

STORM WATER SEWER #359

GENERAL NOTES

- Underground utility service lines and overhead utility pole lines are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor 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. Location information has been obtained from the various utility companies and is either from company record drawings or company provided field locations. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- 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 that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved.
- The Contractor shall give all property owners and/or tenants of developed property directly 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 law.
- All areas disturbed by ditch regrading operations shall be fertilized, seeded, and mulched per City of Wichita standard specifications.
- The Contractor shall provide temporary driveway access to Lot 1, Aldersgate Addition, during the construction period.

BENCHMARKS

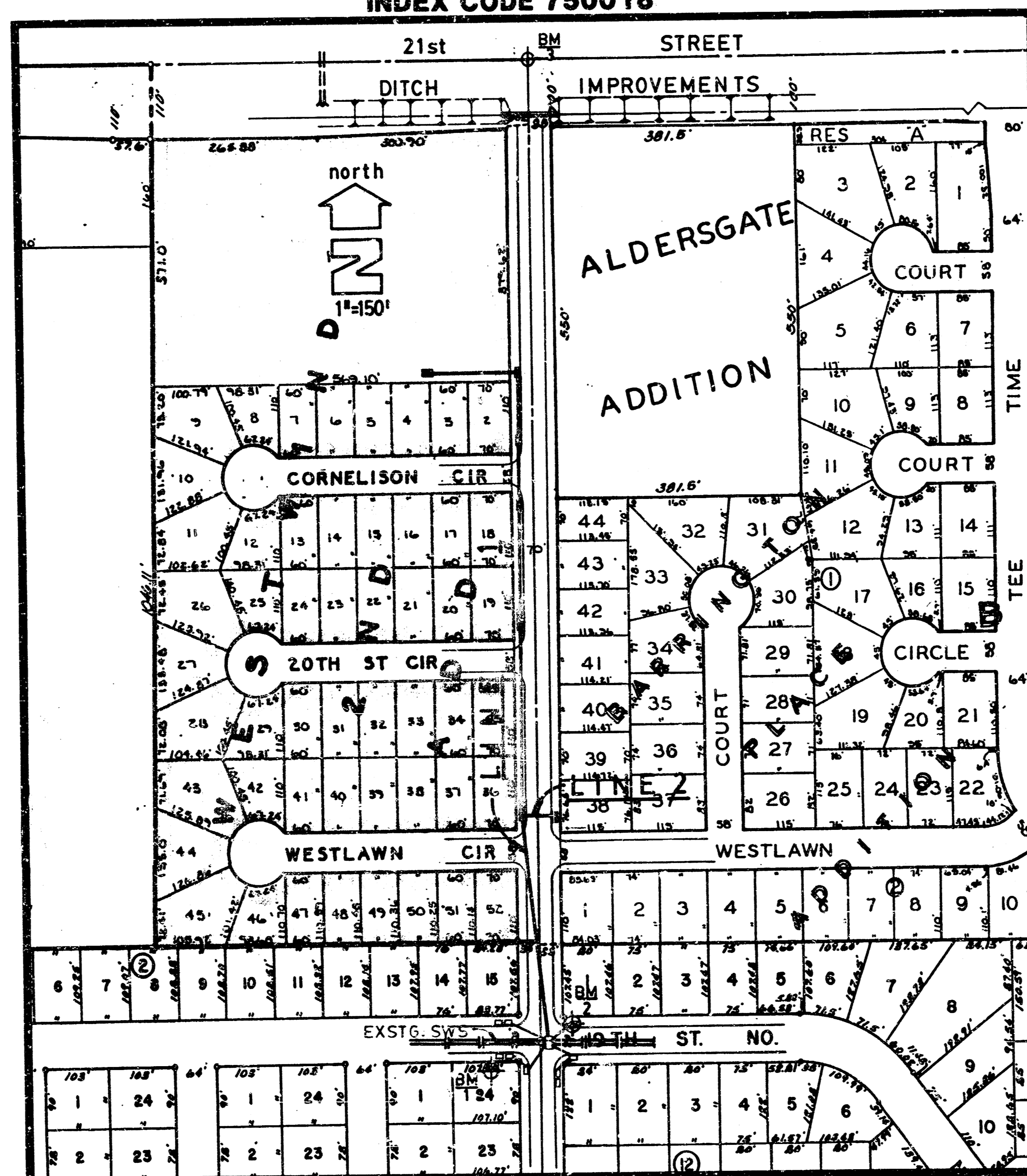
- R.R. Spike in "lone" tree (NE-ly side) 193 ft. S., 47 ft. W., NE Cor. Lot 15, Blk. 2 Westlink Vill. 16TH Addn. Elev. = 157.75 City datum
- "C" Cut SW Cor. of catch basin, E. End of NE Return of 19TH ST. at Woodchuck. Elev. = 155.11 City datum
- Top of Iron in Thimble NE Cor. NW1/4, Sec. 9, T27S, R1-W. (Intersection 21st ST. at Woodchuck.) Elev. = 162.70 City datum

PROJECT NUMBER

468-76-245-81816-000-000-001

INDEX CODE 750018

CITY of WICHITA, KANSAS
MICHAEL E. LINDEBAK
CITY ENGINEER

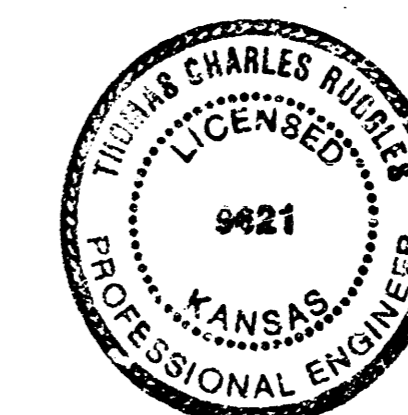


INDEX of SHEETS

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- 2-4 PLAN / PROFILE
- 5 STD. 1-A INLET DETAILS
- 6 L=4'4", W=4'4"
- 6 L=11'4", W=5'4"
- 7-8 DITCH IMPROVEMENTS
- 7-8 PLAN / PROFILE
- 9 R.C.B.C. DETAILS
- 10 11 DITCH X SECTIONS

*Booked
2/2/90
MG*

JULY 9, 1989



TITLE SHEET

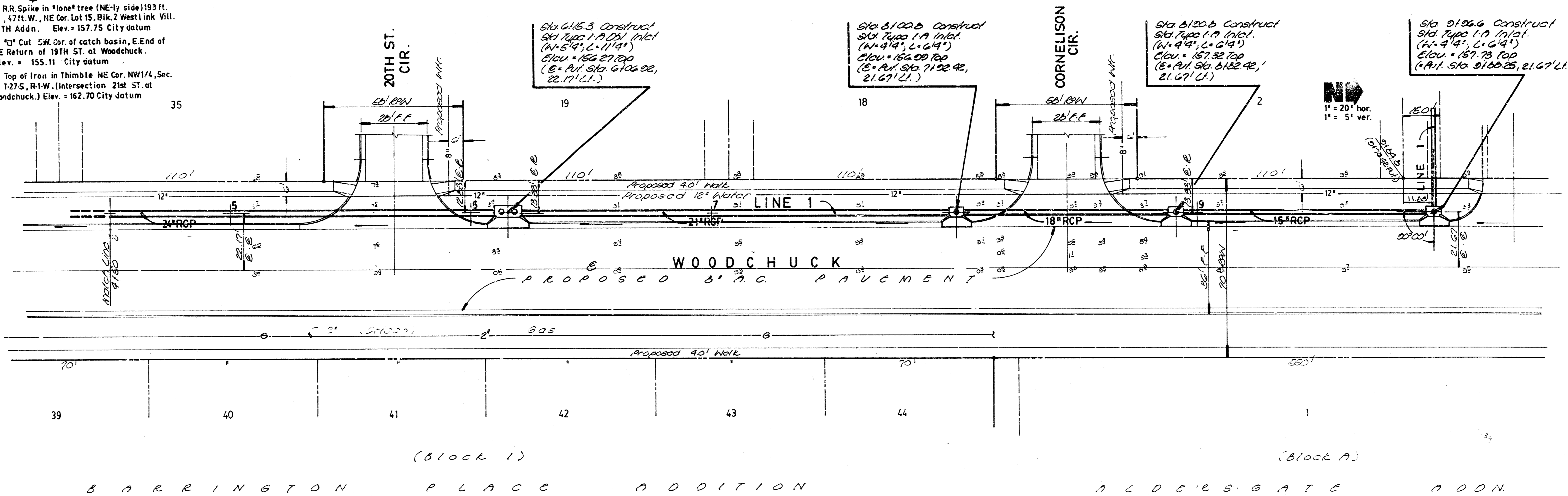
BAUGHMAN COMPANY, P.A.				Sheet: 1
SURVEYING & ENGINEERING				of: 11
316/282-7271 • 316 ELLIS • WICHITA, KANSAS 67211				
Drawn: TCR	Checked: Sonny	Approved: N.E.W.	Date: May 89	Notes: noted

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BENCHMARKS

1. R.R. Spike in "lone" tree (NE-ly side) 193 ft. S. 47 ft. W., NE Cor. Lot 15, Blk. 2 Westlink Vill. 16TH Addn. Elev. = 157.75 City datum
2. 7" Cut SW. Cor. of catch basin, E. End of NE Return of 19TH ST. at Woodchuck. Elev. = 155.11 City datum
3. Top of Iron in Thimble NE Cor. NW 1/4, Sec. 9, T27-S, R1-W. (Intersection 21st ST. at Woodchuck.) Elev. = 162.70 City datum

WESTWIND SECOND ADDITION



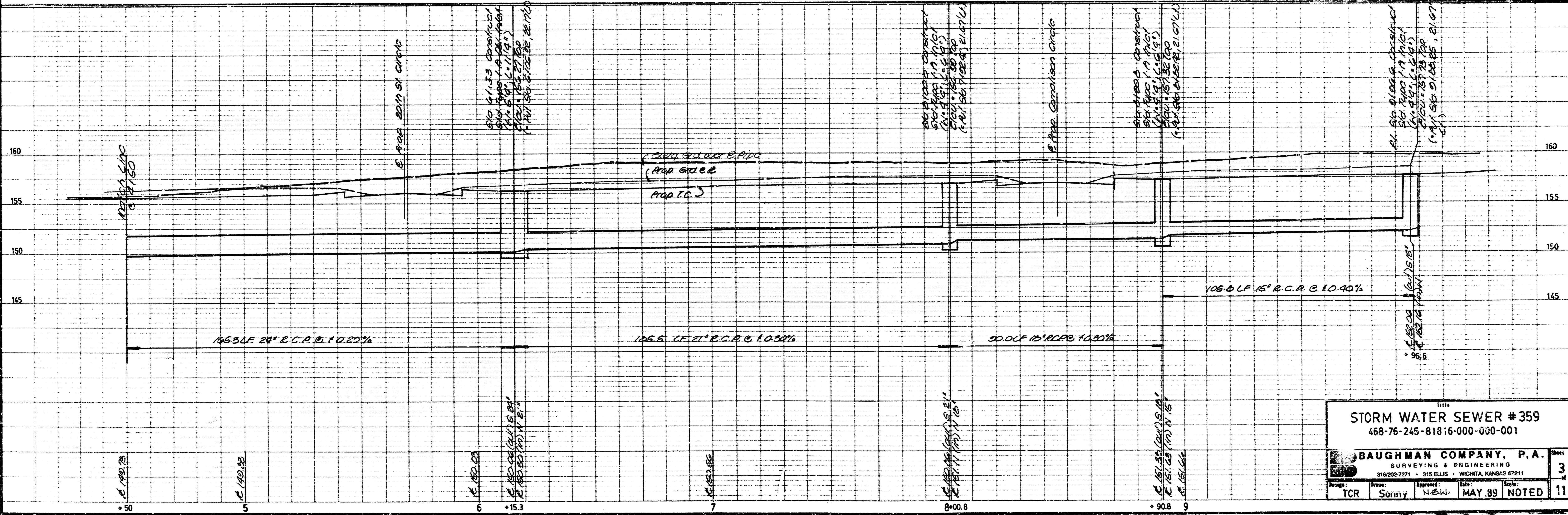
Sta. 615.3 Construct
Sta. 700 I.P. (Incl.)
(N=7'4", L=6'4")
Elev. = 156.27 Top
(E. of Sta. 610.00, 22.17' L.I.)

