

Storm Water Sewer #601 to Serve Ridge Addition CITY OF WICHITA, KANSAS

Neil D. Cable, P.E. City Engineer

Project Number

468-83737

OCA Number

751350

GENERAL NOTES:

- Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

Kansas One-Call 687-2470

The Contractor must notify the following in case of an emergency:

Cox Communications	262-4270
Kansas Gas Service	1-888-482-4950
Westar Energy	383-8650
Aquila Energy	1-800-303-0357
Southwestern Bell	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 Pipeline Co.	1-800-231-2551
Williams Pipeline Co.	529-6600
Phillips Pipeline Co.	1-800-766-8230

- 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.

- 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, 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.

- Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.

- The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days advance 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 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. All costs associated with seeding shall be included in bid item "Site Clearing & Restoration." All seeding operations shall conform to City of Wichita Standard Specifications.

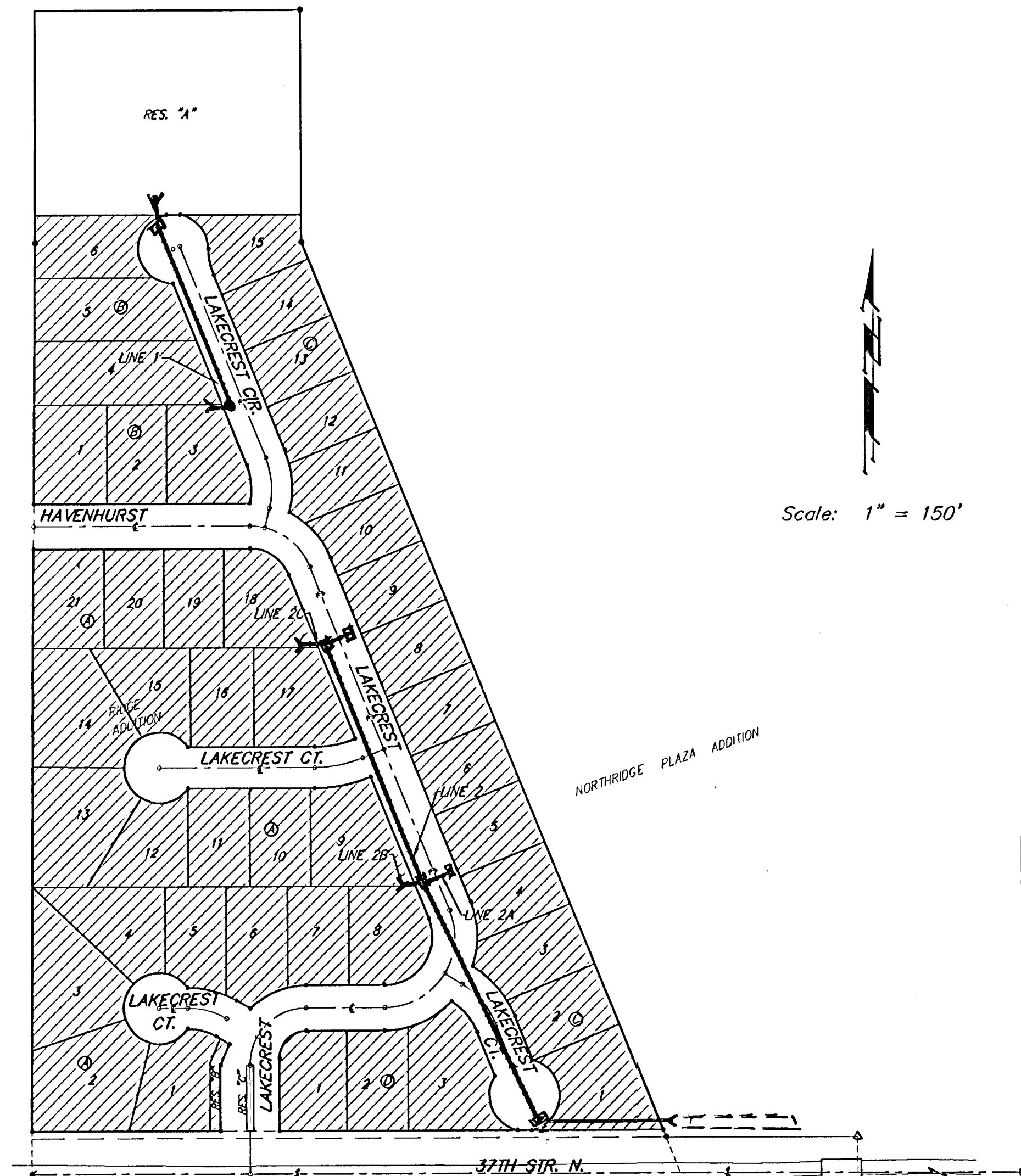
BENCHMARKS:

RR Spike N. Face P.P.
40'± S. of G 37th Street N.
180'± E. of SW Cor. SE 1/4,
Sec. 28, Twp 26-S, R-1-W.
Elev. = 144.13 City Datum
MSL Elev. = 1331.53

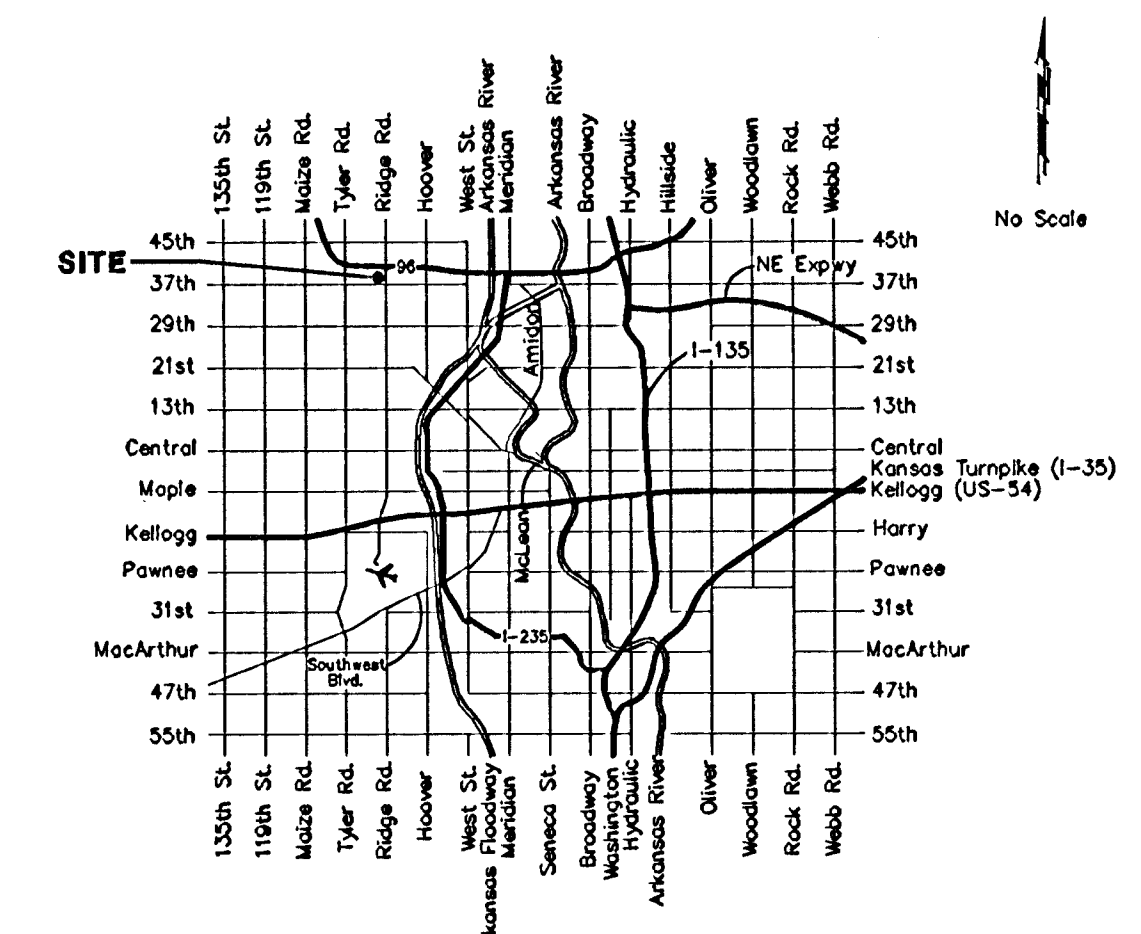
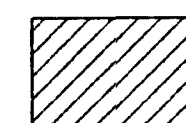
RR Spike N. Face P.P.
44'± S. of G 37th Street N.,
990'± E. of SW Cor. SE 1/4,
Sec. 28, Twp 26-S, R-1-W.
Elev. = 143.73 City Datum
MLS Elev. = 1331.13

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Benefit District



Vicinity Map

As Built 8/30/04 KK

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

BENCHMARKS:

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Sta 0+09.6, Line 1
Begin construction of 18"
SWS w/end section.
Install 24.0 S.Y. light
stone rip-rap as
indicated.

Sta. 0+47.0 to Sta. 1+27.00
Install 80.0 L.F. flowable fill
per City specifications.

Sta 0+44.3, Line 1
Construct std. Type 1A
Curb Inlet (5'x3')
Top Elev. = 147.00

CAUTION!
8" SS Line
Crossing

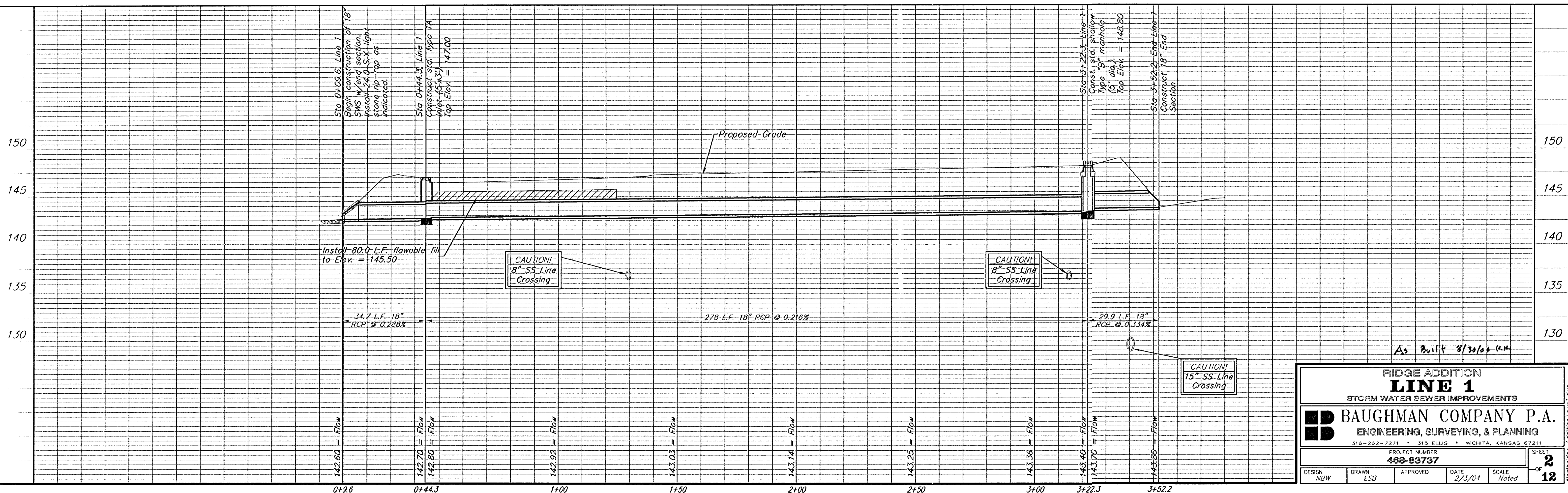
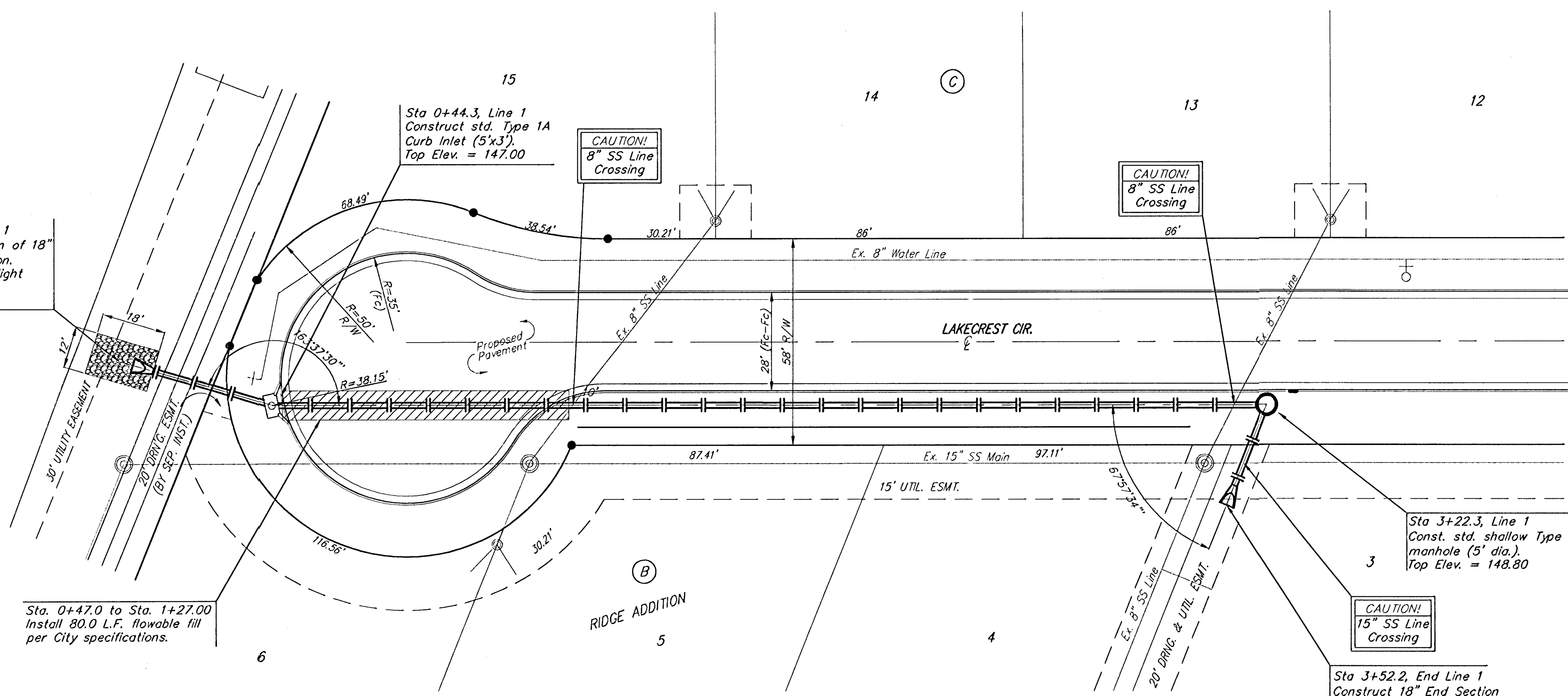
CAUTION!
8" SS Line
Crossing

Sta 3+22.3, Line 1
Const. std. shallow Type "B"
manhole (5' dia.).
Top Elev. = 148.80

CAUTION!
15" SS Line
Crossing

Sta 3+52.2, End Line 1
Construct 18" End Section

Scale: 1" = 20' Horizontal
1" = 5' Vertical
• = Iron



RIDGE ADDITION
LINE 1
STORM WATER SEWER IMPROVEMENTS

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
488-83737

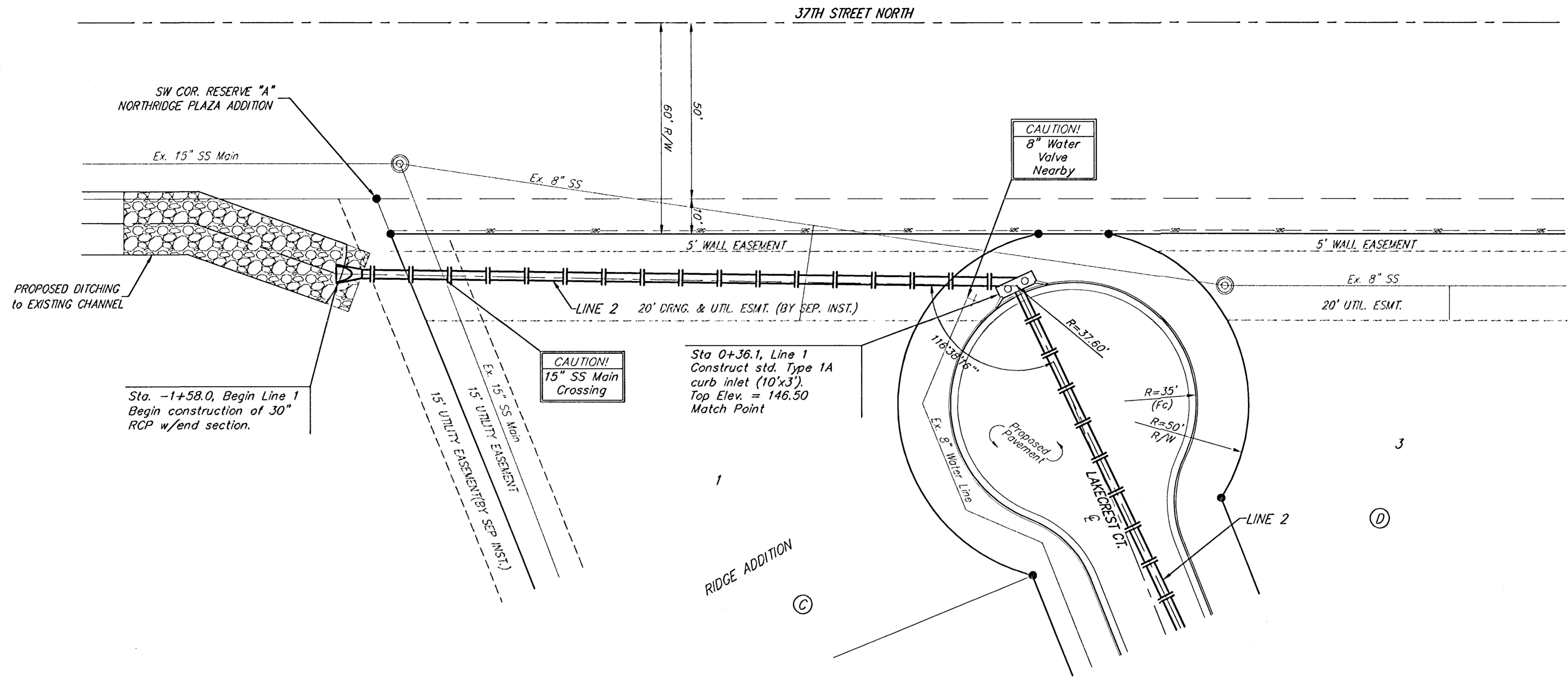
DESIGN NBW	DRAWN ESB	APPROVED	DATE 2/3/04	SCALE Noted	SHEET 2 OF 12
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As Built 8/30/04 K.H.

