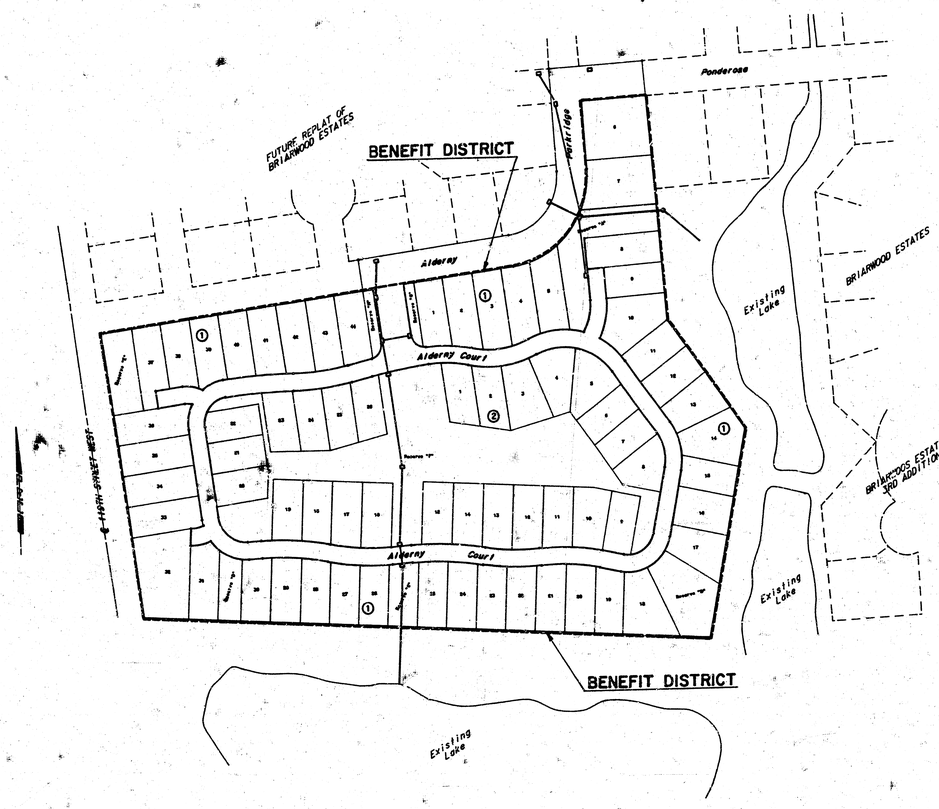
CITY OF WICHITA, KANSAS

STORM WATER SEWER NO. 263
(BRIARWOOD ESTATES 4TH ADDITION)

CITY OF WICHITA PROJECT NO. 468-76-245-81356-000-000-001

INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	PLAT (SURVEY CONTROL)
SHEET NO. 3	PLAN-PROFILE LINE NO. 1
SHEET NO. 4	PLAN-PROFILE LINE NO. 2
SHEET NO. 5	STANDARD TYPE 1A CURB INLET DETAIL
SHEET NO. 6	AREA INLET & RIPRAP DETAIL
SHEET NO. 7	SHALLOW TYPE 3 MANHOLE
SHEET NO. 8	FRAME AND COVER DETAIL



