STORM WATER SEWER IMPROVEMENTS

to serve

COMOTARA INDUSTRIAL PARK FOURTH ADDITION

LOTS 31-32

CITY OF WICHITA, KANSAS

Michael E. Lindebak, P.E. City Engineer

Private Project Number

1112 PPS (607661)

GENERAL NOTES:

1. 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 637-2470

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

Cox Communications, Inc.	262-0661
K.G.E. Electric Service	383-8650
Kansas Gas Service	383-8600
Peoples Gas Company	842-8350
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Dept.	268-4908
City of Wichita Traffic Engineering	269-4446

2. Underground utility service lines and overhead utility pole lines are to be adjusted as necessary by owners 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.

3. 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.

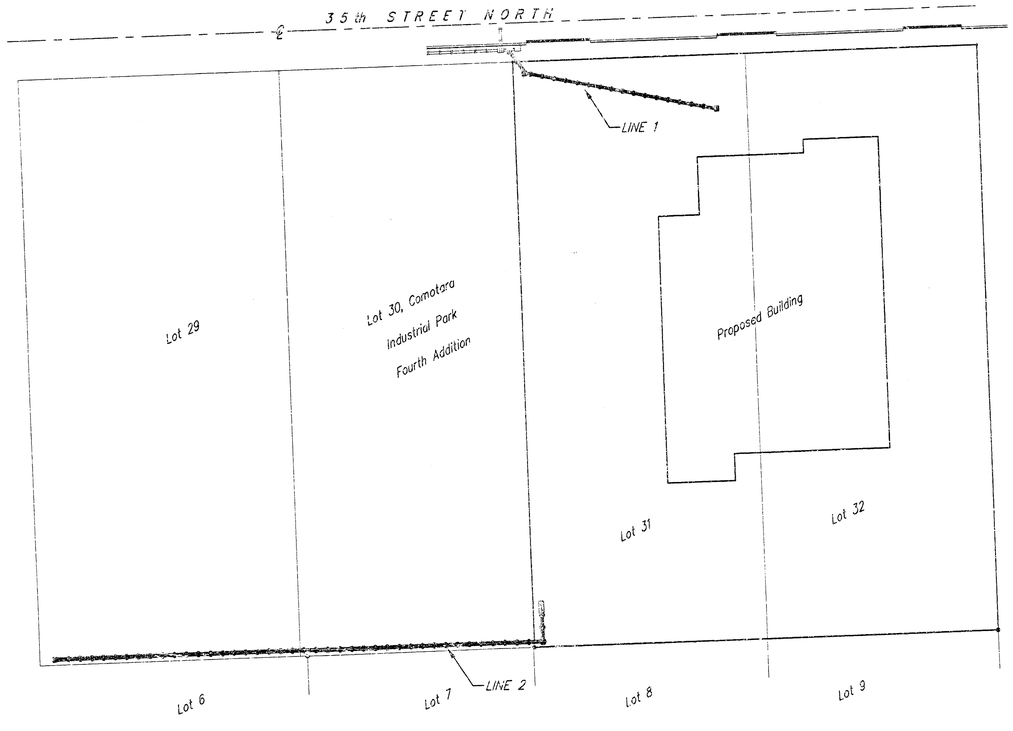
4. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.

5. 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.

6. When connecting to existing inlet or stub, the contractor shall reshape inlet bottom or adjust the existing stub's alignment or elevation as necessary. Cost shall be subsidiary to project.

7. The Contractor shall not start work on the project until the Project Inspector is assigned to the project and is present on the sight. Any work done without inspection will be required to be uncovered for inspection.

8. All Disturbed Drainage & Utility Easements Shall Be Seeded As Follows:
   SEED -- Kansas Premium Fescue Blend; 8#/1000 SQ. FT., Drilled
   MULCH -- 2 Tons Prairie Hay / Acre, Where Erosion Mat Is Not Installed
   FERTILIZER -- 16-26-16 Ratio - 350 Lbs./Ac.



Scale: 1" = 50'

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Storm Sewers VRH 5/16/01

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).

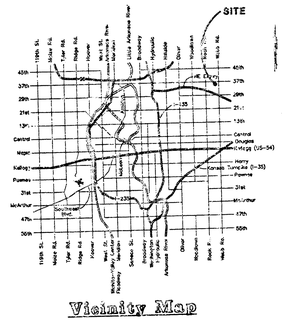
Sheet Index

Title Sheet	1
Line 1	2
Line 2	3
Manhole Ring Detail	4
Std. Type 2 Curb Inlet	5
Type 1 Curb Inlet	6
Copy of Plat	7

BOOKED C-220 1-5-01 MCK

Benchmark

C.O.W. Disc Located 3' North of the Top of Curb Along 34th Street North & 84' West of the Centerline of Webb Road.
Elev. = 244.18 (City Datum)