Sta. 6100.6 Construct
Sta. 700 I.P. (Incl.)
(N=7'4", L=6'4")
Elev. = 156.00 Top
(E. of Sta. 7102.42, 21.67' L.I.)

Sta. 6100.6 Construct
Sta. 700 I.P. (Incl.)
(N=7'4", L=6'4")
Elev. = 157.32 Top
(E. of Sta. 6182.42, 21.67' L.I.)

Sta. 9106.6 Construct
Sta. 700 I.P. (Incl.)
(N=7'4", L=6'4")
Elev. = 157.73 Top
(E. of Sta. 9100.25, 21.67' L.I.)

1" = 20' hor.
1" = 5' ver.



STORM WATER SEWER #359
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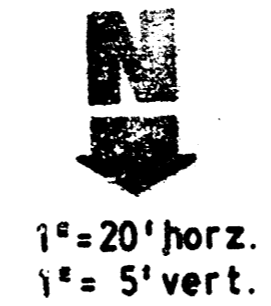
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Date: MAY 89
Scale: NOTED

Sheet 3 of 11

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BENCHMARKS

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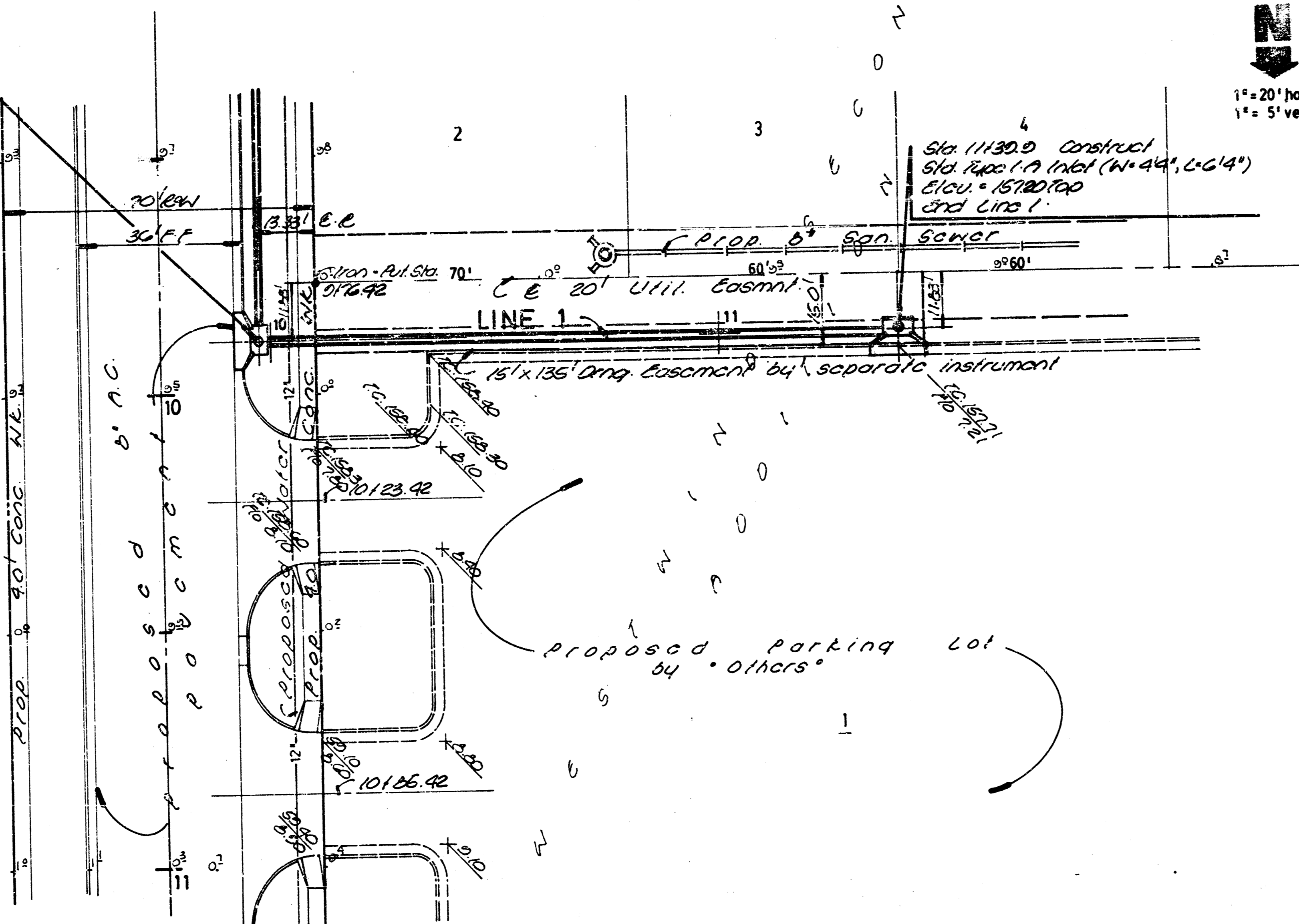
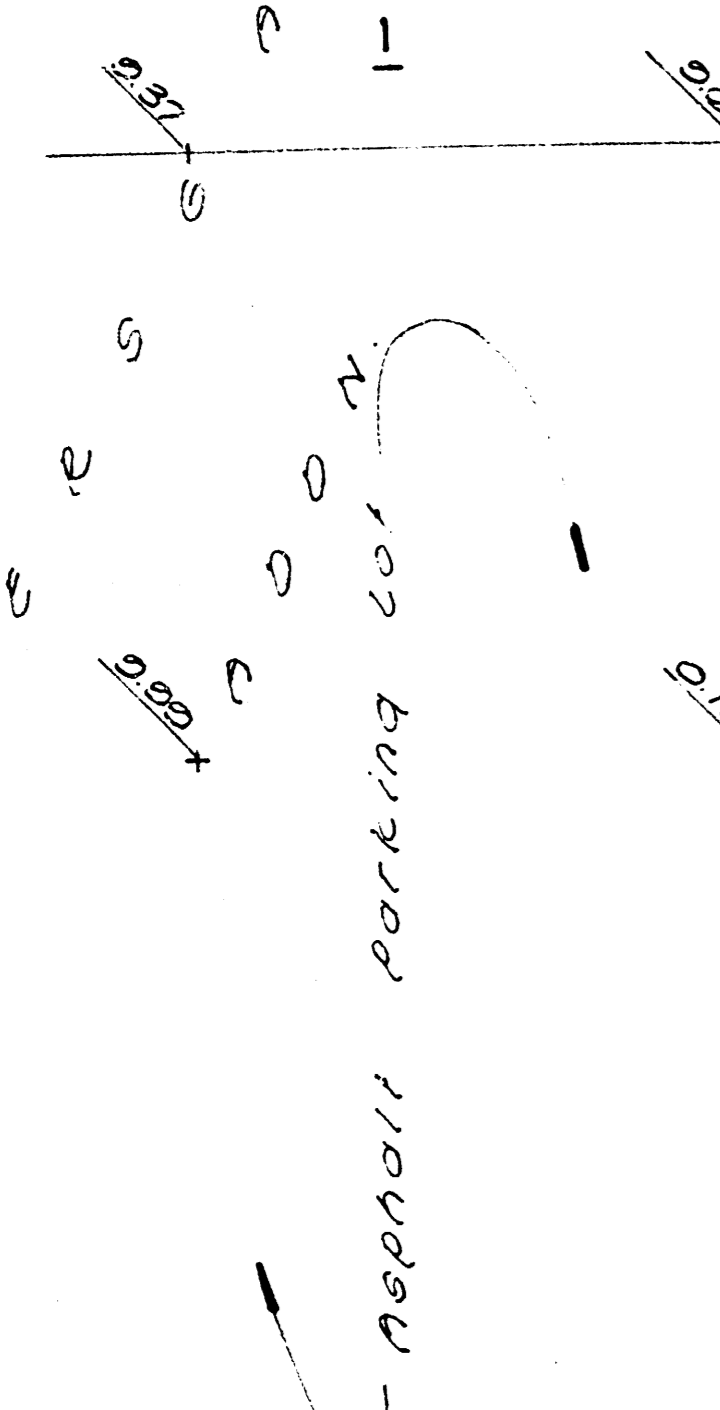


Sta 0+00.0 Sta. 7+00.0 (A) Inlet (P.I. Line 1) Elev. = 157.73, 7.00
 (+ P.I. Sta. 0+00.25, 2+167.11)

Sta 11+30.0 Constructed Sta. 7+00.0 (A) Inlet (W. 44', L. 6' 4") Elev. = 157.80, 7.00 End Line 1

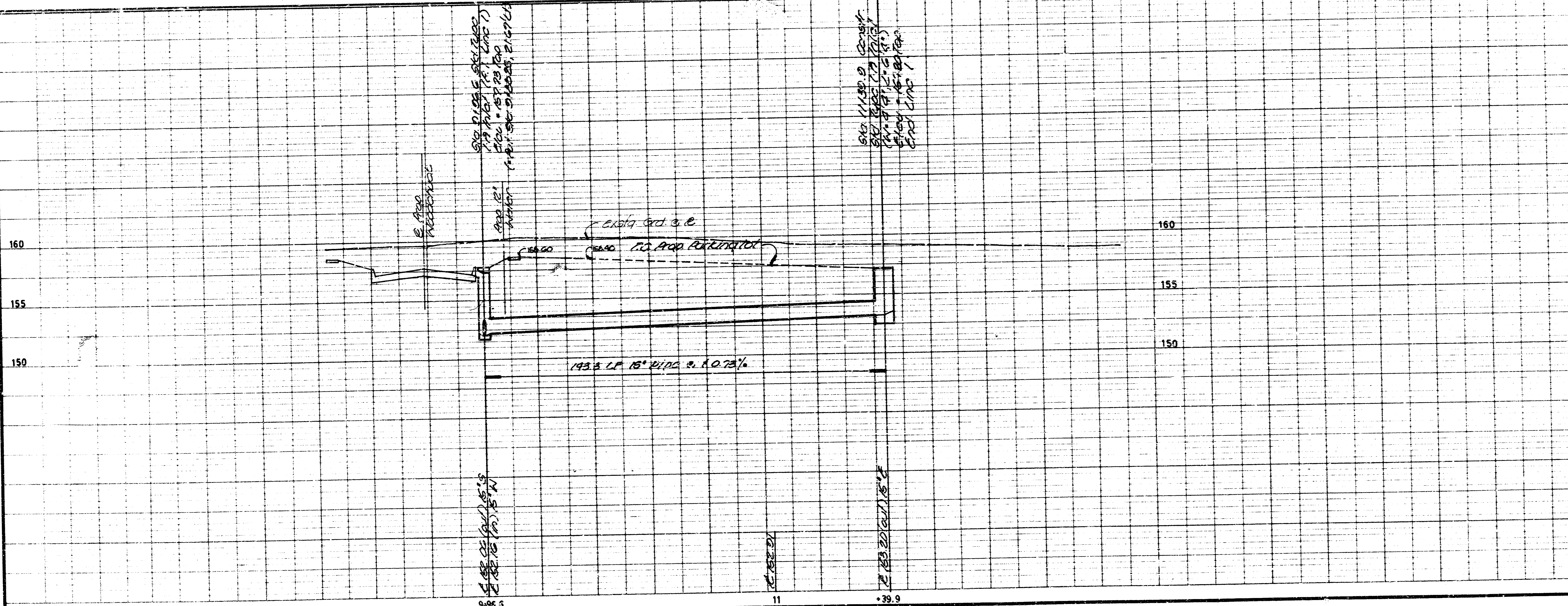
Station - P.I. Sta. 70' 0" 0+16.42
 LINE 1
 15' x 136' Amp. easment by separate instrument