As Built Plans
4-8-85
Greene

BRENT E. REMBERG LICENSED 8168 KANSAS PROFESSIONAL ENGINEER

JUNE, 1984

PLANS PREPARED BY

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

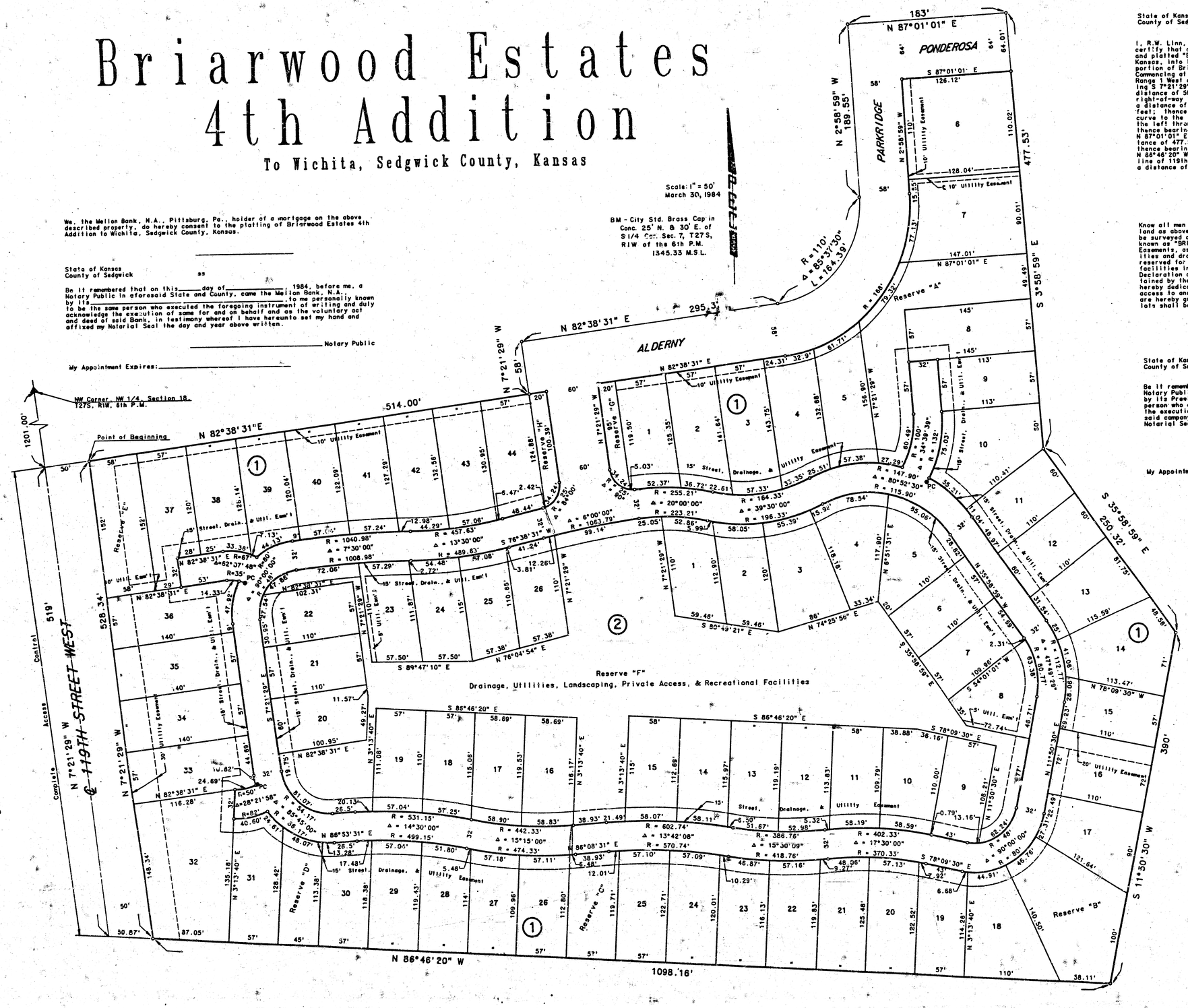
1/8

Briarwood Estates
4th Addition

To Wichita, Sedgwick County, Kansas

Scale: 1" = 50'
March 30, 1984

BM - City Std. Brass Cap in Conc. 25' N. & 30' E. of S1/4 Cor. Sec. 7, T27S, R1W of the 6th P.M. 1345.33 M.S.L.



We, the Mellon Bank, N.A., Pittsburg, Pa., holder of a mortgage on the above described property, do hereby consent to the platting of Briarwood Estates 4th Addition to Wichita, Sedgwick County, Kansas.

State of Kansas
County of Sedgwick ss

Be it remembered that on this____day of_____, 1984, before me, a Notary Public in aforesaid State and County, came the Mellon Bank, N.A. by its_____, to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledge the execution of same for and on behalf and as the voluntary act and deed of said Bank, in testimony whereof I have hereunto set my hand and affixed my Notarial Seal the day and year above written.

_____ Notary Public

My Appointment Expires:_____

State of Kansas
County of Sedgwick ss

I, R.W. Linn, a Professional Engineer in aforesaid State and County, do hereby certify that on this____day of_____, 1984, I have caused to be surveyed and platted "BRIARWOOD ESTATES 4TH ADDITION" to Wichita, Sedgwick County, Kansas, into lots, blocks, streets and reserves, the same being a replat of a portion of Briarwood Estates, Wichita, Sedgwick County, Kansas, described as: Commencing at the NW Corner of the NW 1/4 of Section 18, Township 27 South, Range 1 West of the 6th P.M.; thence along the west line of said NW 1/4 bearing S 7°21'29" E a distance of 201.00 feet; thence bearing N 82°38'31" E a distance of 50.00 feet to the point of beginning, said point being on the east right-of-way line of 119th Street West; thence continuing bearing N 82°38'31" E a distance of 514.00 feet; thence bearing N 7°21'29" W a distance of 58.00 feet; thence bearing N 82°38'31" E a distance of 295.31 feet to the P.C. of a curve to the left having a radius of 110.00 feet; thence along said curve to the left through a central angle of 85°37'30", an arc distance of 164.39 feet; thence bearing N 2°58'59" W a distance of 189.55 feet; thence bearing N 87°01'01" E a distance of 183.00 feet; thence bearing S 3°58'59" E a distance of 477.53 feet; thence bearing S 35°58'59" E a distance of 250.32 feet; thence bearing S 11°50'30" W a distance of 390.00 feet; thence bearing N 86°46'20" W a distance of 1098.16 feet to a point on the east right-of-way line of 119th Street West; thence along said right-of-way bearing N 7°21'29" W a distance of 528.34 feet to the point of beginning.

_____
R.W. Linn, P.E. No. 3684

Know all men by these presents that we, the undersigned property owners of the land as above set forth in the Engineer's Certificate have caused the land to be surveyed and platted into lots, blocks, streets and reserves, the same to be known as "BRIARWOOD ESTATES 4TH ADDITION" to Wichita, Sedgwick County, Kansas. Easements, as indicated, for the construction and maintenance of public utilities and drainage, are hereby granted. The reserves, as indicated, shall be reserved for drainage, utilities, landscaping, private access, and recreational facilities in accordance with the restrictive covenants established by the Declaration of Landowners Association Agreement, and shall be owned and maintained by the Briarwood Estates Homeowners' Association. The streets are hereby dedicated to and for the use of the public. All abutters' rights of access to and from 119th Street West over and accross the west line of Block 1 are hereby granted to the City of Wichita. Minimum Pad Elevation for all lots shall be 1335.00 M.S.L.

Inland Investment Co., Inc.

_____ President
Larry A. Chambers

State of Kansas
County of Sedgwick ss

Be it remembered that on this____day of_____, 1984, before me, a Notary Public in aforesaid State and County, came Inland Investment Co., Inc., by its President, Larry A. Chambers, to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledge the execution of same for and on behalf and as the voluntary act and deed of said company, in testimony whereof I have hereunto set my hand and affixed my Notarial Seal the day and year above written.

_____ Notary Public

My Appointment Expires:_____

This plat has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this____day of_____, 1984.

_____ Chairman
Robert K. Chisholm

_____ Secretary
Robert A. Lakin

This plat approved and all dedications shown hereon are accepted by the City Commission of the City of Wichita, Kansas.

Dated this____day of_____, 1984.

_____ Mayor
Margalee Wright

_____ City Clerk
Donald C. Gisick

This is to certify that this instrument was filed for record in the Register of Deeds Office at____:____m. on this____day of_____, 1984.

