

WATER MAIN IMPROVEMENTS

TO SERVE

THE CORNERSTONE FIRST ADDITION

THE CITY OF ANDOVER,
BUTLER COUNTY, KANSAS

CITY OF WICHITA PRIVATE PROJECT NO. PPW1179

OCA NO. 607853

GENERAL NOTES

- ALL WATER MAINS AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF ANDOVER, AND CITY OF WICHITA, KANSAS STANDARD SPECIFICATIONS FOR WATER MAIN INSTALLATIONS.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF SEVENTY-TWO (72) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE-CALL	1-800-344-7233
OR LOCAL (WICHITA)	687-2470

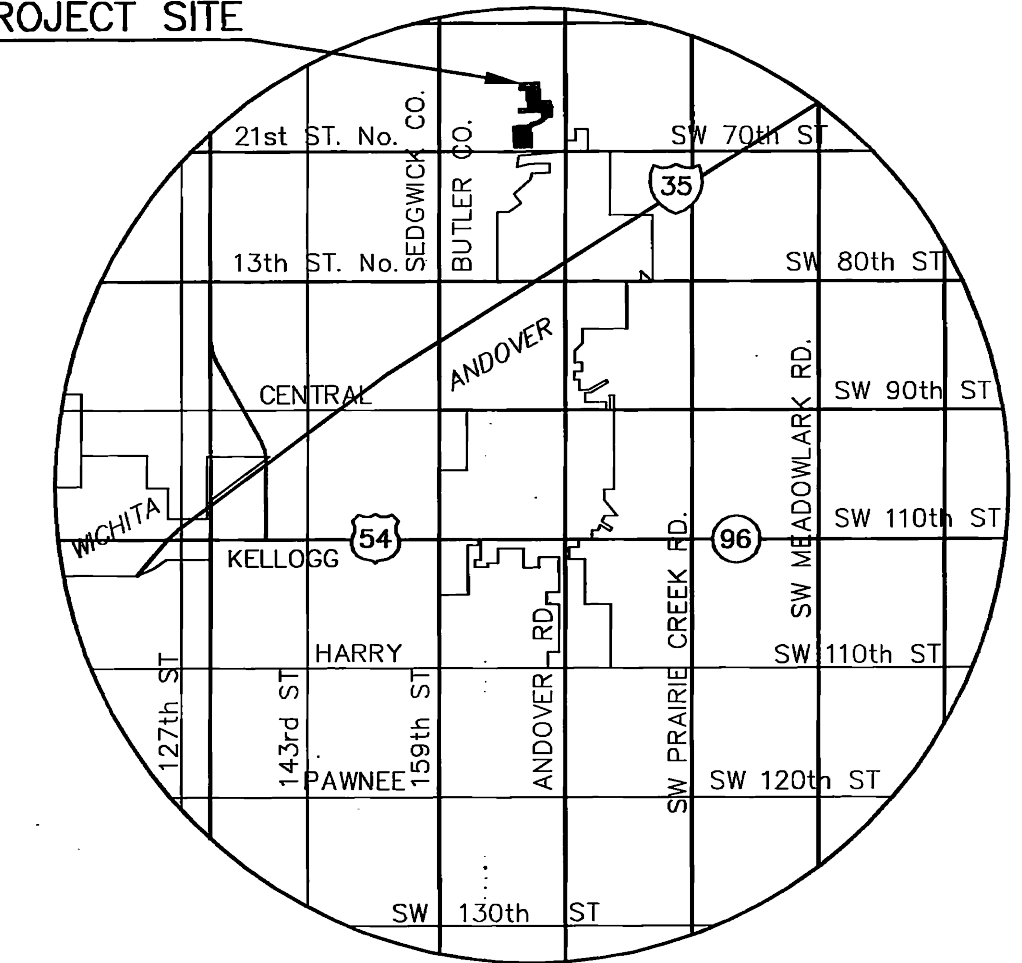
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF EMERGENCY:

CITY OF ANDOVER (LES MANGUS)	733-2621
COX COMMUNICATIONS (CABLE)	262-0661
WESTAR (ELECTRIC)	261-6512
KANSAS GAS SERVICE (GAS)	832-3101
SBC (TELEPHONE)	800-870-8390
CITY OF WICHITA WATER & SEWER	262-6000
AQUILA (GAS)	800-303-0357
CITY OF BENTON	778-1625
WESTAR	383-8600
- THE WATER MAIN SHALL BE CONSTRUCTED ON THE ALIGNMENT SHOWN ON THE PLANS. 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, AND SHALL BE INCLUDED IN THE PRICE BID FOR THE INSTALLED WATER PIPE. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
- OPENING AND CLOSING WATER VALVES SHALL BE DONE SLOWLY TO PREVENT DAMAGE TO THE WATER DISTRIBUTION SYSTEM FROM WATER HAMMER. ALL VALVES CLOSED BY THE CONTRACTOR MUST BE REOPENED AS NEW CONSTRUCTION PERMITS. PROJECT INSPECTOR MUST ASCERTAIN THAT ANY VALVE CLOSED BY THE CONTRACTOR IS REOPENED. CONTRACTOR WILL BE PERMITTED TO OPERATE WATER VALVES ONLY WHEN THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT.
- CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED TO THE PROJECT AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.
- UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ADJUTING 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 COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO SITE RESTORATION.
- THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.
- NO SERVICES WILL BE INSTALLED AS PART OF THIS PROJECT.
- INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA, AND LOCAL BUSINESS OR RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA ARE TO BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED AND TREE TRIMMINGS 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 DISTURBED AREAS TO BE SEEDED WITH RYE GRASS AT A RATE OF 200 LBS. PER ACRE WITHIN 10 DAYS OF CONSTRUCTION. CONTRACTOR TO PREPARE GROUND PER CITY SPECIFICATIONS. COST IS SUBSIDIARY TO SITE PREPARATION AND RESTORATION.
- THE CONTRACTOR SHALL LAY A TRACER WIRE & SET TEST STATIONS ALONG ALL WATER LINE PIPE INSTALLED IN ACCORDANCE WITH CITY OF WICHITA SPECIFICATIONS & TRACER WIRE DETAIL ON DETAIL SHEET. COST IS SUBSIDIARY TO PIPE INSTALLATION.
- WATER LINE TRENCHES SHALL BE BACKFILLED PER CITY SPEC. SPECIAL CARE SHALL BE TAKEN WHEN BACKFILLING TRENCHES CROSSING PROPOSED STREETS. CROSSINGS SHALL BE COMPACTED TO 95% STD. DENSITY IN 6"-8" MAX LIFTS FOR THE ENTIRE LENGTH OF THE CROSSING PLUS 5' EACH SIDE.

BENCHMARKS

- | | | | |
|-------|--|-------|--|
| BM #1 | Chiseled square on center of south headwall of RCB under 21st Street North, 243' East and 41' South of the South Quarter Corner of Sec. 6, T27S, R3E. Elev. = 1345.60. | BM #4 | Chiseled square on Southeast corner of curb inlet at North end of Northeast return at 21st Street North and Andover Road, 89.5' North and 36.5' East of the Southeast Corner of Sec. 6, T27S, R3E. Elev. = 1340.69. |
| BM #2 | Chiseled square on top of curb at East return of East Drive to "Life Care Center", 994' East and 26.5' South of the South Quarter corner of Sec. 6, T27S, R3E. Elev. = 1348.785. | BM #5 | RR spike in East face of 6th power pole North of 21st Street North on West side of Andover Road, 1114' North and 49' West of the Southeast Corner of Sec. 6, T27S, R3E. Elev. = 1344.125. |
| BM #3 | Chiseled square on Northwest corner of curb inlet at West end of Southwest return at 21st Street North and Marc Ave, 810' West and 26' South of the Southeast Corner of Sec. 6, T27S, R3E. Elev. = 1345.425. | BM #6 | "T-post" 48" +/- West of traveled way of Andover Road and 50' +/- South of the centerline of the South drive into cemetery, 373' South and 68' West of the East Quarter Corner of Sec. 6, T27S, R3E. Elev. = 1354.00 |

PROJECT SITE



VICINITY MAP

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS
3-5	MAIN 1
6-7	BMP DETAILS
8-9	PLAT

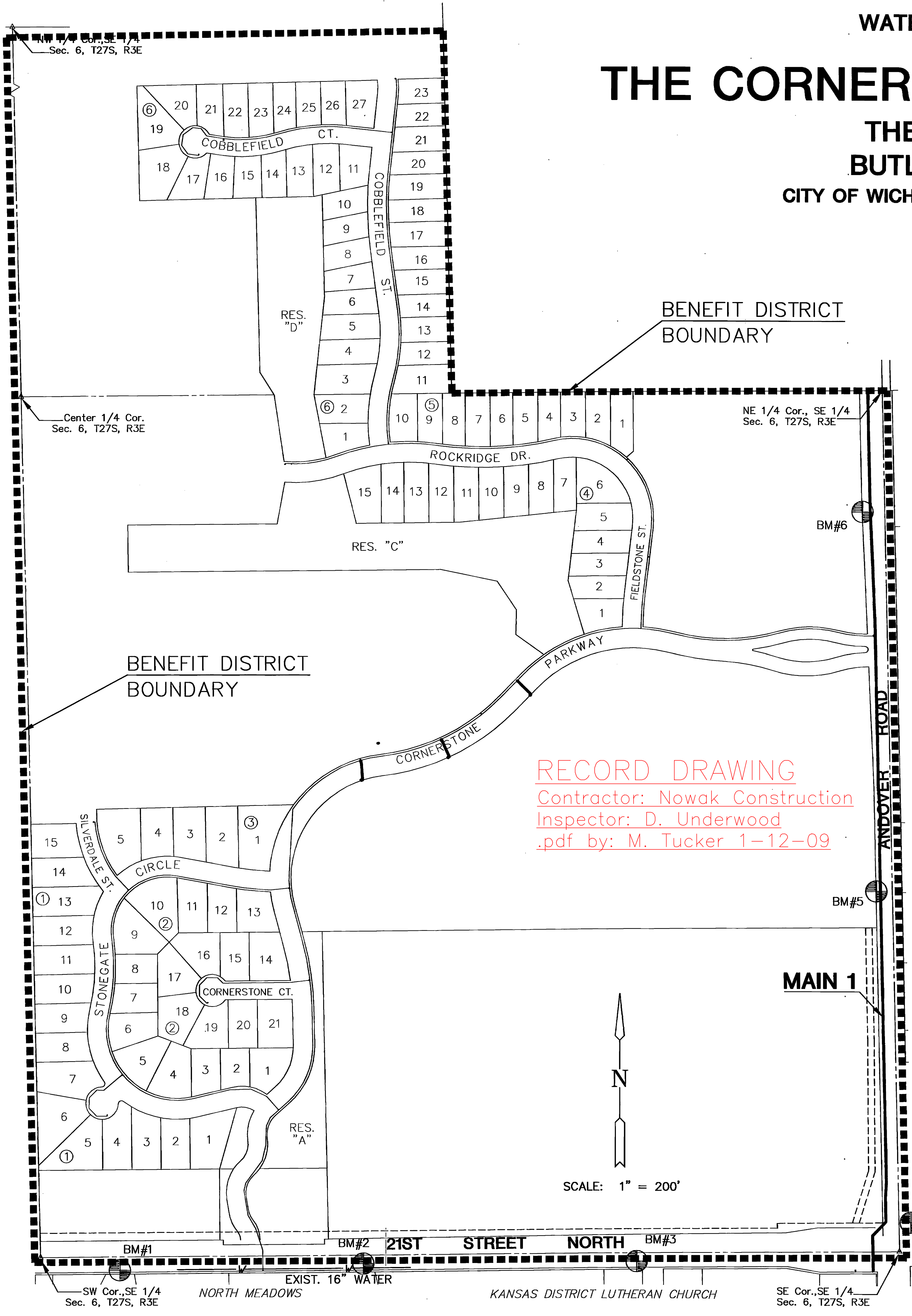
APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA,
BY WICHITA WATER & SEWER DEPARTMENT,
& BY WICHITA FIRE DEPARTMENT

Water Mains (Public Works) *[Signature]* 11/22/05
Water Mains (Water & Sewer Dept.) *[Signature]* 11/22/05
Fire Prot. Line (Fire Dept.) *[Signature]* 11/22/05

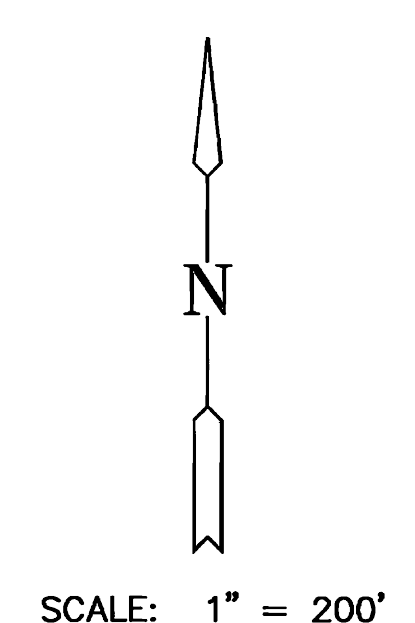
NOTE TO CONTRACTORS

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 (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 materials 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 to 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.



RECORD DRAWING
Contractor: Nowak Construction
Inspector: D. Underwood
.pdf by: M. Tucker 1-12-09



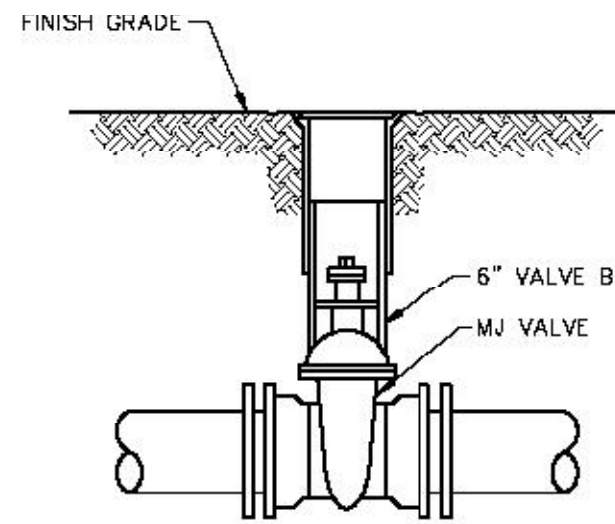
WATER LINE VALVES TO BE OPERATED BY CONTRACTOR ONLY IF WATER INSPECTOR IS ON SITE.