Vicinity Map

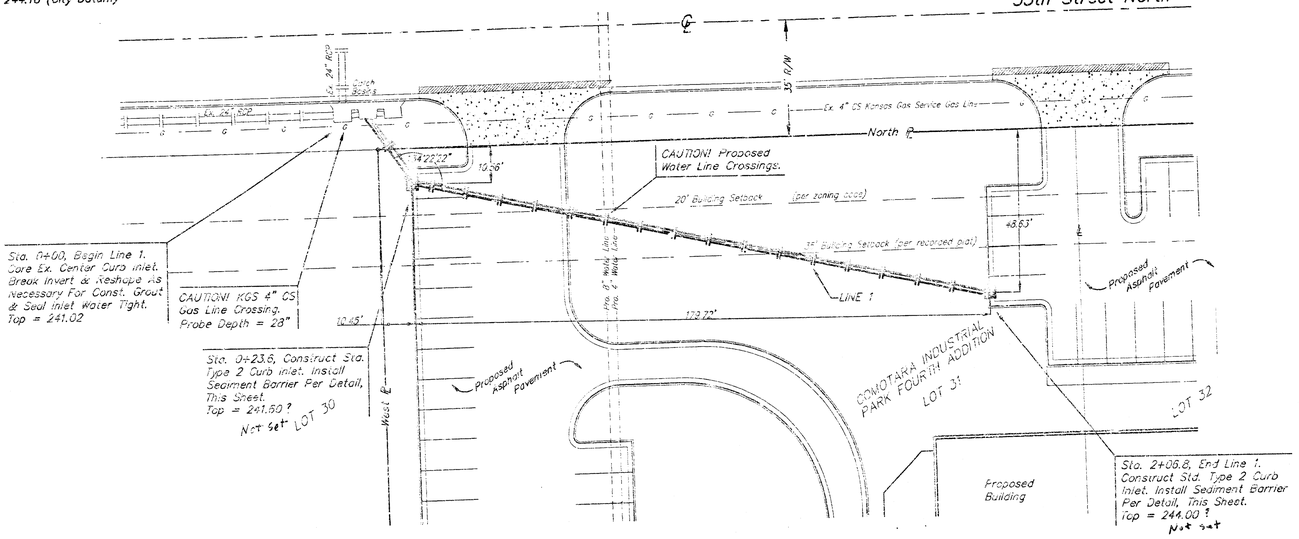
As Built 9/01 KK

05/09/2001

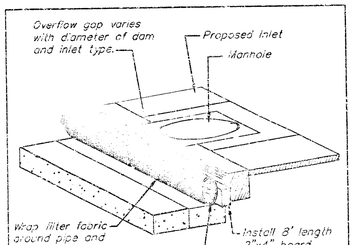
BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211
F:\ENG\COMTA51\SWSCOV.DWG - SCI

16 05-02-02

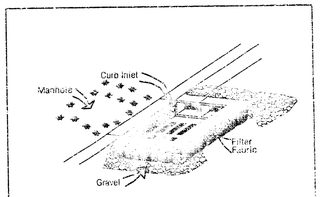
BENCHMARK:
C.O.W. Disc Located 3' North of the Top of Curb Along 34th Street North & 84' West of the Centerline of Webb Road.
Elev. = 244.18 (City Datum)



SCALE:
1" = 20' HORIZONTAL
1" = 5' VERTICAL
• = IRON



INLET PROTECTION
Perforated Pipe w/ Gravel

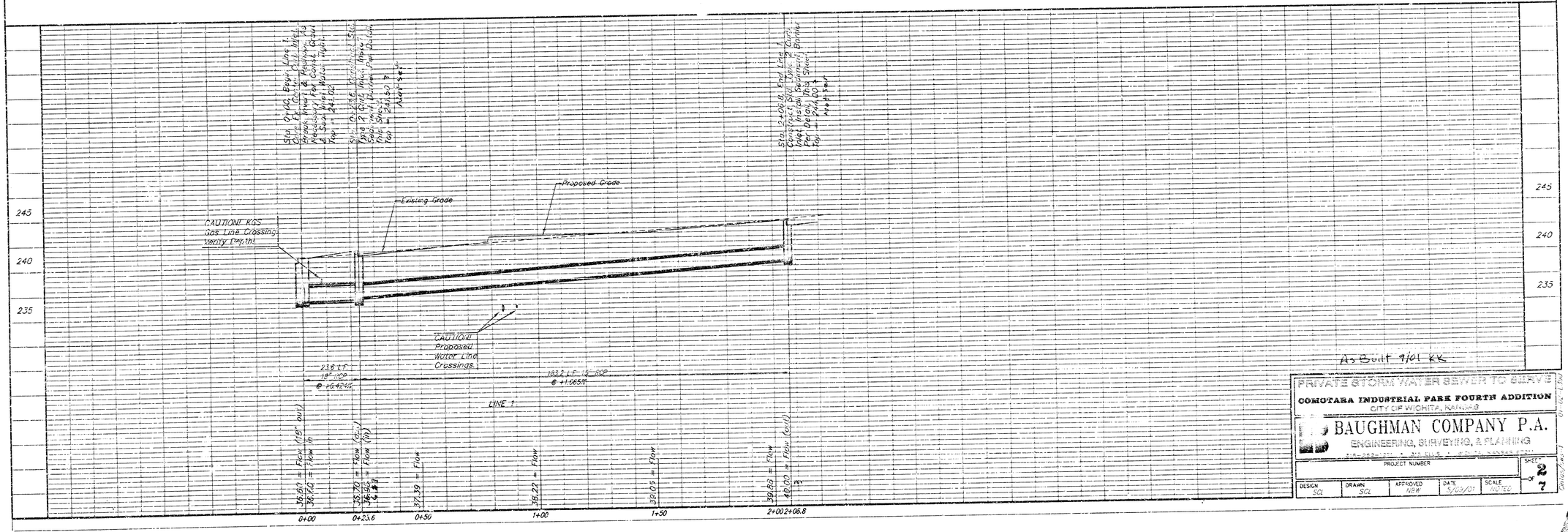


NOTES:
Frequent maintenance is required to remove sediment deposits and buildup.

Wrap filter fabric around all CMU block and backfill with 2"-3" gravel rock to allow sediment deposits.

DO NOT cover inlet or grate with filter fabric.