_____ Register of Deeds
Bette F. McCart

_____ Deputy
Pat Kettler

This plat approved and all dedications shown hereon are accepted by the Board of County Commissioners of Sedgwick County, Kansas.

Dated this____day of_____, 1984.

_____ Chairman
Jack Spratt

_____ Commissioner
Donald E. Gragg

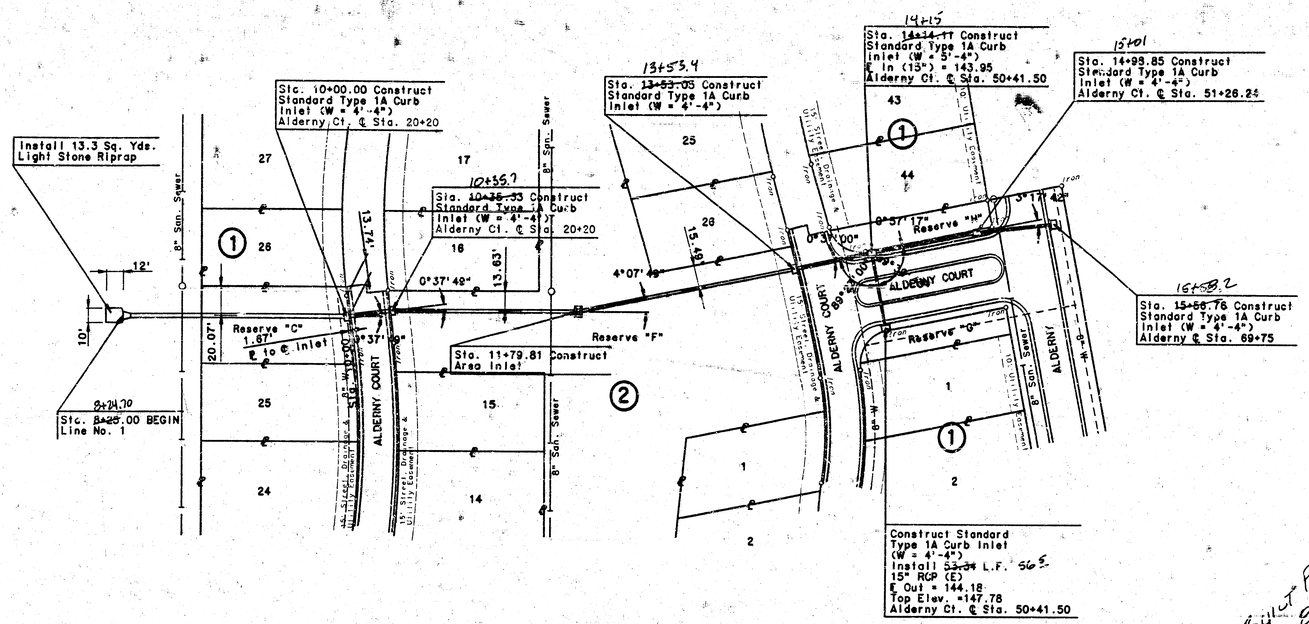
_____ Commissioner
Tom Scott

Attest: _____ County Clerk
Dorothy K. White

Entered on Transfer Record this____day of_____, 1984.

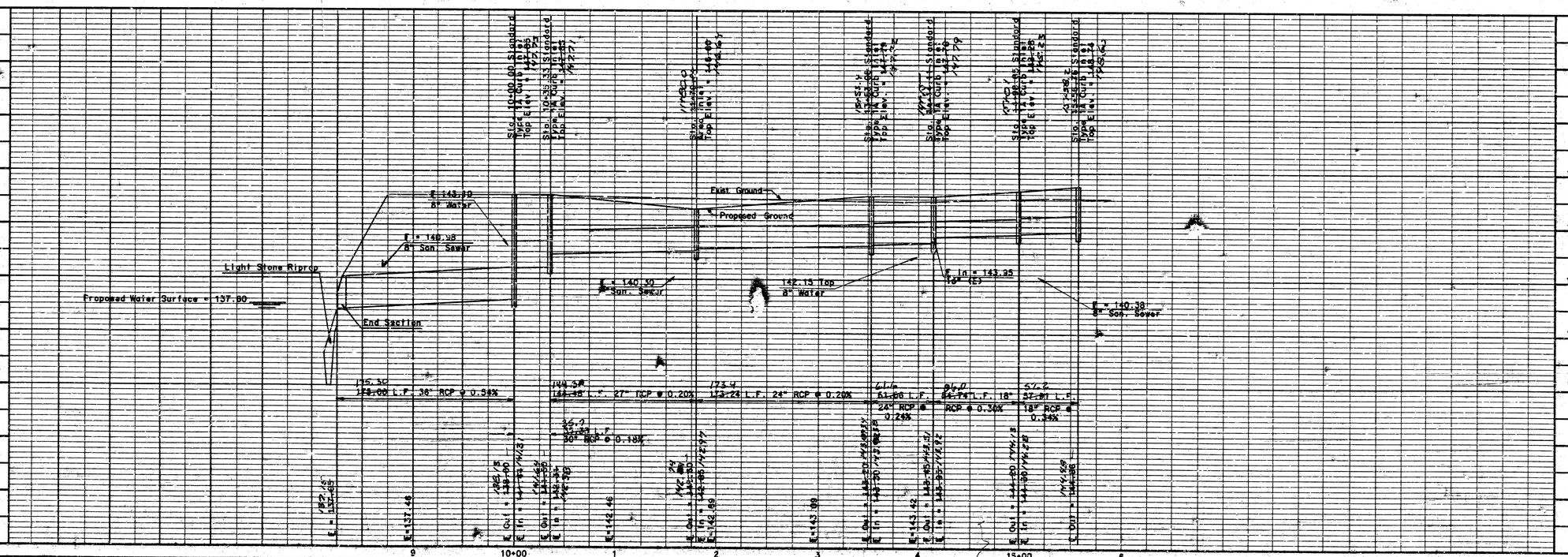
_____ County Clerk
Dorothy K. White

2/8



Scale : 1" = 50'

