

STORM WATER SEWER IMPROVEMENTS

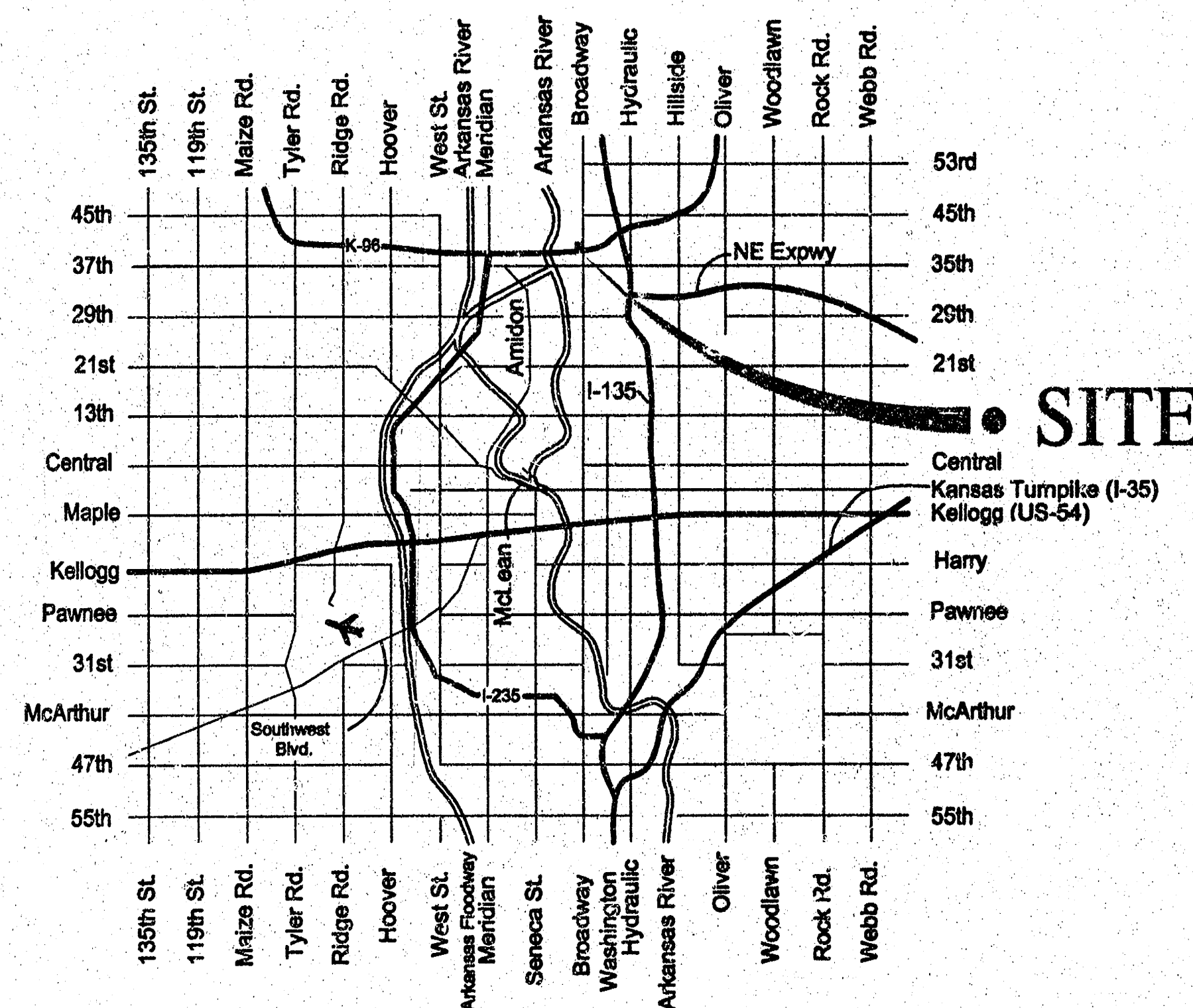
to serve

KRATZKE'S ADDITION

Private Project No.
12576 PPS

OCA No.
607861

VICINITY MAP

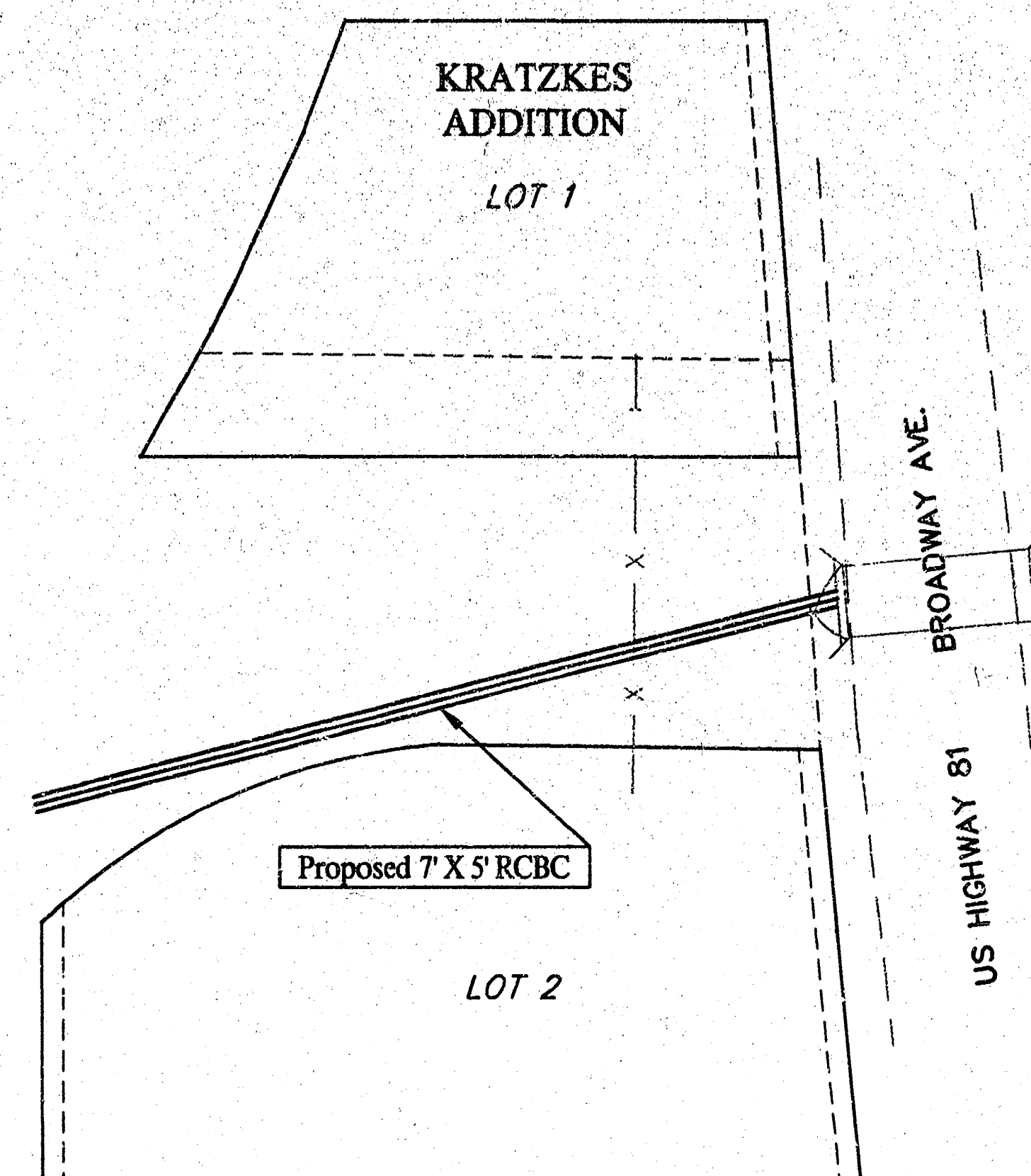


CITY OF WICHITA, KANSAS
Michael E. Lindebak, P.E. City Engineer

JULY 2002



Scale: 1" = 75'



BENCHMARK:

BM #1 - Site Bench Mark Set "□"
on C. of East Headwall
of Existing RCBC Under
US Highway 81, Broadway Ave.
Elev. = 137.77 (City Datum)

INDEX

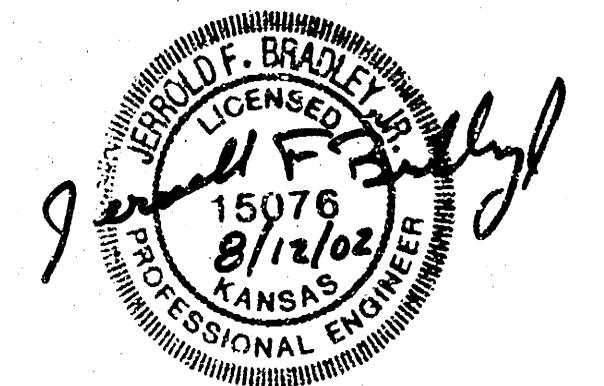
Title Sheet	1
Notepage	2
RCBC Typical Section & Detail	3
RCBC Plan and Profile	4
RCBC Details	5-6
Manhole Ring and Cover Detail	7
Copy of Plat	8

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

URH 8/26/02

NOTE TO CONTRACTORS

Installation, inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).



As Built 1/03 KK

F:\ENG\KRATZKE\DWG\TITLE

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

GENERAL NOTES

1. The Contractor shall give all property owners and/or tenants of developed property abutting the project limits a minimum of ten (10) days advance notice prior to start of construction.
2. Contractor will be required to provide a minimum advance notice of forty-eight (48) hours to utility companies prior to excavation or working adjacent to utilities. Kansas One-Call 687-2470
3. Existing utilities and their locations, as shown on the plan, represent the best information obtainable for design. The Contractor shall be aware that construction will occur in close proximity to existing utilities, and any conflicts with such utilities shall be reported to the Engineer.
4. All project waste including any trees, milled asphalt, rubble from miscellaneous structures, abandoned pipes, excess excavation & etc. shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.
5. Prior to bidding the project, each bidder shall visit the site and satisfy himself of surface & subsurface conditions. Each bidder shall also fully inform himself as to the extent of the scope of work to be performed. Each bidder shall also be aware that no additional compensation will be awarded for extra work that should have been evaluated prior to bidding.
6. All Reinforced Concrete Box Culverts (RCBC) and manholes shall be pre-cast, unless otherwise noted. The RCBC shall conform to ASTM C-850 Standards for loading. The bedding shall be 3/4" Dolese Stone conforming to ASTM C-33, Gradation No. 67. Contractor shall provide the Engineer with shop drawings of the structures for approval prior to construction.
7. Contractor shall be responsible for implementing erosion control methods during construction to prevent unnecessary silt/sediment discharge through downstream properties and/or storm sewer systems. Contractor shall install and maintain erosion controls. These controls may include but not limited to: hay bales; silt fences, temporary mulching or other controls necessary to inhibit sediment runoff during construction.
8. The Contractor shall not start work on the Project until the Project Inspector is assigned and is present on site. Any work done without inspection will be required to be uncovered for inspection. Staking and inspection for this Project will be performed by Baughman Co.
9. The Project is subject to a ~~SWPP~~ SWPP Plan. The Contractor shall comply with any unusual requirements necessary for the site to be in compliance during construction.
10. The Contractor shall comply with all applicable safety regulations and City of Wichita Specifications and Standards.

