

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

BENCHMARKS:

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

Sheet Index

Title Sheet	1
Line 1	2
Line 2	3-5
Line 2A, 2B, & 2C	6
Ditch Plan	7
Std. Type 1A Single Inlet Detail	8
Std. Type 1A Double Inlet Detail	9
Std. Shallow Manhole Detail	10
Soil Erosion BMPs	11
Copy of Plat	12

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.

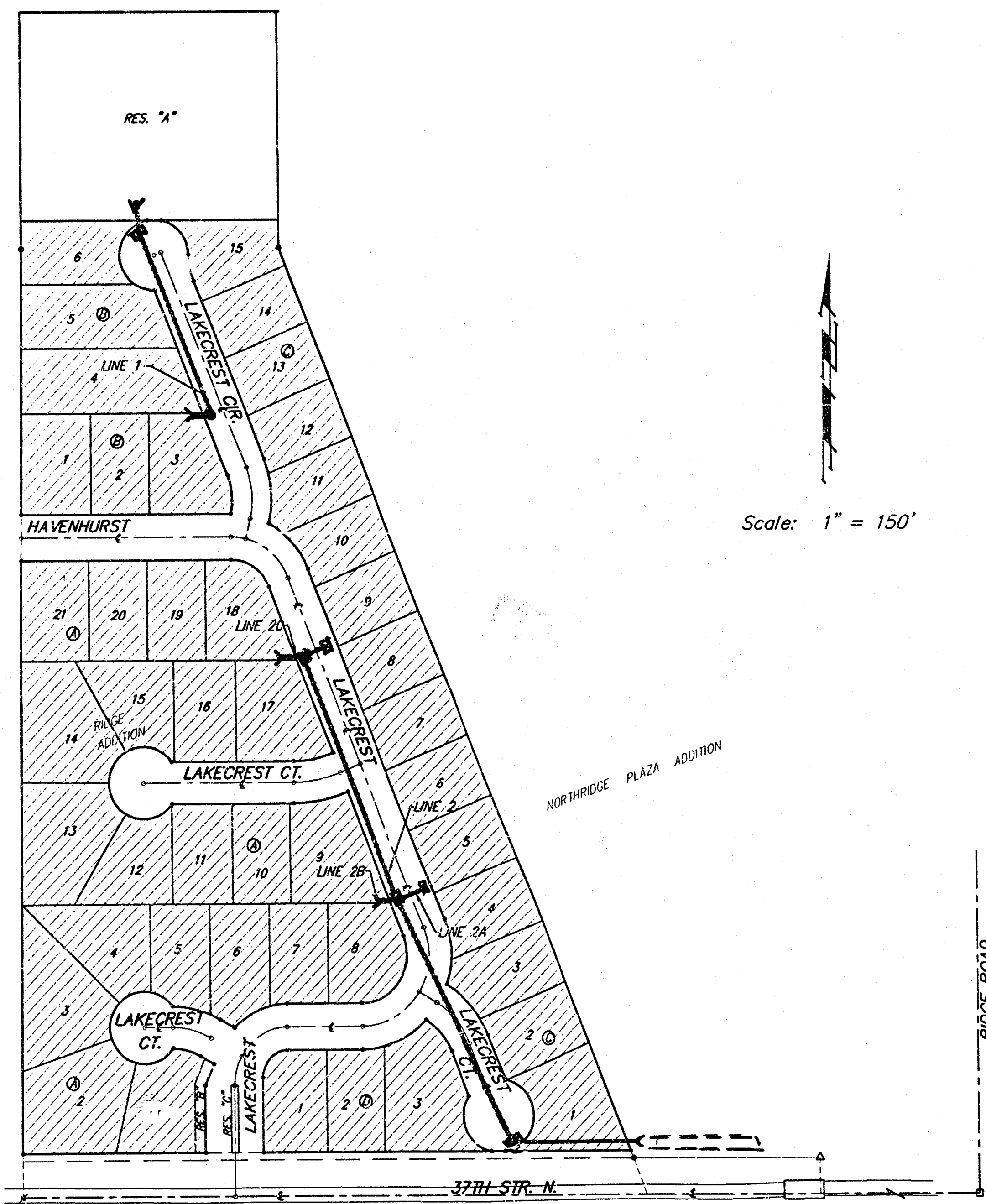
- Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations, in the opinion of the Engineer, will 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.

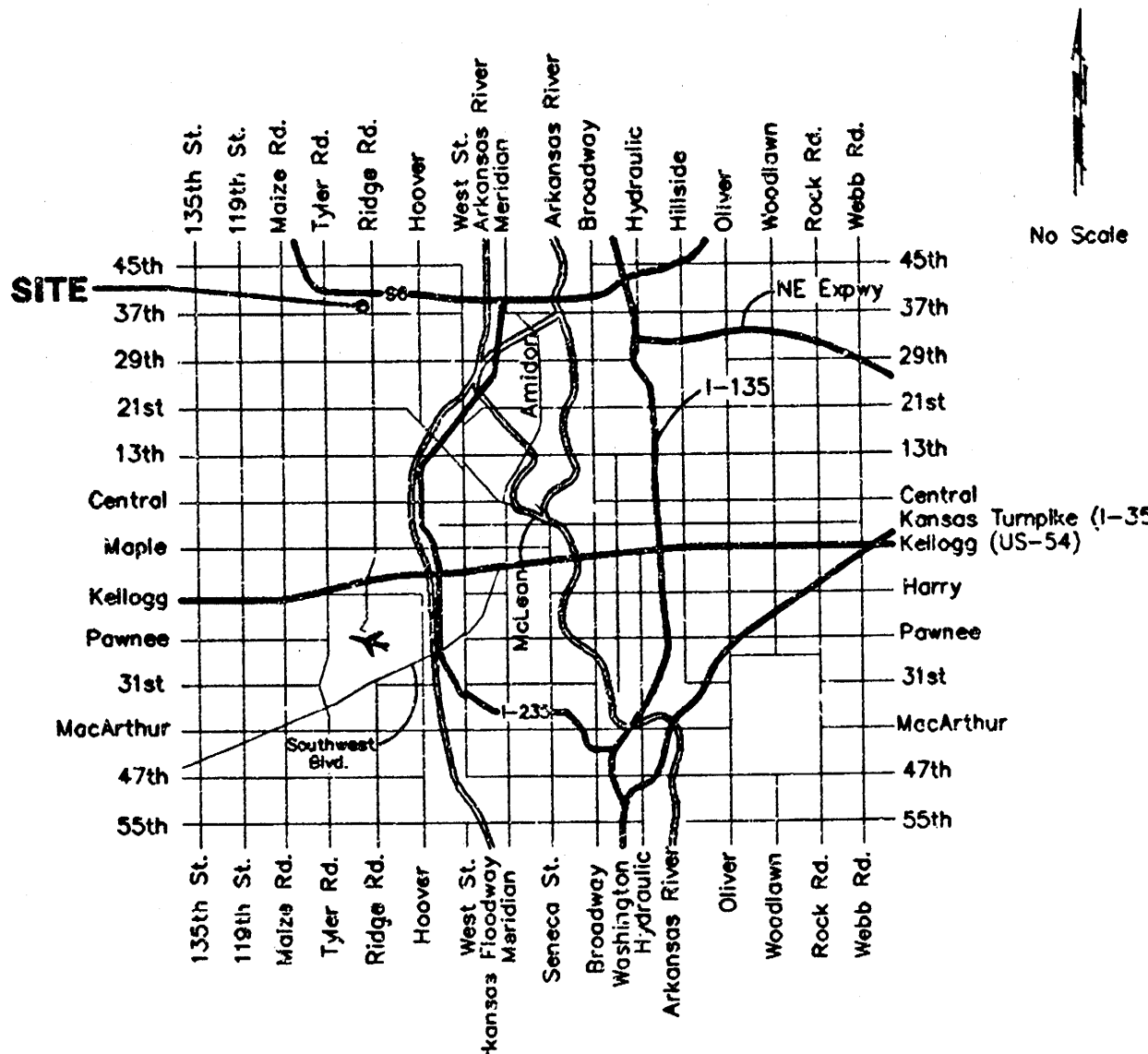
- The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.

- 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.



Benefit District



Vicinity Map

A.S. BUILT 8/30/64 KK

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

BENCHMARKS:

RR Spike N. Face P.P.
40' S. of C 37th St. N.,
180' E. of SW Cor. SE 1/4,
Sec. 28, Twp 26-S, R-1-W.
Elev. = 143.73 City Datum
MSL Elev. = 1331.13

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

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

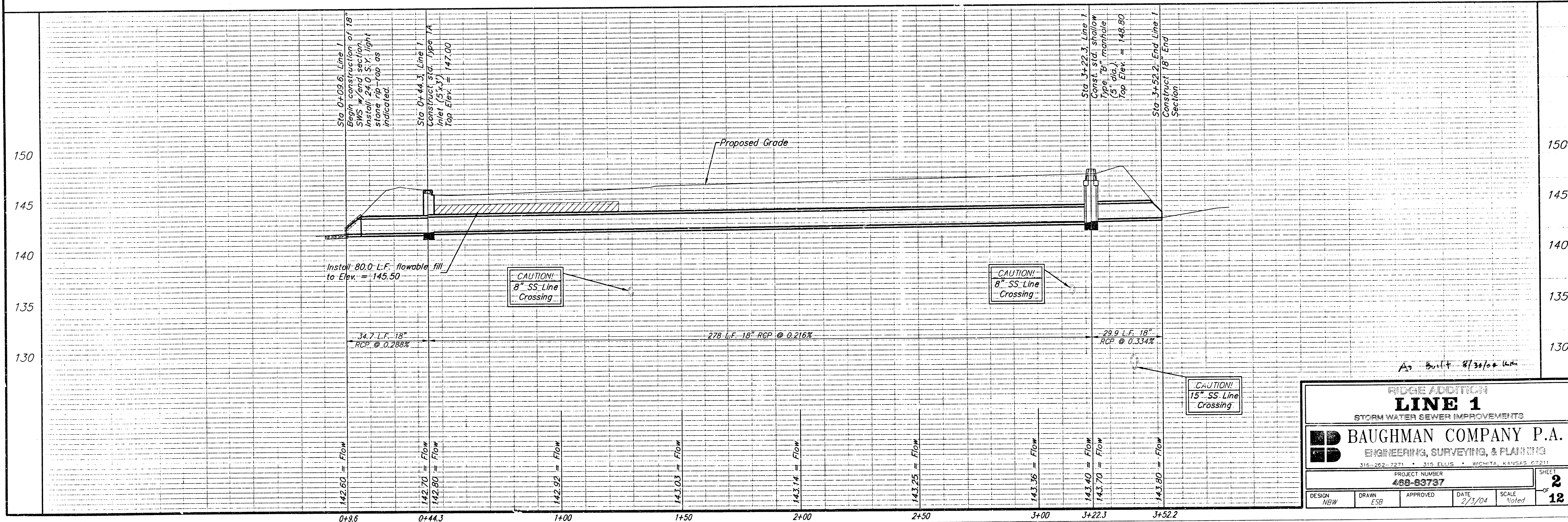
CAUTION!
8" SS Line
Crossing

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

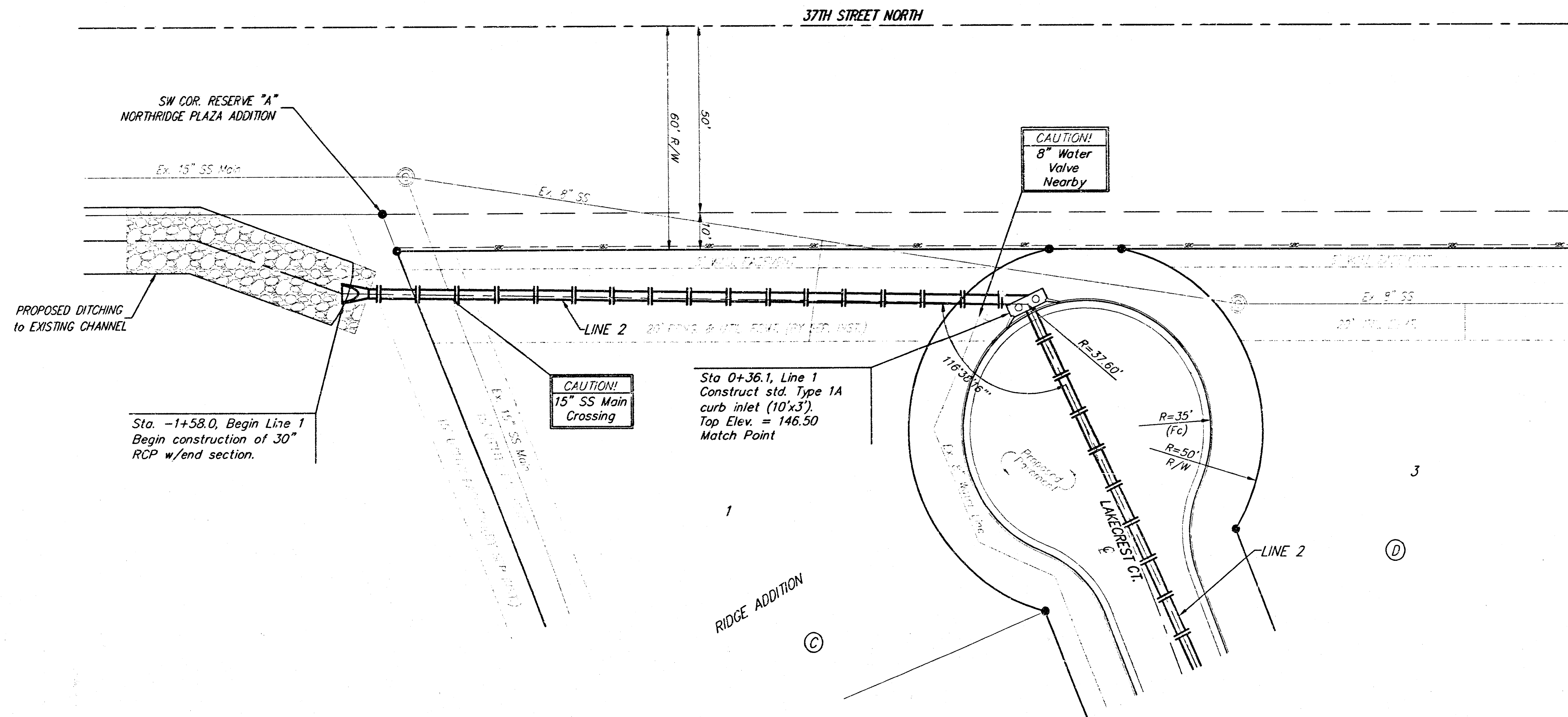


RIDGE ADDITION LINE 1 STORM WATER SEWER IMPROVEMENTS			
BAUGHMAN COMPANY P.A. ENGINEERING, SURVEYING, & PLANNING 316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211			
PROJECT NUMBER 488-83737		SHEET 2 OF 12	
DESIGN NBW	DRAWN ESB	APPROVED	DATE 2/3/04
SCALE Noted		NOTED	

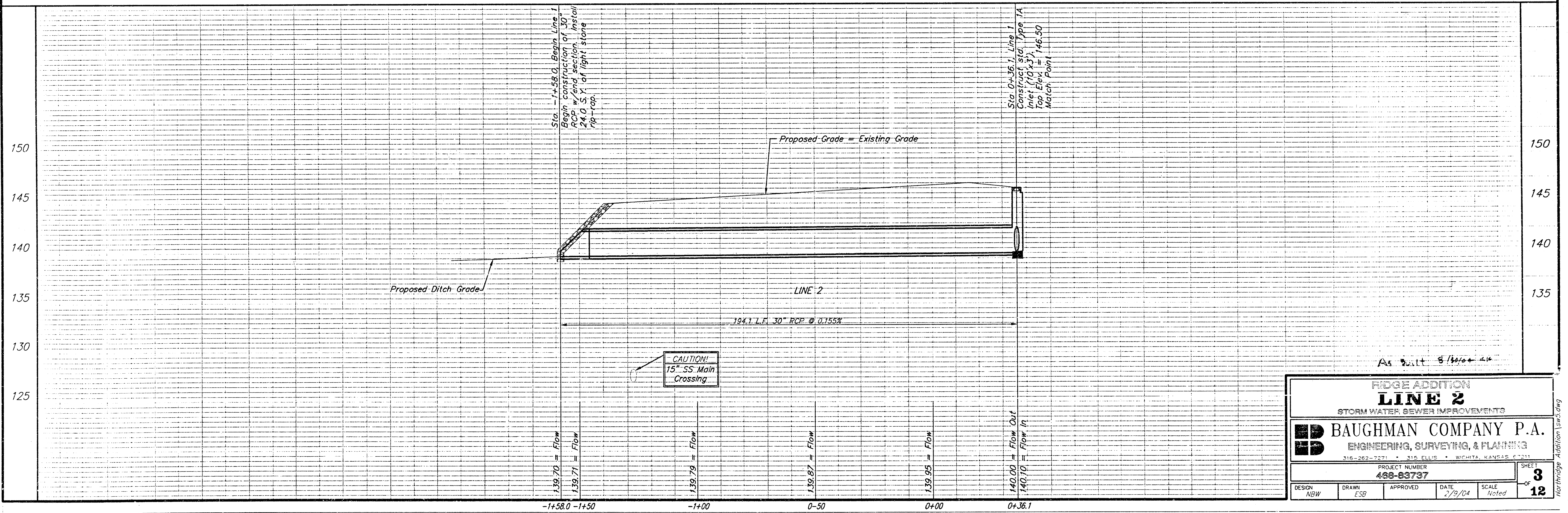
BENCHMARKS:

RR Spike N. Face P.P.
40' S. of C 37th St. N.,
180' E. of SW Cor. SE 1/4,
Sec. 28, Twp 26-S, R-1-W.
Elev. = 143.73 City Datum
MSL Elev. = 1331.13