As Built Plans
4-8-85
M.C. Greene

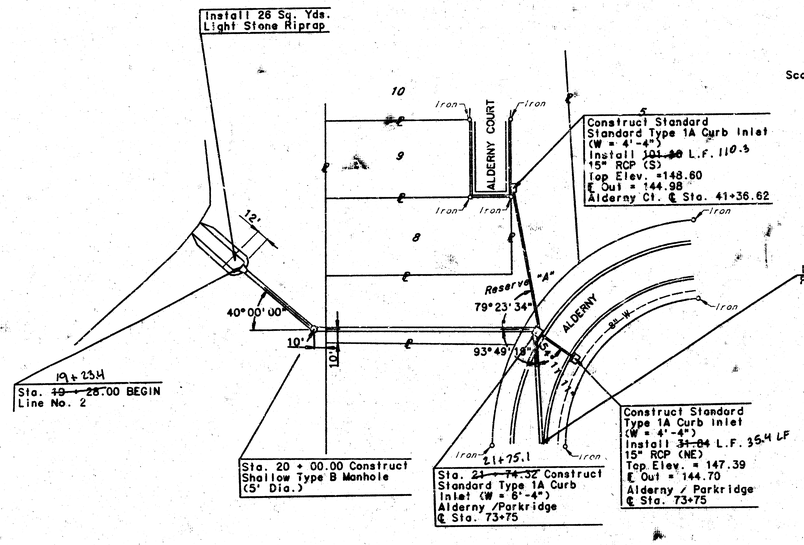


PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by BER | Job No. 83713-1 | Sht. 3 of 8
Drawn by Yodg. JGP | Date July, 1984

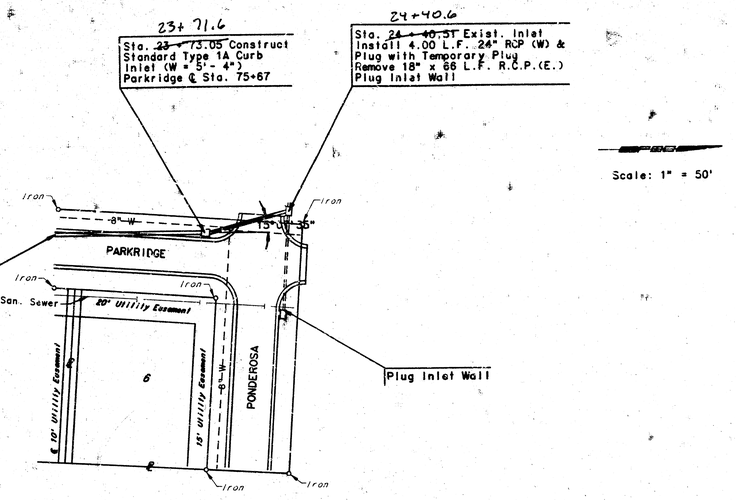
LINE NO. 1

Proj. No. 468-76-245-81356-000-000-001



Scale: 1" = 50'

Identical Point



Scale: 1" = 50'

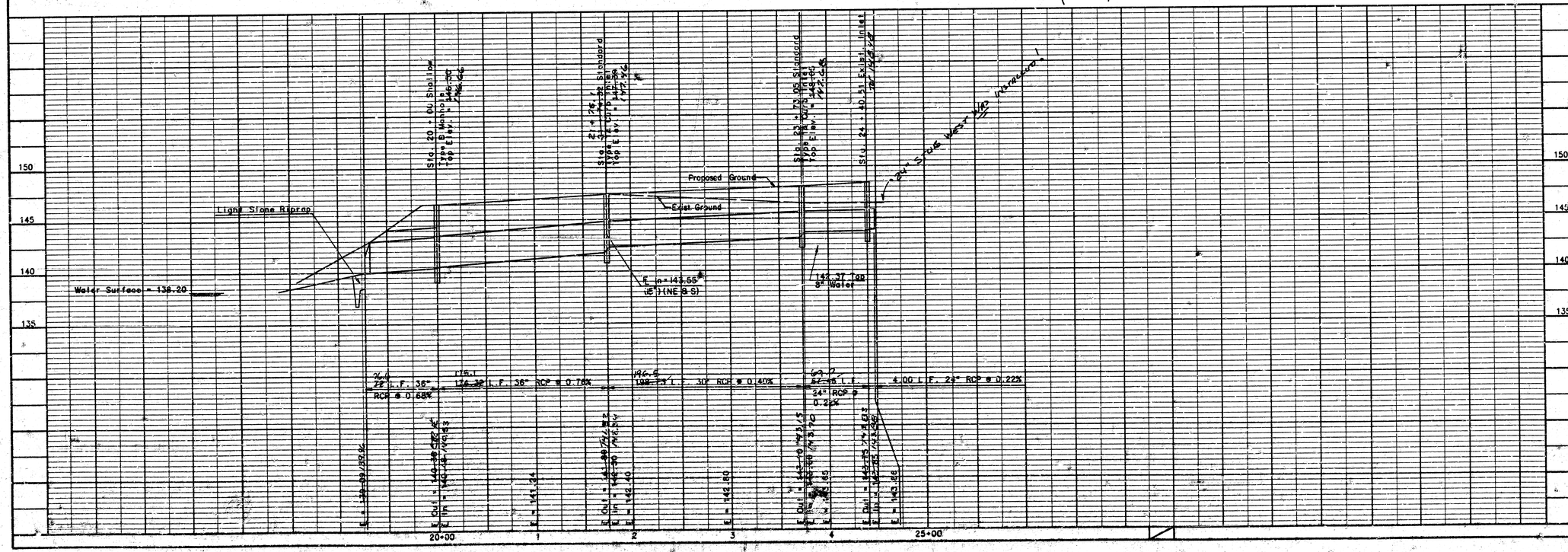
GENERAL NOTES

PIPE SALVAGED FROM THIS PROJECT SHALL BE DELIVERED TO THE CITY MAINTENANCE FACILITY AT 1801 SOUTH McLEAN. THIS WORK SHALL BE CONSIDERED A PART OF THE ITEM "PIPE REMOVED".

