING (FEET)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS AT LEAST 12" DEEP BY 6" WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE OF THE TRENCH. LINE TWO SIDES OF THE TRENCH WITH THE FABRIC AS SHOWN ON DETAIL. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE ON THE UPSLOPE SIDE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 24". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

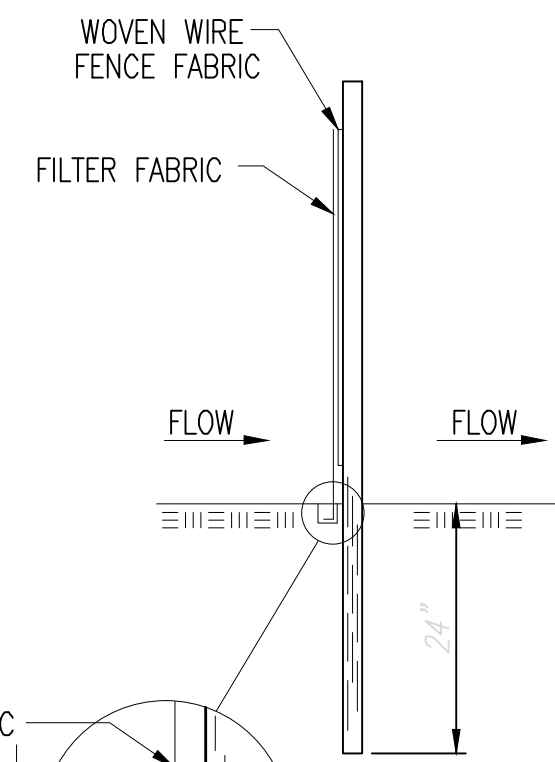
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK—NOT OVER IT. PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. SILT FENCE INSTALLATIONS QUICKLY DETERIORATE WHEN WATER OVERTOPS THEM. DO NOT PLACE SILT FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE A SILT FENCE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE SILT FENCE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW. FOLLOW PRESCRIBED DITCH CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS. DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE LOW POINT ON THE TOP OF THE FENCE. DO NOT PLACE SILT FENCE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.

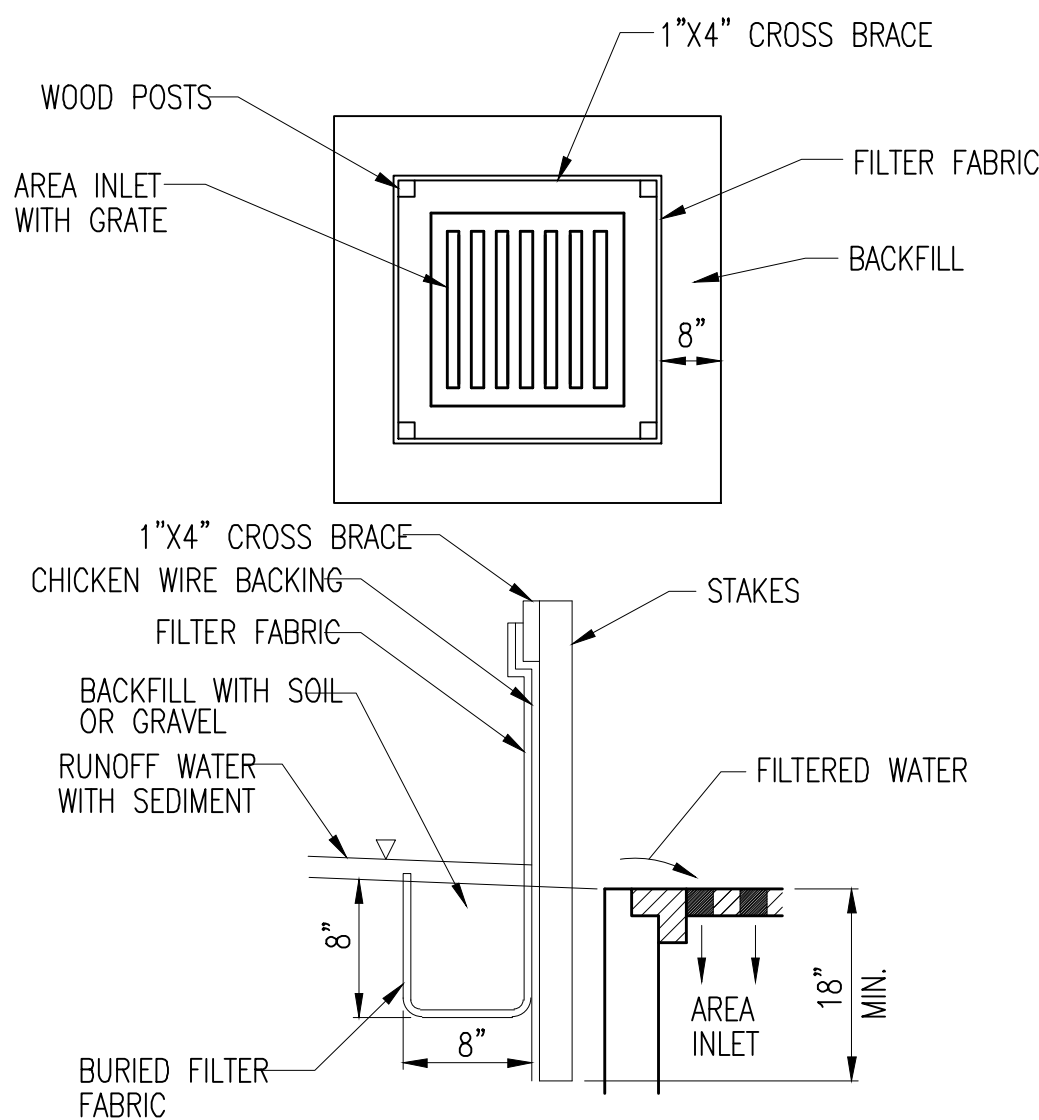
INSPECTION AND MAINTENANCE:

SILT FENCE DITCH CHECKS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW AROUND THE DITCH CHECK?
- DOES WATER FLOW UNDER THE DITCH CHECK?
- DOES THE SILT FENCE SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



ANCHOR TRENCH DETAIL



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE WIRE OR POLYMERIC MESH BACKING USED TO HELP SUPPORT THE SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. THE MATERIAL USED TO FRAME THE TOPS OF THE POSTS SHOULD BE 1" BY 4" BOARDS. SILT FENCE FABRIC AND SUPPORT BACKING SHOULD BE ATTACHED TO THE WOODEN POSTS AND FRAME WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE A SILT FENCE DROP INLET BARRIER IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. WATER SHOULD FLOW THROUGH SILT FENCE, NOT OVER IT. SILT FENCE BARRIERS FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. WHEN USED AS A BARRIER FOR AREA INLETS, SILT FENCE FABRIC AND POSTS MUST BE SUPPORTED AT THE TOP BY A WOODEN FRAME. WHEN A SILT FENCE BARRIER FOR AREA INLETS IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 8" DEEP BY 8" WIDE. DRIVE POSTS TO A DEPTH OF AT LEAST 18" AROUND THE PERIMETER OF THE AREA INLET. THE DISTANCE BETWEEN POSTS SHOULD BE 4' OR LESS. IF THE DISTANCE BETWEEN TWO ADJACENT CORNER POSTS IS MORE THAN 4', ADD ANOTHER POST(S) BETWEEN THEM. CONNECT THE TOPS OF ALL THE POSTS WITH A WOODEN FRAME MADE OF 1" BY 4" BOARDS. USE NAILS OR SCREWS FOR FASTENING. ATTACH THE WIRE OR POLYMERIC-MESH BACKING TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC LONG ENOUGH TO WRAP AROUND THE PERIMETER OF THE AREA INLET. ADD MORE LENGTH FOR OVERLAPPING THE FABRIC JOINT. PLACE THE EDGE OF THE FABRIC IN THE TRENCH, STARTING AT THE OUTSIDE EDGE OF THE TRENCH. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED. ATTACH THE SILT FENCE TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. THE JOINT SHOULD BE OVERLAPPED TO THE NEXT POST.

NOTE: WHEN A SILT FENCE BARRIER FOR AREA INLET IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

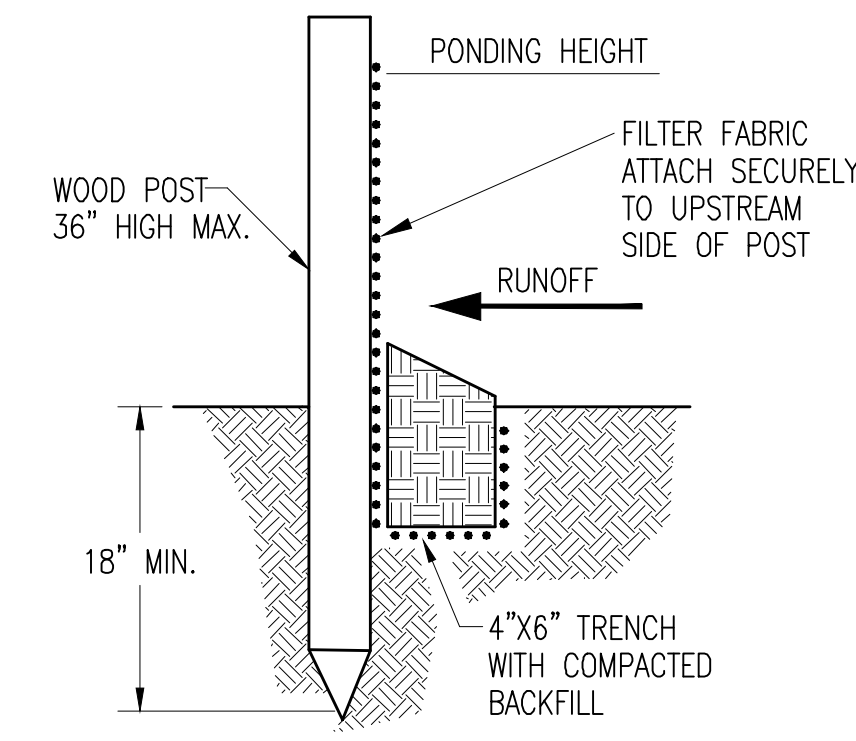
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE BARRIER FOR AREA INLET—NOT OVER IT. PLACE A SILT FENCE BARRIER FOR AREA INLET IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. SILT FENCE BARRIER FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. DO NOT PLACE POSTS ON THE OUTSIDE OF THE SILT FENCE BARRIER FOR AREA INLET. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT INSTALL SILT FENCE BARRIER FOR AREA INLETS WITHOUT FRAMING THE TOP OF THE POSTS. THE CORNER POSTS AROUND AREA INLETS ARE STRESSED IN TWO DIRECTIONS WHEREAS A NORMAL SILT FENCE IS ONLY STRESSED IN ONE DIRECTION. THIS ADDED STRESS REQUIRES MORE SUPPORT.

INSPECTION AND MAINTENANCE:

SILT FENCE BARRIER FOR AREA INLETS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW UNDER THE SILT FENCE?
- DOES THE SILT FENCE SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



SILT FENCE BARRIERS

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT. WHEN PRACTICABLE, SILT FENCE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. SILT FENCE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 6" DEEP BY 4" WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT-FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE UPSLOPE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 18". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES. DO NOT PLACE SILT-FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE SILT FENCE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT SUFFICIENTLY ANCHORED, IT WILL WASH OUT. SILT FENCE SLOPE BARRIERS MUST BE DUG INTO THE GROUND—SILT FENCE AT GROUND LEVEL DOES NOT WORK BECAUSE WATER WILL FLOW UNDERNEATH.