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



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

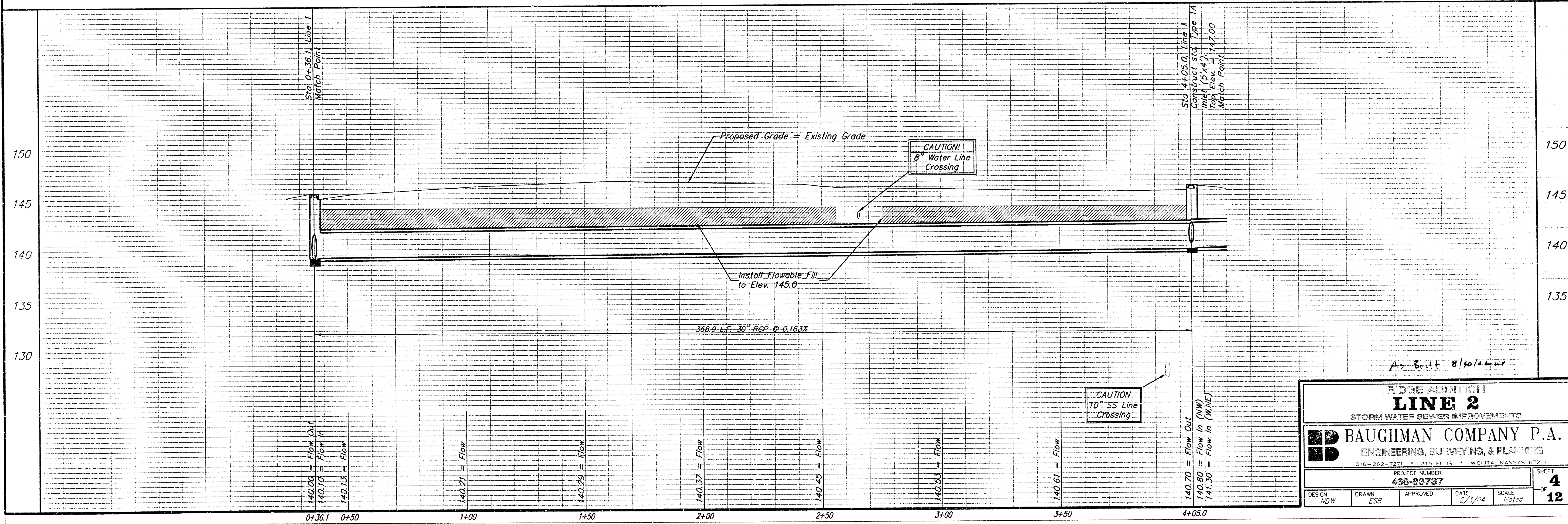
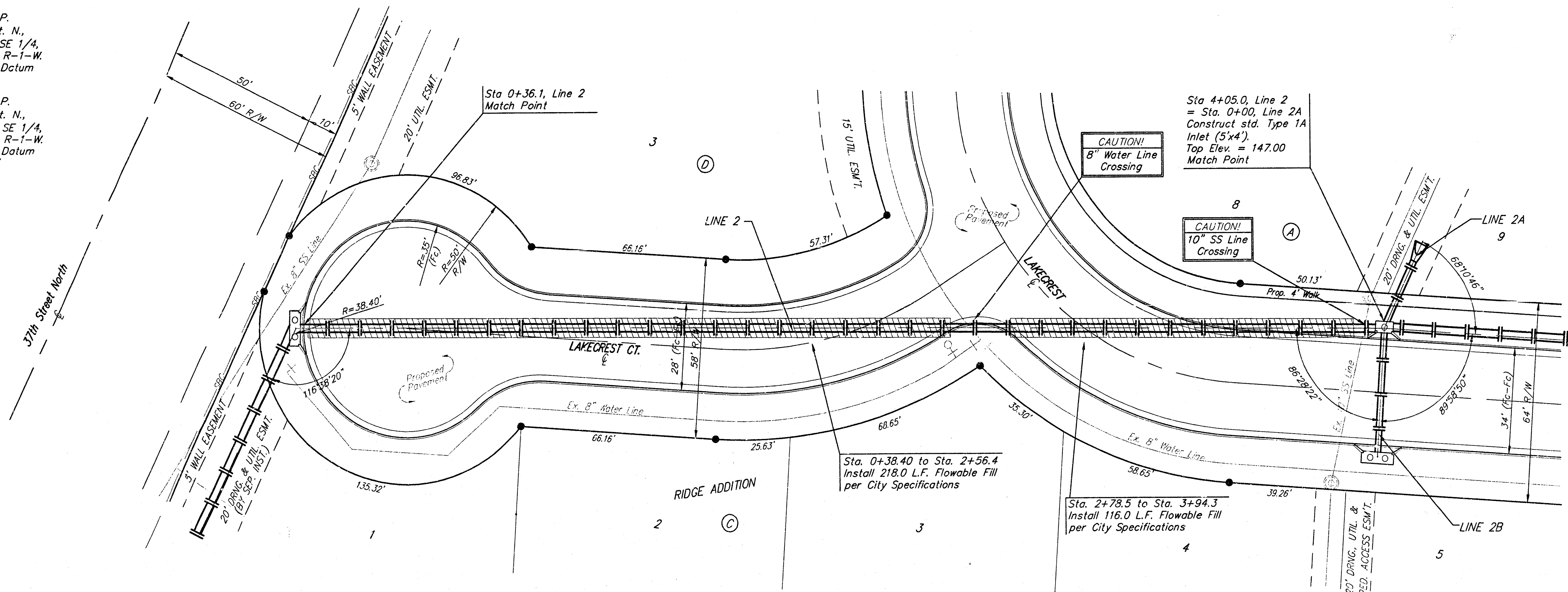


RIDGE ADDITION LINE 2 STORM WATER SEWER IMPROVEMENTS				
BAUGHMAN COMPANY P.A. ENGINEERING, SURVEYING, & PLANNING 316-262-7271 • 316 ELLIS • WICHITA, KANSAS 67211				
PROJECT NUMBER 488-83737				SHEET 3
DESIGN NSW	DRAWN ESB	APPROVED	DATE 2/9/04	SCALE Noted
				12

BENCHMARKS:

RR Spike N. Face P.P.
40' S. of C 37th St. N.,
180' E. of SW Cor. SE 1/4,
Sec. 28, Twp 26-S, R-1-W.
Elev. = 143.73 City Datum
MSL Elev. = 1331.13

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



As Built 8/16/04

RIDGE ADDITION
LINE 2
STORM WATER SEWER IMPROVEMENTS

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67201

PROJECT NUMBER
488-83737

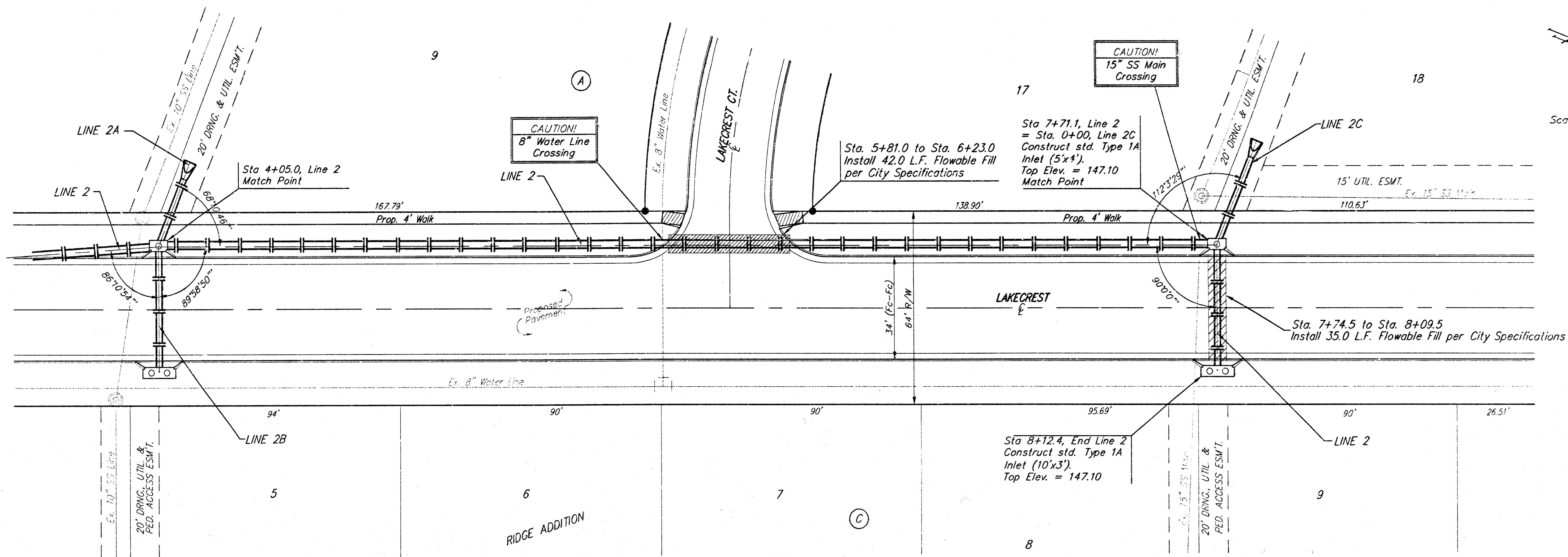
DESIGN NGW	DRAWN ESP	APPROVED	DATE 2/1/04	SCALE Noted	SHEET 4
---------------	--------------	----------	----------------	----------------	------------

OF 12

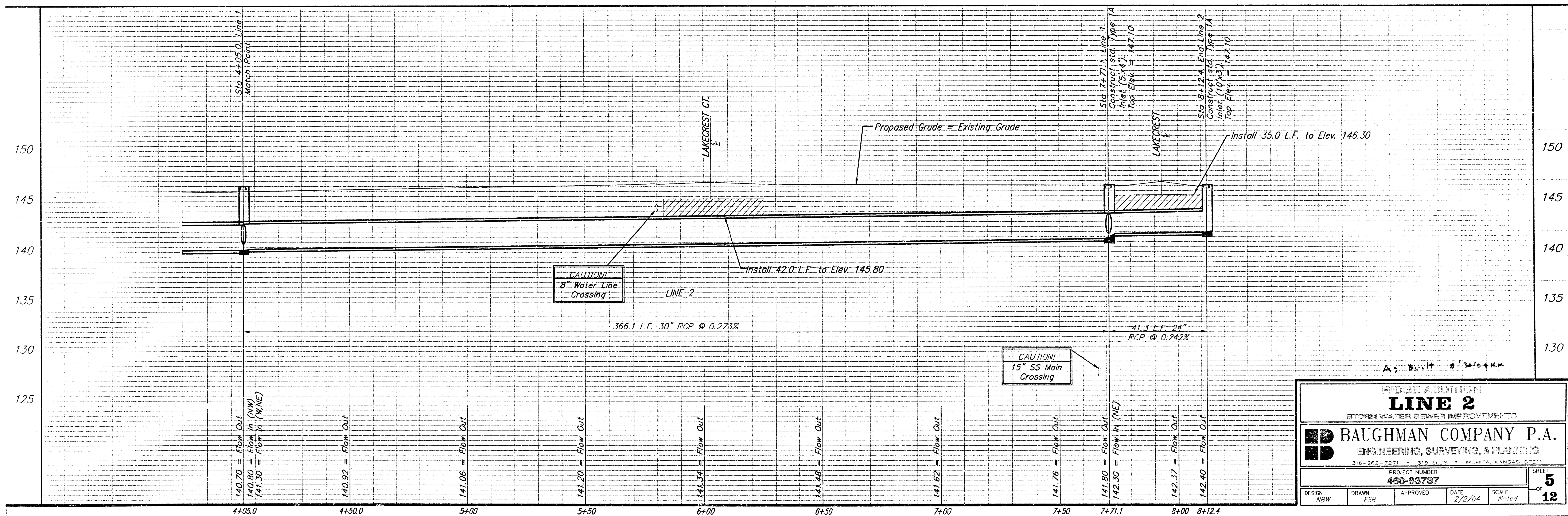
BENCHMARKS:

RR Spike N. Face P.P.
40'± S. of C 37th St. N.,
180'± E. of SW Cor. SE 1/4,
Sec. 28, Twp 26-S, R-1-W.
Elev. = 143.73 City Datum
MSL Elev. = 1331.13

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



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



LINE 2
STORM WATER SEWER IMPROVEMENTS

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING

316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67201

PROJECT NUMBER
468-83797

DESIGN: NEW DRAWN: ESB APPROVED: DATE: 2/2/04 SCALE: Noted

SHEET
5
OF
12

RR Spike N. Face P.P.
40'± S. of C 37th St. N.,
180'± E. of SW Cor, SE 1/4,
Sec. 28, Twp 26-S, R-1-W.
Elev. = 143.73 City Datum
MSL Elev. = 1331.13

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

Sta. 0+00, Begin Line 2A
= Sta. 0+00, Line 2B
= Sta. 4+05.0, Line 2
Install 24" SWS pipe (W).
Match Point

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

Sta 0+28.0, End Line 2A
Install 24" End Section

20' DRNG. & UTIL. FSM'T.

RIDGE ADDITION
(C)

1

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

Sta. 0+00 to Sta. 0+35.0
Install 35.0 L.F. Flowable Fill
per City Specifications

20' DRNG., UTIL. &
ACCESS ESM'

Sta 0+41.3, End Line 2B
Construct std. Type 1A
Inlet (10'x3').
Top Elev. = 147.00

Sta 0+00, Begin Line 2C
= Sta. 7+71.1, Line 2
Install 24" SWS pipe (W).
Match Point

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

Sta 0+27.5, End Line 2C
Construct 24" End Section

20' DRNG. & UTIL. ESM'T.

CAUTION!
15" SS LINE
CROSSING

1.

150
145
140
135
130

Proposed Grade = Existing Grade

LINE 2A
28.0 L.F. 24"
RCP @ +6.071%

140.70 = Flow Out
140.80 = Flow In (WNE)
141.30 = Flow In (WNE)

0+00 0+28.0

Install 24" SWS Pipe (W)

Sta. 0+00, Begin Line 2A
= Sta. 4+05.0, Line 2

Sta. 0+28.0, End Line 2A
Install 24" End Section

Proposed Grade = Existing Grade

LINE 2B
41.3 L.F. 24"
RCP @ +1.211%

140.70 = Flow Out
141.30 = Flow In (WNE)
140.80 = Flow In (WNE)

0+00 0+41.3

Install 35.0 L.F. Flowable Fill to Elev. 146.00

Sta. 0+00, Begin Line 2B
Install 24" SWS Pipe
Match Point

Sta. 0+41.3, End Line 2B
Construct 5' d. Type 1A Inlet (10'x3')
Top Elev. = 147.00

Proposed Grade = Existing Grade

LINE 2C
27.5 L.F. 24"
RCP @ +2.550%

141.80 = Flow Out
142.30 = Flow In (WNE)

0+00 0+27.5

Install 24" SWS pipe (W)