THE CONTRACTOR SHALL REPAIR EXISTING INLETS AS REQUIRED WHERE THE PLANS CALL FOR THE REMOVAL OF EXISTING STORM SEWER PIPE. THE REPAIR WORK SHALL BE ACCOMPLISHED WITH MATERIALS AS SPECIFIED FOR THIS TYPE OF NEW CONSTRUCTION.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH FOR THE ITEM "INLET PLUG".

As Built Plans
4-8-85
N.C. Gregory



PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

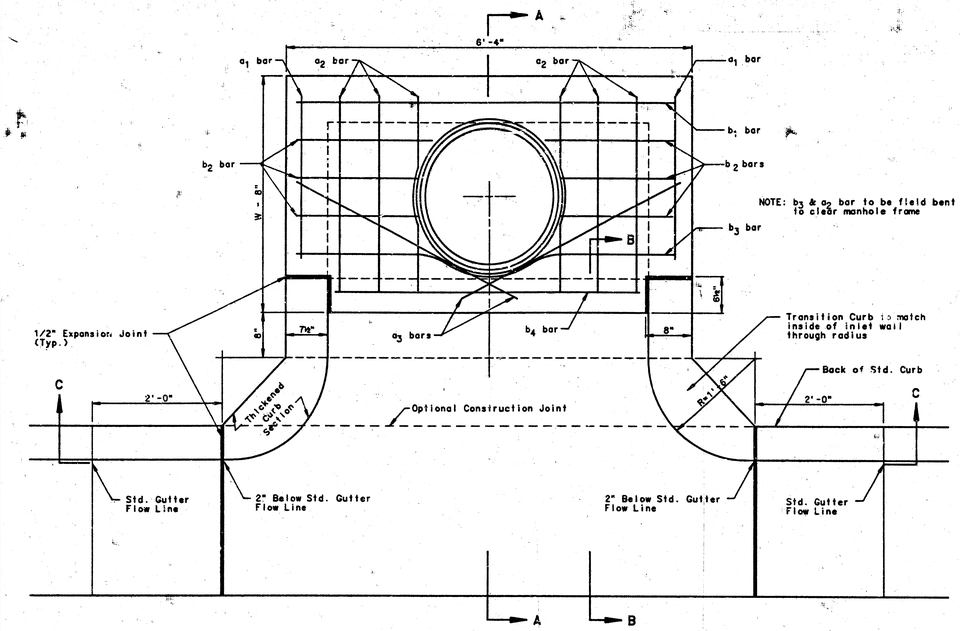
Designed By BER | Job No. 32-83713-1
Drawn By Yoda, JBP | Date June, 1984

LINE NO. 2

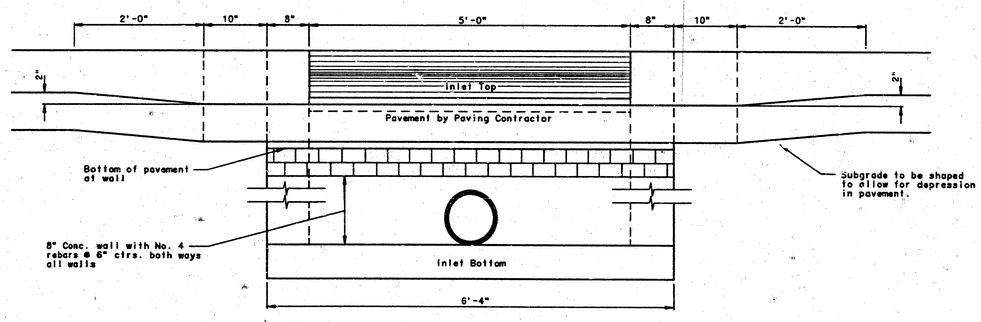
Proj. No. 468-76-245-81356-000-001

Sheet 4 of 8

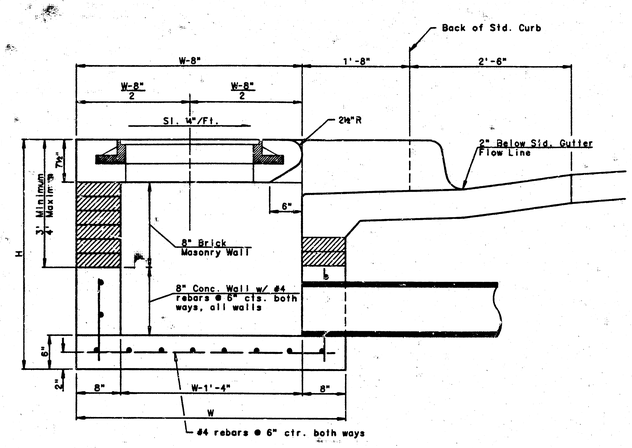
PROJECT NO.	SHEET NO.	TOTAL SHEETS
468-76-245-81356-000-000-001	5	8