LIST OF UTILITY COMPANIES

TYPE	OWNER	CONTACT	TELEPHONE	(ALT.)
Locator Service	Kansas One-Call		687-2470	800-344-7233
TV	Cox Communications (Cable)	Mark Anaya	262-4270	262-0661
Electric	Westar Energy	Steve Finley	261-6514	261-6774
Gas	Kansas Gas Service	Charlene Lawless	383-8600	832-3121
Telephone	Southwestern Bell Telephone	Bob Ally	268-2245	800-344-7233
Water	Wichita Water Department	Bill Perkins	268-4555	268-4514
Storm Water Sewer	Wichita SWS Maintenance	Mr. Channings	268-4095	
Sanitary Sewer	Wichita Sewer Maintenance	Calvin Fugit	268-4025	268-4071

PROJECT NUMBER 1257 PPS		SHEET NAME NOTEPAGE		ENGINEERING DIRECTORY F:\Eng\Kratzkes\dwg\	
DESIGN ATD	DRAWN ATD	APPROVED JFB	DATE July 2002	SCALE None	BAUGHMAN NO 02-03-E260
GENERAL NOTES			Kratzkes Addition STORM WATER SEWER IMPROVEMENTS		
BAUGHMAN COMPANY, P.A. ENGINEERING, SURVEYING, & PLANNING 316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211					SHEET 2 OF 8

FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS			12	26

GENERAL NOTES

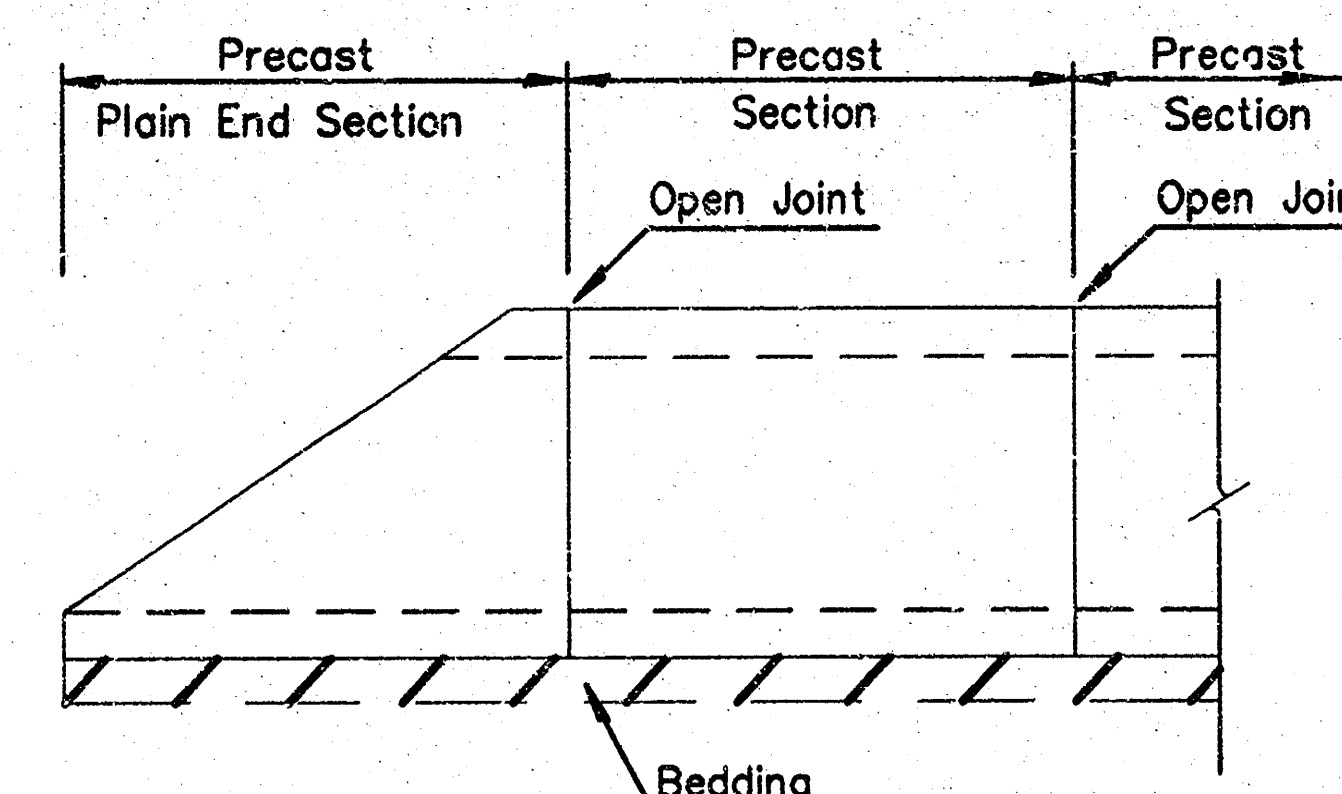
PRECAST BOX CULVERTS: If precast boxes are specified, construct them at the locations shown in the plans and according to the requirement shown on this sheet. When approved by the Engineer, precast box culverts may be used in lieu of cast-in-place box culverts. If the Contractor chooses the precast option, use the cast-in-place quantities as the cost basis. This cost includes all labor equipment, material and incidentals necessary to complete the installation.

Unless otherwise approved by the Engineer, use cast-in-place collars at horizontal and vertical changes in RCB alignment. Use cast-in-place end sections and wingwalls except as noted on this sheet. The Engineer may require cast-in-place sections at junctions of drainage structures.

Cast-in-place concrete work shall conform to the requirements of the KDOT Specifications and KDOT's "Guidelines for Structural Design and Detail of Reinforced Concrete Box Culverts". Use Class AAA concrete and Grade 60 reinforcing steel conforming to ASTM A615M for cast-in-place construction.

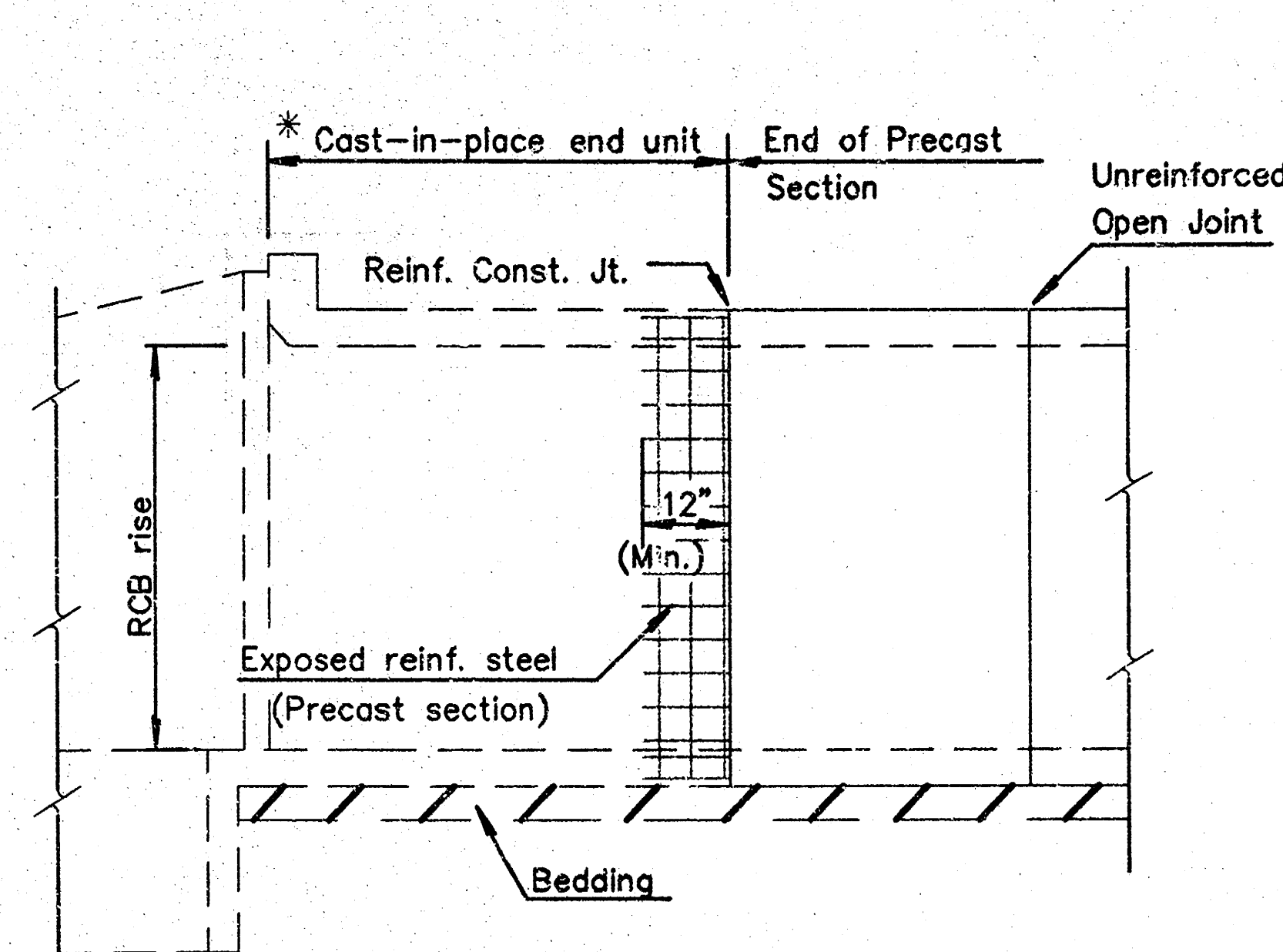
SPECIFICATIONS: Single-cell Precast Concrete Box Culverts shall conform to the requirements of the following specifications except as noted in the KDOT Specifications. Design multiple-cell precast boxes in accordance with the criteria used to develop the single-cell precast boxes. (See Appendix of ASTM Specification C 1433, Table 2 and the latest AASHTO Specifications.)

DISTRIBUTION SLAB: Fill heights less than 2 feet require a distribution slab. Precast distribution slabs may be used for fill heights over 1 foot, otherwise use cast-in-place.



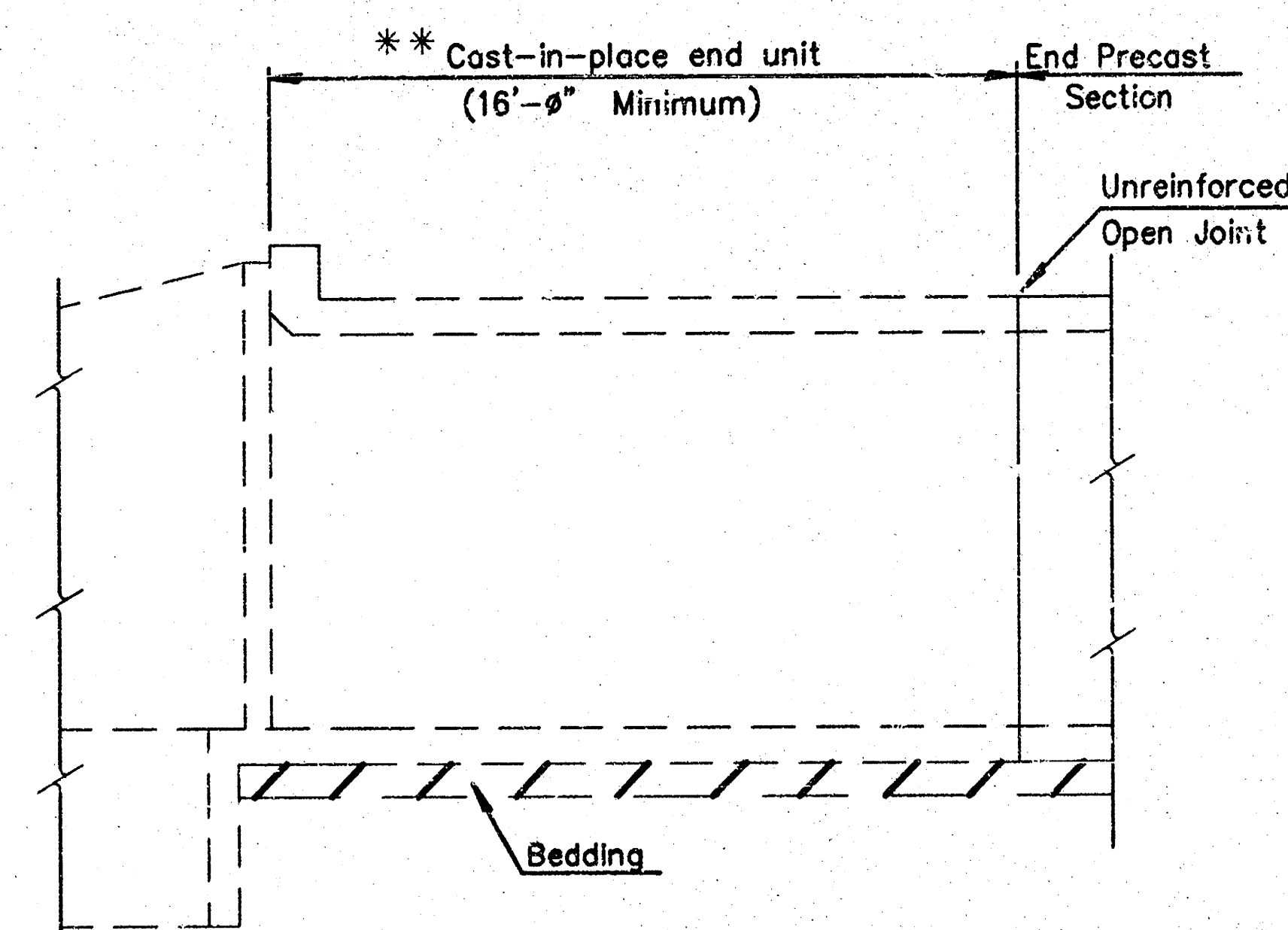
ELEVATION AT PRECAST END SECTION

(Precast End Sections are permitted where straight wings are shown in the plans or at the downstream end for single cell RCB with a rise of six feet or less.)