Proposed parking lot by others



DATE	DESCRIPTION

PROJECT	NO. 1
DATE	

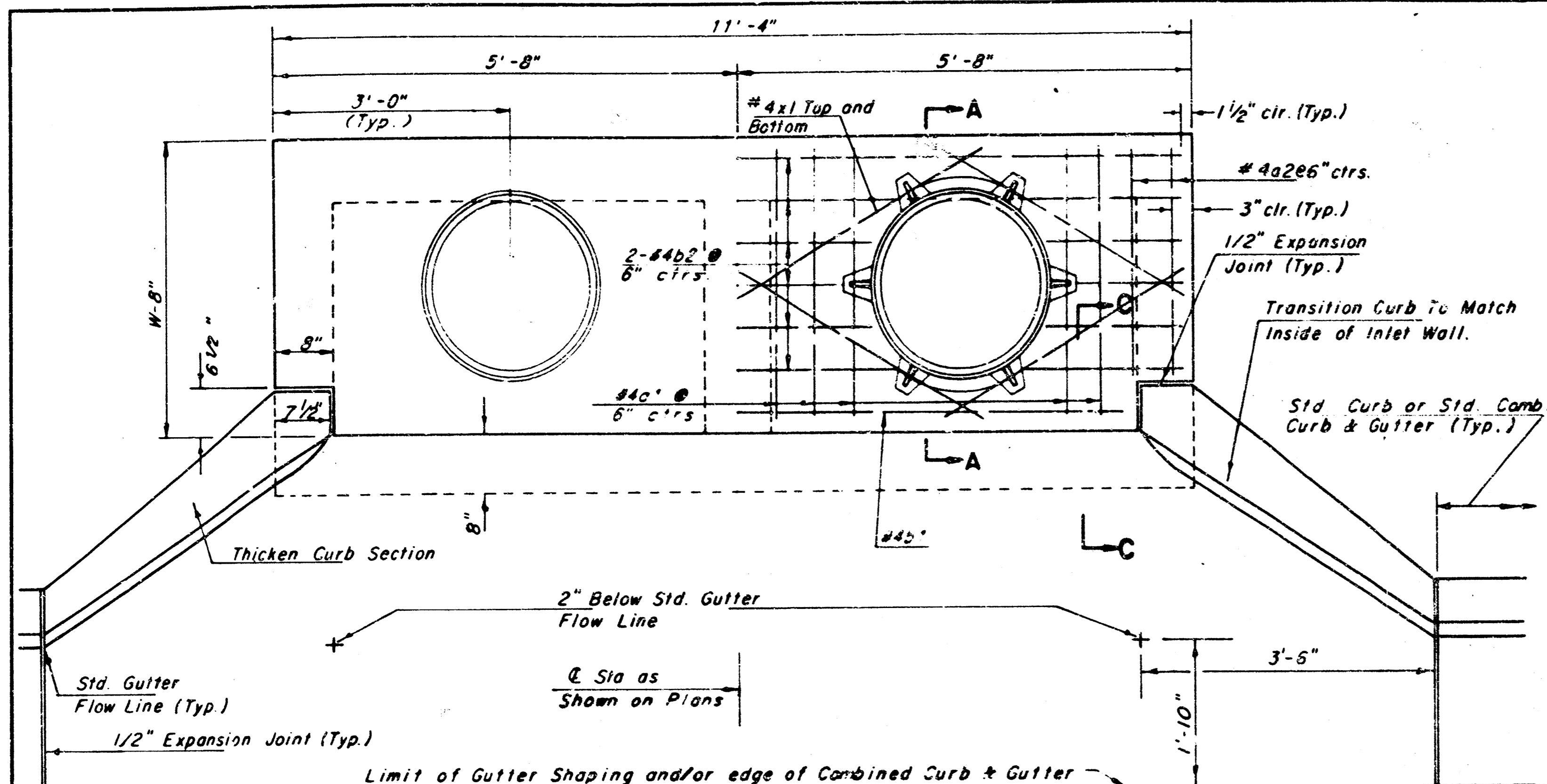


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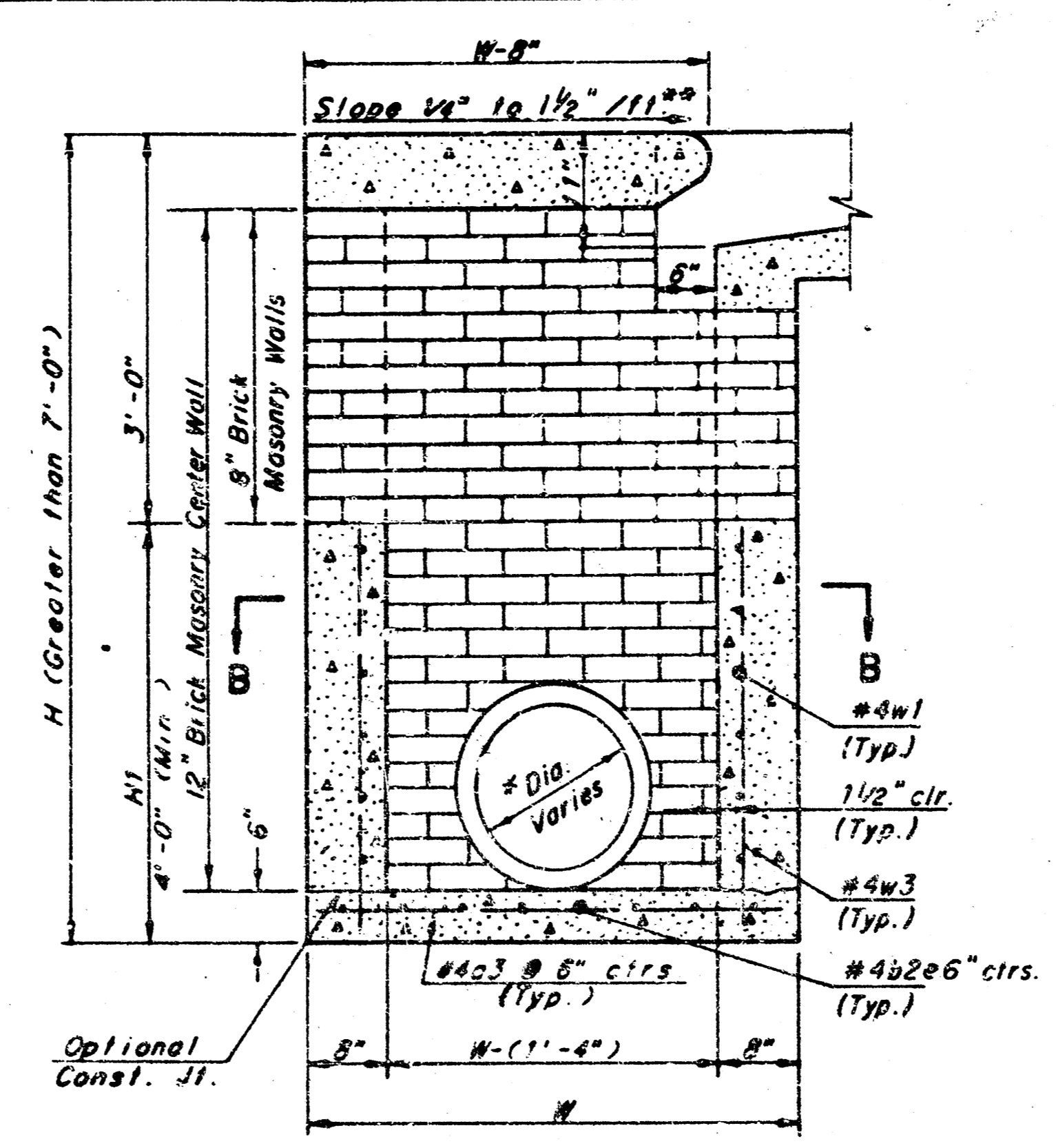
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Design: T.C.R.	Drawn: Sonny	Approved: N.E.W.	Date: MAY 89	Scale: NOTED	Sheet: 4 of 11
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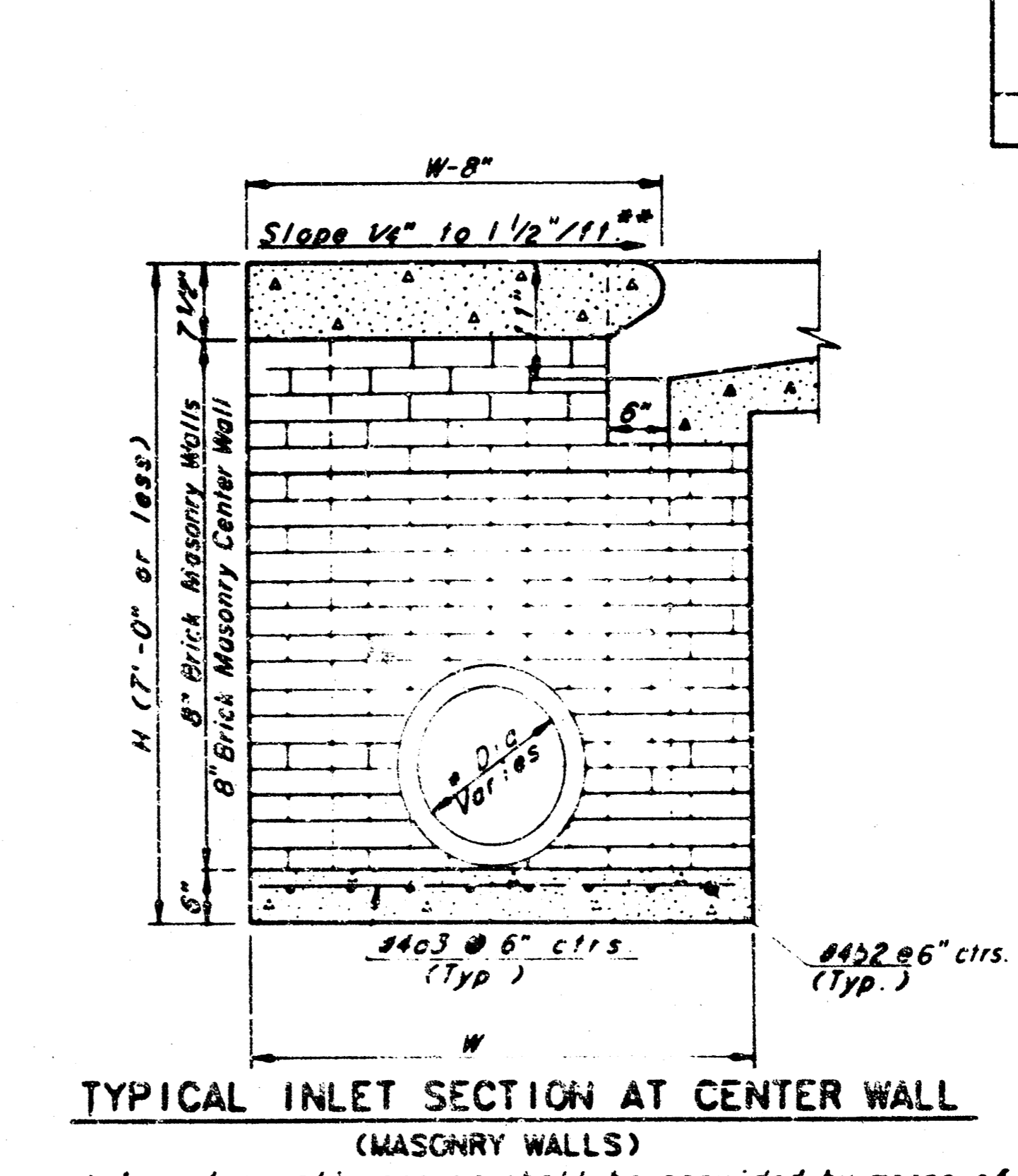
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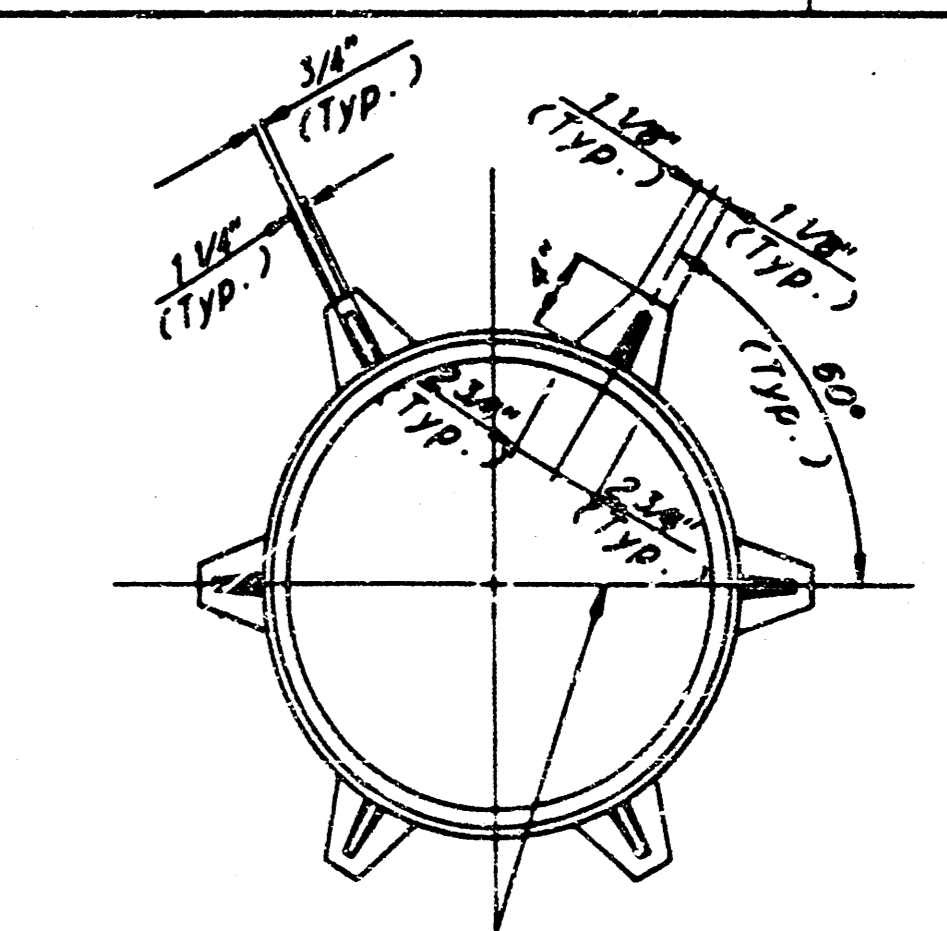
SLAB REINFORCING NOT SHOWN SHOWING SLAB REINFORCING
PLAN
 NOTE Expansion Joint only in Curb Area with Conc. Pavement.