MKEC ENGINEERING CONSULTANTS
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

THE CORNERSTONE FIRST ADDITION
PROJECT NAME

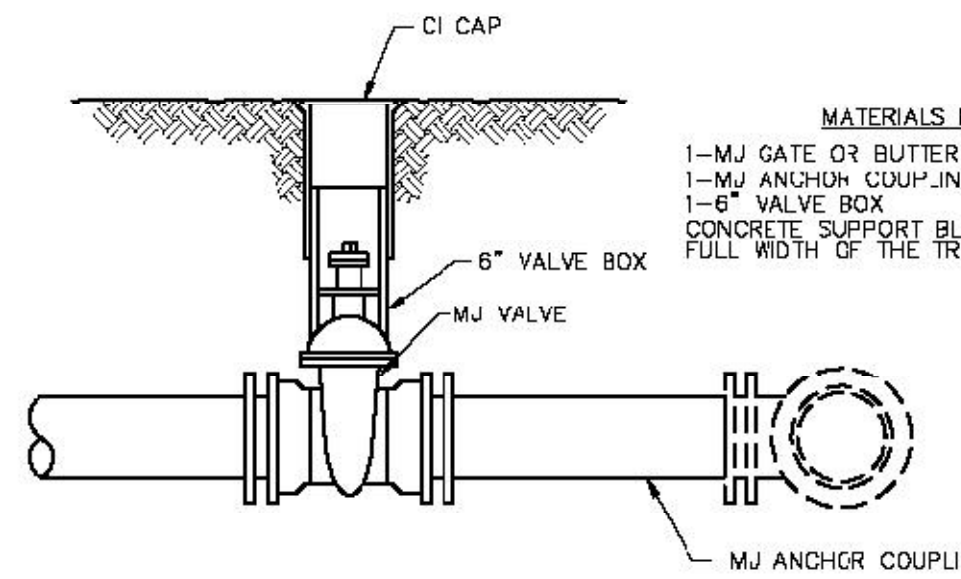
WATER DISTRIBUTION PLANS
SHEET TITLE

SRS DESIGN BY: BFL DRAWN BY: GJA CHECKED BY:
OCTOBER 2005 DATE 04294 JOB NO. 1 / 9 SHEET/OF



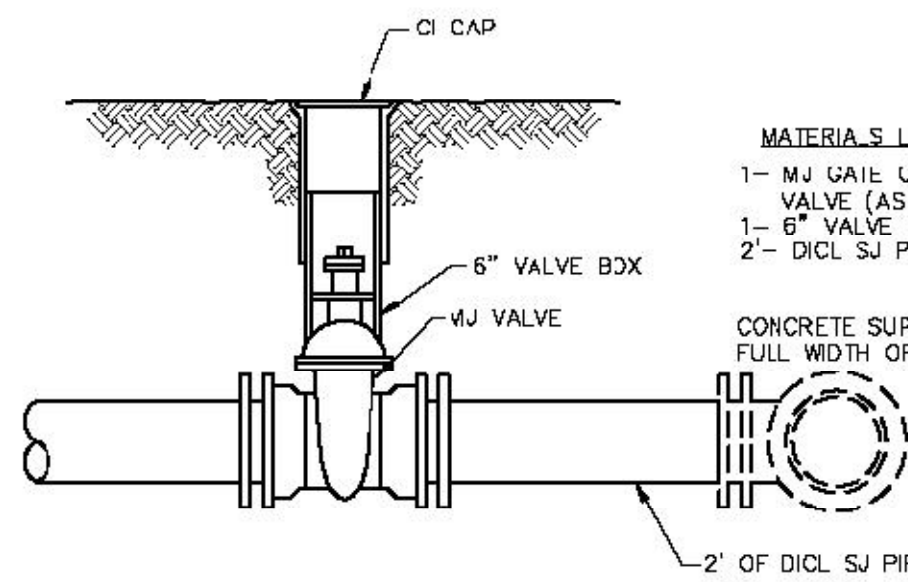
MATERIALS LIST
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-6" VALVE BOX
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

LINE VALVE ASSEMBLY



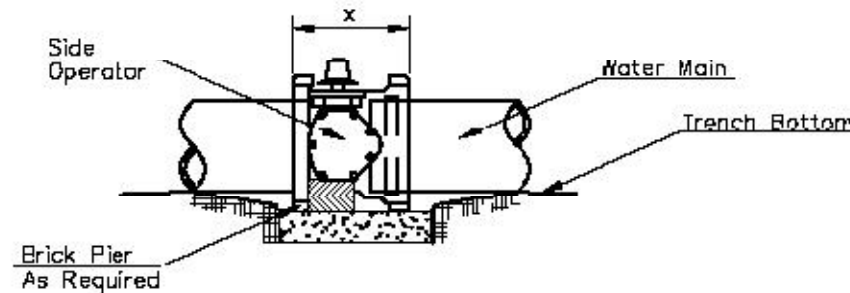
MATERIALS LIST
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-MJ ANCHOR COUPLING (12" OR SMALLER)
 1-6" VALVE BOX
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

ANCHORED VALVE ASSEMBLY



MATERIALS LIST
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-6" VALVE BOX
 2"-D.I.C. S.I. PIPE
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

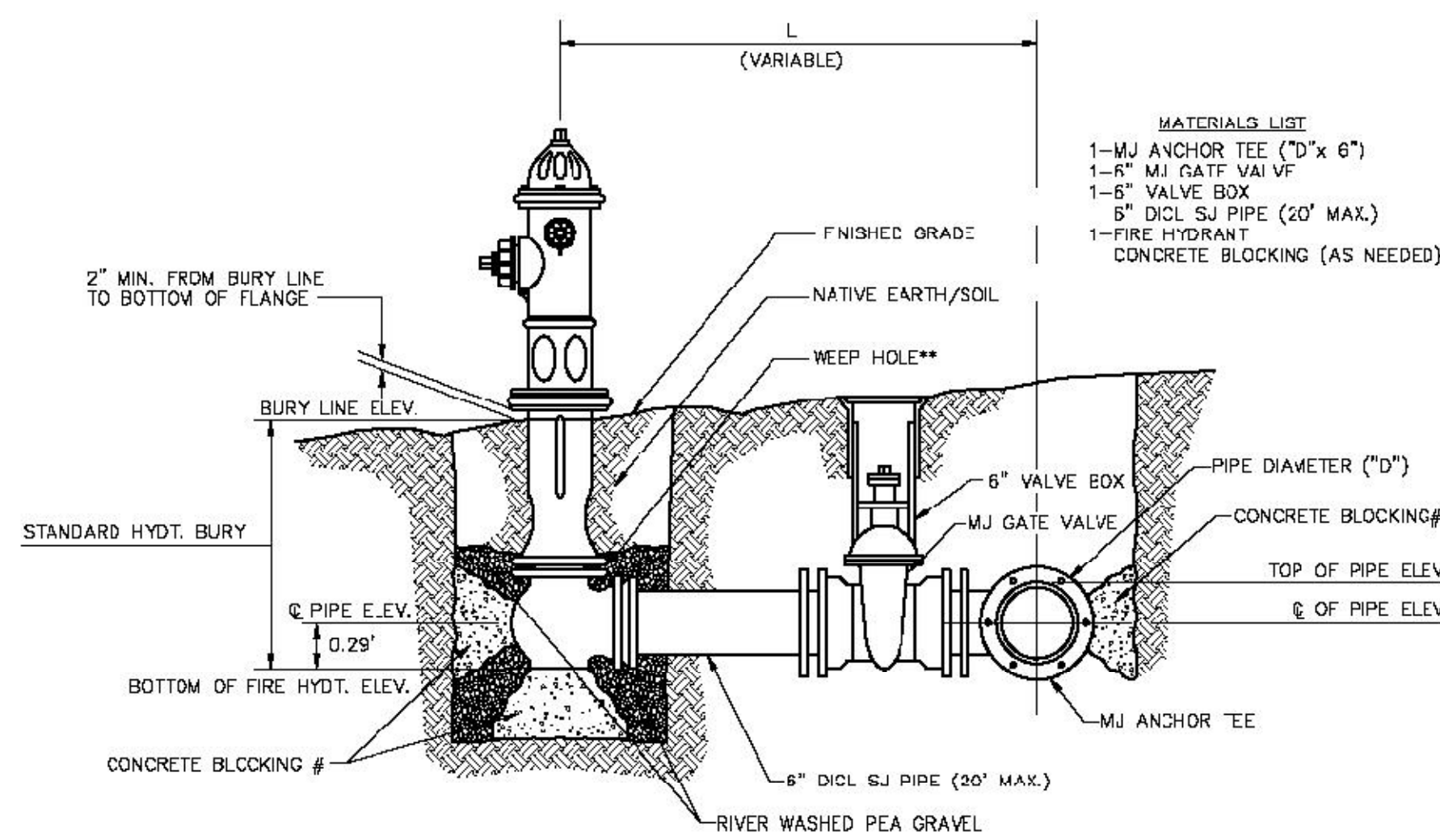
VALVE ASSEMBLY



NOTES

- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 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 ANCHOR TEE (D"x 6")
 1-R" MJ GATE VALVE
 1-6" VALVE BOX
 6" D.I.C. S.I. PIPE (20' MAX.)
 1-FIRE HYDRANT
 CONCRETE BLOCKING (AS NEEDED)

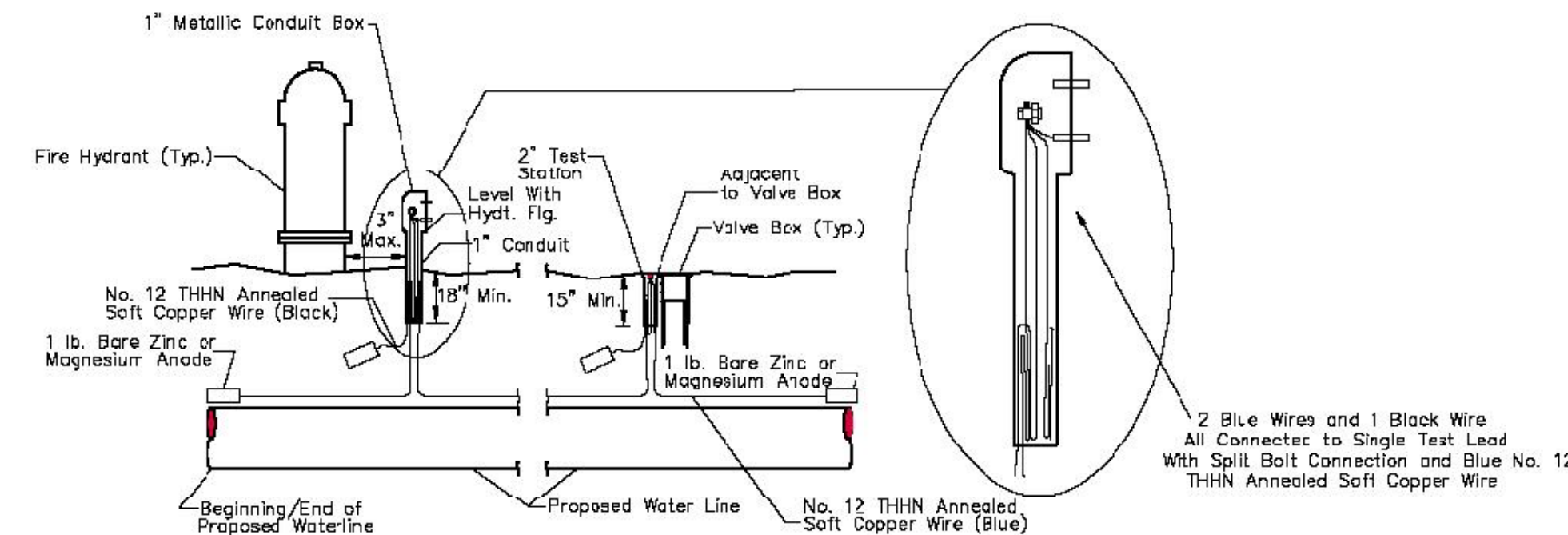
** CAUTION! WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES.

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

* IF HYDRANT BURY IS IN EXCESS OF 5', CONTRACTOR SHALL USE STANDARD 5" HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.

FIRE HYDRANT ASSEMBLY
 PER CITY OF WICHITA SPECIFICATIONS

FIRE HYDRANTS REQUIRED			
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
17-23.11, MAIN 1	1338.86	1333.86	6.0'
20+86.96, MAN 1	1341.13	1336.65	5.5'
37+25.23, MAN 1	1356.68	1352.70	5.0'



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 1 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.

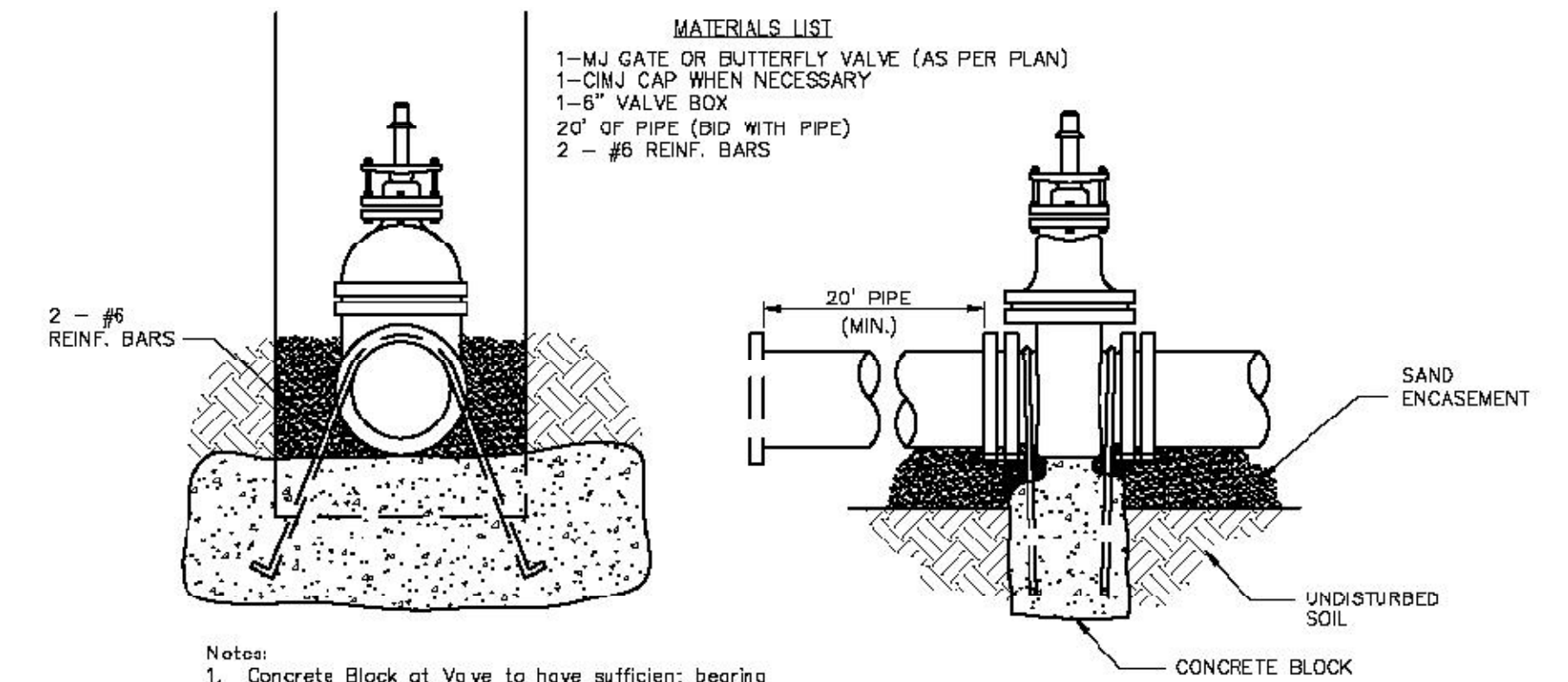
WIRE

The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermoplastic 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 is exposed at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

The test station for fire hydrant applications shall be a 1 inch galvanized conduit 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 ZPS3B as manufactured by HANDLEY Industries or approved equal. The conduit style 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.

