

# WATER DISTRIBUTION SYSTEM

to serve

## TYLER'S LANDING 3RD - PHASE 2

CITY OF WICHITA, KANSAS

James L. Armour, P.E. City Engineer

Project Number

**448-90104**

O.C.A. Number

**735347**

### GENERAL NOTES:

1. Contractor will be required to provide notice to utility companies a minimum of forty-eight (48) hours prior to any excavation, as follows:
 

Kansas One-Call	687-2470
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The Contractor must notify the following in case of an emergency:

Cox Communications	262-4270
Kansas Gas Service	1-888-482-4950
Westar Energy	383-8650
Aquila Energy	1-800-303-0357
SBC	268-2245
City of Wichita Water Dept.	268-4563
City of Wichita Sewer Maint.	268-4024
City of Wichita Storm Sewer Maint.	268-4090
City of Wichita Traffic Maint.	268-4034
Conoco Phillips Pipeline	1-877-267-2290
Southern Star Pipeline	529-6600
Kinder Morgan Pipeline	1-888-844-5658
2. Utility service lines, poles, valve boxes, meters, and etcetera 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.
3. 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 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.
4. Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor ONLY with the Developer or Baughman Company approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
5. 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.
6. 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.
7. All existing and proposed erosion control measures including silt fencing, erosion control mat, straw bales, inlet barriers, and const. entrance shall be maintained throughout construction by the contractor and until project is accepted by the City of Wichita. The on-site engineer shall complete weekly reports on the status of erosion control measures. The contractor shall be required to comply with maintenance and/or replacement of erosion control measures as determined by the on-site engineer until project is accepted by City of Wichita.
8. All excess excavation shall remain on-site and shall be stockpiled or spread at a location determined by the engineer.
9. The developer for this project is Jay Russell, (316) 722-2417
10. All water mains and appurtenances shall be installed in accordance with City of Wichita, Kansas Standard Specifications for Water Main Installations No. 14533.
11. 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. 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.
12. All areas disturbed during construction shall be seeded at 300 lbs./acre with Rye Grass immediately following construction in that area. Contractor shall prepare ground per City Specifications.
13. Contractor shall coordinate water line construction near 37th Street N. with Lynn Applegate, Lafarge North America, (316) 641-3497.

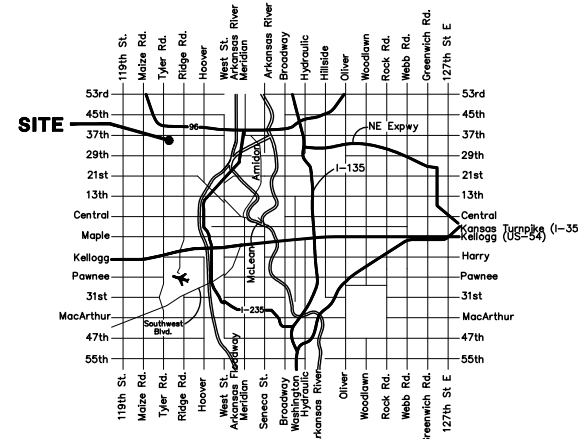
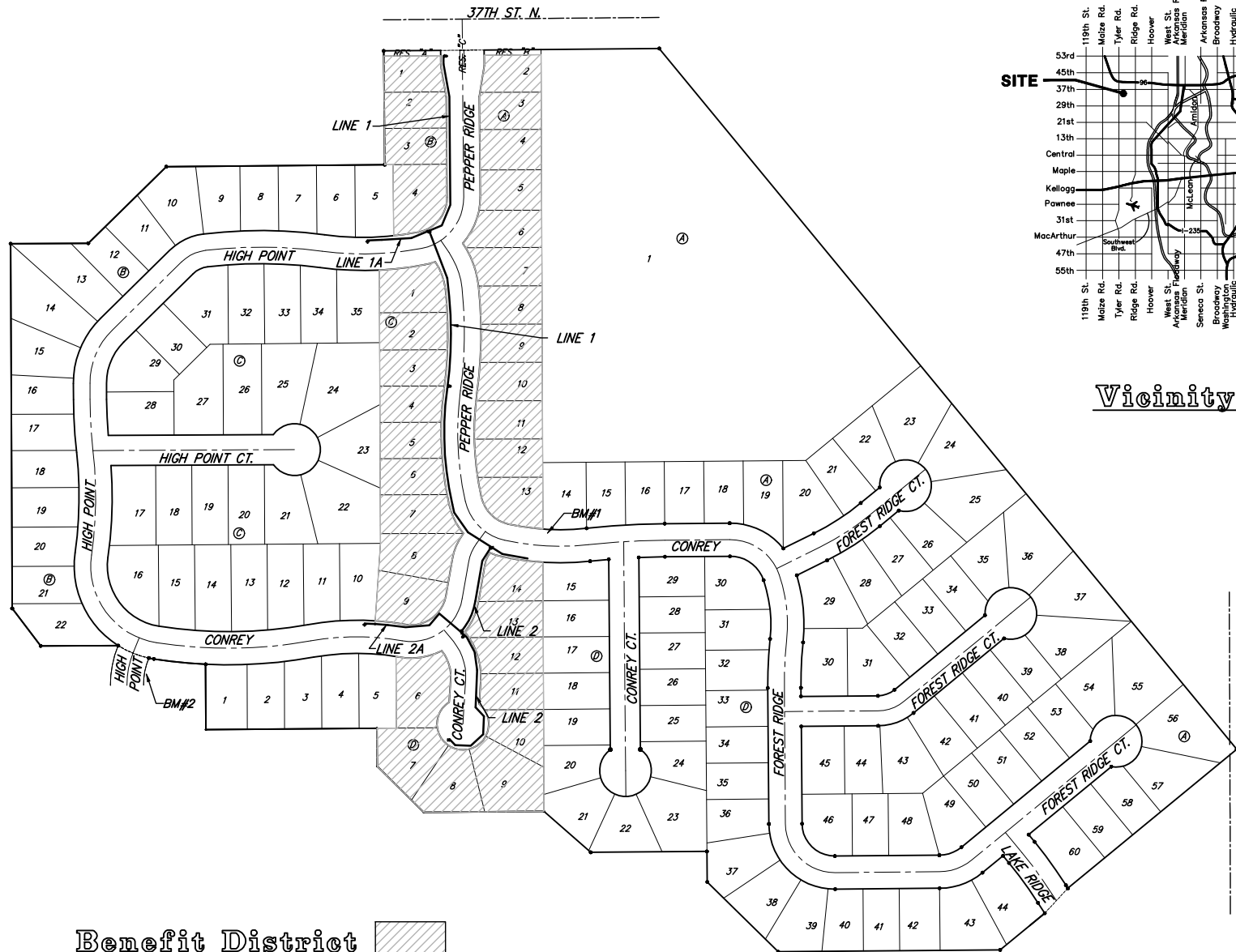
### SHEET INDEX

Title Sheet	1
Standard Water Details	2
Line 1	3
Line 2	4
Lines 1A & 2A	5
Erosion Control Plan	6
Erosion Control BMP's	7-10
Coordinate Sheet	11
Copy of Plat	12

### BENCHMARKS

BM #1: "□" Cut in Middle of Curb Inlet Top, North Curb of Conrey, Adjacent to SW Corner of Lot 14, Block A, Tyler's Landing 3rd Addition.  
Elev. = 150.29 (1337.69 M.S.L.)

BM #2: "□" Cut in Top of East Curb of High Point, 10' South of End of Return. Adjacent to Lot 1, Block D, Tyler's Landing Addition.  
Elev. = 155.28 (1342.68 M.S.L.)

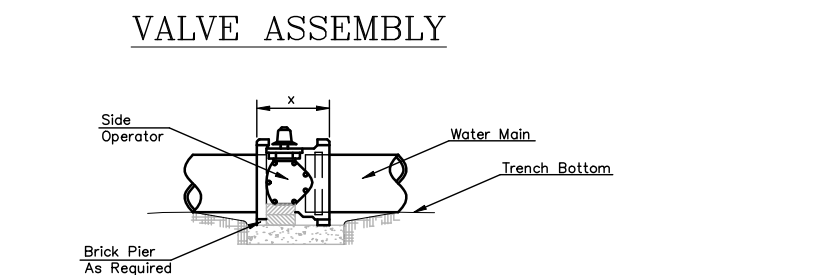
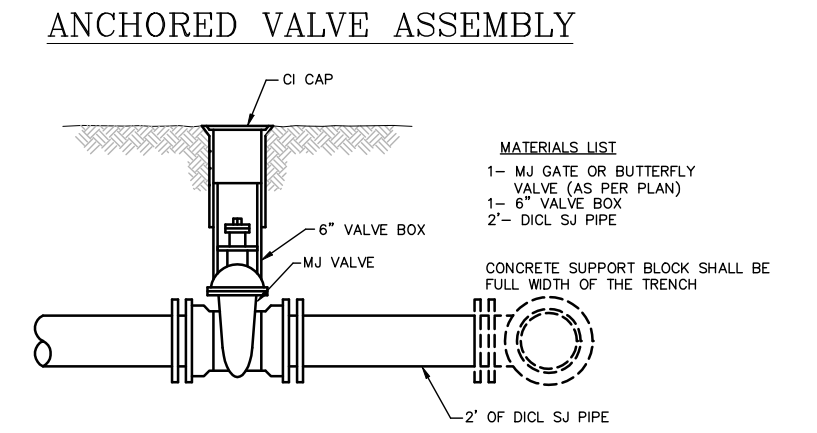
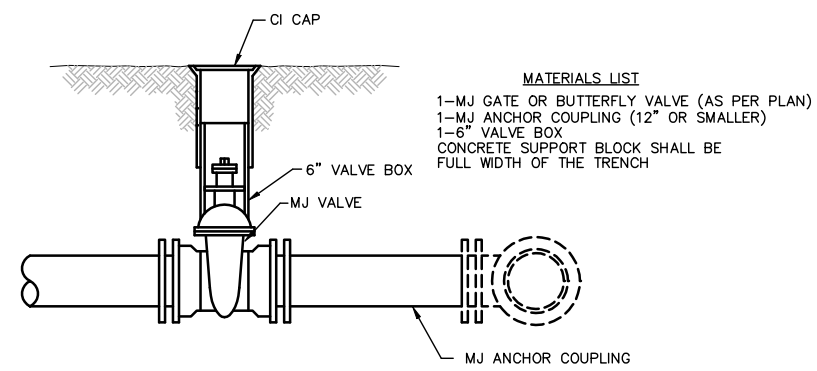
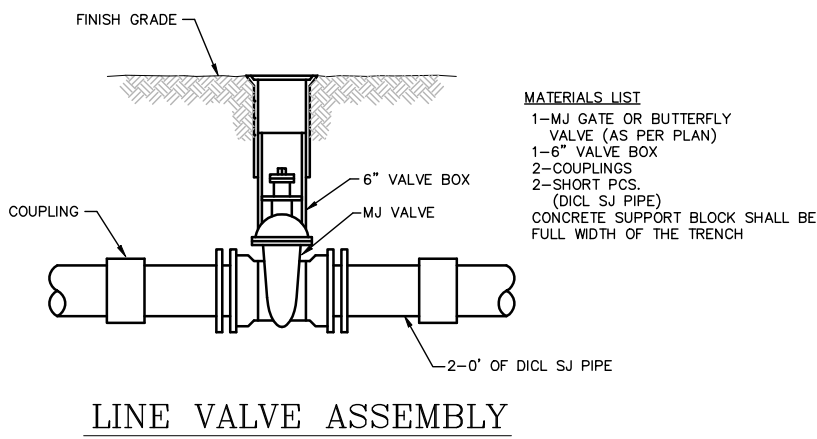