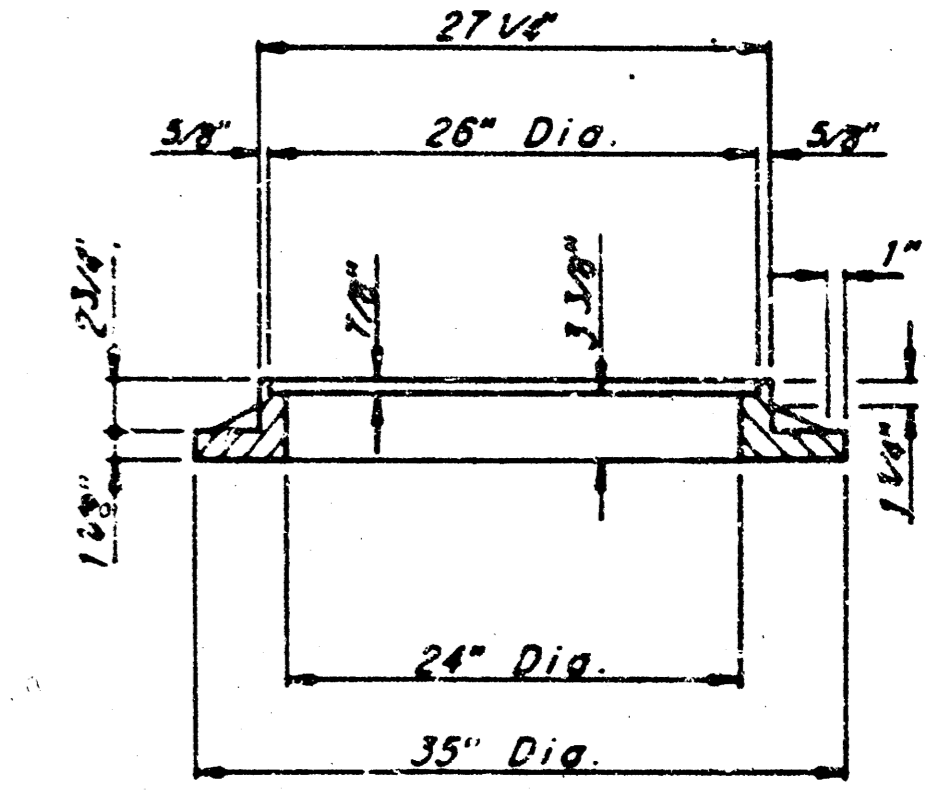
TYPICAL INLET SECTION AT CENTER WALL (REINFORCED CONCRETE WALLS)
 **NOTE: Slope of Inlet Tops to match Sidewalk or Parking Slopes within Limits indicated.



TYPICAL INLET SECTION AT CENTER WALL (MASONRY WALLS)
 * A center wall opening shall be provided by means of a section of reinforced concrete pipe. See Case I and Case II below.

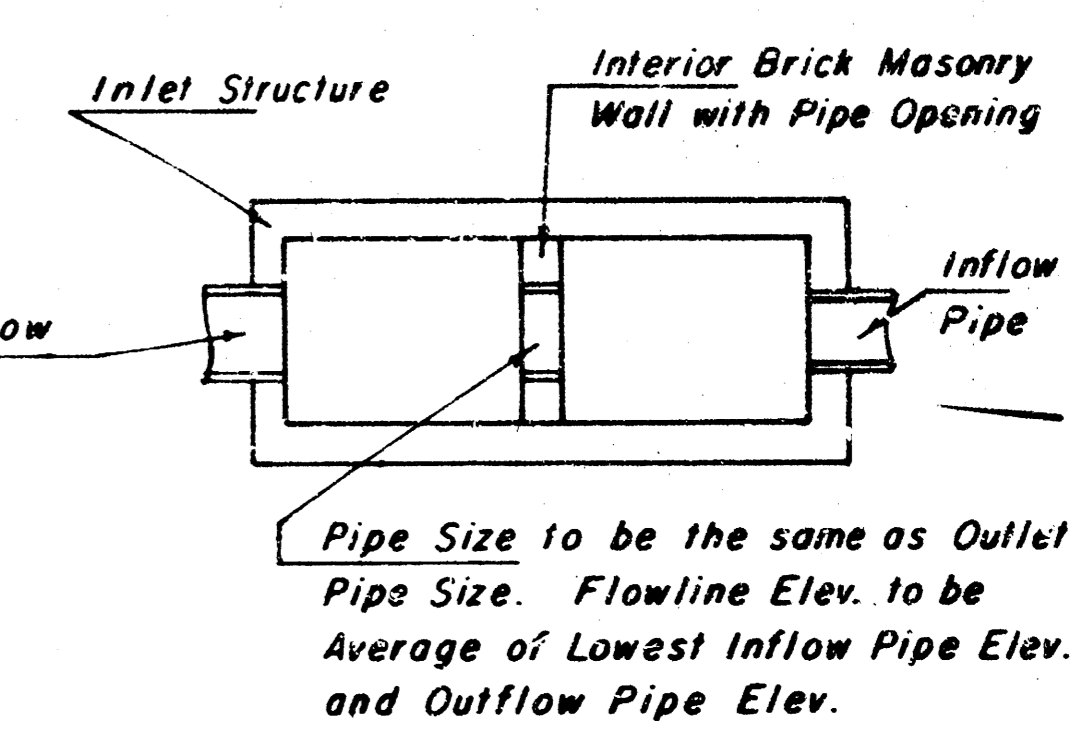


Position Ring such that this line is parallel with C of Pavement

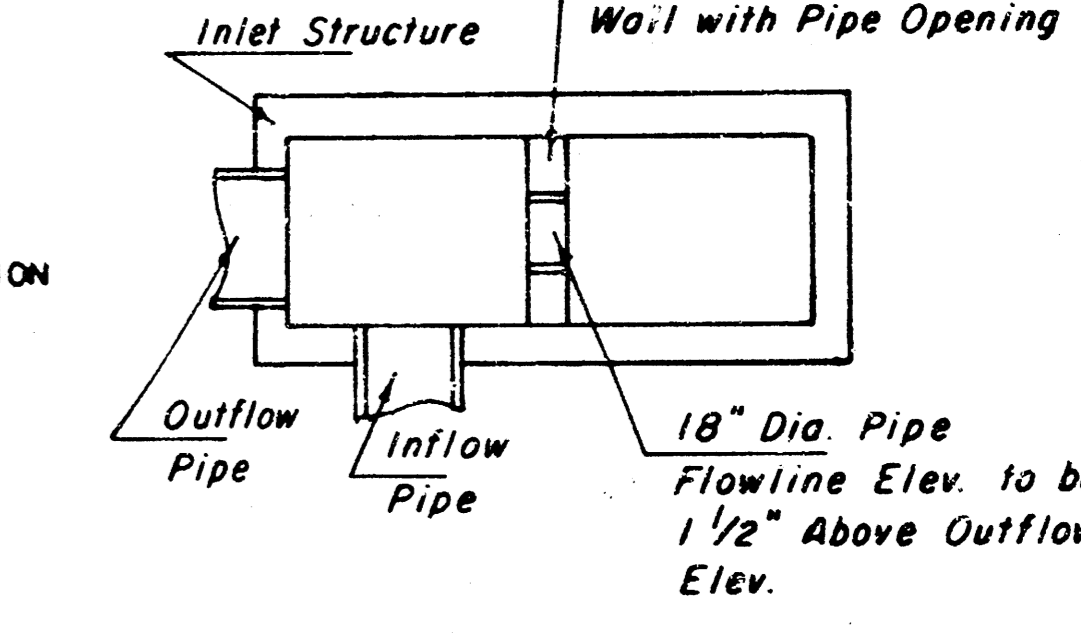


CAST IRON INLET RING
 Wt. - 180 lbs.