CURB INLET W/GRATE
SEDIMENT BARRIER DETAIL



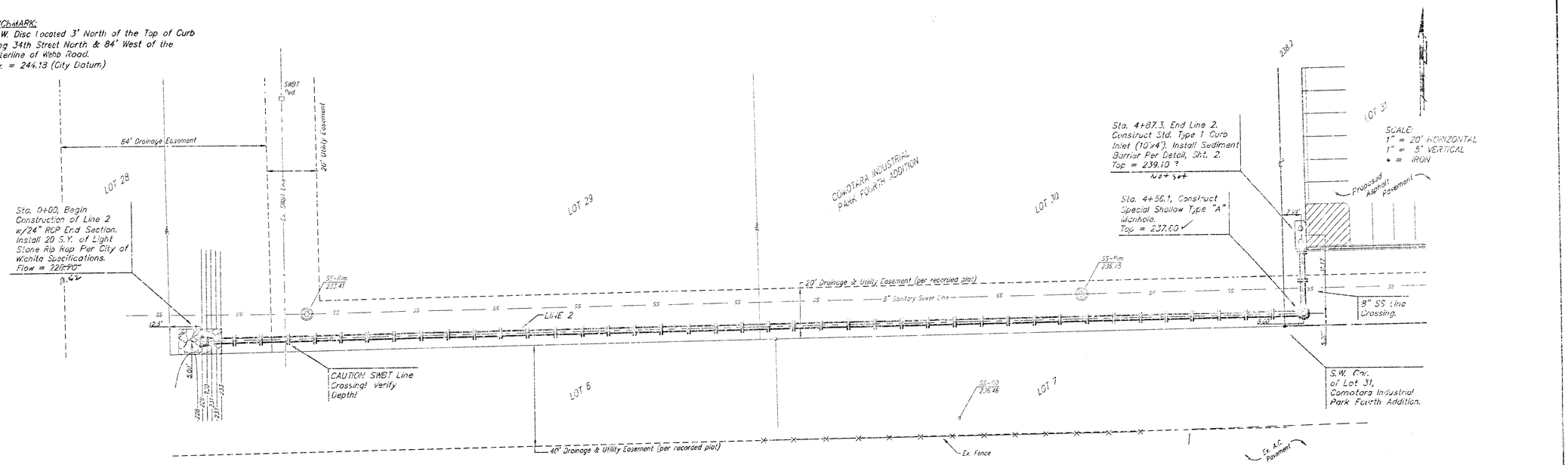
As Built 9/01 KK

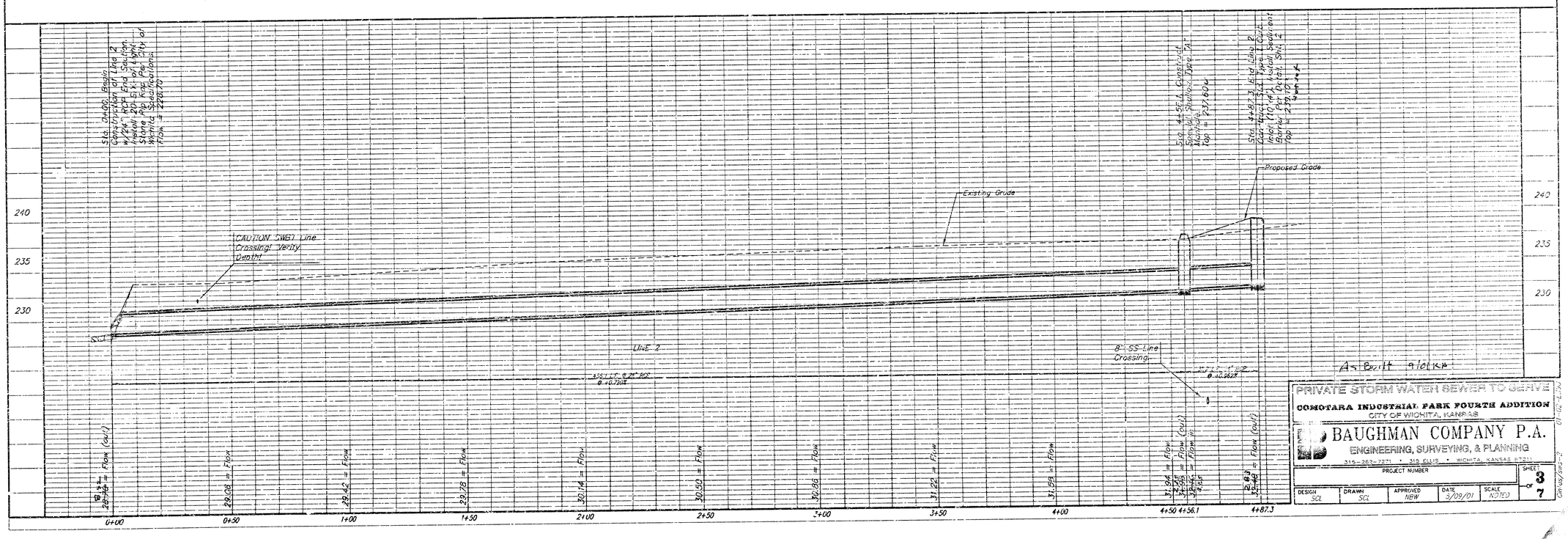
PRIVATE STORM WATER SEWER TO SERVE
COMOTARA INDUSTRIAL PARK FOURTH ADDITION
CITY OF WICHITA, KANSAS

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

PROJECT NUMBER					SHEET 2 OF 7
DESIGN SCL	DRAWN SCL	APPROVED NSW	DATE 5/03/01	SCALE NOTED	

BENCHMARK:
C.O.W. Disc located 3' North of the Top of Curb Along 34th Street North & 84' West of the Centerline of Webb Road.
Elev. = 244.13 (City Datum.)