Vicinity Map

Benefit District

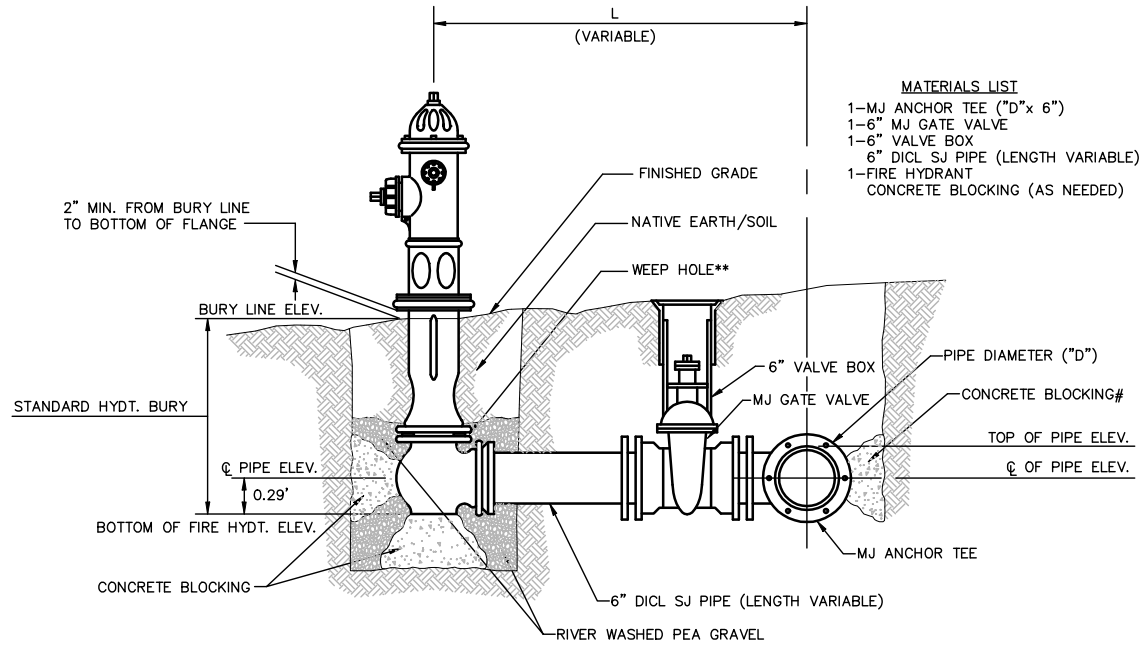


Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149  
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE



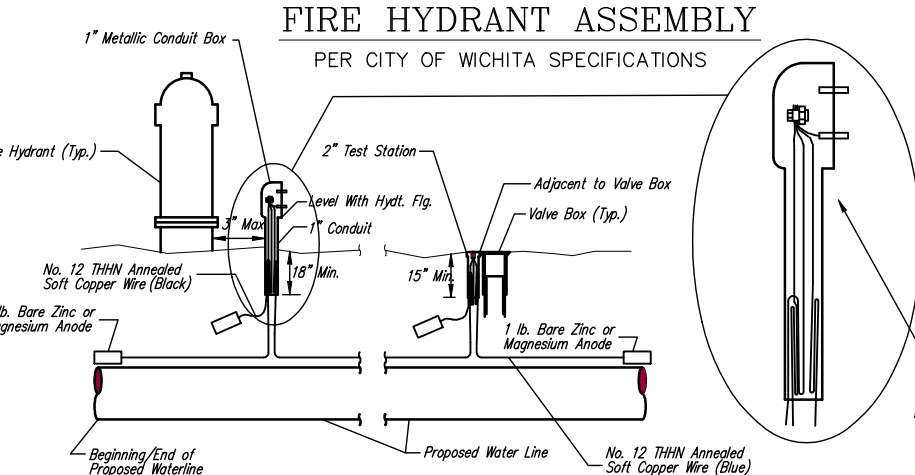
- NOTES**
- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. Larger lines to be detailed on plans.
  - 6" Valve Box and Cover required per City of Wichita Std. Specifications.
  - Conc. Support Block to be full width of trench.

**CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION**

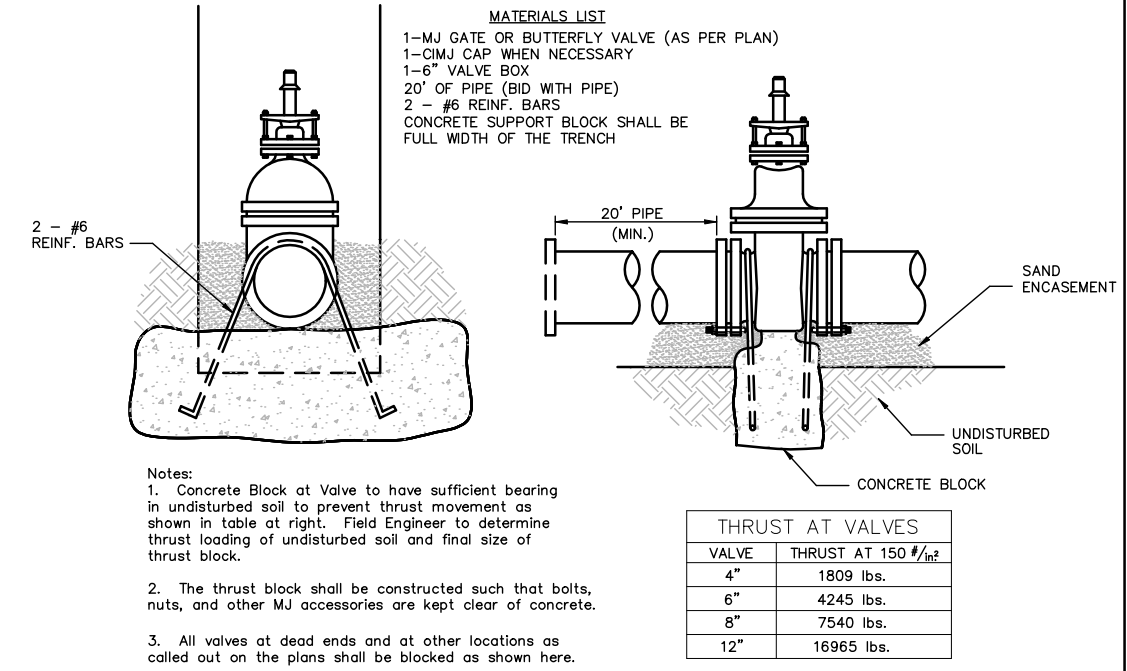


**FIRE HYDRANTS REQUIRED**

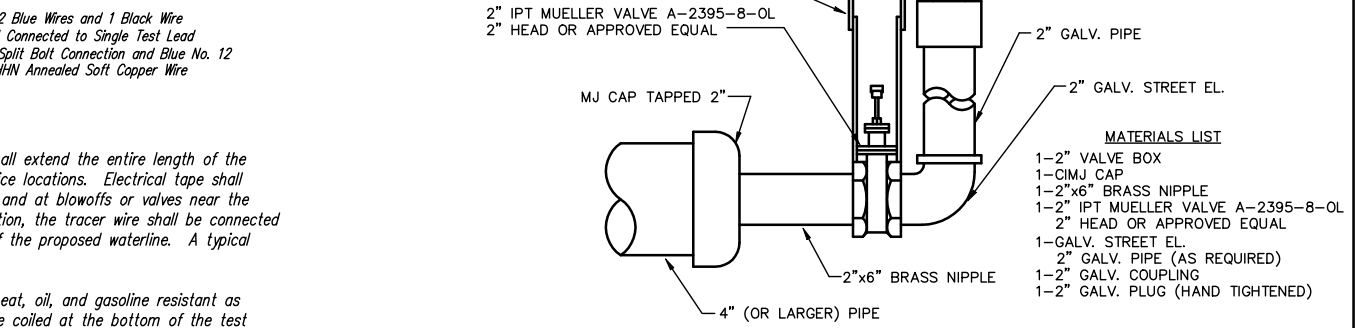
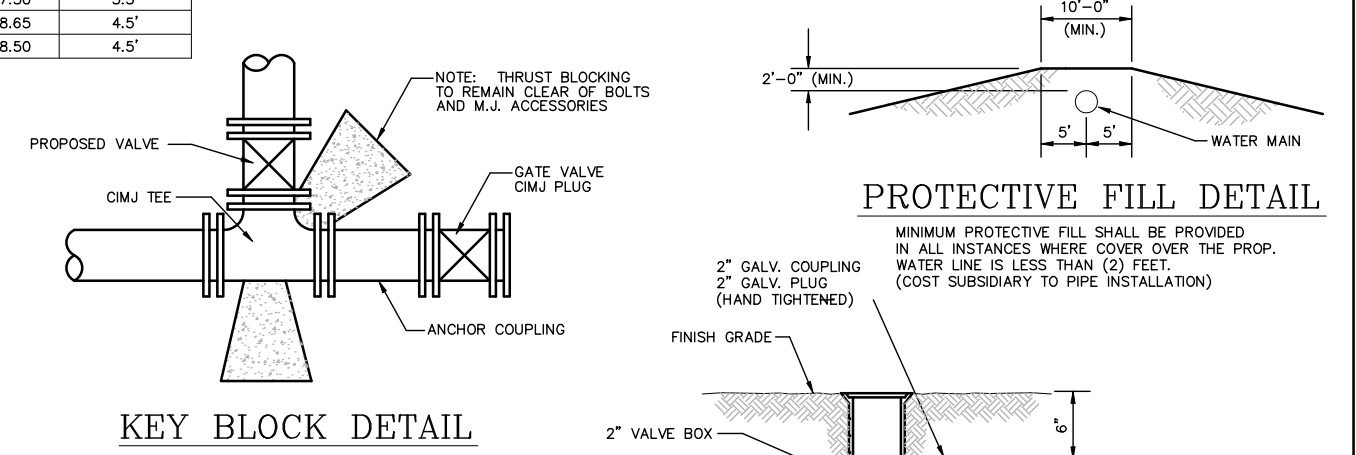
LINE	STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
1	0+69.73	152.15	147.30	5.5'
1	6+65.19	152.50	148.65	4.5'
2	1+86.27	152.35	148.50	4.5'



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



**ANCHORED VALVE ASSEMBLY, SPECIAL**



**2" BLOWOFF ASSEMBLY**

**THE CITY OF WICHITA**

**STANDARD WATER ASSEMBLY DETAILS**

James L. Armor, P.E. City Engineer

CITY ENGINEER'S OFFICE  
 435 NORTH MAIN STREET  
 WICHITA, KANSAS 67202  
 (316) 268-4201  
 (316) 268-4114 FAX

PROJECT NUMBER: 448-90104  
 OCA Number: 735347

DATE: FEB 2007  
 SHEET 2 OF 12

Revised: 6-7-00, MCG

**BENCHMARK:**  
 BM #1: "□" Cut in Middle of Curb Inlet Top, North Curb of Conrey, Adjacent to SW Corner of Lot 14, Block A, Tyler's Landing 3rd Addition.  
 Elev. = 150.29 (1337.69 M.S.L.)

BM #2: "□" Cut in Top of East Curb of High Point, 10' South of End of Return. Adjacent to Lot 1, Block D, Tyler's Landing Addition.  
 Elev. = 155.28 (1342.68 M.S.L.)

Curve #1  
 Curve Data Based on Centerline  
 Rad. = 792' Delta = 15° 37' 07" Tangent = 108.62'  
 Arc = 214.74' L.C. = 215.23' Def/Fl. = 2.18198 Min.

Station	Arc	6 Lt.	6 Rt.	Defl.	T. Defl.
4+56.13	-	-	-	0°00'00"	0°00'00"
4+75.00	18.87'	19.11'	18.83'	0°41'10"	0°41'10"
5+00.00	25.00'	25.32'	24.94'	0°54'33"	1°35'43"
5+25.00	25.00'	25.32'	24.94'	0°54'33"	2°30'16"
5+50.00	25.00'	25.32'	24.94'	0°54'33"	3°24'49"
5+75.00	25.00'	25.32'	24.94'	0°54'33"	4°19'22"
6+00.00	25.00'	25.32'	24.94'	0°54'33"	5°13'55"
6+25.00	25.00'	25.32'	24.94'	0°54'33"	6°08'28"
6+50.00	25.00'	25.32'	24.94'	0°54'33"	7°03'01"
6+65.19	15.19'	15.39'	15.16'	0°33'09"	7°36'10"
6+70.87	5.68'	5.75'	5.67'	0°12'23"	7°48'33"