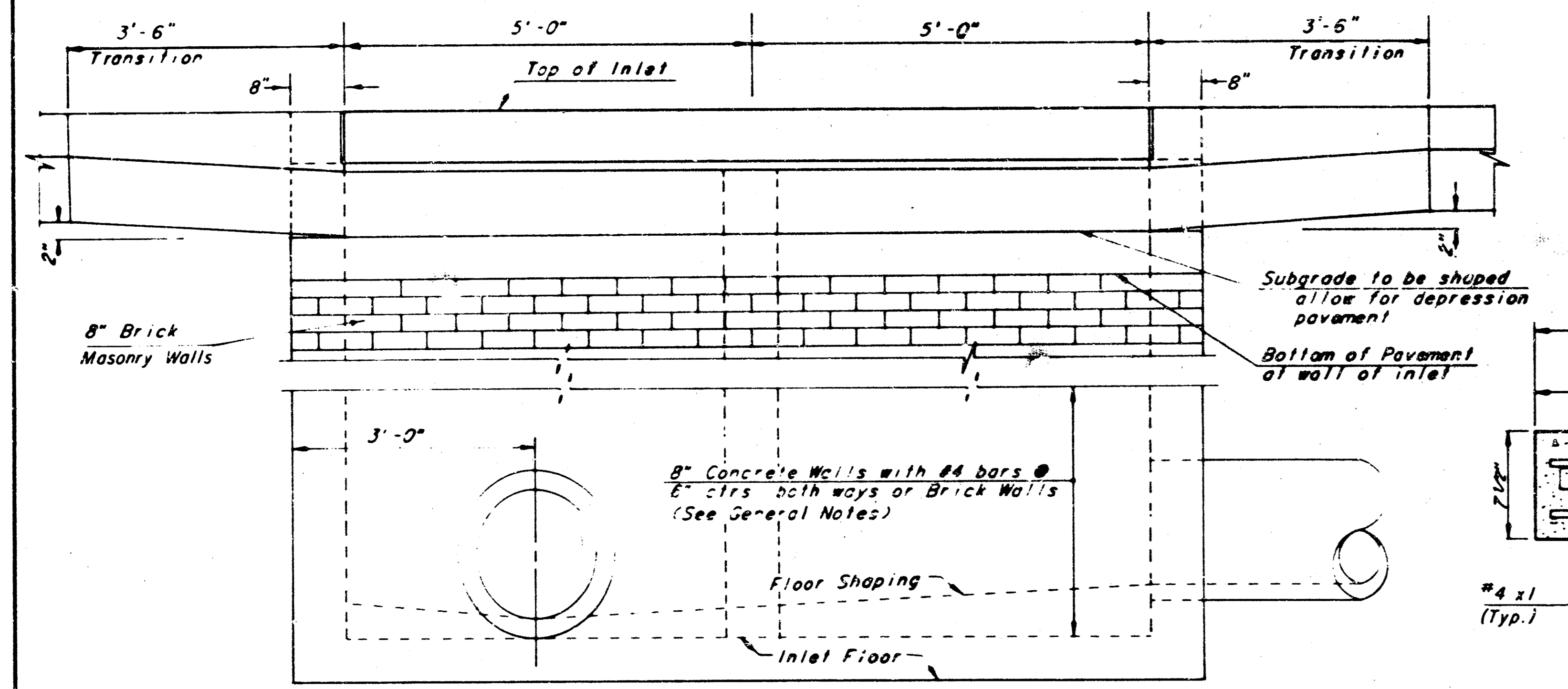
See City of Wichita Standard Manhole Frame and Cover Detail Sheet for Cover Details to be used with Inlet Frame.



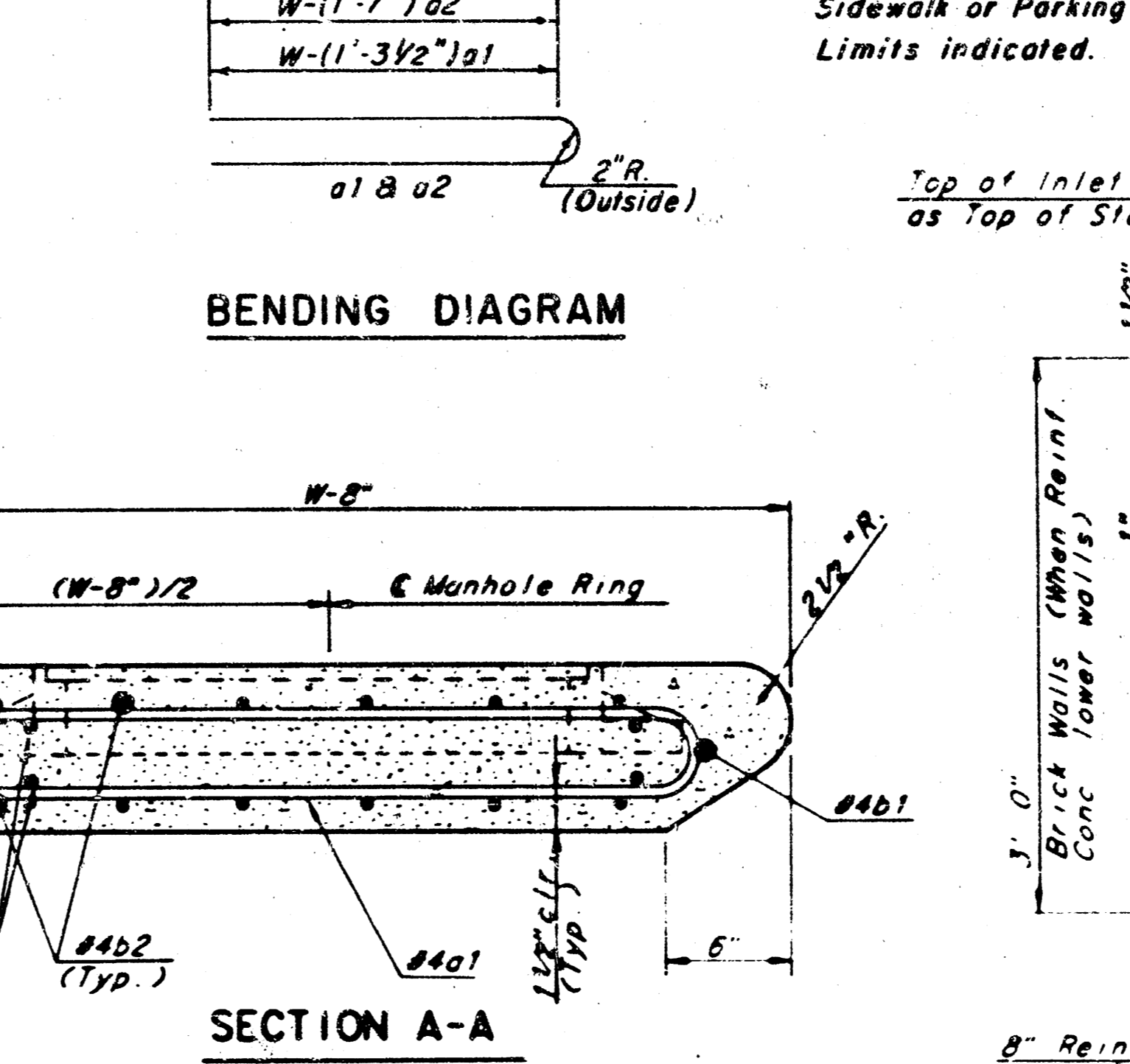
CASE I
 Inlet Structure Interior Brick Masonry Wall with Pipe Opening



CASE II
 NOTE Center Wall Pipe Size shall be as Specified in Inlet Construction Note on the Plan/Profile Sheets for those Cases not shown here.

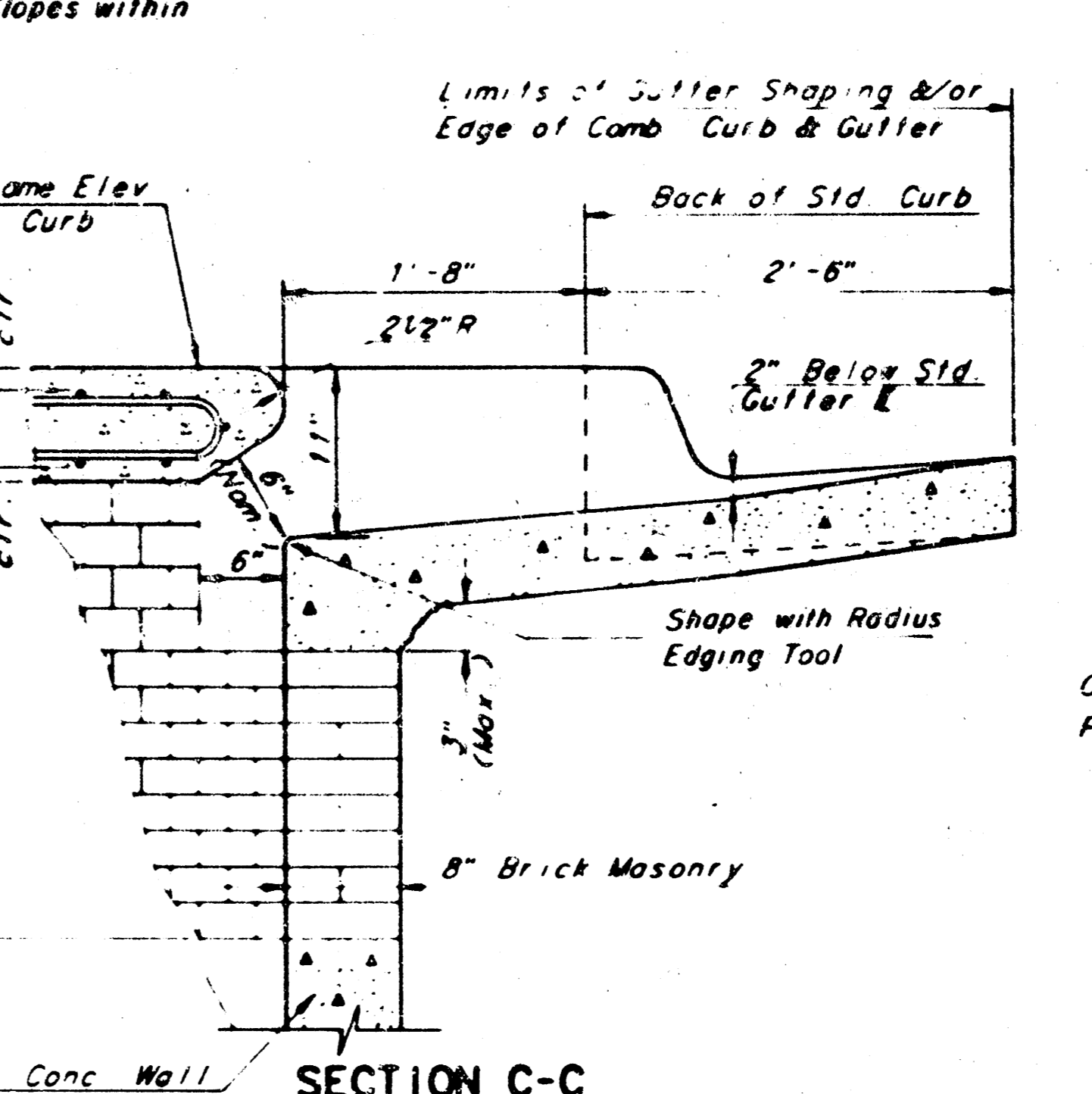


ELEVATION



BENDING DIAGRAM

SECTION A-A



SECTION C-C

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 IS 6'-4" OR LESS AND H IS 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 OF MASONRY CONSTRUCTION AND THE CENTER WALL SHALL BE OF MASONRY CONSTRUCTION AS SHOWN FOR THE MASONRY WALL OPTION.
- 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.
- 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 5" 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 WALLS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