PRIVATE STORM WATER SEWER TO SERVE
COMOTARA INDUSTRIAL PARK FOURTH ADDITION
CITY OF WICHITA, KANSAS

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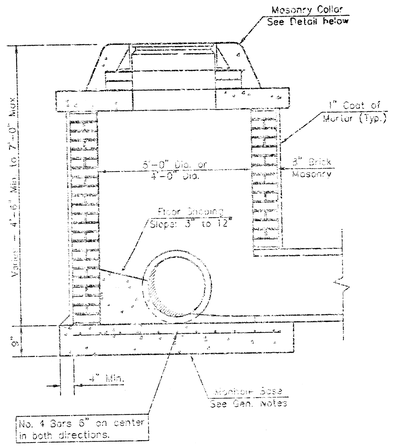
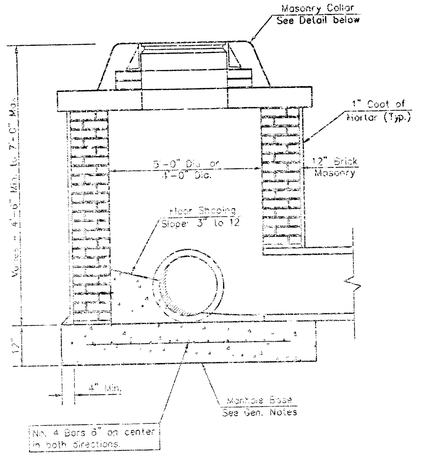
PROJECT NUMBER				SHEET OF
DESIGN SCL	DRAWN SCL	APPROVED NBW	DATE 5/09/01	SCALE NOTED	3 7

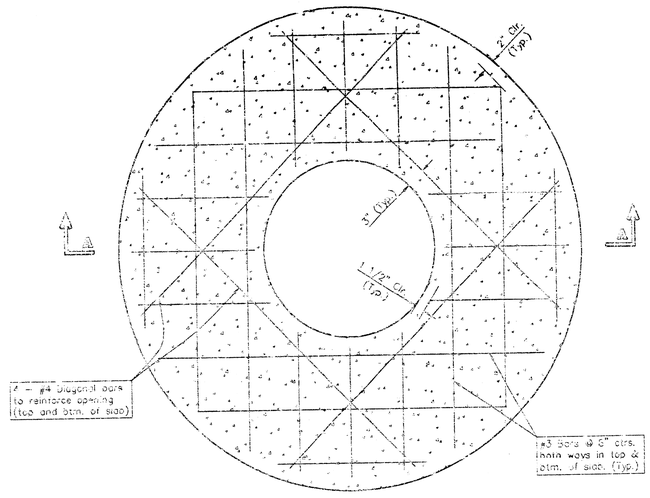
01-02-1290
Cad/dg/sht-2



SHALLOW TYPE "A" MANHOLE



SHALLOW TYPE "B" MANHOLE



PLAN

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.

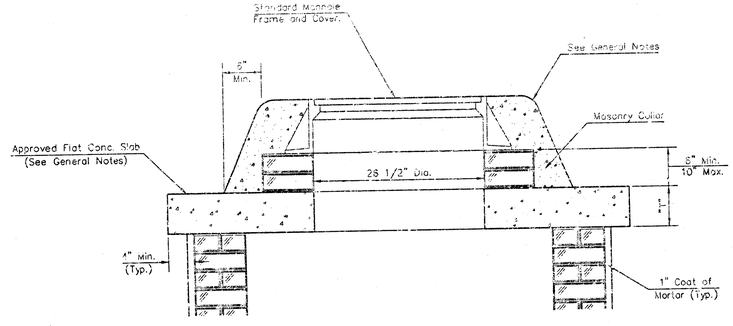
4. Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When clay pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the clay pipe joint in a manner which will maintain 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.

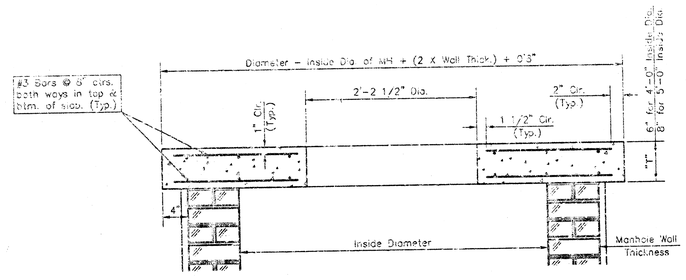
6. The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.

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 C52-87.

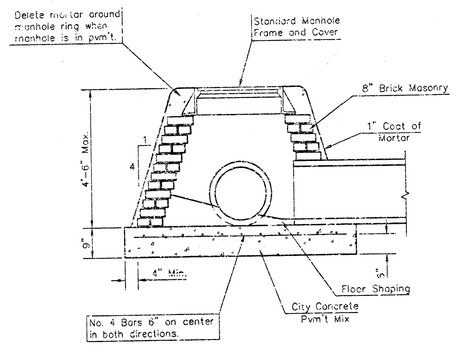


MASONRY COLLAR DETAIL

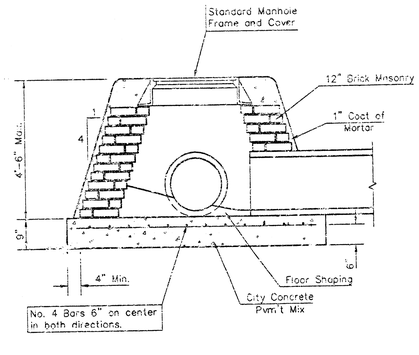


SECTION A-A

FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

CITY OF WICHITA, KANSAS

Std. Manhole Detail

TYPES "A" AND TYPE "B"