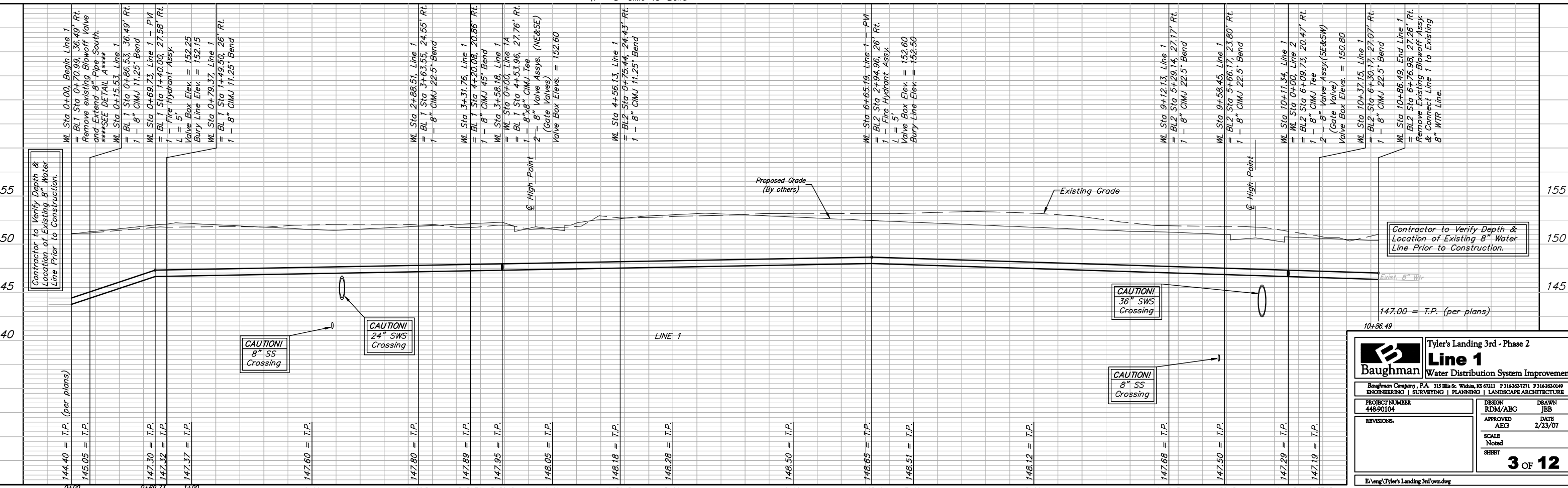
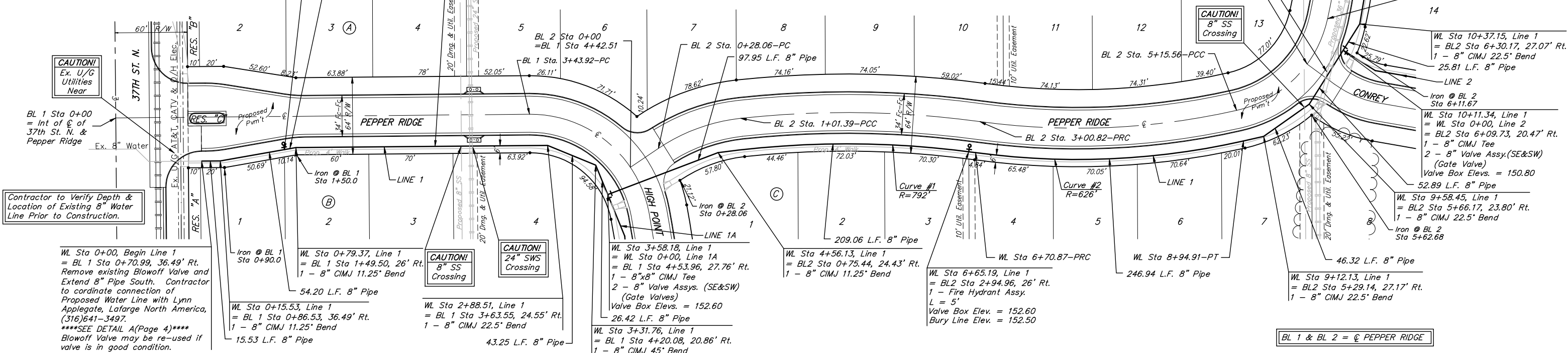
Curve #2  
 Curve Data Based on Centerline  
 Rad. = 626' Delta = 20° 30' 20" Tangent = 113.23'  
 Arc = 224.04' L.C. = 222.85' Def/Fl. = 2.74579 Min.

Station	Arc	6 Lt.	6 Rt.	Defl.	T. Defl.
6+70.87	-	-	-	0°00'00"	0°00'00"
6+75.00	4.13'	4.09'	4.17'	0°11'20"	0°11'20"
7+00.00	25.00'	24.76'	25.24'	1°08'39"	1°19'59"
7+25.00	25.00'	24.76'	25.24'	1°08'39"	2°28'38"
7+50.00	25.00'	24.76'	25.24'	1°08'39"	3°37'16"
7+75.00	25.00'	24.76'	25.24'	1°08'39"	4°45'55"
8+00.00	25.00'	24.76'	25.24'	1°08'39"	5°54'34"
8+25.00	25.00'	24.76'	25.24'	1°08'39"	7°03'12"
8+50.00	25.00'	24.76'	25.24'	1°08'39"	8°11'51"
8+75.00	25.00'	24.76'	25.24'	1°08'39"	9°20'30"
8+94.91	19.91'	19.72'	20.10'	0°54'40"	10°15'10"

WL Sta 10+86.49, End Line 1 = BL2 Sta 6+76.98, 27.26' Rt. Remove Existing Blowoff Assy. & Connect Line 1 to Existing 8" WTR Line. Blowoff Valve may be re-used if valve is in good condition.

Contractor to Verify Depth & Location of Existing 8" Water Line Prior to Construction.

Scale: 1" = 40' Horizontal  
 1" = 5' Vertical  
 • = Iron



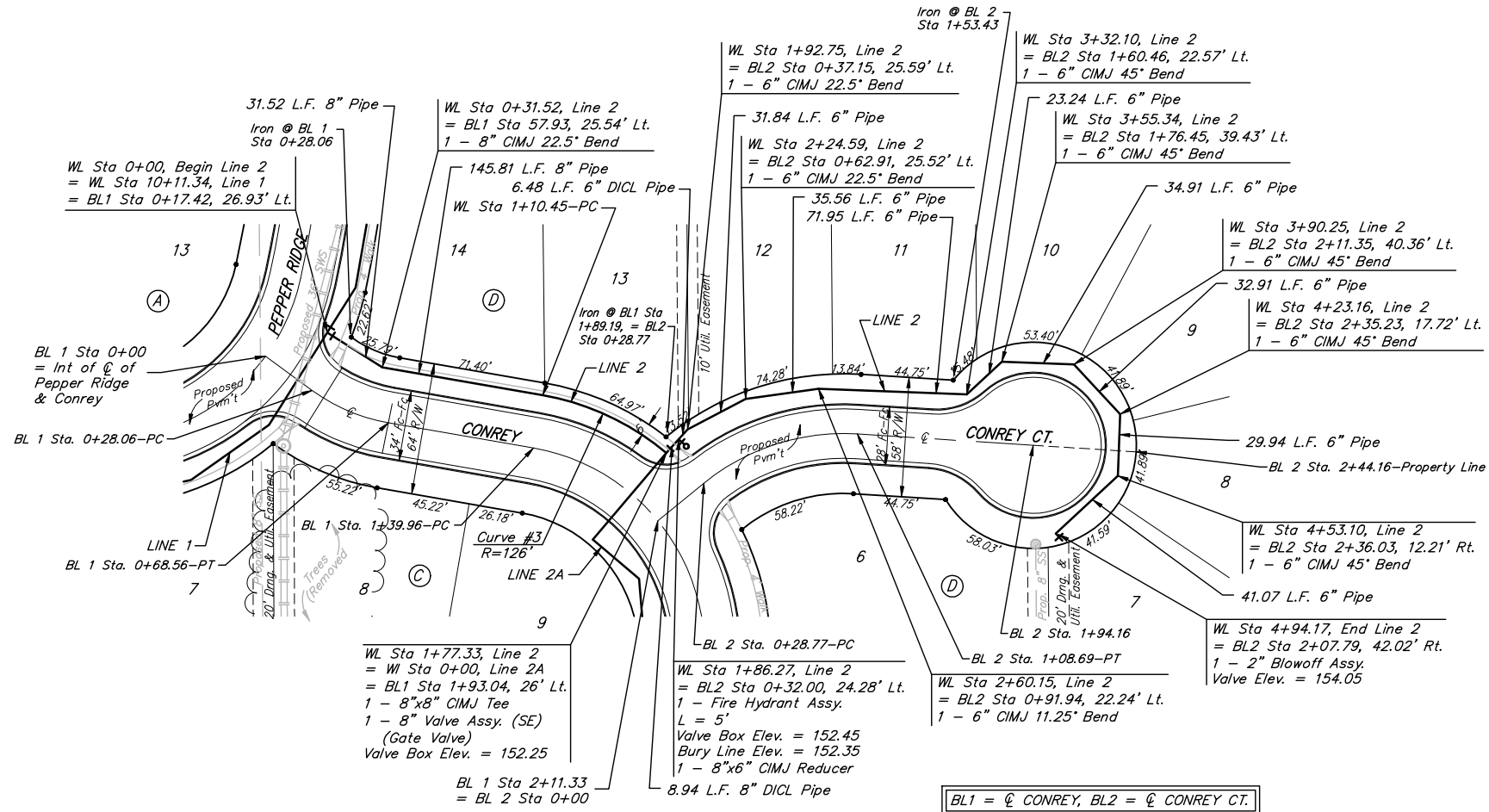
**Baughman** Tyler's Landing 3rd - Phase 2  
**Line 1**  
 Water Distribution System Improvements

Baughman Company, P.A. 315 Ellis St. W. W. 31562-7771 F 316-262-0149  
 ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

PROJECT NUMBER: 448-90104  
 DESIGN: RDM/ABG DRAWN: JEB  
 APPROVED: ABG DATE: 2/23/07  
 SCALE: Noted  
 SHEET: 3 OF 12

Bleng\Tyler's Landing 3rd\wtr.dwg

**BENCHMARK:**  
 BM #1: "□" Cut in Middle of Curb Inlet Top, North Curb of Conrey, Adjacent to SW Corner of Lot 14, Block A, Tyler's Landing 3rd Addition. Elev. = 150.29 (1337.69 M.S.L.)  
 BM #2: "□" Cut in Top of East Curb of High Point, 10' South of End of Return. Adjacent to Lot 1, Block D, Tyler's Landing Addition. Elev. = 155.28 (1342.68 M.S.L.)

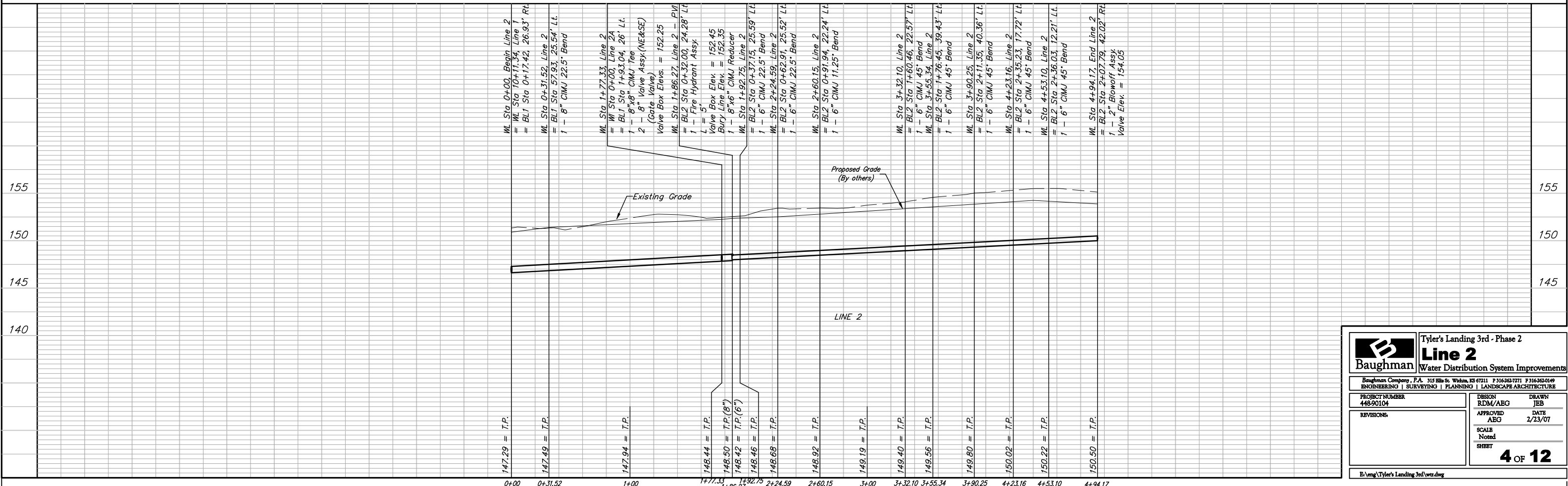
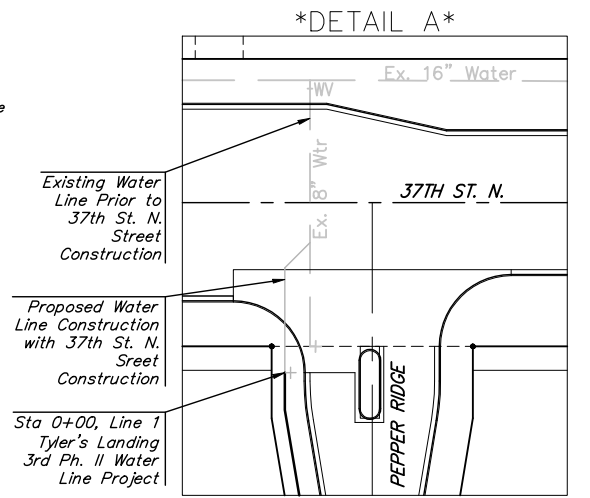


Scale: 1" = 40' Horizontal  
 1" = 5' Vertical  
 • = Iron

Curve #3  
 Curve Data Based on Centerline of Pipe  
 Rad. = 126' Delta = 30.25° Tangent = 34.25'  
 Arc = 66.88' L.C. = 66.11' Def/PT = 13.64384 Min.