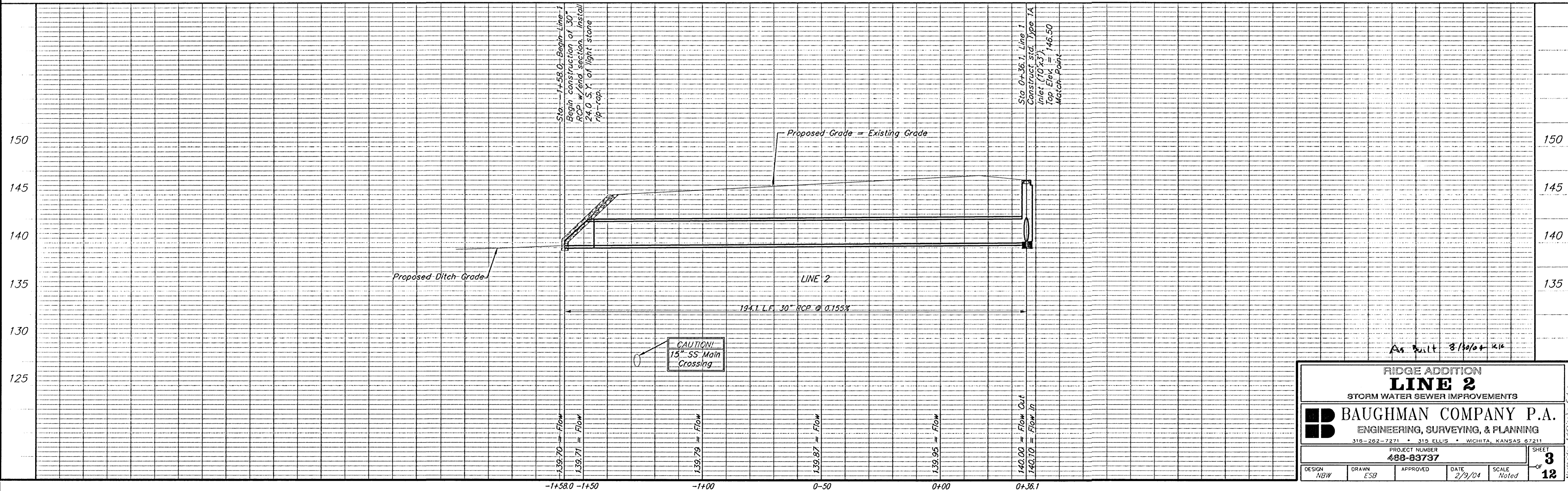
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Scale: 1" = 20' Horizontal
 1" = 5' Vertical
 • = Iron



RIDGE ADDITION
LINE 2
 STORM WATER SEWER IMPROVEMENTS

BAUGHMAN COMPANY P.A.
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PROJECT NUMBER
488-83797

DATE 2/9/04

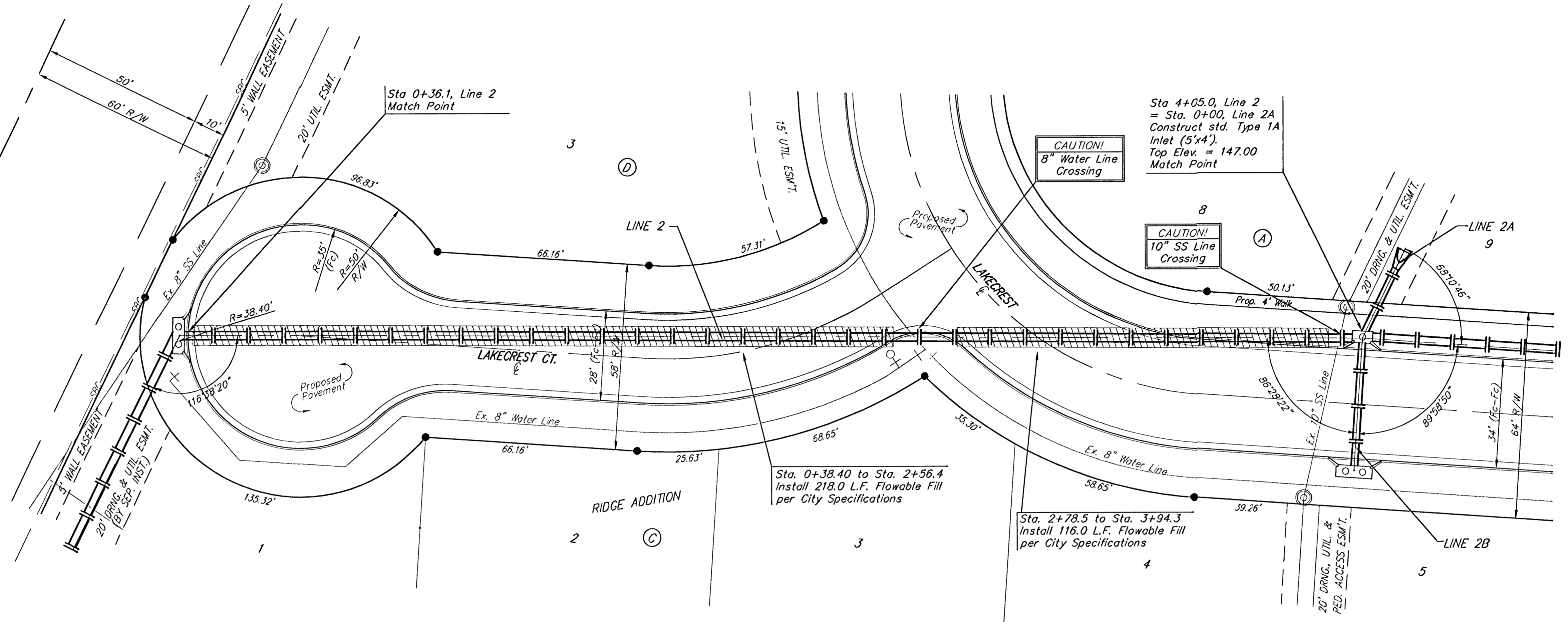
SHEET **3** OF **12**

BENCHMARKS:

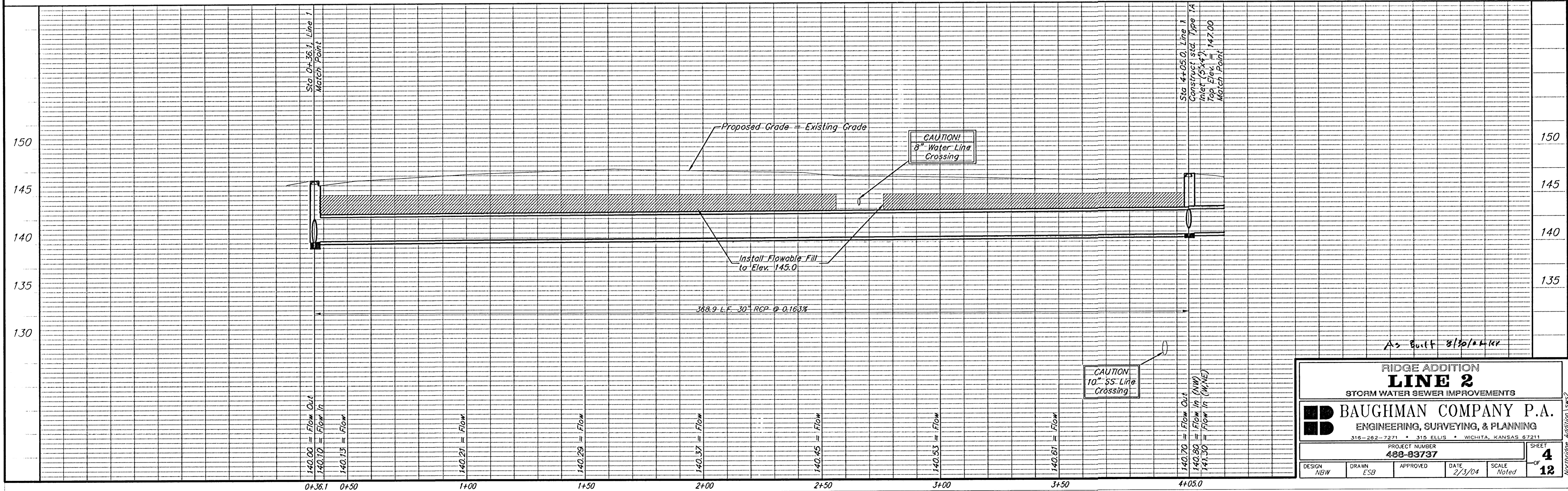
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37th Street North



Scale: 1" = 20' Horizontal
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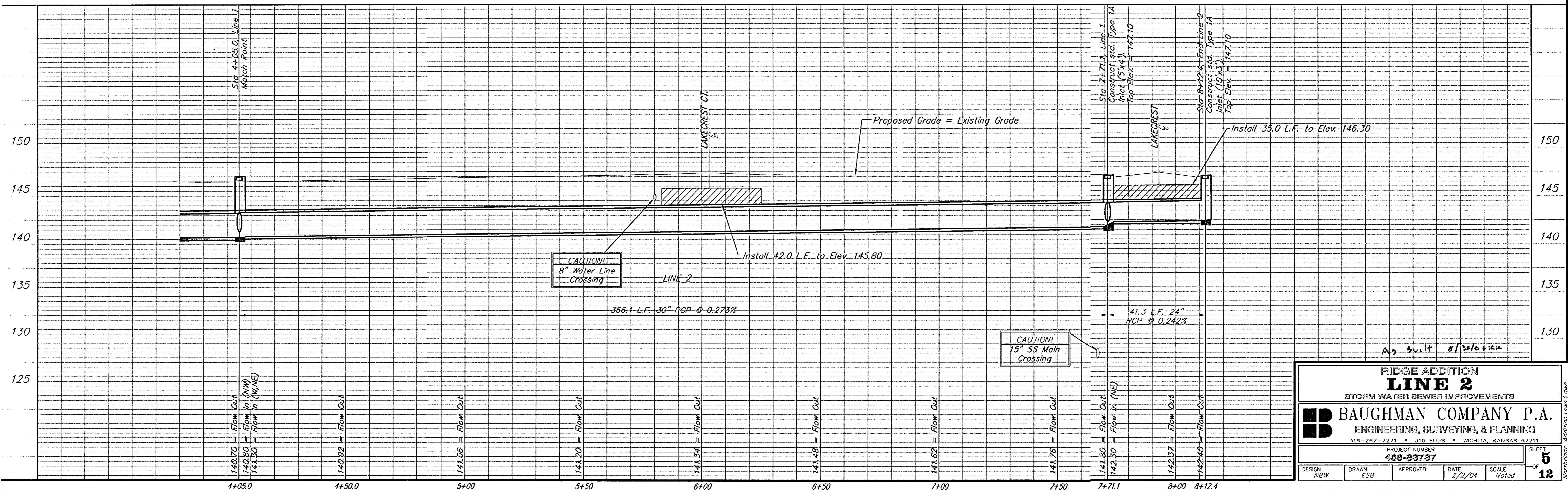
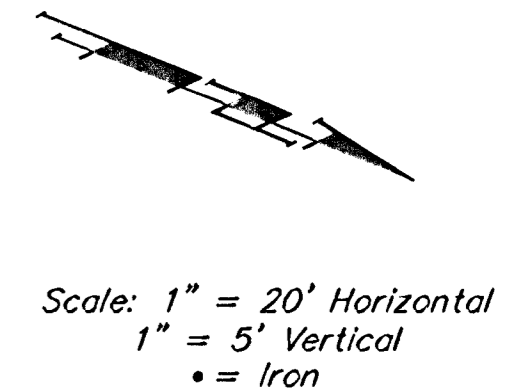
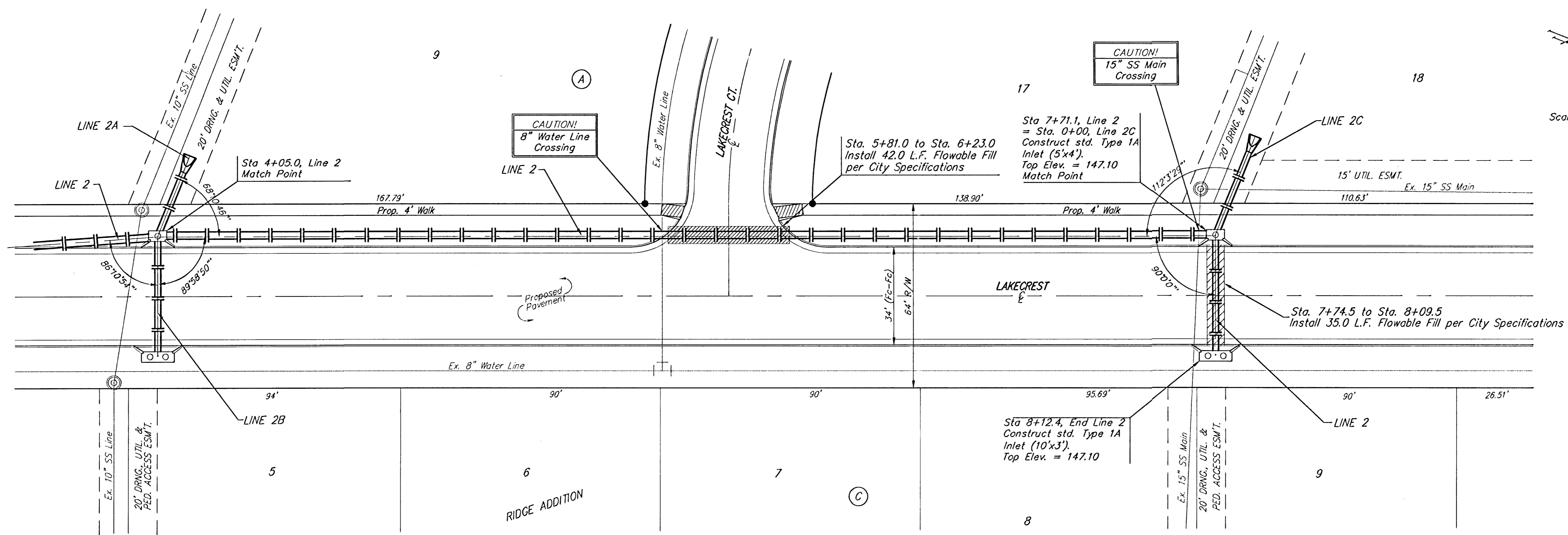
As Built 5/30/2011

RIDGE ADDITION			
LINE 2			
STORM WATER SEWER IMPROVEMENTS			
BAUGHMAN COMPANY P.A.			
ENGINEERING, SURVEYING, & PLANNING			
316-282-7271 • 315 ELLIS • WICHITA, KANSAS 67211			
PROJECT NUMBER			
488-83737			
DESIGN	DRAWN	APPROVED	DATE
NBW	ESB		2/3/04
SCALE			SHEET
Noted			4
			OF
			12

BENCHMARKS:

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RIDGE ADDITION
LINE 2
 STORM WATER SEWER IMPROVEMENTS

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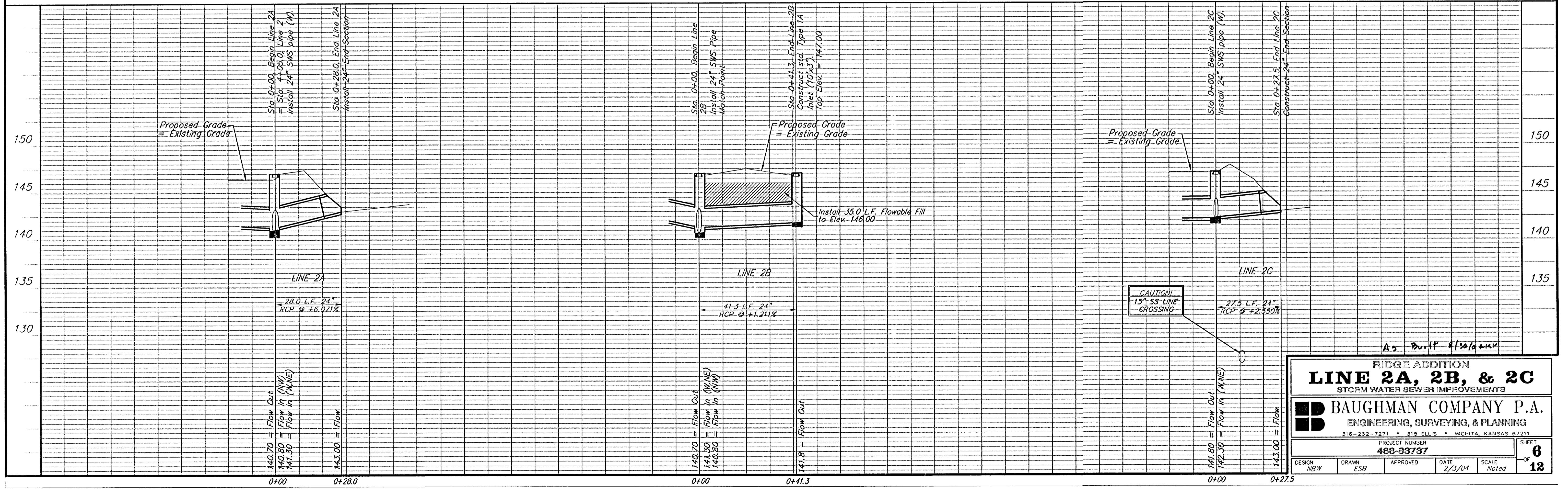
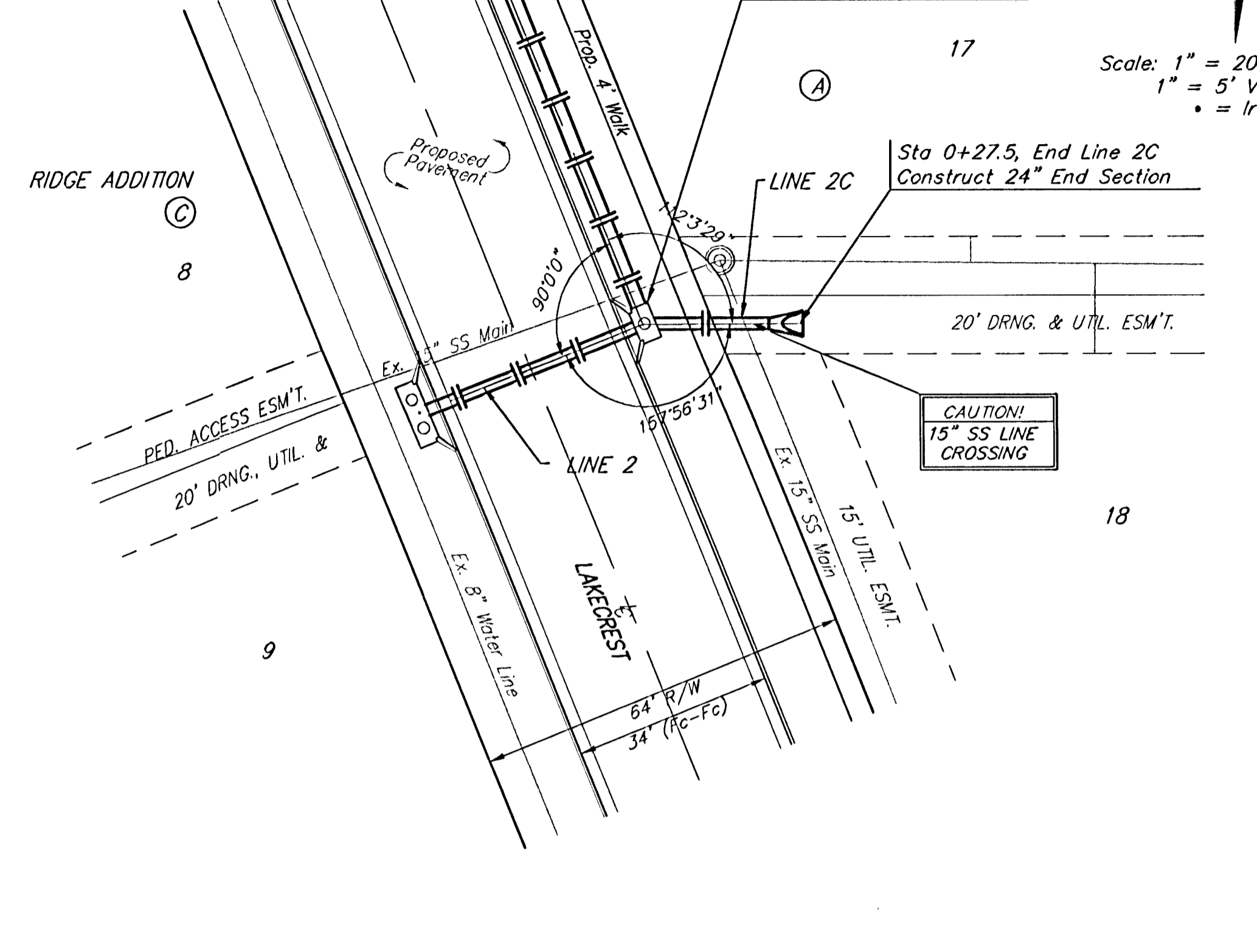
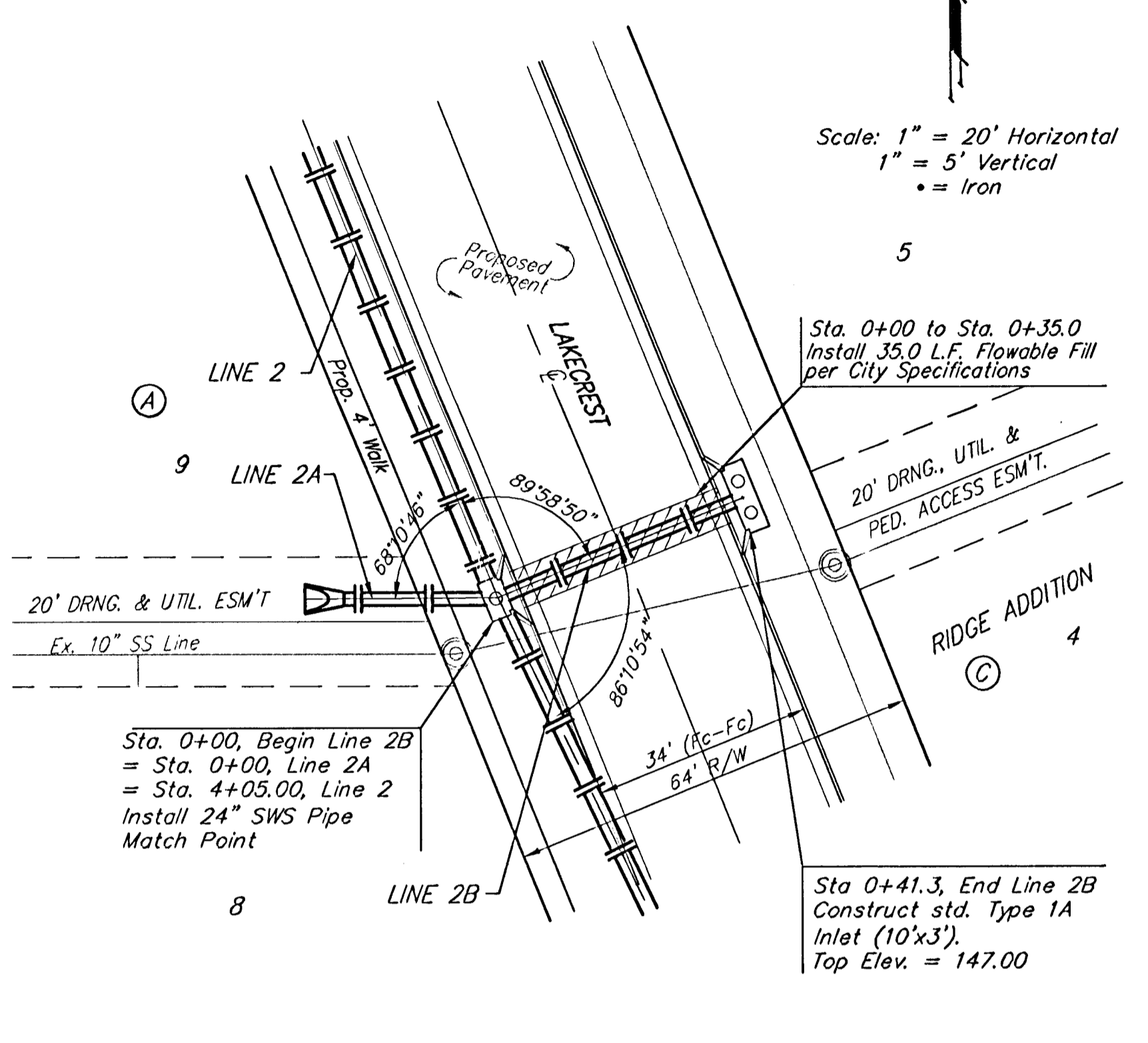
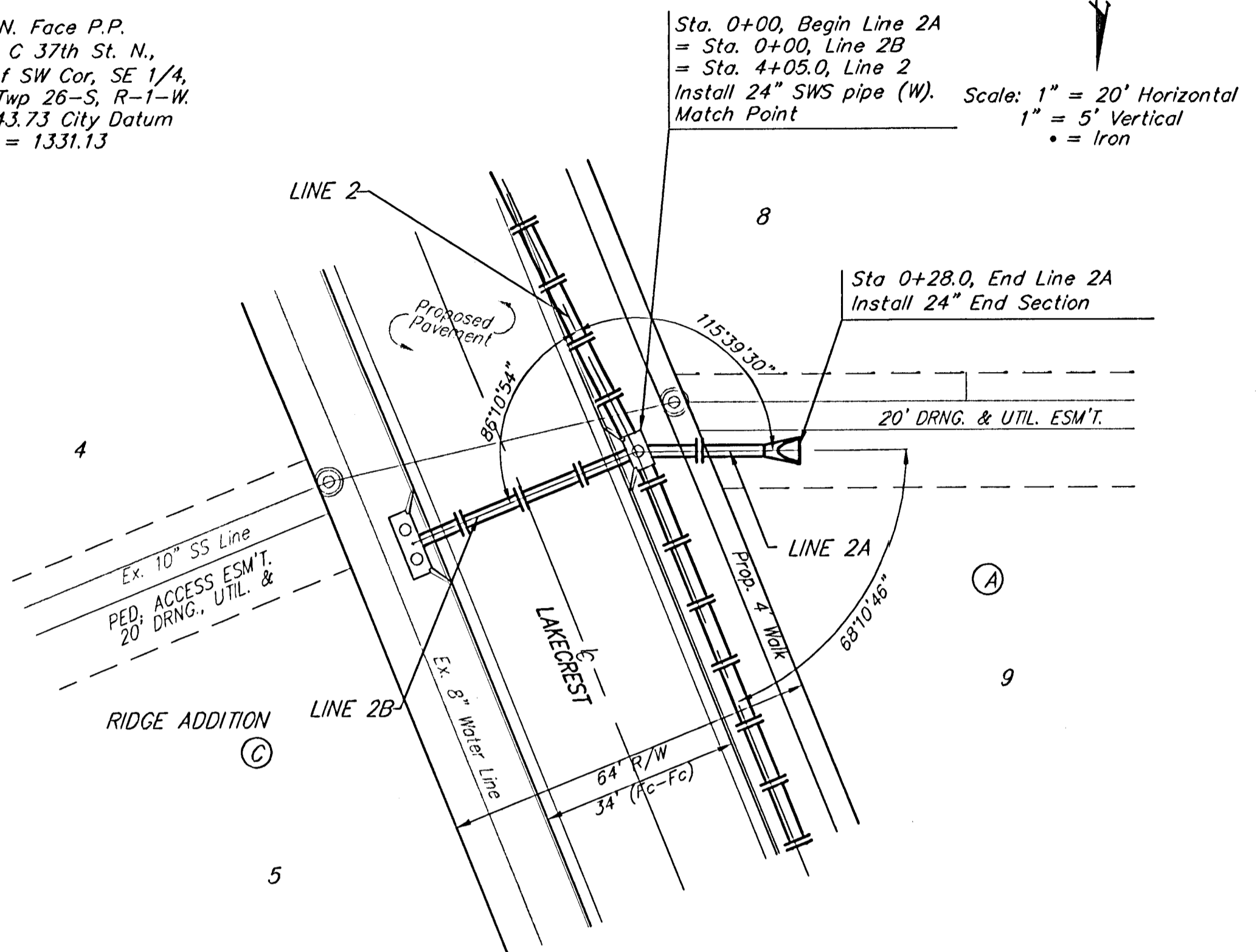
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SCALE Noted		SHEET 5 OF 12	