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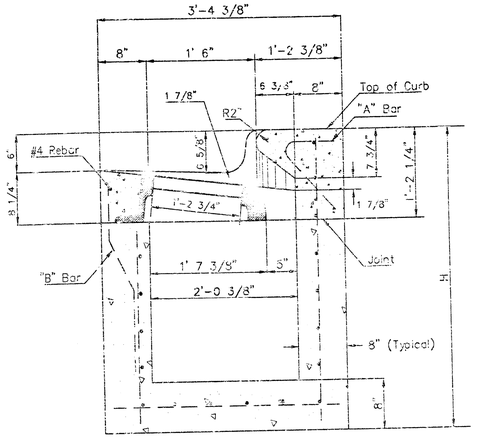
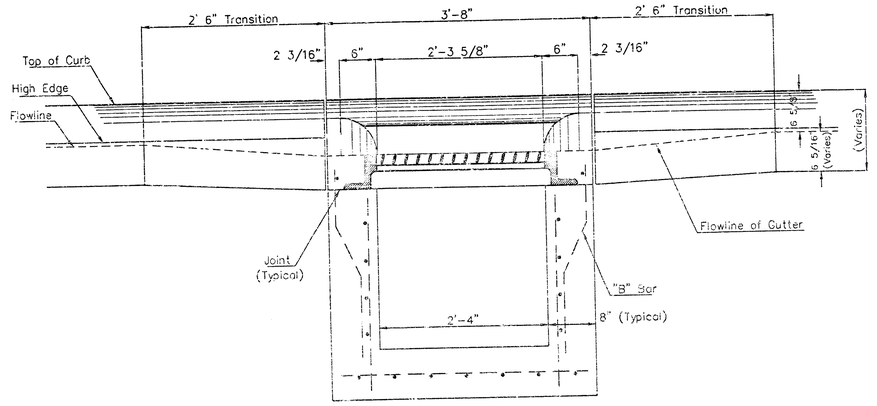
PROJECT NUMBER				SHEET
				4 of 7
DESIGN: C.O.W.	DRAWN: Staff	APPROVED	DATE	SCALE: NONE

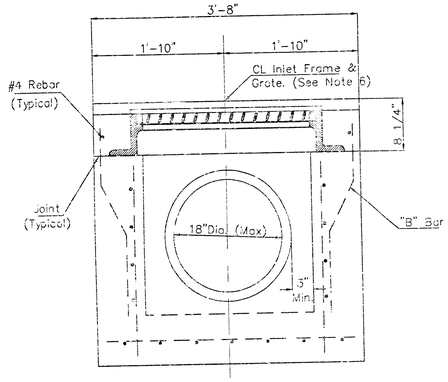
Carlos Lohmeier



SECTION A-A

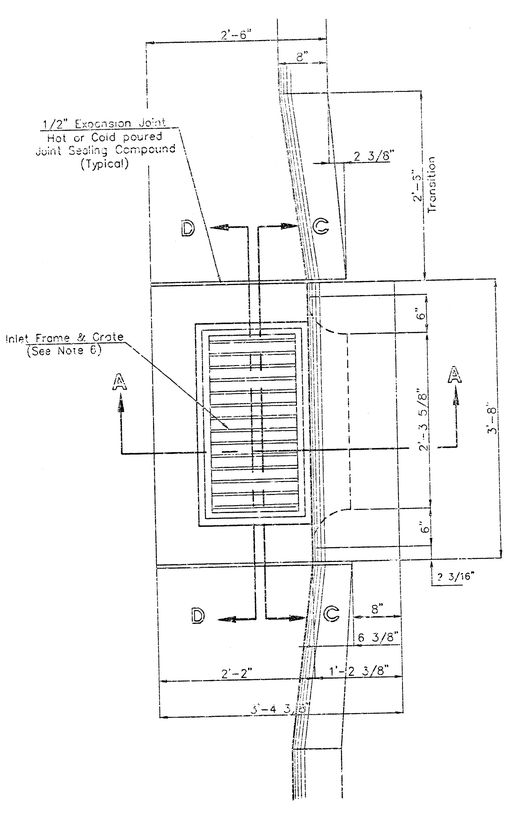


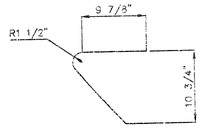
SECTION C-C



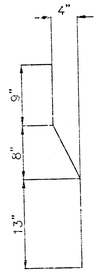
SECTION D-D

REAR WALL





"A" Bar



"B" Bar

General Notes

1. Use the concrete mix specified for the City of Wichita concrete pavement throughout. All exposed edges shall be finished with an edging tool. Reinforcing bars shall be bent around pipe.
2. Inlet invert shall be shaped with 8 sack 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.
3. All bars are #4 with 6" spacing and shall have a minimum clearance of 1 1/2" inches unless otherwise noted on the plans.
4. When directed by the Engineer, a small opening may be required in the back of the inlet in order to drain a low area. Reinforcing bars will extend through the openings. No deductions in concrete quantities will be made for these openings.
5. No deductions will be made in pay length of curb, gutter, or curb and gutter through the inlet area.
6. Use Neenah R-3289 HV Single Inlet Frame and Grate or approved equal. Inlet frame to be proof load tested to 40,000 lbs. on unsupported side.
7. Reinforcing bars shall be cut or bent around pipes. No deduction in concrete quantities shall be made for pipe openings.
8. The vanes of the grate shall be oriented with respect to the flow arrows shown on the plans.

Redrawn Jan.1992

CITY OF WICHITA

STD. TYPE II CURB INLET

INLET OPENING - 8'-4 3/8"

BAUGHMAN COMPANY P.A.