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	5'-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 (H1-12") (H1-12") Rounded down to nearest 0.5"
 ② H1 3"

STANDARD CURB INLET PRECAST TOPS

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

STANDARD TYPE 1A CURB INLET
 INLET OPENING = 6" x 10'-0"

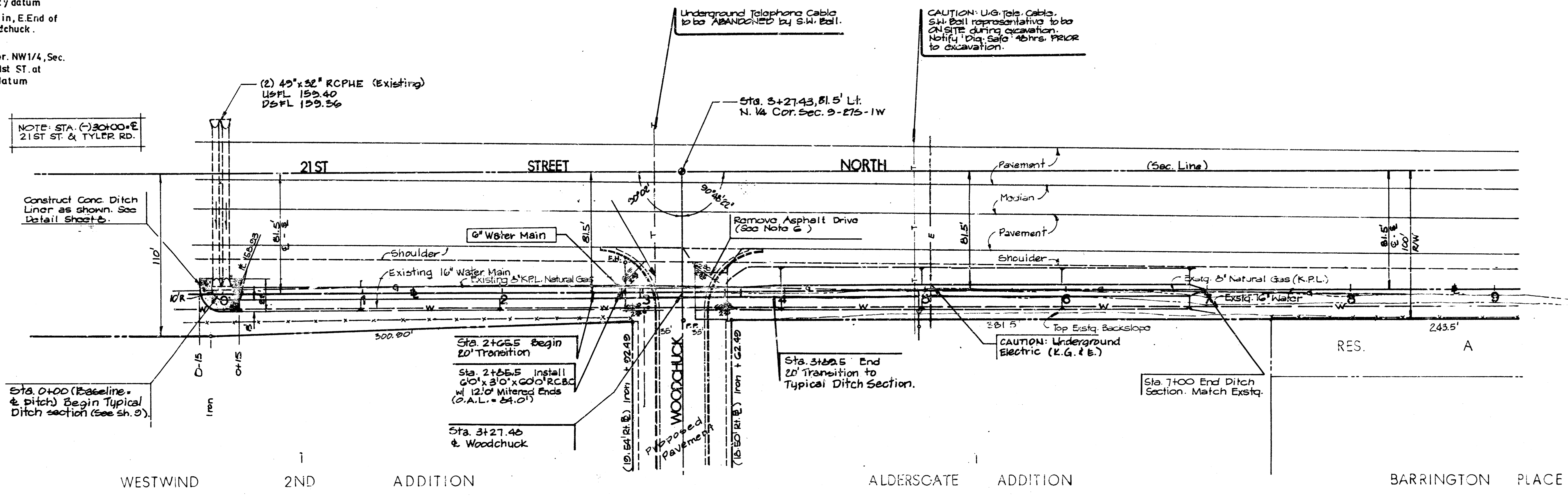
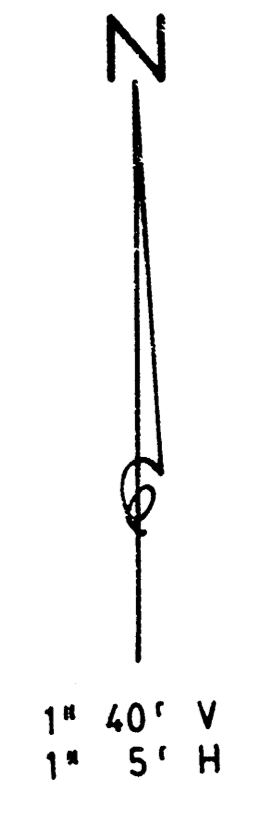
468-76-245-81816-000-000-001
 WICHITA, KANSAS

Designed by BEP, KJS, LMD Checked by LMD
 Drawn by JCP Date Nov. 1984 Job No.

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BENCHMARKS

1. R.R. Spike in "lone" tree (NE-ly side) 193 ft. S. 47 ft. W. NE Cor. Lot 15, Blk. 2 Westlink Vill. 16TH Addn. Elev. = 157.75 City datum
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NOTE: STA. (+) 30+00 = E. 21ST ST. & TYLER RD.

Construct Conc Ditch Liner as shown. See Detail Sheet 6.

Sta. 2+65.5 Begin 20' Transition
Sta. 2+65.5 Install 60" x 30" x 60" R.C.B.C. w/ 12.0' Mitered Ends (C.A.L. = 54.2')

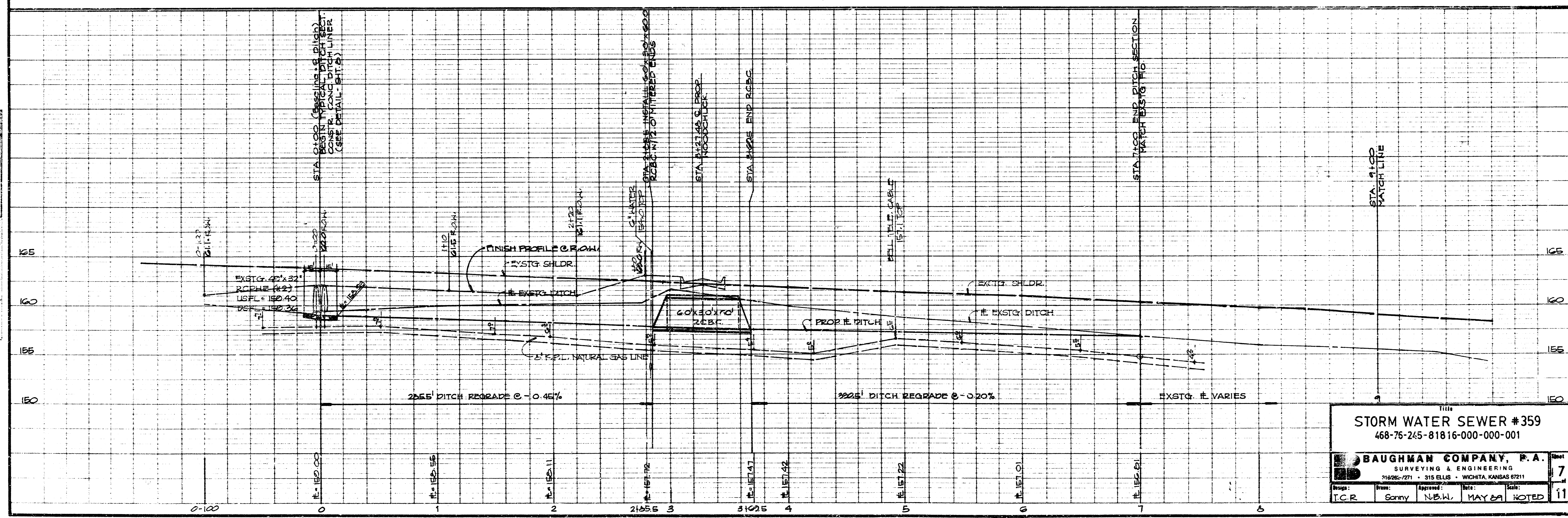
Sta. 3+27.46 & Woodchuck

Sta. 3+27.43, 81.5' Lt. N. 1/4 Cor. Sec. 9-27S-1W

CAUTION: U.G. Tele. Cable. S.W. Bell representative to be ON SITE during excavation. Notify Dig Safe 48hrs. Prior to excavation.