North Arrow
As built 8/30/04

BENCHMARKS:

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 Sec. 28, Twp 26-S, R-1-W.
 Elev. = 143.73 City Datum
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RIDGE ADDITION
LINE 2A, 2B, & 2C
 STORM WATER SEWER IMPROVEMENTS

BAUGHMAN COMPANY P.A.
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 315-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
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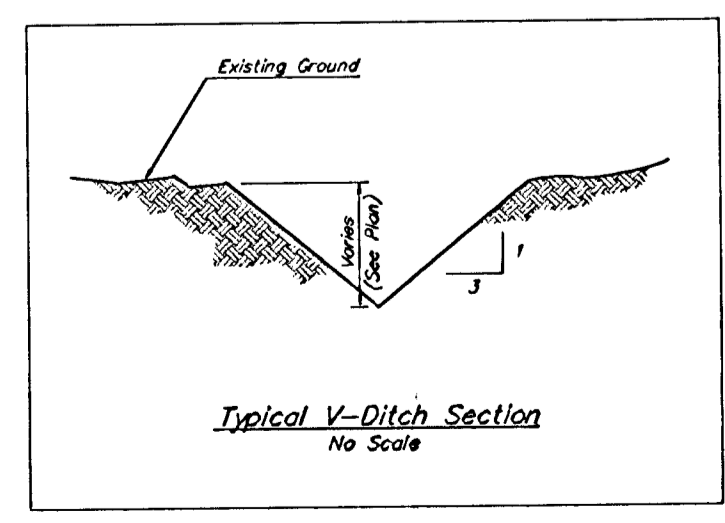
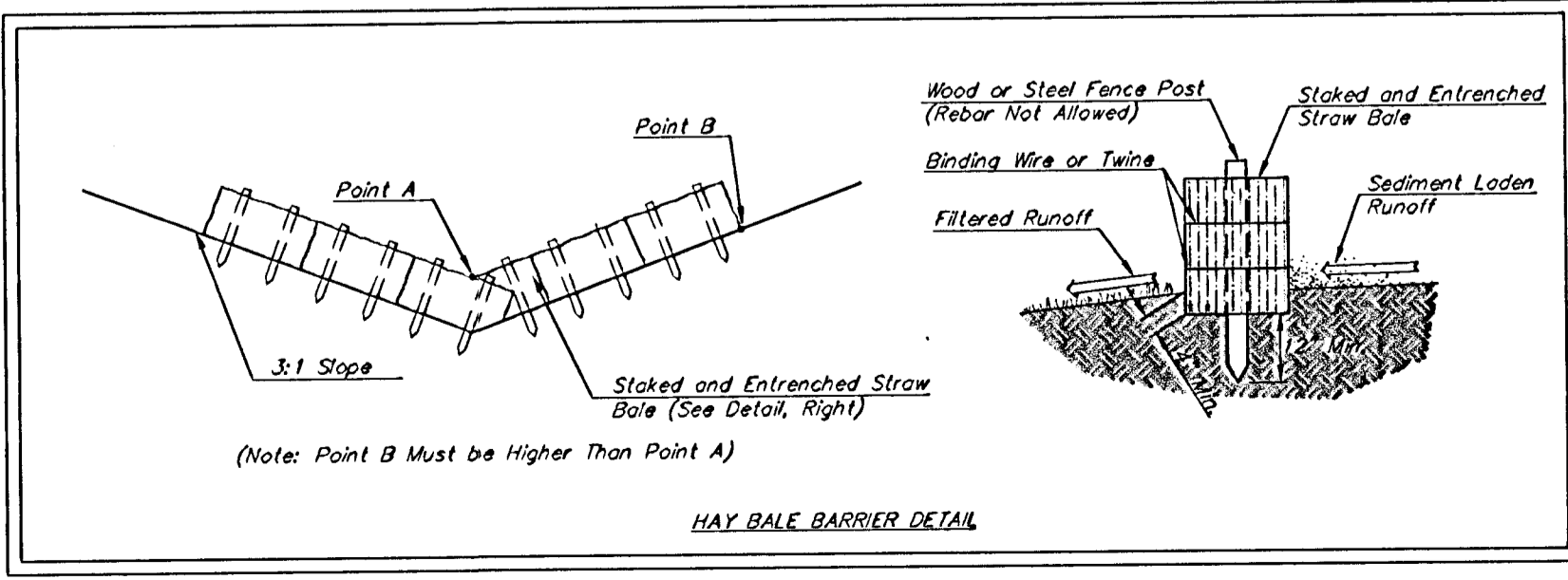
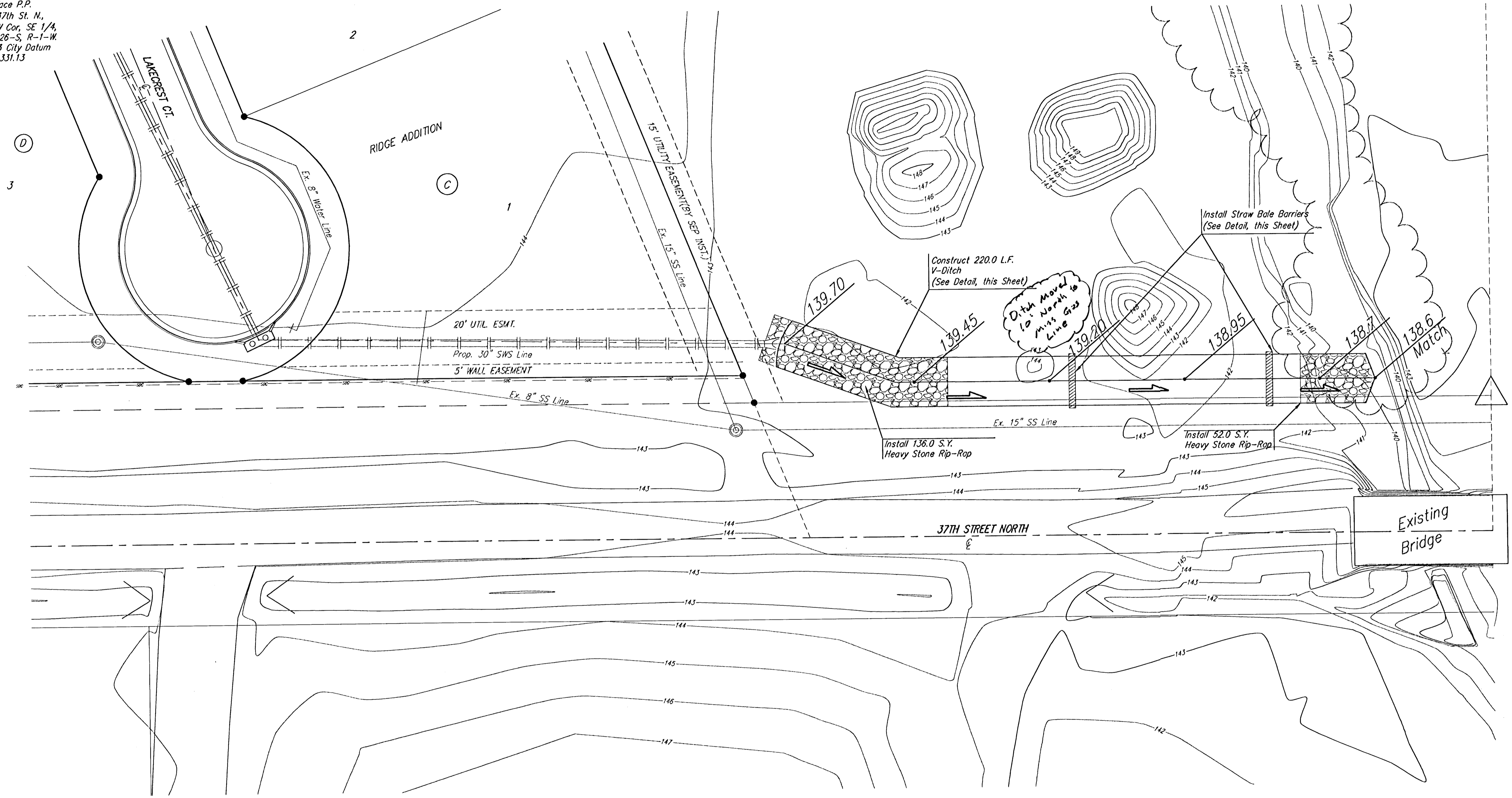
DESIGN NBW	DRAWN ESB	APPROVED	DATE 2/3/04
SCALE Noted			SHEET 6 OF 12

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Scale: 1" = 20' Horizontal
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As Built 8/30/04 x14

**RIDGE ADDITION
 DITCH PLAN**

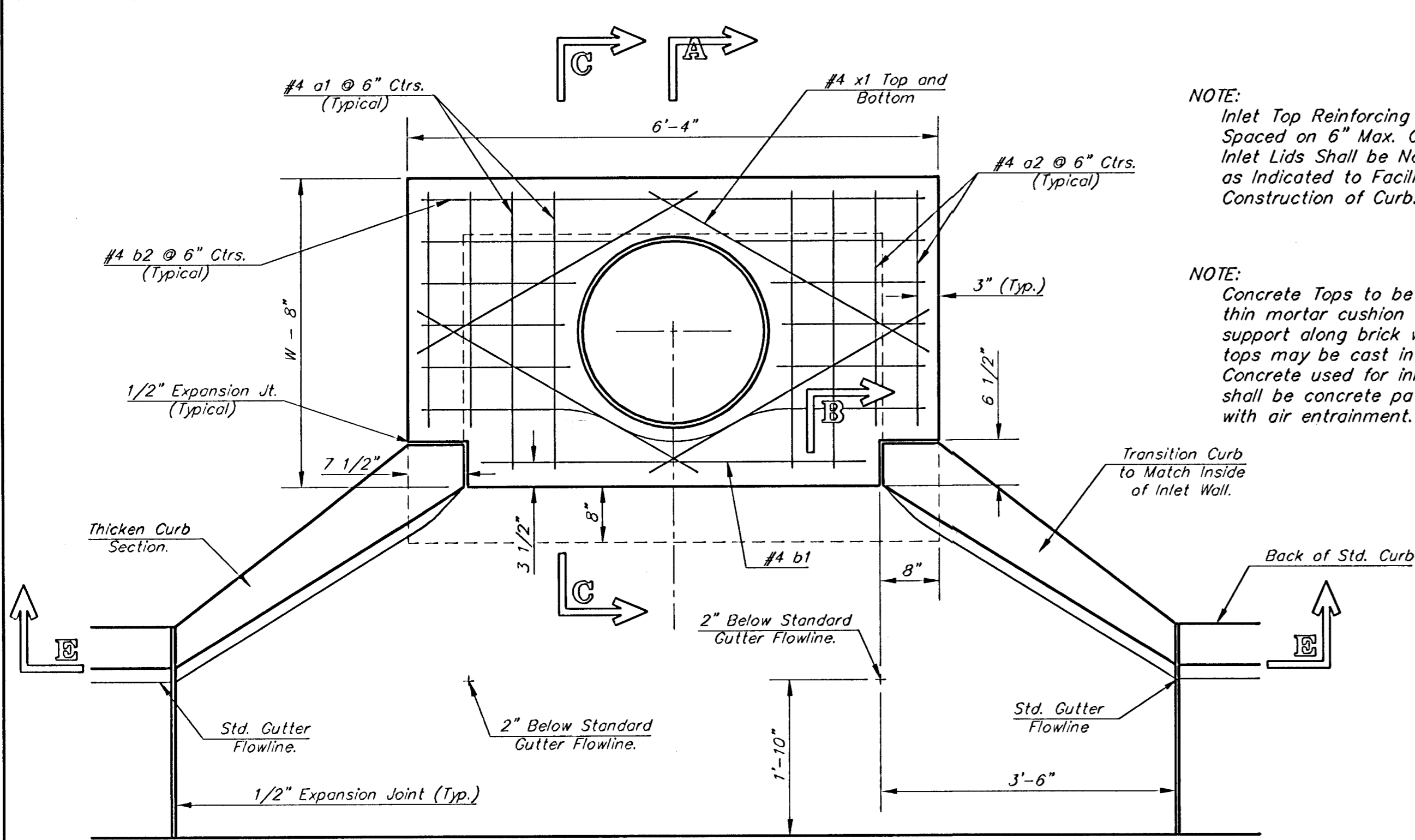
BAUGHMAN COMPANY P.A.
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 316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER: **488-83737**

DESIGN: NBW	DRAWN: ESR	APPROVED:	DATE: 2/9/04	SCALE: Noted
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SHEET **7** OF **12**

Northridge Addition 1/1/04.dwg

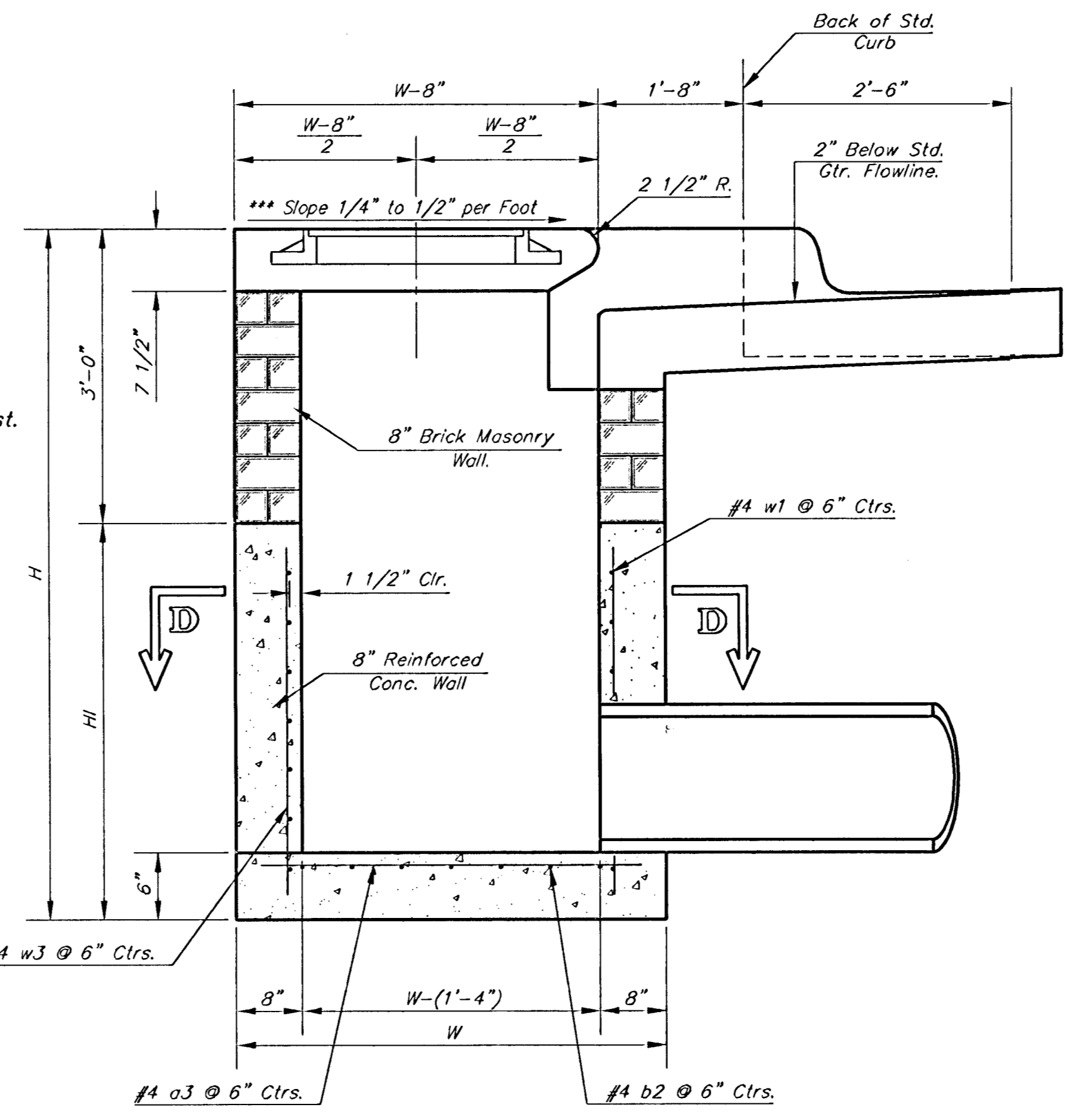


NOTE:
Inlet Top Reinforcing shall be Spaced on 6" Max. Centers. Inlet Lids Shall be Notched Out as Indicated to Facilitate Construction of Curb.

NOTE:
Concrete Tops to be installed on thin mortar cushion to insure full support along brick walls. Concrete tops may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix with air entrainment.

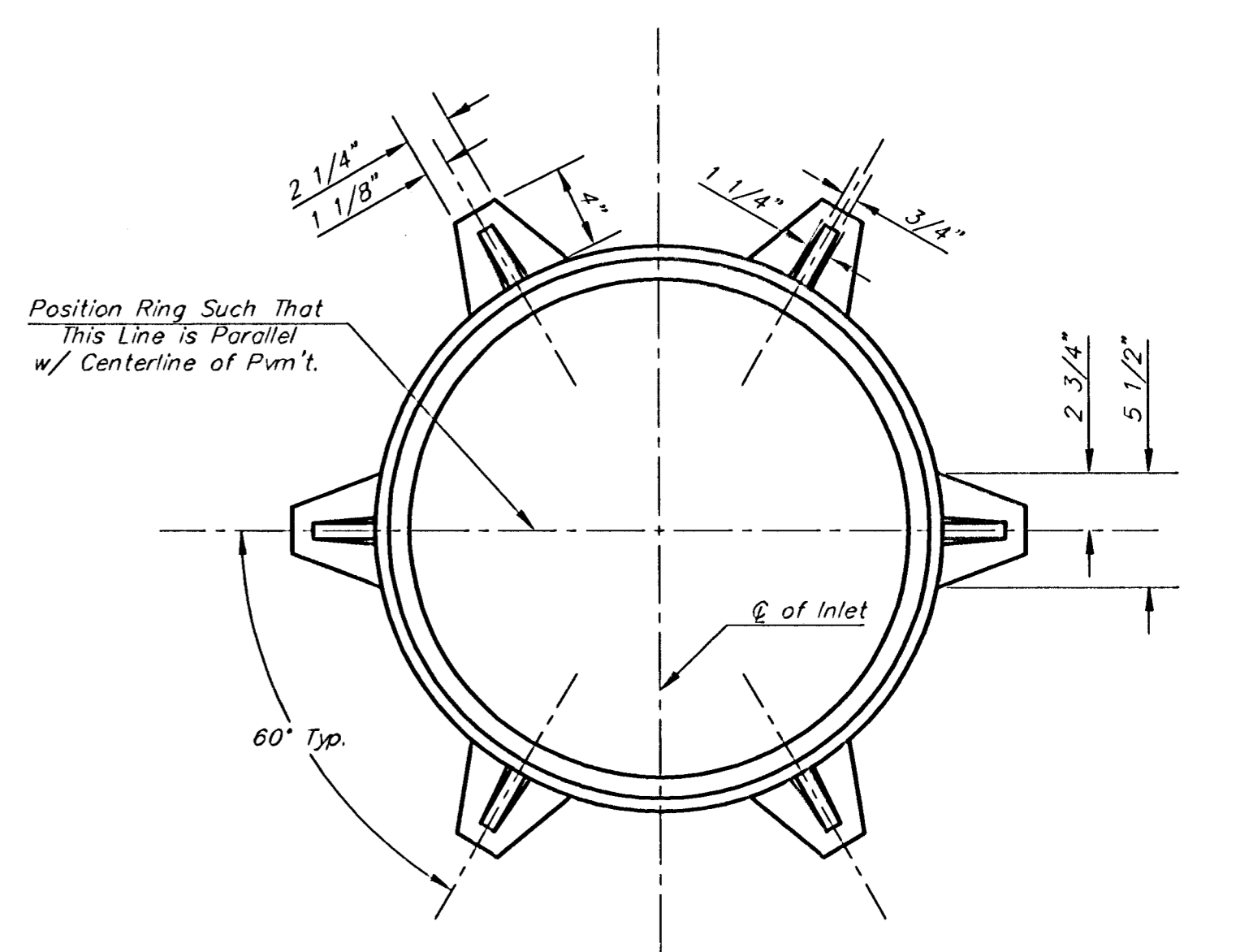
NOTE:
Expansion Joint Only in Curb Area With Concrete Pavement.