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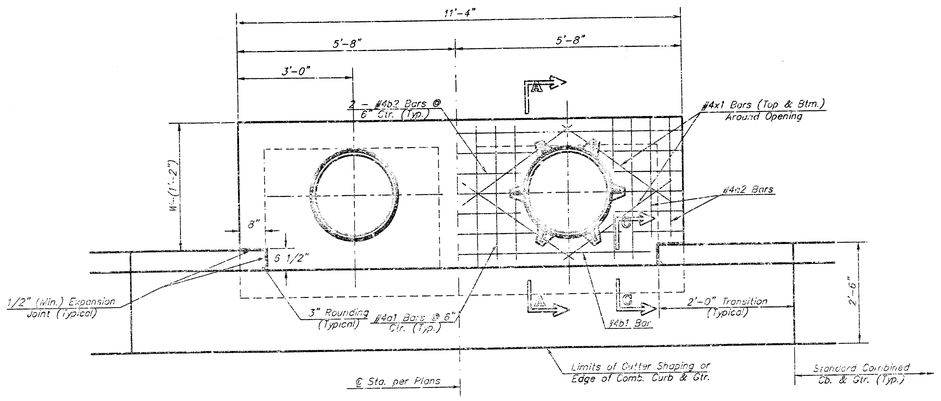
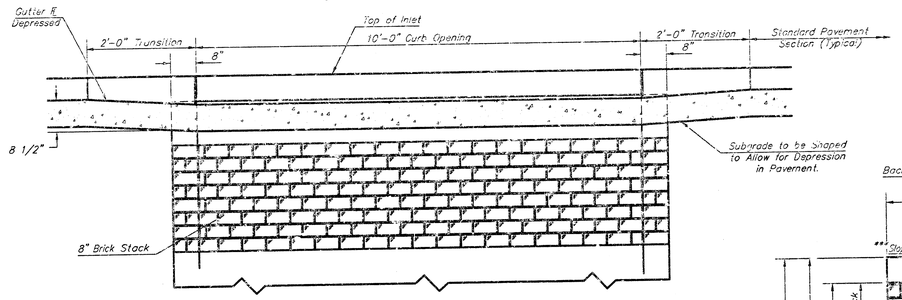
PROJECT NUMBER				SHEET
DESIGN	DRAWN 1/1987	APPROVED	DATE	SCALE NONE	OF 5 7

Contact Type

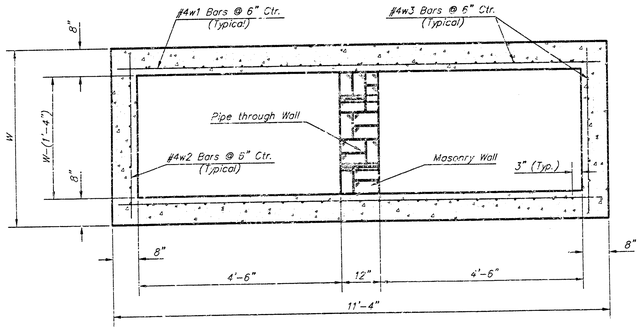


PLAN

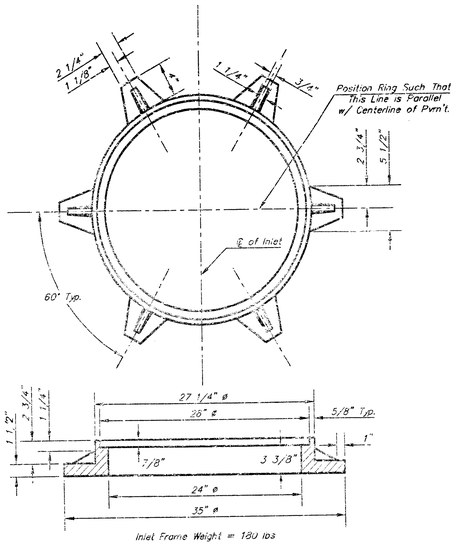
*Left Side Shown Without Str'l. Reinforcing, Right Side Shown With Slab Reinforcing



ELEVATION



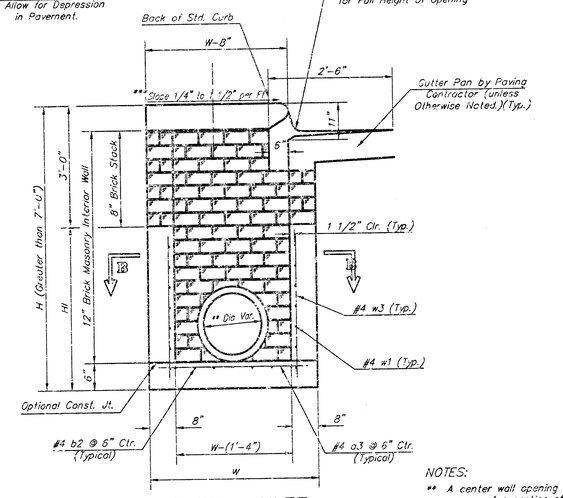
SECTION B-B



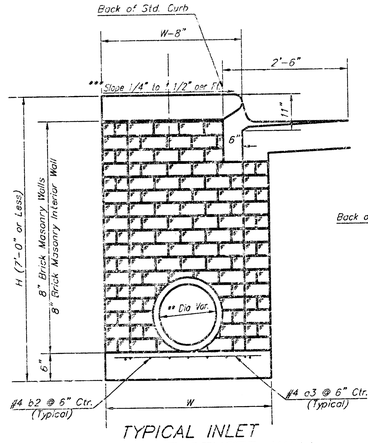
Inlet Frame Weight = 180 lbs

MANHOLE RING AND COVER

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



TYPICAL INLET SECTION AT CENTER WALL (REINFORCED CONCRETE WALLS)

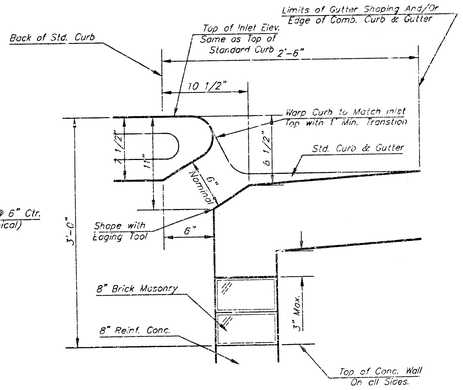


TYPICAL INLET SECTION AT CENTER WALL (MASONRY WALLS)

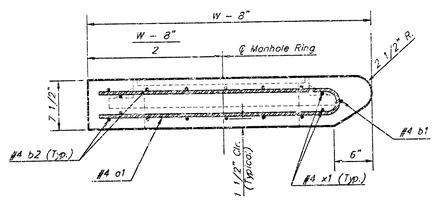
NOTES:

** A center wall opening shall be provided by means of a section of reinforced concrete pipe. See Case I and Case II below.