Station	Arc	FACE CHORD LENGTHS 6" Lt.	Defl.	T. Defl.
1+10.45	-	-	0°00'00"	0°00'00"
1+25.00	14.55'	15.24'	3°18'31"	3°18'31"
1+50.00	25.00'	26.15'	5°41'06"	8°59'37"
1+75.00	25.00'	26.15'	5°41'06"	14°40'43"
1+77.33	2.33'	2.44'	0°31'47"	15°12'30"

Contractor shall use short pipe lengths for Radii under 200'.



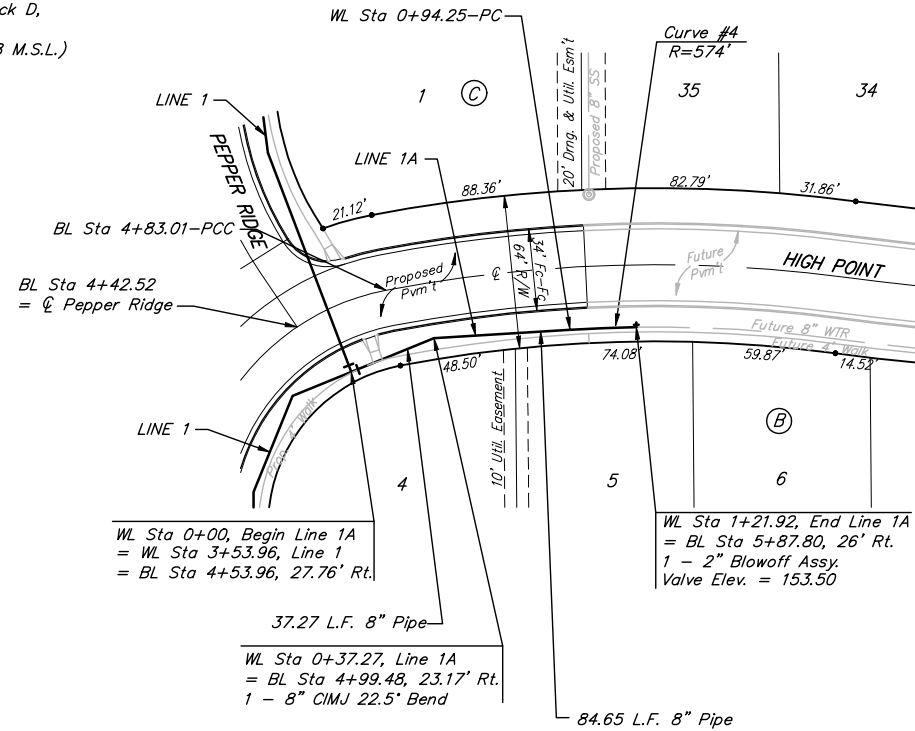
**Baughman** Tyler's Landing 3rd - Phase 2  
**Line 2**  
 Water Distribution System Improvements

PROJECT NUMBER: 448-90104  
 DESIGN: RDM/ABG  
 DRAWN: JEB  
 APPROVED: ABG  
 DATE: 2/23/07  
 SCALE: Noted  
 SHEET: 4 OF 12

Baughman Company, P.A. 315 Ellis St. W. W. Va. 26041  
 ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

Eleng\Tyler's Landing 3rd\wv2.dwg

**BENCHMARK:**  
 BM #1: "□" Cut in Middle of Curb Inlet Top, North Curb of Conrey, Adjacent to SW Corner of Lot 14, Block A, Tyler's Landing 3rd Addition.  
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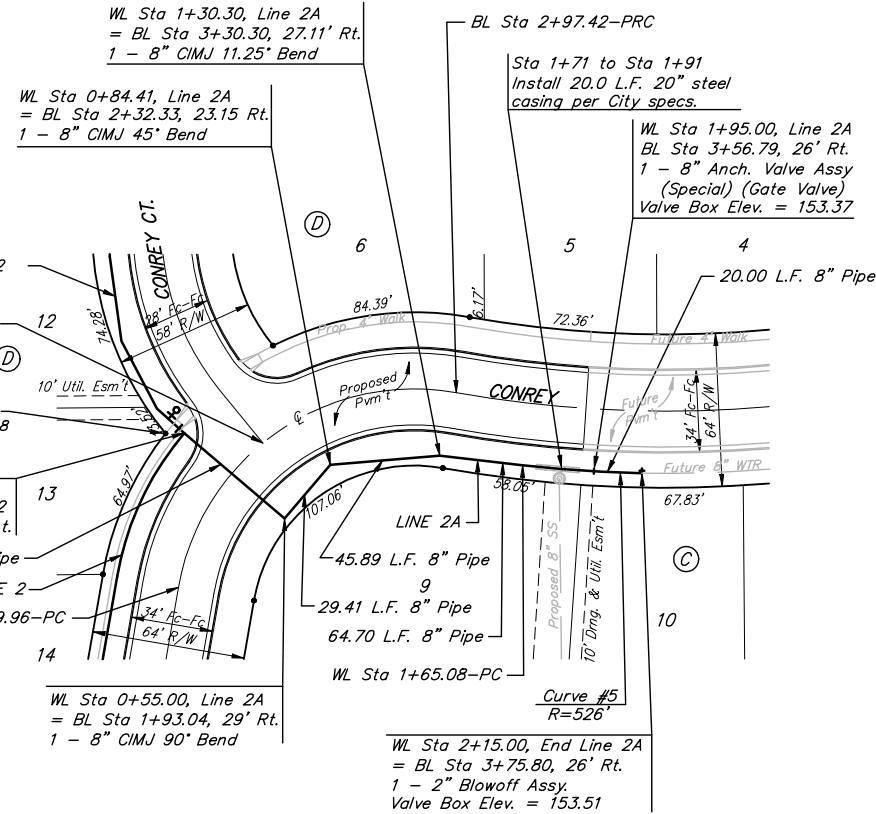


Curve #5  
 Curve Data Based on Centerline  
 Rad. = 526' Delta = 5° 26' 14" Tangent = 24.98'  
 Arc = 49.92' L.C. = 49.90' Def/ft. = 3.26756 Min.

Station	Arc	CHORD LENGTHS		Defl.	T. Defl.
		6' Rt.	6' Lt.		
1+65.08	-	-	-	0'00'00"	0'00'00"
1+71.00	5.92'	5.99'	5.99'	0'19'20"	0'19'20"
1+75.00	4.00'	4.05'	4.05'	0'13'05"	0'32'25"
1+91.00	16.00'	16.18'	16.18'	0'52'17"	1'24'42"
1+95.00	4.00'	4.05'	4.05'	0'13'04"	1'37'46"
2+00.00	5.00'	5.06'	5.06'	0'16'20"	1'54'06"
2+15.00	15.00'	15.17'	15.17'	0'49'01"	2'43'07"

Curve #5  
 Curve Data Based on Centerline of Pipe  
 Rad. = 526' Delta = 4° 53' 10" Tangent = 22.44'  
 Arc = 44.85' L.C. = 44.84' Def/ft. = 3.26830 Min.

Station	Arc	FACE CHORD LENGTHS		Defl.	T. Defl.
		6' Rt.	6' Lt.		
1+65.06	-	-	-	0'00'00"	0'00'00"
1+75.00	9.94'	10.05'	10.05'	0'32'29"	0'32'29"
1+89.91	14.91'	15.08'	15.08'	0'48'44"	1'21'13"
2+00.00	10.09'	10.21'	10.21'	0'32'59"	1'54'12"
2+09.91	9.91'	10.02'	10.02'	0'32'23"	2'26'35"



Scale: 1" = 40' Horizontal  
 1" = 5' Vertical  
 • = Iron



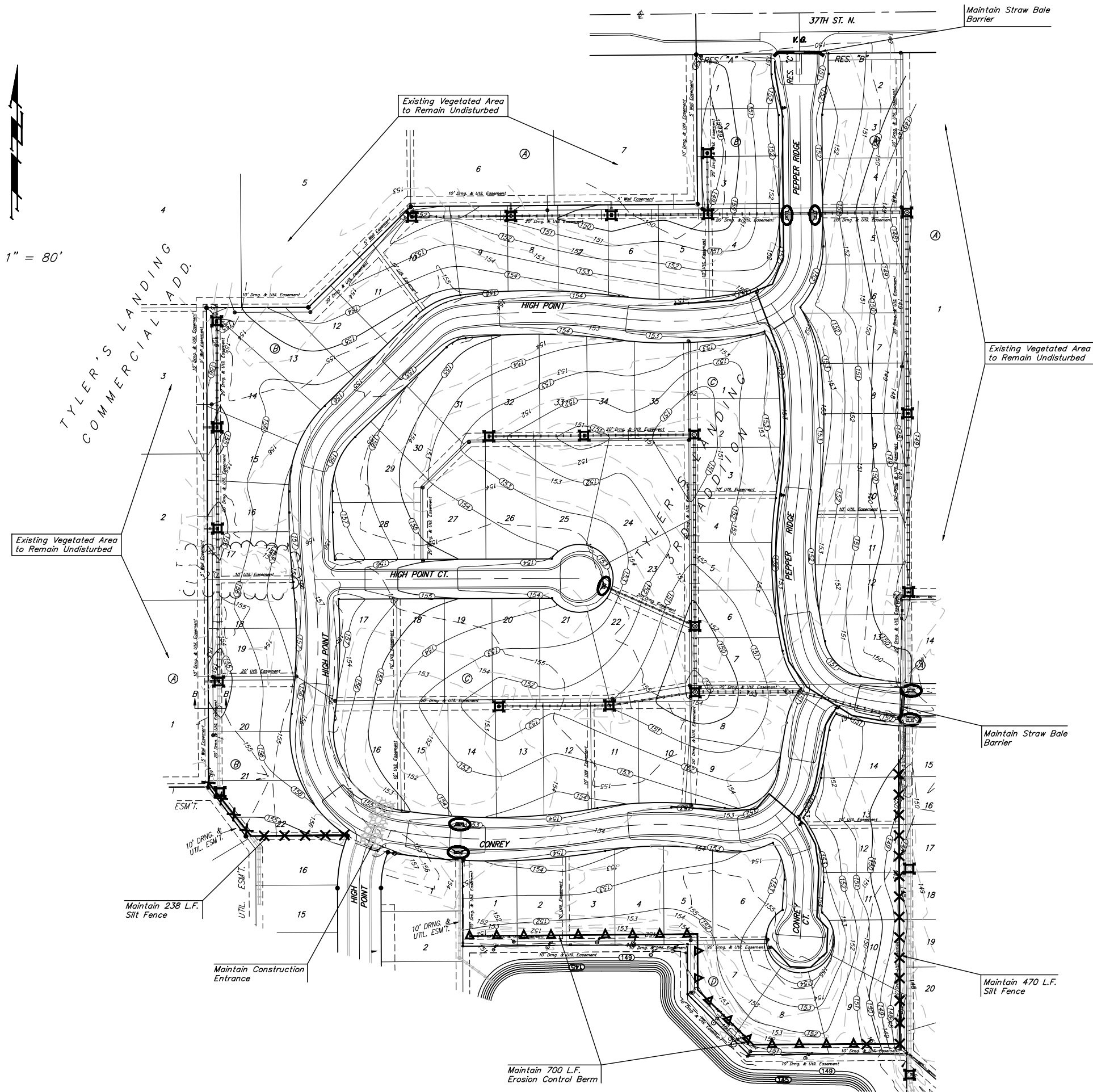
**Baughman** Tyler's Landing 3rd - Phase 2  
**Lines 1A & 2A**  
 Water Distribution System Improvements

PROJECT NUMBER: 448-90104  
 DESIGN: RDM/ABG  
 DRAWN: JEB  
 APPROVED: AEG  
 DATE: 2/23/07  
 SCALE: Noted  
 SHEET: 5 OF 12

Revisions:  
 1. \_\_\_\_\_  
 2. \_\_\_\_\_



Scale: 1" = 80'



### Erosion Control Plan Legend

	Proposed Water Line
	Existing Storm Sewer
	Existing Sanitary Sewer
	Proposed Grade (After Mass Grading)
	Existing Grade (Prior to Mass Grading)
	Maintain Silt Fence
	Maintain Erosion Control Berm
	Maintain Straw Bale Barrier
	Maintain Drop Inlet Sed. Barrier
	Maintain Curb Inlet Sed. Barrier

**NOTE:** Erosion Control Measures shown on this sheet have been installed with or prior to the Storm Water Sewer/Mass Grading project. Contractor shall remove & replace erosion control measures as necessary for construction. Contractor shall maintain all existing erosion control measures per details, sheets 7-10, until final acceptance by the City of Wichita.

