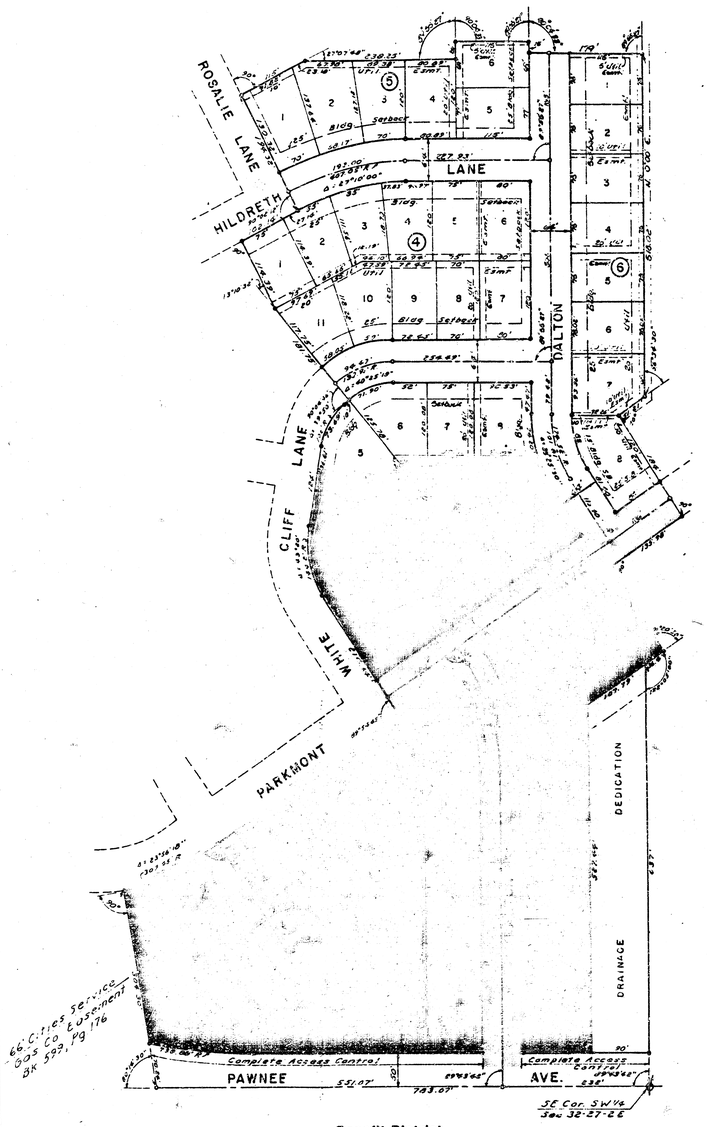


Benefit District

STREET IMPROVEMENTS FOR

FIFTH ADDITION TO CHERRY CREEK HILLS

PROJECT NO.

472-76-245-81127-000-000-001

DALTON ——————FROM THE N.L. PAWNEE TO THE S.L. PARKMONT DR.
PARKMONT DRIVE——FROM THE SW LINE LOT 1, BLK. 3, TO E.L. LOT 1, BLK. 2, 5TH ADDN. TO CHERRY CREEK
PARKMONT COURT——FROM THE S.L. PARKMONT TO & INCL. CUL-DE-SAC

INDEX

TITLE SHEET	1
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PAVEMENT PLANS	3-7
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STORM SEWER PLAN	11
CHANNEL PROFILE PLAN	12-14
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TYPE 1A INLET DETAIL	17
CONCRETE HEADWALL DETAIL	18
FLAP GATE DETAIL	19
MANHOLE ADJUSTMENT DETAILS	19A

CITY OF WICHITA, KS

MIKE E. LINDEBAK —— CITY ENGINEER

N. BRENT WOOTEN LICENSED 8470 KANSAS PROFESSIONAL ENGINEER

PROJECT BENCH MARKS

B.M. 192.20 - City Standard Disc 40' South and 2' East of the ¼ corner, ½ mile East of Rock Road on Pawnee.

B.M. 189.10 - Top of the Southwest corner of the bottom step of House No. 8502 Parkmont.