Sta. 0+00, Begin Line 2C

Sta. 0+27.5, End Line 2C
Construct 24" End Section

CAUTION!
15" SS LINE CROSSING

As Built 8/30/2000

RIDGE ADDITION
LINE 2A, 2B, & 2C
STORM WATER SEWER IMPROVEMENTS

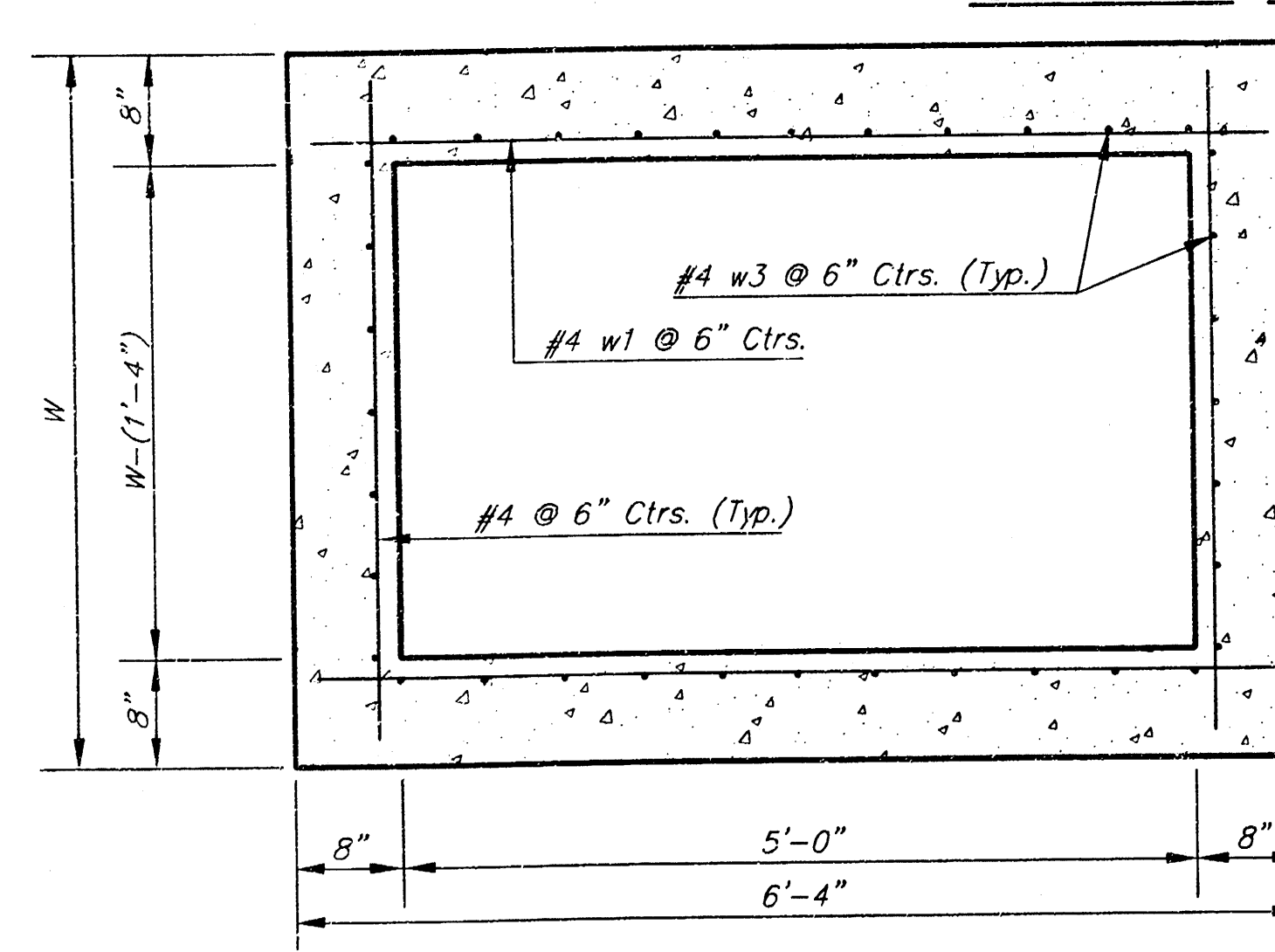
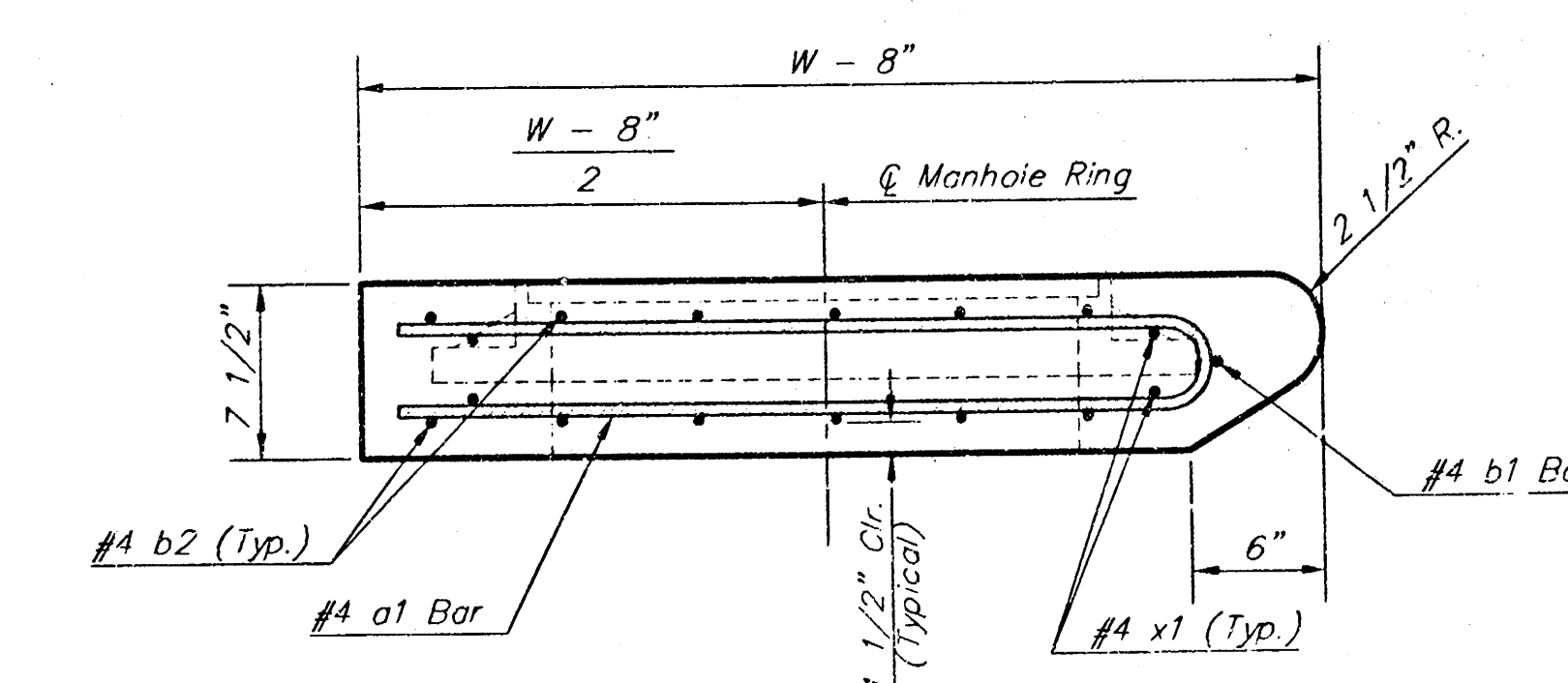
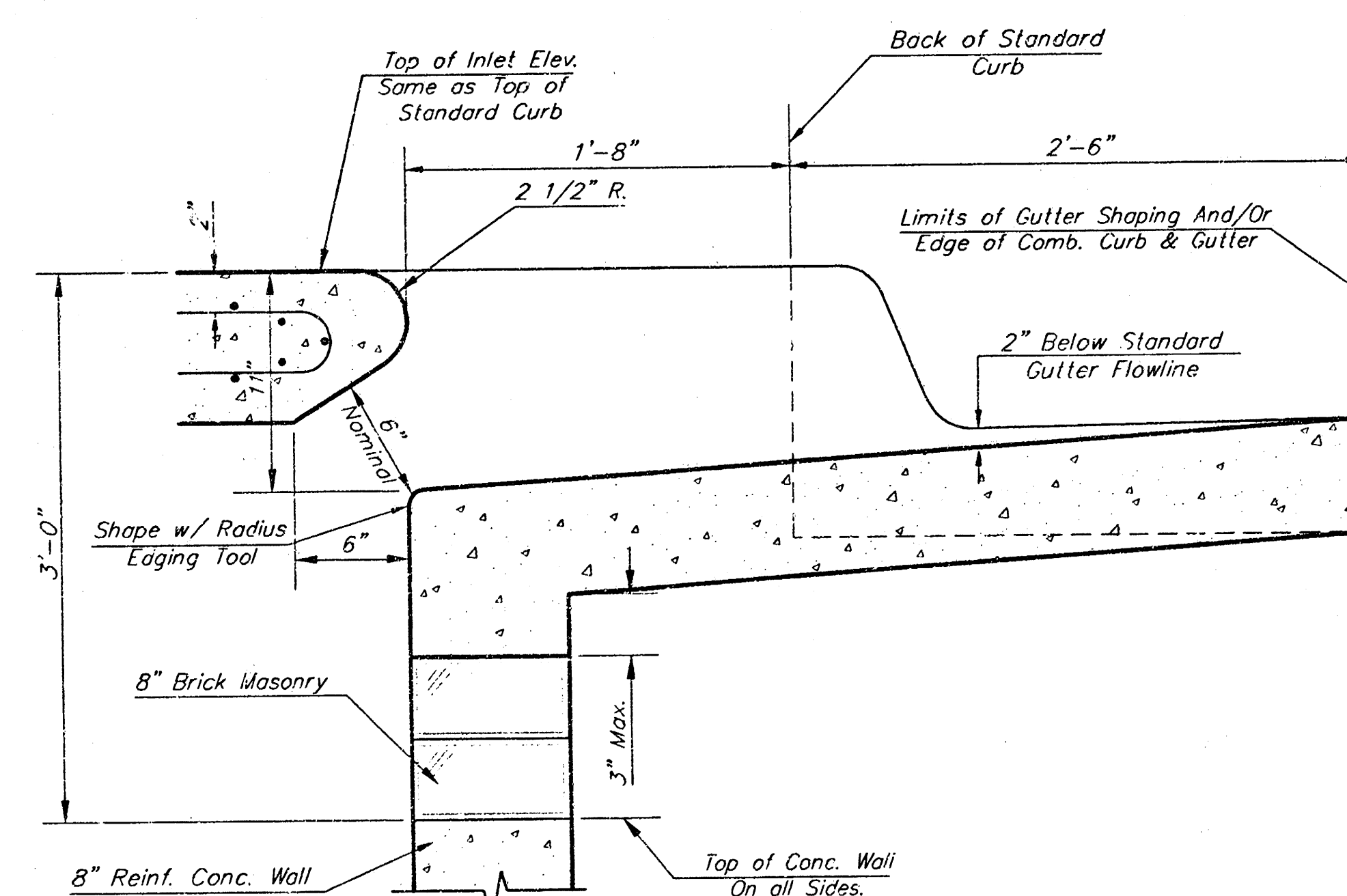
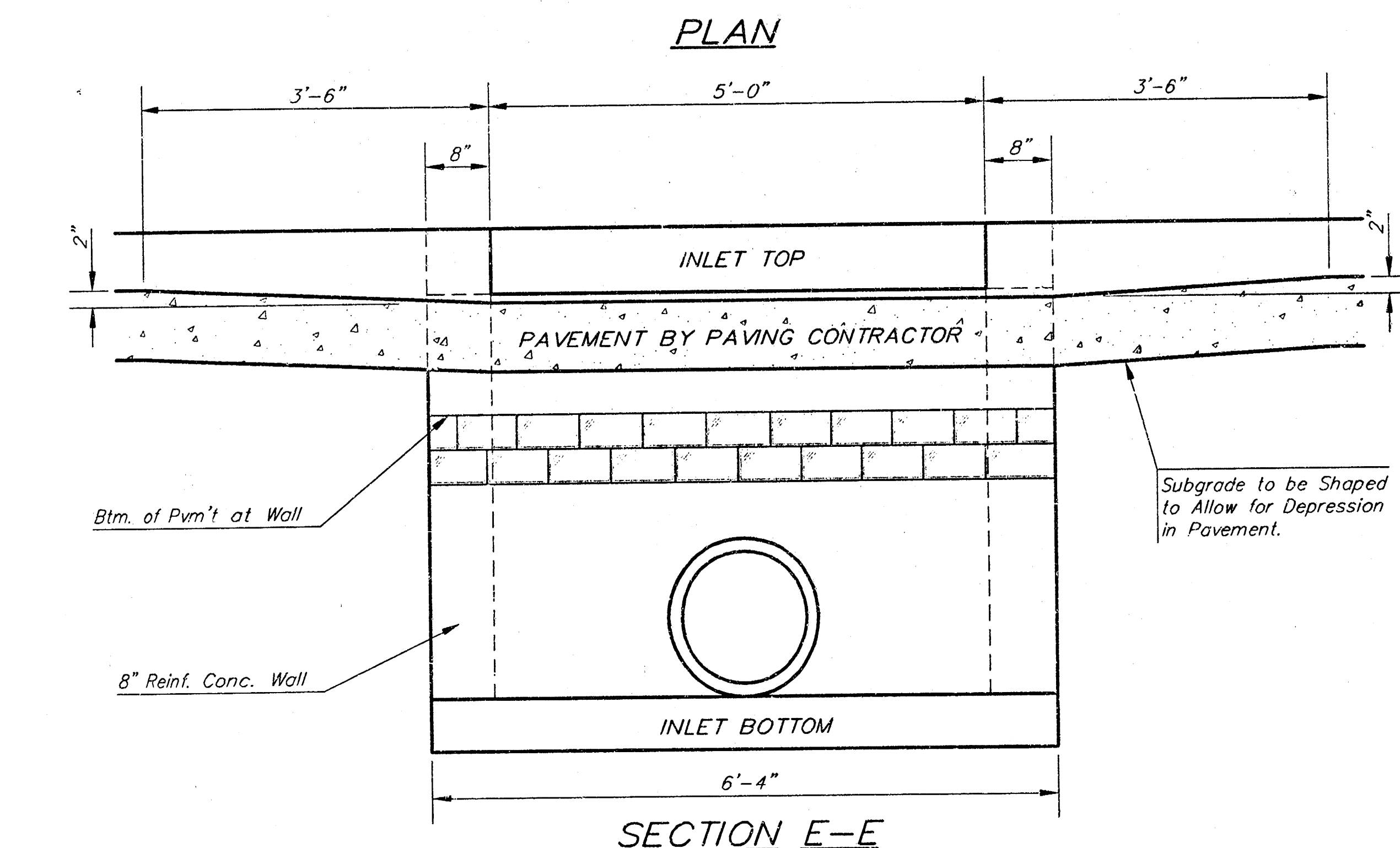
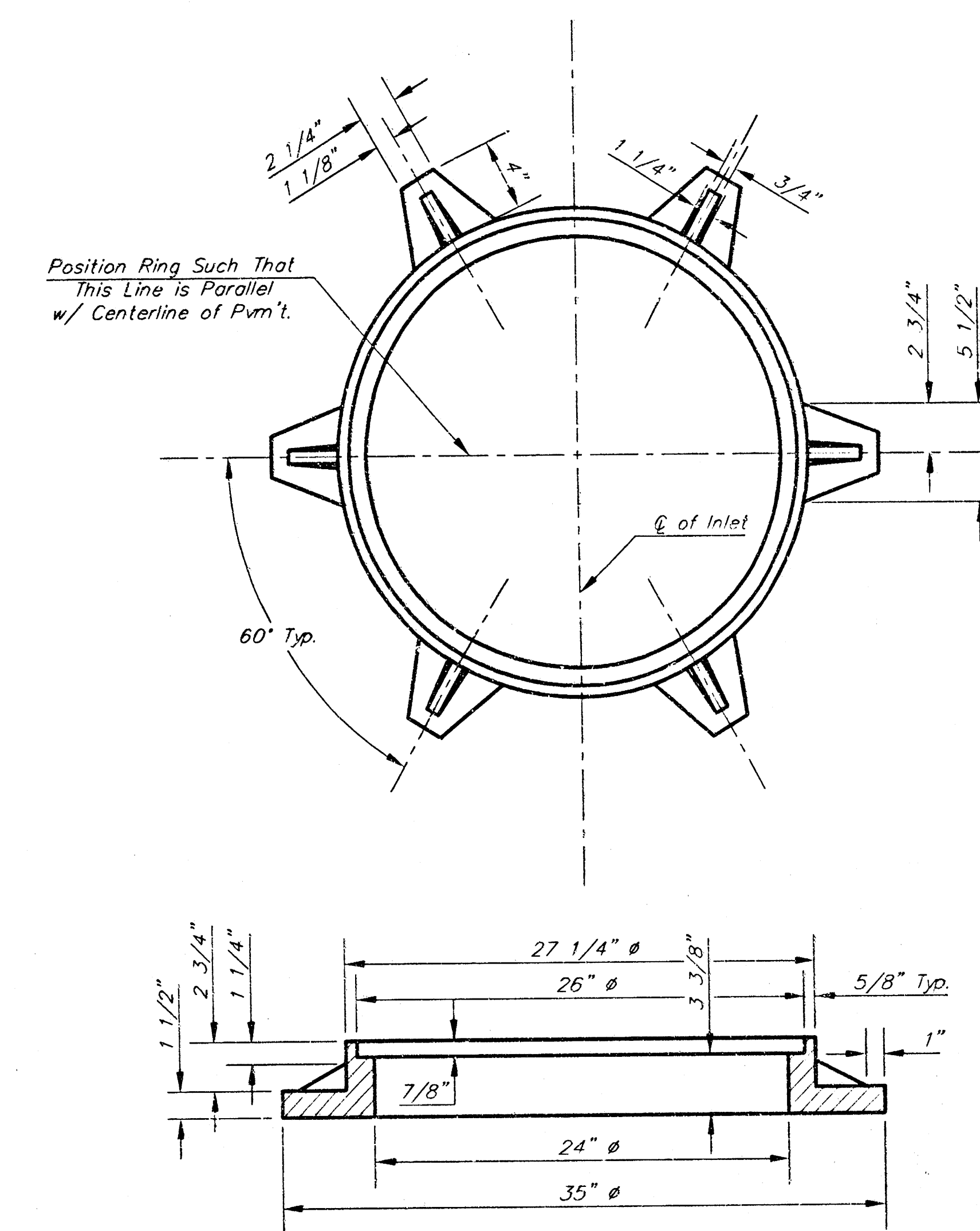
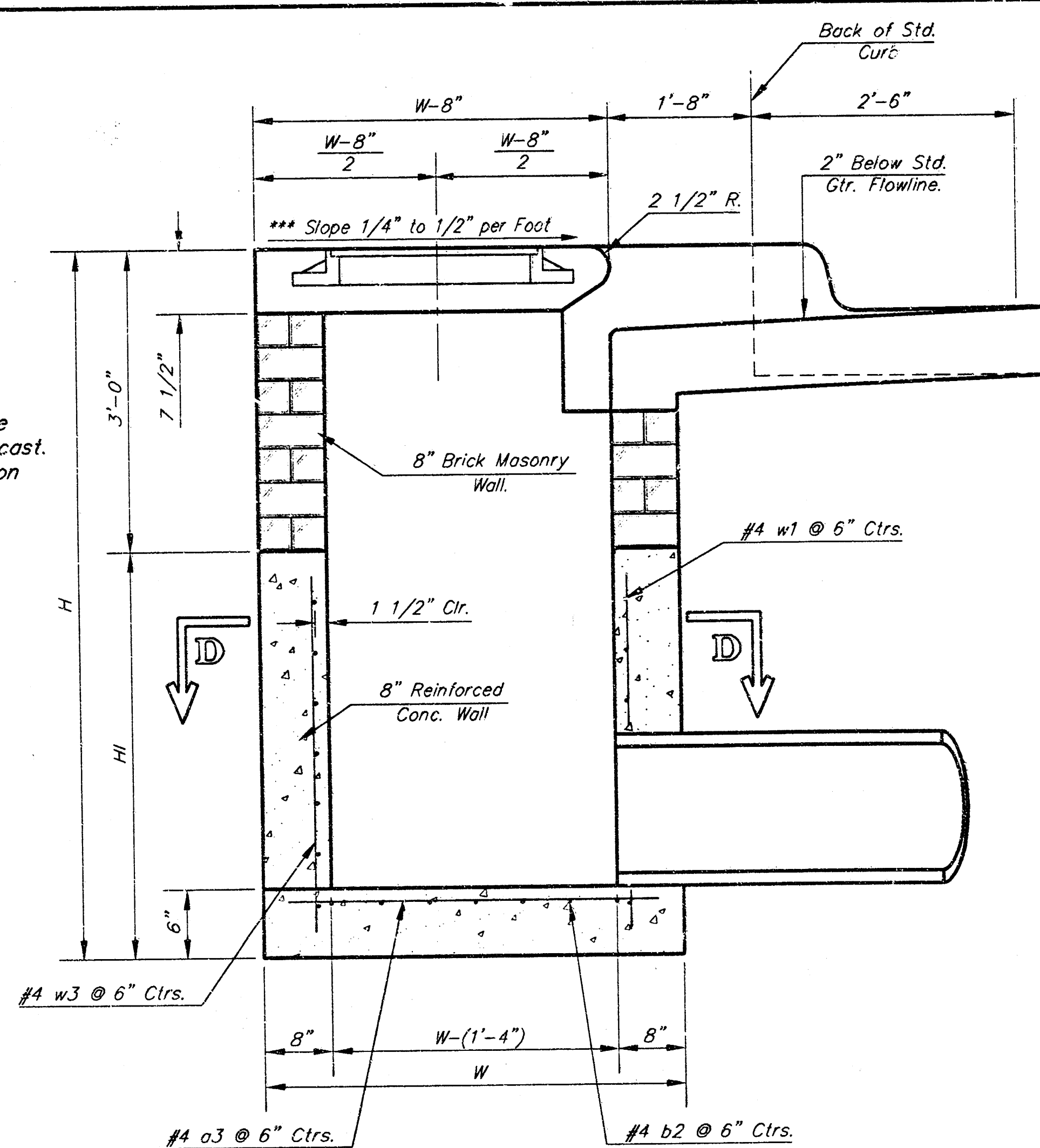
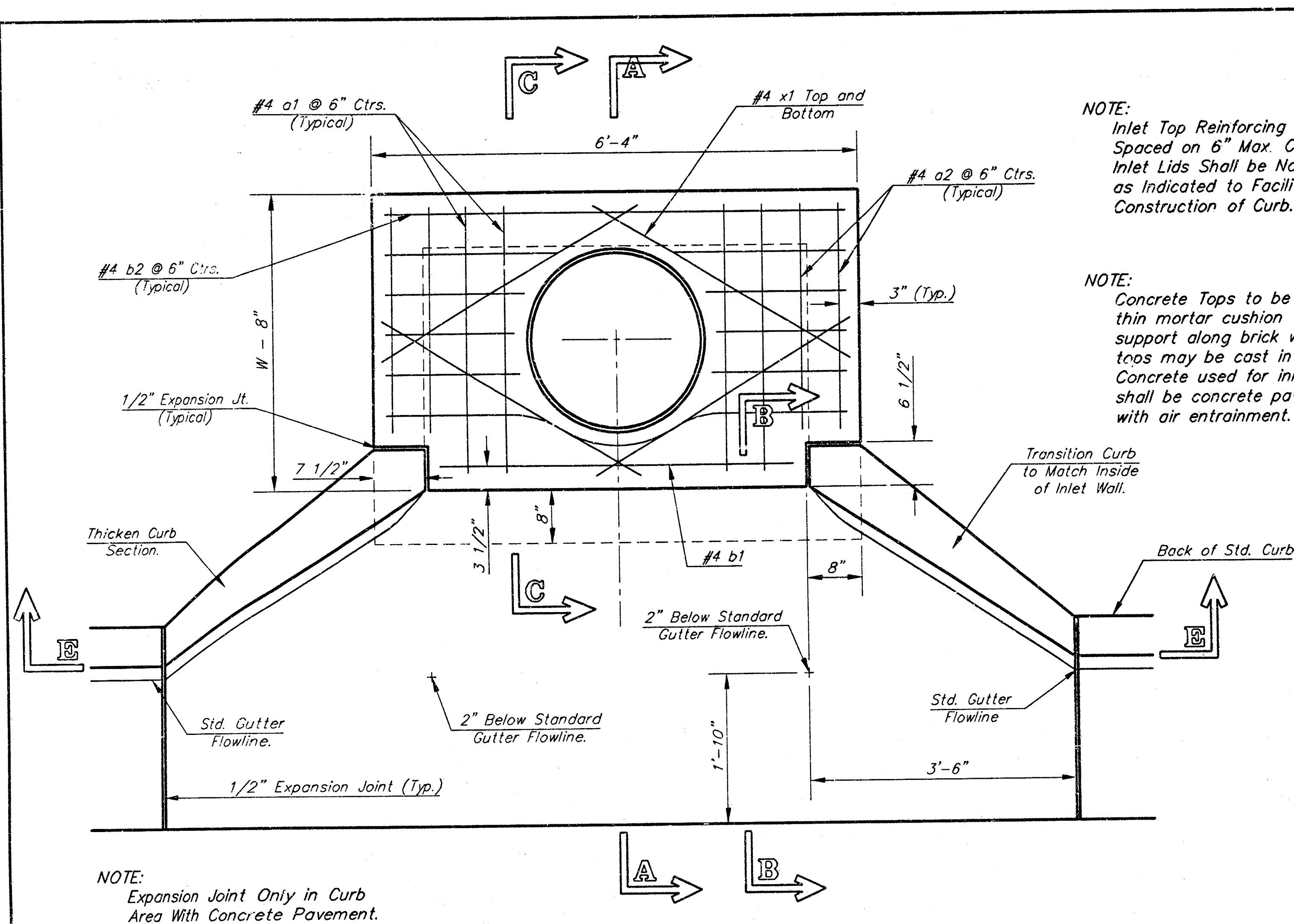
BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING