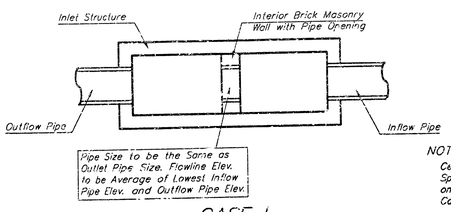
*** Slope of inlet tops to match sidewalk of parking slopes within limits indicated



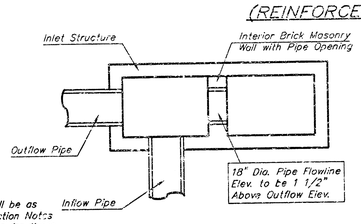
SECTION C-C



SECTION A-A



CASE I



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

CASE II

PRECAST SLAB AND FLOOR REINFORCING										
		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a1	#4	13	5'-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"

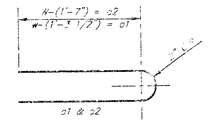
WALL REINFORCING										
		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
w1	#4	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	52	②	56	②	60	②	64	②	68	②

* Field Bend or Cut Reinforcing as Required for Clearance.

① 4 (Ht - 12") (Ht - 21") Rounded down to nearest 0.5'

② Ht - 3"

STANDARD CURB INLET PRECAST TOPS			
W	PIPE-CAST TOP SIZE	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±



BENDING DIAGRAM

GENERAL NOTES:

Concrete shall be C.O.W. standard paving mix. All exposed edges shall be finished with an edging tool. Reinforcing bars shall be field bent or cut to clear pipes and inlet rings. All bars are #4 bars @ 6" spacing and shall have a minimum clearance of 1 1/2" unless otherwise noted. Floors of inlet shall be shaped with a sack sand mix concrete to increase hydraulic efficiency such that the inlet will be self cleaning between all inlet and/or outlet pipe(s). The contractor will be required to to construct 8" brick masonry walls between the inlet base and top on this inlet when H=7'-0" or less and W=6'-4" 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.

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.

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

This detail is identical to the standard detail drawing except that the gutter transition length is increased from 2'-0" to 3'-6".

Revised - Feb. 16, 1989

CITY OF WICHITA STANDARD TYPE1

CURB INLET DETAILS

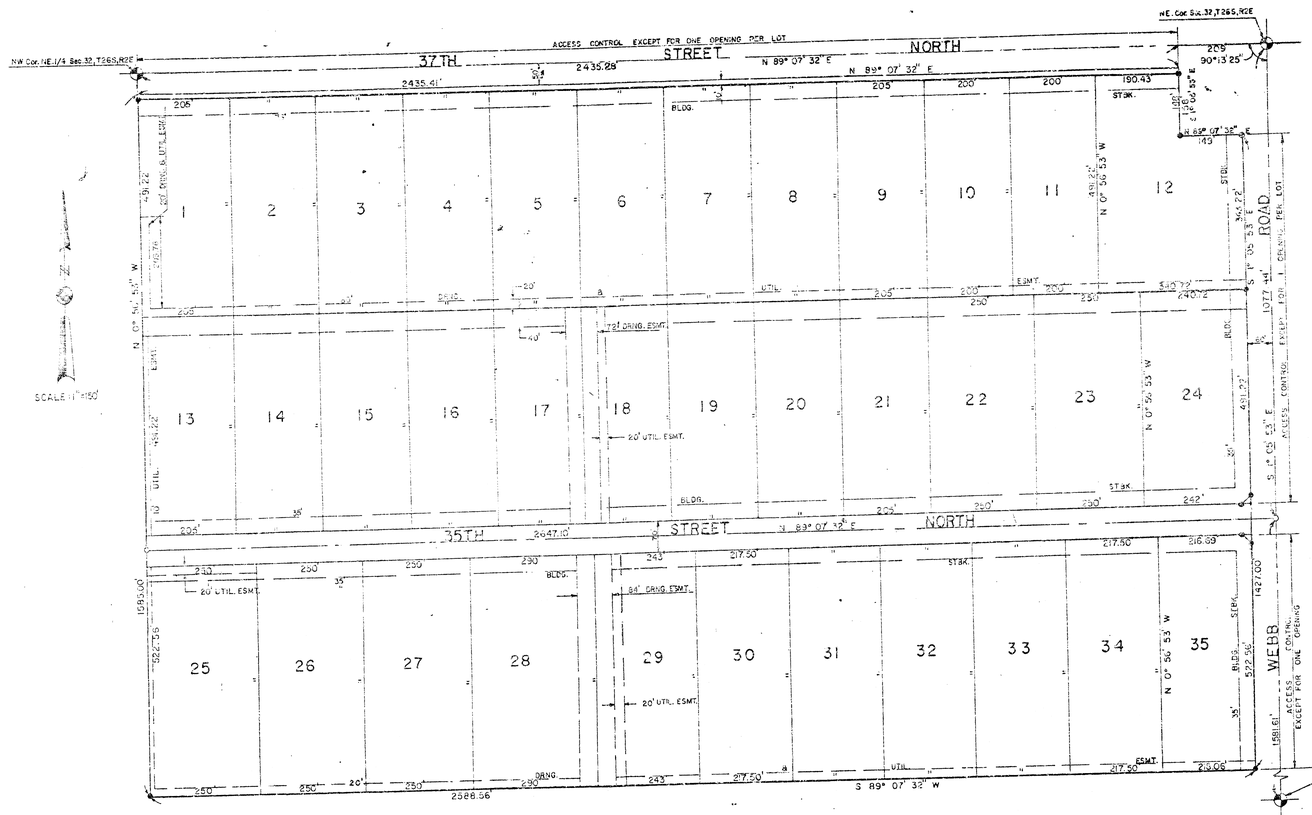
INLET OPENING = 6" X 10'-0"

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-265-7371 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER				SHEET	
				6	
DESIGN	DRAWN	APPROVED	DATE	SCALE	OF
C.O.W.	STAFF			NONE	7