EROSION CONTROL MEASURE	UNITS	QUANTITY
MAINTAIN SILT FENCE	L.F.	708
MAINTAIN EROSION CONTROL BERM	L.F.	700
MAINTAIN STRAW BALE BARRIER	EA.	2
MAINTAIN DROP INLET BARRIER	EA.	22
MAINTAIN CURB INLET BARRIER	EA.	7
MAINTAIN CONSTRUCTION ENTRANCE	EA.	1

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

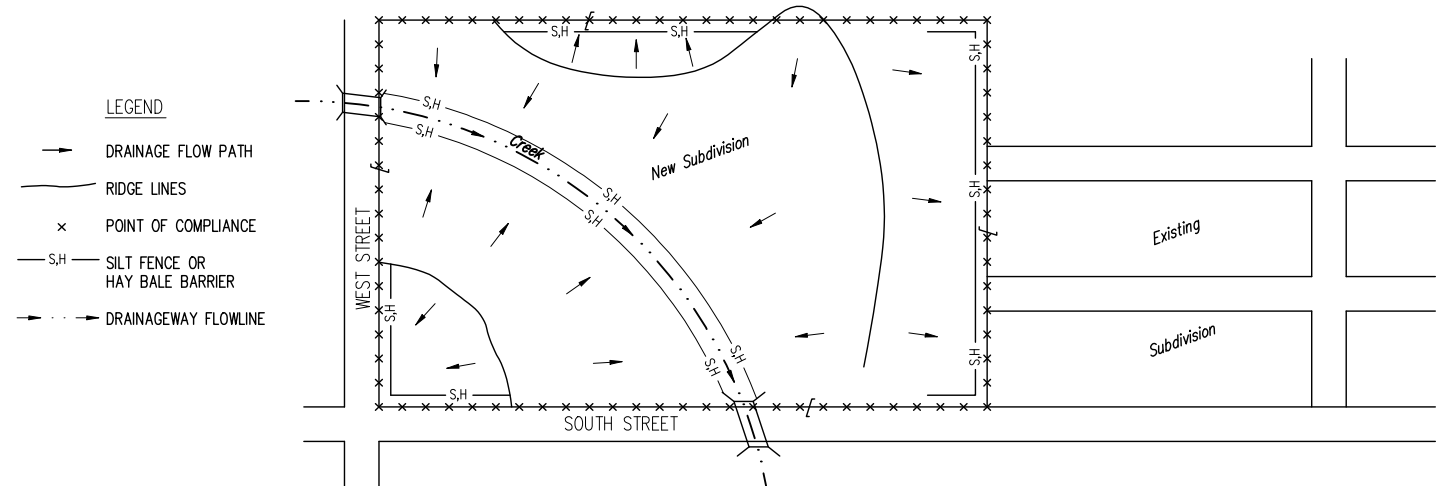
**Tyler's Landing 3rd Addition Phase 2**  
**EROSION CONTROL PLAN**

Baughman Company, P.A. 315 8th St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149  
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

<small>PROJECT NUMBER</small> 448-90104	<small>DESIGN</small> RDM/ABG	<small>DRAWN</small> RDM
<small>REVISIONS</small>	<small>APPROVED</small> ABG	<small>DATE</small> 2/23/07
	<small>SCALE</small> Noted	
	<small>SHEET</small>	<b>6 OF 12</b>

\\Tyler's Landing 3rd\Phase 2\WTR\WTR\_EC Plan

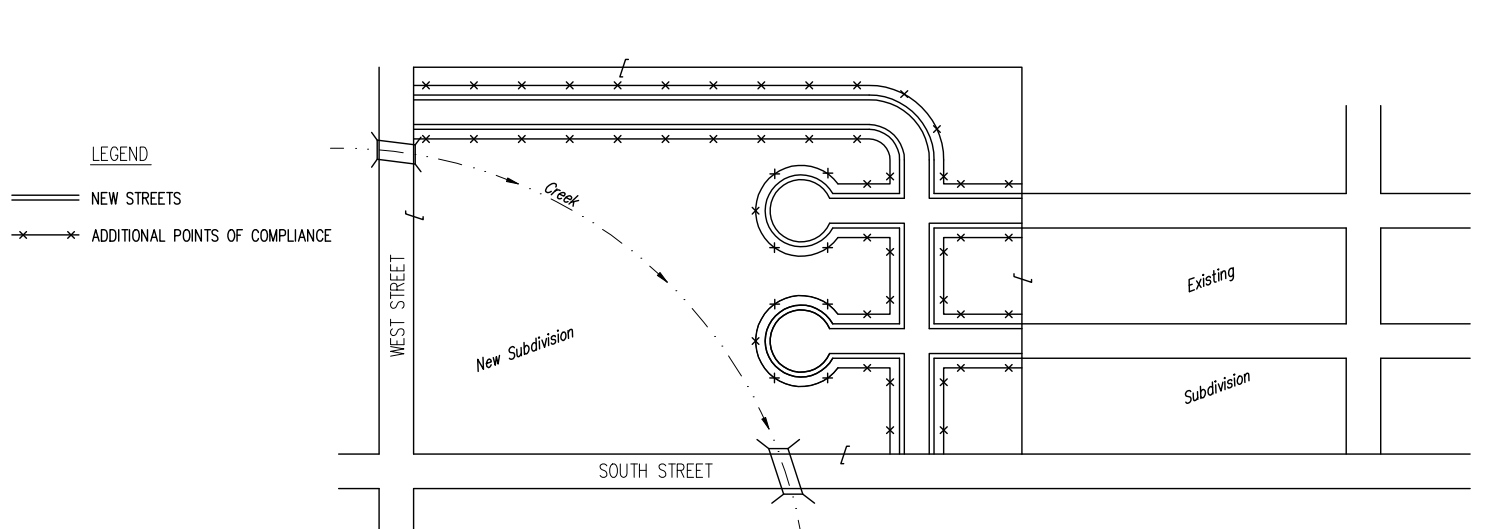
**PHASE 1 – INITIAL EARTHWORK AND UTILITIES (EXCEPT STORM SEWER)**



- LEGEND**
- DRAINAGE FLOW PATH
  - RIDGE LINES
  - x POINT OF COMPLIANCE
  - S,H- SILT FENCE OR HAY BALE BARRIER
  - - - DRAINAGEWAY FLOWLINE

1. 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.
2. HAY BALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE EROSION CONTROL DEVICES WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
3. SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR STREETS ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE EROSION CONTROL DEVICES WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
4. ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED WITHIN 48 HOURS OR BY FRIDAY AT 6:00 PM, WHICHEVER IS EARLIER.
5. CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL EROSION CONTROL DEVICES 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 EROSION CONTROL DEVICES AT THEIR WORK LOCATIONS, AS NEEDED.
6. UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
7. IF THE INITIAL EARTH WORK AND UTILITIES ARE DONE AS PART OF A PUBLIC IMPROVEMENT PROJECT, THESE EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS SPECIFIED IN THE INDIVIDUAL PROJECT CONTRACTS. THE CONTRACTOR WILL MAINTAIN THE DEVICES UNTIL COMPLETION OF THE CONTRACT, AT WHICH TIME THE DEVELOPER WILL ASSUME MAINTENANCE RESPONSIBILITIES. IF THESE CONTRACTS ARE NOT PUBLIC IMPROVEMENT PROJECTS, THE DEVELOPER WILL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THESE DEVICES.
8. WITHIN 14 DAYS OF COMPLETION OF EARTHWORK ACTIVITIES IN ANY GIVEN AREA, THAT AREA SHALL BE TEMPORARILY OR PERMANENTLY SEEDED AND MULCHED.

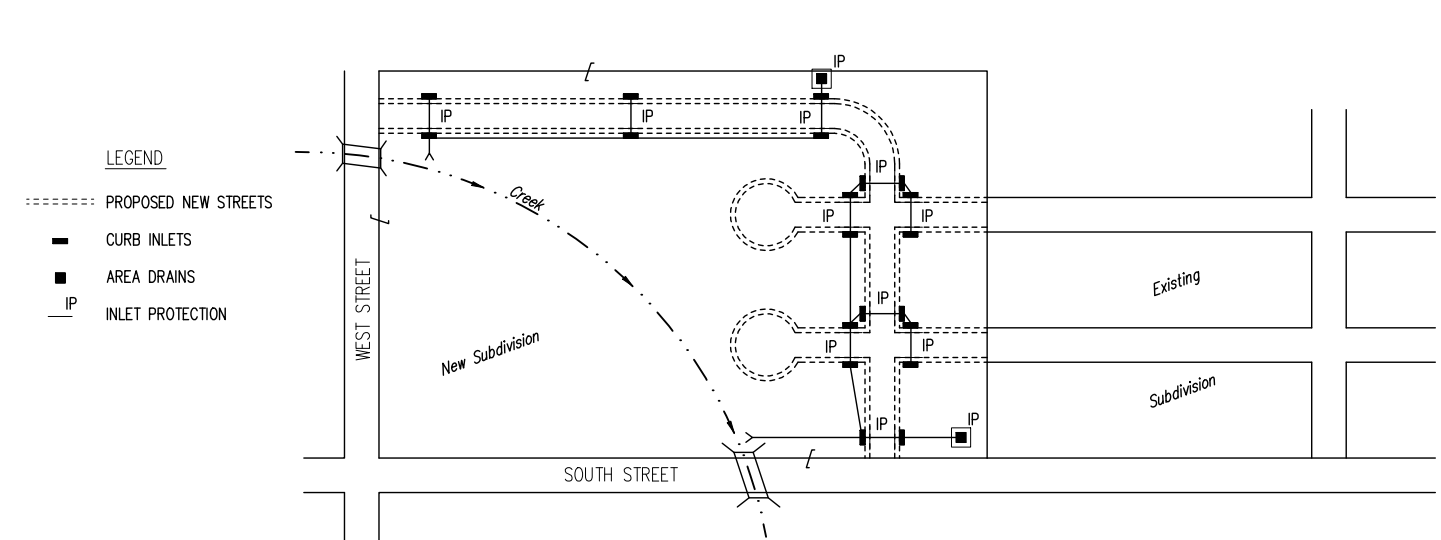
**PHASE 3 – STREET CONSTRUCTION**



- LEGEND**
- == NEW STREETS
  - x-x- ADDITIONAL POINTS OF COMPLIANCE

1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL EROSION CONTROL DEVICES INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
2. CURB OPENING INLET PROTECTION:
  - A. SUMP AREAS – INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
  - B. NON-SUMP LOCATIONS – PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
3. EROSION CONTROL DEVICES 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), ADDITIONAL DEVICES WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
4. SEE DETAIL SHEET FOR BACK OF CURB PROTECTION.
5. THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLEMENTED WITH HAY BALE OR SILT FENCE EROSION CONTROL DEVICES AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
6. THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB EROSION CONTROL DEVICES.
7. THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB EROSION CONTROL DEVICES IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOD.

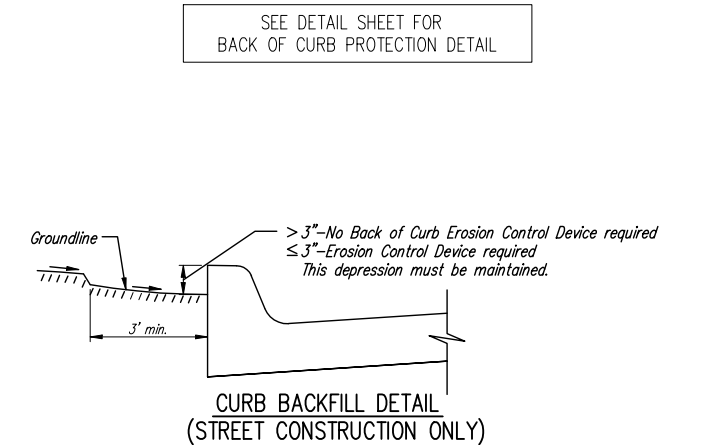
**PHASE 2 – INSTALLATION OF STORM SEWER**



- LEGEND**
- - - - - PROPOSED NEW STREETS
  - CURB INLETS
  - AREA DRAINS
  - IP- INLET PROTECTION

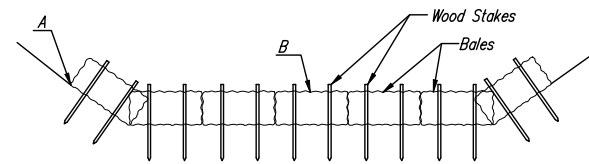
1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL EROSION CONTROL DEVICES REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
2. AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
3. AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAY BALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
4. CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION DEVICES MUST BE INSTALLED. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION. SEE PHASE 3 – STREET CONSTRUCTION.
5. THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE DEVICES.
6. THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE EROSION CONTROL DEVICES ONCE INSTALLED.
7. ALL DISTURBED GROUND WILL BE FINAL GRADED AND TEMPORARILY OR PERMANENTLY SEEDED WITHIN 14 DAYS IF COMPLETION OF WORK IN ANY GIVEN PART OF THE SUBDIVISION.
8. 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.