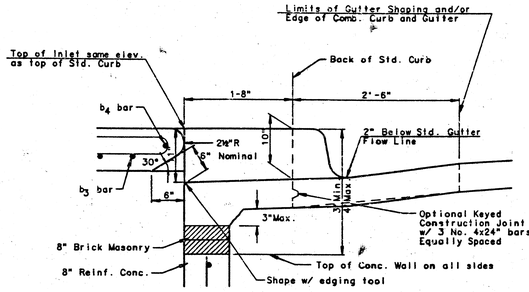
PLAN



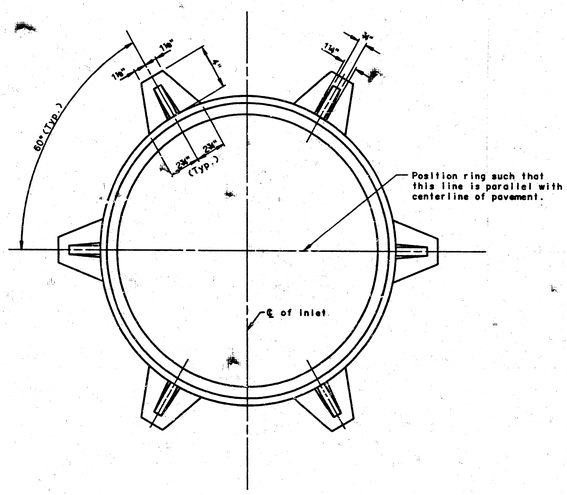
SECTION C-C

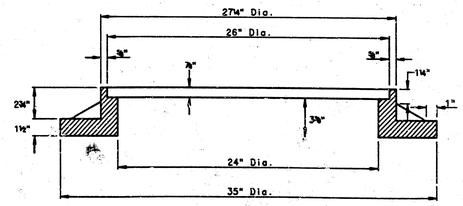


SECTION A-A



SECTION B-B





MANHOLE FRAME
(WEIGHT = 180 LBS.)

See Sheet No. for cover details to be used with inlet frame.

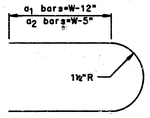
GENERAL NOTES

1. The contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W = 4'4" and H = 6'0" or less.
2. Additional curb and gutter construction necessary to connect setback inlet to pavement will be paid for at the unit price bid for each inlet hookup.
3. 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.
4. 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.
5. Inlet top reinforcing shall be spaced on 6" max. centers. Inlet lids shall be notched out as indicated to facilitate construction of curb.

STEEL SCHEDULE

BAR	a_1	a_2	a_3*	b_1 W=4'4"	W=5'4"	W=6'4"	W=7'4"	W=8'4"	b_2	b_3	b_4	WT. LBS.
NUMBER	4	4	2	1	3	5	7	9	6	1	1	
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH W=4'4"	5'9"	6'11"	4'0"	6'1"	--	--	--	--	1'9"	6'2"	4'8"	69±
LENGTH W=5'4"	7'9"	8'11"	5'0"	--	6'1"	--	--	--	1'9"	6'2"	4'8"	83±
LENGTH W=6'4"	9'9"	10'11"	6'0"	--	--	6'1"	--	--	1'9"	6'2"	4'6"	110±
LENGTH W=7'4"	11'9"	12'11"	7'0"	--	--	--	6'1"	--	1'9"	6'2"	4'8"	130±
LENGTH W=8'4"	13'9"	14'11"	8'0"	--	--	--	--	6'1"	1'9"	6'2"	4'8"	150±

*NOTE: a_3 Bars to be placed approx. 2" below top of inlet cover.



BENDING DIAGRAM

STANDARD CURB INLET PRECAST TOPS			
W	PRECAST TOP SIZE	PIPE SIZE	CU.YD. CONC.
4'4"	3'8"x6'4"x7½"	21" & Smaller	0.38±
5'4"	4'8"x6'4"x7½"	24" & 30"	0.51±
6'4"	5'8"x6'4"x7½"	36" & 42"	0.64±
7'4"	6'8"x6'4"x7½"	48" & 54"	0.77±
8'4"	7'8"x6'4"x7½"	60" & 66"	0.90±

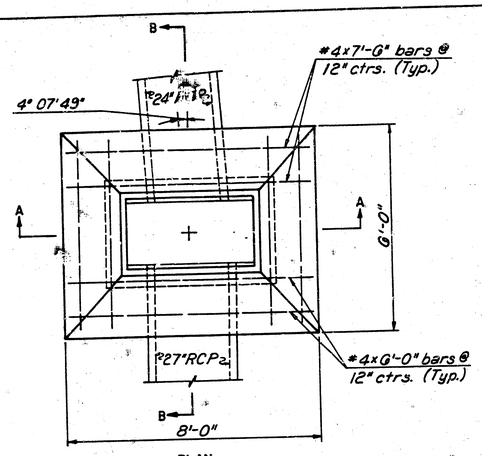
CITY OF WICHITA, KANSAS

STD TYPE 1A CURB INLET
INLET OPENING = 6" x 5'-0"

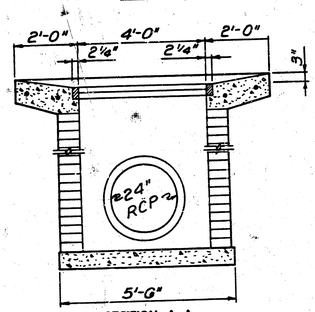
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	City of Wichita	Checked by		5/8
Drawn by	Yoda	Date June, 1984	Job No.	

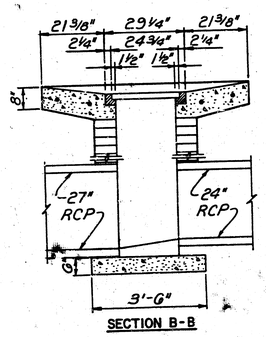
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488-76-245-8135G-000-000-001	G	8



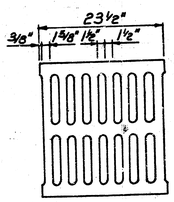
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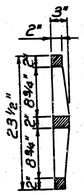