INSPECTION AND MAINTENANCE:

SILT FENCE SLOPE BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
- DOES WATER FLOW UNDER THE SLOPE BARRIER?
- DO THE SILT FENCES SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?



CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE		SHEET
CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		07 of 11

POE & ASSOCIATES, INC.
CONSULTING ENGINEERS
544 West Douglas Avenue | Wichita, KS 67203
Phone: 316.665-4114 | FAX: 316.665-4444

MEMAROS WAREHOUSE EXPANSION

BMP

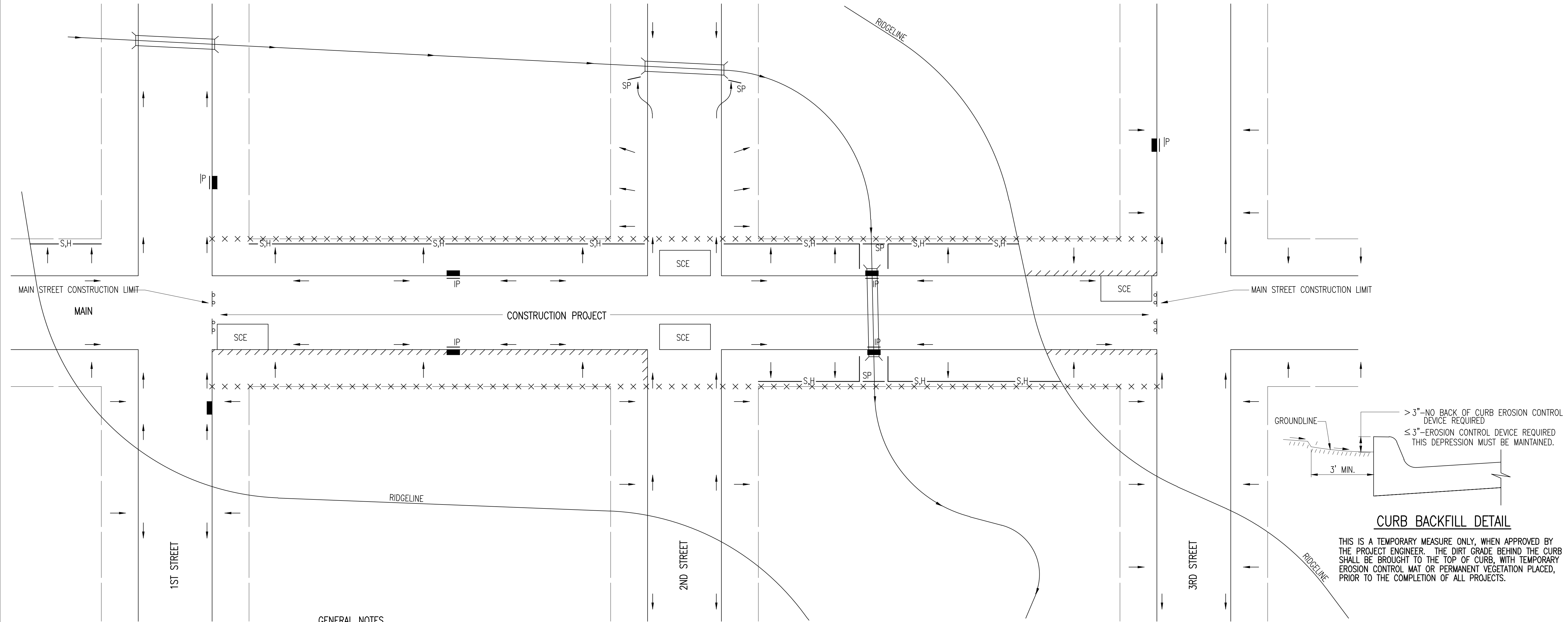
CITY OF WICHITA, KANSAS
GARY JANZEN, P.E. — CITY ENGINEER
C.O.W. Project #1985 P.W. O.C.A. #607653

REVISION

By	Date	No.

GENERAL NOTES

- THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPES OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
- EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.
- IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.
- FOR PROJECTS DISTURBING LESS THAN 1 ACRE, CONTRACTORS ARE ENCOURAGED TO PREPARE STORMWATER POLLUTION PREVENTION PLANS PRIOR TO CONSTRUCTION. EROSION CONTROL DEVICES MUST BE USED ON ALL PROJECTS.
- FAILURE TO USE AND MAINTAIN EROSION CONTROL DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE CONTRACTOR TO THE PENALTIES PROVIDED FOR THEREIN.
- THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT DEVICE OTHER THAN THOSE SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED AS LONG AS THEY ARE EFFECTIVE AND MAINTAINED.