- GENERAL NOTES:**
1. THE INTENT OF ALL EROSION CONTROL DEVICES IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, LAKES, STREETS OR ANY OTHER OTHER DRAINAGE FEATURE.
  2. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
  3. EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON SOIL EROSION BMP'S DETAIL SHEETS.
  4. PERSONS DESTROYING EROSION CONTROL DEVICES SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT DEVICES.
  5. THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 1 ACRE OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL DEVICES ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLANS.
  6. FOR SUBDIVISIONS SMALLER THAN 1 ACRE, SOIL EROSION DEVICES ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
  7. FAILURE TO USE AND MAINTAIN SOIL EROSION DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
  8. 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 DEVICES OTHER THAN THAT SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
  9. 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.



	<b>SOIL EROSION BMPs</b>	
	SUBDIVISION DEVELOPMENT PROJECTS	
	JIM ARMOUR, P.E. CITY ENGINEER	
	PROJECT NUMBER 448-90104	OCA NO. 735347
DATE FEB 2007	SHEET 7 OF 12	

NOTE: Point A must be higher than Point B so that water flows over the bales and not around them.



STRAW BALE DITCH CHECKS

**Material Specification:**

Bale ditch checks may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture. The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. Optional: The downstream scour apron should be constructed of a double-netted straw erosion-control blanket at least 6' wide. Optional: The metal landscape staples used to anchor the erosion-control blanket should be at least 8" long.

**Placement:**

Bale ditch checks should be placed perpendicular to the flowline of the ditch. The ditch check should extend far enough so that the ground level at the ends of the check is higher than the top of the lowest center bale. This prevents water from flowing around the check.

Straw bale ditch checks should not be placed in ditches where high flows are expected. Rock checks should be used instead.

Bales 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 grade (%)	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 4" deep and a bale's width 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—it will be used later. Optional: On the downstream side of the trench, roll out a length of erosion-control blanket (scour apron) equal to the length of the trench. Place the upstream edge of the erosion-control blanket along the bottom upstream edge of the trench. The erosion control blanket should be anchored in the trench with one row of 8" landscape staples placed on 18" centers. The remainder of the erosion-control blanket (the portion that is not lying in the trench) will serve as the downstream scour apron. This section of the blanket should be anchored to the ground with 8" landscape staples placed around the perimeter of the blanket on 18" centers. The remainder of the blanket should be anchored using two evenly spaced rows of 8" landscape staples on 18" centers placed perpendicular to the flowline of the ditch. Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground. Once all the bales have been installed and anchored, place the excavated soil against the upstream side of the check and compact it. The compacted soil should be no more than 3" to 4" deep and extend upstream no more than 24".

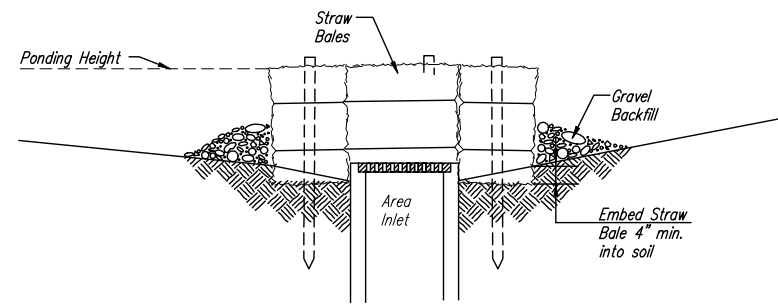
**List of common placement/installation mistakes to avoid:**

- Do not place a bale ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow.
- Do not place bale 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 check is higher than the top of the lowest center bale.
- Do not place bale ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.
- Bale ditch checks must be dug into the ground. Bales at ground level do not work because they allow water to flow under the check.

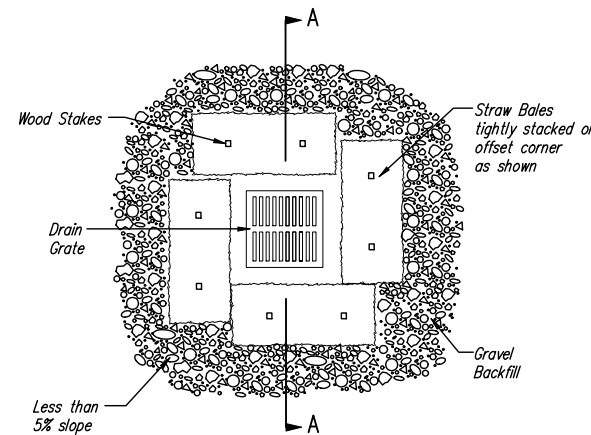
**Inspection and Maintenance:**

Bale 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 water flow through spaces between abutting bales?
- Are any bales and/or scour aprons (optional) dislodged?
- Are bales decomposing due to age and/or water damage?
- Does sediment need to be removed from behind the ditch check?



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS

(INLET PROTECTION)

**Material Specification:**

Bale area inlet barriers should be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture. The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. Twine should be used to bind bales. The use of wire binding is prohibited because it does not biodegrade readily.

**Placement:**

Bale area inlet barriers should be placed directly around the perimeter of a drop inlet. When a bale area inlet barrier 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 4" deep by a bale's width wide. Place the bales in the trench, making sure that they are butted tightly. Some bales may need to be shortened to fit into the trench around the area inlet. Two stakes should be driven through each bale, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground. Once all the bales have been installed and anchored, place the excavated soil against the receiving side of the barrier and compact it. The compacted soil should be no more than 3" to 4" deep. Note: When a bale area inlet barrier 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.

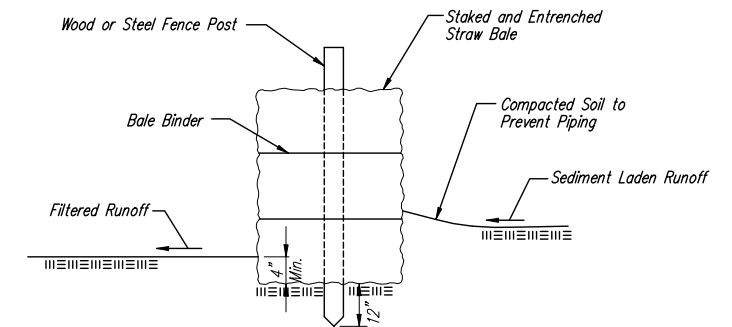
**List of common placement installation mistakes to avoid:**

- Bales should be placed directly against the perimeter of the area inlet. This allows overtopping water to flow directly into the inlet instead of onto nearby soil causing scour.
- Bale area inlet barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

**Inspection and Maintenance:**

Bale area inlet 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:

- Does water flow under the area inlet barrier?
- Does water flow through spaces between abutting bales?
- Are any bales dislodged?
- Are bales decomposing due to age and/or water damage?
- Does sediment need to be removed from behind the area inlet barrier?



STRAW BALE BARRIERS

**Material Specification:**

Bale slope barriers may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture. The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. Twine should be used to bind bales. The use of wire binding is prohibited because it does not biodegrade readily.

**Placement:**

A slope barrier should be used at the toe of a slope when a ditch does not exist. The 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, bale slope barriers should be placed along contours to avoid a concentration of flow.

Bale 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 4" deep and a bale's width 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. Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground. Once all the bales have been installed and anchored, place the excavated soil against the upslope side of the check and compact it. The compacted soil should be no more than 3" to 4" deep.

**List of common placement/installation mistakes to avoid:**

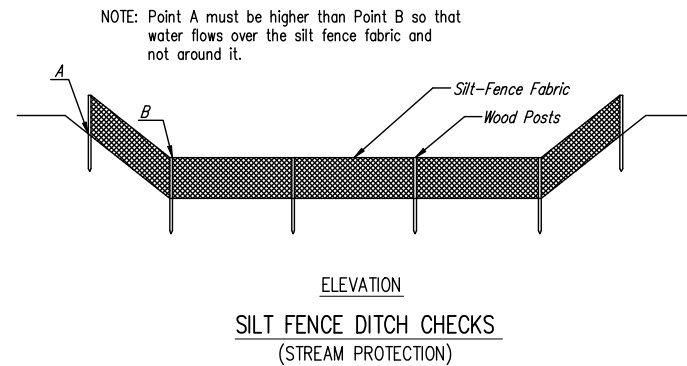
- When practical, do not place bale slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. Concentrated flow over a slope barrier creates a scour hole on the downslope side of the barrier. The scour hole eventually undermines the bales and the barrier fails.
- Do not place bale slope barriers in areas with shallow soils underlain by rock. If the barrier is not anchored sufficiently, it will wash out.
- Bale slope barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

**Inspection and Maintenance:**

Bale 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?
- Does water flow through spaces between abutting bales?
- Are any bales dislodged?
- Are bales decomposing due to age and/or water damage?
- Does sediment need to be removed from behind the slope barrier?

	<b>SOIL EROSION BMPs</b>	
	<i>STRAW BALE DITCH CHECK AND BARRIER DETAILS</i>	
	<b>JIM ARMOUR, P.E. CITY ENGINEER</b>	
	PROJECT NUMBER 448-90104	OCA NO. 735347
DATE FEB 2007	SHEET 8 OF 12	



**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 downstream side of the trench. Place the edge of the fabric in the trench starting at the top upstream 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 upstream side of the trench to clear an area for driving in the posts. Just downstream 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.

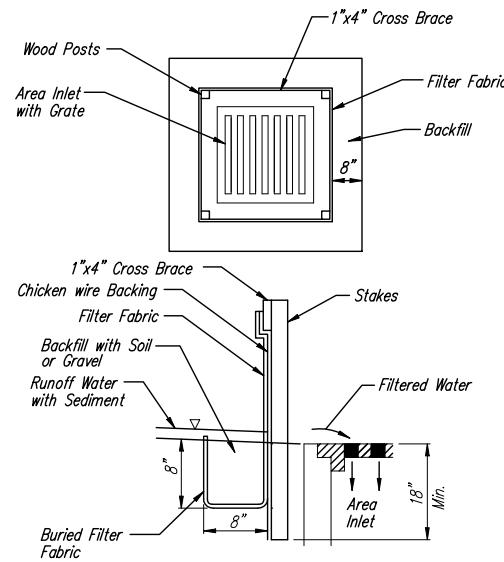
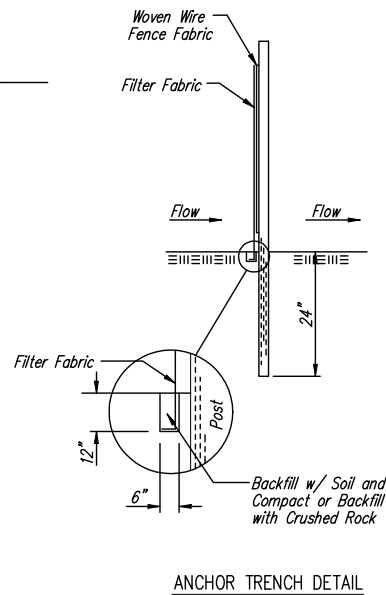
**List of common placement/installation mistakes to avoid:**

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 upstream 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?



**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.

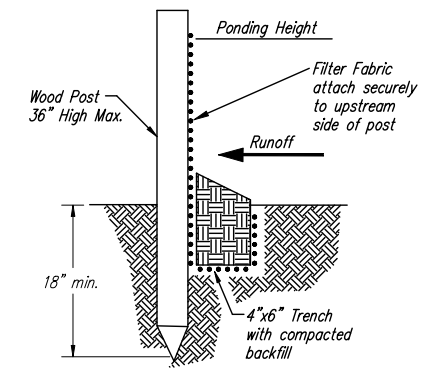
**List of common placement/installation mistakes to avoid:**

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 resisted 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?