PLAN



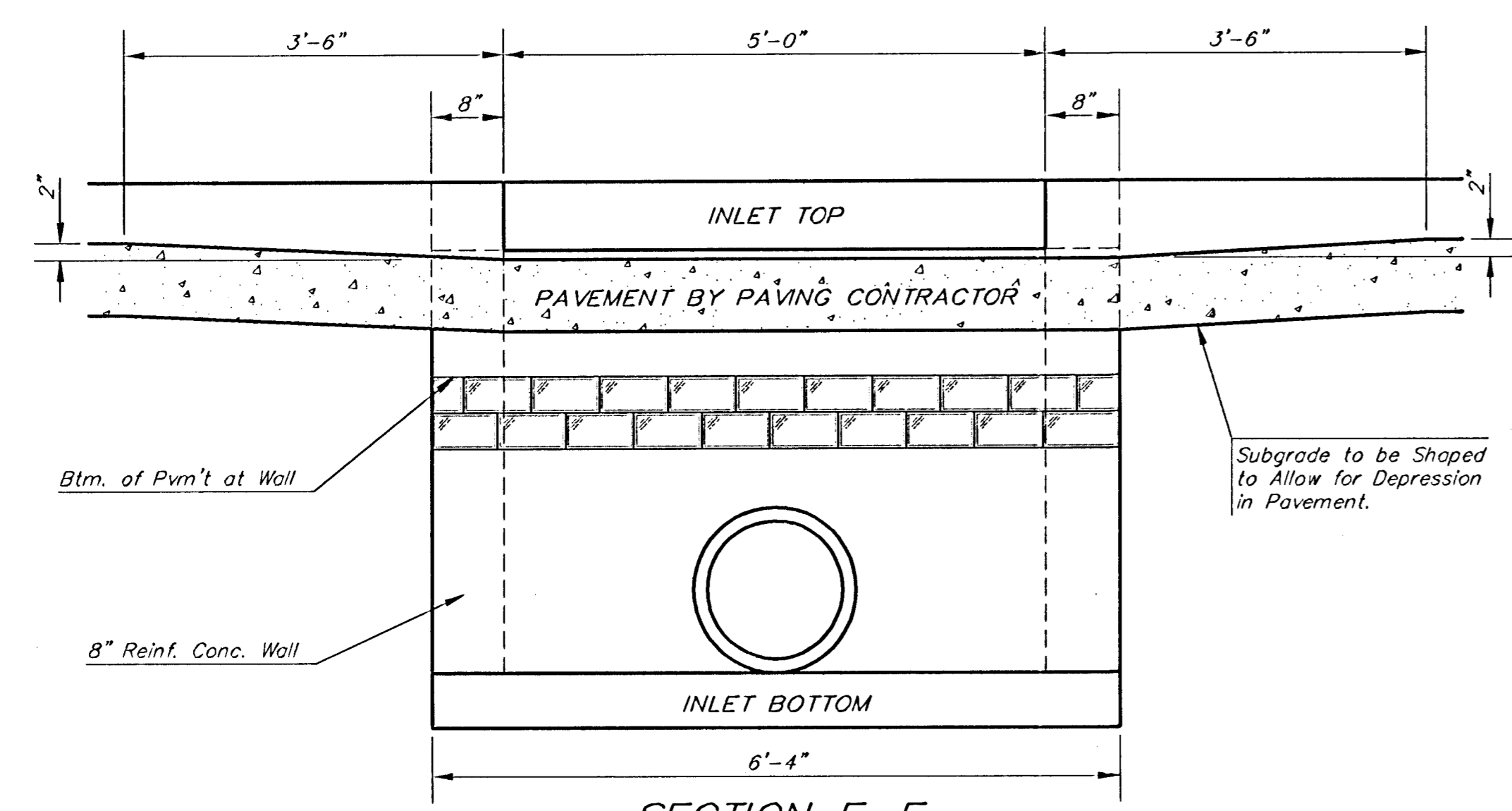
SECTION A-A

***NOTE: Slope of Inlet tops to Match Sidewalk or Parking Slopes within Limits Indicated.

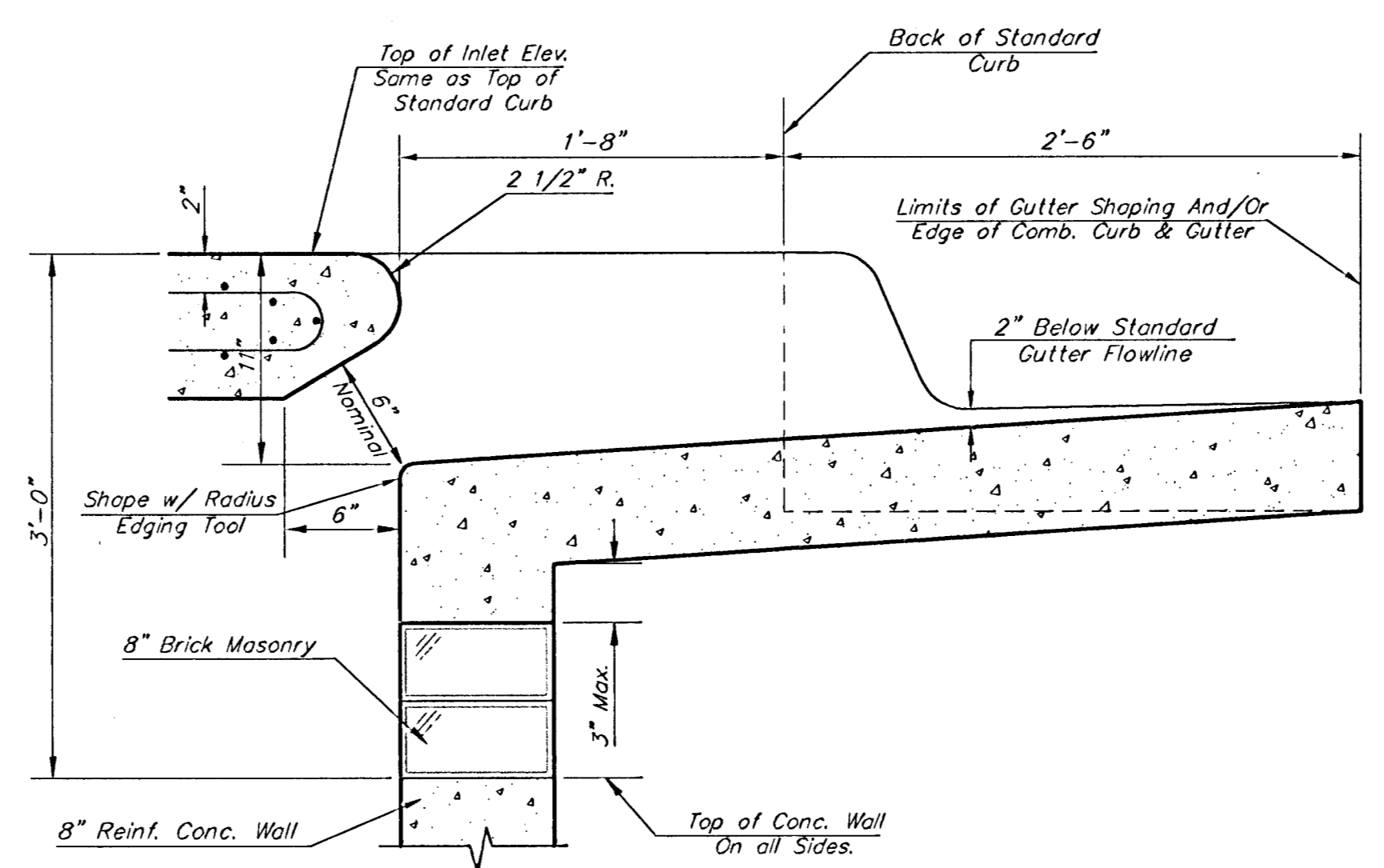


MANHOLE RING AND COVER

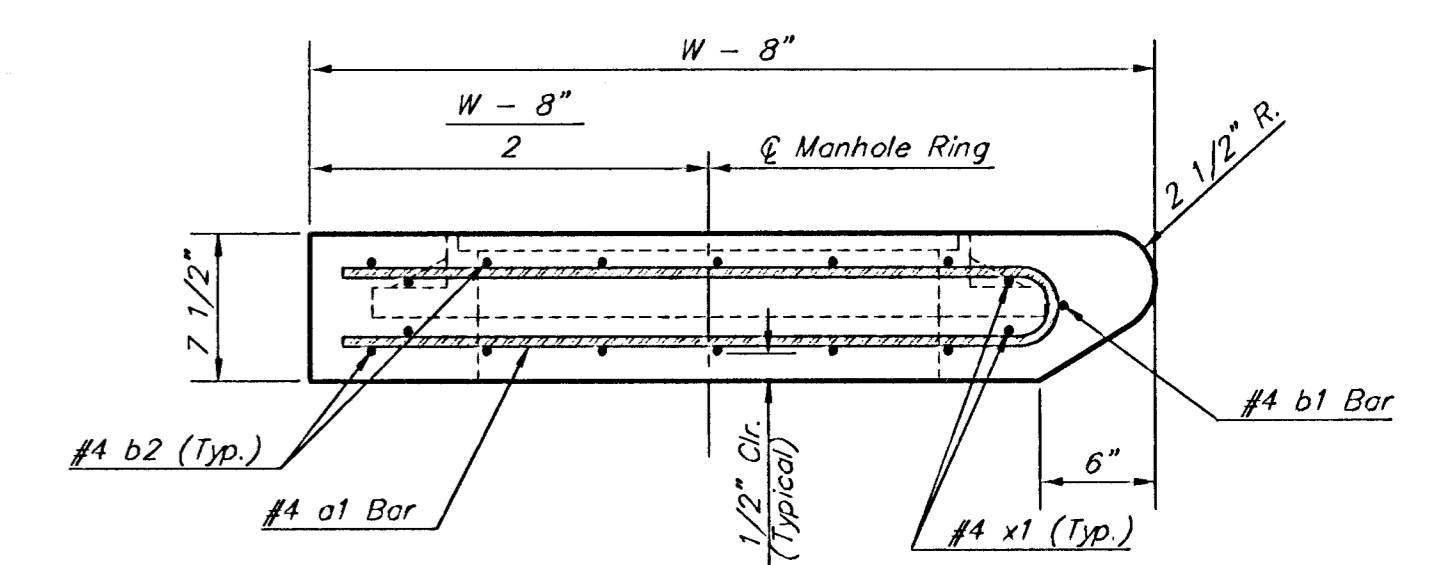
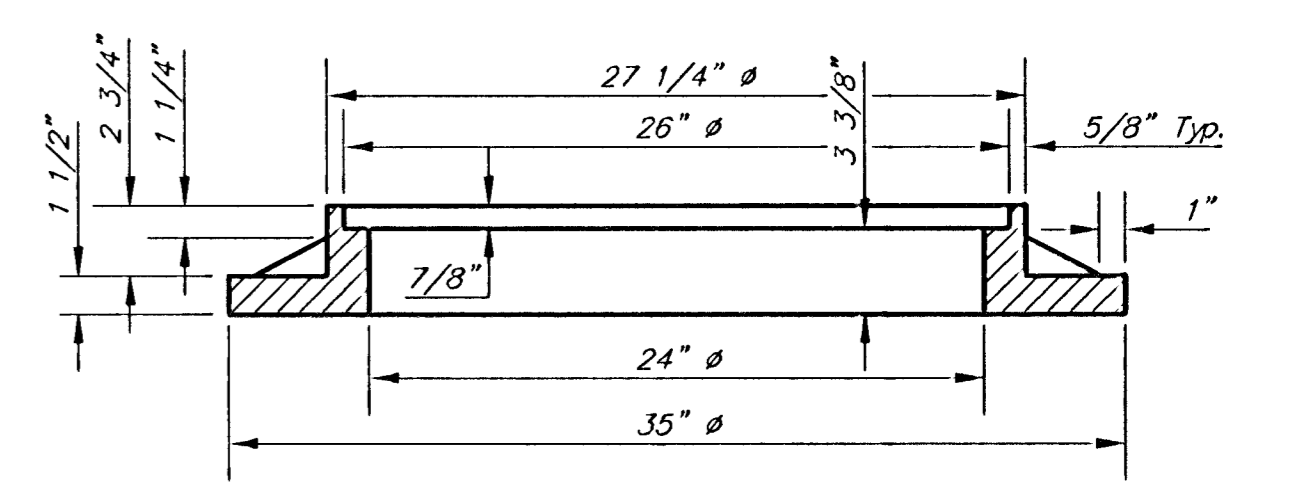
Weight = 180 Lbs.
*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.



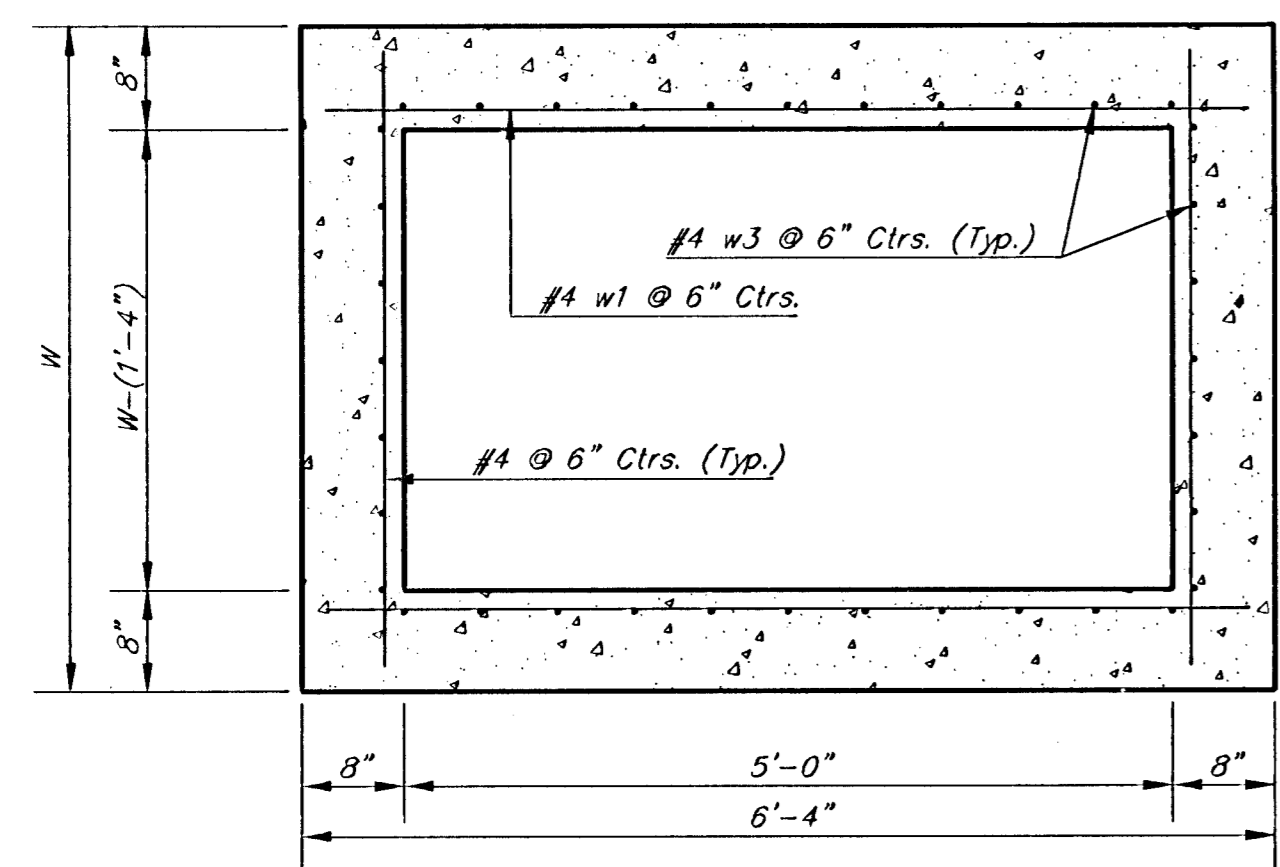
SECTION E-E



SECTION B-B



SECTION C-C



SECTION D-D

NOTE: Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W=6'-4" and H=7'-0" or less.

Additional curb and gutter construction necessary to connect set-back inlet to pavement will be paid for the unit price bid for each inlet hookup.

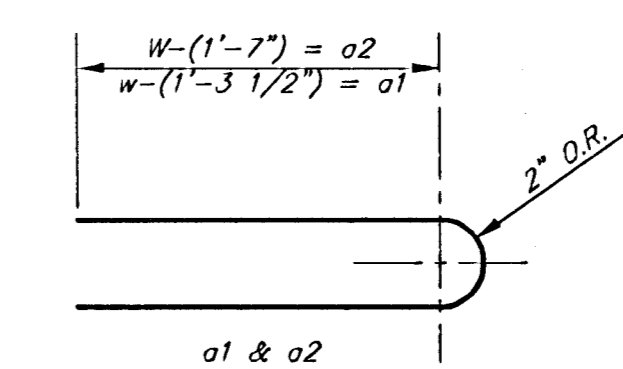
Inlet invert shall be shaped with 8 sack sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self-cleaning between all inlet and/or outlet pipes.

The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall

PRECAST SLAB AND FLOOR REINFORCING											
MARK	SIZE	W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
* a1	#4	6	6'-2"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-2"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"	13	8'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
* b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"	47	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"

WALL REINFORCING											
MARK	SIZE	W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
w1	#4	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	32	②	36	②	40	②	44	②	48	②

* Field Bend or Cut Reinforcing as Required for Clearance.
① 4 (H - 12") (H - 21") Rounded down to nearest 0.5"
② H - 3"



BENDING DIAGRAM

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8" x 6'-4" x 7 1/2"	21" & SMALLER	0.38±
5'-4"	4'-8" x 6'-4" x 7 1/2"	24" & 30"	0.51±
6'-4"	5'-8" x 6'-4" x 7 1/2"	36" & 42"	0.64±
7'-4"	6'-8" x 6'-4" x 7 1/2"	48" & 54"	0.77±
8'-4"	7'-8" x 6'-4" x 7 1/2"	60" & 66"	0.90±

Revised - Feb. 16, 1989

CITY OF WICHITA STANDARD TYPE 1A
Curb Inlet Details
INLET OPENING = 8" X 5'-0"

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-282-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
488-83737

DESIGN: C.O.W. DRAWN: Staff APPROVED: DATE: 2/10/04 SCALE: None

SHEET **8** OF **12**

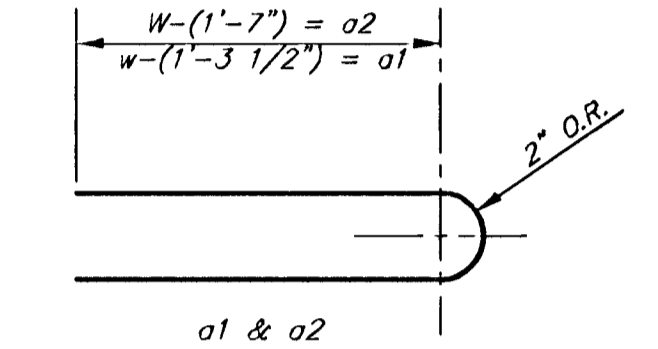
PRECAST SLAB AND FLOOR REINFORCING											
MARK	SIZE	W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
* a1	#4	13	6'-7"	13	8'-7"	13	10'-7"	13	12'-7"	13	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	23	4'-1"	23	5'-1"	23	6'-1"	23	7'-1"	23	8'-1"
b1	#4	1	9'-9"	1	9'-9"	1	9'-9"	1	9'-9"	1	9'-9"
* b2	#4	23	11'-1"	29	11'-1"	35	11'-1"	41	11'-1"	47	11'-1"
x1	#4	16	3'-10"	16	4'-2"	16	4'-6"	16	4'-10"	16	5'-2"

WALL REINFORCING											
MARK	SIZE	W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
w1	#4	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	②	52	②	56	②	60	②	64	②	68

* Field Bend or Cut Reinforcing as Required for Clearance.
 ① H (H - 12") (H - 21") Rounded down to nearest 0.5"
 ② H - 3"

GENERAL NOTES:

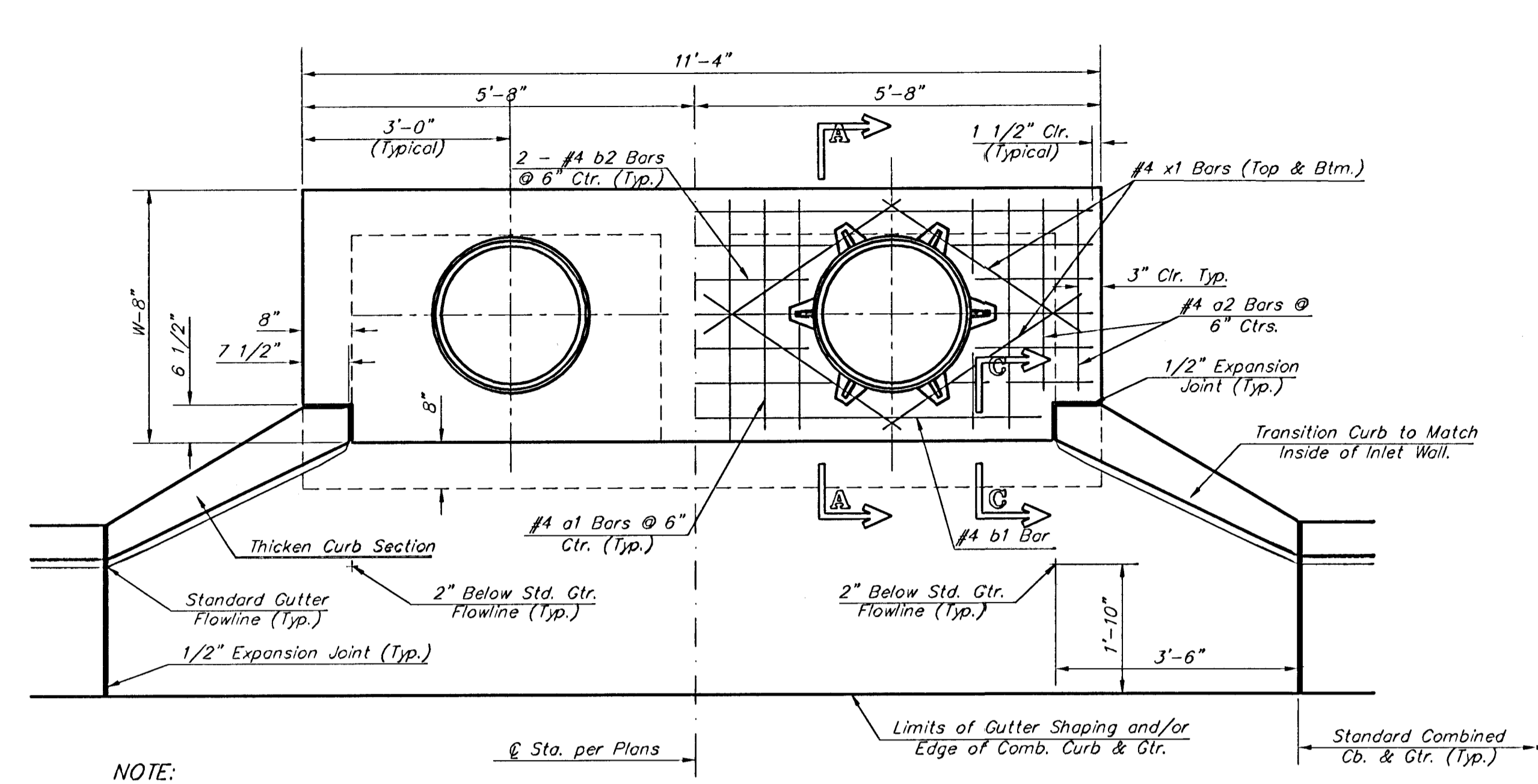
- The contractor shall be required to construct 8" brick masonry walls between the concrete inlet base and top on this inlet when W=6'-4" or less and H=7'-0" or less. When W is greater than 6'-4" and H is less than 7'-0" the outside inlet walls below the brick stack shall be reinforced concrete construction and the center wall shall be of masonry construction as shown for the masonry wall option.
- Inlet invert shall be shaped with 8 sack sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self cleaning between all inlet and/or outlet pipes.
- Concrete tops to be installed on thin mortar cushion to insure full support along brick walls. Concrete tops may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix.
- Inlet top reinforcing shall be spaced on 6" max. centers. Inlet lids shall be notched out as indicated to facilitate construction of curb. Bars in inlet top to be field bent or cut to clear manhole ring.
- The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.



BENDING DIAGM

W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8" 11'-4" 7 1/2"	21" & SMALLER	0.83±
5'-4"	4'-8" 11'-4" 7 1/2"	24" & 30"	1.09±
6'-4"	5'-8" 11'-4" 7 1/2"	36" & 42"	1.35±
7'-4"	6'-8" 11'-4" 7 1/2"	48" & 54"	1.61±
8'-4"	7'-8" 11'-4" 7 1/2"	60" & 66"	1.87±

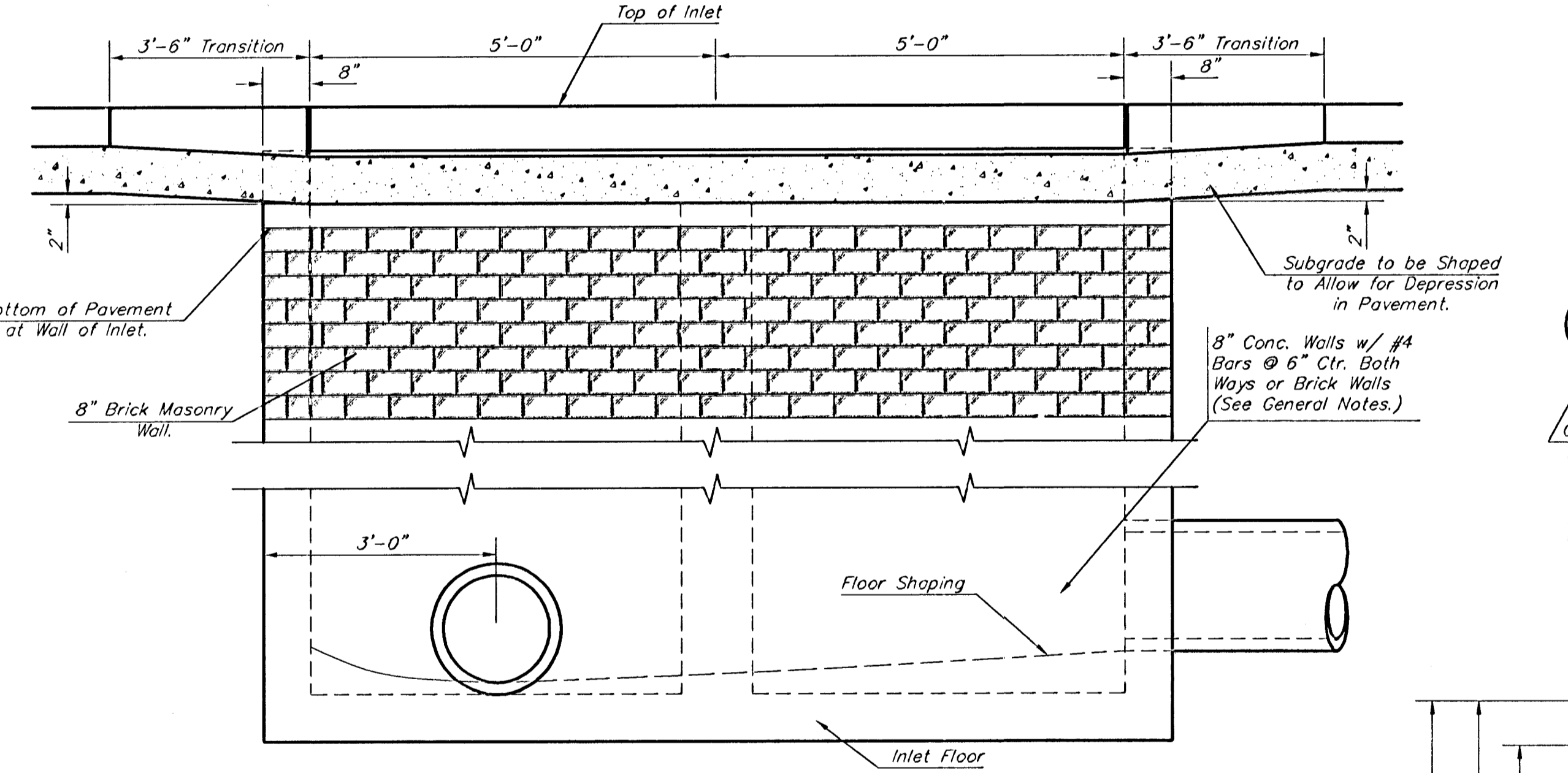
STANDARD CURB INLET PRECAST TOPS



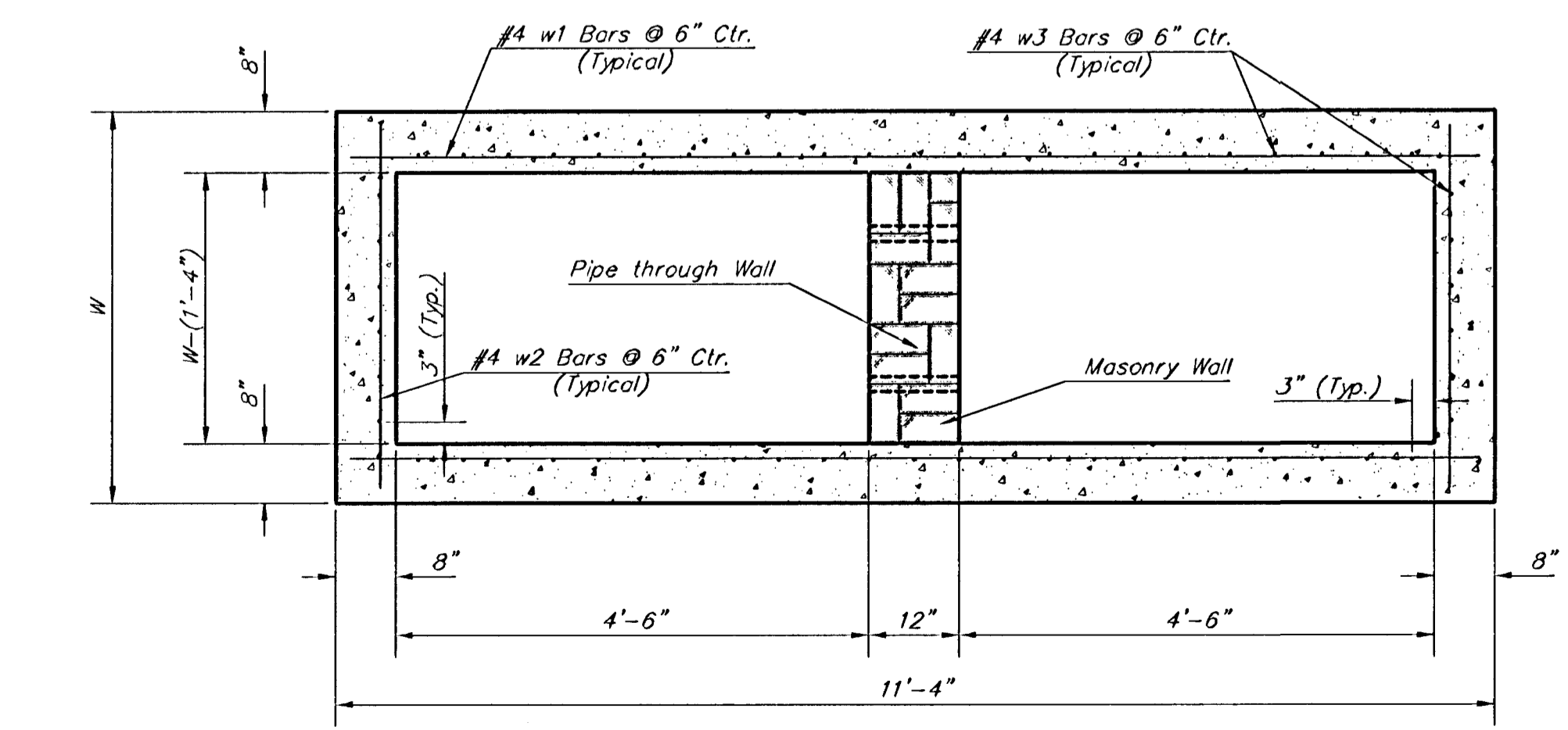
NOTE:
Expansion Joint Only in Curb Area with Concrete Pavement.

PLAN

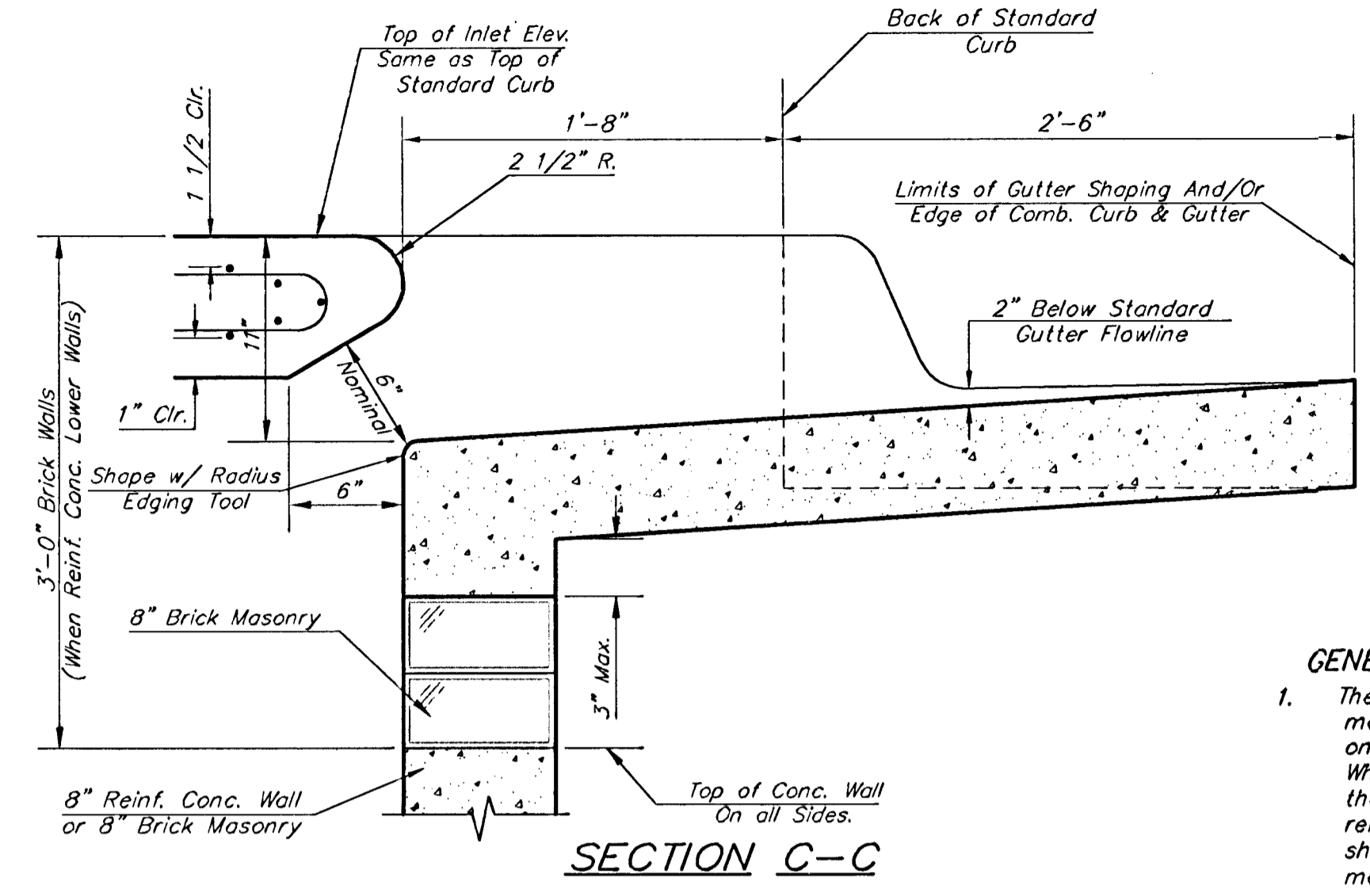
*Left Side Shown Without Slab Reinforcing, Right Side Shown With Slab Reinforcing