ELEVATION AT HEADWALL

* Minimum barrel length of cast-in-place end unit shall equal the RCB rise or 8'-0", whichever is less. This length can be used when the joint between the cast-in-place end unit and the precast section is reinforced as shown.



ELEVATION AT HEADWALL

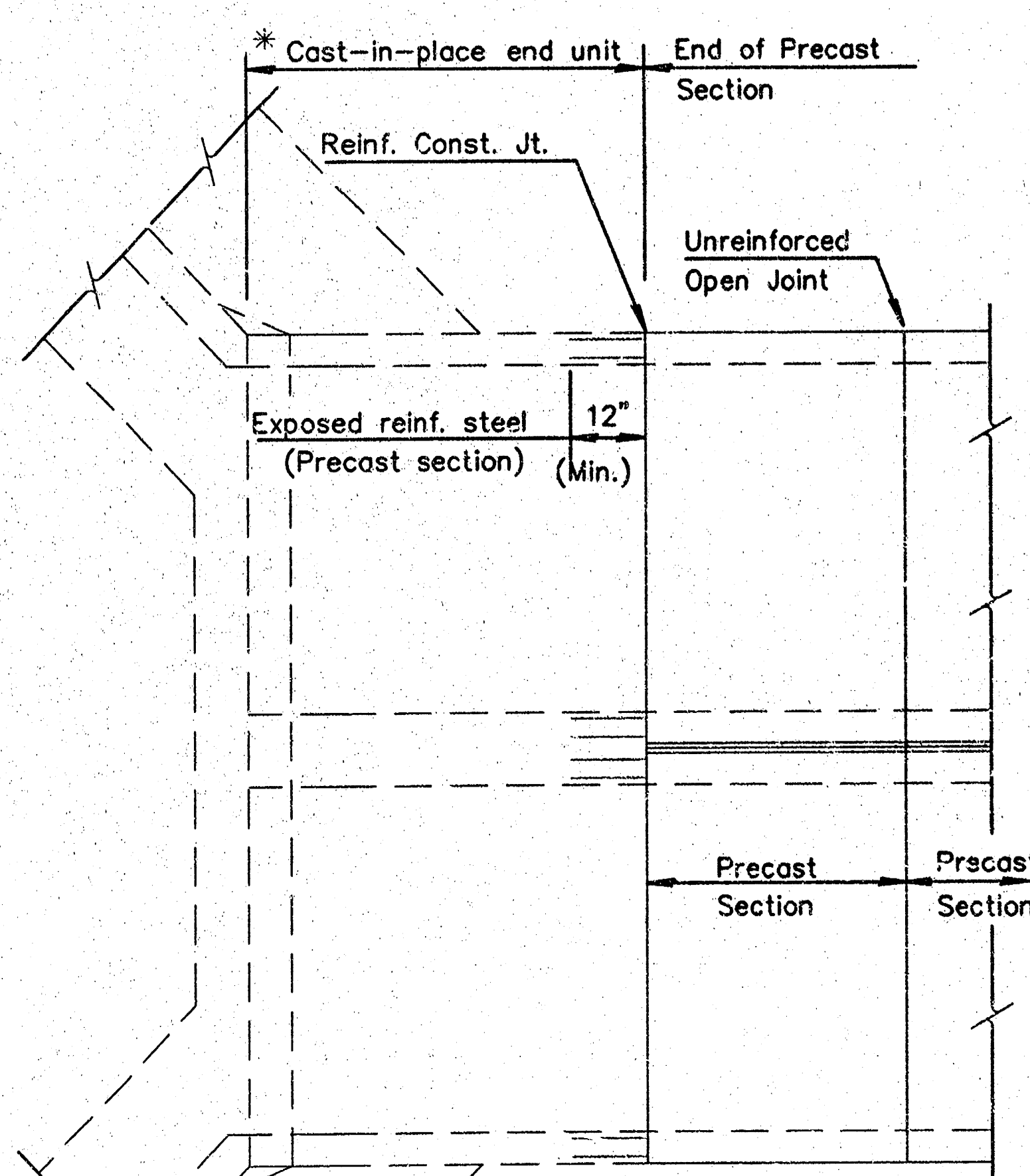
** Minimum barrel length of cast-in-place end unit shall be 16'-0" when using an unreinforced open joint at the end of the precast section.

NOTE: See "Bridge Excavation" sheet, (Std. No. BR100), for excavation details and basis of payment.

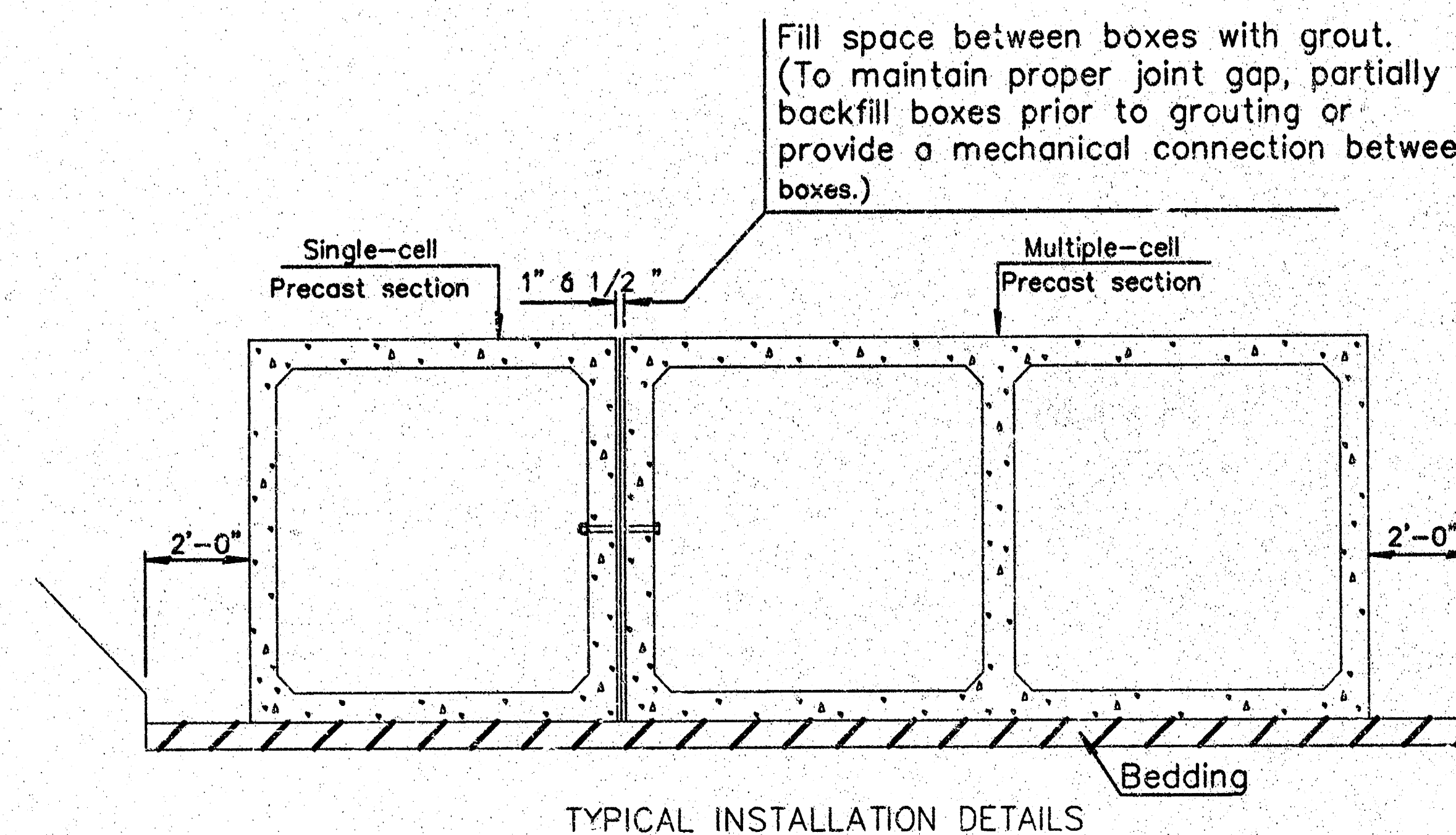
NOTE: Minimum length of precast section shall be 4'-0".

NOTE: A single cell box of equivalent area may be substituted for a double cell box with cell spans less than or equal to 6'-0". Two single cell boxes may be substituted for a double cell box, when approved by the Engineer.

NOTE: See respective RCB Standard Sheets for cast-in-place details.

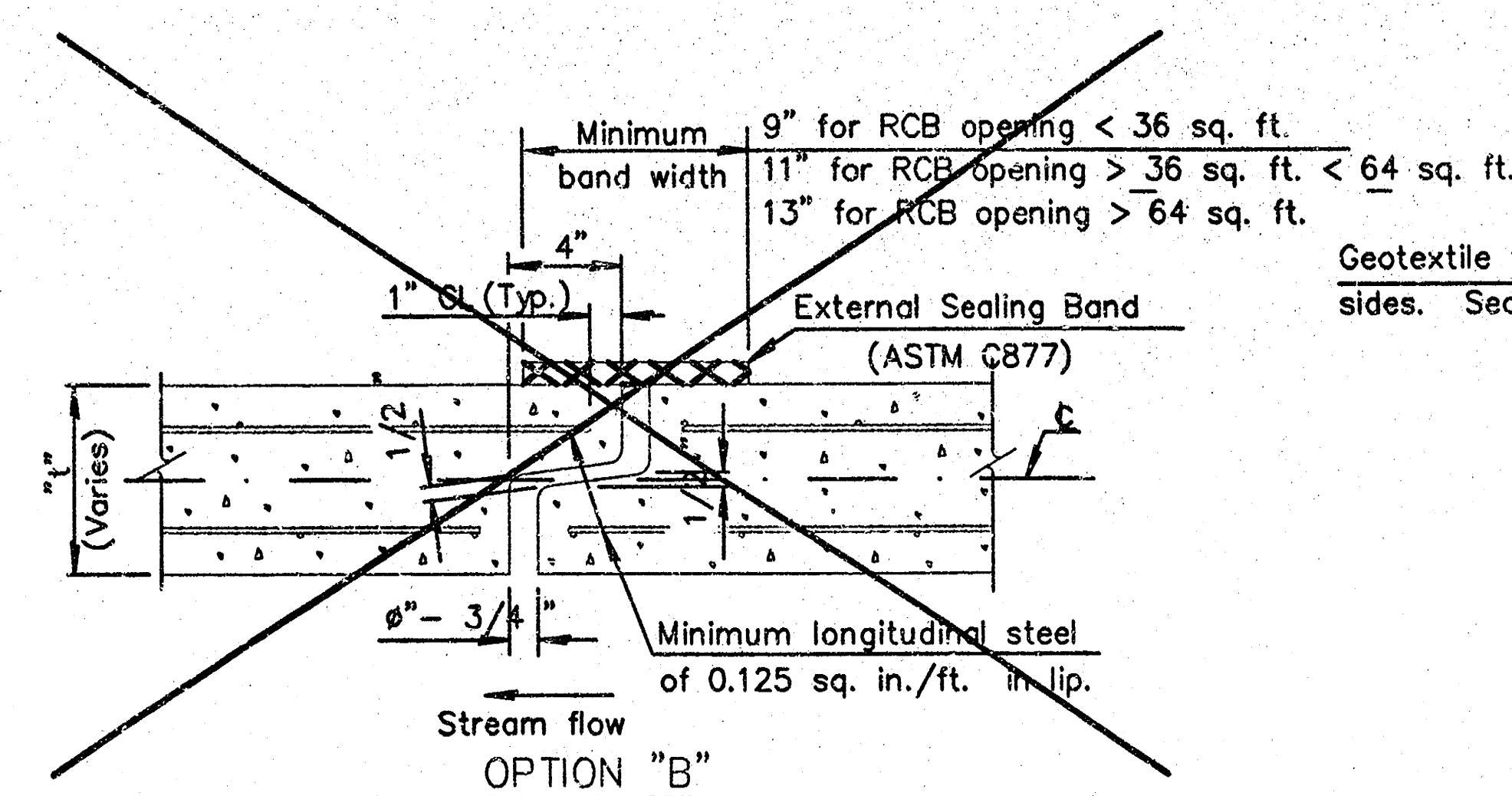


PLAN AT HEADWALL (Double culvert installation shown)