The anodes shall be 1 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 Blue No. 12 THHN annealed soft copper wire which shall be extended to the test station.

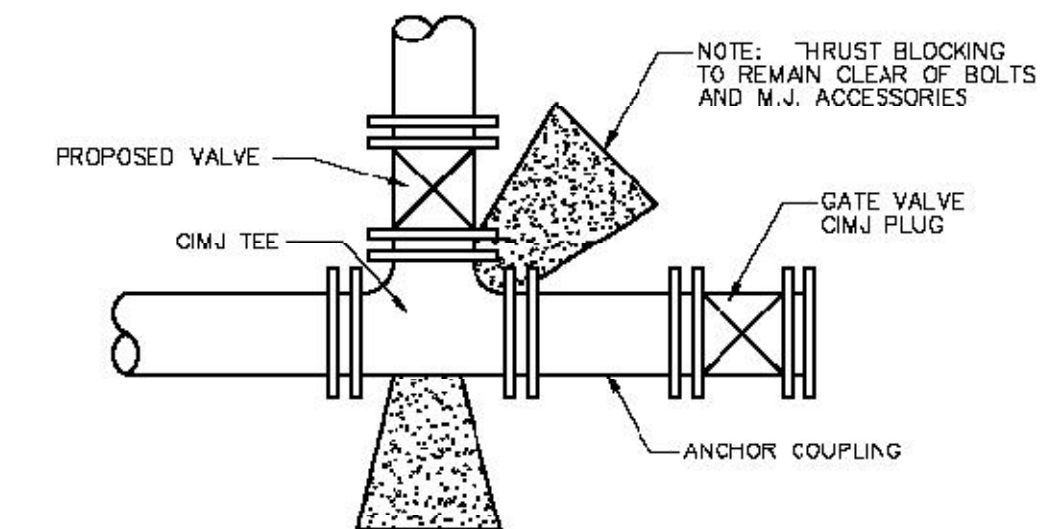
TRACER WIRE DETAIL
 COST IS SUBSIDIARY TO PIPE INSTALLATION



Notes:
 1. 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.
 2. The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.
 3. 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
4"	1809 lbs.
6"	4245 lbs.
8"	754C lbs.
12"	16965 lbs.

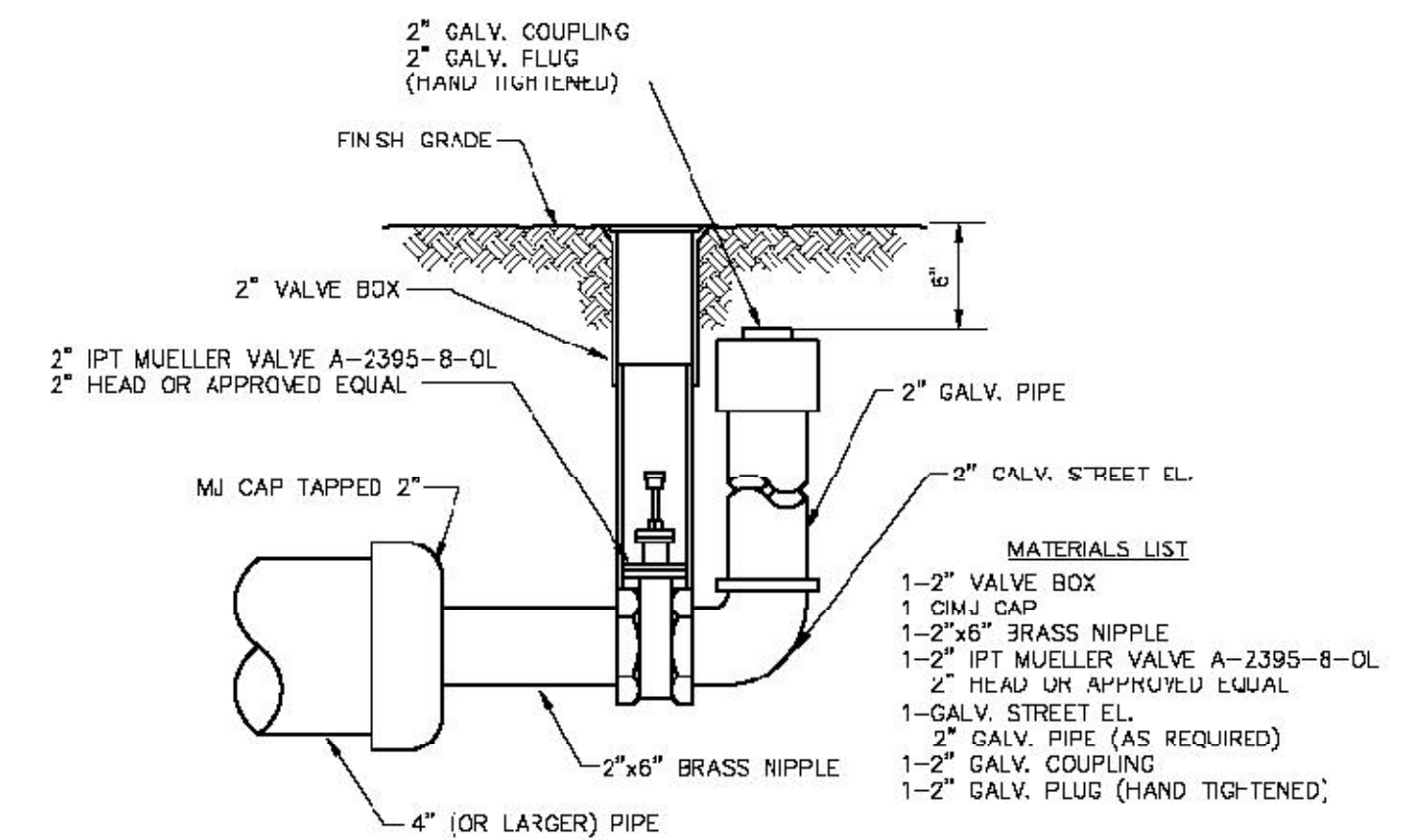
ANCHORED VALVE ASSEMBLY, SPECIAL



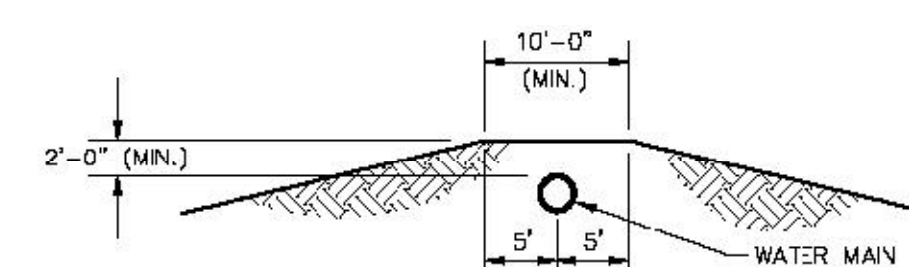
KEY BLOCK DETAIL

CLOW MEDALLION FIRE HYDRANT
CLOW 2"-12" R/W VALVE
SMJ ENDS
2" CATHODIC TEST STATION
PVC PLASTIC PIPE SCH. 40
DUCTILE IRON PIPE WHERE CALLED OUT

RECORD DRAWING
 M.T. 1-12-09



2" BLOWOFF ASSEMBLY



PROTECTIVE FILL DETAIL

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN (2) FEET. (COST SUBSIDIARY TO PIPE INSTALLATION)

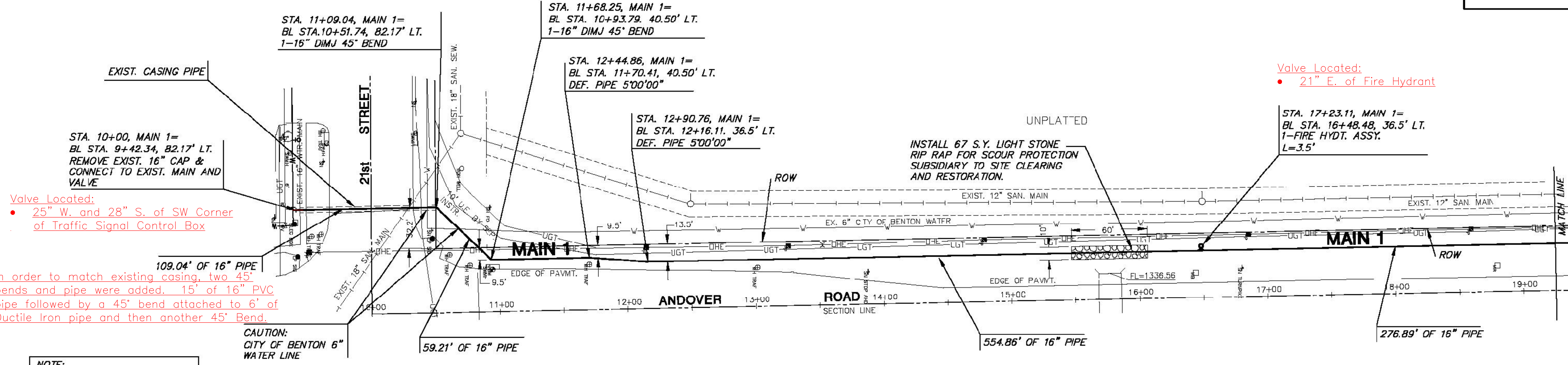
FINAL PLANS
 11/11/05



THE CORNERSTONE FIRST ADDITION
 PROJECT NAME

WATER ASSEMBLY DETAILS
 SHEET TITLE

MKEC DESIGN BY:	MKEC DRAWN BY:	MKEC CHECKED BY:
OCTOBER 2005 DATE	04294 JOB NO.	2 / 9 SHEET/OF



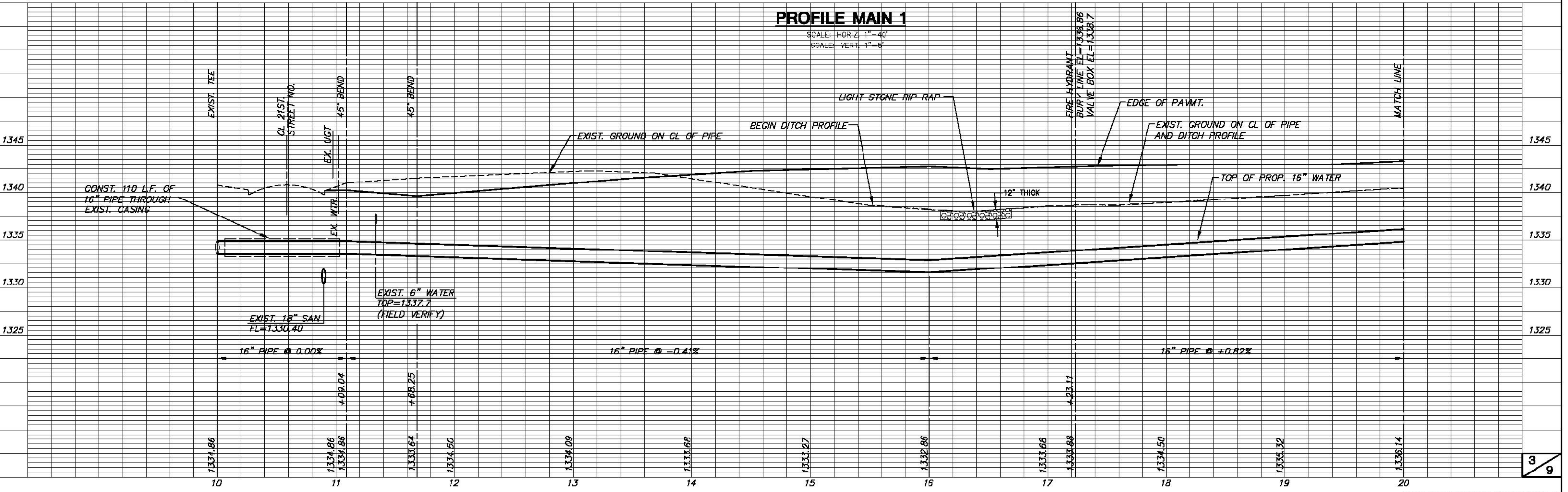
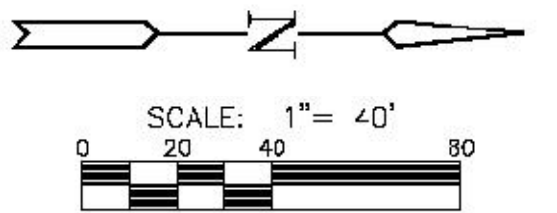
Valve Located:
 • 25" W. and 28" S. of SW Corner of Traffic Signal Control Box

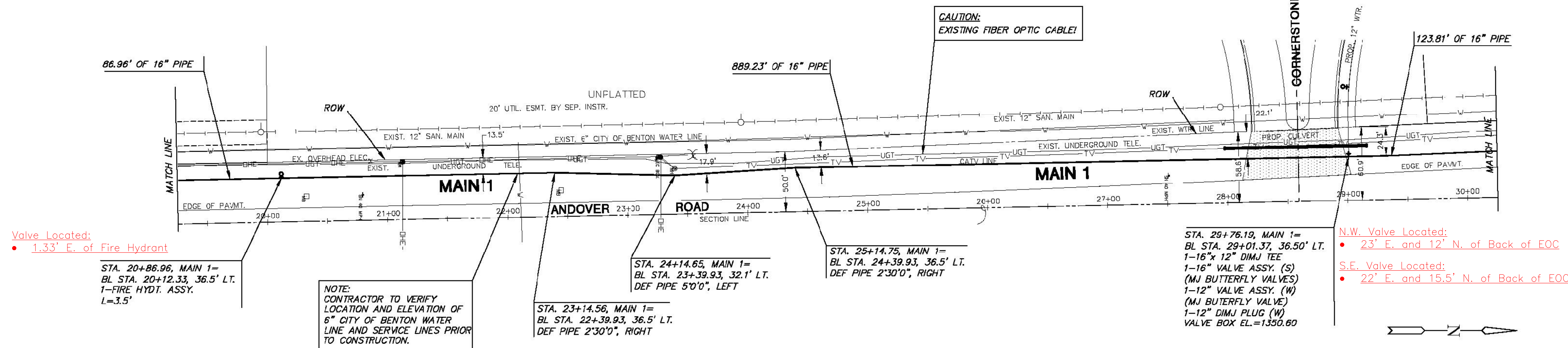
In order to match existing casing, two 45° bends and pipe were added. 15' of 16" PVC pipe followed by a 45° bend attached to 6' of Ductile Iron pipe and then another 45° Bend.

NOTE:
 CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXIST. 16" WATER LINE AND CASING PIPE, AND 6" CITY OF BENTON WATER LINE AND SERVICE LINES PRIOR TO CONSTRUCTION.