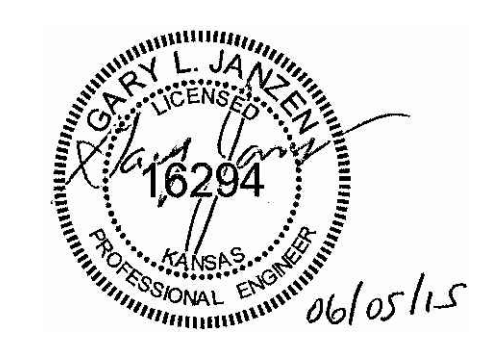


LEGEND

- R-O-W LIMITS
- DRAINAGE FLOW PATH
- x x x x R/W LIMIT WITHIN CONSTRUCTION LIMIT
- STORM WATER INLETS
- IP INLET PROTECTION
- S.H.— SILT FENCE OR HAY BALE BARRIER
- SP STREAM PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE
- ////// BACK OF CURB PROTECTION

GENERAL NOTES

- THE INTENT OF ALL EROSION CONTROL DEVICES IS TO KEEP ALL SEDIMENT CONFINED TO THE CONSTRUCTION SITE, AND OUT OF ALL UNDERGROUND PIPES, DITCHES, LAKES, AND OTHER DRAINAGE FACILITIES, AND OFF OF STREETS.
- THE POINT OF COMPLIANCE IS GENERALLY THE RIGHT-OF-WAY LINES WITHIN THE LIMITS OF CONSTRUCTION.
- EROSION CONTROL DEVICES WILL BE REQUIRED AT ALL POINTS ALONG THE PROJECT WHERE DISTURBED EARTH CAN DRAIN ONTO PRIVATE PROPERTY.
- INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED AT CREEK CROSSINGS SO AS TO PREVENT SEDIMENT FROM ENTERING THEREIN.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED, AS NEEDED, TO PREVENT MUD FROM TRACKING ONTO STREETS NOT UNDER CONSTRUCTION AND ON STREETS WITHIN THE PROJECT LIMITS IF TRAFFIC IS BEING MAINTAINED THROUGH THE PROJECT.
- ANY MUD TRACKED ONTO STREETS MUST BE REMOVED AT THE END OF EACH WORK DAY.
- THE CONTRACTOR WILL BE REQUIRED TO PLACE EROSION CONTROL DEVICES BACK OF CURB, WHENEVER WATER CAN DRAIN OVER CURB, TO KEEP ERODED SOIL OUT OF THE GUTTERLINES, IN ACCORDANCE WITH THE FOLLOWING:
 - THE DEVICE REQUIRED WILL BE APPROVED EROSION CONTROL MAT LISTED ON THE CITY'S APPROVED MATERIAL LIST. SAID BLANKET SHALL BE PLACED OVER THE APPROPRIATE SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS. (SEE SOIL EROSION BMPs - BACK OF CURB SEDIMENT BARRIER DETAILS)
 - THIS DEVICE SHALL BE INSTALLED IMMEDIATELY WHENEVER THE CURB IS BACKFILLED TO WITHIN 3" OF THE TOP OF CURB. (SEE CURB BACKFILL DETAIL) OTHER BMP'S MAY BE REQUIRED AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB.
 - ADDITIONALLY, OTHER EROSION CONTROL DEVICES (HAY BALES, SILT FENCE, ETC.) WILL BE INSTALLED AT LOCATIONS OF CONCENTRATED FLOW RESULTING IN SEDIMENT OVERRUNNING THE MAT.
 - SHOULD THE PROJECT PLANS SPECIFY THAT THE RIGHT-OF-WAY IS TO BE SODDED, THE EXCELSIOR MAT WILL NOT BE REQUIRED SO LONG AS THE SOD IS PLACED WITHIN 48 HOURS AFTER CURB BACKFILL REACHES A HEIGHT OF 3" OR LESS FROM TOP OF CURB. (SEE CURB BACKFILL DETAIL)



REVISION: JUNE 2015

STREET IMPROVEMENT PROJECTS

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
09 of 11

MEMARDS WAREHOUSE EXPANSION
BMP
CITY OF WICHITA, KANSAS
GARY JANZEN, P.E. - CITY ENGINEER
C.D.N. Project #1985 PPW, O.C.A. #607853

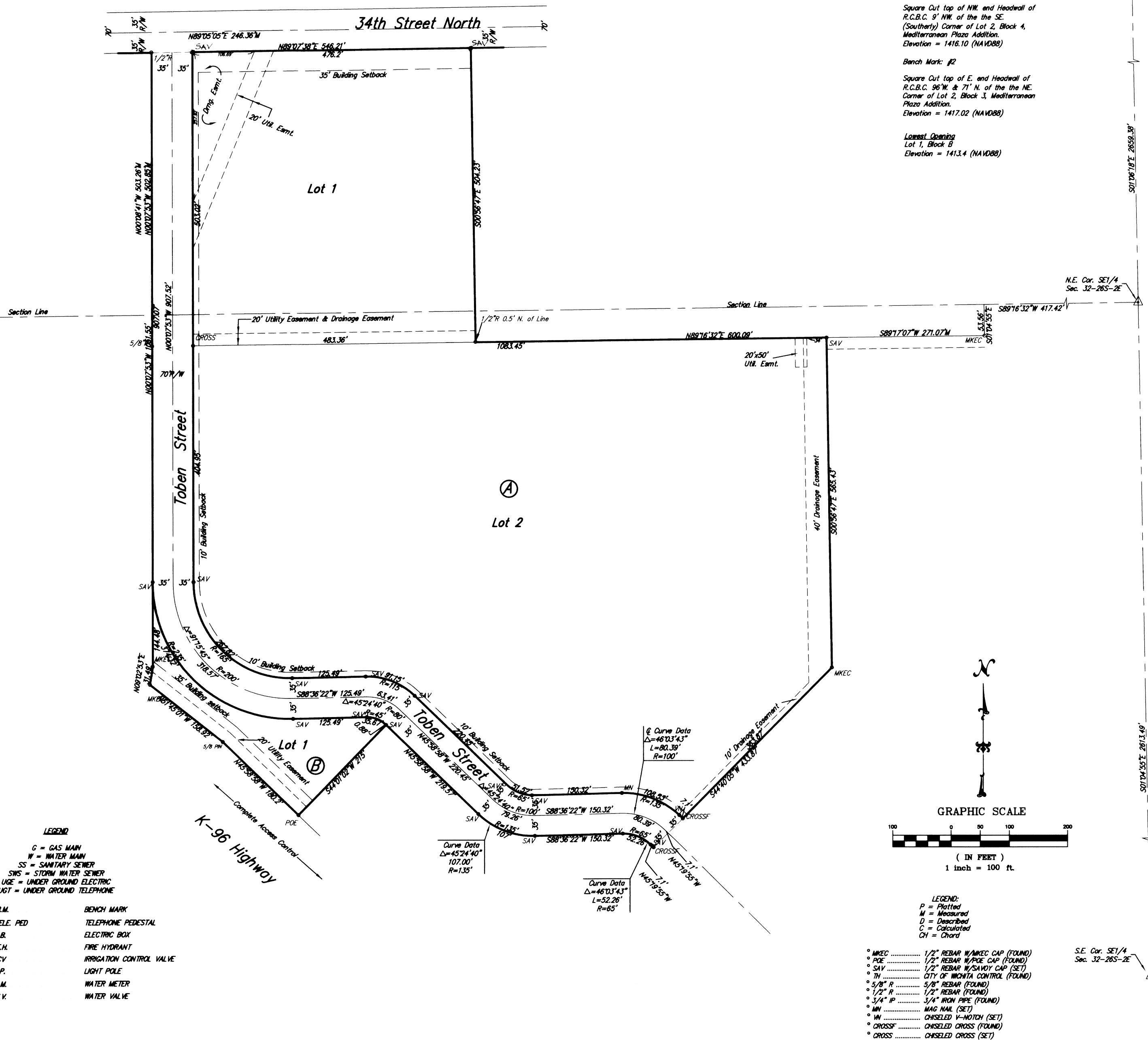
POE & ASSOCIATES, INC.
CONSULTING ENGINEERS
544 West Douglas Avenue | Wichita, KS 67203
Phone 316.665-4114 | FAX 316.665-4444