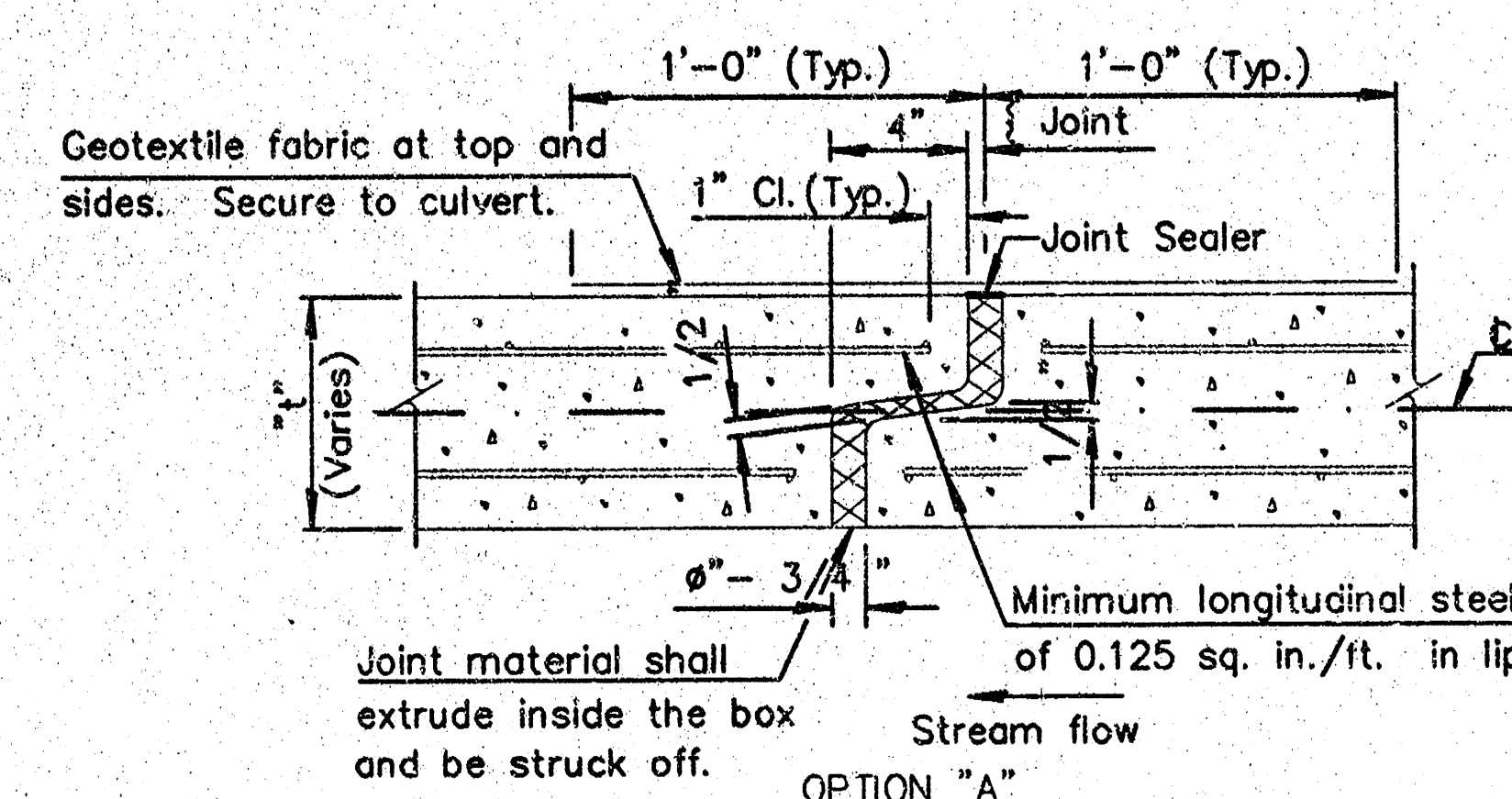


TYPICAL INSTALLATION DETAILS

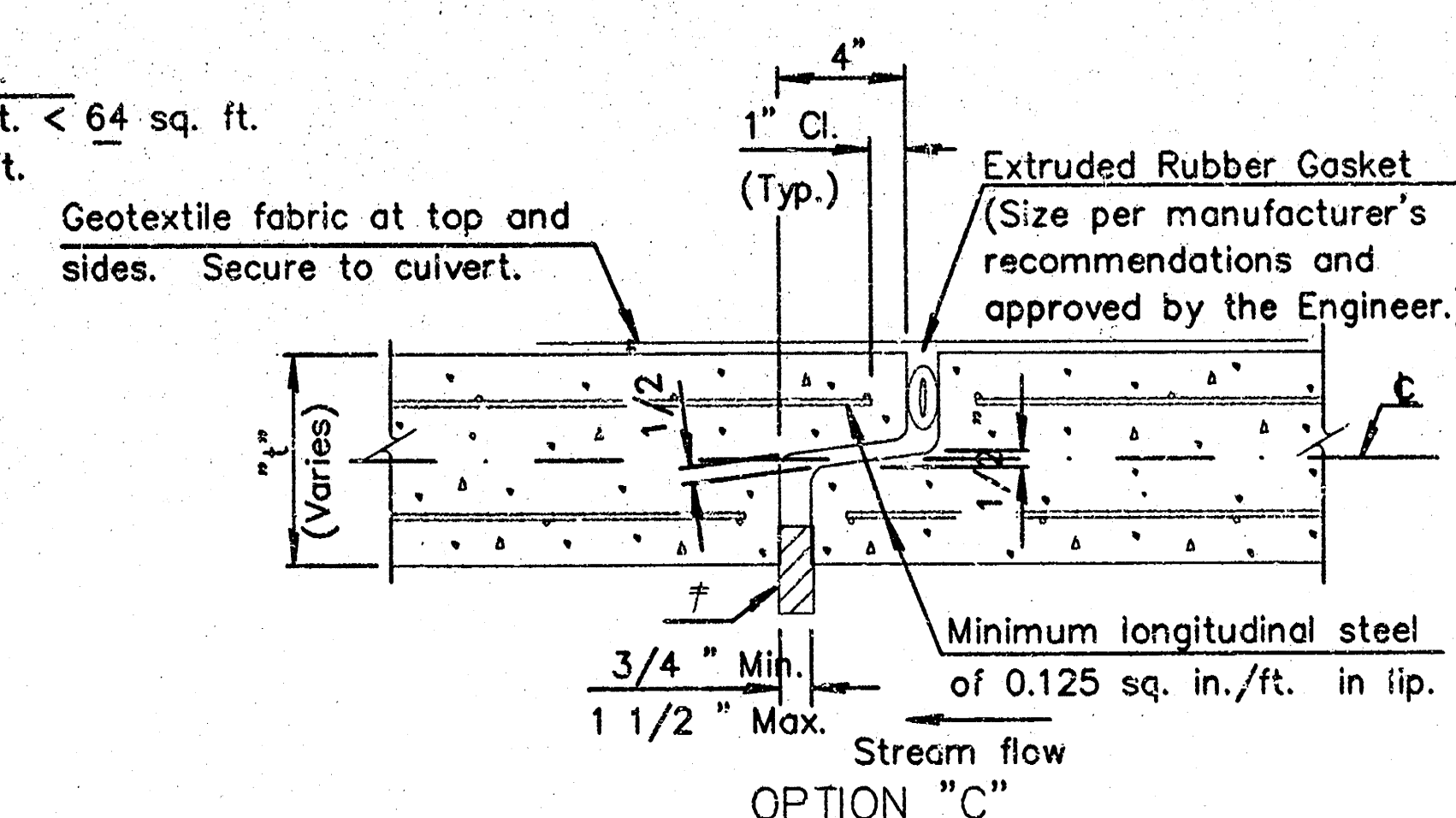
Fill space between boxes with grout. (To maintain proper joint gap, partially backfill boxes prior to grouting or provide a mechanical connection between boxes.)



OPEN JOINT DETAIL



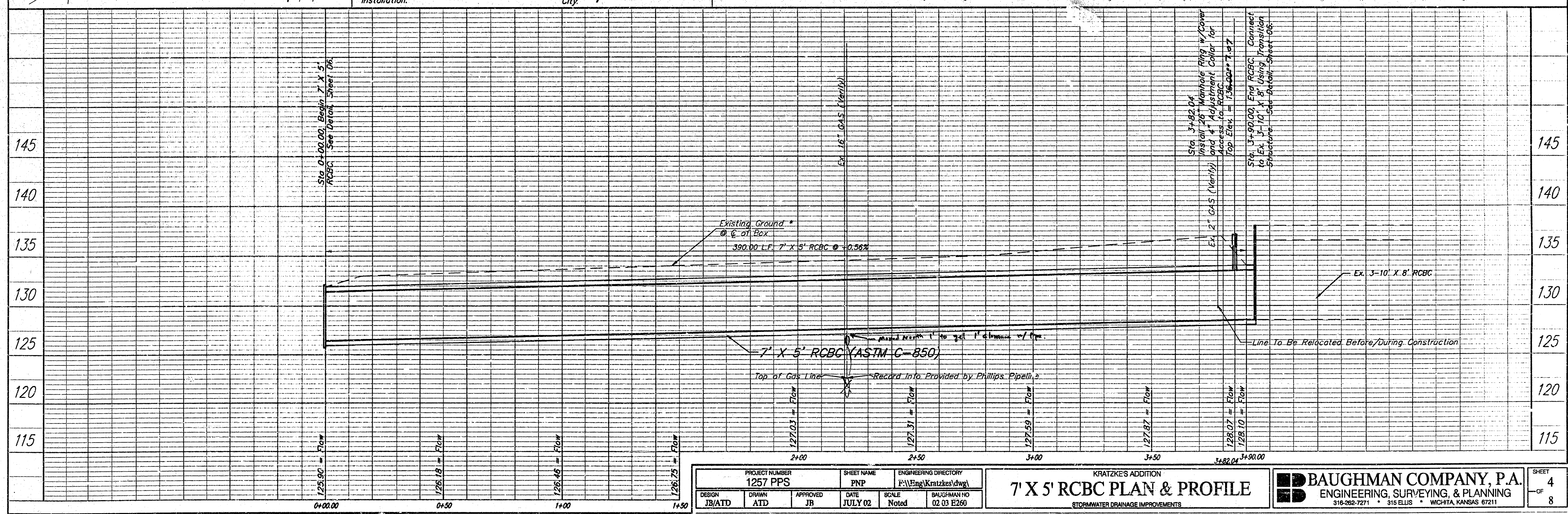
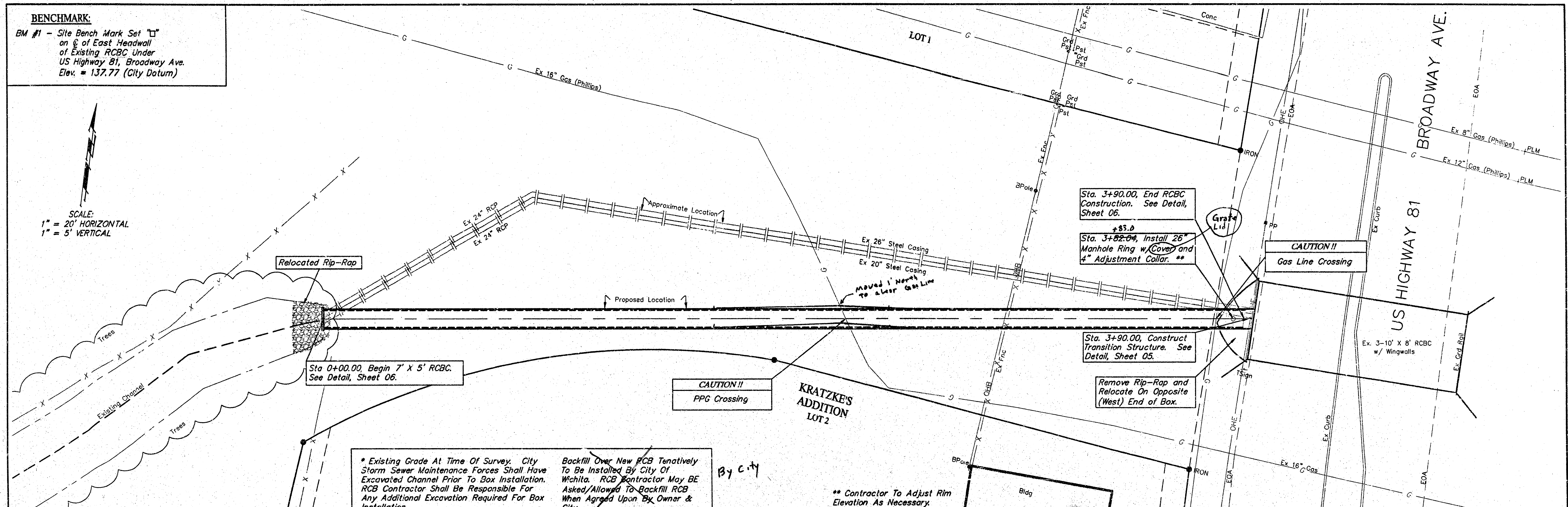
OPTION "A"