PLAN MAIN 1

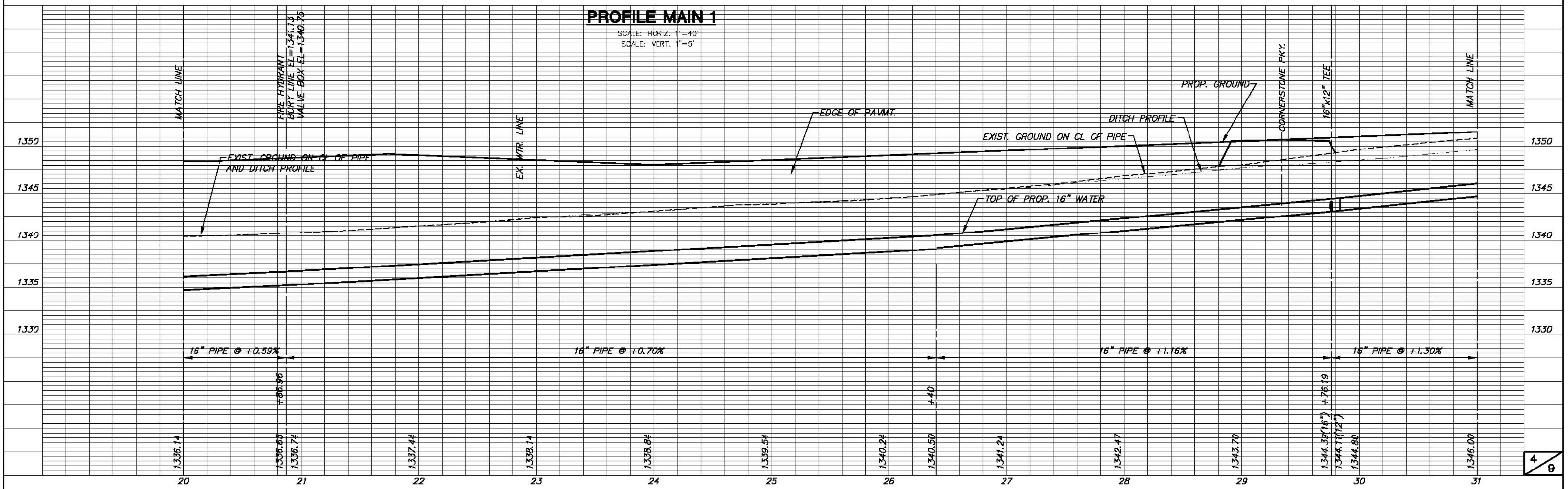
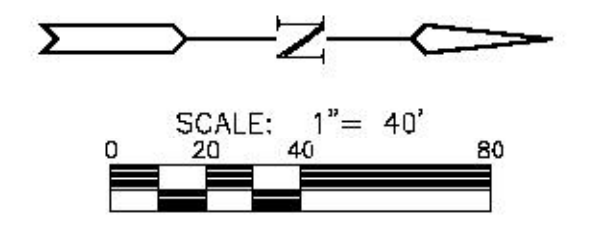
RECORD DRAWING
 M.T. 1-12-09