SECTION A-A

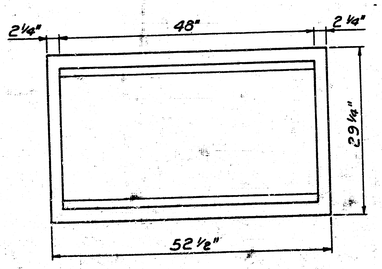


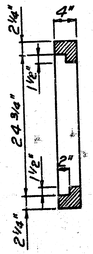
SECTION B-B





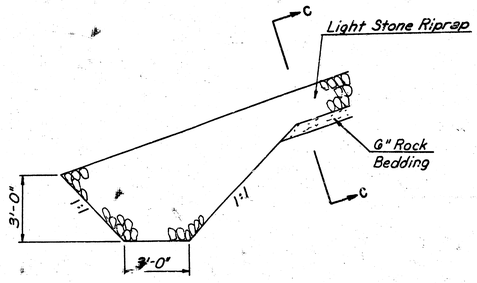
GRATE DETAIL



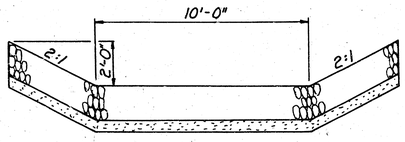


DOUBLE FRAME DETAIL

AREA INLET DETAILS



TOE DETAIL



SECTION C-C

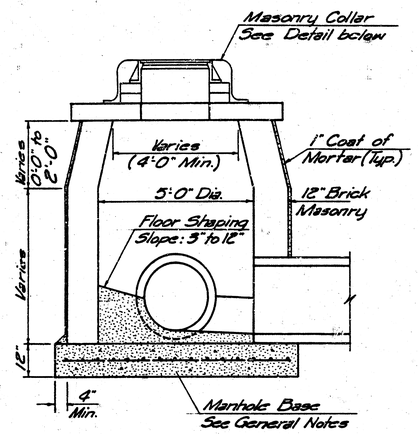
LIGHT STONE RIPRAP DETAILS

AREA INLET DETAILS & RIPRAP DETAILS

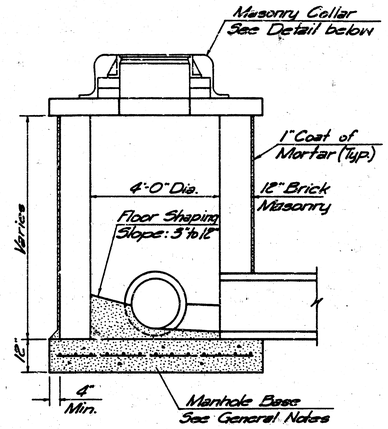
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	BER	Checked by		
Drawn by	JGP	Date	June, 1984	Job No. 83713-1

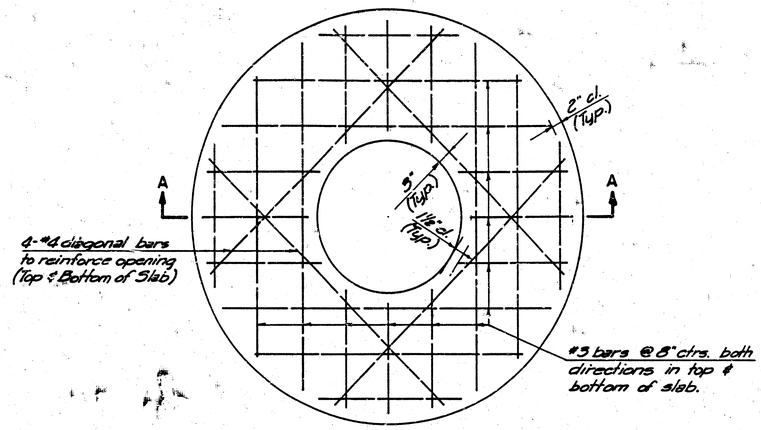
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468-76-245-81356-000-000-001	6	7



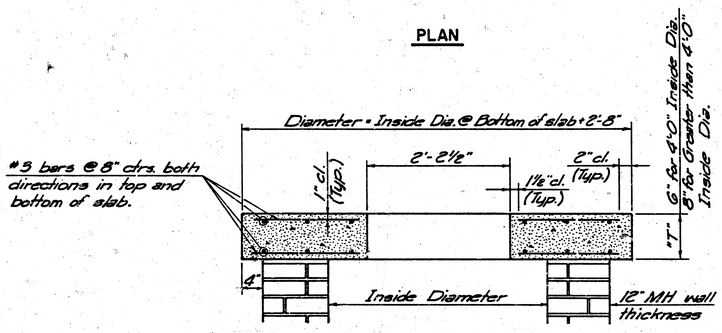
SHALLOW TYPE "B" MANHOLE (5' DIA.)



SHALLOW TYPE "B" MANHOLE (4' DIA.)

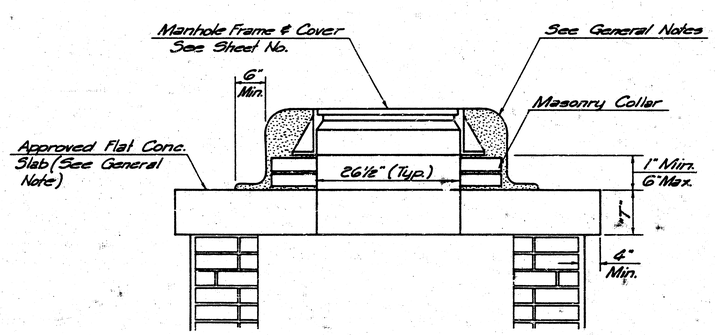


PLAN



SECTION A-A

FLAT CONCRETE SLAB DETAILS



MASONRY COLLAR DETAIL

GENERAL NOTES:

TOPS OF MANHOLES LOCATED IN PAVED AREAS SHALL BE SET FLUSH WITH THE PAVEMENT. TOPS OF MANHOLES LOCATED IN GRASSED AREAS SHALL BE SET FLUSH WITH THE FINISHED GRADE. TOPS OF MANHOLES LOCATED IN UNPAVED TRAVEL WAYS SHALL BE SET SIX INCHES (6") BELOW FINISHED GRADE.