POE

PROFESSIONAL ENGINEER
KANSAS
18137
22 April 2015
GARY L. JANZEN

Approved By: _____
Date: _____
No. _____
Revision: _____

Sheet of 11
SW-504



State of Kansas) SS
Sedgwick County)

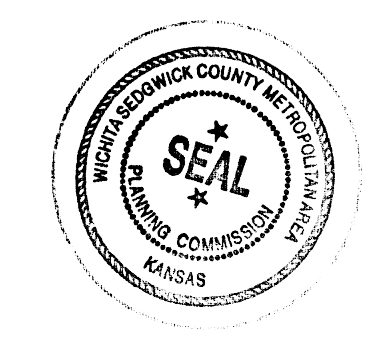
We, Savoy Company, P.A., Surveyors in aforesaid county and state do hereby certify that, under the supervision of the undersigned, we have surveyed and platted "FIREPOINT ADDITION", Wichita, Sedgwick County, Kansas and that the accompanying plat is a true and correct exhibit of the property surveyed, described as:

FINAL PLAT
FIREPOINT ADDITION
Wichita, Sedgwick County, Kansas

Lot 18, Comotara Industrial Park Fifth Addition to Wichita, Sedgwick County, Kansas, AND All of Lots 1 and 2, Block 4, Lots 2, 3 and part of Lots 4 and 5, Block 3, and part of Toben Street in Mediterranean Plaza an Addition to Wichita, Sedgwick County, Kansas, more particularly described as follows:

Beginning at the N.E. Corner of Lot 2, in said Block 4; thence S00°56'47"E along the east line of said Lot 2, 565.43 feet; thence S44°40'15"W along the southeasterly line of said Lot 2 and extended, 433.87 feet to the easterly most corner of Lot 5, in said Block 3; thence N45°19'55"W along the northeasterly line of said Lot 5, 7.10 feet of a curve to the left having a radius of 65 feet; thence westerly along said curve and through a central angle of 46°03'43" an arc distance of 52.26 feet; thence S88°36'22"W, 150.32 feet to the P.C. of a curve to the right having a radius of 135 feet; thence northwesterly along said curve and through a central angle of 45°24'40" an arc distance of 107.00 feet; thence N45°58'58"W, 219.57 feet; thence S44°01'02"W, 215.00 feet to the southwesterly line of Lot 4, in said Block 3; thence N45°58'58"W along the southwesterly line of said Lot 4, 158.92 feet to the westerly most S.W. Corner of said Lot 4; thence N09°02'53"E along the westerly line of Lot 3, in said Block 3, 31.49 feet; thence N00°07'53"W along the west line of said Lots 3 and 2, 1051.55 feet to the N.W. Corner of Lot 2, in said Block 3; thence N89°07'38"E along the north line of said Lot 2 and the north line of said Lot 18, Comotara Industrial Park Fifth Addition, 546.21 feet to the N.E. Corner of said Lot 18; thence S00°56'47"E along the east line of said Lot 18, 504.23 feet to the north line of Lot 1, in said Block 4; thence N89°16'32"E along the north line of Lots 1 and 2, in said Block 3, 600.09 feet to the place of beginning.

This plat of "FIREPOINT ADDITION", Wichita, Sedgwick County, Kansas, has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.
Dated this 27th day of MARCH, 2010.
Wichita-Sedgwick County Metropolitan Area Planning Commission



G. Nelson Van Fleet Chair
John L. Schlegel Secretary

This plat approved and all dedications shown hereon, accepted by the City Council of the City of Wichita, Kansas, this 2nd day of March, 2010.