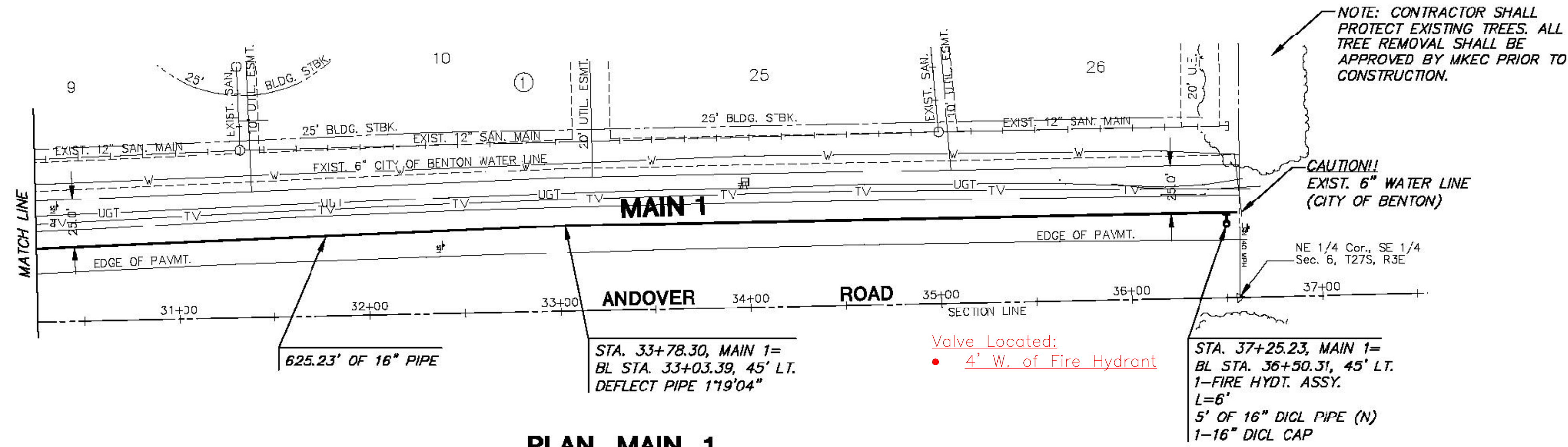




RECORD DRAWING
M.T. 1-12-09

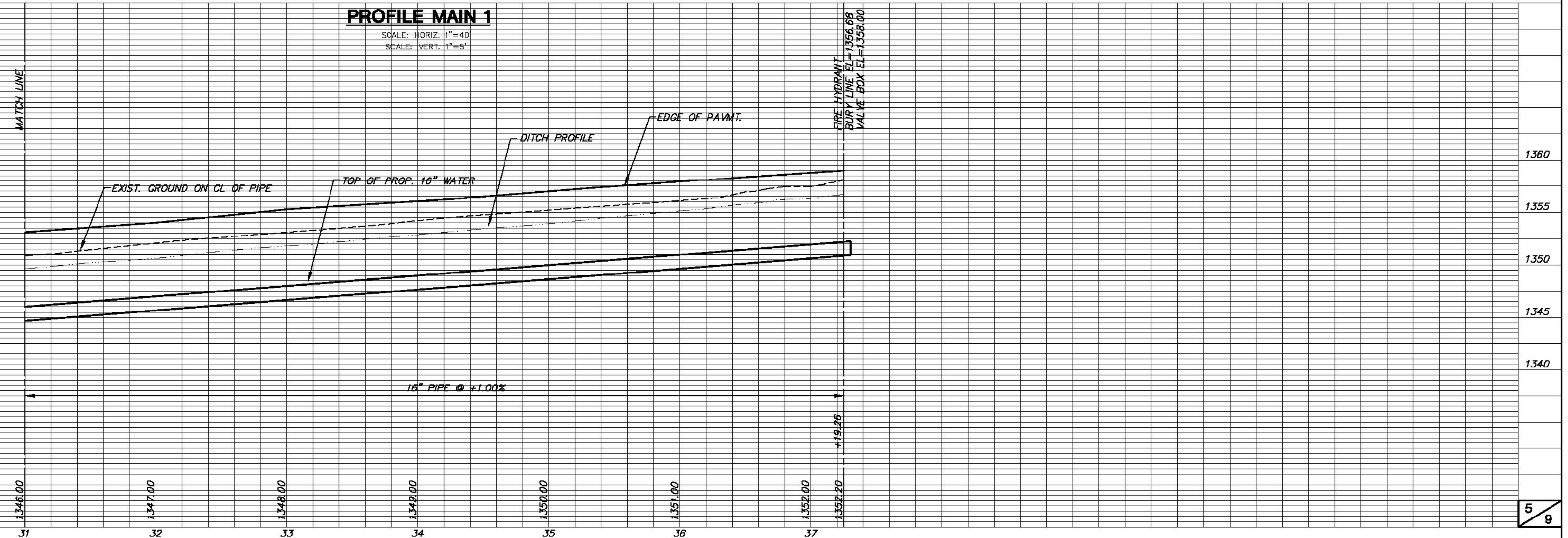
PLAN MAIN 1



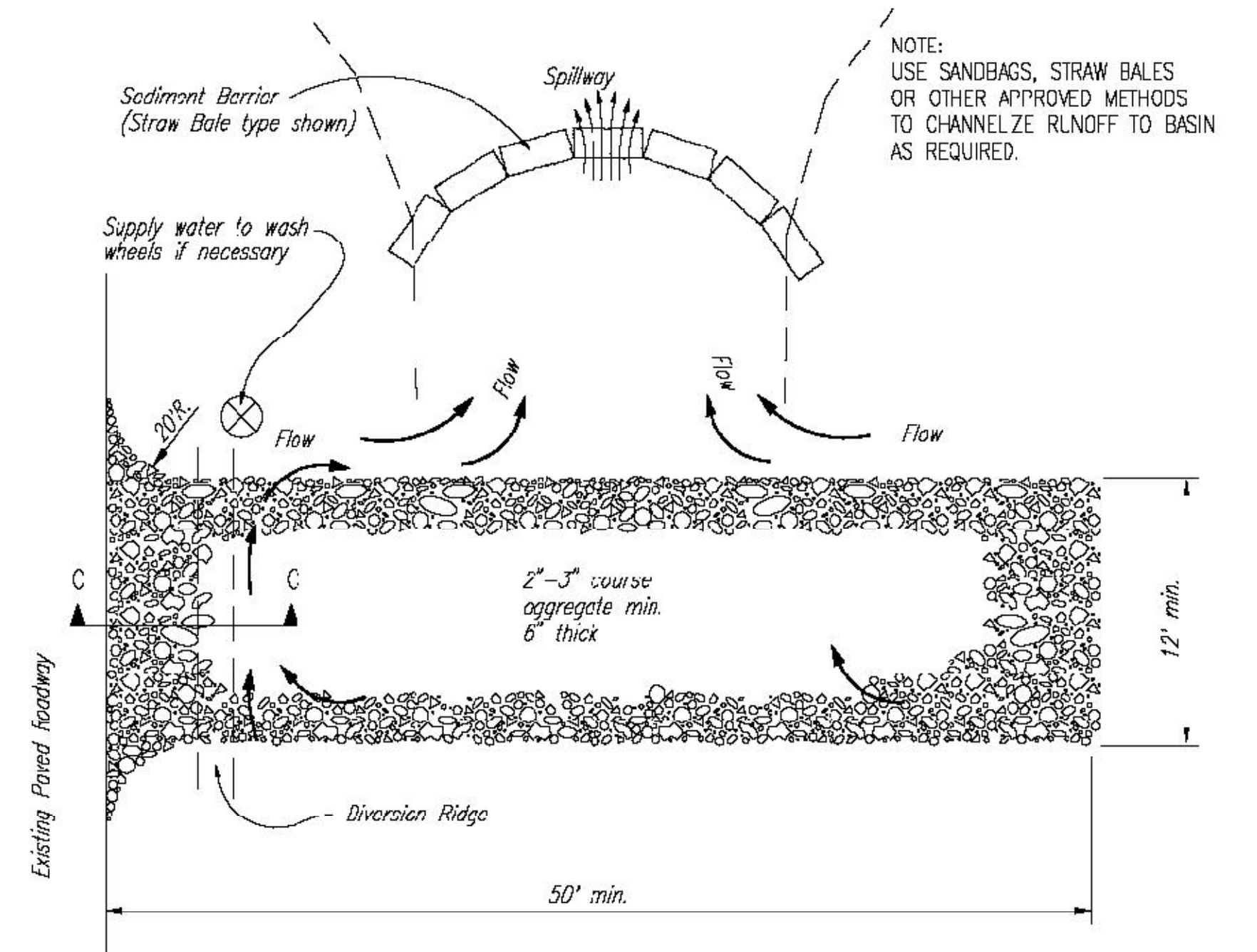
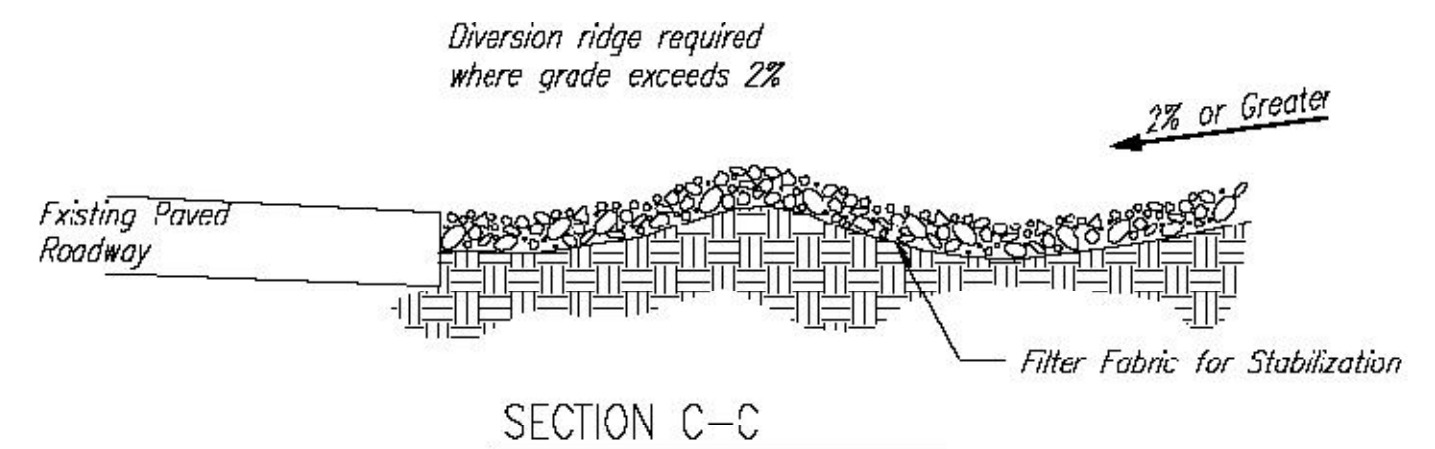
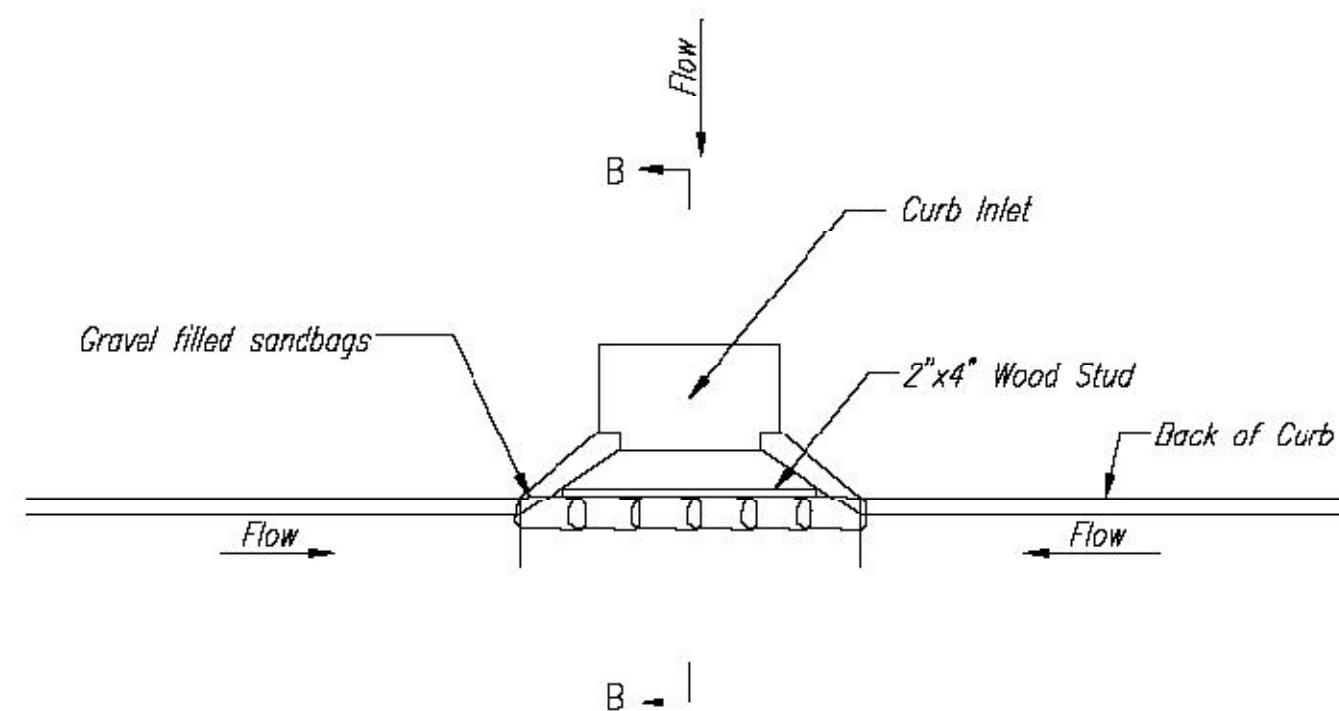
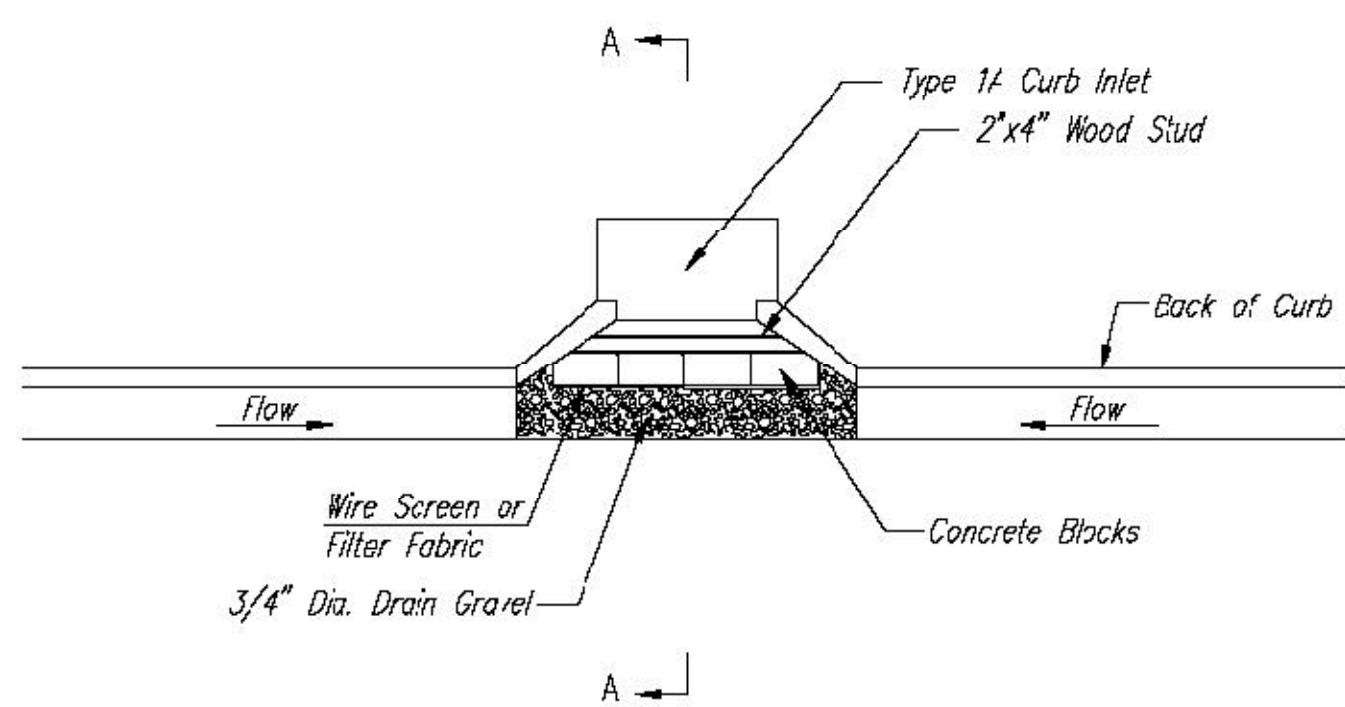
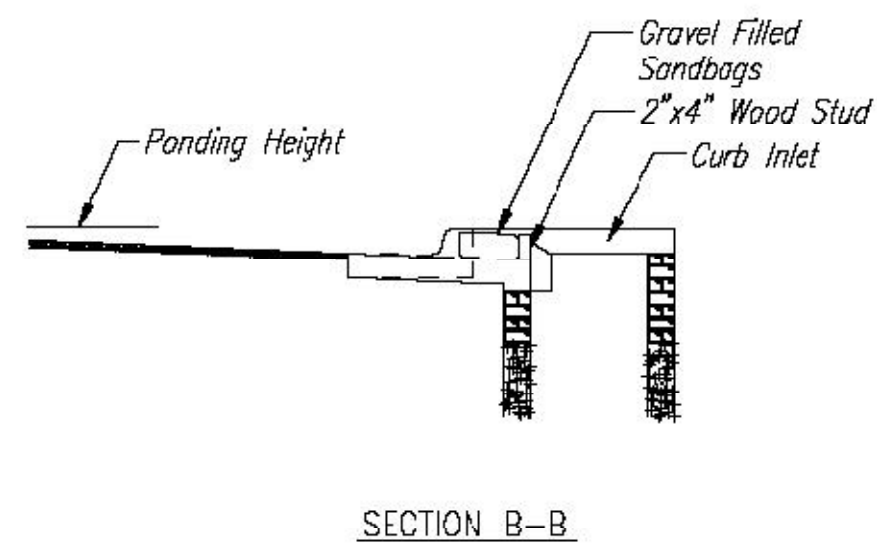
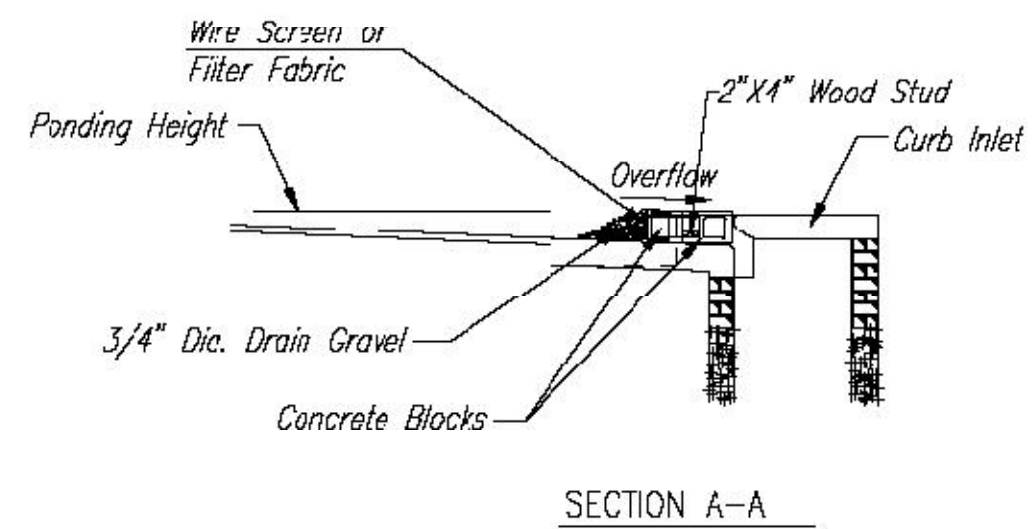


PLAN MAIN 1

RECORD DRAWING
 M.T. 1-12-09



PROFILE MAIN 1



CURB INLET GRAVEL FILTERS
(INLET PROTECTION-RESIDENTIAL STREETS ONLY)

NOTE: Other types of curb inlet protection may be approved by the city so long as equal protection is provided.

A gravel inlet filter shall be installed at sump locations on residential streets. This type of protection is not to be used on arterial or collector streets at any time that it would pose an undue traffic hazard.

Instructions for Installing:

- STEP 1: Place concrete blocks around the inlet as shown on drawing. Insert 2x4 board as shown.
- STEP 2: Wrap 1/2" mesh wire screen around the concrete blocks.
- STEP 3: Place 1" to 1-1/2" diameter rock around the blocks and wire screen. Be sure the rock extends down from the top of the concrete block.
- STEP 4: To prevent damage to vehicles, signs warning drivers about the structures may be necessary. An alternative installation is the use of gravel bags supported by a 2"x4" board to prevent collapsing.

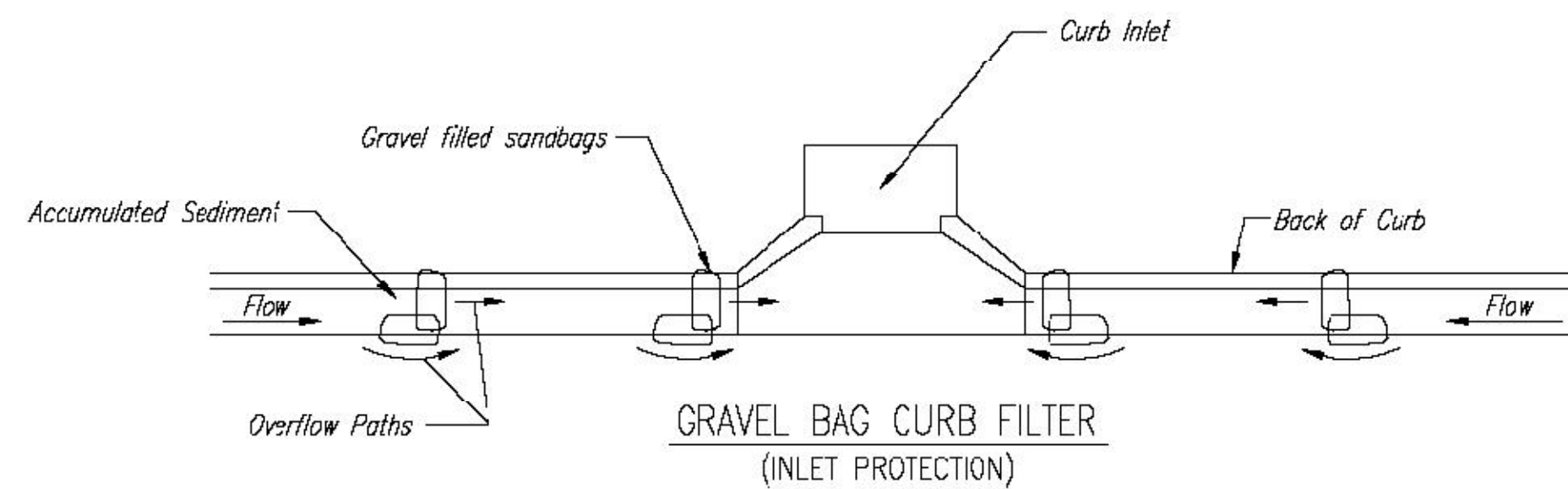
Use of rock with diameters smaller than 1" in the bag may result in clogging of pores and reduce the amount of water flowing into an inlet.

Maintenance:

All curb inlet gravel filters shall be inspected and repaired after each runoff event. Sediment deposits are to be removed once material is within 5 cm (3 inches) of the top of any block. Periodically, the gravel shall be raked to increase infiltration and filtering of runoff waters. Accumulated sediment is to be removed immediately from roads and streets.

CURB INLET SANDBAG FILTERS
(INLET PROTECTION)

NOTE: Other types of curb inlet protection may be approved by the City so long as equal protection is provided.



GRAVEL BAG CURB FILTER
(INLET PROTECTION)

NOTE: Place two or more sets of bags in a manner that results in maximum support. The flow line bag must be lower than top of curb.

CURB SEDIMENT TRAPS

When inlets are located on streets having a grade (i.e., sump conditions do not exist) installing gravel (or sand) bags in the gutter flow line to create small sediment traps can be considered. Gravel bags are recommended over sand bags to allow for drainage.

If the spacing between bags becomes too large, little sediment may be trapped. Spacing of bags should be completed using the table or graph that illustrates placement distances based upon street slope. When installed in the gutter, bag tops must be lower than the sidewalk.

Spacing:

Gravel bags are to be placed according to street grades using the following table or graph that appears below.

GRADE (%)	SPACING (FEET)
0.5	75
1.0	45
2.0	18
3.0	12
4.0	9
5.0	6

Maintenance:

Collected sediment shall be removed after every runoff event. Bags that are destroyed by vehicular traffic or through natural deterioration are to be immediately replaced.