316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
488-83737

DESIGN NBW	DRAWN ESP	APPROVED	DATE 2/3/04	SCALE Noted
---------------	--------------	----------	----------------	----------------

SHEET **6** OF **12**



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 at the unit price bid for each inlet hookup.

Inlet invert shall be shaped with B 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

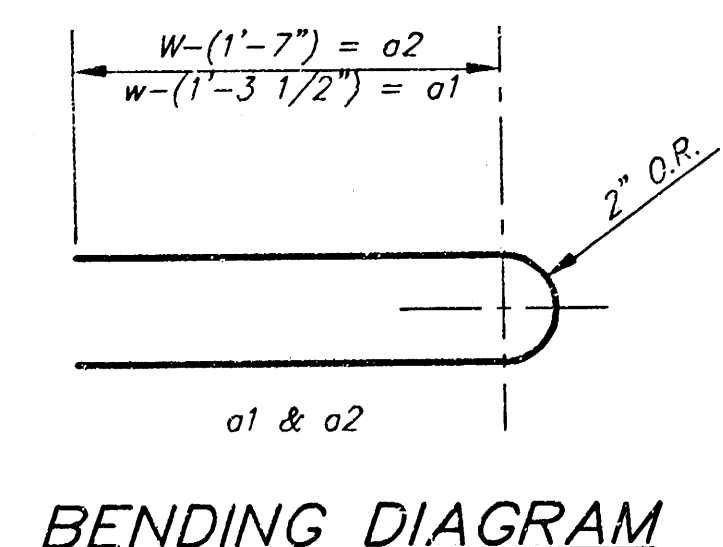
PRECAST SLAB AND FLOOR REINFORCING									
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a1	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"
w1	#4	8	1'-10"	8	1'-10"	8	1'-10"	8	1'-10"

WALL REINFORCING									
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
w1	#4	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"
w3	#4	②	36	②	40	②	44	②	48

* Field Bend or Cut Reinforcing as Required for Clearance.

① 4 (H = 12") (H = 21") Rounded down to nearest 0.5"

② H = 3"



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.

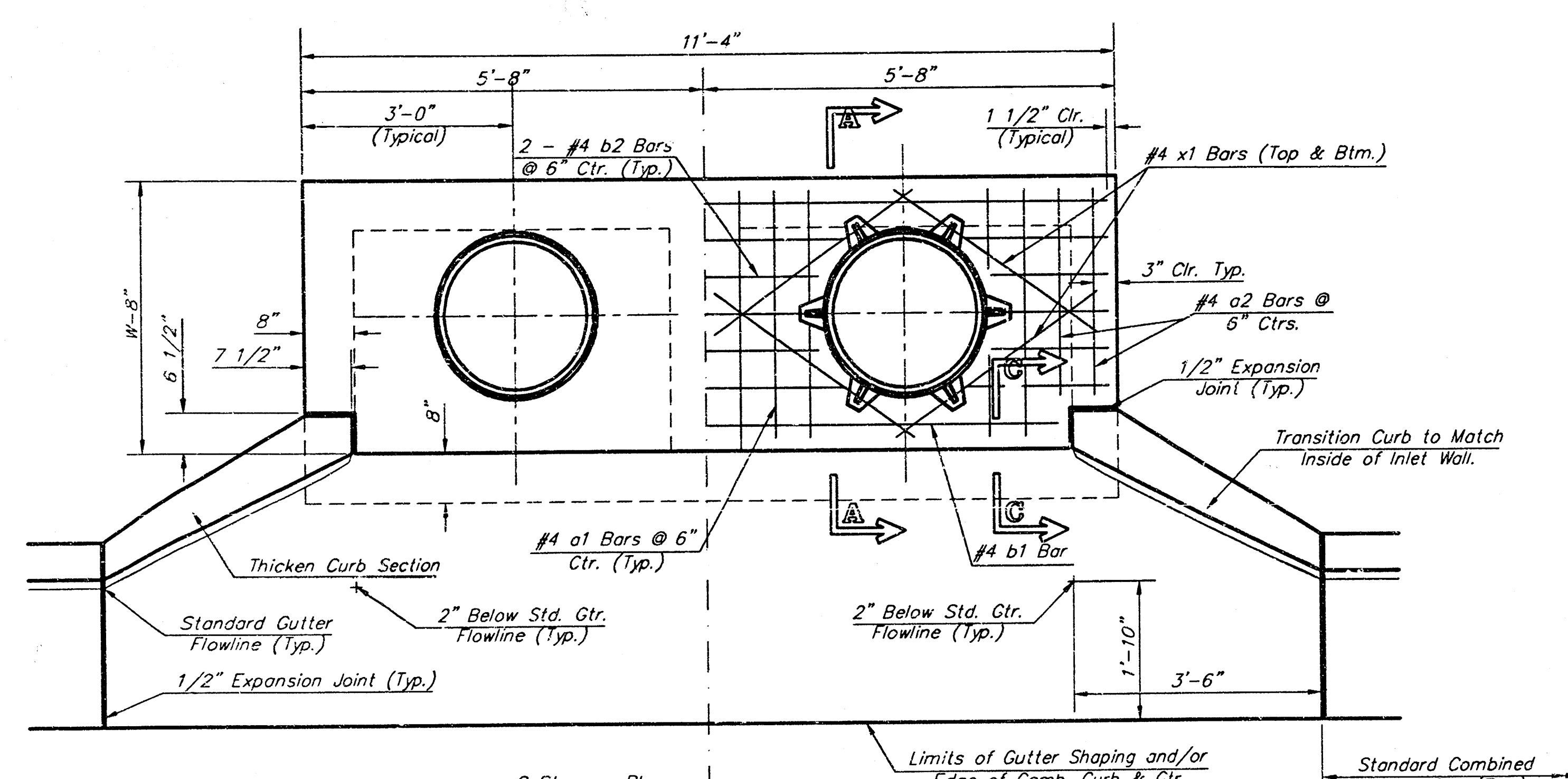
ENGINEERING, SURVEYING, & PLANNING

316, 262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER: 488-83737

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

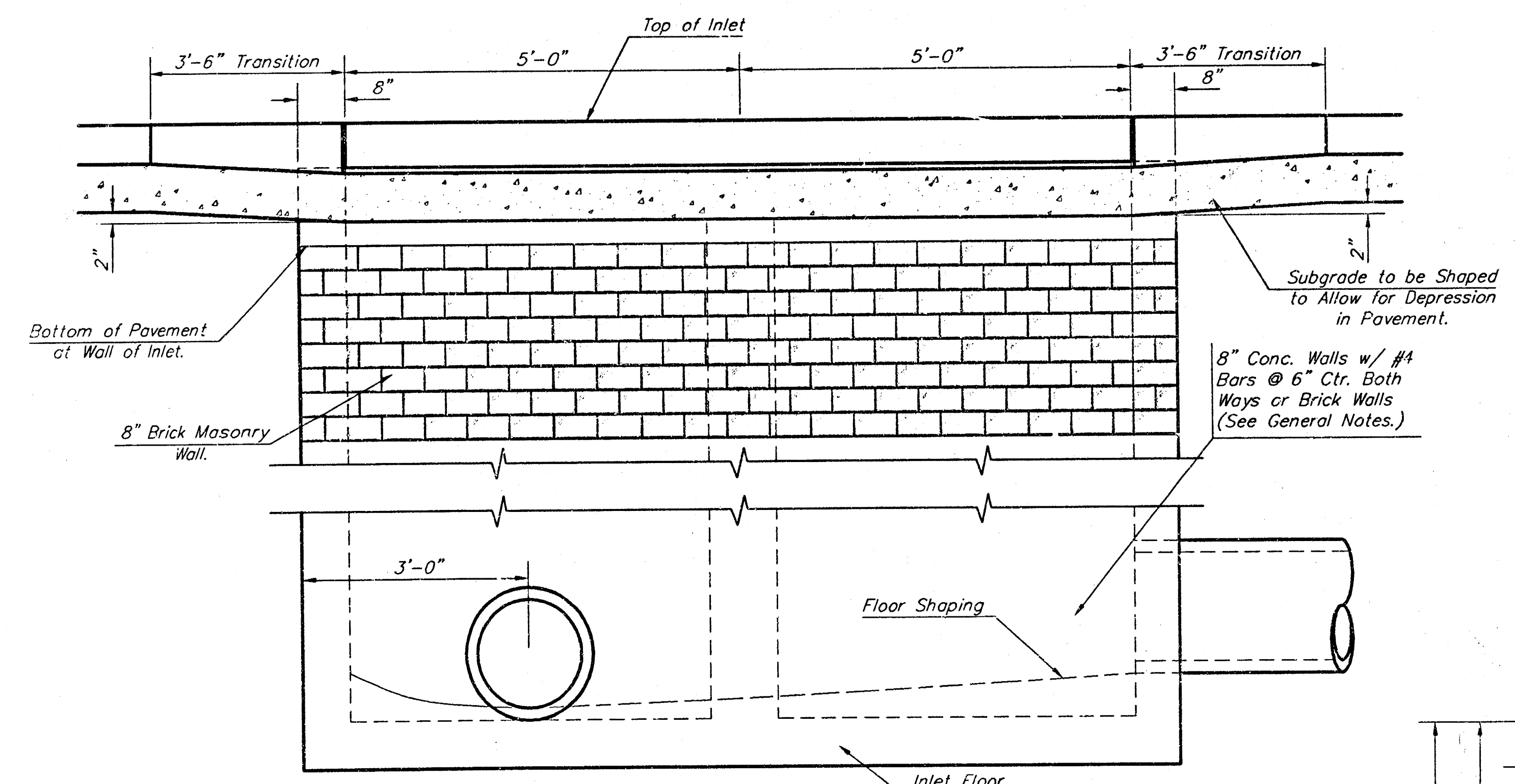
SHEET: 8 OF 12



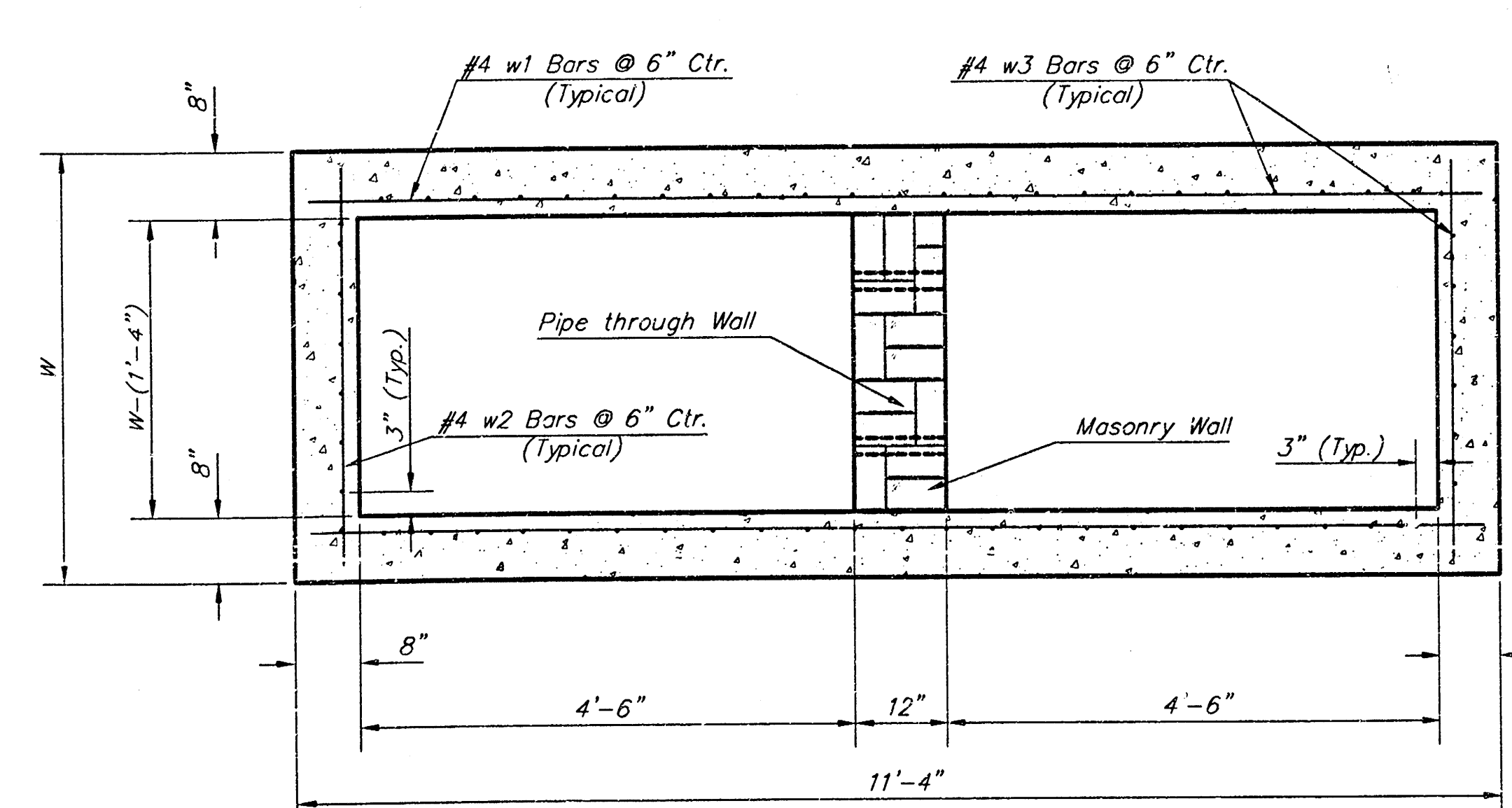
NOTE:
Expansion Joint Only in Curb Area with Concrete Pavement.