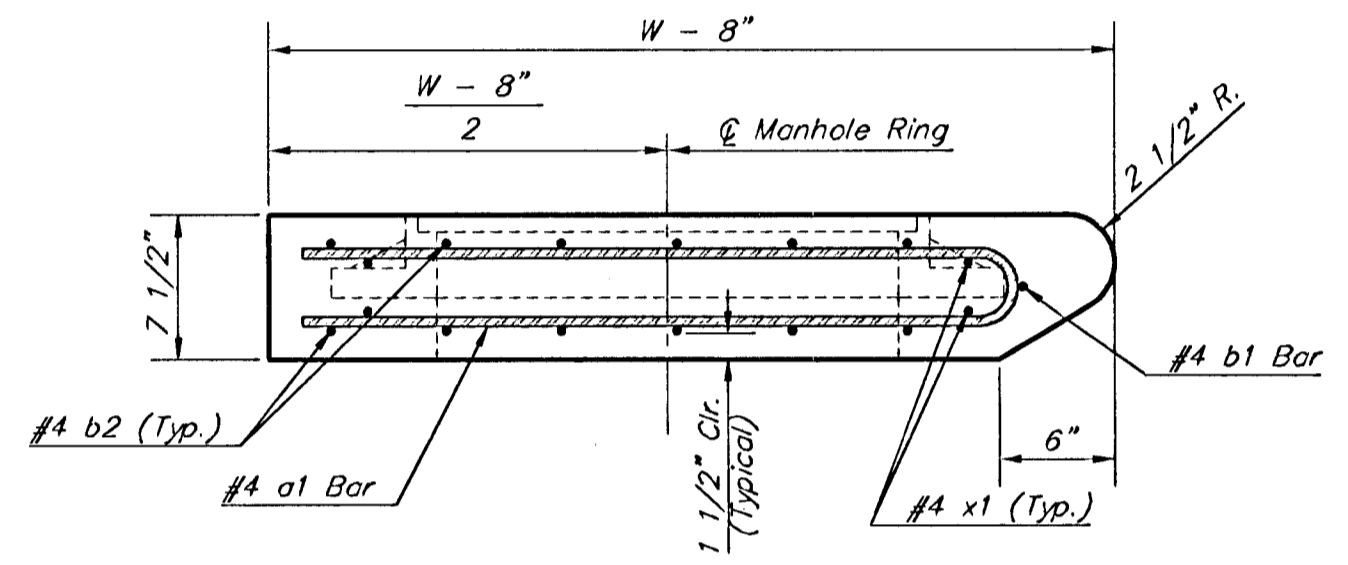
ELEVATION



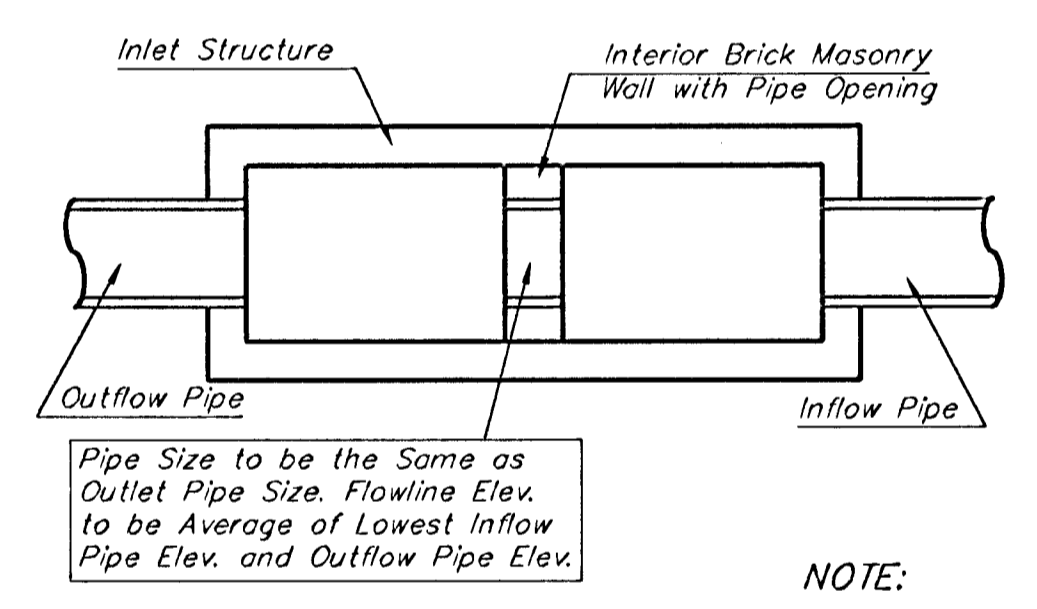
SECTION B-B



SECTION C-C

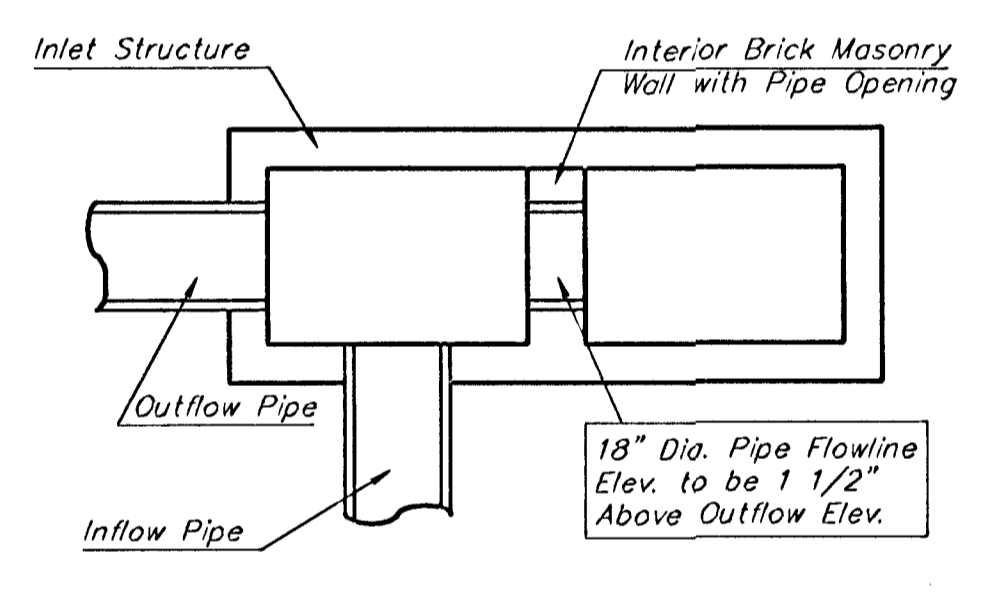


SECTION A-A

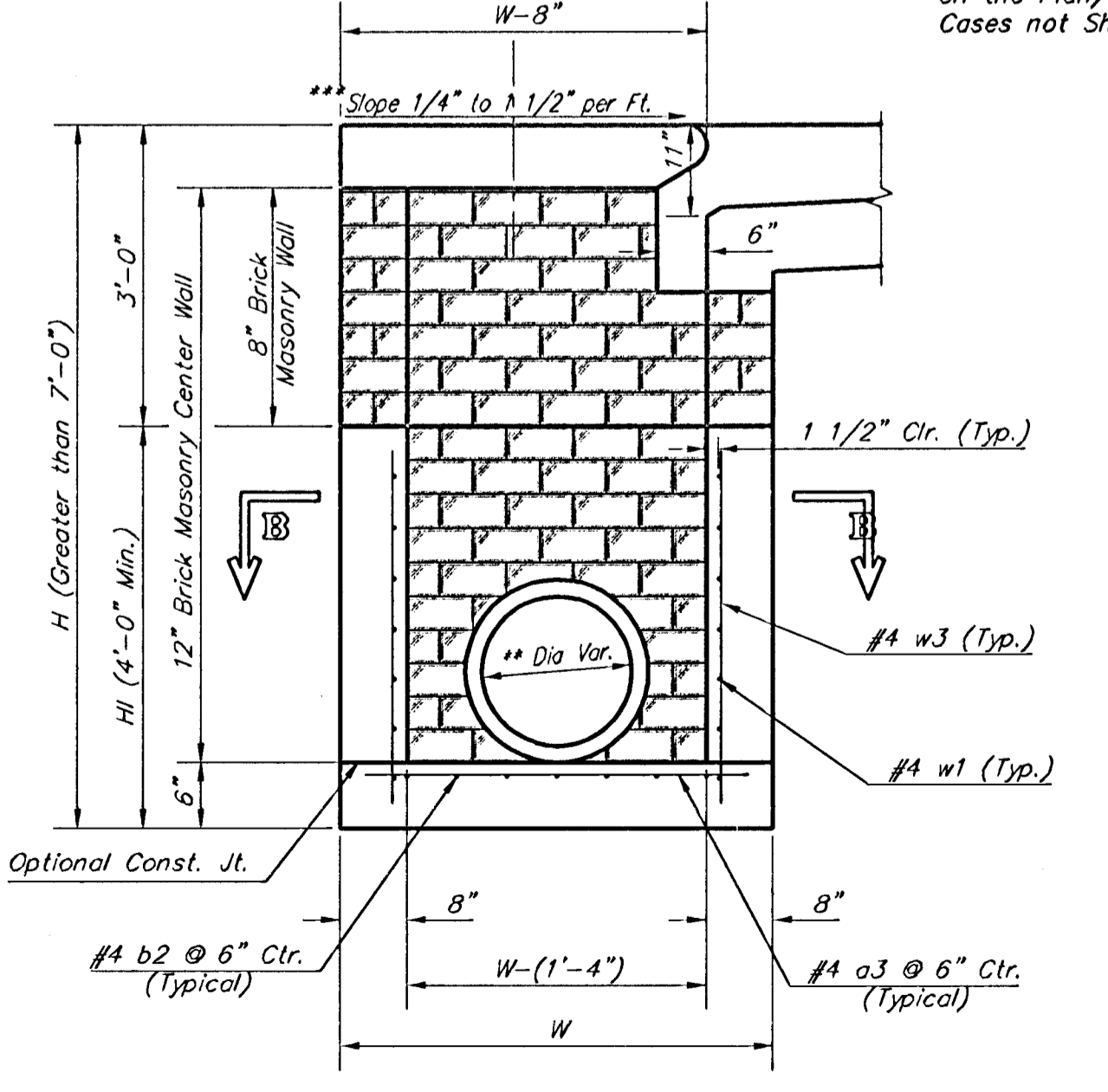


CASE I

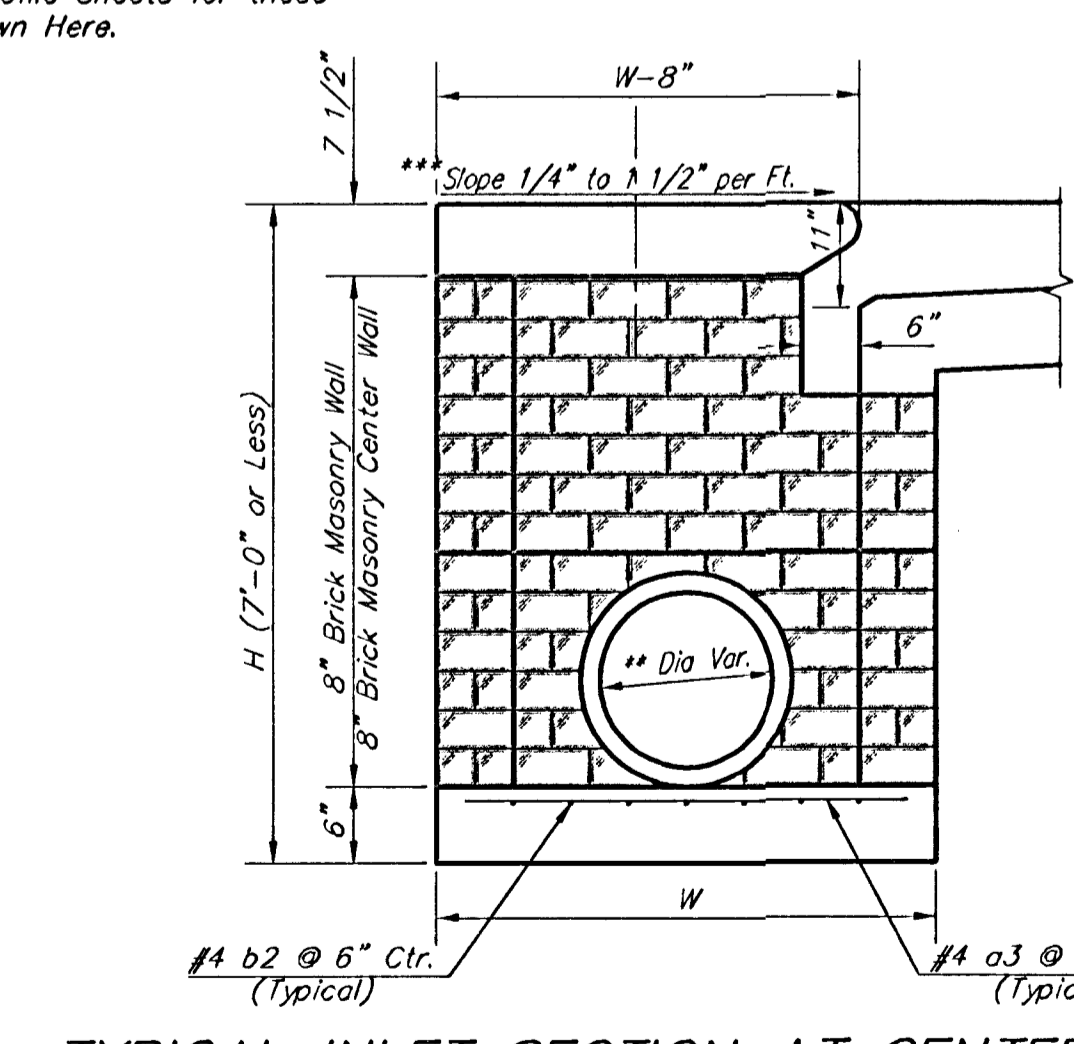
NOTE:
Center Wall Pipe Size shall be as Specified in Inlet Construction Notes on the Plan/Profile Sheets for those Cases not Shown Here.



CASE II

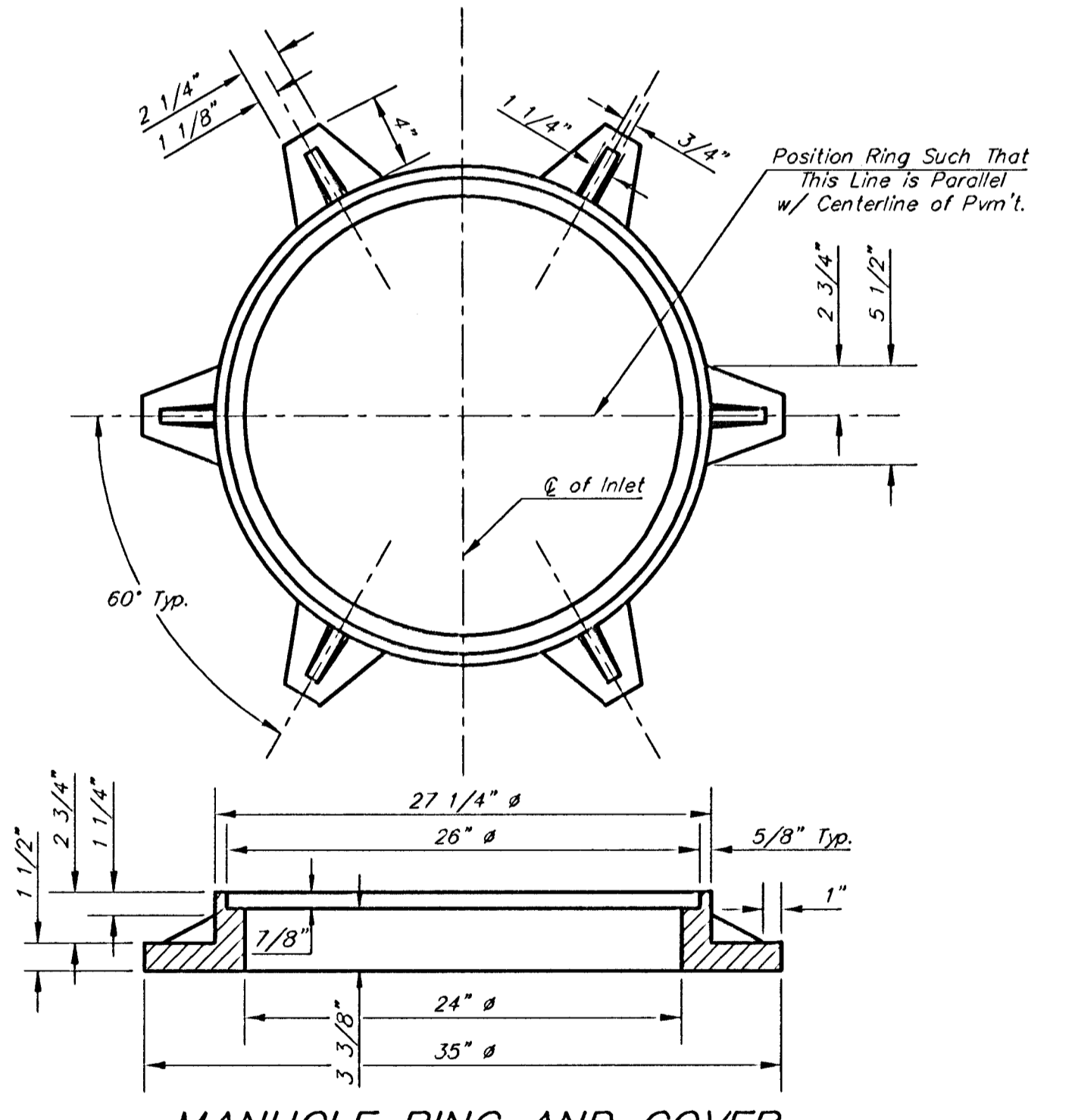


TYPICAL INLET SECTION AT CENTER WALL (Reinforced Concrete Walls)



TYPICAL INLET SECTION AT CENTER WALL (Masonry Walls)

NOTES:
 ** A center wall opening shall be provided by means of a section of reinforced concrete pipe. See Case I and Case II above.
 *** Slope of inlet tops to match sidewalk of parking slopes within limits indicated



MANHOLE RING AND COVER
Weight = 180 lbs.

*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.

Revised - Feb. 16, 1989

CITY OF WICHITA STANDARD TYPE 1A
Curb Inlet Details
 INLET OPENING = 8" X 10'-0"

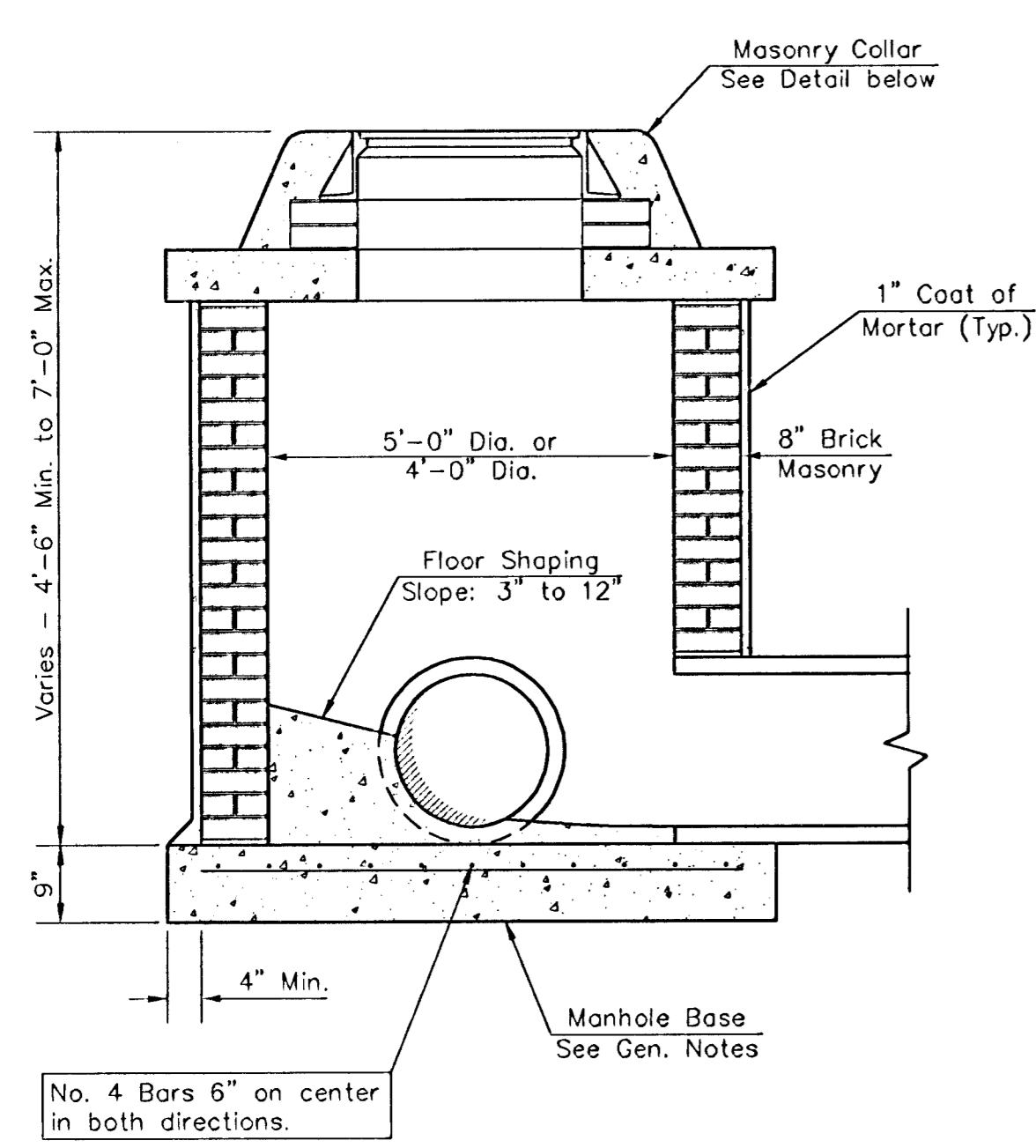
BAUGHMAN COMPANY P.A.
 ENGINEERING, SURVEYING, & PLANNING
 316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
488-83737

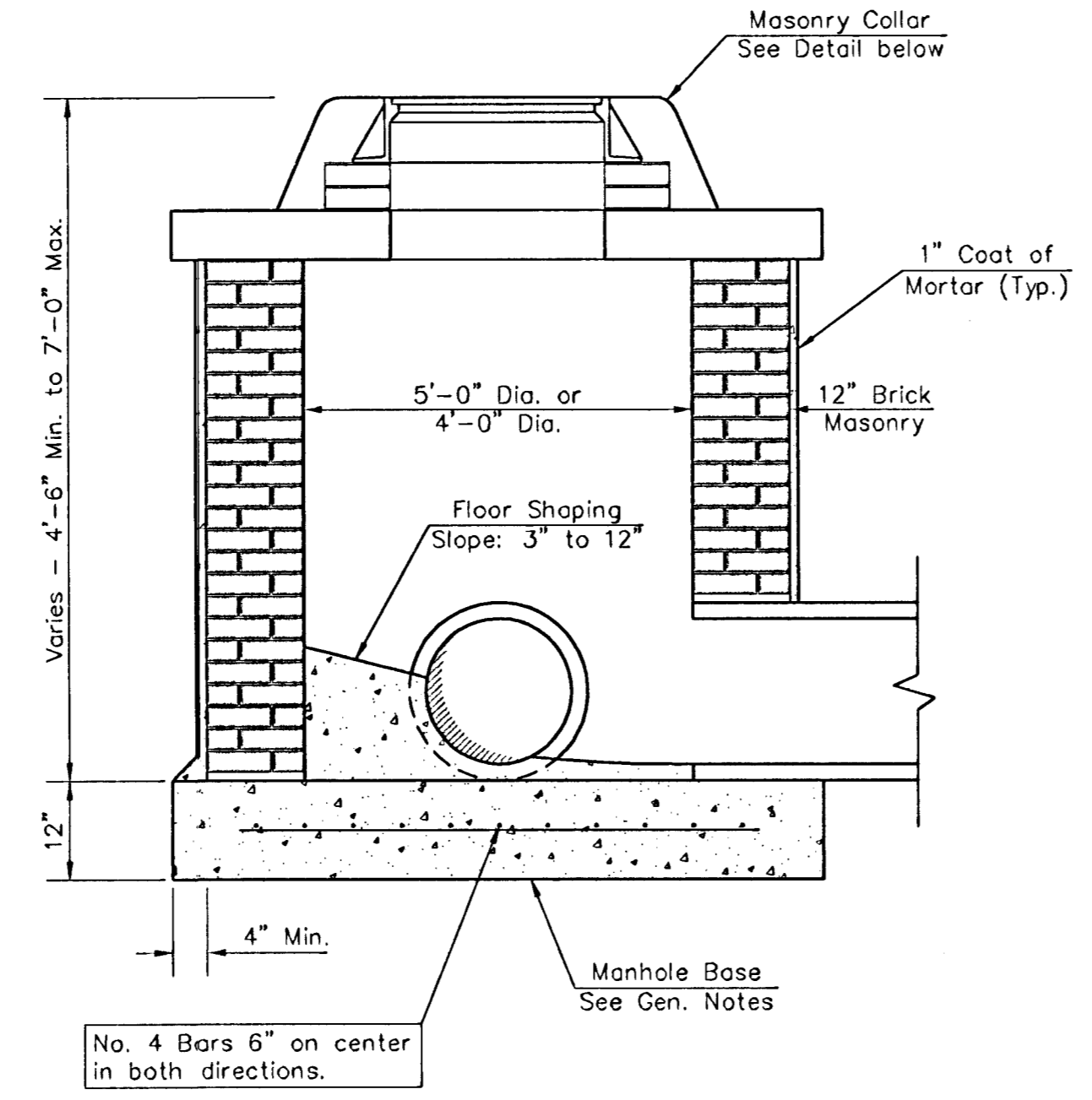
DESIGN: C.O.W. DRAWN: Staff APPROVED: DATE: 2/10/04 SCALE: NONE