**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:**

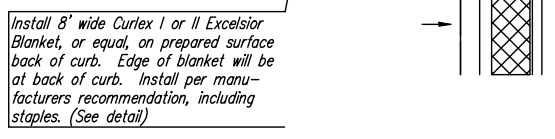
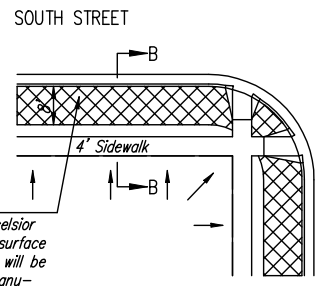
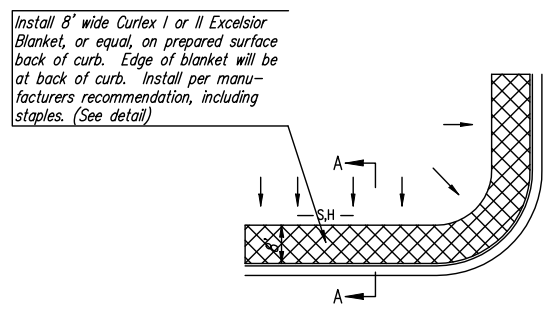
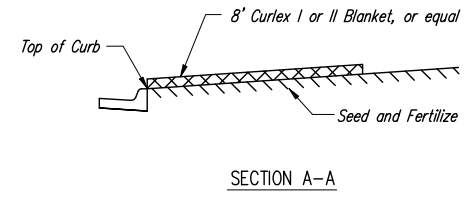
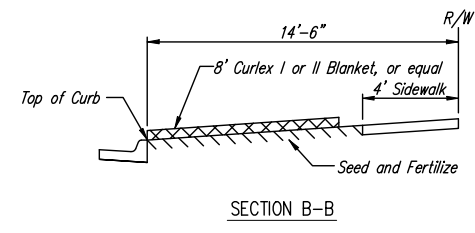
When practicable, do not place silt fence slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. When the flow concentrates, it overtops the barrier and the silt fence slope barrier quickly deteriorates. Do not place silt-fence posts on the upslope 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:

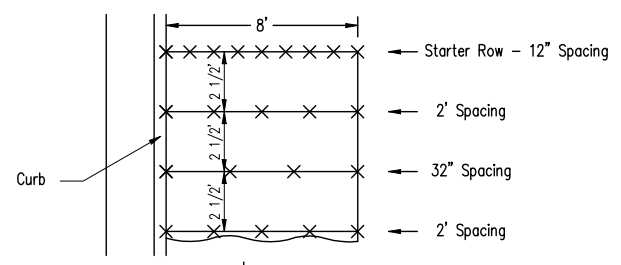
- Are there any points along the slope barrier where water is concentrating?
- Does water flow under the slope barrier?
- Do the silt fences sag excessively?
- Has the silt fence torn or become detached from the posts?
- Does sediment need to be removed from behind the slope barrier?

	<b>SOIL EROSION BMPs</b>	
	<i>SILT FENCE DITCH CHECK AND BARRIER DETAILS</i>	
	<b>JIM ARMOUR, P.E. CITY ENGINEER</b>	
	PROJECT NUMBER 448-90104	OCA NO. 735347
DATE FEB 2007	SHEET 9 OF 12	



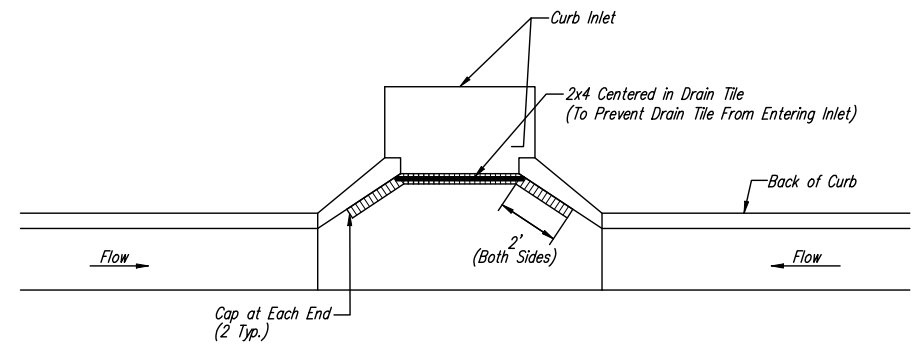
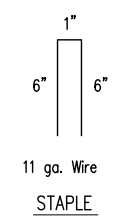
- NOTES:
- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
  - EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
  - AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND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

**BACK OF CURB PROTECTION DETAIL**



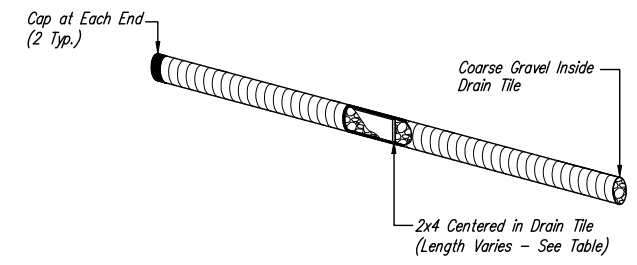
STAPLE PATTERN  
NOTES: Use 6" seam overlap

**DETAILS FOR CURLEX I OR II BLANKETS**

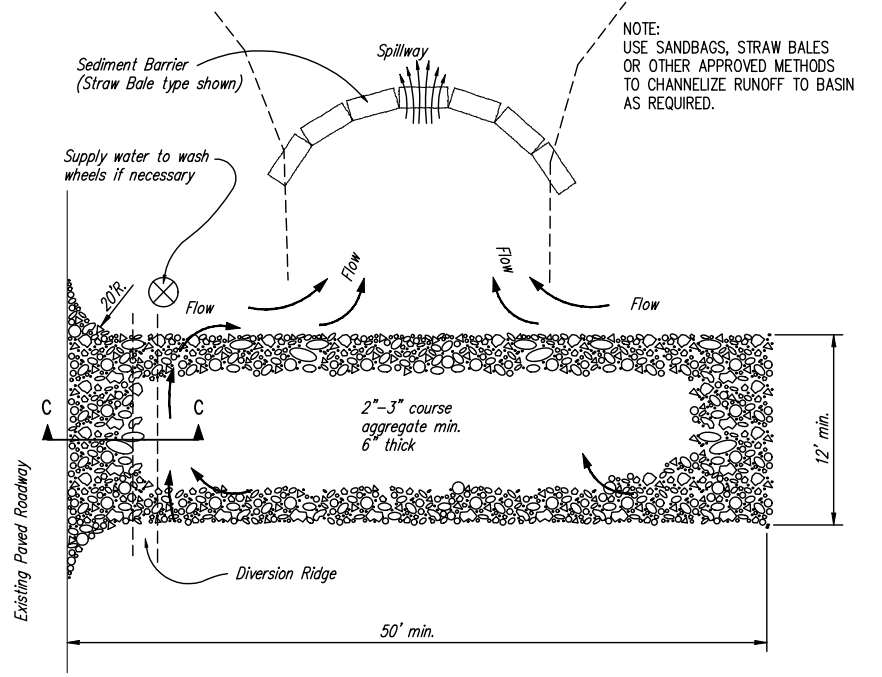
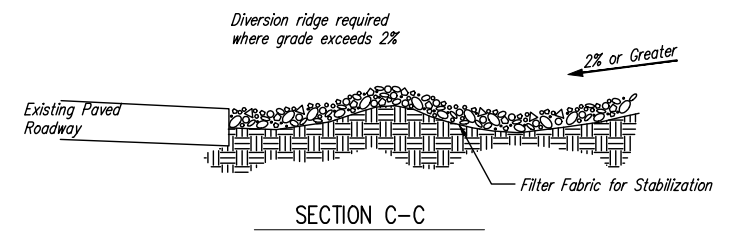


Note:  
Place 4" perforated PVC pipe, filled with 1/2"-1" dia. gravel, in front of curb inlet as shown.

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



**STABILIZED CONSTRUCTION ENTRANCE**

- 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.



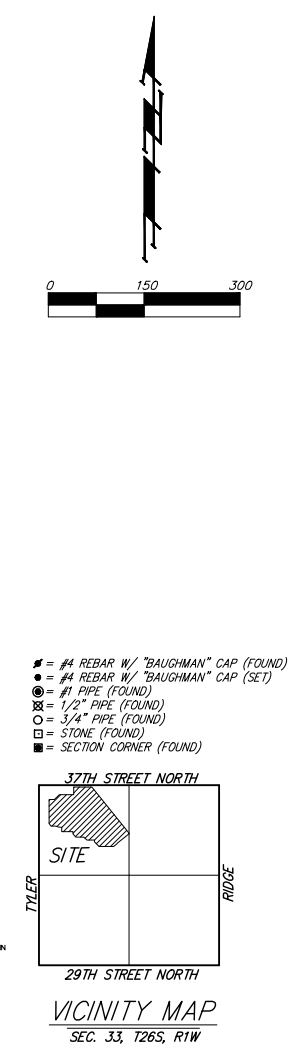
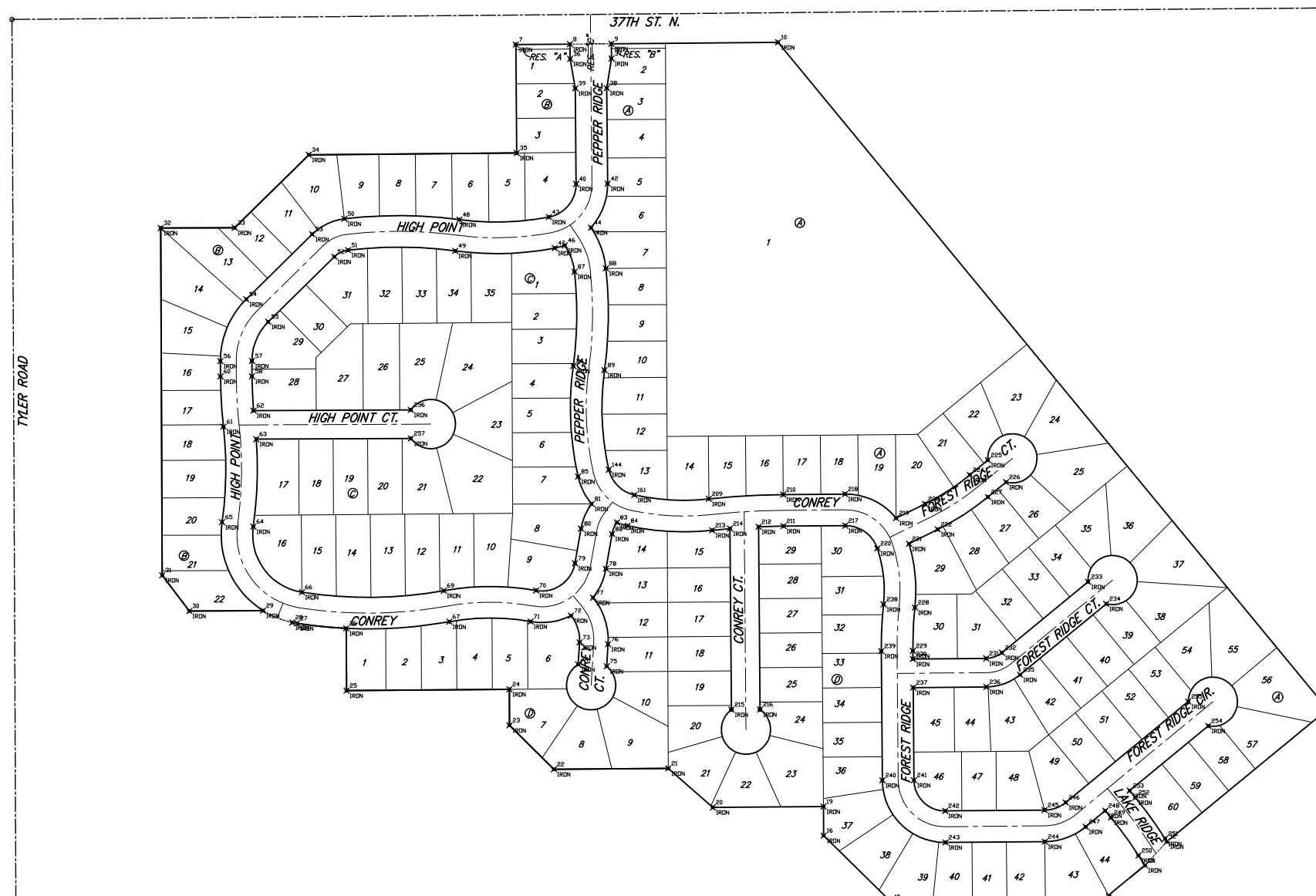
<b>SOIL EROSION BMPs</b>	
BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE	
JIM ARMOUR, P.E. CITY ENGINEER	
PROJECT NUMBER 448-90104	OCA NO. 735347
DATE FEB 2007	SHEET 10 OF 12