PLAN

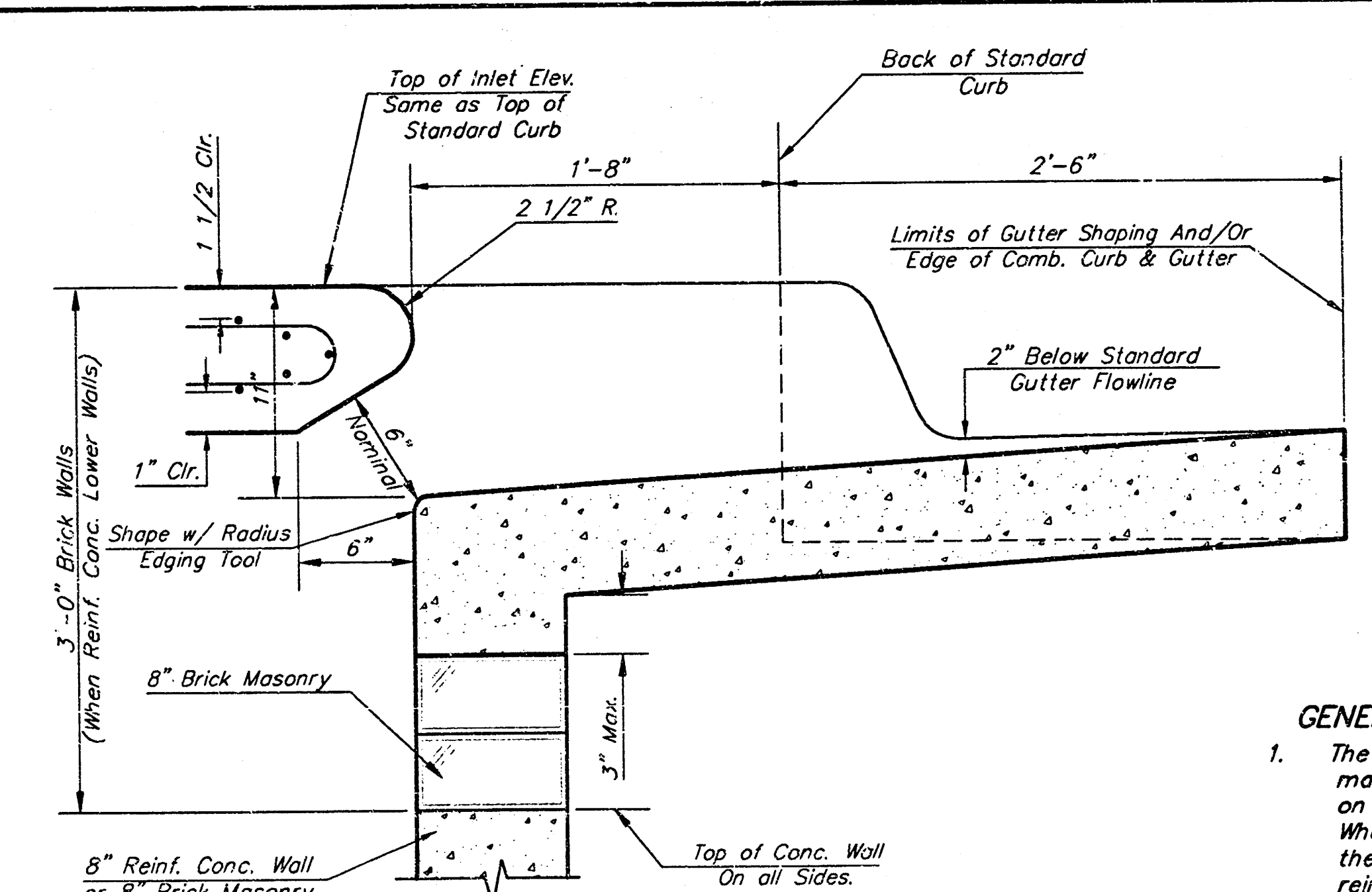
*Left Side Shown Without Slab Reinforcing, Right Side Shown With Slab Reinforcing