RECORD DRAWING
M.T. 1-12-09

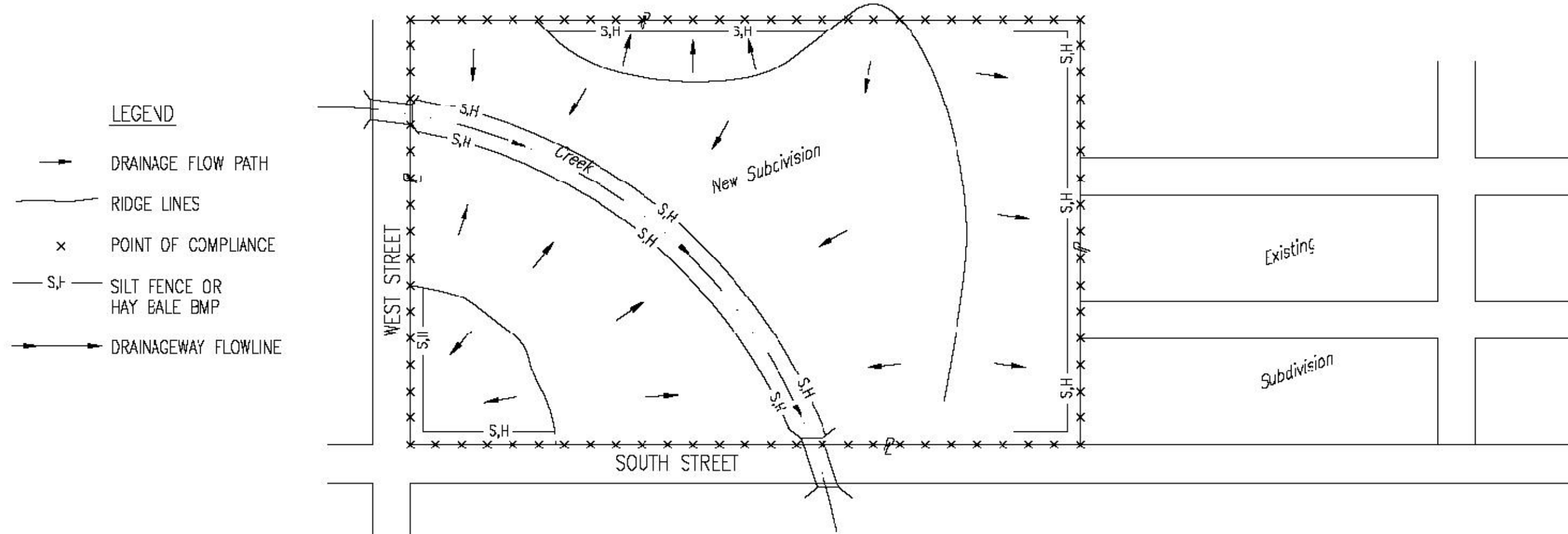


THE CORNERSTONE FIRST ADDITION
PROJECT NAME

SOIL EROSION BMP DETAILS
SHEET TITLE

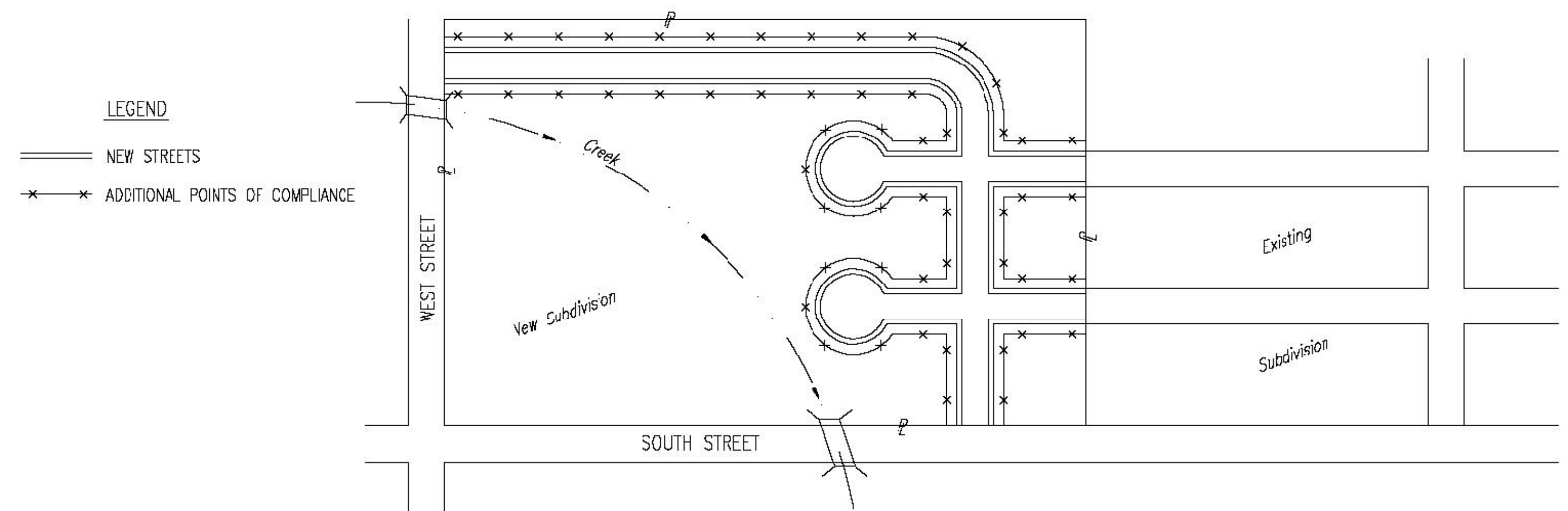
MKEC DESIGN BY: MKEC DRAWN BY: MKEC CHECKED BY:
OCTOBER 2005 DATE: 04294 JOB NO.: 6 / 9 SHEET/OF

PHASE 1 - INITIAL EARTHWORK AND UTILITIES (EXCEPT STORM SEWER)



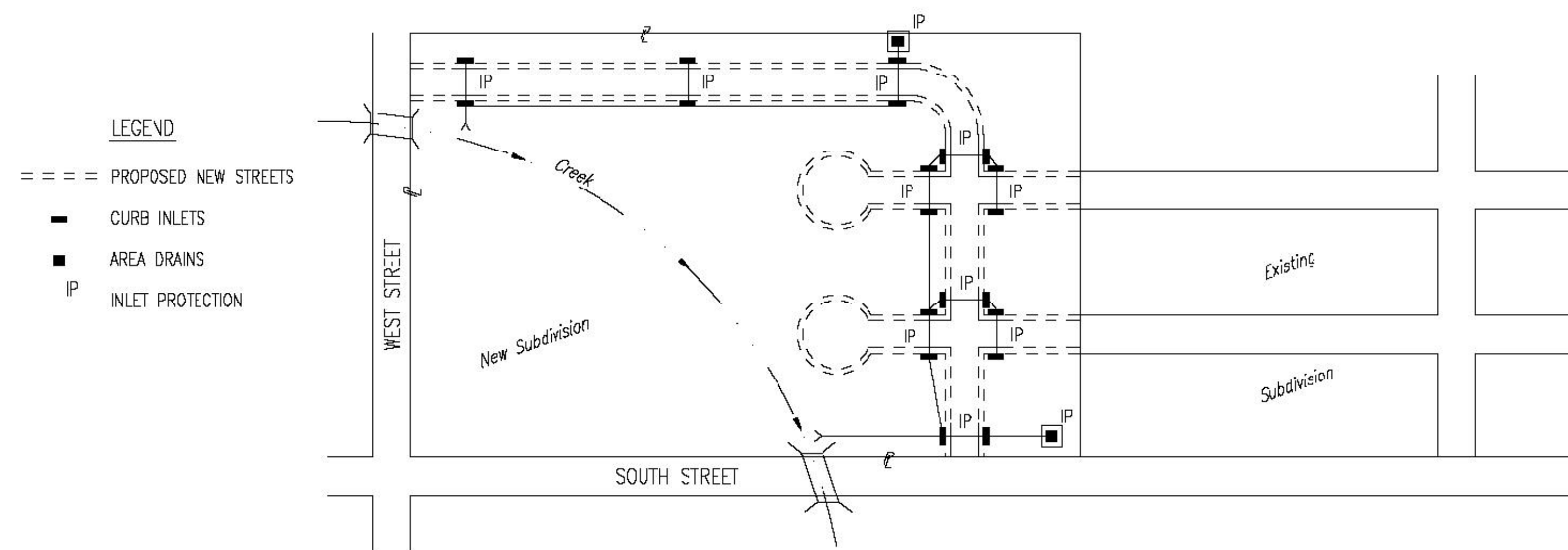
- LEGEND**
- DRAINAGE FLOW PATH
 - RIDGE LINES
 - x POINT OF COMPLIANCE
 - S- SILT FENCE OR HAY BALE BMP
 - DRAINAGEWAY FLOWLINE
- DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
 - HAYBALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE BMP'S WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
 - SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR GUTTERLINES ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE BMP'S WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
 - ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED AT THE END OF EACH WORK DAY.
 - CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL BMP'S AS LONG AS THOSE SPECIFIED ABOVE ARE IN PLACE AND EFFECTIVE. CONTRACTORS WORKING ON THE BOUNDARY LINE STREETS OR ON ADJACENT PROPERTIES TO EXTEND UTILITIES ARE EXPECTED TO USE BMP'S AT THEIR WORK LOCATIONS, AS NEEDED.
 - UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
 - THE SUBDIVISION DEVELOPER (OWNER) SHALL INSTALL AND MAINTAIN THE ON-SITE BMP'S.

PHASE 3 - STREET CONSTRUCTION



- LEGEND**
- == NEW STREETS
 - x-x-x-x ADDITIONAL POINTS OF COMPLIANCE
- DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL BMP'S INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
 - CURB OPENING INLET PROTECTION:
 - SUMP AREAS - INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
 - NON-SUMP LOCATIONS - PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
 - BMP'S WILL BE REQUIRED BACK OF CURB WHEREVER WATER CAN FLOW OVER THE CURB AND THE CURB HAS BEEN BACKFILLED TO WITHIN 3" OR LESS OF THE TOP OF CURB (SEE CURB BACKFILL DETAIL). FOR CURBS NOT YET ENTIRELY BACKFILLED (3" OR MORE BELOW TOP OF CURB), BMP'S WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
 - SEE DETAIL THIS SHEET ON BACK OF CURB PROTECTION
 - THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLEMENTED WITH HAYBALE OR SILT FENCE BMP'S AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
 - THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB BMP'S.
 - THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB BMP'S IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOD.

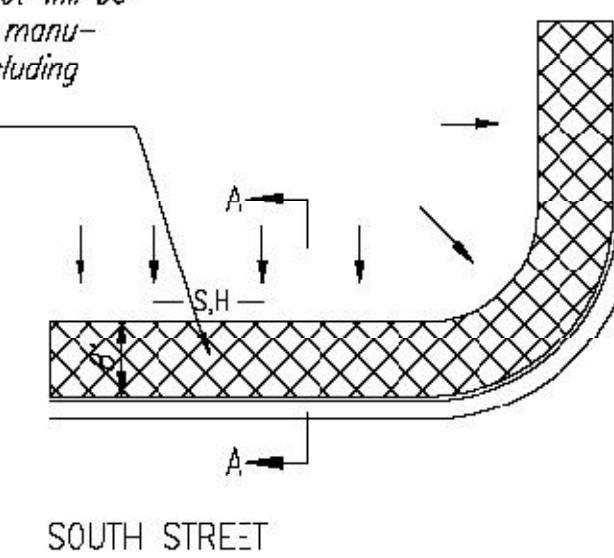
PHASE 2 - INSTALLATION OF STORM SEWER



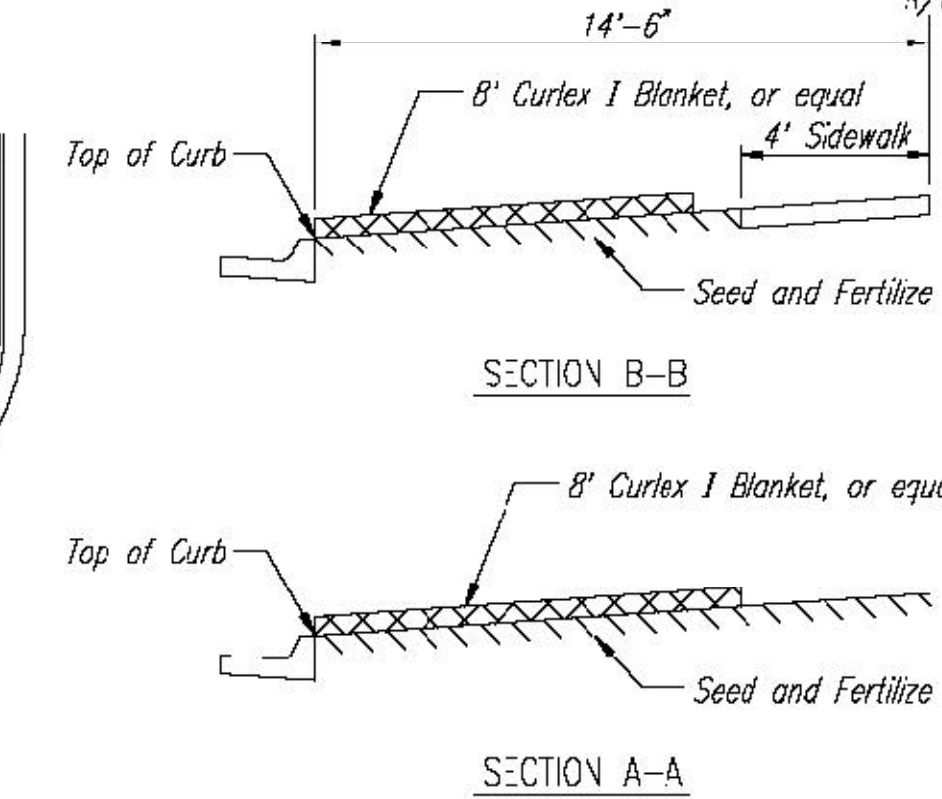
- LEGEND**
- == PROPOSED NEW STREETS
 - CURB INLETS
 - AREA DRAINS
 - IP INLET PROTECTION
- DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL BMP'S REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
 - AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
 - AREA DRAINS - AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAYBALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
 - CURB OPENING INLETS - AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION BMP'S MUST BE INSTALLED. SEE PHAS-3 - STREET CONSTRUCTION.
 - THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE BMP'S. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION.
 - THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE BMP'S ONCE INSTALLED.
 - ONCE ALL DISTURBED GROUND DRAINING TO AN INLET HAS BEEN RESTABILIZED WITH GRASS OR SOD, THE SUBDIVISION DEVELOPER WILL BE RESPONSIBLE FOR PERMANENTLY REMOVING THE INLET PROTECTION.

RECORD DRAWING
M.T. 1-12-09

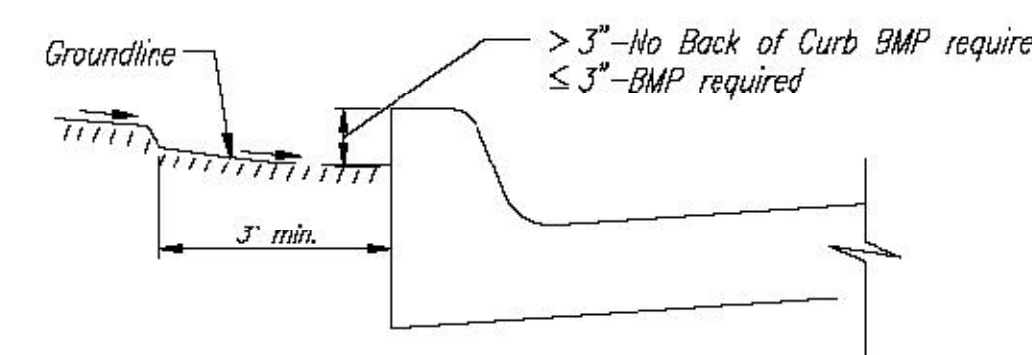
BMP-Install 8' wide Curlex I Excelsior Blanket, or equal, on prepared surface back of curb. Edge of blanket will be at back of curb. Install per manufacturer's recommendation, including staples.



BMP-Install 8' wide Curlex I 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.