Mayor
Clerk

All Public easements and dedications being vacated by virtue of K.S.A. 12-512(b).
Savoy Company, P.A.
Date 4 March 2010
Mark A. Savoy RLS #788 Surveyor

Know all men by these presents that We, the undersigned, have caused the land described in the surveyors certificate to be platted into Lots, Blocks and a Street to be known as "FIREPOINT ADDITION", Wichita, Sedgwick County, Kansas. The utility easements are hereby granted as indicated for the construction and maintenance of all public utilities. The drainage easements are hereby granted as indicated for drainage purposes. A drainage plan has been developed for this plat and all drainage easements, rights-of-way, or reserves shall remain at established grades, or as modified with the approval of the City Engineer, and unobstructed to allow for the conveyance of stormwater. Access Control is hereby granted to the appropriate governing body and is as indicated on the face of the plat. Minimum Pad Elevation is as indicated on the face of the plat.

Reviewed in accordance with K.S.A. 58-2005 on this day of March, 2010.
Deputy County Surveyor
Robella, LS #1246

Entered on transfer record this 26th day of March, 2010.
County Clerk
Kelly Arnold

Webb Road, LLC
Name: CHRISTIAN A. ABLAH
Title: member
The State Bank of Kansas
Name: JAC L. JENSIK
Title: President

State of Kansas) SS
Sedgwick County)
This is to certify that this plat has been filed for record in the office of the Register of Deeds, this 26th day of March, 2010, at 2:50:21 P.M. and is duly recorded.
2:50:21
Register of Deeds
Deputy

State of Kansas) SS
Sedgwick County)
The foregoing instrument acknowledged before me, this 4th day of March, 2010, by Christian A. Ablah, Member of Webb Road, LLC, on behalf of the Company.
Notary Public

State of Kansas) SS
Sedgwick County)
The foregoing instrument acknowledged before me, this 4th day of March, 2010, by Jac L. Jenzik, President of The State Bank of Kansas on behalf of the Company.
Notary Public

Register of Deeds - Bill Meek
Bill Meek
Deputy - Tonya Buckingham
TONYA P. BUCKINGHAM
18137
PROFESSIONAL ENGINEER

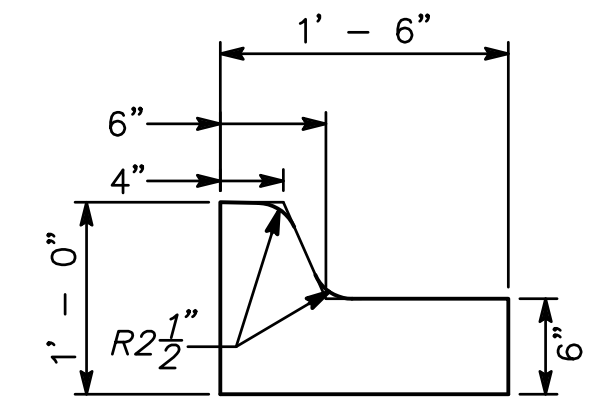
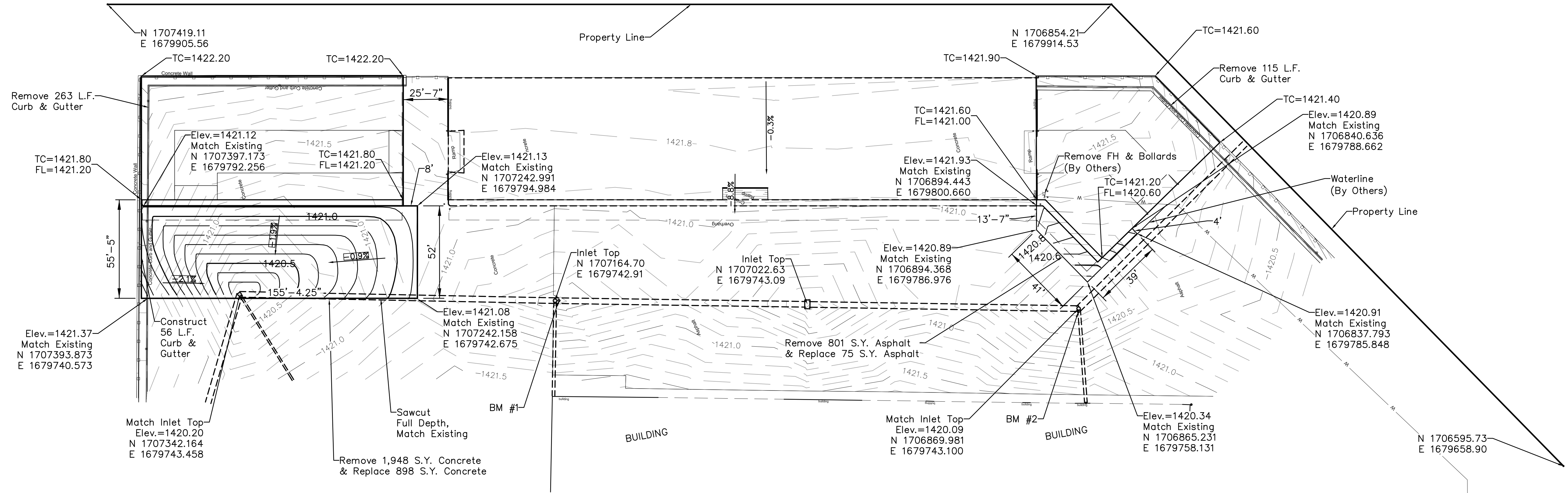
Note:
This plat is subject to the Provisions of Firepoint Planned Unit Development, PUD-23 on file with the Metropolitan Area Planning Dept.