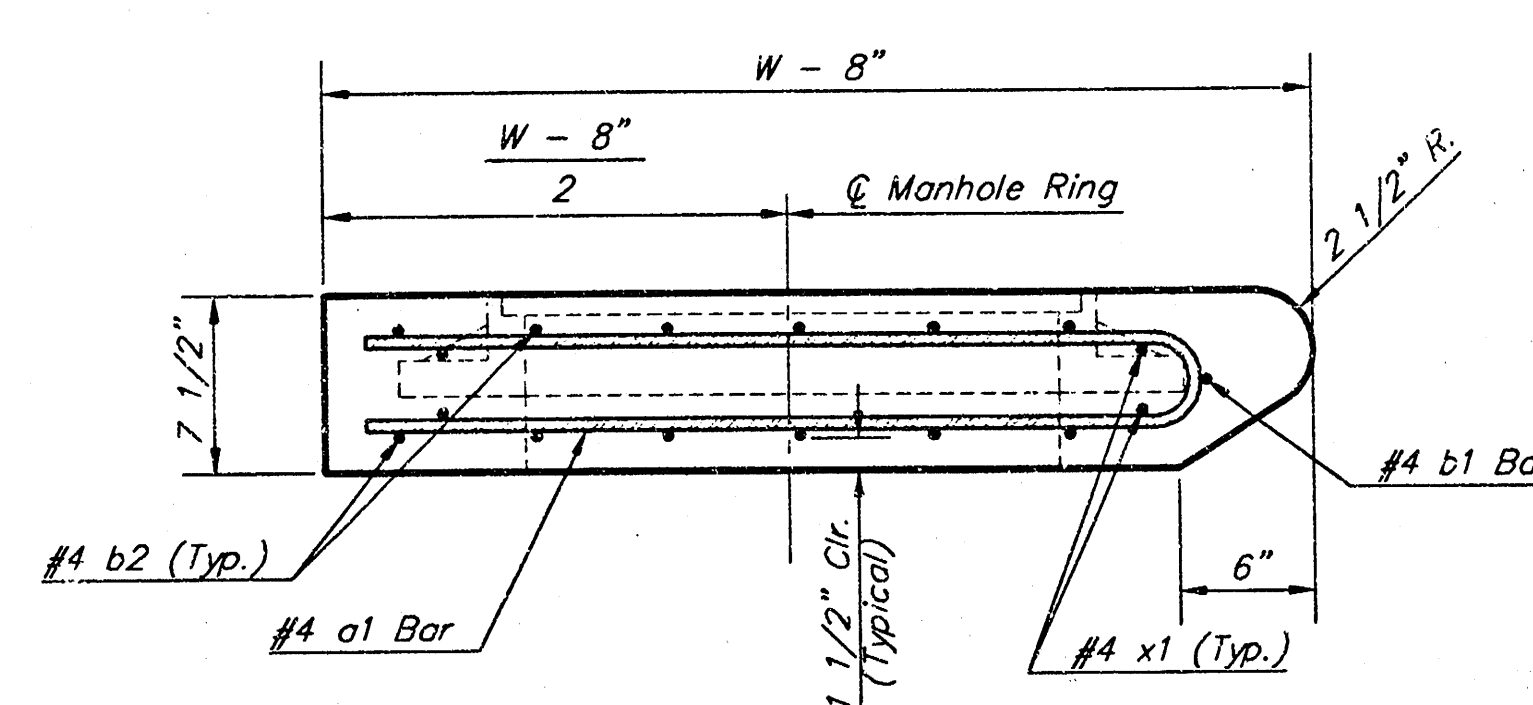
ELEVATION



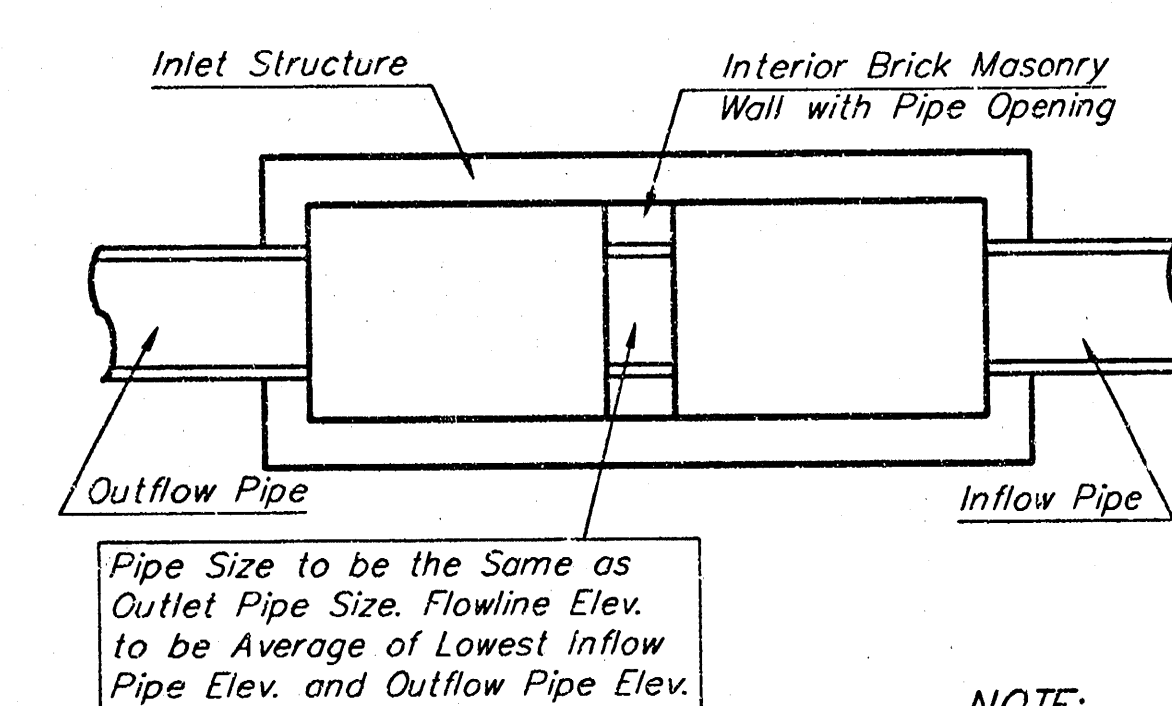
SECTION B-B



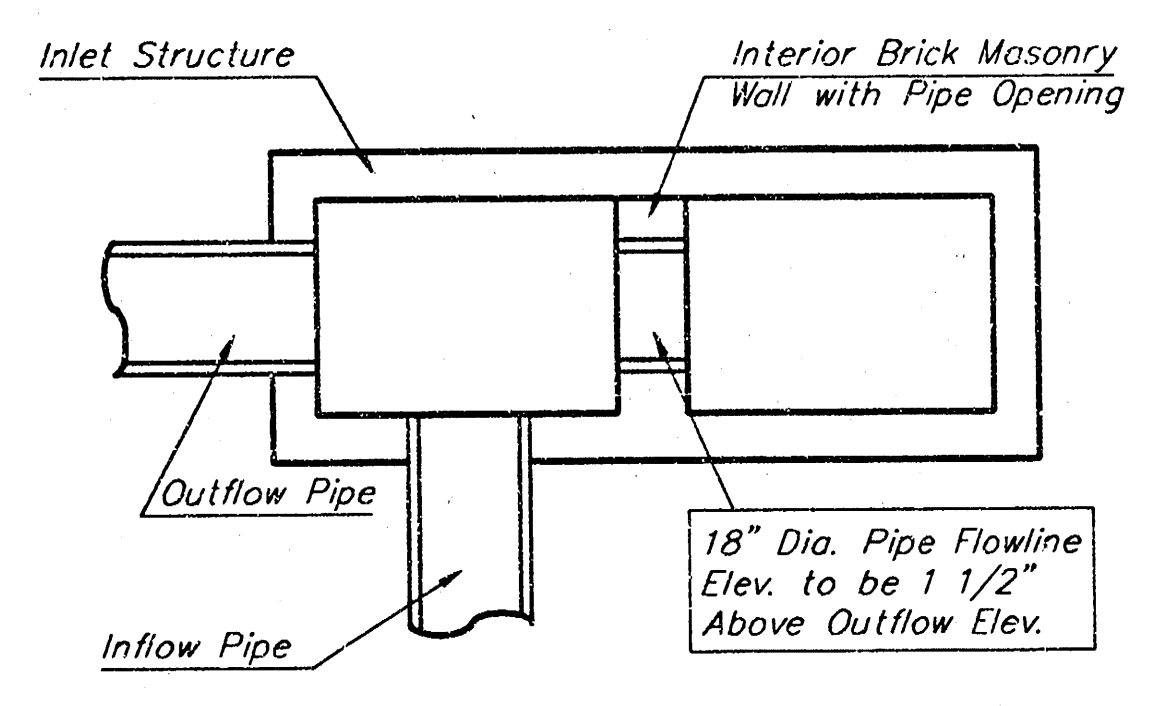
SECTION C-C



SECTION A-A

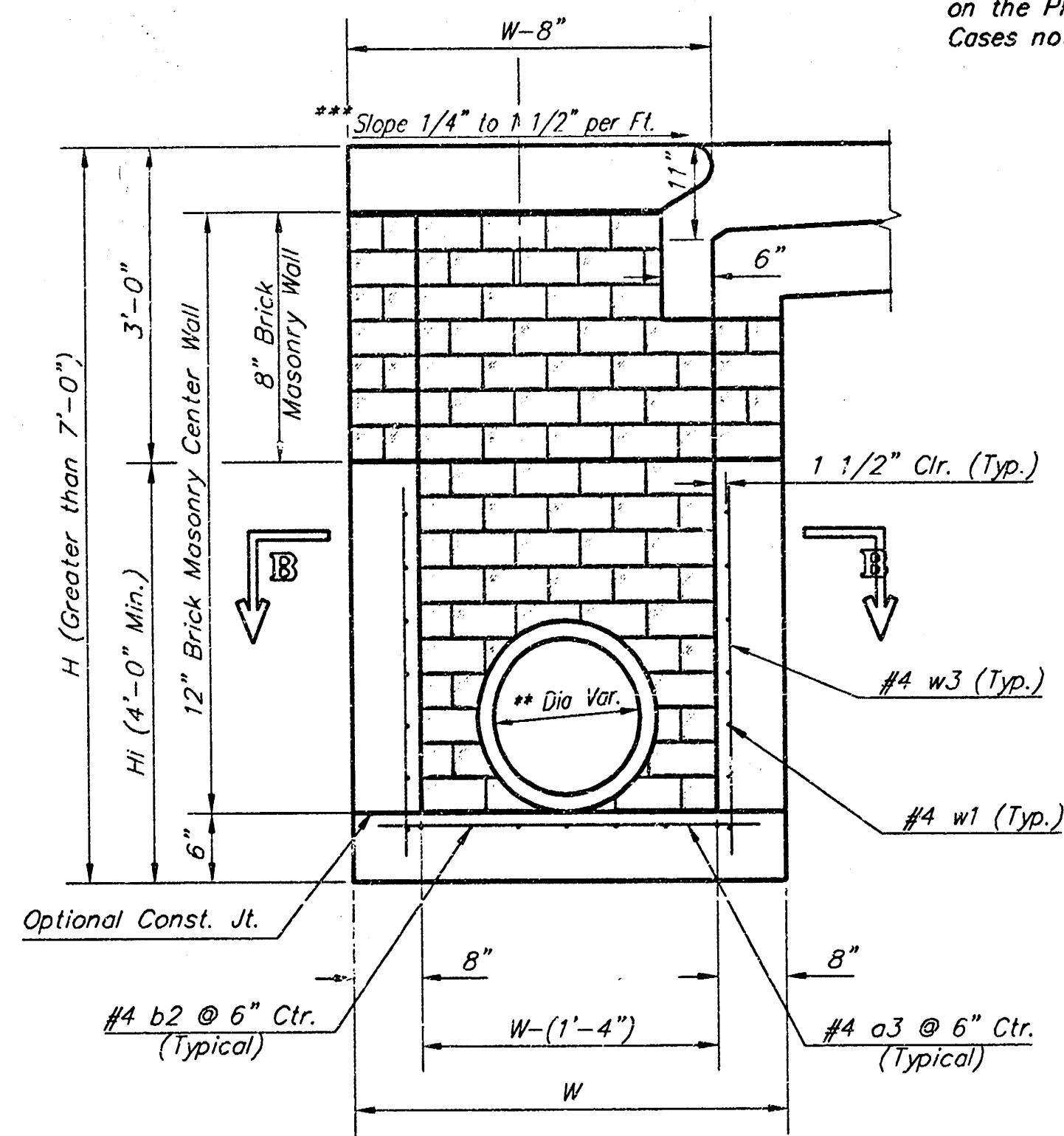


CASE I

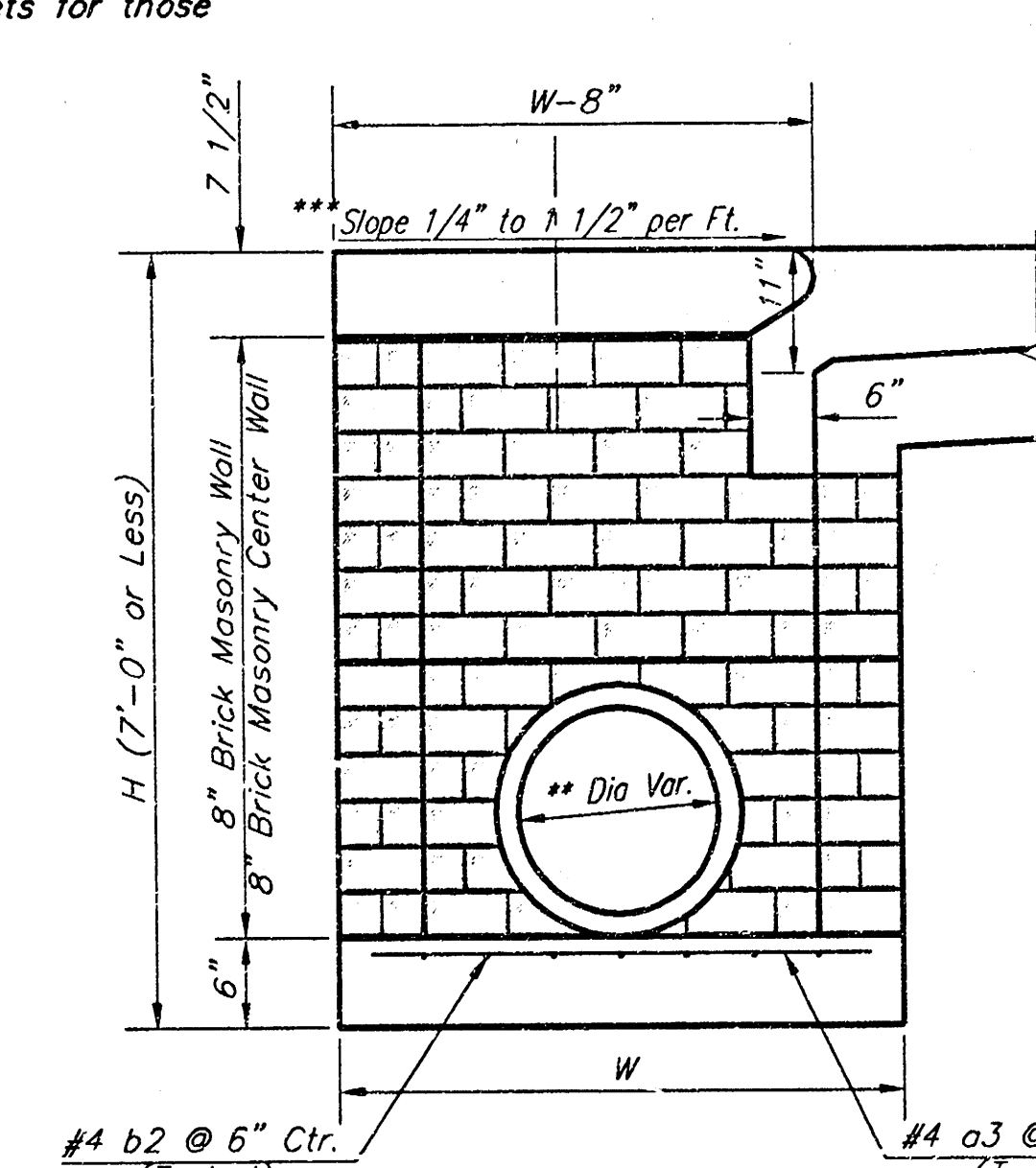


CASE II

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



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

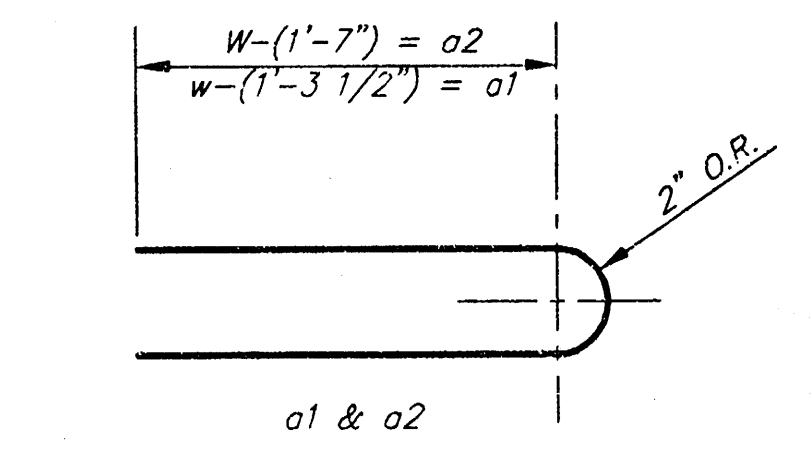
PRECAST SLAB AND FLOOR REINFORCING											
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a1	#4	13	6'-7"	13	8'-7"	13	10'-7"	13	12'-7"	13	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	23	4'-1"	23	5'-1"	23	6'-1"	23	7'-1"	23	8'-1"
b1	#4	1	9'-9"	1	9'-9"	1	9'-9"	1	9'-9"	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	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	52	2	56	2	60	2	64	2	68	2

* Field Bend or Cut Reinforcing as Required for Clearance.
① 4 (H1 - 12") (H1 - 21") Rounded down to nearest 0.5"
② H1 - 3"

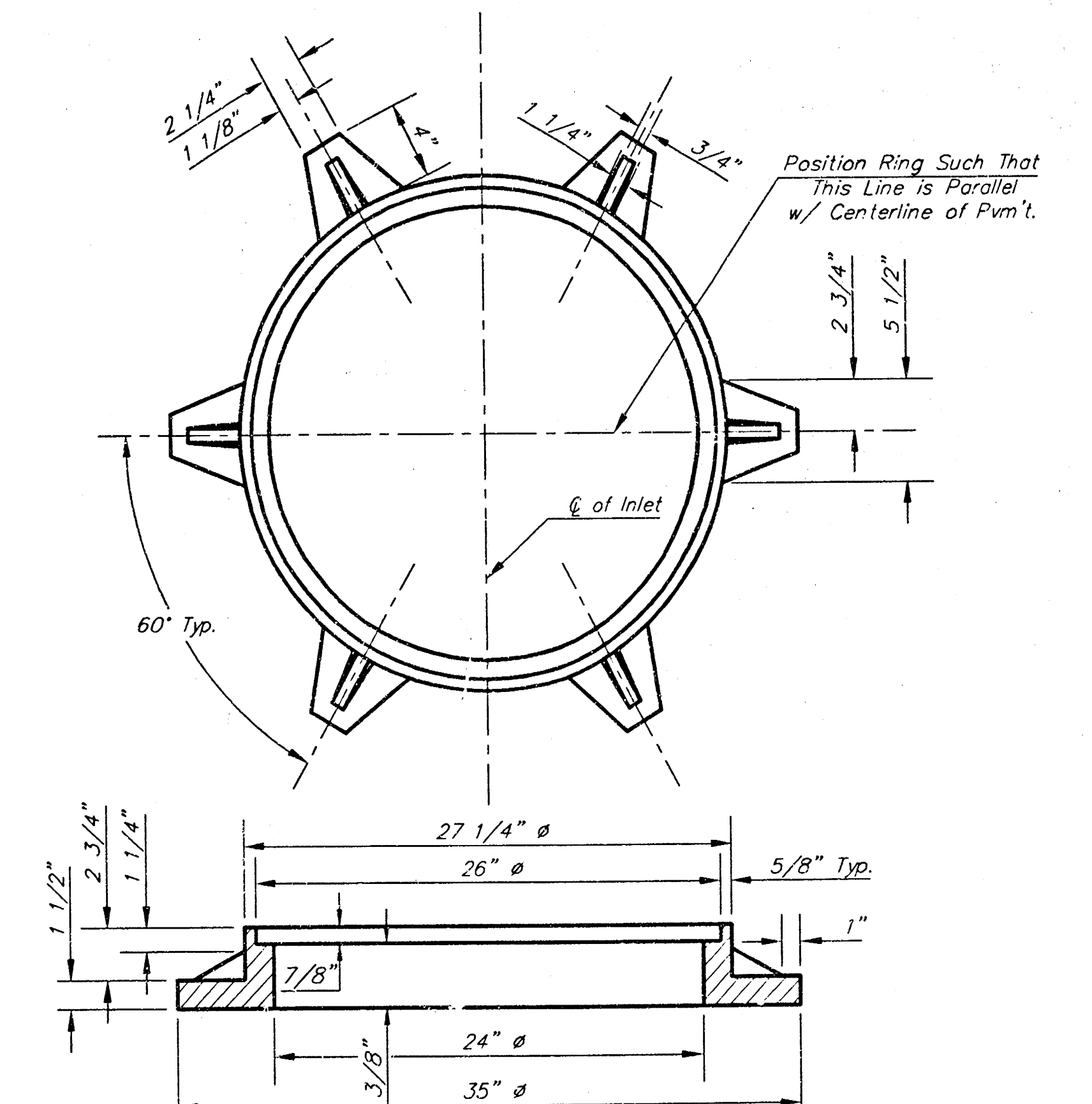
GENERAL NOTES:

- 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 DIAGRAM

STANDARD CURB INLET PRECAST TOPS			
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±



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 = 6" X 10'-0"

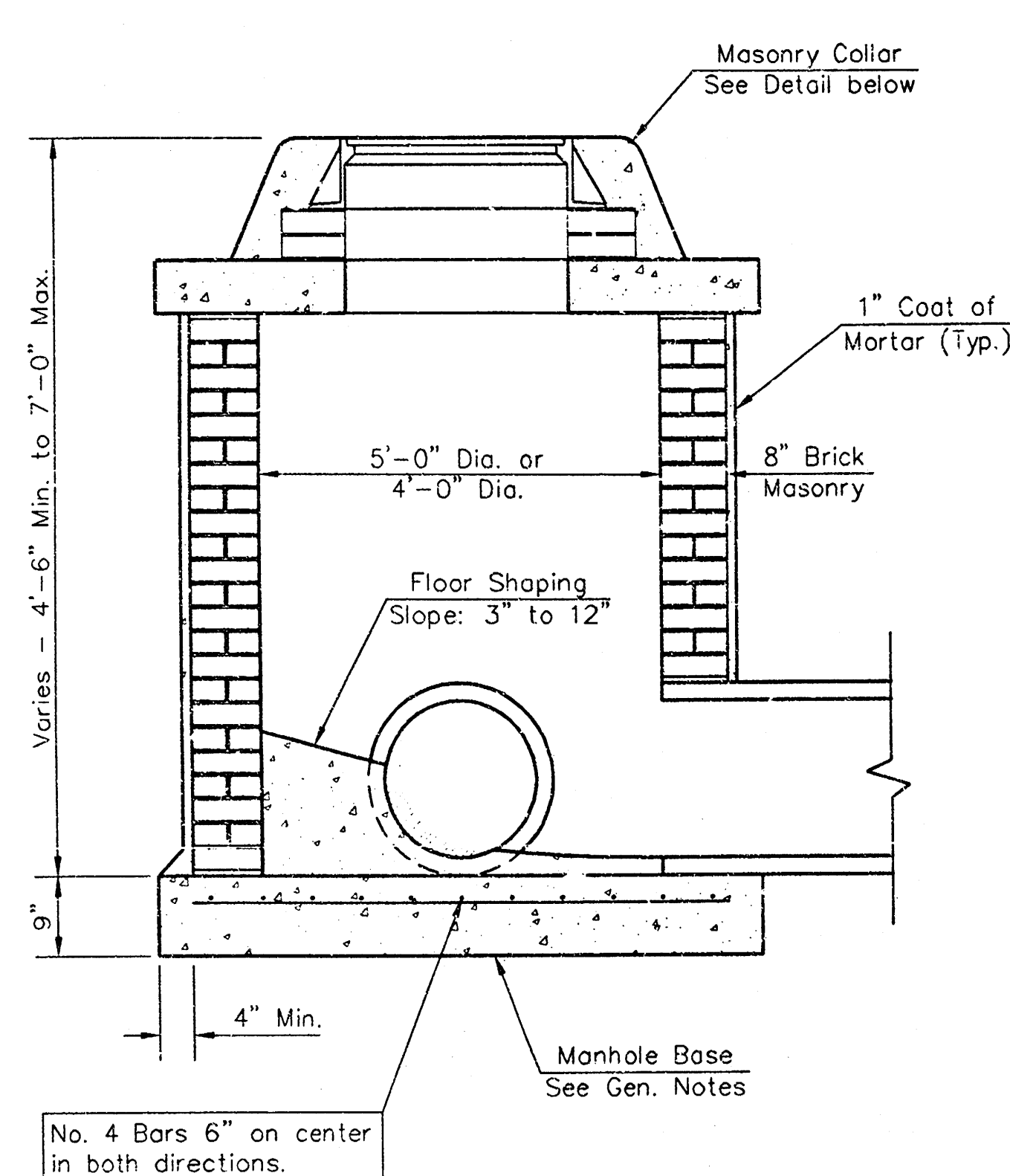
BAUGHMAN COMPANY P.A.

ENGINEERING, SURVEYING, & PLANNING

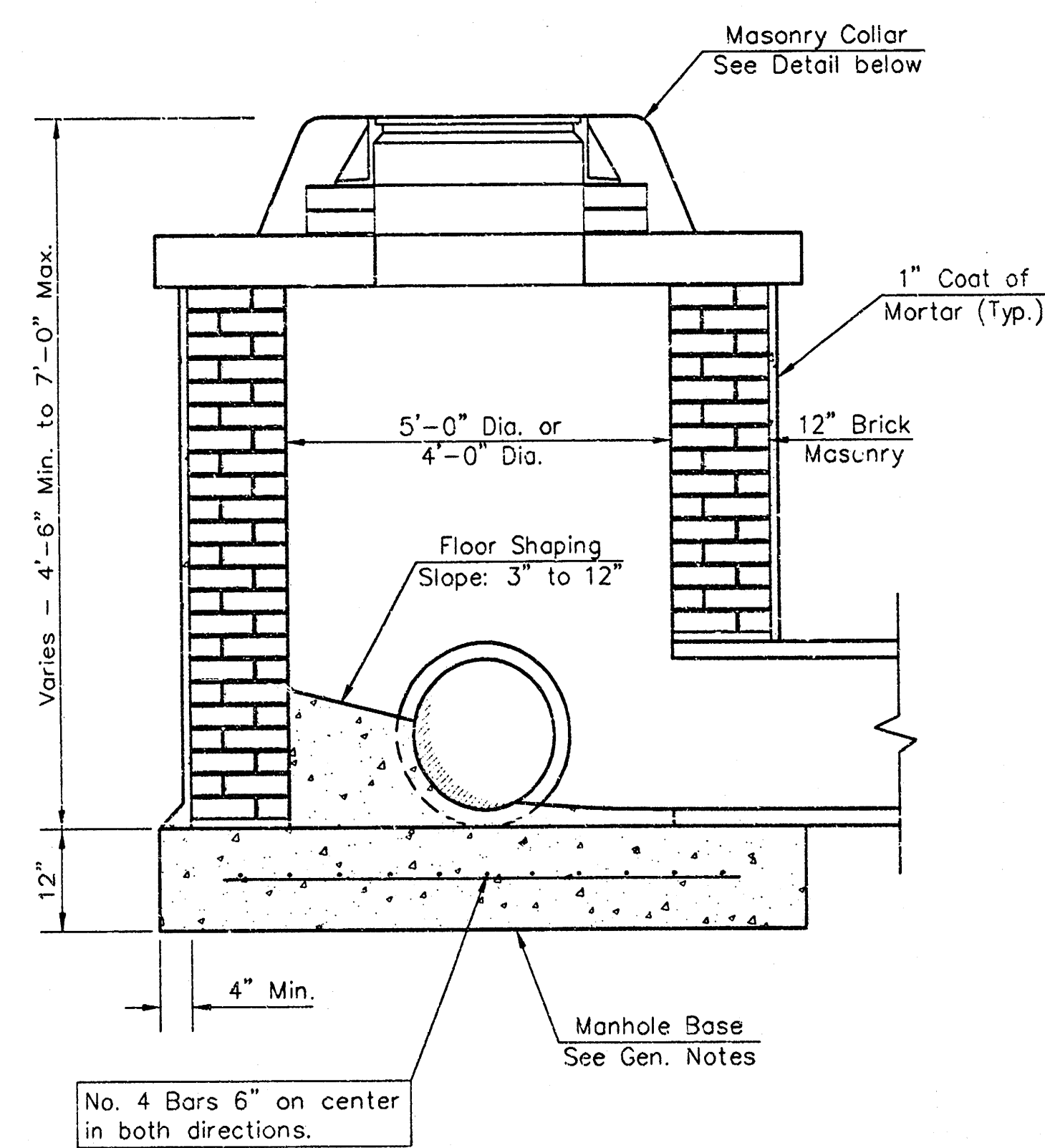
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
468-83737