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WESTWIND 2ND ADDITION ALDERSGATE ADDITION BARRINGTON PLACE

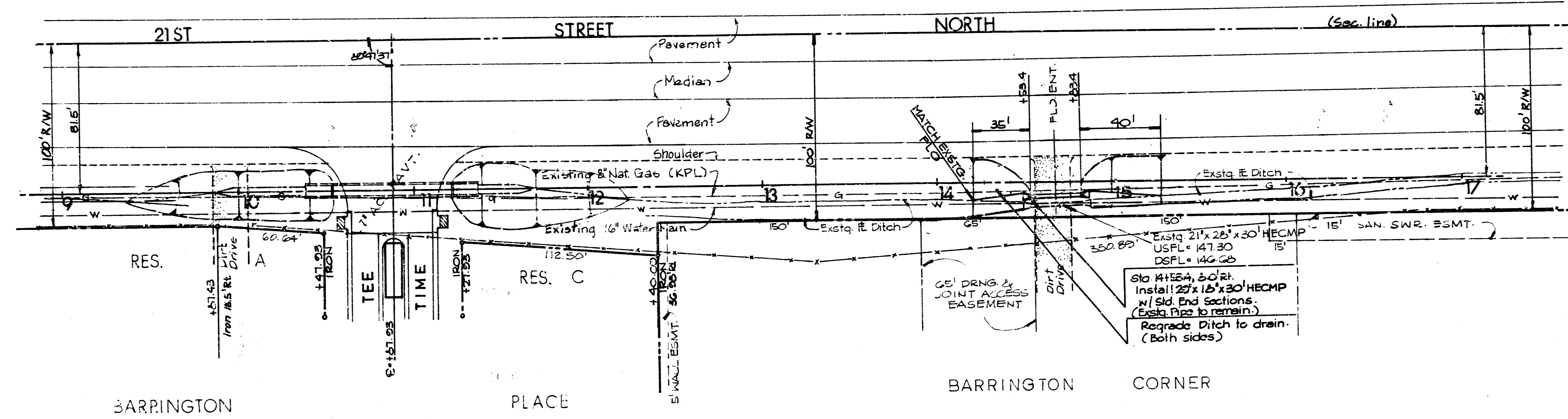


STORM WATER SEWER # 359
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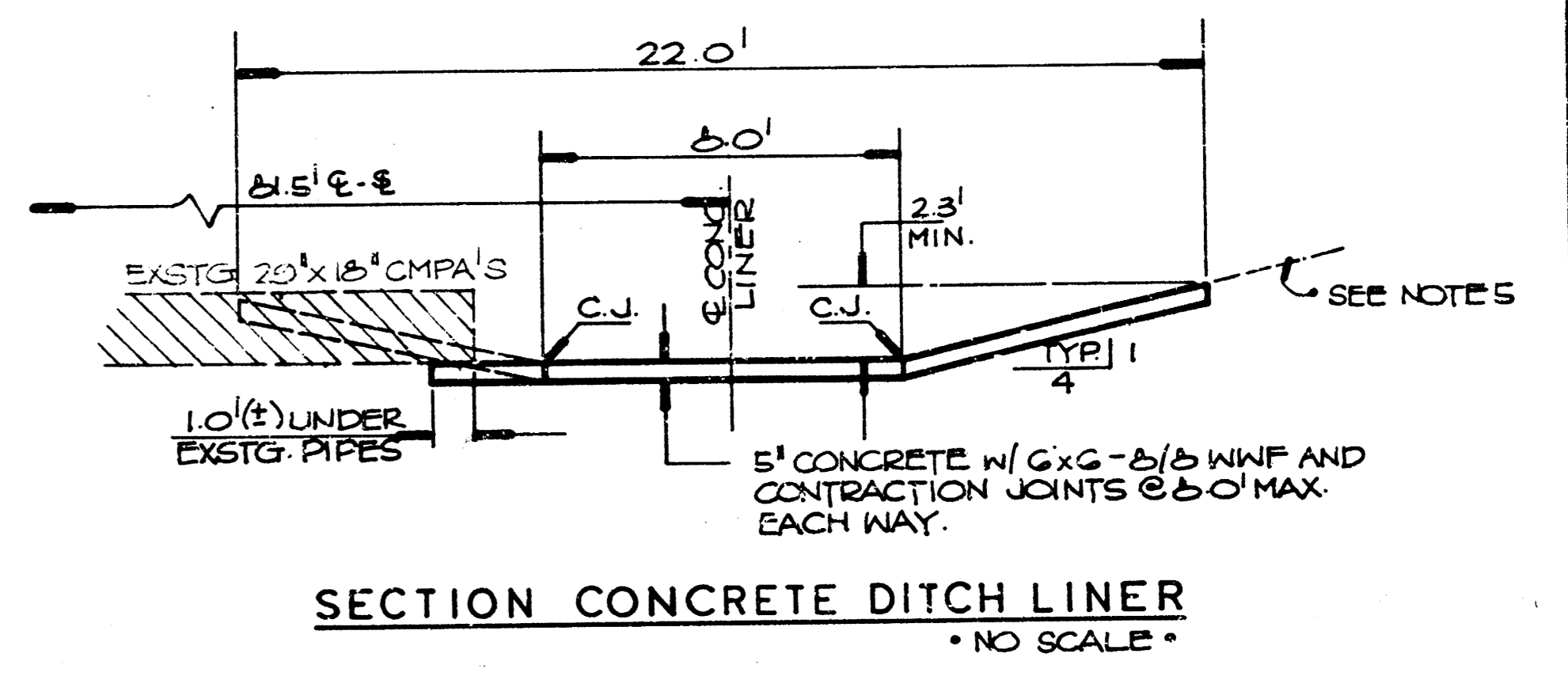
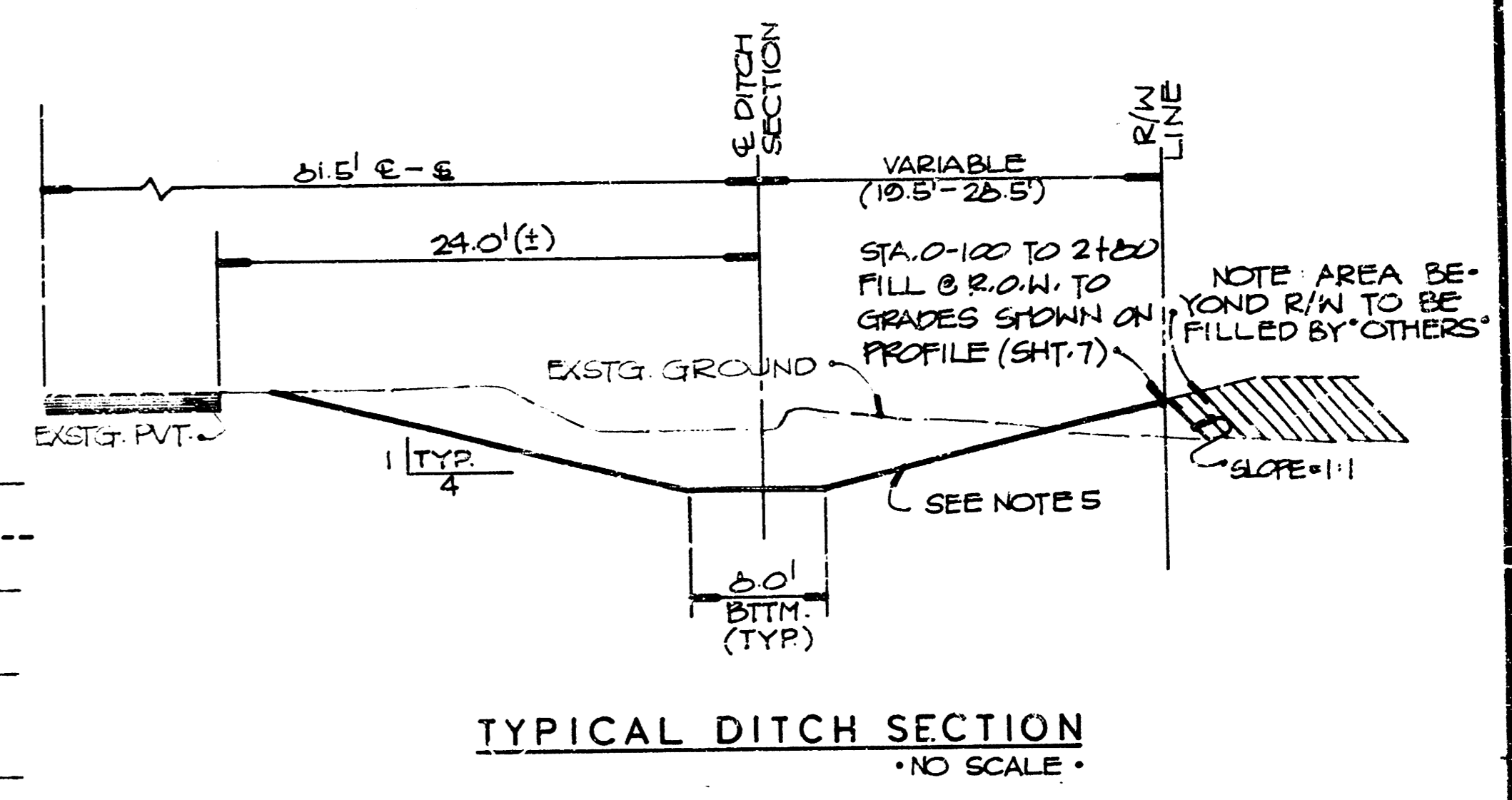
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316262-7271 • 315 ELLIS • WICHITA, KANSAS 67211			
Design:	Drawn:	Approved:	Date:
TCR	Sonny	N.B.W.	MAY 89
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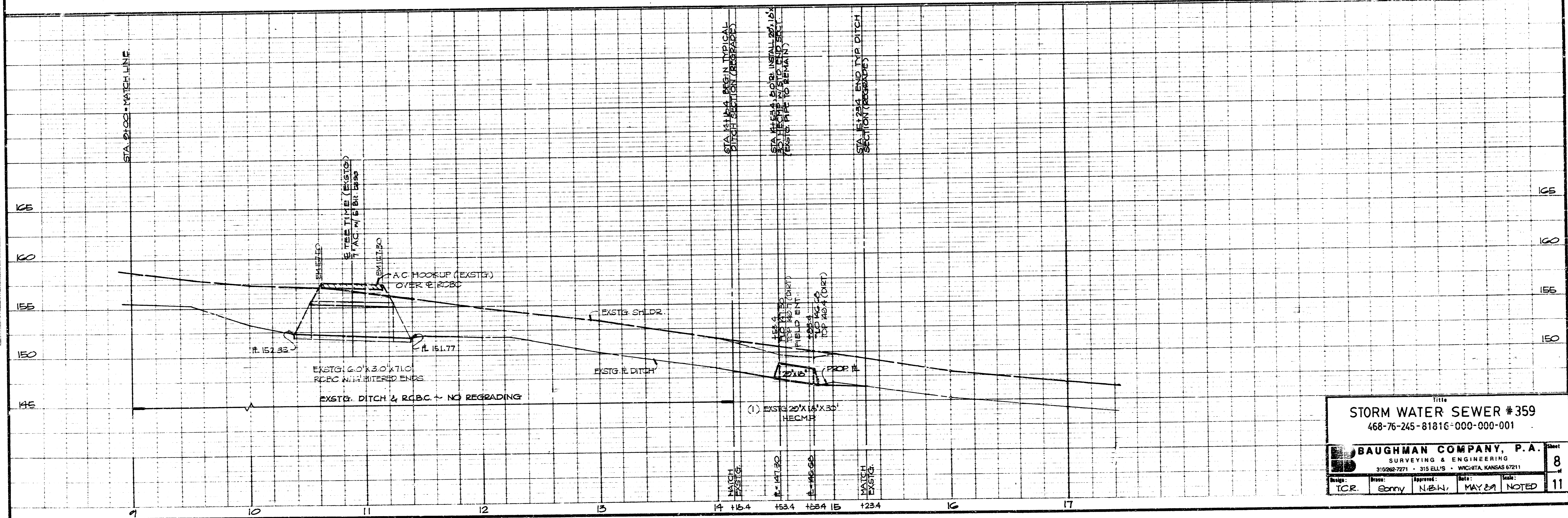
PLAN
 1" = 40' H
 1" = 5' V



1" = 40' H
 1" = 5' V



PROJECT
 SURVEYOR
 ENGINEER
 NOTE BOOK
 DATE
 NO. 8434



STORM WATER SEWER # 359
 468-76-245-81816-000-000-001

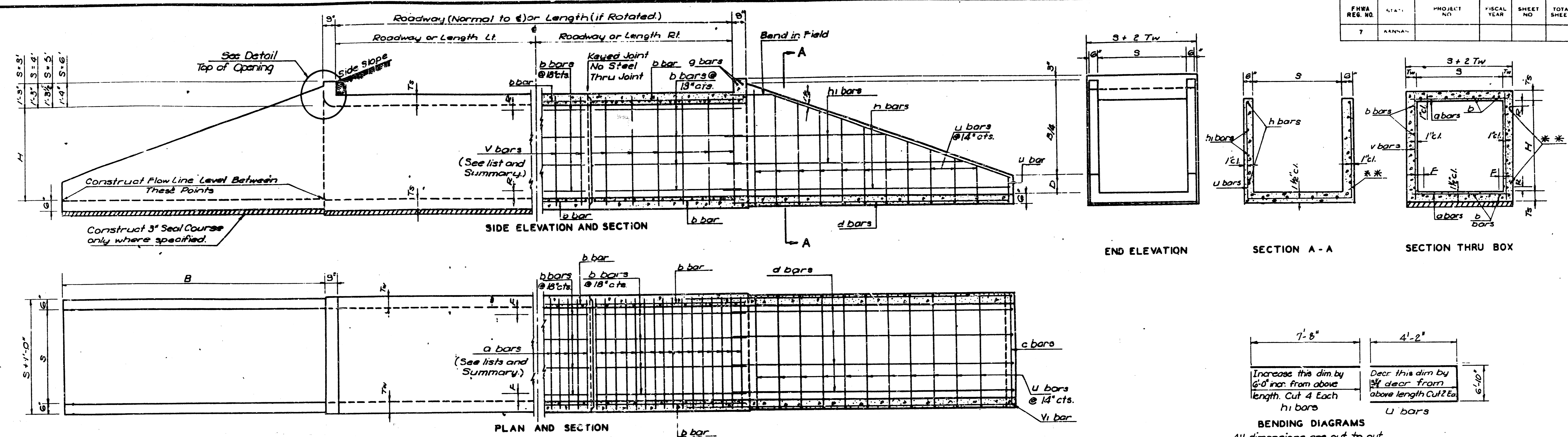
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Design: ICR. Drawn: Emmy. Approved: N.B.N. Date: MAY 21. Scale: NOTED

Sheet 8 of 11

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FHWA RES. NO.	7	PROJECT NO.		FISCAL YEAR		SHEET NO.		TOTAL SHEETS	
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RCB NOTES

LOADING: HS20-44 AASHTO SPECIFICATIONS, 1983 EDITION AND LATER REVISIONS.

UNIT STRESSES: $f'_c = 4,000$ psi, $f_y = 60,000$ psi, $f_s = 24,000$ psi.

REINFORCING STEEL: REINFORCING STEEL SHALL COMPLY WITH A.S.T.M. DESIGNATION A615 GRADE 60. ALL DIMENSIONS ARE TO CENTER OF BAR UNLESS OTHERWISE NOTED.