OPTION "B"

* Insert temporary, 3/4 "-1" wide, hardwood wedges to prevent over-compressing gasket.

4	11-03-00	Revised ASTM / Added Note	RAM	KFH
3	12-20-96	Revised CIP end unit details.	RAM	KFH
2	1-17-95	Revised general notes	LRR	KFH
1	6-22-94	Added option 'C' & revised notes	RAM	KFH
NO. DATE		REVISIONS	BY	APP'D
KANSAS DEPARTMENT OF TRANSPORTATION				
PRECAST CONCRETE BOX CULVERT DETAILS				
BR034			3/8	
DESIGNED	11-27-00 APP'D	KENNETH F. HURST		
DESIGN CK.	DETAILED	PF QUANTITIES	ICADD	CK.
	DETAIL CK.	RAM QUAN. CK.	ICADD	CK.



PROJECT NUMBER 1257 PPS				SHEET NAME PNP		ENGINEERING DIRECTORY P:\Engineering\Kratzke\dwg\		Kratzke's Addition		7' X 5' RCBC PLAN & PROFILE		BAUGHMAN COMPANY, P.A. ENGINEERING, SURVEYING, & PLANNING 316-282-7271 • 315 ELLIS • WICHITA, KANSAS 67211		SHEET 4 OF 8	
DESIGN JB/ATD	DRAWN ATD	APPROVED JB	DATE JULY 02	SCALE Noted	BAUGHMAN NO 02 03 E260										

Transition Structure shown is Engineer's suggested method. Contractor may propose alternate transition structure, subject to the Engineer's approval.

US Highway 81 Broadway Ave.

Wall shown is 8" X 34" X 10' and is reinforced with #4 bars on 12" centers, running in both horizontal and vertical directions. See detail below. New wall to be connected to existing structure using hook dowels (see detail), this may require box to be installed in reverse.

Dividing walls to be cut at a 45° angle.

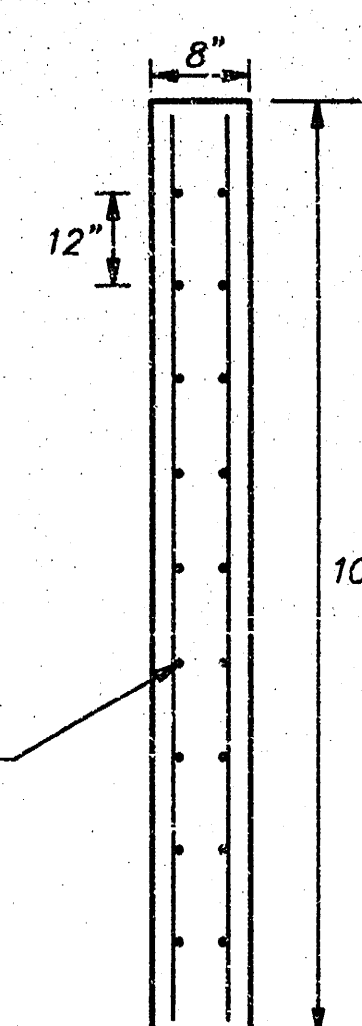
Wall is to be connected to existing wall as well as new RCB using hook dowels as shown. Said dowels to be spaced on 12" centers. Installation of dowels shall include but not be limited to, drilling the holes, cleaning the holes of any particles or dust, and installing the dowels with epoxy.

Box shall be 7'X5' Precast/Cast in Place RCB

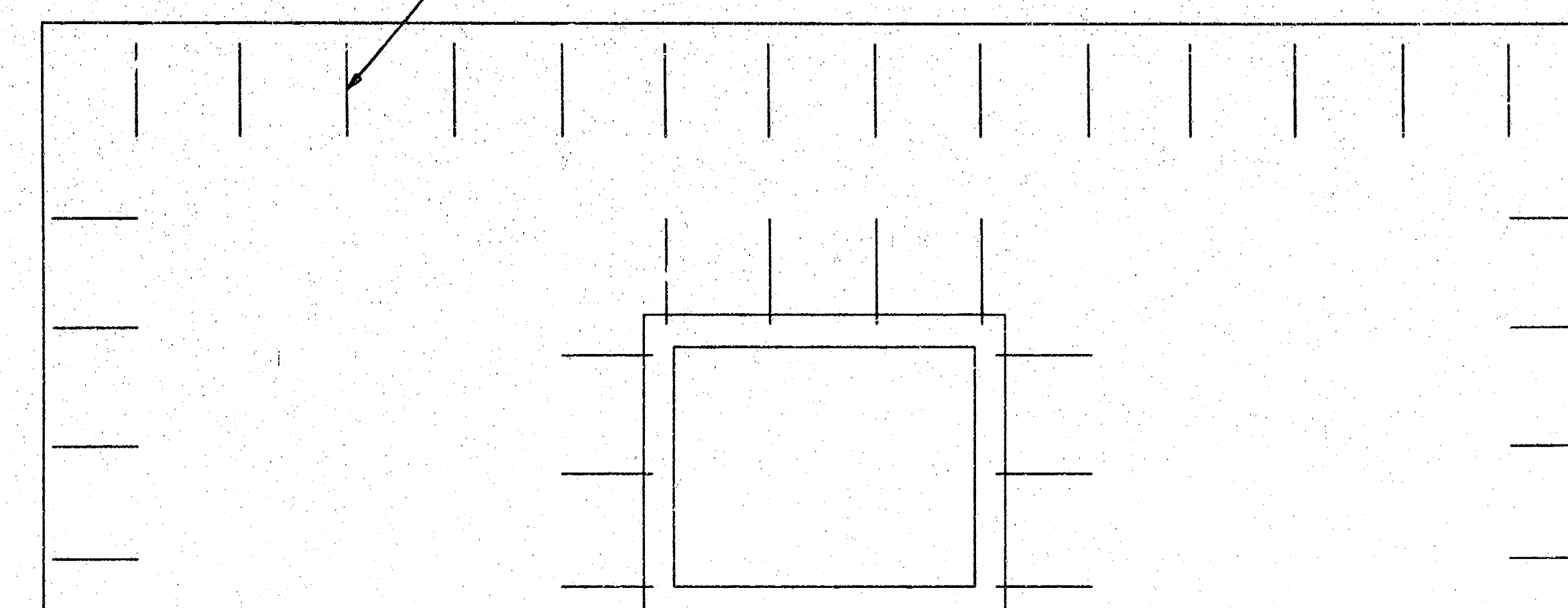
Barrels to be cleaned of any existing debris and/or silt

Isometric View

#4 Bars, Horizontally and Vertically



Vertical Wall
Side View

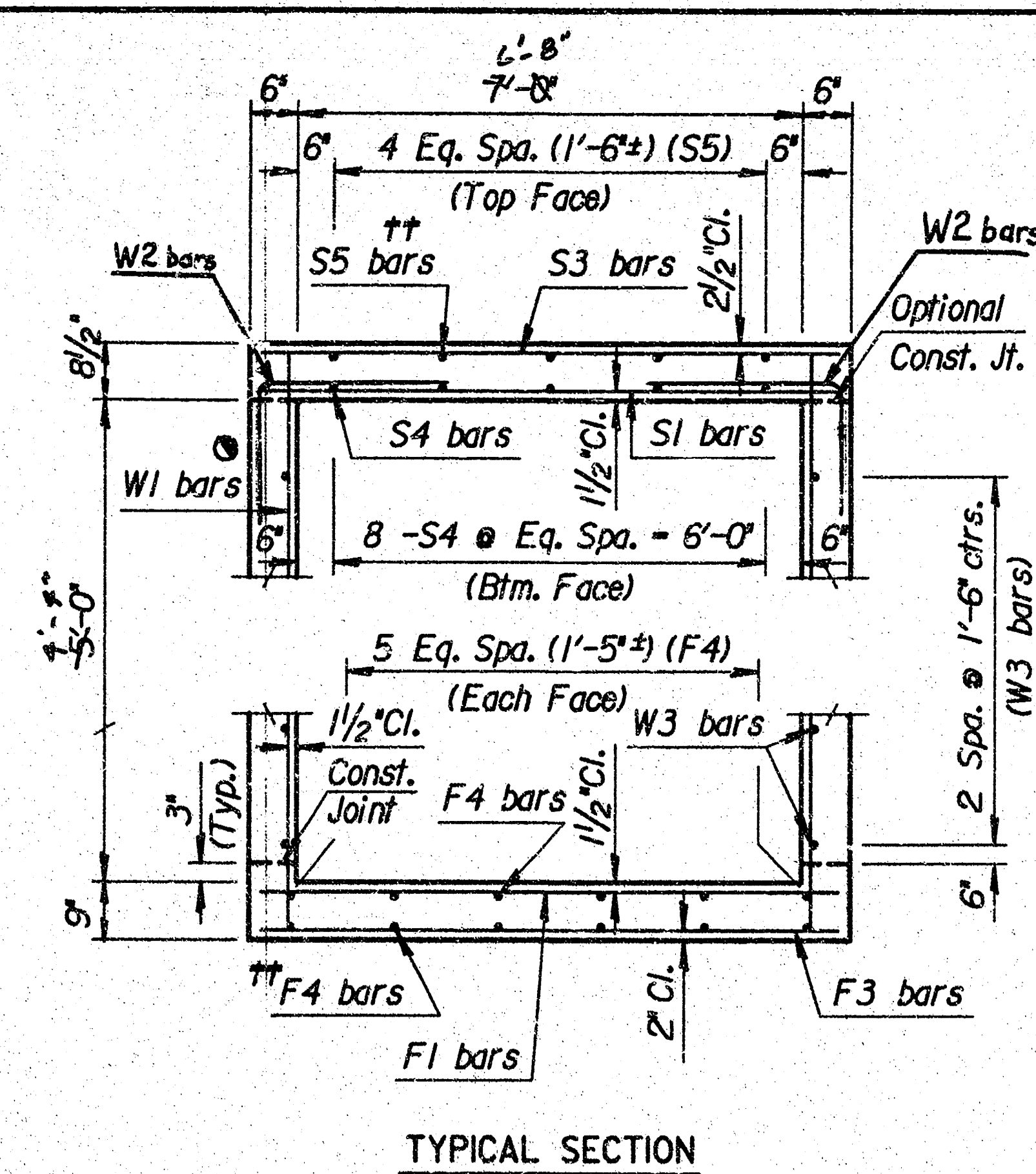
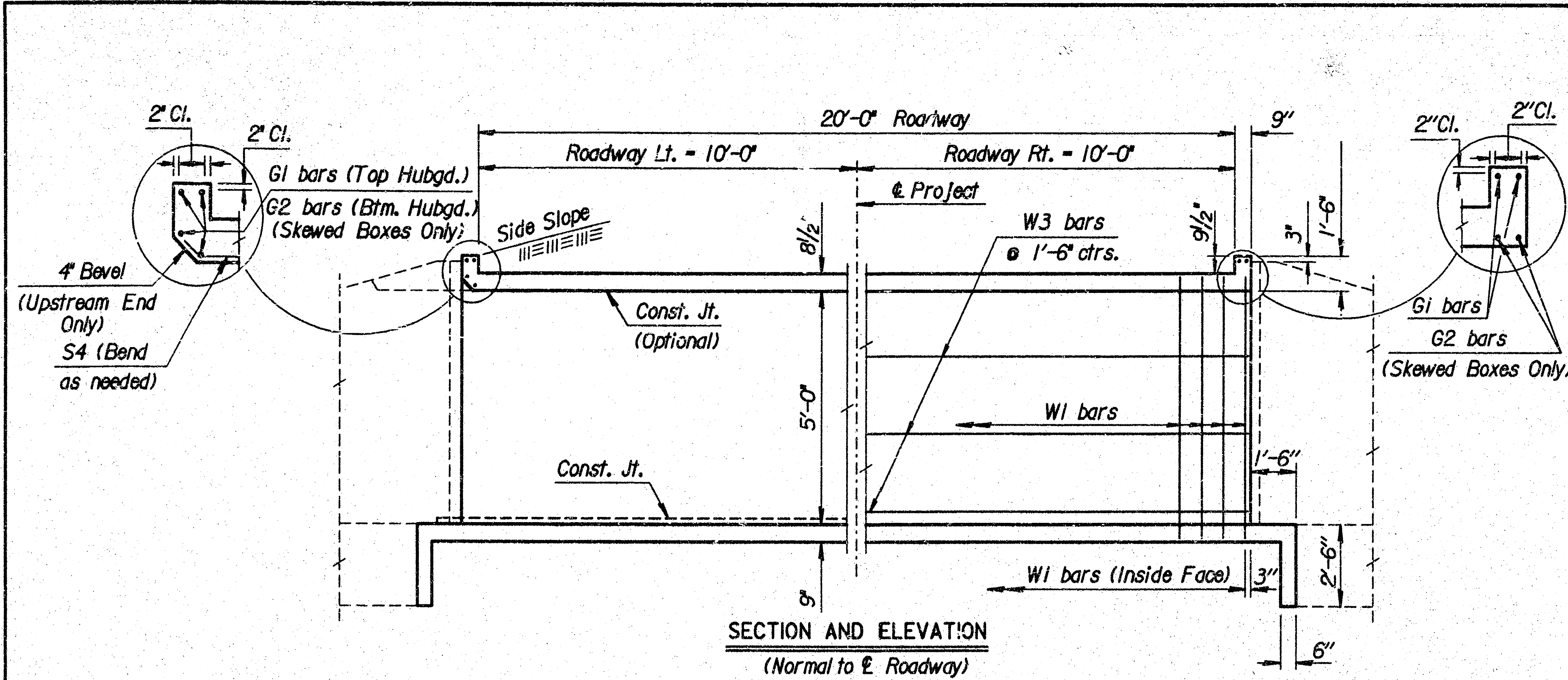