BACK OF CURB PROTECTION DETAIL



CURB BACK-FILL DETAIL

GENERAL NOTES:

- THE INTENT OF ALL BEST MANAGEMENT PRACTICES (B.M.P.'S) IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, OR ANY OTHER DRAINAGE FEATURE.
- THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF BMP'S WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
- BMP'S SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON THE BMP DETAIL SHEETS.
- PERSONS DESTROYING BMP'S SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT BMP'S.
- THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 5 ACRES OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL BMP'S ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLAN.
- FOR SUBDIVISIONS SMALLER THAN 5 ACRES, SOIL EROSION BMP'S ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
- FAILURE TO USE AND MAINTAIN BMP'S IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
- THE APPLICATION OF BMP'S SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT BMP OTHER THAN THAT SHOWN. BMP'S, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
- A STABILIZED EARTH SURFACE IS DEFINED AS ONE THAT IS HARD SURFACED WITH CONCRETE, ASPHALT, OR THE LIKE, OR ONE ON WHICH 70% OF THE GRASS HAS GERMINATED ON THE ENTIRE SURFACE.



THE CORNERSTONE FIRST ADDITION
PROJECT NAME
SOIL EROSION BMP DETAILS
SUBDIVISION DEVELOPMENT PROCESS
SHEET TITLE

MKEC DESIGN BY:	MKEC DRAWN BY:	MKEC CHECKED BY:
OCTOBER 2005 DATE	04294 JOB NO.	7 / 9 SHEET/OF

RECORD DRAWING
M.T. 1-12-09

FINAL PLANNED UNIT DEVELOPMENT THE CORNERSTONE FIRST ADDITION

AN ADDITION TO ANDOVER, BUTLER COUNTY, KANSAS
LYING IN A PORTION OF THE SOUTHEAST QUARTER, SECTION 6, TOWNSHIP 27 SOUTH, RANGE 3 EAST, OF THE SIXTH PRINCIPAL MERIDIAN, TOGETHER WITH, A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER, SECTION 6, TOWNSHIP 27 SOUTH, RANGE 3 EAST, OF THE SIXTH PRINCIPAL MERIDIAN and being part of the Cornerstone Preliminary Planned Unit Development

GENERAL PROVISIONS

- All utilities shall be installed underground. Easements shall be determined on the final PUD plan.
- Access Controls:** Access to 21st Street North shall be limited to fourteen (14) openings. There shall be eight (8) total openings to Parcels 1, 2, and 3, provided that one of which shall be to motor access serving Parcel 4 to the North, and provided there shall be complete access control on the east 175' of Parcel 1. There shall be six (6) total openings to Parcels 5 and 6, provided one of which shall be to motor access serving the parcels to the North, and provided, there shall be complete access control on the west 175' of Parcel 6. As stored above, there shall be 2 motor collector street entrances onto 21st Street North located accordingly, one within Parcel 3 and one within Parcel 5. The above openings shall be further defined upon filing for final PUD.
- Street Requirements:**
 - Arterial Streets:** 50' half street right-of-way adjacent to residential zoning and 60' adjacent to commercial zoning, with 75' required within 250' of the arterial intersection with a 100' taper to the 50' or 60' Right Of Way.
 - Public Streets:**
 - The pavement section for public streets shall meet the City of Andover standards.
 - Right of way and pavement widths for public street use as follows:
 - 64' right of way - 35' roadway width (back of curb to back of curb) with curb and gutter.
 - 60' right of way - 31' roadway width (back of curb to back of curb) with curb and gutter.
 - 58' right of way - 29' roadway width (back of curb to back of curb) with curb and gutter.
 - There shall be no gutted access on public street.
 - Residential collector street right-of-way may be 60' with a 29' roadway width if designed with no residential driveway access points or an street parking. Commercial collector street right-of-way shall be 70' with a 41' roadway width.
 - Cut-de-ices:** All cut-de-ices shall have a minimum property line diameter of 100 feet. Maximum length for a cut-de-ice shall not exceed 600 feet.
- Drainage:** An overall grading and drainage plan shall be provided as a separate instrument based on a hydrology study. This plan shall be general in character but establish the overall grading and drainage requirements. A final lot grading plan shall be submitted with each final PUD plan which shall include a minimum foundation opening elevation for each lot and elevations of city grading for drainage purposes and/or curb elevation.
- Signs:** Signs for all residential parcels designating the scope of the development shall be permitted in reserves at the entrances to the overall project and to each of the proposed developments. The maximum size shall be as per the City Code. The maximum size for each project identification sign shall be 150 square feet. No project signs shall be permitted in public right of way.
- Homeowners Associations:** A document to create and operate a homeowners association shall be filed with the final PUD plan of each parcel to provide for the maintenance of open spaces, reserves, parking areas, signs, logos, berms, landscaping, buffer areas, drainage ditches, curbs, hedge rows within adjacent arterial street right of ways, etc. Said document shall be received by the City and recorded with the Butler County Register of Deeds. Failure of the Homeowners Association(s) to properly maintain the areas listed above shall give the City the right to properly maintain the areas listed and to assess the cost of maintenance to the property owners.
- Restrictive Covenants:** Shall be filed with the final PUD plan for each parcel.
- Relationship to Comprehensive Plan:** The PUD is in keeping with Andover's Comprehensive Development Plan for this area. Appropriate city zoning and subdivision regulations have been utilized as a basis for design of the PUD. The amount of land designated for residential land use and related open space provides for an average acre per dwelling unit, which is reflective of the R-2 single-family residential district in that, said average lot area exceeds the 10,000 sq. ft. per lot requirement. Provided however, within Parcel 4 the minimum lot size may be as little as 6,000 square feet while maintaining an average lot area exceeding 10,000 sq. ft.
- Sidewalks:** Sidewalks are proposed along the collector streets and the loop roads within each parcel. The width of the sidewalk on collector streets shall be 6 feet and the width on local loop streets shall be 3 feet. The exact location will be determined at the time of the final PUD plan submitted for each parcel.

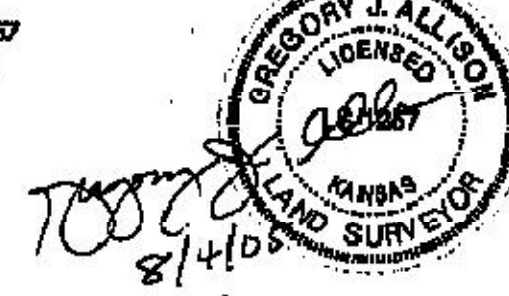
CERTIFICATE OF SURVEY

I, Gregory J. Allison, the undersigned registered land surveyor of the State of Kansas, do hereby certify that the following described tract of land was surveyed on August 4, 2005, and that the accompanying Final Planned Unit Development was prepared and that all monuments shall herein eventually suit and their positions are correctly shown to the best of my knowledge and belief.

A tract of land lying in a portion of the East Half of Section 6, Township 27 South, Range 3 East, of the 6th Principal Meridian, Andover, Butler County, Kansas said tract being more particularly described as follows:

COMMENCING at the South Quarter corner of said Section 6, thence along the East line of the Southern Quarter on a Kansas Coordinate System 1983 South Zone Grid Bearing of N01°17'44"W, 270.03 feet to the POINT OF BEGINNING, thence continuing along said East line N01°17'44"W, 1067.47 feet thence N89°35'49"E, 139.54 feet thence N85°24'04"E, 64.00' to a point on a non-tangent curve to the right, thence along said curve 38.74 feet, said curve having a central angle of 06°38'30", a radius of 318.00 feet, and a long chord distance of 38.72 feet, bearing N01°04'31"W, thence N88°42'34"E, 607.74 feet to a point on a semi-tangent curve to the right, thence along said curve 316.41 feet to a reverse curve to the left, said curve having a central angle of 47°12'37", a radius of 384.00 feet, and a long chord distance of 307.53 feet, bearing N01°30'54"E, thence along said reverse curve to the left 418.62 feet, said curve having a central angle of 38°58'13", a radius of 616.00 feet, and a long chord distance of 410.61 feet, bearing N43°58'36"E, thence N44°32'25"E, 93.25 feet to a point on a curve to the right, thence along said curve 90.75 feet, said curve having a central angle of 10°44'37", a radius of 484.00 feet, and a long chord distance of 90.62 feet, bearing N49°52'48"E, thence N44°13'22"W, 108.87 feet thence N00°45'42"E, 76.81 feet, thence N22°55'31"W, 108.45 feet, thence N78°03'50"W, 177.46 feet, thence S89°35'37"W, 965.77 feet, thence N00°24'11"W, 145.00 feet, thence N89°35'37"E, 460.00 feet, thence N10°20'26"E, 129.69 feet, thence N01°24'01"W, 64.33 feet, thence N08°20'40"W, 200.17 feet, to the North line of said Southeast Quarter, thence N32°12'58"W, 82.82 feet, thence N01°21'12"W, 537.82 feet, thence S88°38'49"W, 338.00 feet, thence N01°21'12"W, 353.00 feet, thence N88°38'49"E, 740.93 feet, thence N87°27'16"E, 64.25 feet, thence N88°38'49"E, 142.38 feet to the East line of the Southwest Quarter of the Northeast Quarter, thence along said East line S01°21'15"E, 97.25 feet to the Southeast corner of said Southwest Quarter of said Northeast Quarter, thence along the North line of said Southeast Quarter, N89°35'37"E, 858.84 feet, thence S00°24'22"E, 184.73 feet, thence S48°34'21"W, 28.01 feet to a point on a non-tangent curve to the right, thence along said curve 241.88 feet, said curve having a central angle of 34°29'42", a radius of 232.00 feet, and a long chord distance of 232.00 feet, bearing S20°28'17"E, thence S06°57'34"W, 201.14 feet to a point on a curve to the left, thence along said curve 104.25 feet to a point on a non-tangent curve to the right, said curve having a central angle of 06°32'53", a radius of 888.00 feet, and a long chord distance of 104.19 feet, bearing S03°31'07"W, thence along said non-tangent curve to the right 87.25 feet to a reverse curve to the left, said curve having a central angle of 1°23'29", a radius of 484.00 feet, and a long chord distance of 87.23 feet, bearing S81°12'22"E, thence along said reverse curve to the left 55.88 feet to a curve to the left, said curve having a central angle of 03°18'29", a radius of 967.00 feet, and a long chord distance of 55.87 feet, bearing S77°34'44"E, thence along said curve to the left 281.95 feet to a reverse curve to the right, said curve having a central angle of 26°52'28", a radius of 600.00 feet, and a long chord distance of 279.37 feet, bearing N87°13'13"E, thence along said reverse curve to the right 184.44 feet to a reverse curve to the left, said curve having a central angle of 31°19'11", a radius of 338.50 feet, and a long chord distance of 182.17 feet, bearing N89°22'04"E, thence along said reverse curve to the left 84.45 feet, said curve having a central angle of 16°08'04", a radius of 300.00 feet, and a long chord distance of 84.20 feet, bearing S83°08'22"E, thence N85°50'36"E, 5.37 feet to the West line of an Agreement and Release of Highway Damages, to Butler County, Kansas, Dated August 30th, 1984, and filed at the Butler County Engineering Office, thence N85°49'36"E, 46.90 feet to the East line of said Southeast Quarter, thence along said East line S01°09'54"E, 101.00 feet, thence S88°50'36"W, 56.57 feet to the West line of an Agreement and Release of Highway Damages, thence S88°50'36"W, 6.80 feet to a point on a curve to the left, thence along said curve 84.15 feet to a reverse curve to the right, said curve having a central angle of 16°04'16", a radius of 300.00 feet, and a long chord distance of 83.87 feet, bearing S80°48'28"W, thence along said reverse curve to the right 209.57 feet to a reverse curve to the left, said curve having a central angle of 34°38'23", a radius of 343.00 feet, and a long chord distance of 206.43 feet, bearing N89°44'28"W, thence along said reverse curve to the left 147.45 feet to a reverse curve to the right, said curve having a central angle of 14°04'02", a radius of 600.00 feet, and a long chord distance of 147.29 feet, bearing N79°18'17"E, thence along said reverse curve to the right 186.57 feet to a reverse curve to the left, said curve having a central angle of 10°20'54", a radius of 1033.00 feet, and a long chord distance of 186.32 feet, bearing N81°03'11"W, thence along said reverse curve to the left 433.97 feet, said curve having a central angle of 10°20'04", a radius of 418.00 feet, and a long chord distance of 414.74 feet, bearing S74°12'03"W, thence S44°30'30"W, 98.23 feet to a point on a curve to the right, thence along said curve 403.47 feet to a reverse curve to the left, said curve having a central angle of 36°56'19", a radius of 682.00 feet, and a long chord distance of 484.61 feet, bearing S63°59'36"E, thence along said reverse curve to the left 84.76 feet, said curve having a central angle of 98°50'49", a radius of 318.00 feet, and a long chord distance of 81.84 feet, bearing S34°11'18"W, thence S15°04'00"E, 85.24 feet, thence N89°35'49"E, 62.83 feet, thence S01°09'24"E, 72.95 feet to a point lying 270 feet North of said South line, thence S89°35'49"W, 207.68 feet to a point on a non-tangent curve to the right, thence along said curve 28.20 feet to a reverse curve to the left, said curve having a central angle of 12°33'40", a radius of 130.00 feet, and a long chord distance of 28.44 feet, bearing S42°09'39"W, thence along said reverse curve to the left 70.19 feet, said curve having a central angle of 87°26'9", a radius of 70.00 feet, and a long chord distance of 67.28 feet, bearing S19°40'00"W, thence S09°03'29"E, 40.24 feet to a point on a curve to the left, thence along said curve 36.13 feet to a reverse curve to the right, said curve having a central angle of 29°34'54", a radius of 70.00 feet, and a long chord distance of 33.73 feet, bearing S23°20'46"E, thence along said reverse curve to the right 67.00 feet, said curve having a central angle of 36°13'51", a radius of 101.76 feet, and a long chord distance of 66.65 feet, bearing S19°31'07"E, thence S00°24'11"W, 50 feet to a point on a curve to the left, thence along said curve 27.86 feet to a reverse curve to the right, said curve having a central angle of 38°13'51", a radius of 41.76 feet, and a long chord distance of 27.35 feet, bearing S41°9'31"07"W, thence along said reverse curve to the right 67.11 feet, said curve having a central angle of 29°34'54", a radius of 130.00 feet, and a long chord distance of 66.36 feet, bearing N23°30'46"W, thence N29°02'29"W, 40.54 feet to a point on a curve to the right, thence along said curve 57.91 feet to a point lying 270.00 feet North of said South line, said curve having a central angle of 43°09'13", a radius of 130.00 feet, and a long chord distance of 95.61 feet, bearing N12°31'06"E, thence parallel with and 270.00 feet North of said South line, S89°35'49"W, 600.62 feet to the POINT OF BEGINNING. Said tract CONTAINS: 59.42 acres of land, more or less.

Gregory J. Allison, P.E., R.L.S.#1257
MKBC Engineering Consultants, Inc.
411 N. Yale Road
Wichita, Kansas 67206
316-684-9800
www.gjallison.com



Revised in accordance with K.S.A. 58-2005 on this 20th day of July, 2005.



Appointed Land Surveyor, Butler County, Kansas

Know all men by these presents that we the undersigned property owners of the land as above set forth in the Registered Land Surveyor's Certificate, have caused the same to be surveyed and plotted into Lots, Blocks, Streets and Reserves the same to be known as the Final Planned Unit Development, "THE CORNERSTONE FIRST ADDITION", an addition to the City of Andover, Butler County, Kansas, and being part of Cornerstone Preliminary Planned Unit Development.