CONCRETE: CLASS AAA CONCRETE (AE) SHALL COMPLY WITH KDOT STD. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, SECTION 402. ALL EXPOSED CONCRETE EDGES SHALL BE BEVELED WITH A 3/4" TRIANGULAR MOULDING.

CONSTRUCTION JOINT: ONE KEWED CONSTRUCTION JOINT SHALL BE CONSTRUCTED FOR CAST-IN-PLACE CONSTRUCTION.

DETAILS SHOWN ARE FOR CAST-IN-PLACE CONSTRUCTION.

PRECAST OPTION: PRECAST BOX SEGMENTS SHALL MEET THE REQUIREMENTS OF A.S.T.M. DESIGNATION C850-82.

THE HEADWALL MAY BE CAST-IN-PLACE WITH SUITABLE CONNECTIONS TO THE PRECAST BOX SEGMENTS; OR PRECAST MITERED END SECTIONS MAY BE USED WITH SUITABLE SHEAR CONNECTIONS TO THE PRECAST BOX SEGMENTS.

THE CONTRACTOR SHALL SUBMIT, TO THE CONSULTANT AND/OR THE FIELD ENGINEER, DETAIL PLANS AND MANUFACTURER'S SHOP DRAWINGS FOR PRECAST CONSTRUCTION. SUCH PLANS SHALL BE SUBMITTED PRIOR TO MANUFACTURE OF ANY PRECAST ITEMS TO BE USED IN THE PROJECT.

EXCAVATION AND BACKFILL: EXCAVATION FOR THE RCB SHALL BE INCLUDED IN THE PLAN QUANTITY BID, AS SHOWN ON THE CROSS SECTIONS. BACKFILL FOR THE RCB SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCIDENTAL TO THE BID ITEMS FOR RCB CONSTRUCTION.

THE 6' X 3' REINF. CONCRETE CONCRETE BOX CULVERT SHALL BE BID AS A LUMP SUM WHICH SHALL INCLUDE ALL LABOR, MATERIAL, AND ANY OTHER INCIDENTAL ITEMS NECESSARY FOR COMPLETION OF THE WORK. QUANTITIES INDICATED ARE FOR INFORMATION ONLY.

Station	Size	Crown Grade Elev.	Flow Line		Horizontal Roadway		Degree of Rotation	Length along Box		No. of Sect.	Section Length	Ts	Tw	"a" Bars		"b" Bars		"v" Bars		Design Fill Ft.	Class A Conc. Cu. Yds.	Reinf. Steel Lbs			
			Lt	Rt	Lt	Rt		Lt	Rt					No.	Size	No.	Size	No.	Size						
	6'x3'	162.75	157.72	157.47	25'-3"	25'-3"	0	25'-3"	25'-5"	2	50'-0"	7'-0"	6"	22	#5	5 1/2"	16	#5	80	#4	18"	4'-0"	2'	-	2730

Mark	No.	Size	Length	Mark	No.	Size	Length
a	26	#5	6'-5"	u	24	#4	See diag.
b	16	#4	25'-9"				
d	8	#4	15'-0"				
g	4	#4	6'-5"				
h	8	#4	13'-2"				
h ₁	8	#4	See diag.				
v	80	#4	4'-0"				
v ₁	4	#4	2'-9"				

Class AAA Conc. (incl. Hdws.) 31.8 C.Y. #

Letter	B	D	F	H	R	S	Ts	Tw
Dimension	2'-0"	1'-1"	3"	3'-0"	9"	6'-0"	#	6"
Bar	a	b	d	g	h	h ₁	u	v
No.	*	*	8	4	8	4	20	*
Length	6'-9"	*	13'-0"	6'-9"	13'-2"		*	2'-9"

* See Culvert Summary Table
For information only

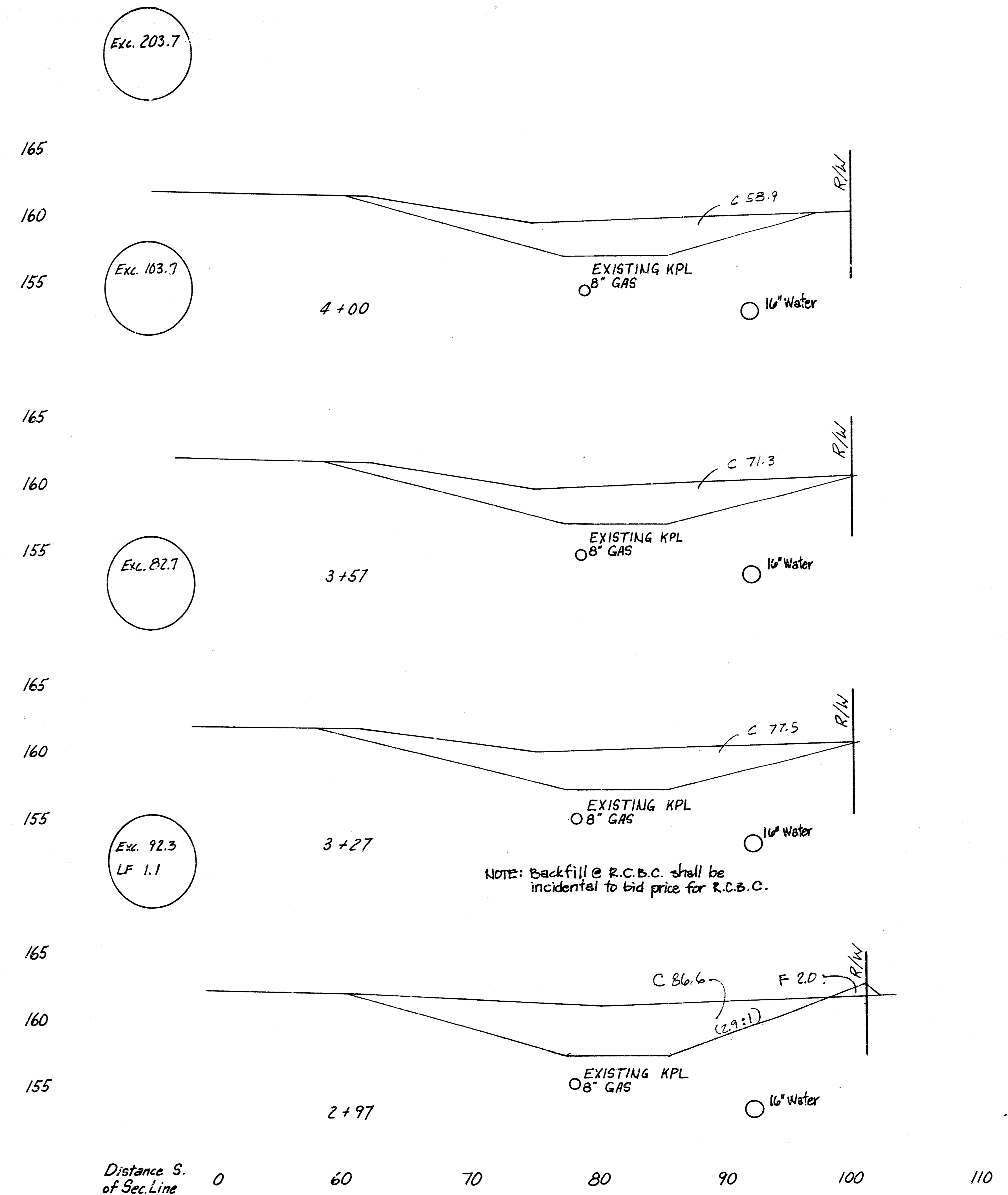
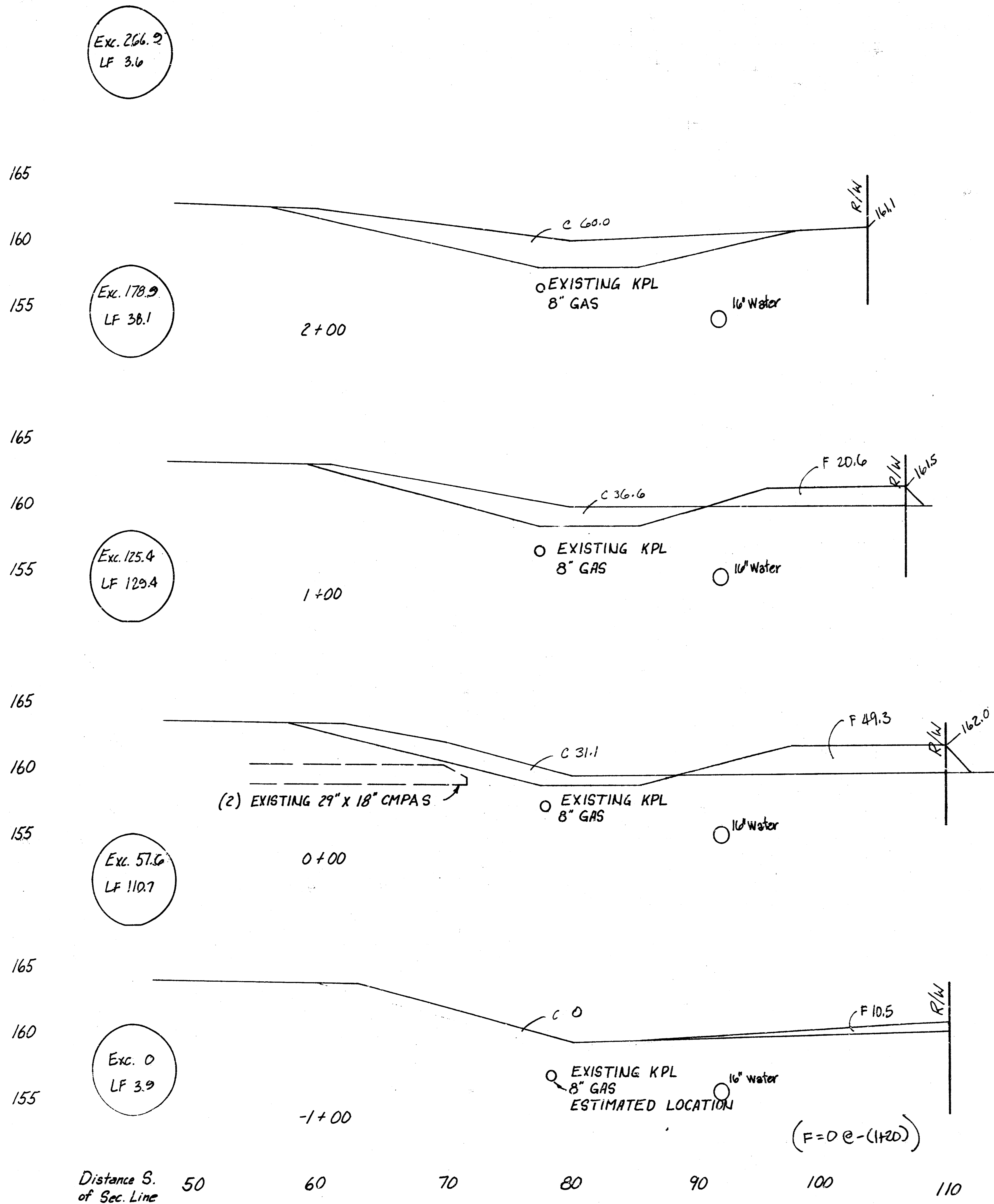
6' x 3' R.C.B.C. DETAILS AT WOODCHUCK (MODIFIED K.D.C.T. STANDARD 310A)

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

PROJECT NUMBER
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DESIGN DATE APPROVED DATE SCALE SHEET 9 OF 11

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EXCAVATION TOTAL 1124.4 CY
 LOOSE FILL TOTAL 286.8 CY