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 PAVEMENT 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. 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.

BRICK USED SHALL CONFORM TO THE REQUIREMENTS SPECIFIED FOR GRADE MS IN A.S.T.M. C 32-73 OR GRADE SW IN A.S.T.M. C 62-69.

ALL BRICK SHALL BE LAID WITH SHOVE JOINTS. THE ENTIRE OUTSIDE SURFACE OF THE MANHOLE SHALL BE PLASTERED WITH A MINIMUM OF ONE INCH (1") OF THE CEMENT MORTAR. ALL CONTACT SURFACES BETWEEN BRICK MASONRY, FLAT CONCRETE SLASS, AND CAST IRON RINGS SHALL BE SEALED WITH A LAYER OF THE CEMENT MORTAR. BACKFILL SHALL NOT BE ACCOMPLISHED UNTIL THE MORTAR HAS CURED FOR TWENTY-FOUR (24) HOURS.

CEMENT USED FOR MORTAR SHALL BE TYPE I COMPLYING WITH THE REQUIREMENTS OF THE LATEST REVISION OF A.S.T.M. DESIGNATION C-150.

FINE AGGREGATE USED FOR MORTAR SHALL CONFORM TO THE SAME REQUIREMENTS AS REQUIRED FOR CONCRETE PAVEMENT, EXCEPT THAT IS SHALL HAVE A GRADATION FACTOR OF NOT LESS THAN 2.75 AND SHALL BE FREE FROM DUST, LOAM OR DIRT.

AN APPROVED TYPE OF FLAT CONCRETE SLAB, CONFORMING TO THE REQUIREMENTS OF A.S.T.M. C-478, SHALL BE USED TO SUPPORT THE MANHOLE RING AND COVER. A ONE INCH (1") MINIMUM TO SIX INCH (6") MAXIMUM MASONRY COLLAR CONFORMING TO THE SAME TYPE OF CONSTRUCTION AS SPECIFIED ABOVE SHALL BE INSTALLED BETWEEN THE MANHOLE RING AND THE FLAT CONCRETE SLAB TO FACILITATE MINOR ADJUSTMENTS IN ELEVATIONS.

THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE DEBRIS COULD BE DEPOSITED AS WATER 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.

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 DRAWING.

SHALLOW MANHOLES TYPE "B" SHALL BE BID PER EACH FOR THE DIAMETER INDICATED. SAID PRICE BID SHALL BE FULL PAYMENT FOR FURNISHING ALL MATERIALS, FOR ALL EXCAVATION, BACKFILLING, AND FOR ALL LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

SHALLOW TYPE "B" MANHOLE (FOR STORM SEWERS)

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	B.E.R.	Checked by	
Drawn by	D.D.	Date June, 1984	Job No. 8371B-1

7/8

MANHOLE FRAME AND COVER DETAIL

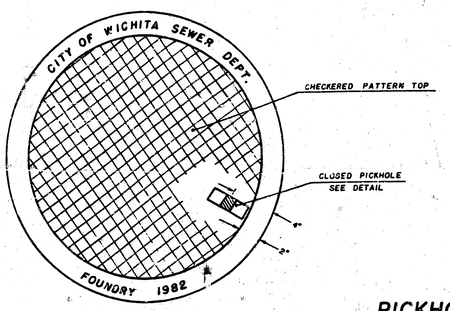
ADOPTED AS STANDARD DESIGN

BY

City of Wichita, Kansas

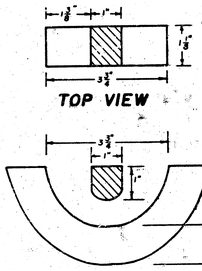
MANHOLE COVER

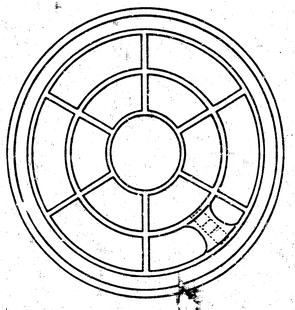
Weight: 180 Lbs.



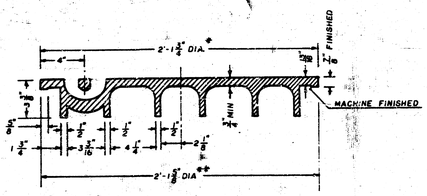
TOP VIEW

PICKHOLE DETAIL





BOTTOM VIEW



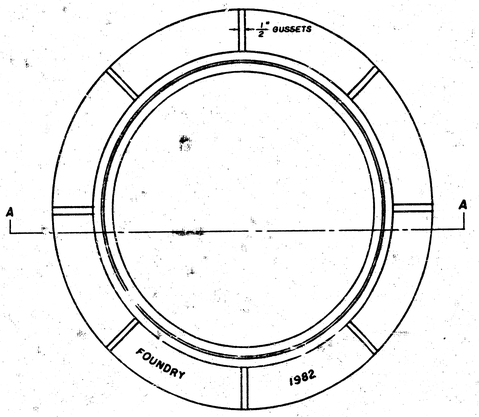
SECTION VIEW

* OUTSIDE DIA. TOP OF COVER

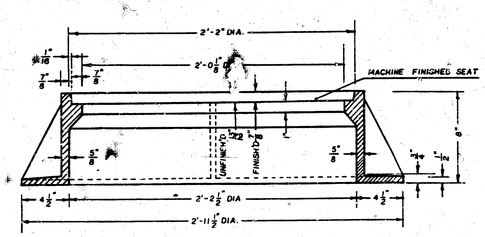
** OUTSIDE DIA. BOTTOM OF COVER

MANHOLE FRAME

Weight: 240 Lbs.



TOP VIEW



SECTION A-A

GENERAL NOTES

1. 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.

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

3. 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.

4. 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 THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

5. 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" 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.

JNL DEC. 1981