Front View

PROJECT NUMBER 1257 PPS			SHEET NAME Transr		ENGINEERING DIRECTORY F:\Eng\Kratzke\dwg		PRIVATE PROJECT TRANSITION STRUCTURE DETAILS		BAUGHMAN COMPANY, P.A. ENGINEERING, SURVEYING, & PLANNING 319-292-7271 • 315 ELLIS • WICHITA, KANSAS 67211		SHEET 5
DESIGN JB/ATD	DRAWN TA	APPROVED	DATE JULY 2002	SCALE None	BAUGHMAN NO 02-03-E260		KRATZKE'S ADDITION DRAINAGE IMPROVEMENTS				OF 8

DESIGN	CHECK	DATE	DESIGN	CHECK	DATE

thorrell	Witchurst2\proj\Nad\75.dgn	View
09-MAY-2002 15:25		



FWHA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS		19		

See RCB Auxiliary Details for Optional Splice.

Note:
S3 bars omitted unless grade box or slab thickness is greater than or equal to 12".

Note:
F3 bars omitted unless floor thickness is greater than or equal to 12".

†† Omit S5 bars when S3 bars are omitted and omit the bottom layer of F4 bars when F3 bars are omitted.

GENERAL NOTES

LOADING: HS20-44 AASHTO Specifications, 1983 Edition.

UNIT STRESSES: Class AAA Concrete; $f'_c = 4,000$ p.s.i.

Reinforcing Steel; $f_y = 60,000$ p.s.i.

FILL HEIGHT: Unless otherwise noted, the Design Fill Height is measured from the riding surface at the culvert and shall include the surfacing.

CONCRETE: Class AAA Concrete shall be used throughout. Bevel all exposed edges with a $\frac{3}{4}$ inch triangular moulding. Where Class AAA Concrete (AE) is specified, it shall be placed in the top slab above the Construction Joint.

REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. All dimensions relative to reinforcing steel shall be to centerline of bar unless otherwise noted.

EXCAVATION: Excavation for culverts less than bridge length shall not be paid for directly but shall be subsidiary to Class AAA Concrete. Excavation for RCB Bridges shall be paid for as Class III Excavation.

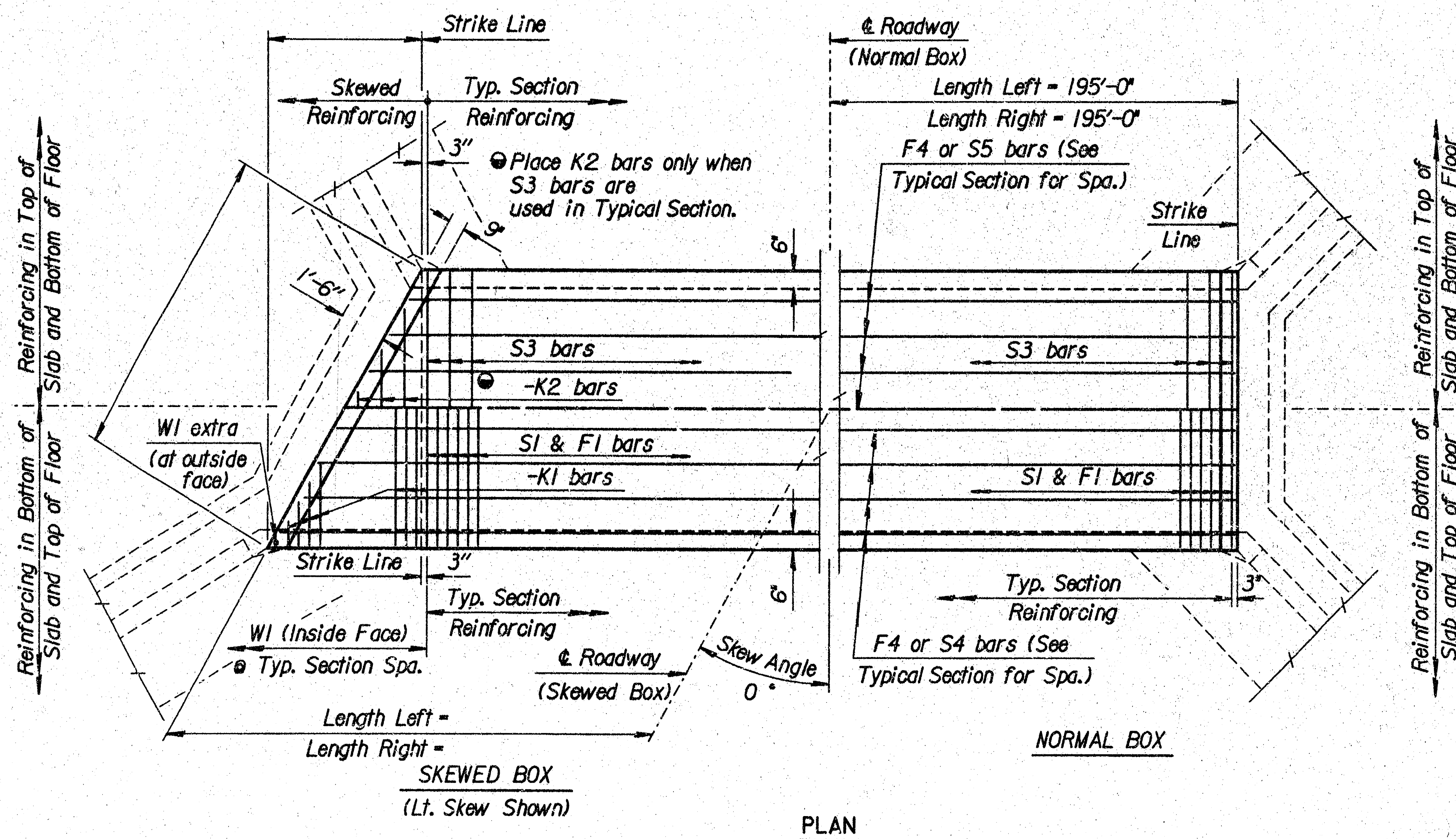
SEAL COURSE: A Seal Course may be required by the Engineer. The Seal Course shall be unreinforced Concrete (Commercial Grade) to a minimum depth of 3 inches or as determined by the Engineer. Concrete for the seal course shall be paid for at the unit price set for Concrete for Seal Courses.

FOUNDATION STABILIZATION: Foundation Stabilization may be required as directed by the Engineer. The depth of Foundation Stabilization shall be determined by the Engineer. Foundation Stabilization shall be paid for at the determined Unit Price set for Foundation Stabilization. See Auxiliary Details.

QUANTITIES: The quantities shown in the Culvert Summary include apron and/or soil saver quantities when their construction is required by the plans. Payment for additional quantities that result from including seal course and/or floating apron, as a change in original plans, shall be made at the Unit Price bid for the various items involved.

GRANULAR BACKFILL (WINGWALLS): Special backfill procedures may be required at the direction of the Engineer. See Auxiliary Details Sheet.

STRIKE LINE: Wingwalls and that portion of the RCB outside the Strike Line shall be constructed level. Footing for wingwalls shall be constructed with the culvert floor. See wingwall detail sheet.



CULVERT SUMMARY													
Flow Line Elev. Lt.	Flow Line Elev. Rt.	Crown Gr. Elev.	Design Fill Ht.	Skew	Left Wings	Right Wings	Scour Apron	Soil Saver	Granular Backfill	Concrete Barrel (Cu.Yds.)	Concrete Wings (Cu.Yds.)	Total (Cu.Yds.)	Reinf. Steel (Gr. 60) (Lbs.)
125.90	128.10	137.00	2	0	NONE	NONE	NO	NO	NO	241.08		241.08	27471.2

△ Epoxy Coated Bars

BAR SCHEDULE																			
F1					F3					F4					△ S1				
Size	Spa.	No.	Length		Size	Spa.	No.	Length		Size	Spa.	No.	Length		Size	Spa.	No.	Length	
6	6 1/2"	720	7'-8"							4	66	36'-8"			6 1/2"	720	7'-8"		
△ K1					△ K2					W1					W2				
Size	Spa.	No.	Length		Size	Spa.	No.	Length		Size	Spa.	No.	Length		Size	Spa.	No.	Length	
										4	8"	1040	6'-2"		4	8"	1040	5'-0"	

Minimum Splice Lengths	
#4	1'-4"
#5	1'-8"
#6	2'-0"