# TYLER'S LANDING 3RD ADDITION

## WICHITA, SEDGWICK COUNTY, KANSAS

PT#	NORTHING	EASTING	DESC
7	30053.9370	40987.1296	IRON
8	30054.9077	41097.1254	IRON
9	30055.6489	41181.1221	IRON
10	30058.6352	41519.5166	IRON
11	28704.3175	42634.9487	IRON
12	28435.7566	42308.8717	IRON
13	28387.5430	42264.2277	IRON
14	28316.5491	42178.0294	IRON
15	28313.0302	41749.3185	IRON
16	28447.9628	41612.1525	IRON
19	28506.9069	41611.6687	IRON
20	28505.0630	41387.0294	IRON
21	28584.3245	41296.7275	IRON
22	28582.4197	41064.6627	IRON
23	28671.6804	40974.3227	IRON
24	28744.8719	40974.0438	IRON
25	28742.1601	40643.6573	IRON
26	28668.5998	40643.0995	IRON
27	28878.7661	40543.1153	IRON
28	28880.5481	40533.4477	IRON
29	28904.6454	40474.1576	IRON
30	28903.9851	40324.4866	IRON
31	28976.4710	40269.6209	IRON
32	29681.4641	40266.5109	IRON
33	29682.1258	40416.5094	IRON
34	29830.2217	40567.0874	IRON
35	29833.9456	40989.0710	IRON
36	30024.9089	41097.3901	IRON
37	30025.6501	41181.3868	IRON
38	29965.5642	41171.9167	IRON
39	29964.9994	41107.9192	IRON
40	29771.0822	41109.6304	IRON
42	29771.6470	41173.6279	IRON
43	29703.6904	41054.3948	IRON
44	29682.2316	41139.7953	IRON
46	29646.4304	41086.7456	IRON
47	29640.8276	41066.4058	IRON
48	29698.5720	40872.7923	IRON
49	29635.1324	40864.3411	IRON
50	29700.1798	40639.3892	IRON
51	29636.6298	40646.9657	IRON
52	29623.1894	40618.9901	IRON
53	29668.8187	40574.1129	IRON
54	29536.9074	40439.9908	IRON
55	29491.2780	40484.8680	IRON
56	29411.3676	40387.7036	IRON
57	29411.6500	40451.7029	IRON
58	29380.5188	40451.8403	IRON
60	29380.2365	40387.8409	IRON
61	29278.0633	40393.8162	IRON
62	29310.7827	40454.9037	IRON
63	29252.8066	40460.4324	IRON
64	29075.1374	40454.4295	IRON
65	29084.1196	40391.0630	IRON
66	28941.9962	40553.0129	IRON
67	28882.2876	40852.3170	IRON
69	28945.2759	40840.9819	IRON
70	28945.4738	41028.3214	IRON
71	28882.4618	41017.1194	IRON
72	28894.3418	41099.2198	IRON
73	28840.1965	41116.5971	IRON
74	28795.5399	41113.7468	IRON
75	28791.8455	41171.6290	IRON
76	28836.5021	41174.4793	IRON
77	28931.0300	41144.1417	IRON
78	28899.7995	41170.2701	IRON
79	29000.7690	41107.2172	IRON
80	29071.1139	41119.4553	IRON
81	29121.4833	41140.8794	IRON
82	29060.1443	41182.8082	IRON
83	29083.6713	41192.5152	IRON
84	29076.9628	41214.0845	IRON
85	29176.7811	41113.6099	IRON
86	29401.5490	41103.8315	IRON
87	29592.6849	41106.4248	IRON
88	29592.6047	41170.0496	IRON
89	29392.9056	41167.2452	IRON
144	29190.8990	41176.0330	IRON
161	29139.4774	41227.7930	IRON
209	29131.3961	41378.9753	IRON
210	29140.2573	41529.9300	IRON
211	29076.2595	41530.4553	IRON
212	29074.9554	41479.9315	IRON
213	29067.7763	41385.9413	IRON
214	29071.2615	41421.9598	IRON
215	28703.5273	41424.9782	IRON
216	28704.0033	41482.9763	IRON
217	29077.2899	41655.9886	IRON
218	29141.2877	41655.4633	IRON
219	29092.3665	41759.1267	IRON

PT#	NORTHING	EASTING	DESC
220	29031.0547	41720.9703	IRON
221	29040.5138	41785.1151	IRON
222	29069.4850	41843.7055	IRON
223	29121.4763	41817.9974	IRON
224	29180.1168	41908.6656	IRON
225	29210.2507	41945.2530	IRON
226	29165.4805	41982.1262	IRON
227	29135.3467	41945.5388	IRON
228	28910.9003	41797.2803	IRON
229	28823.0446	41793.0800	IRON
230	28806.4071	41793.2166	IRON
231	28807.6272	41941.8665	IRON
232	28819.2587	41973.8709	IRON
233	28963.2430	42148.6915	IRON
234	28918.4729	42185.5647	IRON
235	28774.4885	42010.7441	IRON
236	28749.6292	41942.3425	IRON
237	28748.4091	41793.6926	IRON
238	28917.5286	41733.6245	IRON
239	28822.5193	41729.0821	IRON
240	28559.8901	41731.2378	IRON
241	28560.4154	41795.2357	IRON
242	28497.9346	41858.7506	IRON
243	28433.9368	41859.2759	IRON
244	28499.5908	42060.5265	IRON
246	28515.0994	42103.1990	IRON
247	28465.6978	42143.8867	IRON
248	28498.4604	42183.6658	IRON
249	28484.5475	42195.1246	IRON
250	28407.4032	42251.0081	IRON
251	28441.6622	42305.0666	IRON
252	28525.2352	42244.5261	IRON
253	28539.1481	42233.0673	IRON
254	28670.6194	42392.6951	IRON
255	28720.0209	42352.0074	IRON
256	29312.1903	40773.9893	IRON
257	29254.1909	40774.2451	IRON

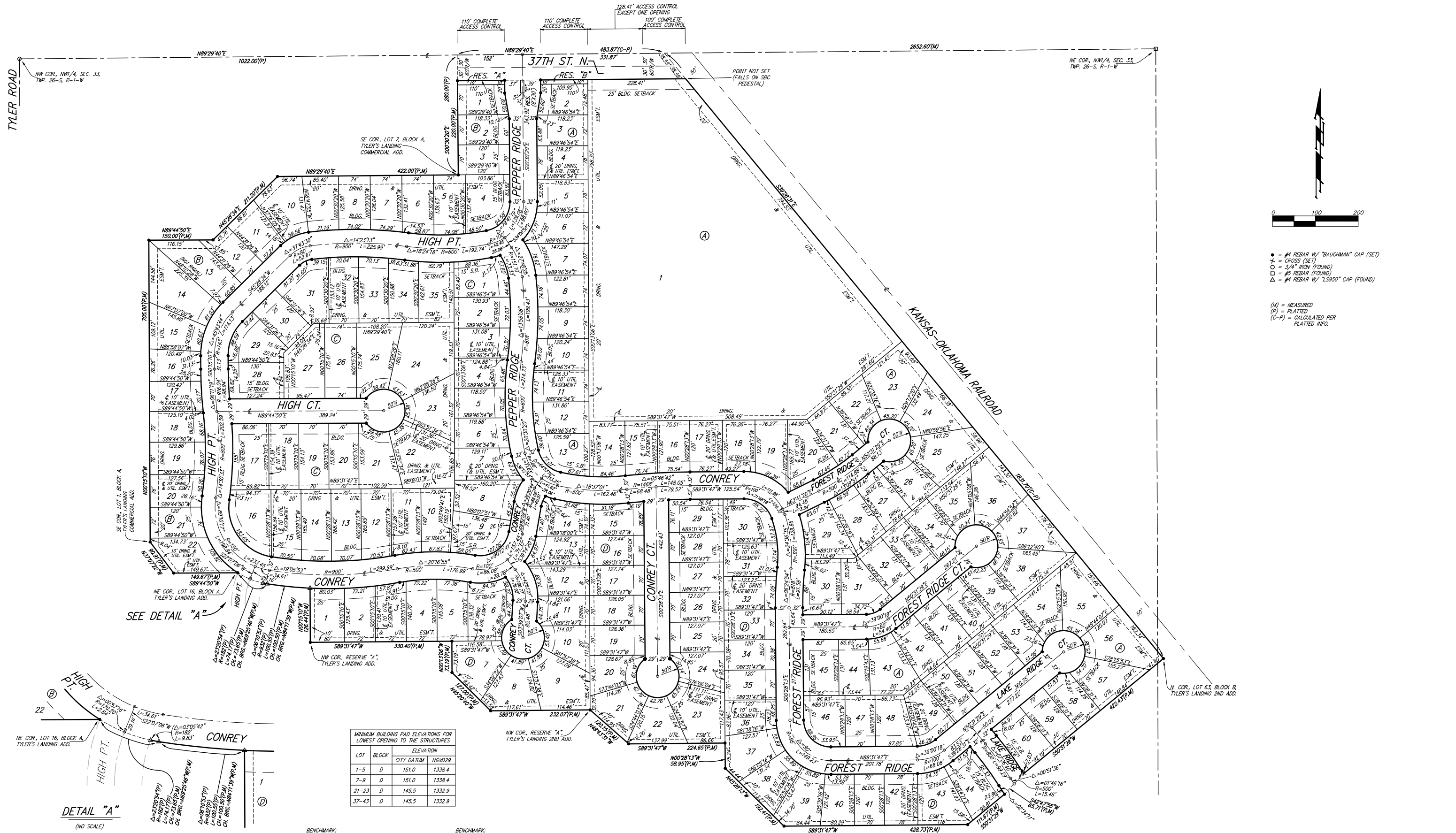


- = #4 REBAR W/ "BAUGHMAN" CAP (FOUND)
- = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- = #1 PIPE (FOUND)
- = 1/2" PIPE (FOUND)
- = 3/4" PIPE (FOUND)
- = STONE (FOUND)
- = SECTION CORNER (FOUND)

	TYLER'S LANDING 3RD ADDITION	
	<b>STAKING COORDINATE SHEET</b>	
WATER IMPROVEMENTS		
Baughman Company, P.A. 315 8th St. Wichita, KS 67211 P 3162627771 F 3162620149		
ENGINEERING   SURVEYING   PLANNING   LANDSCAPE ARCHITECTURE		
PROJECT NUMBER 448-90104	DESIGN JEB	DRAWN JEB
REVISIONS:	APPROVED ABC	DATE 2/23/07
	SCALE Noted	SHEET
		<b>11 OF 12</b>
F:\STAKE\TYLER'S LANDING 3RD\stakecoords.DWG		

# TYLER'S LANDING 3RD ADDITION

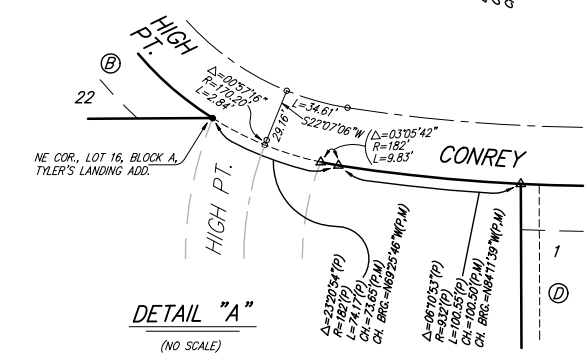
## WICHITA, SEDGWICK COUNTY, KANSAS



- = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- ⊕ = CROSS (SET)
- = 3/4" IRON (FOUND)
- = #5 REBAR (FOUND)
- △ = #4 REBAR W/ "LS950" CAP (FOUND)

(M) = MEASURED  
(P) = PLATTED  
(C-P) = CALCULATED PER PLATTED INFO.

SEE DETAIL "A"



LOT	BLOCK	ELEVATION
1-5	D	151.0
7-9	D	151.0
21-23	D	145.5
37-43	D	145.5

BENCHMARK:  
3" BRASS DISC ON TOP OF CURB AT NORTHWEST END OF CURB RETURN, NORTHEAST CORNER OF THE INTERSECTION OF LAKE RIDGE AND LAKE RIDGE CT., TYLER'S LANDING 2ND ADD.  
BRASS DISC IS SOUTHWEST OF FIRE HYDRANT.  
BRASS DISC IS SOUTHWEST OF THE MOST SOUTHERLY CORNER OF LOT 67, BLOCK B, IN SAID TYLER'S LANDING 2ND ADD.  
ELEV. = 1332.77 NGVD29  
(145.37 CITY DATUM)

BENCHMARK:  
3" BRASS DISC ON TOP OF NORTH CURB ON 34TH STREET NORTH IN TYLER'S LANDING 2ND ADD.  
BRASS DISC IS SOUTH OF FIRE HYDRANT.  
BRASS DISC IS SOUTH OF THE SOUTH LOT CORNER COMMON TO LOTS 7 AND 8, BLOCK A, IN SAID TYLER'S LANDING 2ND ADD.  
ELEV. = 1335.64 NGVD29  
(148.24 CITY DATUM)

NOTE:  
A master grading plan for drainage has been developed for this subdivision and is on file with the City of Wichita, Kansas. All drainage easements, rights-of-way, or reserves shall remain at established grades or as modified with the approval of the City Engineer of the City of Wichita, Kansas. No obstructions which impede the flow of this drainage system shall be allowed.

NOTE:  
A drainage plan has been developed for this subdivision and is on file with the City of Wichita, Kansas. Drainage intent shall remain as depicted or as modified with the approval of the City Engineer of the City of Wichita, Kansas. No obstructions which impede the flow of this drainage plan shall be allowed.