POE & ASSOCIATES, INC.
5940 E. Central, Suite 200 • Wichita, KS 67208 • 316/685-4114 • FAX 316/685-4444

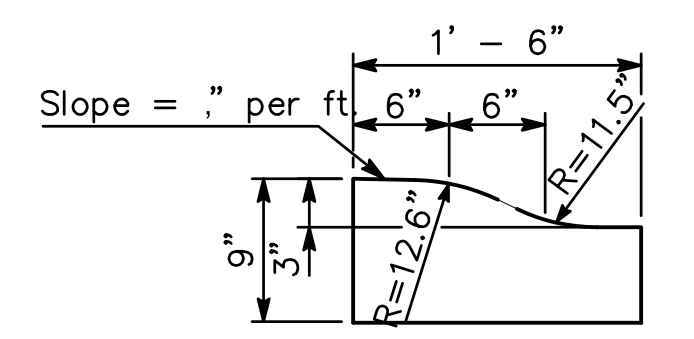
Savoy Company, P.A.
Land Surveyors
433 S. Hydraulic, Wichita, KS 67211-1911
www.savoyco.com

MEMORANDUM WAREHOUSE EXPANSION
EAST PLAT
CITY OF WICHITA, KANSAS
GARY JANZEN, P.E. - CITY ENGINEER
C.O.M. Project #1985 P.W. O.C.A. #607853

FINAL
Engineer: J. DICKMAN
Designer: J. UNRUH
Dwg. P.: 102113 Menards Warehouse Expansions
Poe Job No: 102113
Date: APRIL 2016



COMBINED CURB & GUTTER (6")



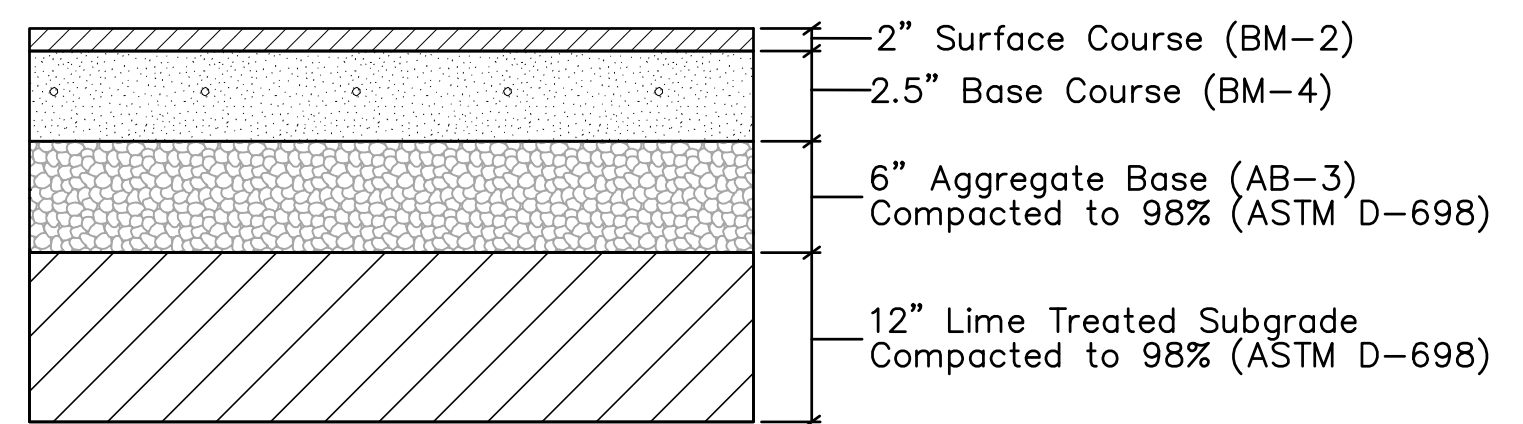
3" MONOLITHIC CURB

PAVING FOUNDATION TREATMENT & COMPACTION

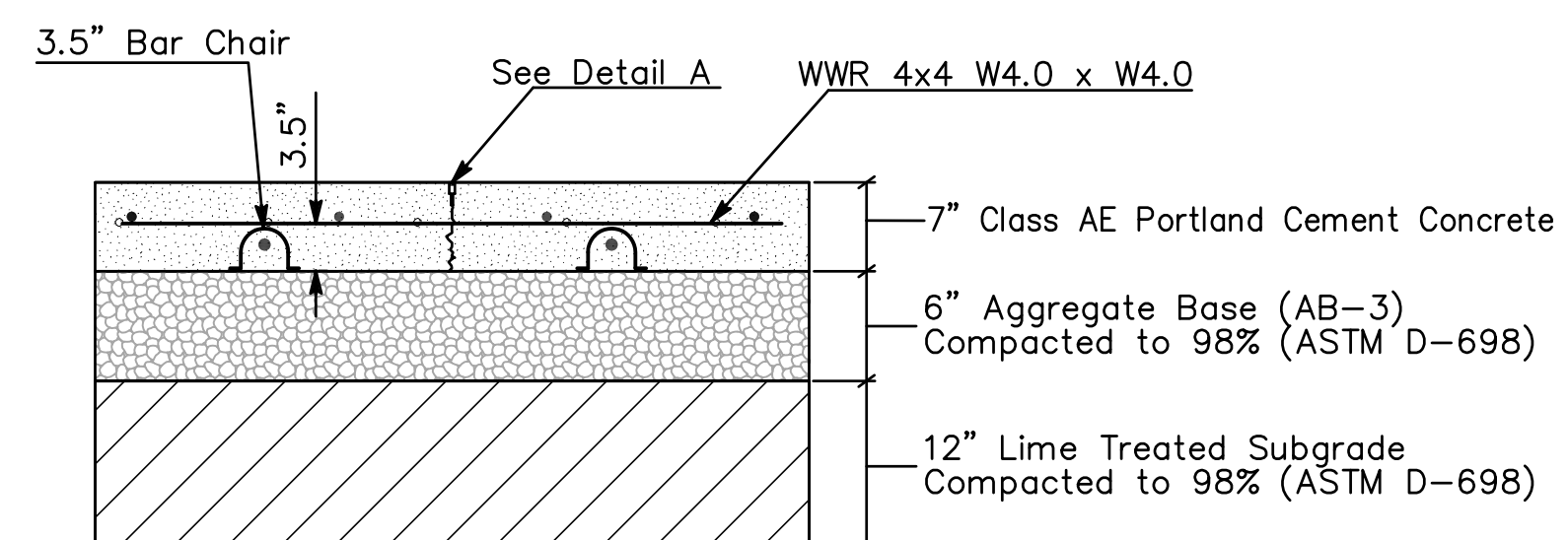
- NOTES:
- Proposed subgrade shall be compacted to 98% (ASTM D-698).
 - Fill areas shall have the top soil removed and the ground scarified to 8" depth. Compact to 98% (ASTM D-698).
 - Strip all topsoil within the project excavation limits. Stock pile on site to be utilized for top lift of embankment on the project. No topsoil shall be incorporated into paved or surface area subgrade.
 - Proofrolling—Following topsoil stripping, it is recommended that the exposed grade be proofrolled. Proofrolling of the subgrade prior to fill placement provides a more stable base for placement of fill and aids in identifying soft or disturbed areas. Unsuitable areas identified by the proofrolling operation should be undercut and replaced with engineered fill. Proofrolling can be accomplished through the use of a fully loaded tandem-axle dump truck or similar equipment providing an equivalent subgrade loading.