JUNE 1984

BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/262-7271 • 330 LAURA • WICHITA, KANSAS 67211

1/19

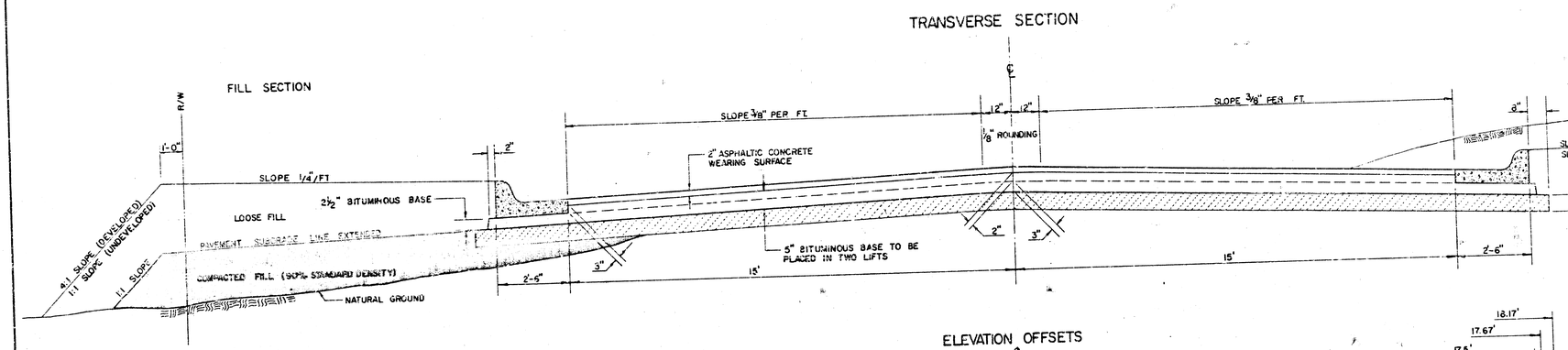
20 Page

1/20

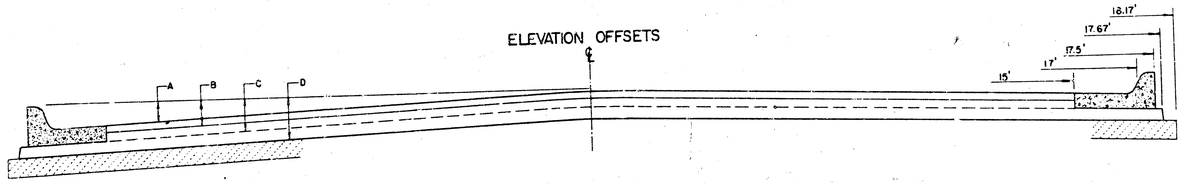
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TYPICAL 35' PAVEMENT DETAILS

TRANSVERSE SECTION

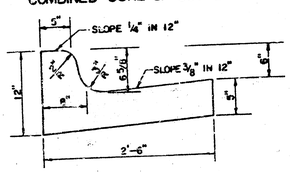


ELEVATION OFFSETS

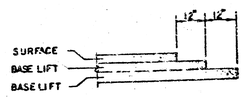


	DISTANCE FROM CENTERLINE (LT. & RT.)												
	0'	2'	4'	6'	8.5'	10'	12'	14'	15'	17'	17.5'	17.67'	18.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.04	0.08	0.11	0.21	0.29	0.33	0.39	0.46	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.21	0.25	0.31	0.37	0.45	0.50	0.56	0.62	0.65	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.37	0.43	0.50	0.57	0.67	0.72	0.79	0.87	0.90	0.98	1.00	1.00	—
D: TOP OF CURBS TO TOP OF SUBGRADE	0.62	0.67	0.74	0.81	0.90	0.95	1.02	1.08	1.12	1.19	1.21	1.21	1.23

COMBINED CURB & GUTTER



TRANSVERSE CONSTRUCTION JOINTS



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 7" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).

GENERAL NOTES

1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

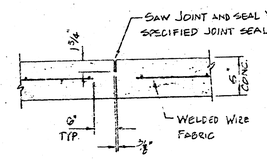
2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2" BITUMINOUS BASE.

3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

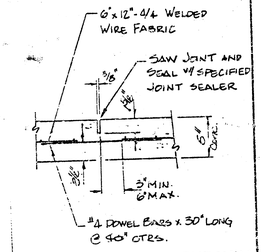
4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.

5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.