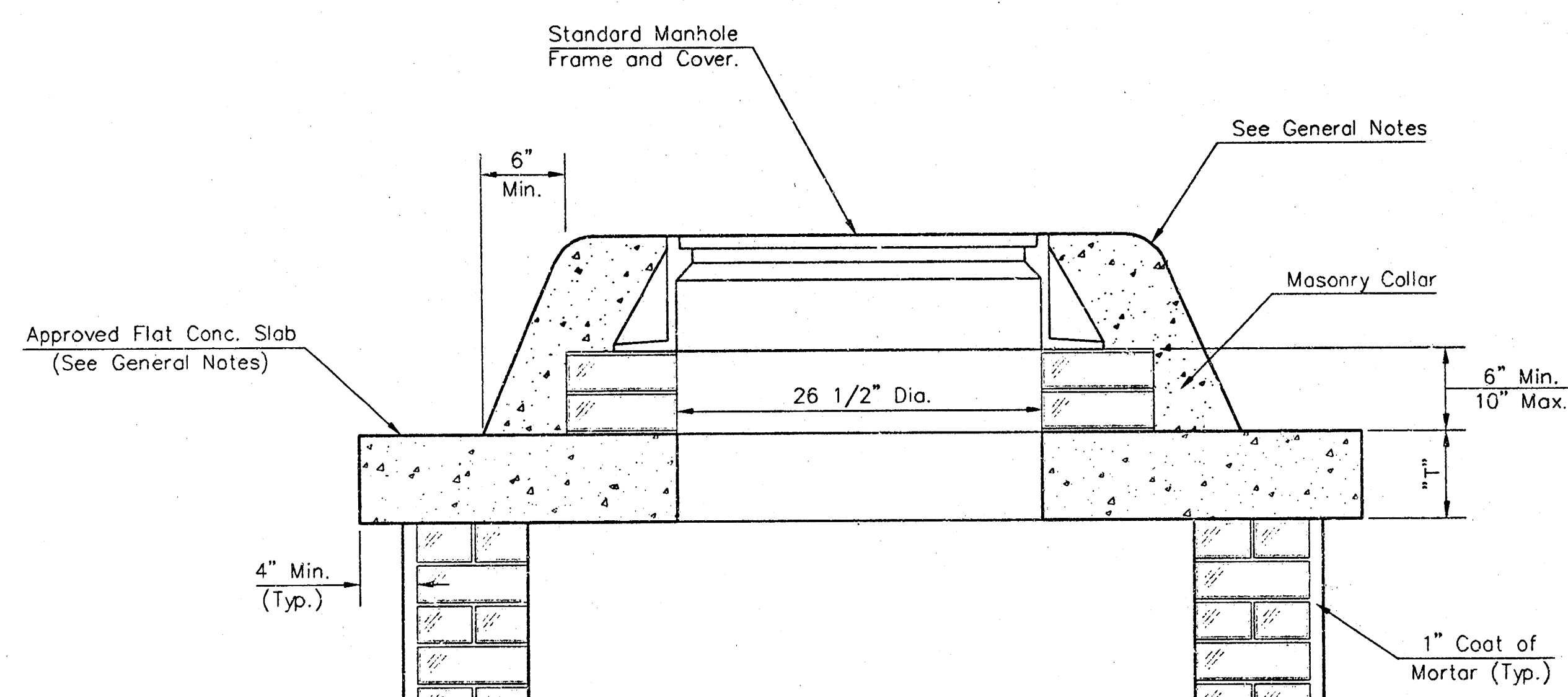
DESIGN C.O.W. DRAWN Staff APPROVED DATE 2/10/04 SCALE NONE SHEET 9 OF 12