WICHITA EAST, KS

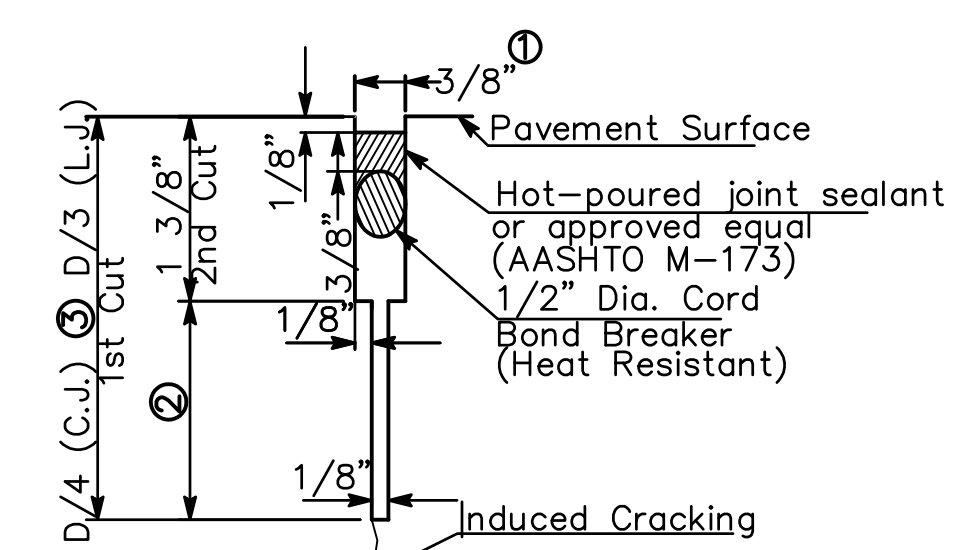


HEAVY DUTY ASPHALT SECTION



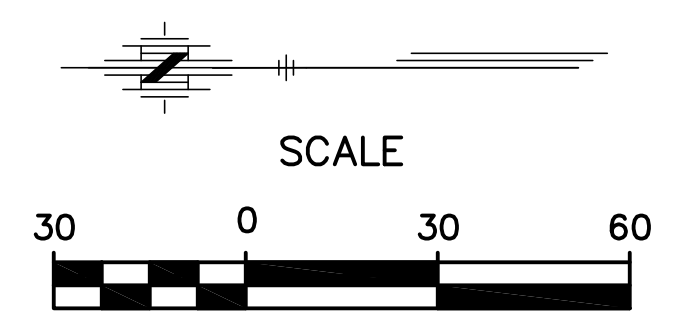
REINFORCED CONCRETE SECTION

Concrete shall have a minimum 28 day compressive strength of 4000 psi (min 5-7% air entrained)



DETAIL A

- To be accomplished in 2 cuts for Longitudinal Joints and Contraction Joints. Initial cut to be 3/8" wide.
- Eliminate bottom of cut when metal keyway is used as part of Longitudinal or Transverse Construction Joint and at Doweled Construction Joint Locations.
- 1 7/8" Minimum



Benchmarks

BM#1: Square Cut on Concrete at Asphalt Joint, South of Inlet
Elev. = 1420.37 NAVD88

BM#2: West rim of Storm Inlet
Elev. = 1420.09 NAVD88

<p>REVISIONS</p> <table border="1"> <tr><th>No.</th><th>Date</th><th>By</th><th>Approved</th><th>Revision</th></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>	No.	Date	By	Approved	Revision											<p>MENARDS WAREHOUSE EXPANSION 3520 NORTH TOBEN STREET EAST GRADING CITY OF WICHITA, KANSAS GARY JANZEN, P.E. - CITY ENGINEER</p>
No.	Date	By	Approved	Revision												
<p>POE & ASSOCIATES, INC. CONSULTING ENGINEERS 544 West Douglas Avenue Wichita, KS 67203 Phone 316/685-4114 FAX 316/685-4444</p>																
	<p>FINAL</p> <p>Engineer: J. DICKMAN Designer: J. UNRUH Dwg. P:\102113\Menards Warehouse Expansions Poe Job No: 102113 Date: MAY 2016</p>															
<p>Sheet 1 of 1</p>	<p>1</p>															