SHEET **9** OF **12**

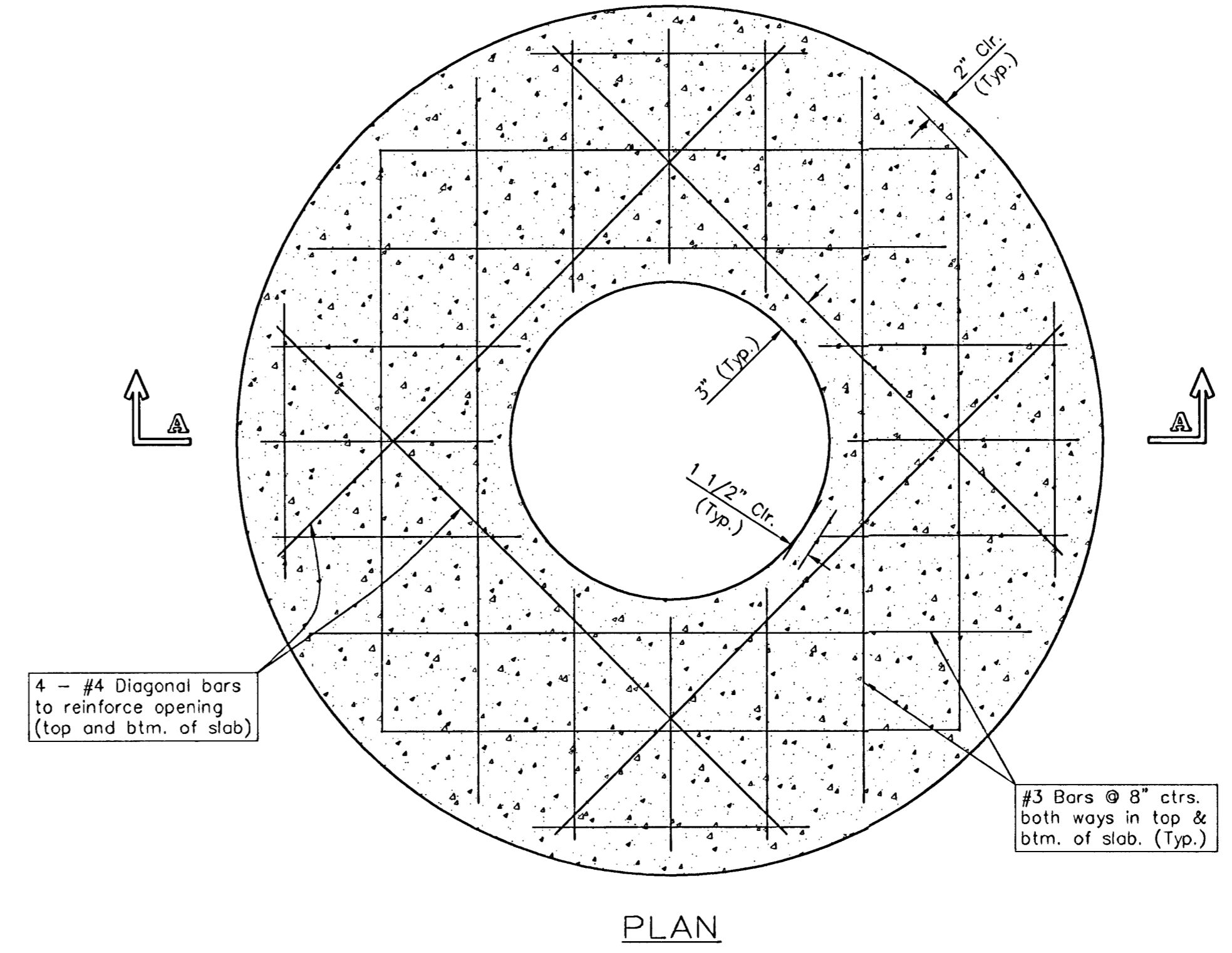
03-01-2498



SHALLOW TYPE "A" MANHOLE



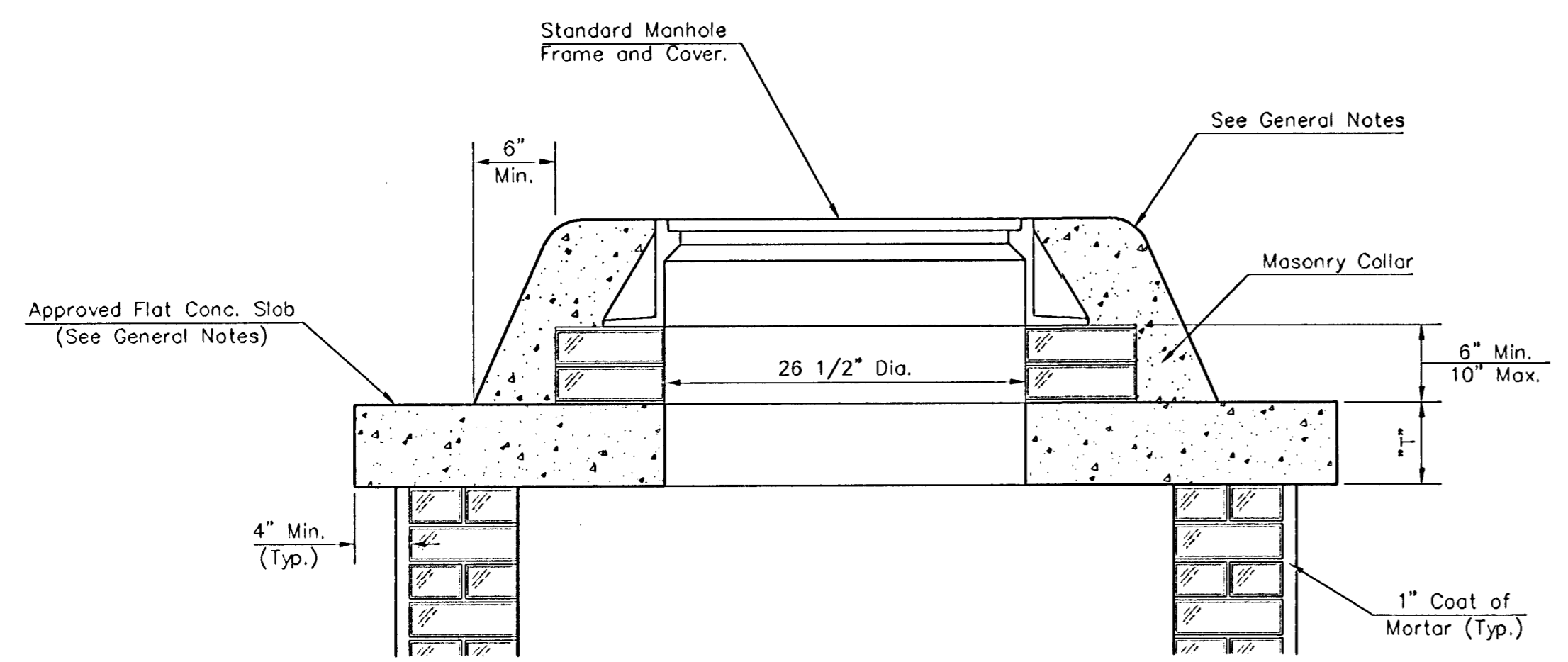
SHALLOW TYPE "B" MANHOLE



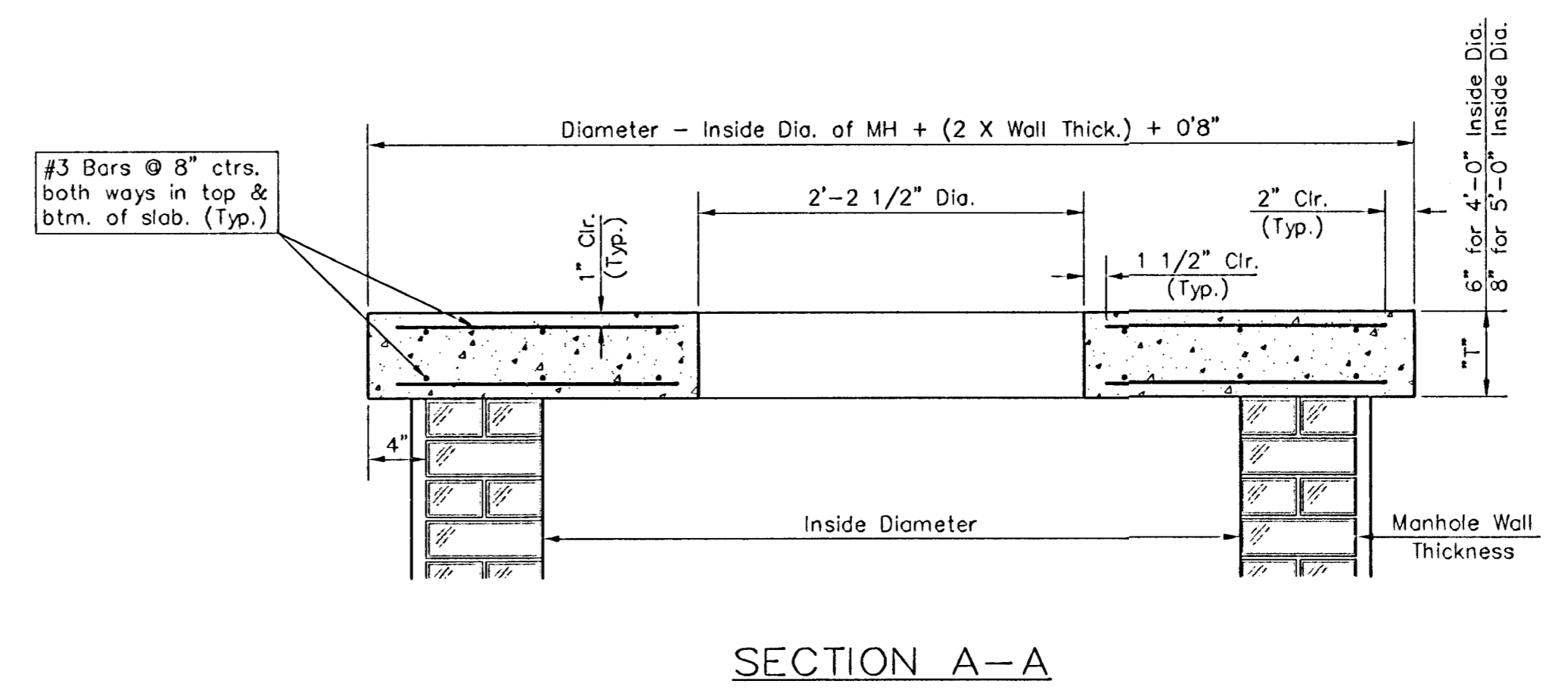
PLAN

GENERAL NOTES

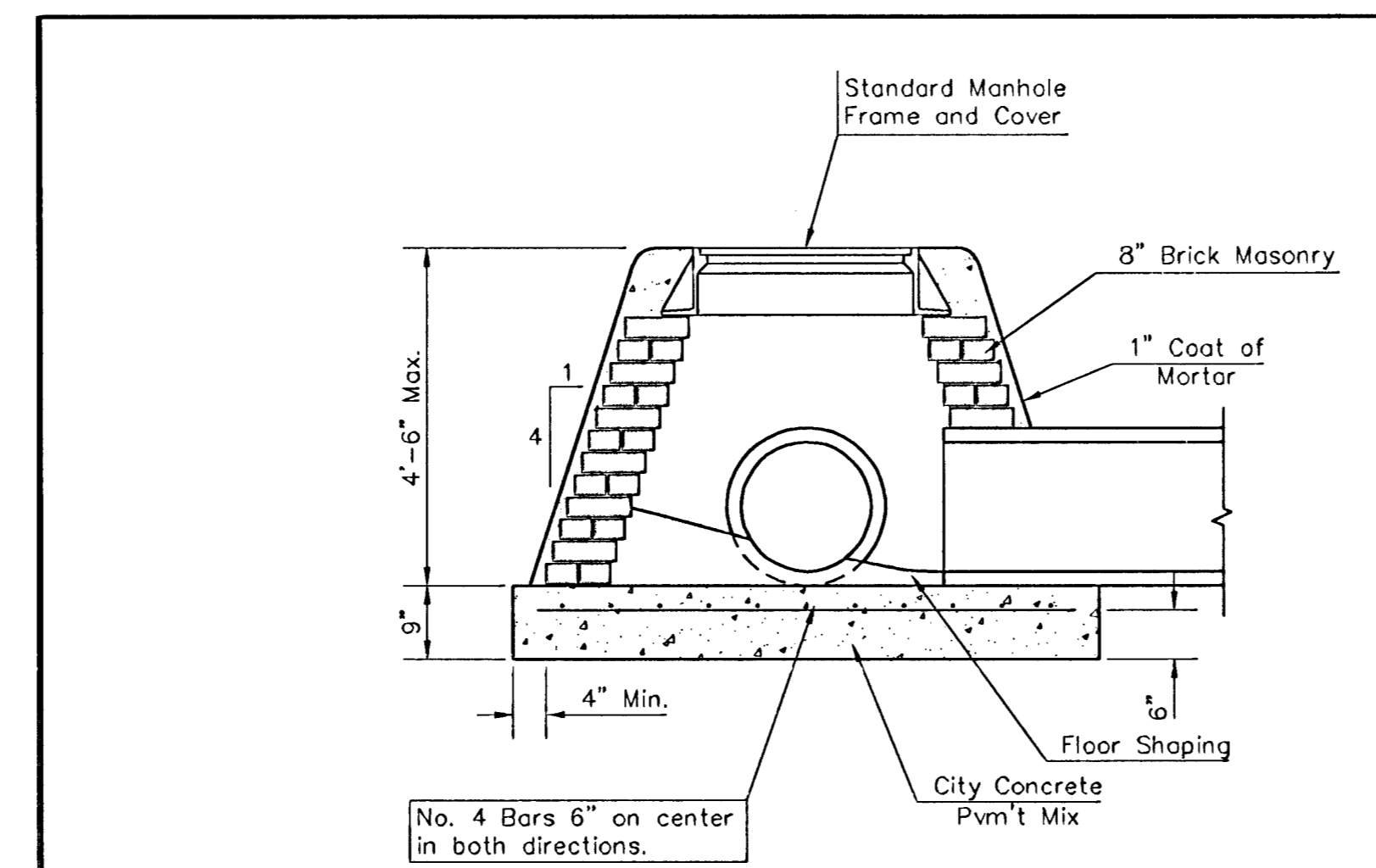
- Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. Manholes constructed where pipe sizes are smaller than 24" shall have an inside diameter of 4". Manholes constructed where pipe sizes are 24" or larger shall have an inside diameter of 5". Completed manhole shall be without leaks and water tight.
- Reinforcing steel shall be installed in the manhole bases and shall consist of no. 4 bars placed on 6" centers in both directions. The manhole base reinforcement shall be placed 6" above the bottom of the manhole base. All costs for furnishing and installing reinforcing steel shall be included in the unit price bid for the manhole.
- The floors of all manholes shall be shaped with flow channels such that the manholes will be self cleaning and free of areas where solids could be deposited as sewage flows through the manhole from all inlet pipes to the outlet pipe. Flow channels shall be formed to match the bottom halves of the inflowing pipes and the outflowing pipe as shown by the drawings. Manhole floors shall have slopes of 3 inches per foot in the areas outside of the flow channels sloped toward the flow channels. Pipes laid through manholes shall have the top half removed to neat lines for the full inside diameter of the manhole. Manhole floors shall then be shaped around the bottom half of the pipe which forms the flow channel.
- Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When clay pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the clay pipe joint in a manner which will maintain the flexibility of the joint. Cost of cradle within manhole excavation or to clay pipe joints adjacent to manhole shall be included in the unit price bid for the manhole.
- Manhole cover castings and manhole frame castings shall conform to the requirements as indicated in the standard specifications and as shown in the standard detail drawings.
- The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
- Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.



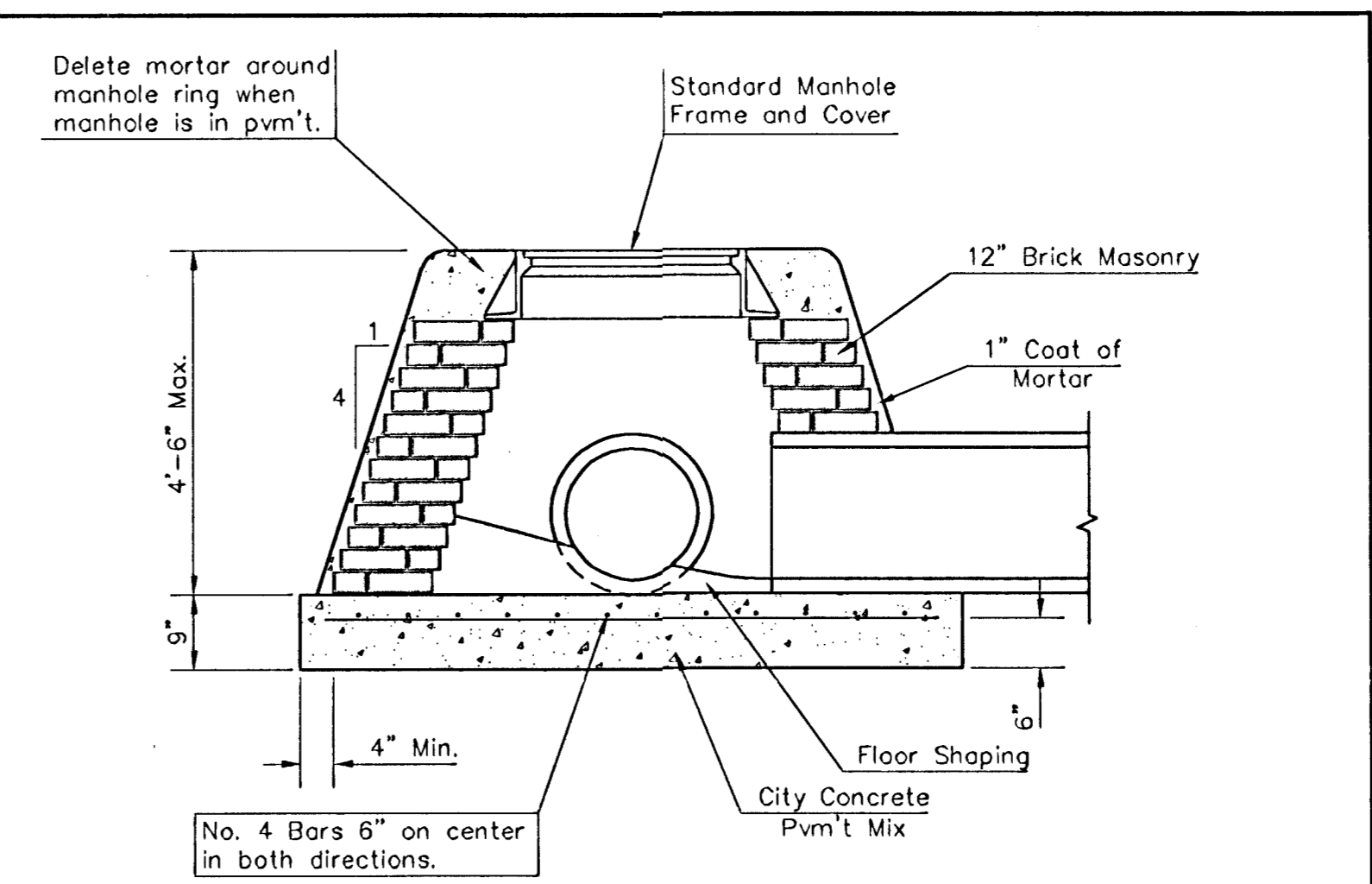
MASONRY COLLAR DETAIL



FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

CITY OF WICHITA, KANSAS
Std. Manhole Detail
 TYPE "A" AND TYPE "B"

BAUGHMAN COMPANY P.A.
 ENGINEERING, SURVEYING, & PLANNING
 318-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

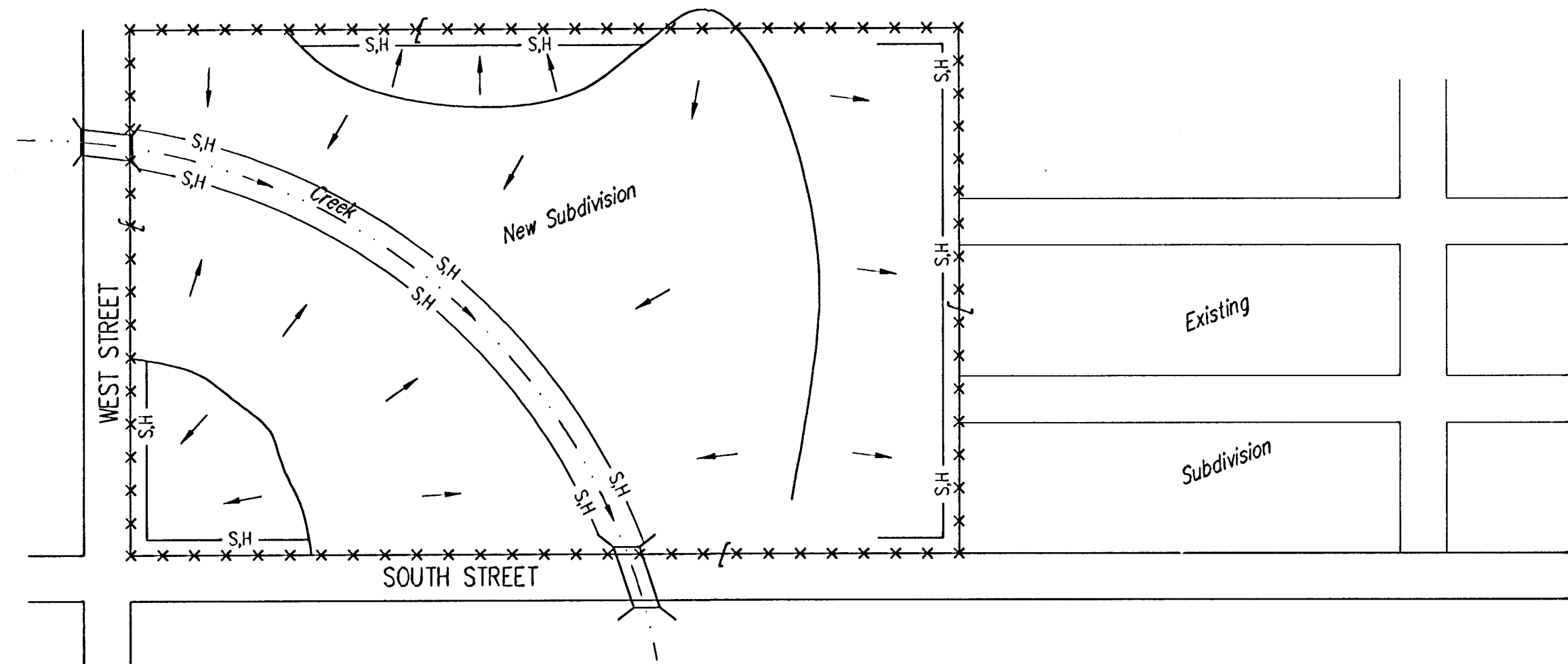
PROJECT NUMBER
488-83737

DESIGN: C.O.W. DRAWN: Staff APPROVED: DATE: 2/10/04 SCALE: NONE

SHEET **10** OF **12**

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

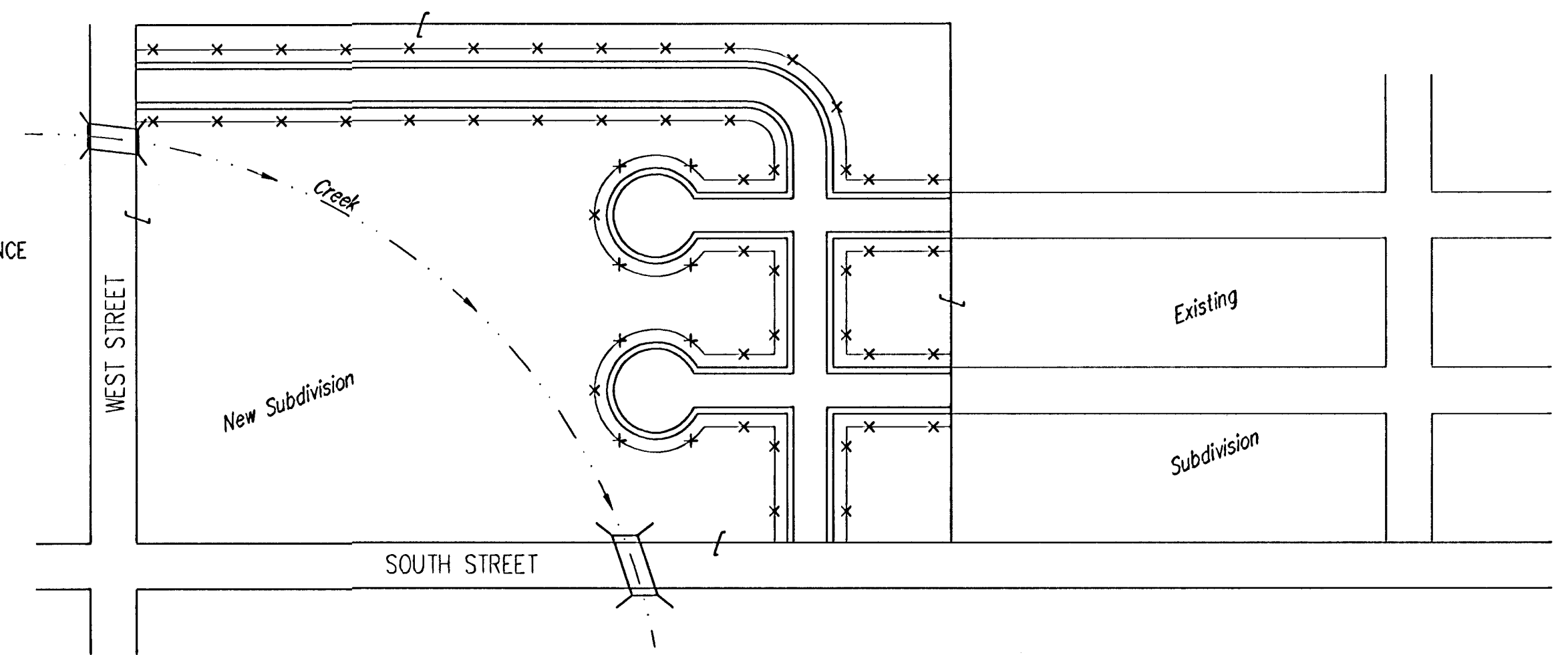
- LEGEND**
- - - DRAINAGE FLOW PATH
 - RIDGE LINES
 - x POINT OF COMPLIANCE
 - S.H- SILT FENCE OR HAY BALE BMP
 - - - DRAINAGEWAY FLOWLINE



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. 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.
3. SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR CUTTERLINES ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE BMP'S WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
4. ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED AT THE END OF EACH WORK DAY.
5. 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.
6. UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
7. THE SUBDIVISION DEVELOPER (OWNER) SHALL INSTALL AND MAINTAIN THE ON-SITE BMP'S.