C-1747-D

CC-2 1-H



FINAL PLAT OF
COMOTARA INDUSTRIAL PARK FOURTH ADDITION

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

I, Steven E. Anderson a Land Surveyor in Kansas, do hereby certify that I have been in responsible charge of surveying and platting of "Comotara Industrial Park Fourth Addition" to Wichita, Sedgwick County, Kansas, into lots and a street, the same being accurately set forth in the accompanying plat and described as follows:

A replat of part of Blocks 3 and 4, Comotara Business Park Addition to Wichita Sedgwick County, Kansas described as follows:

Beginning at a point on the west line of the northeast quarter, Section 32, T 26 S, R 2 E of the 6th P.M., 50.00 feet south of the northwest corner of said quarter; thence east along the south line of 37th Street North bearing N 89° 07' 32" E, 2435.41 feet; thence S 1° 05' 53" E, 156.00 feet; thence N 89° 07' 32" E, 149.09 feet to the west line of Webb Road; thence south along said west line bearing S 1° 05' 53" E, 1427.00 feet; thence S 89° 07' 32" W, 2586.56 feet to the east line of Comotara Industrial Park Second Addition; thence north along said east line bearing N 0° 56' 53" W, 1265.09 feet to the point of beginning. Containing 93.37 acres, more or less

35th Street, as dedicated in plat of Comotara Business Park Addition, is hereby vacated by virtue of K.S.A. 12-512-b.

I hereby certify that the details of the plat are correct to the best of my knowledge and belief this 27th day of September, 1978.

By: Steven E. Anderson
Steven E. Anderson
Van Doren-Hazard-Stallings
Architects-Engineers
260 North Rock Road
Wichita, Kansas

Know all men by these presents, that we the undersigned property owners of the land as above set forth in the Land Surveyor's Certificate, have caused the same to be surveyed and platted into lots and a street, the same to be known as "Comotara Industrial Park Fourth Addition" to Wichita, Sedgwick County, Kansas. The street is hereby dedicated to and for the use of the public. Easements for drainage and construction and maintenance of public utilities, as indicated on the accompanying plat, are hereby granted. All abutter's rights of access across the south line of 37th Street North and across the west line of Rock Road are hereby granted to the City of Wichita, Kansas, provided, however, that the subdivision shall have access to 37th Street North at one location per lot and shall have access to Webb Road at one location per lot.

Wichita Development Company

By: Robert R. Fox
Robert R. Fox
Attorney in Fact for Wichita Development Company

State of Kansas, County of Sedgwick, SS:

Be it remembered that on this 27th day of September, 1978 before me, a Notary Public in and for said State and County, came the Wichita Development Company, by Robert R. Fox, Attorney in Fact for Wichita Development Company, to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same. In testimony whereof I have hereunto set my hand and affixed my notarial seal the day and year above written.

Carolyn R. Owen, Notary Public
Carolyn Owen

My Commission Expires My Appointment Expires May 17, 1981.

We, the Citibank, N.A., New York City, New York, mortgagees on the above described property do hereby consent to the plat of "Comotara Industrial Park Fourth Addition".

The Citibank, N.A., New York, New York.

By: Robert R. Fox
Robert R. Fox
Attorney in Fact for Citibank, N.A.

Be it remembered on this 27th day of September, 1978 before me, a Notary Public in and for said State and County, came the Citibank, N.A., New York City, New York, by Robert R. Fox, Attorney in Fact for Citibank, N.A., to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same. In testimony whereof, I have hereunto set my hand and affixed my notarial seal the day and year above written.

Carolyn R. Owen, Notary Public
Carolyn R. Owen

My Commission Expires My Appointment Expires May 17, 1981.

REFILE 415151

This plat of "Comotara Industrial Park Fourth Addition" has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 22nd day of June, 1978.

Wichita-Sedgwick County Metropolitan Area Planning Commission

Jerry Grader, Vice-Chairman

Robert A. Lakin, Secretary

This plat approved and all dedications shown hereon, if any, accepted by the City Commission of the City of Wichita, Kansas this 10th day of October, 1978.

Connie A. Peters, Mayor

Donald C. Ustick, City Clerk

Entered on transfer record this 16th day of October, 1978.

Stephen D. Wright, County Clerk
STEPHEN D WRIGHT ASS'T.

20.00

This plat approved and all dedications shown hereon, if any, accepted by the Board of County Commissioners of Sedgwick County, Kansas this 16th day of October, 1978.

Everett G. Patrick, Chairman

Tom Scott, Commissioner

John Hale, Commissioner

Attest: Stephen D. Wright, County Clerk
STEPHEN D WRIGHT ASS'T.

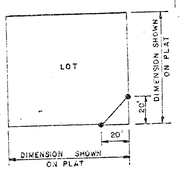
State of Kansas, County of Sedgwick, SS:

This is to certify that this instrument was filed for record in the Register of Deeds Office at 3:00 P.M. on the 16th day of October, 1978.

#409014

Bette F. McCart, Register of Deeds

Pat Kettler, Deputy



TYPICAL INTERSECTION RIGHT OF WAY DETAILS

STATE OF KANSAS
SEDGWICK COUNTY ss:

This is to certify that this plat was refiled for record in the office of the Register of Deeds this 27th day of NOVEMBER, 1978 to change the legal description in the Surveyor's Certificate from "Beginning at the northwest corner of Lot 2, Block 3 of Comotara Business Park Addition" to "Beginning at a point on the west line of the northeast quarter, Section 32, T 26 S, R 2 E of the 6th P.M., 50.00 feet south of the northwest corner of said quarter".

Steven E. Anderson
VAN DOREN-HAZARD-STALLINGS

Bette F. McCart
Bette F. McCart
Register of Deeds

Pat Kettler
Pat Kettler
Deputy

Petition Pursuant K-834 by 1478
Vacation Order K-811 Pg 799

H-1 3-22

19 03 05 05