The streets are hereby dedicated to and for the use of the public. Reservations for the construction and maintenance of public utilities and drainage, are hereby granted to the public.

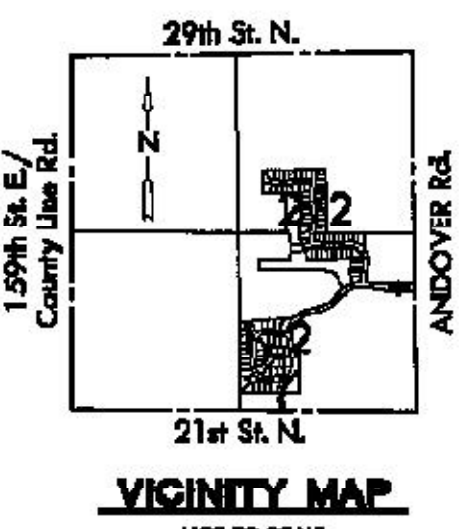
Reserves "A", "B", "C", and "D" are plotted for monuments, landscaping, irrigation, berming, open space and drainage. Reserve "B" is also plotted for sidewalks, and utilities in designated areas. Reserves "C" and "D" are also plotted for drainage and utilities in designated areas. The reserves shall be owned and maintained by a homeowners' association and are reserved for uses stated in the Planned Unit Development Official Provisions, provided however, that the undersigned or undersigned's association as the undersigned successors in interest may, at its discretion deed a parcel of Reserve "B", "C", and "D" to an owner of an adjoining lot subject to the obligation to maintain such deeded parcel in compliance with the provisions hereof and in compliance with the maintenance covenants of any applicable restrictive covenants or regulations.

A drainage plan has been developed for this plot and all drainage easements, rights-of-way, or reserves shall remain at established grades or as modified with the approval of the applicable City or County Engineer, and unobstructed to allow for the conveyance of storm water.

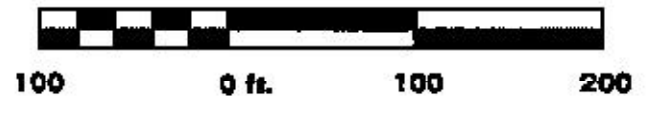
Lots 1-15 Inclusive, Block 4, and Lots 1-15 Inclusive, Block 6, are required to adhere to the minimum pad elevation as shown on the "Minimum Pad Elevation" table on sheet 2.

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C1	28.50'	130.00'	12°33'40"
C2	70.19'	70.00'	57°26'58"
C3	36.13'	70.00'	29°34'34"
C4	67.90'	101.76'	38°13'51"
C5	27.86'	41.76'	38°13'51"
C6	67.11'	130.00'	29°34'34"
C7	97.91'	130.00'	43°09'13"

LINE TABLE		
LINE	LENGTH	BEARING
L1	40.54'	S09°03'29"E
L2	50.00'	S00°24'11"E
L3	60.00'	S89°35'49"W
L4	50.00'	N00°24'11"W
L5	40.54'	N09°03'29"W

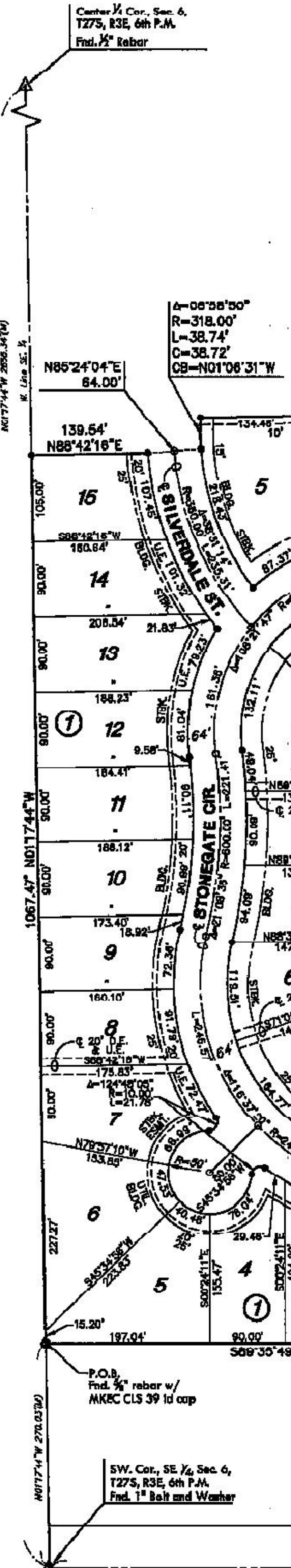


- ### LEGEND
- △ = Section Corner Monument Found
 - = Found Survey Monument (see annotated caption for type)
 - = Set 5/8" Rebar w/ MKBC CLS 39 Id. Cap
 - (M) = Measured
 - (CM) = Calculated from measured
 - U.E. & D.E. = Utility Easement and Drainage Easement
 - ▨ = Street Dedication (with words)



BENCH MARK

- BM #1 Chiseled square on center of south headwall of RCB under 21st Street North, 243' East and 41' South of the South Quarter corner of Sec. 6, T27S, R3E. Elev. = 1345.60
- BM #2 Chiseled square on top of curb at East return of East Drive to "Life Care Center", 994' East and 26.5' South of the South Quarter corner of Sec. 6, T27S, R3E. Elev. = 1348.78
- BM #4 Chiseled square on Southeast corner of curb Inlet at North end of Northeast return at 21st Street North and Andover Road, 89.5' North and 36.5' East of the Southeast Corner of Sec. 6, T27S, R3E. Elev. = 1340.69
- BM #6 "I-post" 48" +/- West of traveled way of Andover Road and 50' +/- South of the centerline of the South drive into cemetery, 373' South and 68' West of the East Quarter Corner of Sec. 6, T27S, R3E. Elev. = 1354.00



MORTGAGE CERTIFICATE

We, Intrust Bank, holders of a mortgage on the above described property, do hereby consent to the plot of "THE CORNERSTONE FIRST ADDITION".

INTRUST BANK, N.A.
Gary D. Schmitt, Executive Vice President

This instrument was acknowledged before me on the 04th day of August, 2005, by Gary D. Schmitt, Executive Vice President, Intrust Bank.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

SUSAN K. COOK
Notary Public - State of Kansas
My Exp. Expires 11/30/08

Susan K. Cook, Notary Public
411 N. YALE ROAD
WICHITA, KS 67206
316-684-9800

OWNER'S CERTIFICATE

CHESTNUT RIDGE, LLC, A KANSAS LIMITED LIABILITY COMPANY, by Rhodie Development Corporation, Manager and GREENWICH/4 LLC, A KANSAS LIMITED LIABILITY COMPANY, by Rhodie Investment Company, Inc., Manager

Rob Ramsayer, Vice President
Rhodie Development Corporation and Rhodie Investment Company, Inc.

STATE OF KANSAS, DEEDOWN COUNTY) ss:
This instrument was acknowledged before me on the 4th day of August, 2005, by Rob Ramsayer, Vice President of Rhodie Development Corporation and Rhodie Investment Company, as Manager of Chestnut Ridge, LLC, a Kansas Limited Liability Company and Greenwich/4 LLC, a Kansas Limited Liability Company, respectively.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

CYNTHIA A. WOMACK
Notary Public - State of Kansas
My Exp. Expires 2-1-2009
Cynthia A. Womack, Notary Public
My Term Expires Feb. 7th, 2009.

FINAL PLANNED UNIT DEVELOPMENT THE CORNERSTONE FIRST ADDITION

AN ADDITION TO ANDOVER, BUTLER COUNTY, KANSAS
 LYING IN A PORTION OF THE SOUTHEAST QUARTER, SECTION 6, TOWNSHIP 27 SOUTH, RANGE 3 EAST, OF THE SIXTH PRINCIPAL MERIDIAN, TOGETHER WITH,
 A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER, SECTION 6, TOWNSHIP 27 SOUTH, RANGE 3 EAST, OF THE SIXTH PRINCIPAL MERIDIAN
 and being part of the Cornerstone Preliminary Planned Unit Development

PLANNING COMMISSION CERTIFICATE

STATE OF KANSAS, BUTLER COUNTY) ss:
 This Final Planned Unit Development, "THE CORNERSTONE FIRST ADDITION", an addition to the City of Andover, Butler County, Kansas, was approved by the Andover City Planning Commission.
 Dated this 17th day of May, 2005.
 ANDOVER PLANNING COMMISSION
 Clark Nelson, Chair
 Secretary

GOVERNING BODY CERTIFICATE

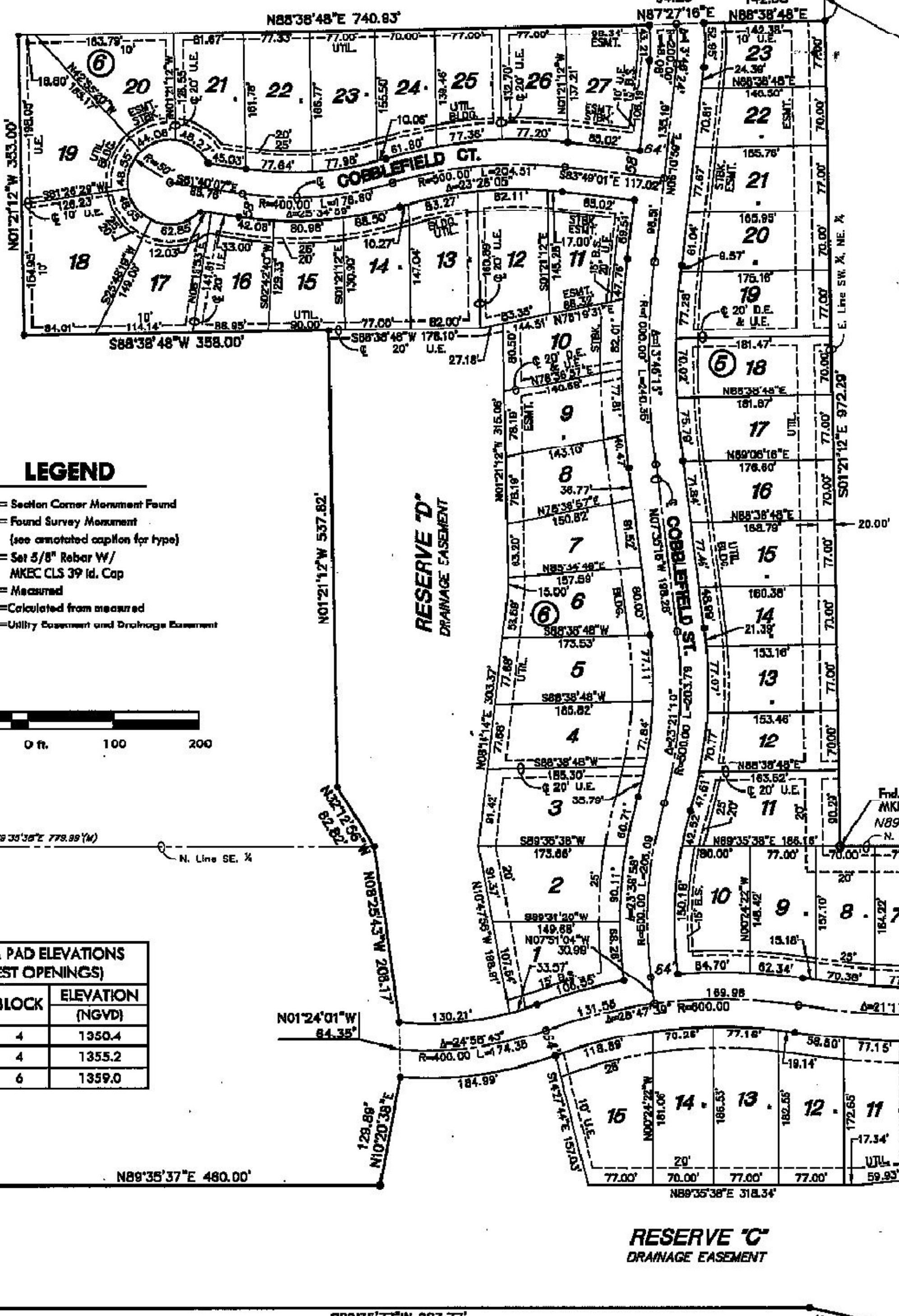
STATE OF KANSAS, BUTLER COUNTY) ss:
 The dedications shown on this Final Planned Unit Development, are hereby accepted by the Governing Body of the City of Andover, Kansas.
 Dated this 14th day of June, 2005.
 Mayor
 City Clerk

REGISTER OF DEEDS CERTIFICATE

STATE OF KANSAS, BUTLER COUNTY) ss:
 This is to certify that this instrument was filed for record in the Register of Deeds office this 5th day of December, 2005, at 9:30 o'clock (A.M.) and is duly recorded in Record Book _____, Page _____, Plat Book _____, Page _____, Doc# _____, Fed# _____.
 Register of Deeds
 Deputy

TRANSFER RECORD

STATE OF KANSAS, BUTLER COUNTY) ss:
 Entered on transfer record this 5th day of December, 2005.
 County Clerk



LEGEND

- Section Corner Monument Found
- Found Survey Monument (see annotated caption for type)
- Set 5/8" Rebar w/ MKEC CLS 39 Id. Cap
- (M) = Measured
- (CM) = Calculated from measured
- U.E. & D.E. = Utility Easement and Drainage Easement

MINIMUM PAD ELEVATIONS (LOWEST OPENINGS)

LOTS	BLOCK	ELEVATION (NGVD)
1-11	4	1350.4
12-15	4	1355.2
1-15	6	1359.0

- ### BENCH MARK
- BM #1 Chiseled square on center of south headwall of RCB under 21st Street North, 243' East and 41' South of the South Quarter Corner of Sec. 6, T27S, R3E. Elev. = 1345.60
 - BM #2 Chiseled square on top of curb at East return of East Drive to "Life Care Center", 994' East and 26.5' South of the South Quarter corner of Sec. 6, T27S, R3E. Elev. = 1348.78
 - BM #4 Chiseled square on Southeast corner of curb Inlet at North end of Northeast return at 21st Street North and Andover Road, 89.5' North and 36.5' East of the Southeast Corner of Sec. 6, T27S, R3E. Elev. = 1340.69
 - BM #6 "T-post" 48" +/- West of traveled way of Andover Road and 50' +/- South of the centerline of the South drive into cemetery, 373' South and 68' West of the East Quarter Corner of Sec. 6, T27S, R3E. Elev. = 1354.00

RESERVE "E" CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA
C10	7.93'	2.50'	161°12'05"
C11	93.74'	638.50'	08°24'42"
C12	163.30'	300.00'	31°11'16"
C13	92.26'	338.50'	13°37'00"
C14	29.71'	9.52'	178°51'22"
C15	92.60'	343.50'	15°26'46"
C16	183.12'	300.00'	34°38'23"
C17	73.76'	643.50'	06°44'43"

RECORD DRAWING
 M.T. 1-12-09



MKEC ENGINEERING CONSULTANTS
 411 N. WEBB ROAD
 WICHITA, KS 67208
 316.264.8400