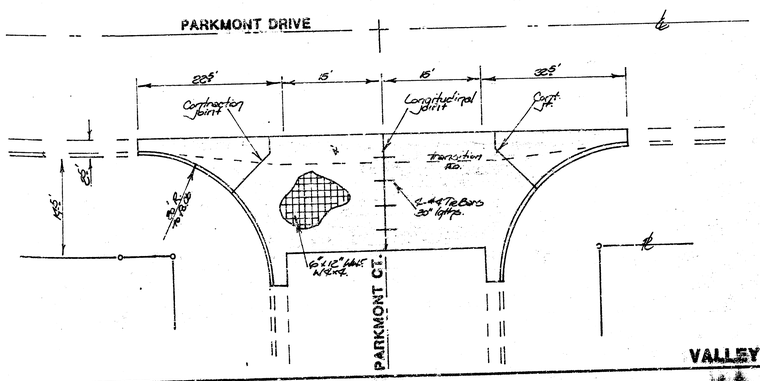
6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

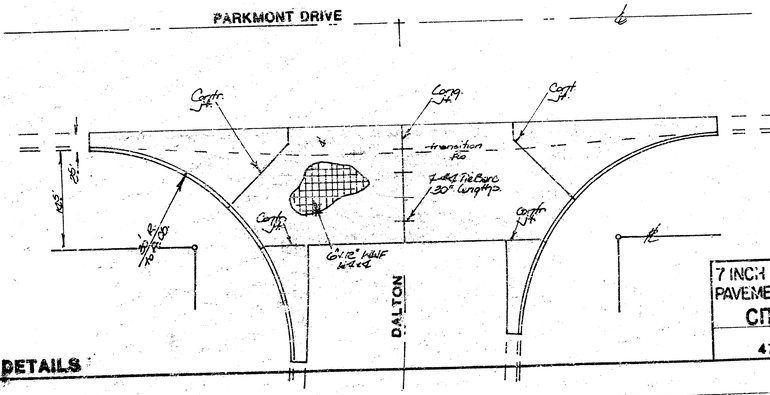


CONTRACTION JOINT



SAWED JOINT LONGITUDINAL





VALLEY GUTTER DETAILS

7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE

CITY OF WICHITA, KANSAS

PROJECT NUMBER

472-76-245-81127-000-000-001

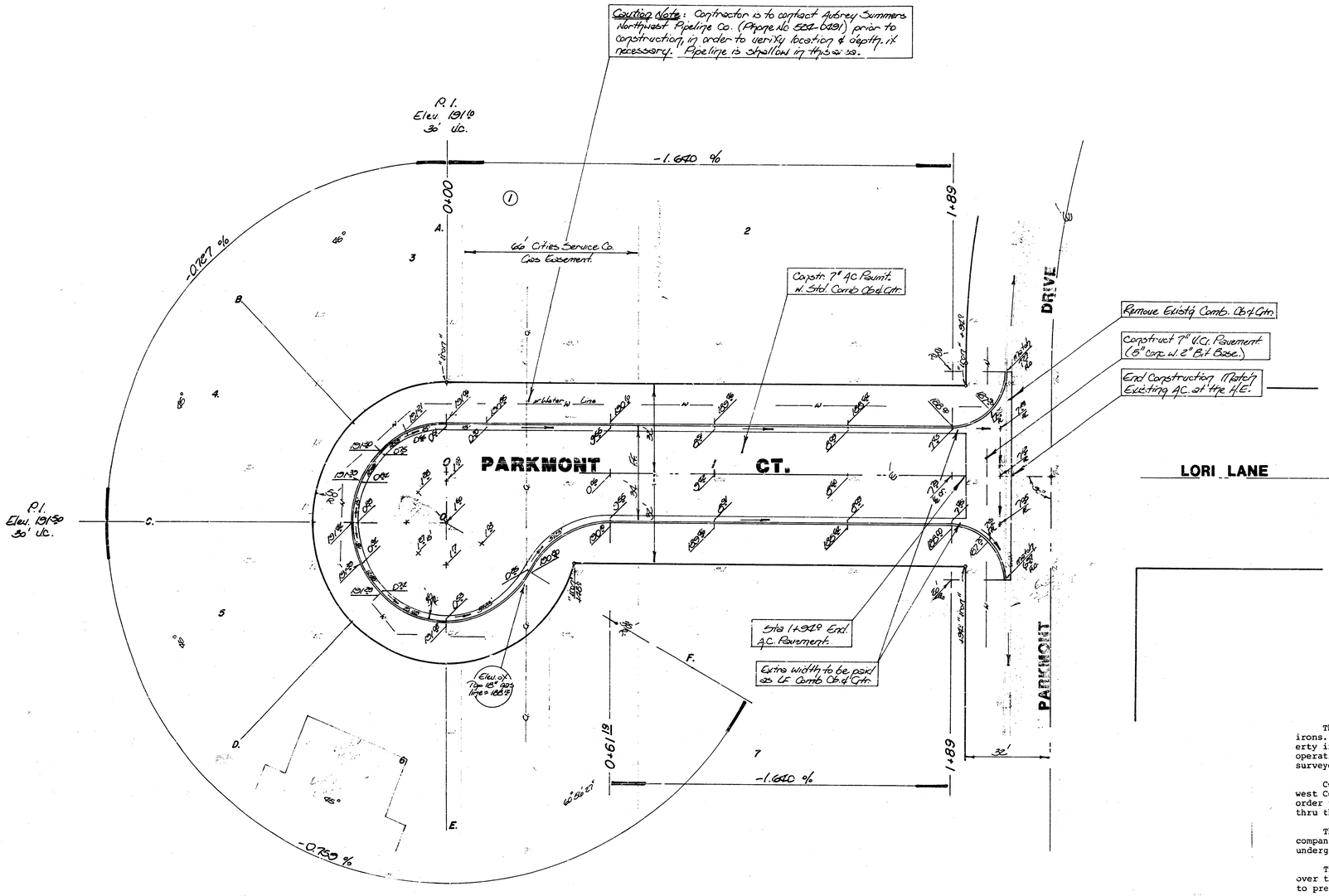
2/20

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PROJECT BENCH MARKS

B.M. 192.20 - City Standard Disc 40' South and 2' East of the ¼ corner, ½ mile East of Rock Road on Pawnee.

B.M. 189.20 - Top of the Southwest corner of the bottom step of House No. 8502 Parkmont.



Scale 1" : 20'

INTERSECTION QUANTITIES

- ___ S.Y. ___" Concrete Pavement
- 162 S.Y. 7 " Asphaltic Conc. Pavement (5 " Bituminous Base)
- 39 S.Y. 5½" Bituminous Base
- 102 L.F. Combined Curb & Gutter
- 66 L.F. Integral Curb
- ___ S.F. 4" Wheelchair Ramp
- ___ S.F. 4" Walk
- ___ C.Y. Excavation
- ___ C.Y. Compacted Fill
- ___ Lbs. Reinforcing Steel
- 130 S.Y. Manipulation
- ___ Tons Lime or Cement
- 361 S.Y. V.G. 5 " Concrete & 2 " Asphaltic Concrete Base

GENERAL NOTES

The contractor shall be responsible for preserving property irons. The contractor shall 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 or a professional engineer in accordance with state laws.