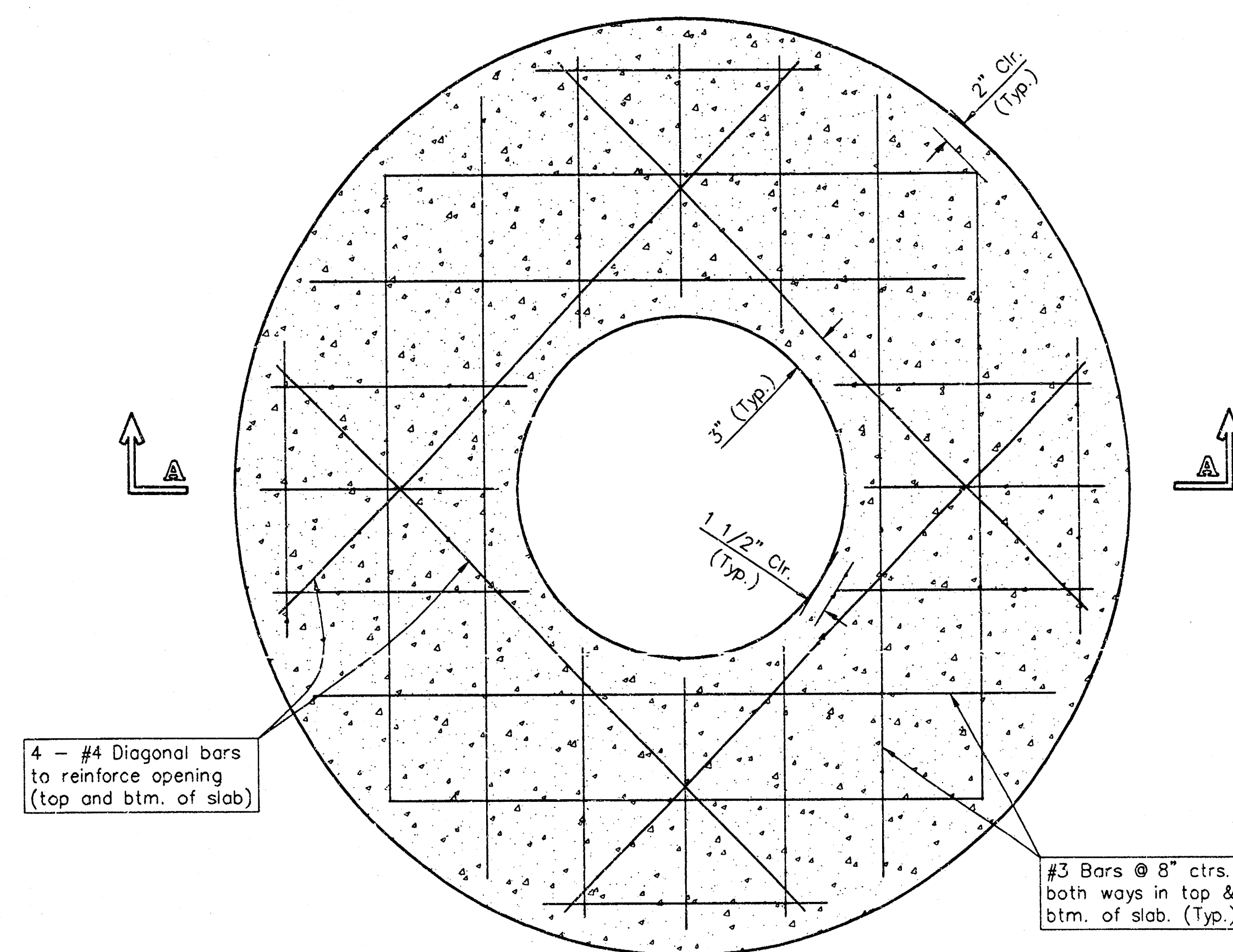
SHALLOW TYPE "A" MANHOLE



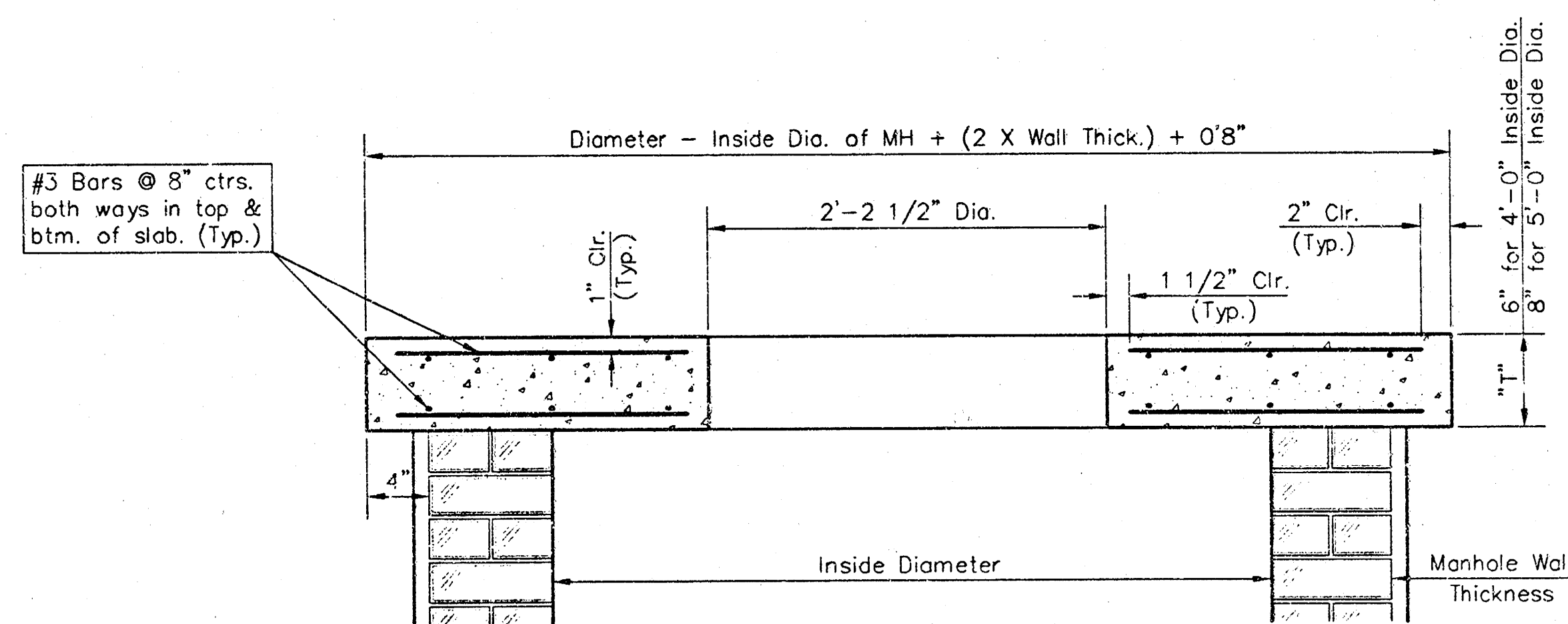
SHALLOW TYPE "B" MANHOLE



MASONRY COLLAR DETAIL

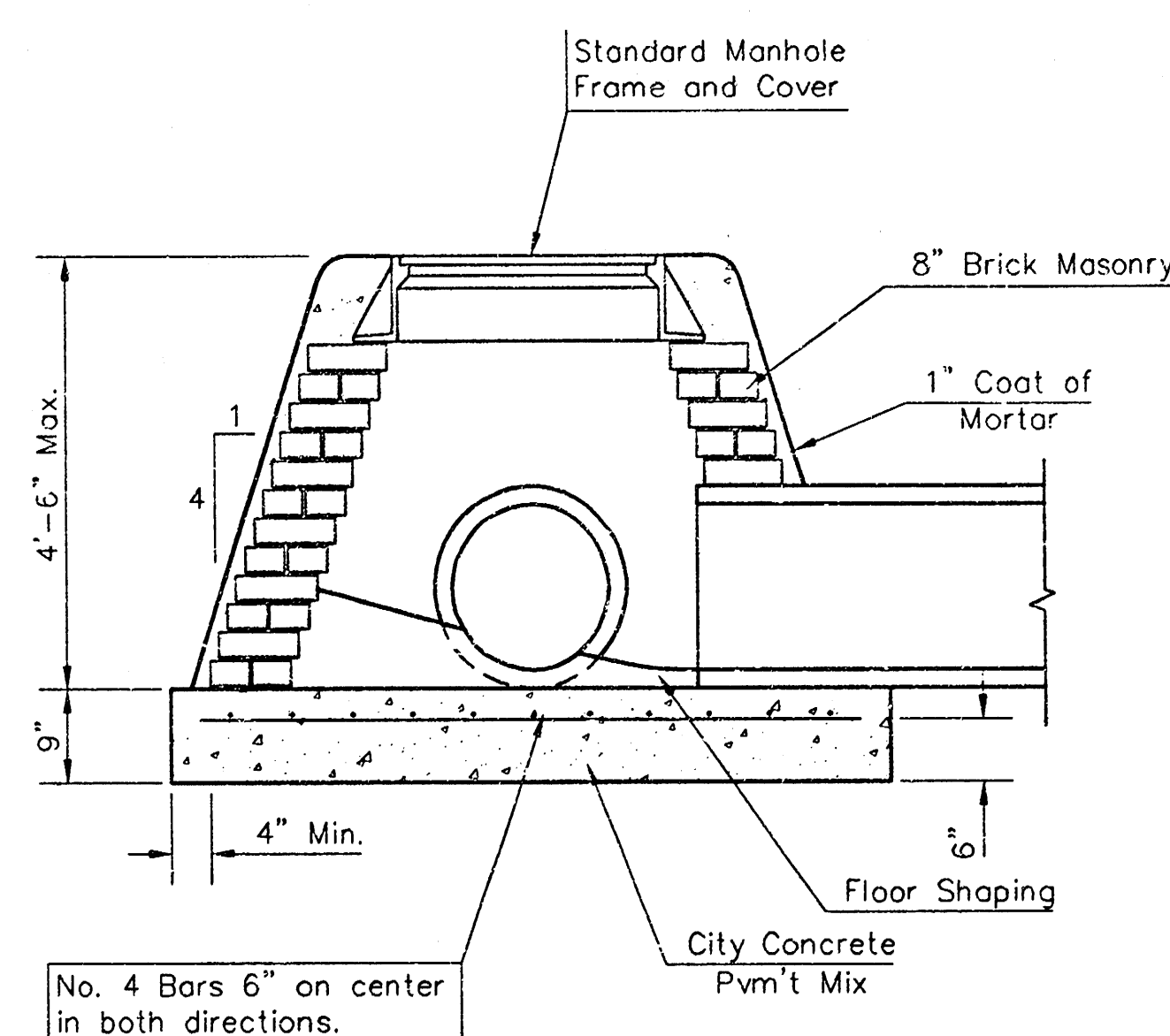


PLAN

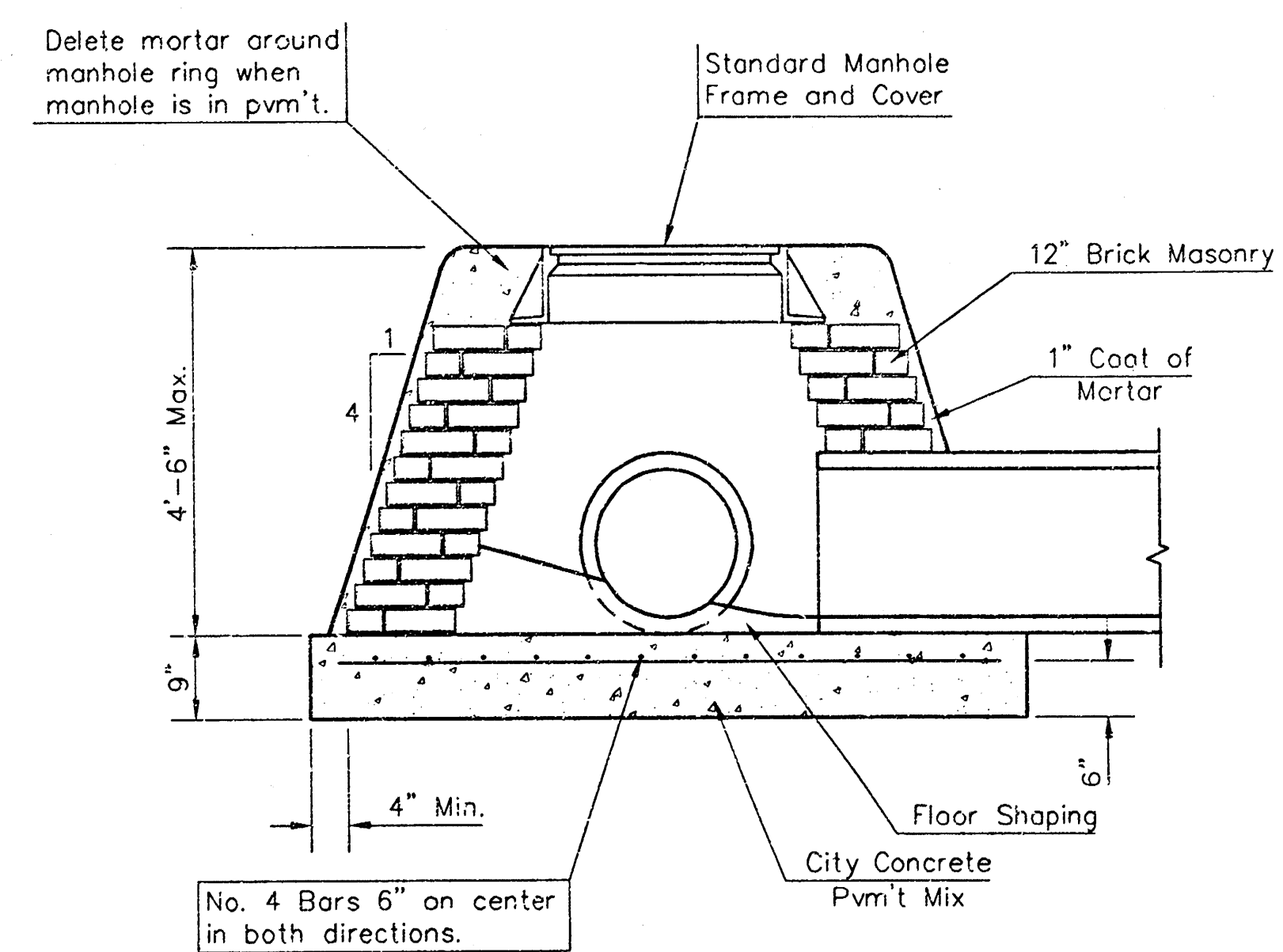


SECTION A-A

FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE

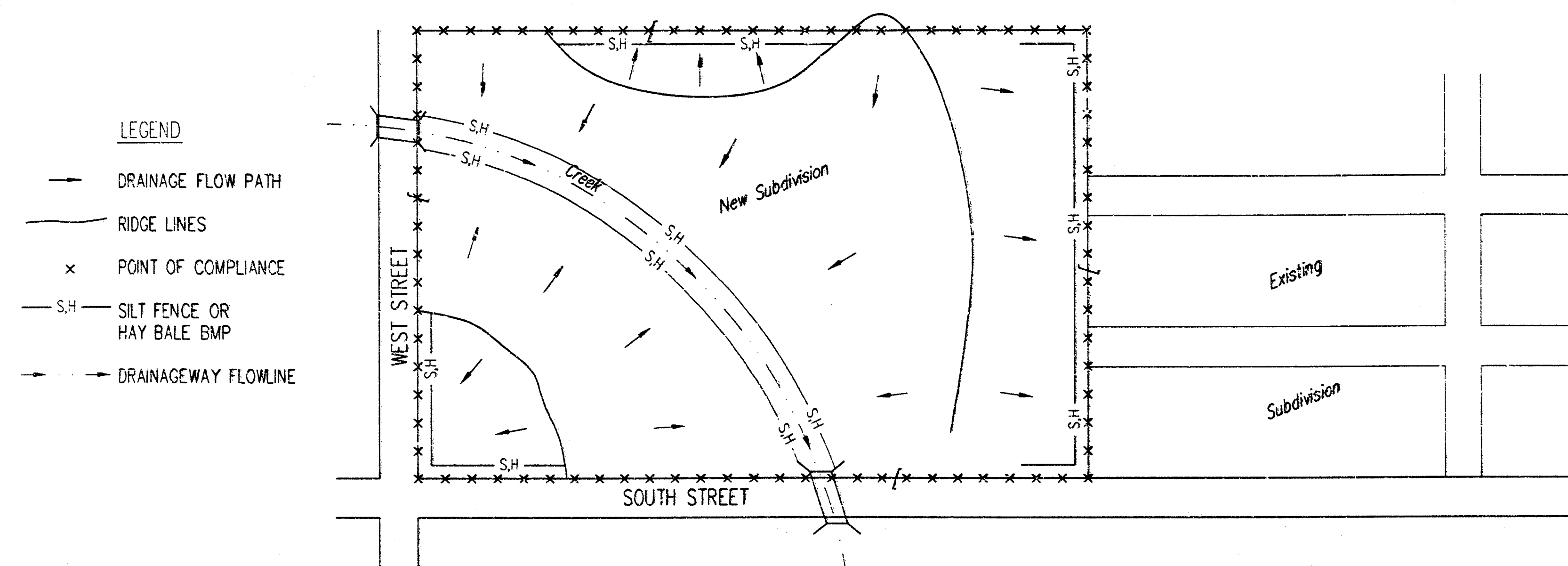


SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

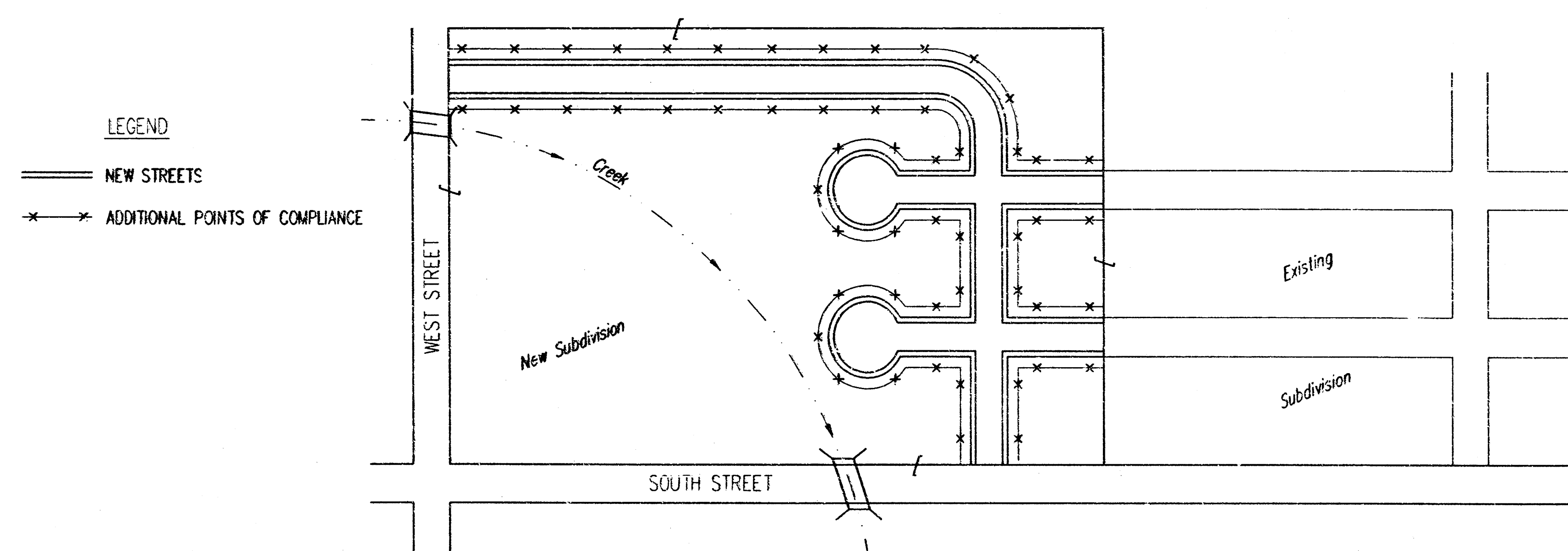
1. Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete for concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
7. 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.
8. All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

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



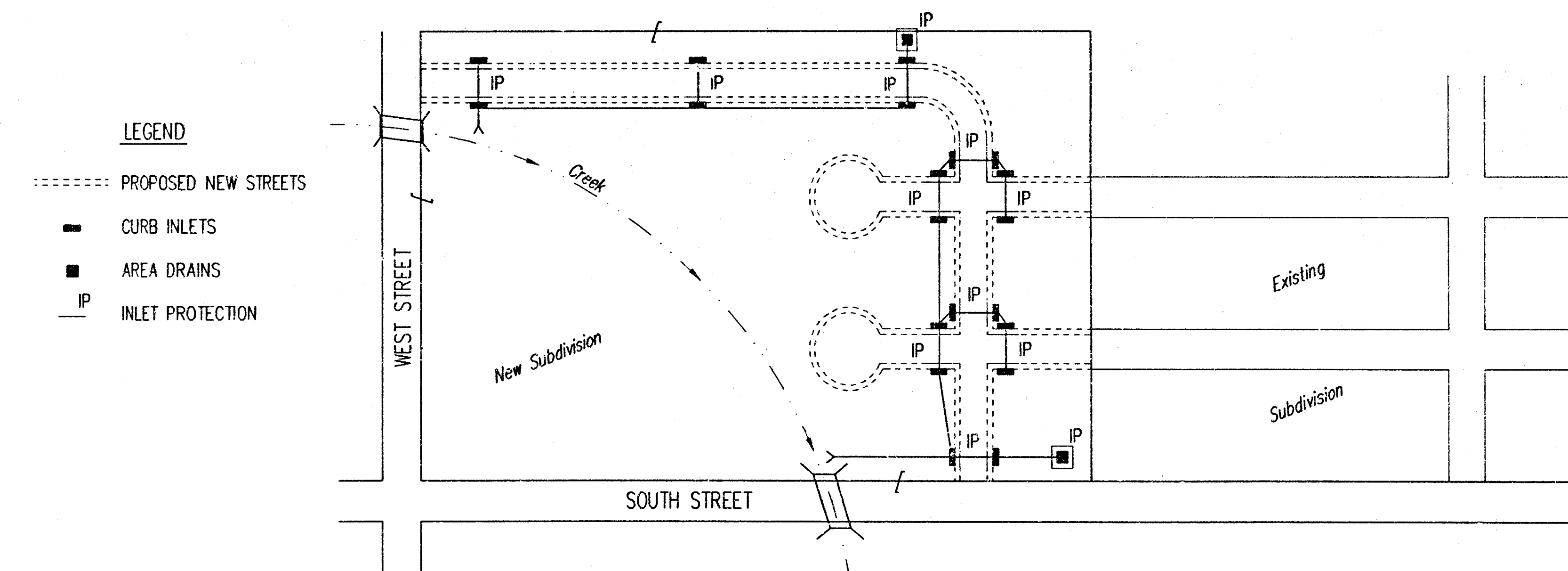
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
2. 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

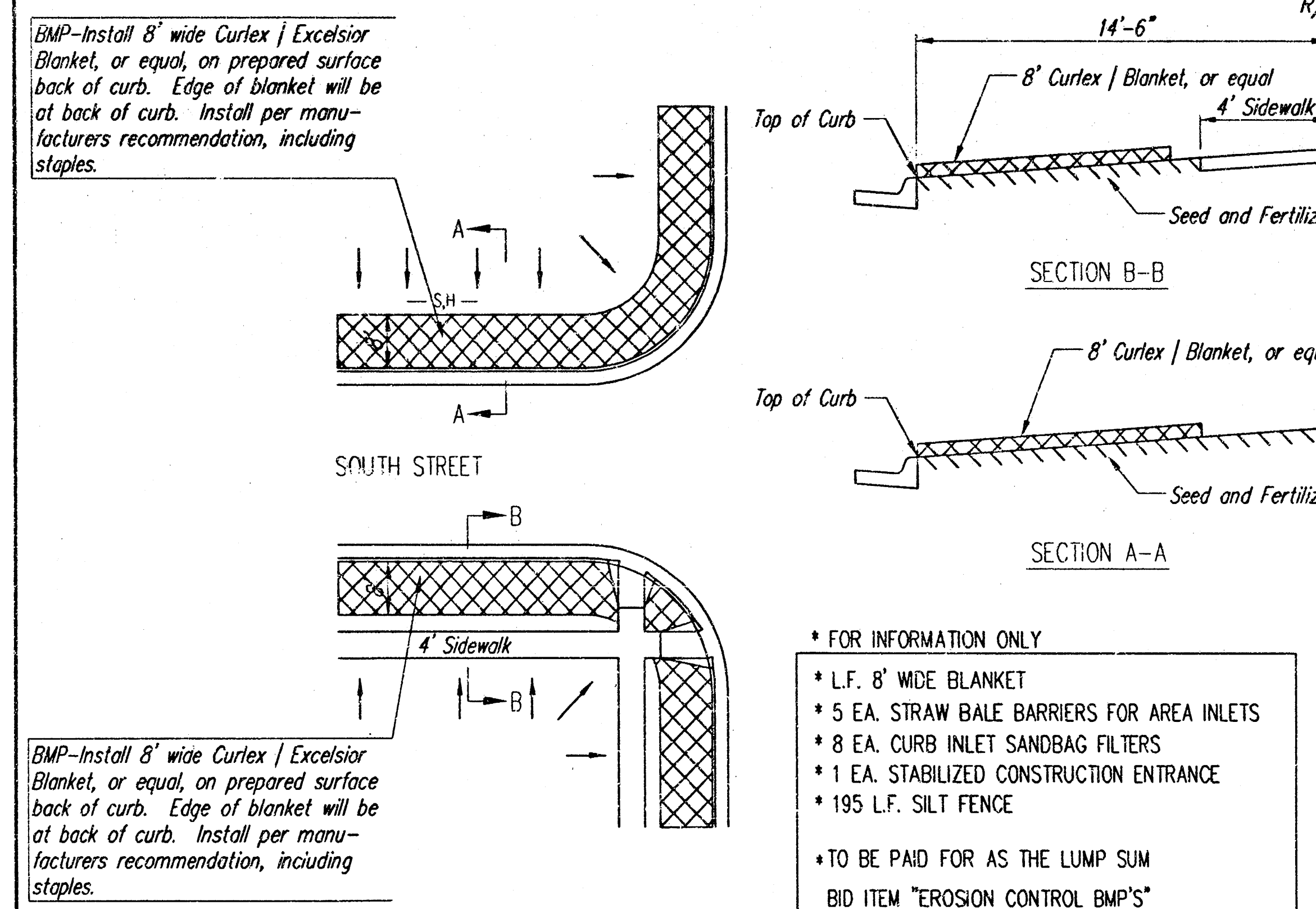


1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL BMP'S INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
2. CURB OPENING INLET PROTECTION:
A. SUMP AREAS - INLET PROTECTION SHALL BE PROVIDED 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 GUTTER.
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.

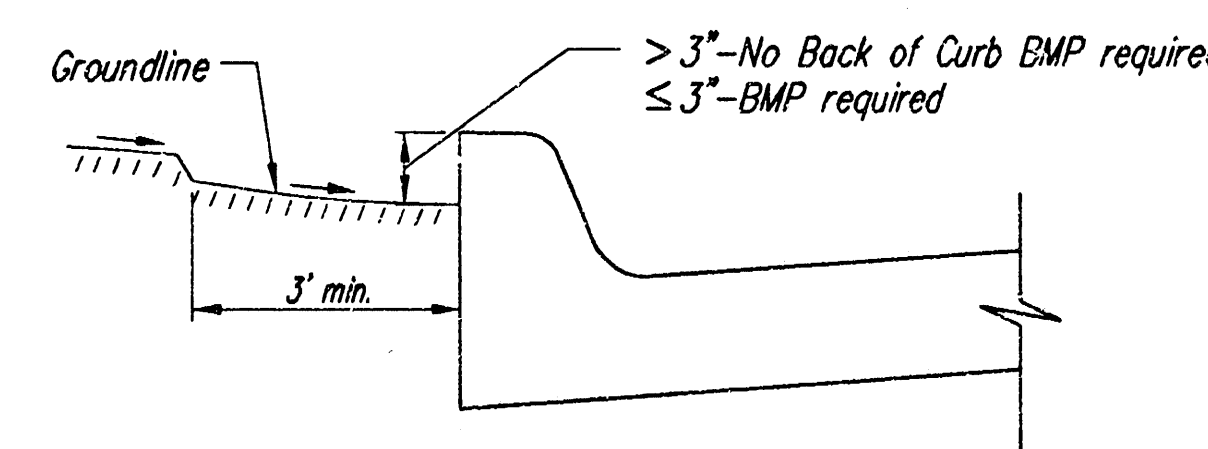
PHASE 2 - INSTALLATION OF STORM SEWER



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.



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.



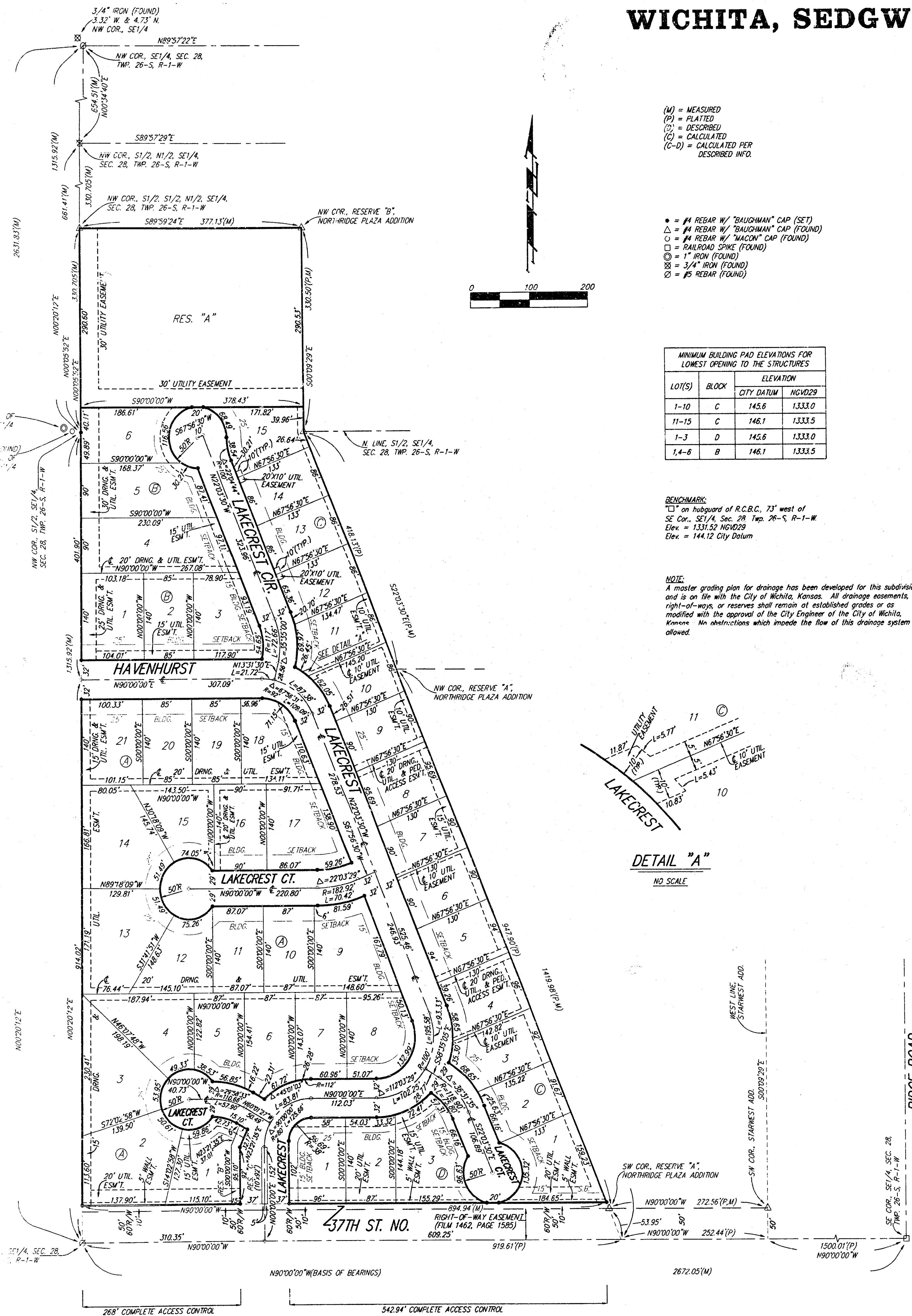
SOIL EROSION BMP'S SUBDIVISION DEVELOPMENT PROCESS

CHRISTOPHER M. CARRIER, P.E.
STORM WATER ENGINEER

PROJECT NUMBER 468-83737 DLA NO. 751350

DATE FEB 2004 SHEET 11 OF 12

RIDGE ADDITION WICHITA, SEDGWICK COUNTY, KANSAS



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
plotted "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 N1/2 of the 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.

_____, Surveyor
Michael G. Conrey

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

_____, President
Kevin M. Mullen

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'l. 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'l. 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

_____, Chair
Bernard A. Hentzen

_____, Secretary
Dale Miller

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

_____, Mayor
Carlos Mayans

_____, City Clerk
Pat Graves

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

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

_____, County Clerk
Don Brace

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

_____, Register of Deeds
Bill Meek

_____, Deputy
Linda Kizzire

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING

14-03-01-00