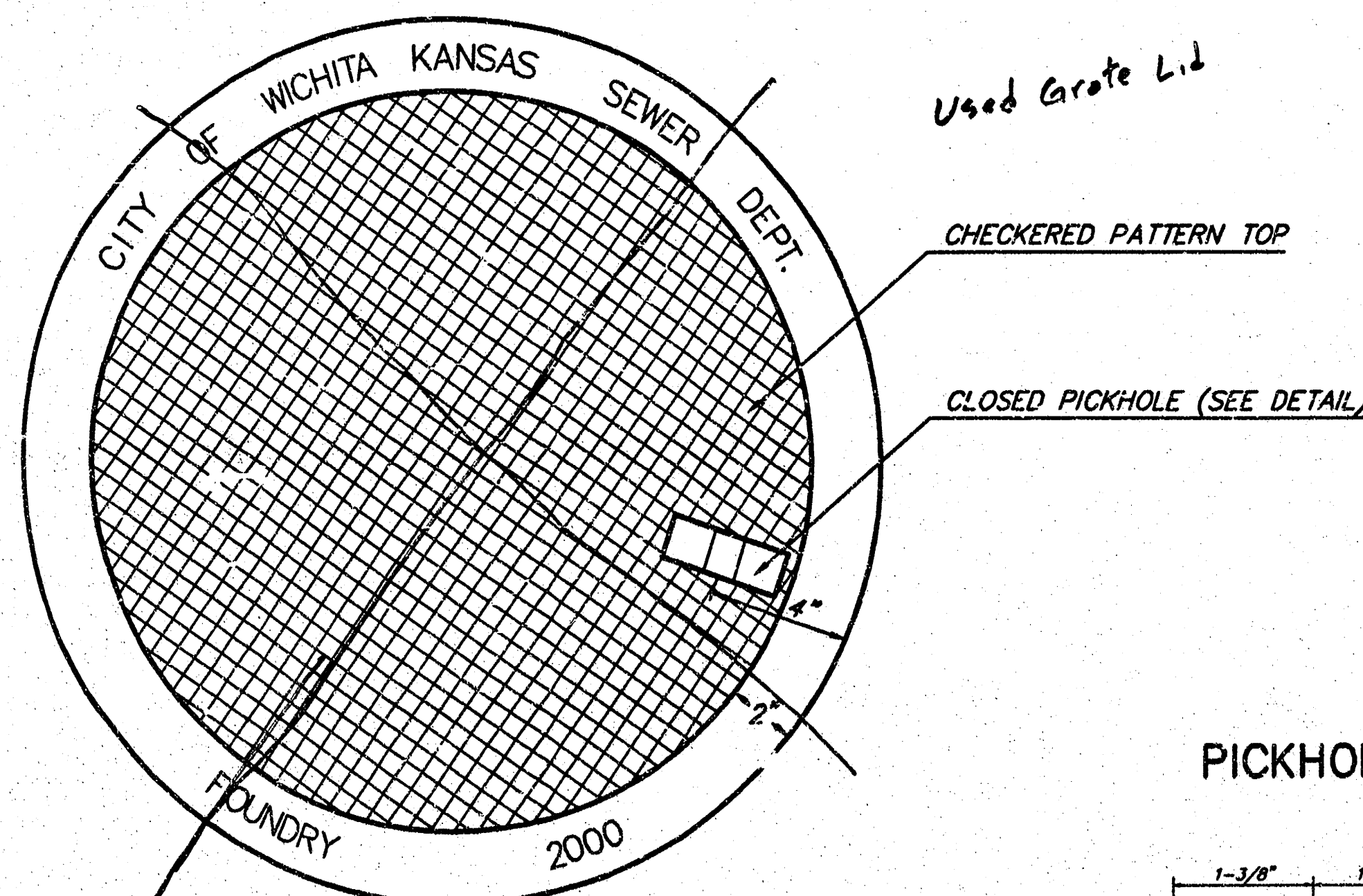
SUMMARY OF QUANTITIES	
Class AAA Concrete	158.9 C.Y.
Class AAA Concrete (AE)	82.2 C.Y.
Reinforcing Steel (Gr. 60)	15840 Lbs.
Reinforcing Steel (Epoxy Coated)	11630 Lbs.
Class III Excavation	C.Y.
Foundation Stabilization (Set)	1 C.Y.
Concrete for Seal Course (Set)	1 C.Y.
Granular Backfill (Wingwalls) (Set)	1 C.Y.

NO.	DATE	REVISIONS	BY	APP'D

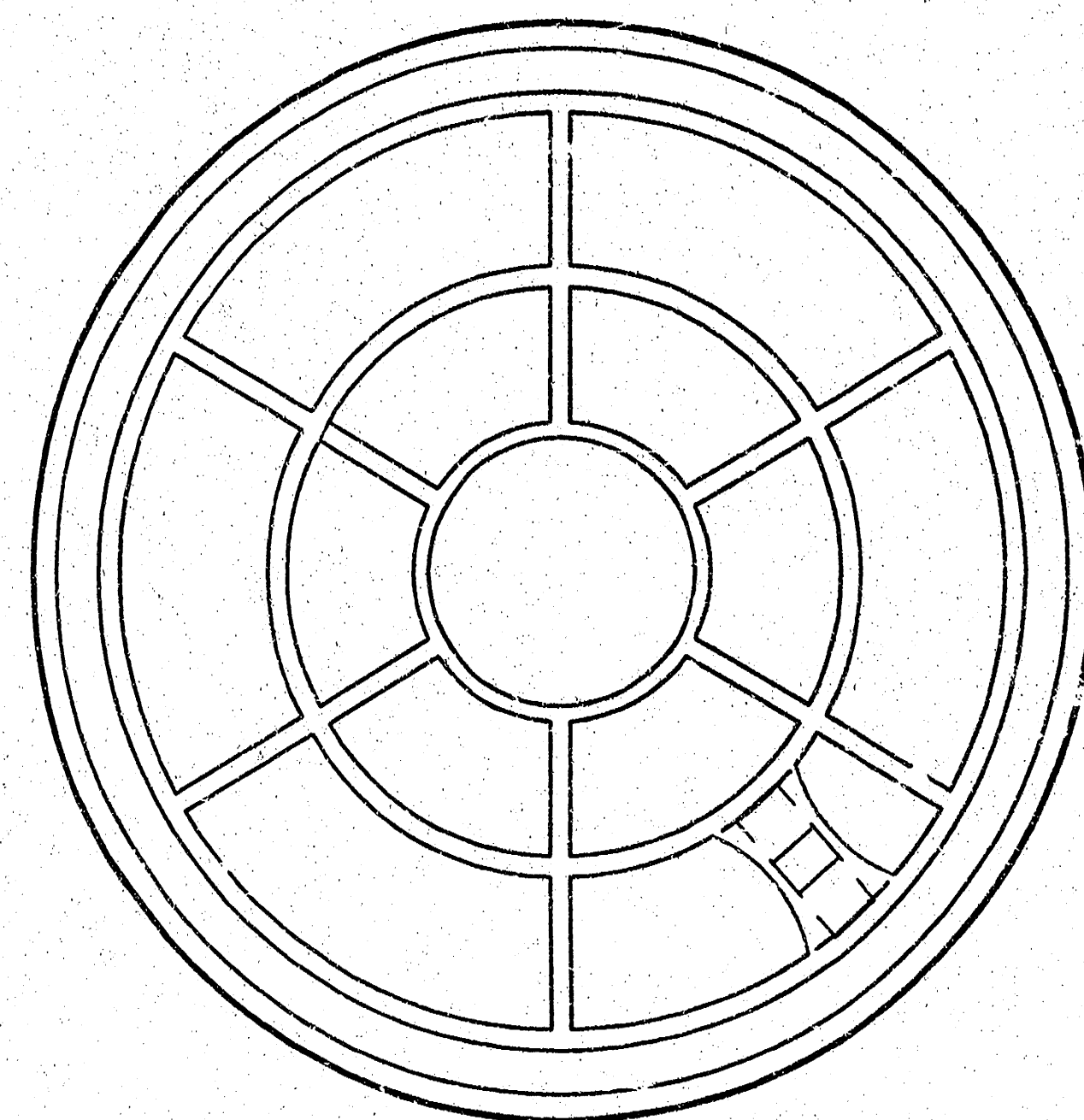
KANSAS DEPARTMENT OF TRANSPORTATION
Sta.
SINGLE 7' x 5' RCB

BR 107-05	SEDGWICK CO.
FWHA APPROVAL	6-5-SI APP'D
DESIGNED	DETAILS
QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.
QUANT. CK.	TRACE CK.

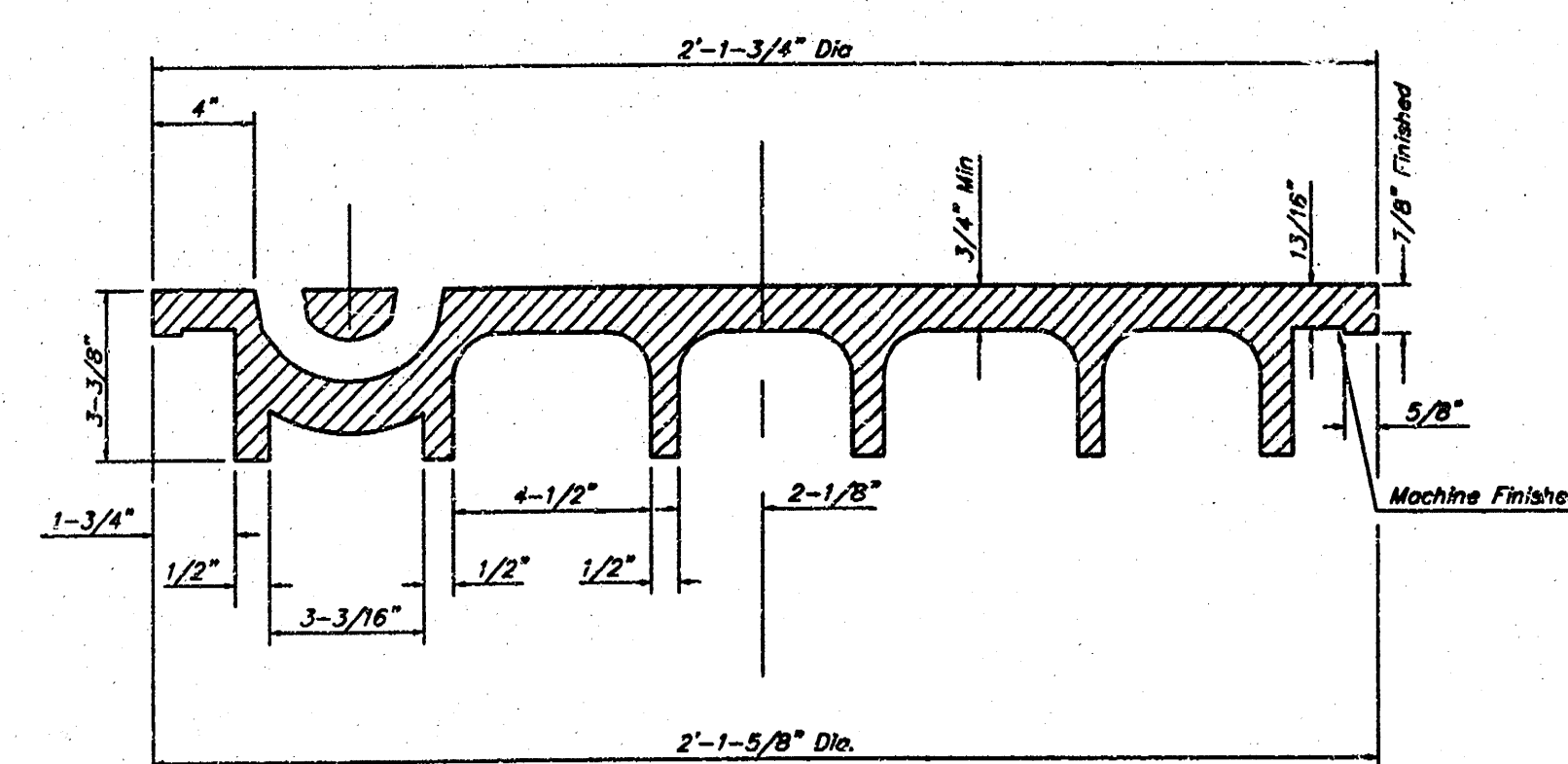
MANHOLE COVER
Weight = 180 Lbs.