PHASE 3 - STREET CONSTRUCTION

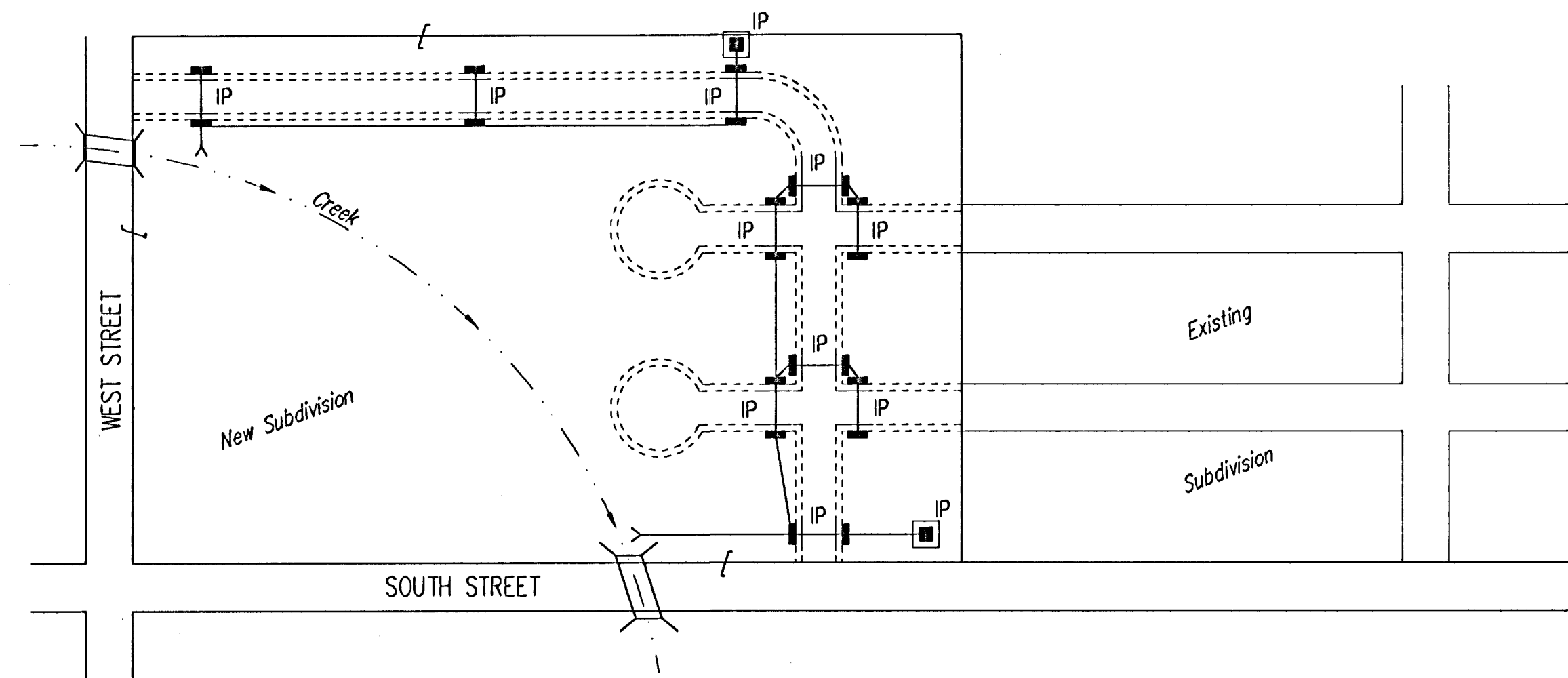
- LEGEND**
- ==== NEW STREETS
 - x-x- ADDITIONAL POINTS OF COMPLIANCE



1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL 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.
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. 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 CUTTER.
4. SEE DETAIL THIS SHEET ON BACK OF CURB PROTECTION.
5. 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.
6. THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB BMP'S.
7. 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.

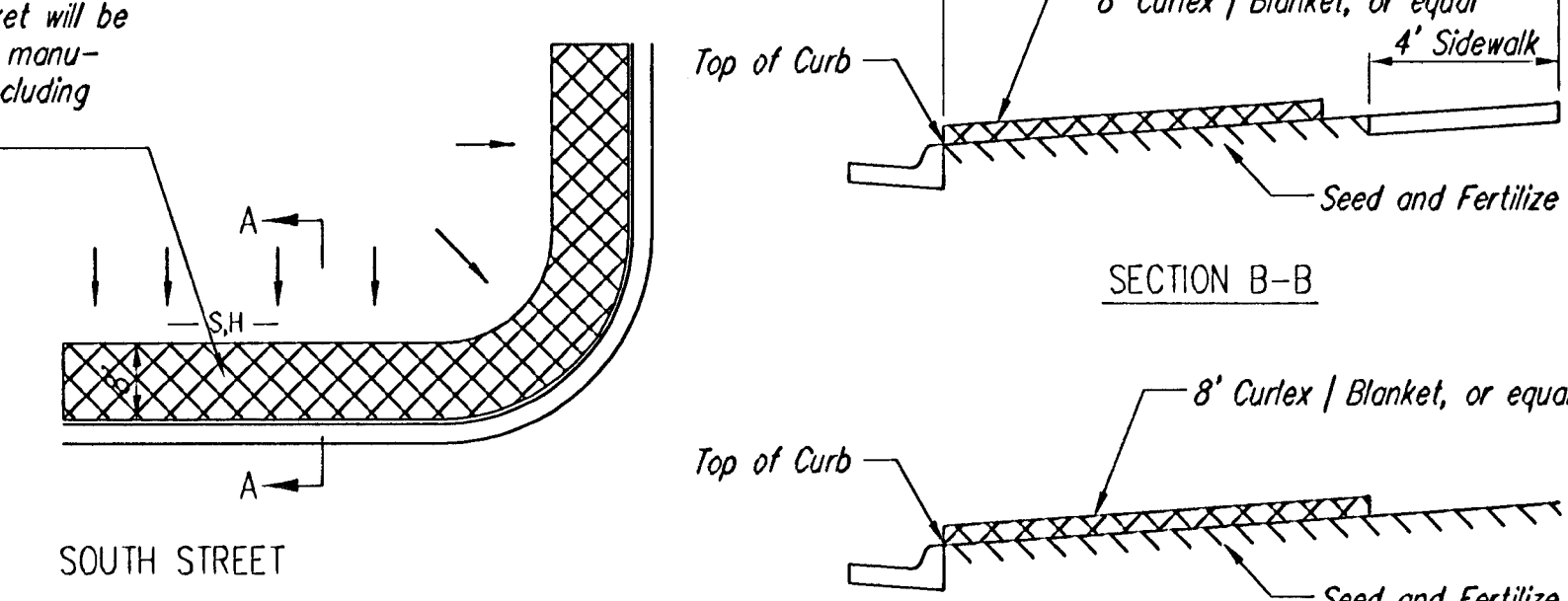
PHASE 2 - INSTALLATION OF STORM SEWER

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



1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL BMP'S 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, HAYBALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
4. CURB OPENING INLETS - AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION BMP'S MUST BE INSTALLED. SEE PHASE 3 - STREET CONSTRUCTION.
5. 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.
6. THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE BMP'S ONCE INSTALLED.
7. 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.

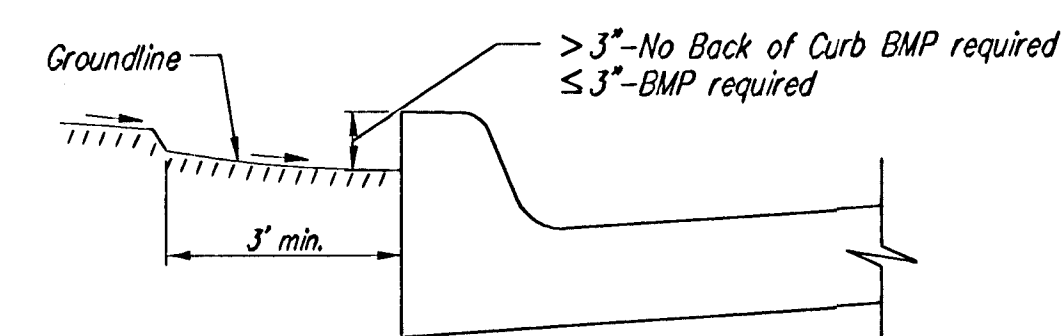
BMP-Install 8' wide Curtex | Excelsior Blanket, or equal, on prepared surface back of curb. Edge of blanket will be at back of curb. Install per manufacturer's recommendation, including staples.



BMP-Install 8' wide Curtex | 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.

- * FOR INFORMATION ONLY
- * L.F. 8' WDE BLANKET
 - * 5 EA. STRAW BALE BARRIERS FOR AREA INLETS
 - * 8 EA. CURB INLET SANDBAG FILTERS
 - * 1 EA. STABILIZED CONSTRUCTION ENTRANCE
 - * 195 L.F. SILT FENCE
- * TO BE PAID FOR AS THE LUMP SUM BID ITEM "EROSION CONTROL BMP'S"

BACK OF CURB PROTECTION DETAIL



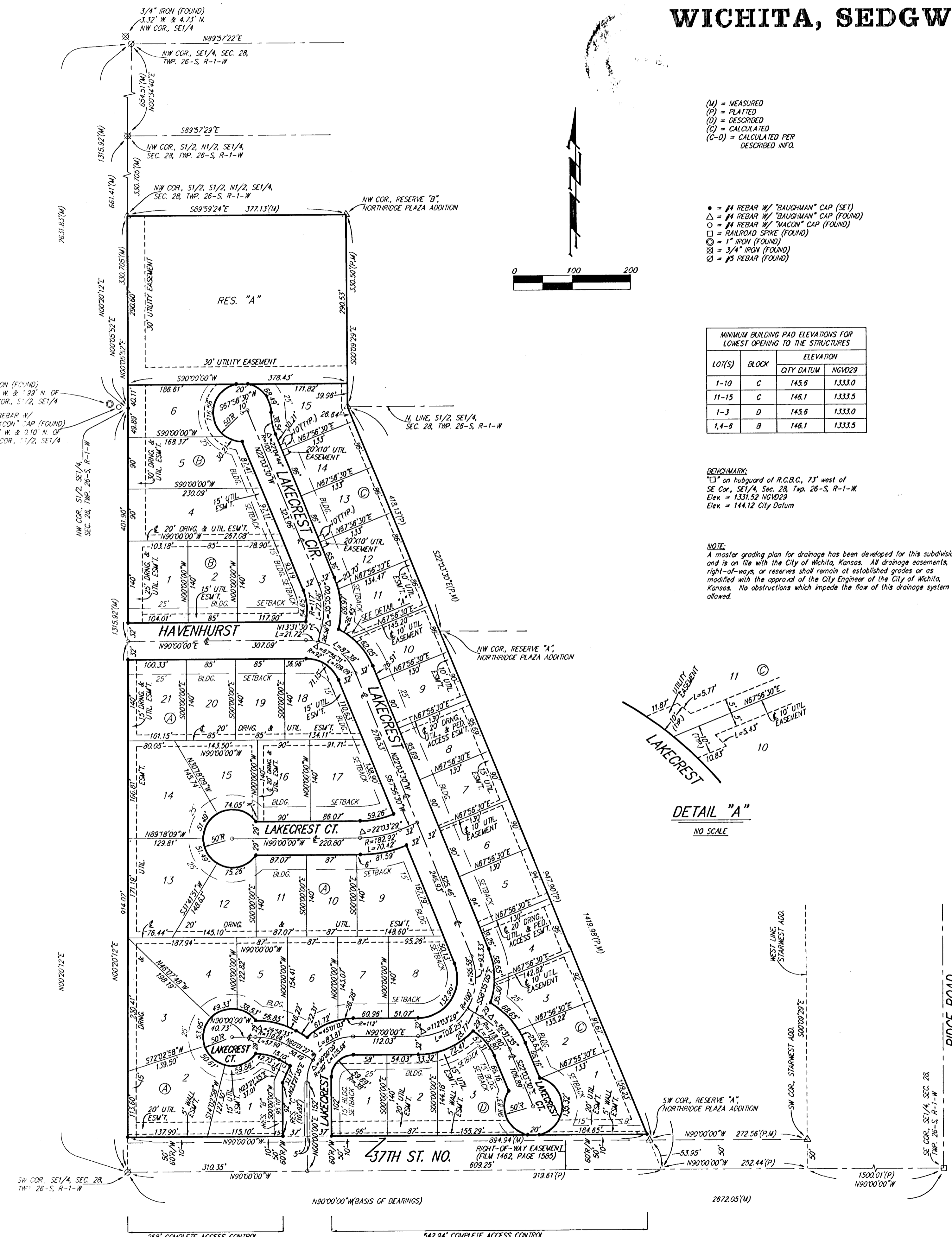
CURB BACKFILL DETAIL

GENERAL NOTES:

1. 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.
2. 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.
3. BMP'S SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON THE BMP DETAIL SHEETS.
4. PERSONS DESTROYING BMP'S SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT BMP'S.
5. 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.
6. 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.
7. 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.
8. 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.
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.

		SOIL EROSION BMP'S SUBDIVISION DEVELOPMENT PROCESS	
		CHRISTOPHER M. CARRIER, P.E. STORM WATER ENGINEER	
PROJECT NUMBER 468-83737		OCA NO. 751350	
DATE FEB 2004		SHEET 11 OF 12	

RIDGE ADDITION WICHITA, SEDGWICK COUNTY, KANSAS



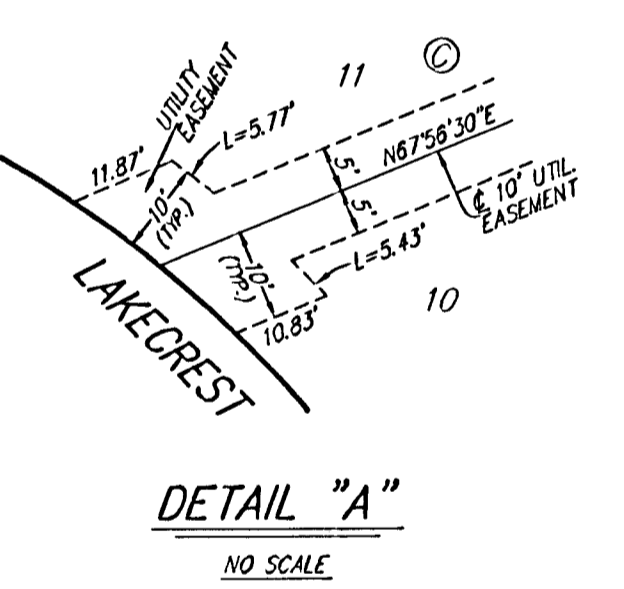
- (M) = MEASURED
- (P) = PLATTED
- (D) = DESCRIBED
- (C) = CALCULATED
- (C-D) = CALCULATED PER DESCRIBED INFO.

- = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- △ = #4 REBAR W/ "BAUGHMAN" CAP (FOUND)
- = #4 REBAR W/ "MACON" CAP (FOUND)
- = RAILROAD SPIKE (FOUND)
- ⊙ = 1" IRON (FOUND)
- ⊗ = 3/4" IRON (FOUND)
- ⊘ = #5 REBAR (FOUND)

MINIMUM BUILDING PAD ELEVATIONS FOR LOWEST OPENING TO THE STRUCTURES		
LOT(S)	BLOCK	ELEVATION
1-10	C	145.9 1333.0
11-15	C	146.1 1333.5
1-3	D	145.6 1333.0
1,4-6	B	146.1 1333.5

BENCHMARK:
 □ on hubguard of R.C.B.C., 73' west of SE Cor., SE 1/4, Sec. 28, Twp. 26-S, R-1-W
 Elev. = 1331.52 NGVD29
 Elev. = 144.12 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, right-of-ways, or reserves shall remain of 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 be allowed.



State of Kansas) SS
 Sedgwick County) We, Baughman Company, P.A., Surveyors in
 aforesaid county and state do hereby certify that we have surveyed and
 platted "RIDGE ADDITION", Wichita, Sedgwick County, Kansas and that the
 accompanying plat is a true and correct exhibit of the property surveyed,
 described as that part of the S1/2 of the SE1/4, Sec. 28, Twp. 26-S,
 R-1-W of the 6th P.M., Sedgwick County, Kansas and that part of the
 S1/2 of the S1/2 of the N1/2 of said SE1/4 lying west of the west line
 of Northridge Plaza Addition, Wichita, Sedgwick County, Kansas, subject to
 road rights-of-way of record.

Existing public easements and dedications
 being vacated by virtue of K.S.A. 12-512(b).

Baughman Company, P.A.

 Michael G. Conrey, Surveyor

Know all men by these presents that we,
 the undersigned, have caused the land in the surveyors certificate to be
 platted into Lots, Blocks, Streets, and Reserves, to be known as "RIDGE
 ADDITION", Wichita, Sedgwick County, Kansas. The utility easements are
 hereby granted as indicated for the construction and maintenance of all
 public utilities. The drainage and utility easements are hereby granted as
 indicated for drainage purposes and for the construction and maintenance
 of all public utilities. The drainage, utility, and pedestrian access
 easements are hereby granted as indicated for drainage purposes, for the
 construction and maintenance of all public utilities, and for pedestrian
 access to or from Reserve "A" as platted in Northridge Plaza Addition,
 Wichita, Sedgwick County, Kansas, and no fences or other obstructions
 shall be constructed or placed on or within these easements. The wall
 easements are hereby granted as indicated for the construction and
 maintenance of a private screening wall and utility main lines and service
 lines shall be allowed to cross these easements. The streets are hereby
 dedicated to and for the use of the public. Reserve "A" is hereby
 reserved for drainage purposes, landscaping, open space, berms, lakes,
 and utilities as confined to easements. Reserve "B" is hereby reserved for
 entry monuments, landscaping, open space, berms, drainage purposes, and
 utilities as confined to easements. Reserve "C" is hereby reserved for
 entry monuments, landscaping, open space, berms, drainage purposes,
 streets, and utilities. Reserve "A", "B", and "C" shall be owned and
 maintained by the homeowners association for the addition. Access
 controls shall be as depicted on the face of the plat and are hereby
 granted to the City of Wichita, Kansas. The Minimum Building Pad
 Elevations for the lowest opening to the structures shall be as indicated
 on the face of the plat.

Ritchie Investment Company, Inc.,
 a Kansas corporation

 Kevin M. Mullen, President

State of Kansas) SS
 Sedgwick County) The foregoing instrument acknowledged before
 me, this _____ day of _____, 2003, by Kevin M. Mullen, President of
 Ritchie Investment Company, Inc., a Kansas corporation, on behalf of the
 corporation.

 Notary Public

My App't. Exp. _____

We, the undersigned holders of mortgages on the
 above described property, do hereby consent to this plat of "RIDGE
 ADDITION", Wichita, Sedgwick County, Kansas.

INTRUST Bank, N.A.

State of Kansas) SS
 Sedgwick County) The foregoing instrument acknowledged be-
 fore me, this _____ day of _____, 2003, by _____,
 of INTRUST Bank, N.A., on behalf of the bank.

 Notary Public

My App't. Exp. _____

This plat of "RIDGE ADDITION", Wichita,
 Sedgwick County, Kansas has been submitted to and approved by the
 Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita,
 Kansas.
 Dated this _____ day of _____, 2003.
 Wichita-Sedgwick County Metropolitan Area Planning Commission

 Bernard A. Hentzen, Chair

 Dale Miller, Secretary

This plat approved and all dedications
 shown hereon accepted by the City Council of the City of Wichita,
 Kansas, this _____ day of _____, 2003.

 Carlos Mayans, Mayor

 Pat Graves, City Clerk

Reviewed in accordance with K.S.A. 58-2005
 on this _____ day of _____, 2003.

Tricia L. Robello, L.S. #1246
 Deputy County Surveyor
 Sedgwick County, Kansas

 Notary Public

Entered on transfer record this _____ day
 of _____, 2003.

 Don Brace, County Clerk

State of Kansas)
 Sedgwick County) SS This is to certify that this plat has been
 filed for record in the office of the Register of Deeds, this _____ day
 of _____, 2003 at _____ o'clock _____ M; and is duly recorded.

 Register of Deeds

 Bill Meek

 Deputy

 Linda Kizzire