TOP VIEW

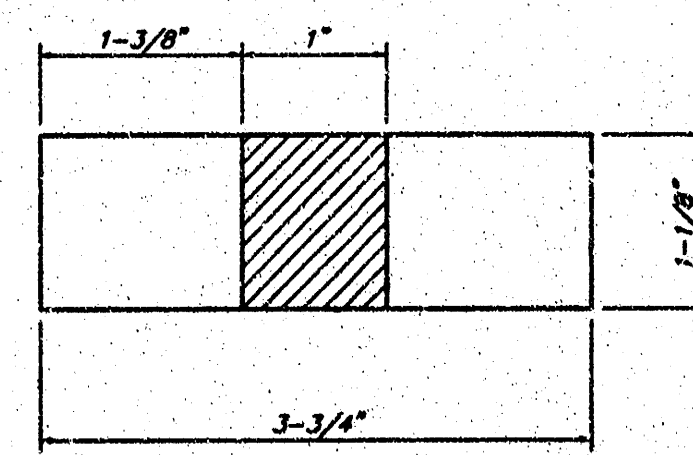


BOTTOM VIEW

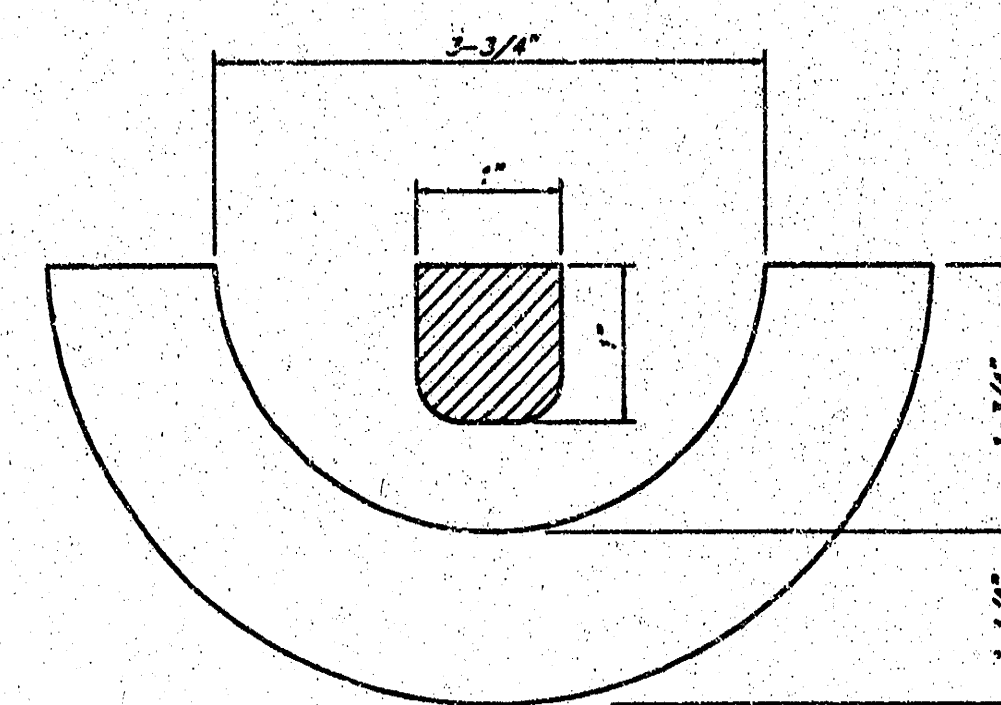


SECTION VIEW

PICKHOLE DETAIL



TOP VIEW

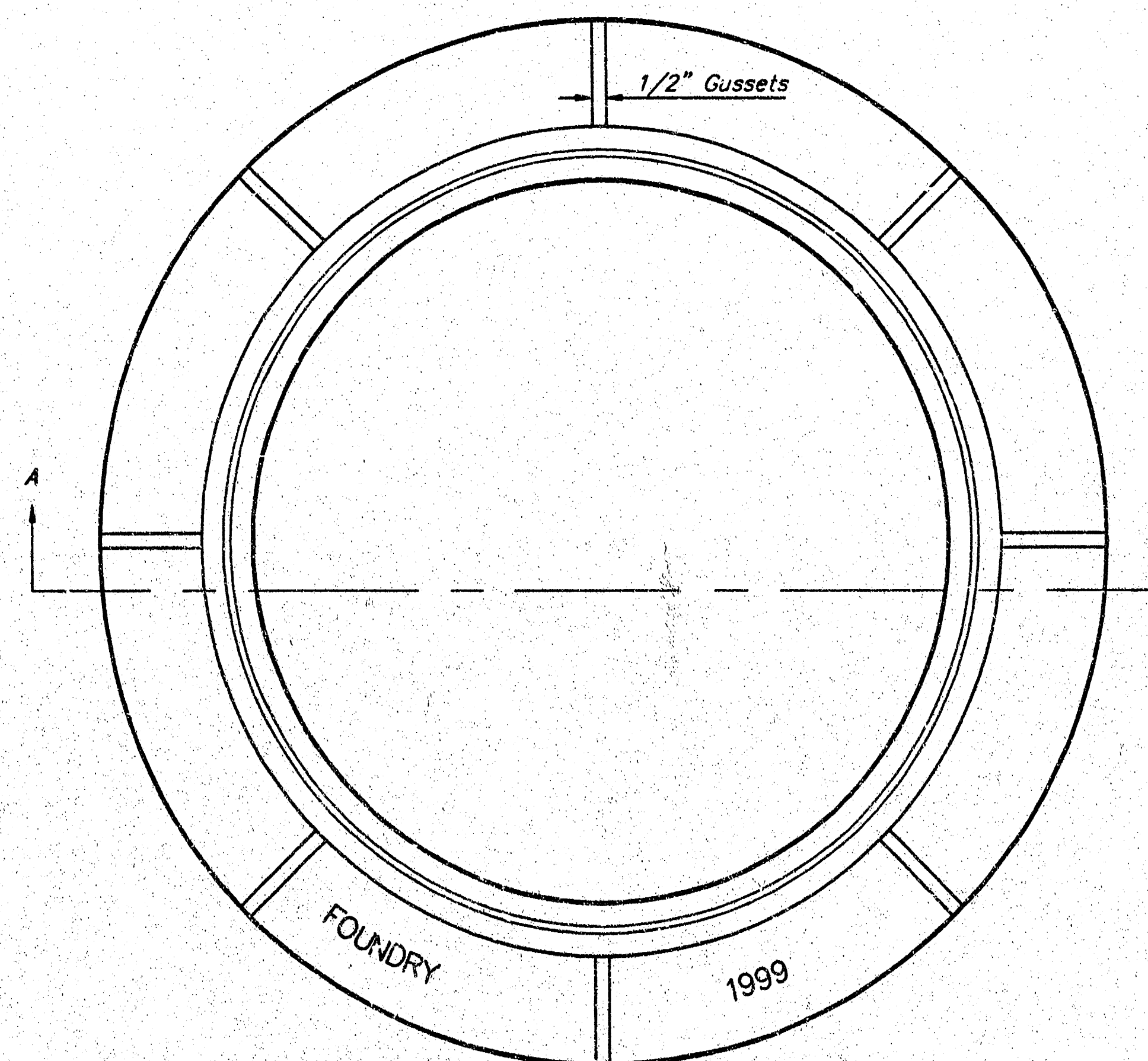


SECTION VIEW

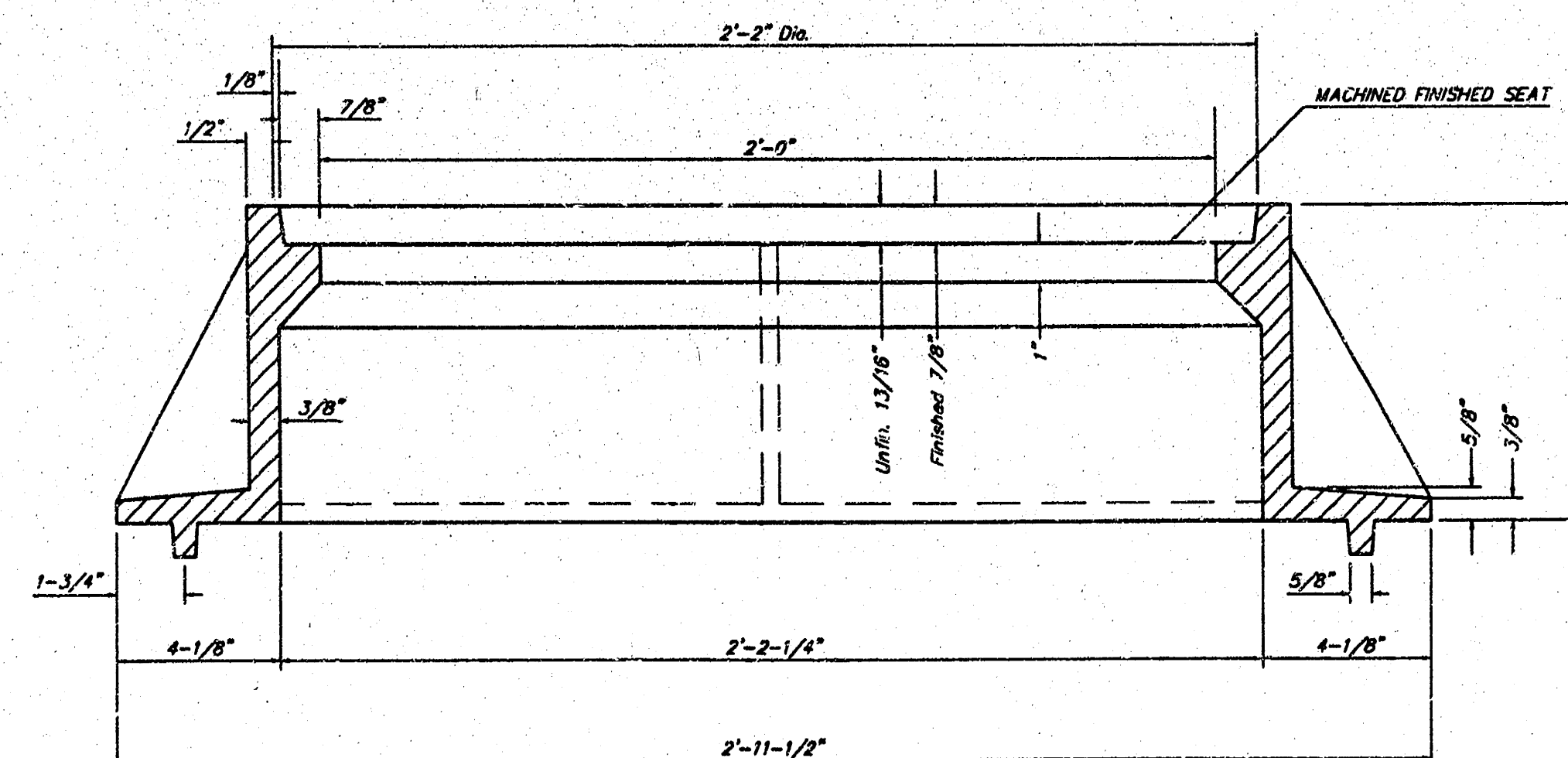
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE FRAME
Weight = 145 Lbs.



TOP VIEW



SECTION A-A

GENERAL NOTES

MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH AS THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

PROJECT NUMBER 1257 PPS			SHEET NAME Mring		ENGINEERING DIRECTORY F:\Eng\Kratzkes\dwg	
DESIGN STAFF	DRAWN STAFF	APPROVED	DATE JULY 2002	SCALE None	BAUGHMAN NO 02-03-E260	

PRIVATE PROJECT
MANHOLE FRAME
AND COVER DETAIL
KRATZKES ADDITION DRAINAGE IMPROVEMENTS

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

SHEET
7
OF
8

WICHITA, KANSAS

Baughman Company, P.A.

Wm. S. Gray Surveyor

Lawrence C. Kratzke

My App't Exp. _____ Christine M. Roberts Notary Public

We, the undersigned, holders of a mortgage on the above described property do hereby consent to this plat of "KATZKE'S ADDITION", Wichita, Kansas.

Chisholm Trail State Bank _____ President
 Robert J. Campbell

This plat of "KRATZKE'S ADDITION",
Wichita, Kansas, has been submitted to and approved by the
Wichita-Sedgwick County Metropolitan Area Planning
Commission, Wichita, Kansas.

Dated this _____ day of _____ 1989.

Chairman

Marvin S. Krout

This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this _____ day of _____ 1985

Robert G. Knight Mayor

City Clerk

Entered on transfer record this
11 day of _____ 1985.

Don Wright 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 11 day of August 1980, at 11 o'clock
 AM and is duly recorded.

Register of Deeds
Bar Kettler

Ed Resa Deputy

PC 9-1

1521 662
299 1251
1521 662
299 1251