Contractor shall contact Aubrey Summers 524-0491 with Northwest Central Pipeline Corporation prior to any construction in order to verify the location of the 18" gas pipe line which runs thru this area.

The contractor shall also contact the necessary utility companies identified in order to verify the location of any underground lines.

The contractor shall use caution when working the subgrade over the proposed 18" CMP entrance pipe at Pawnee and Dalton to prevent damage to the metal pipe.

NOTE: MATERIALS THAT HAVE BEEN DUMPED WITHIN STREET R OF W SINCE ORIGINAL CROSS SECTIONS WERE TAKEN, SHALL BE REMOVED BY THE DEVELOPER, PRIOR TO BEGINNING THIS PROJECT.

* BORROW TO BE OBTAINED FROM CHANNEL EXCAVATION THAT IS FREE OF ROCK AND/OR DEBRIS.

SYMBOLS

- —W— Indicates Water Line
- —G— " Gas Line
- —C— " TV Cable Line
- —E— " KGE UC. Line
- " Sanitary Sewer
- " Lot Lines
- " Control Points
- " Removal

EARTHWORK QUANTITIES

EXCAVATION = 1483.0 CY	COMPACTED FILL = 911.9 CY	* BORROW = 1555.4 CY
+ 10 % = 148.3 CY	+ 10 % = 91.2 CY	+ 10% = 155.5 CY
TOTAL = 1631.3 CY	TOTAL = 1003.1 CY	TOTAL = 1710.9 CY

MANIPULATION = 6283 S.Y.

N. BRENT WOOTEN LICENSED 8470 KANSAS PROFESSIONAL ENGINEER

PARKMONT COURT

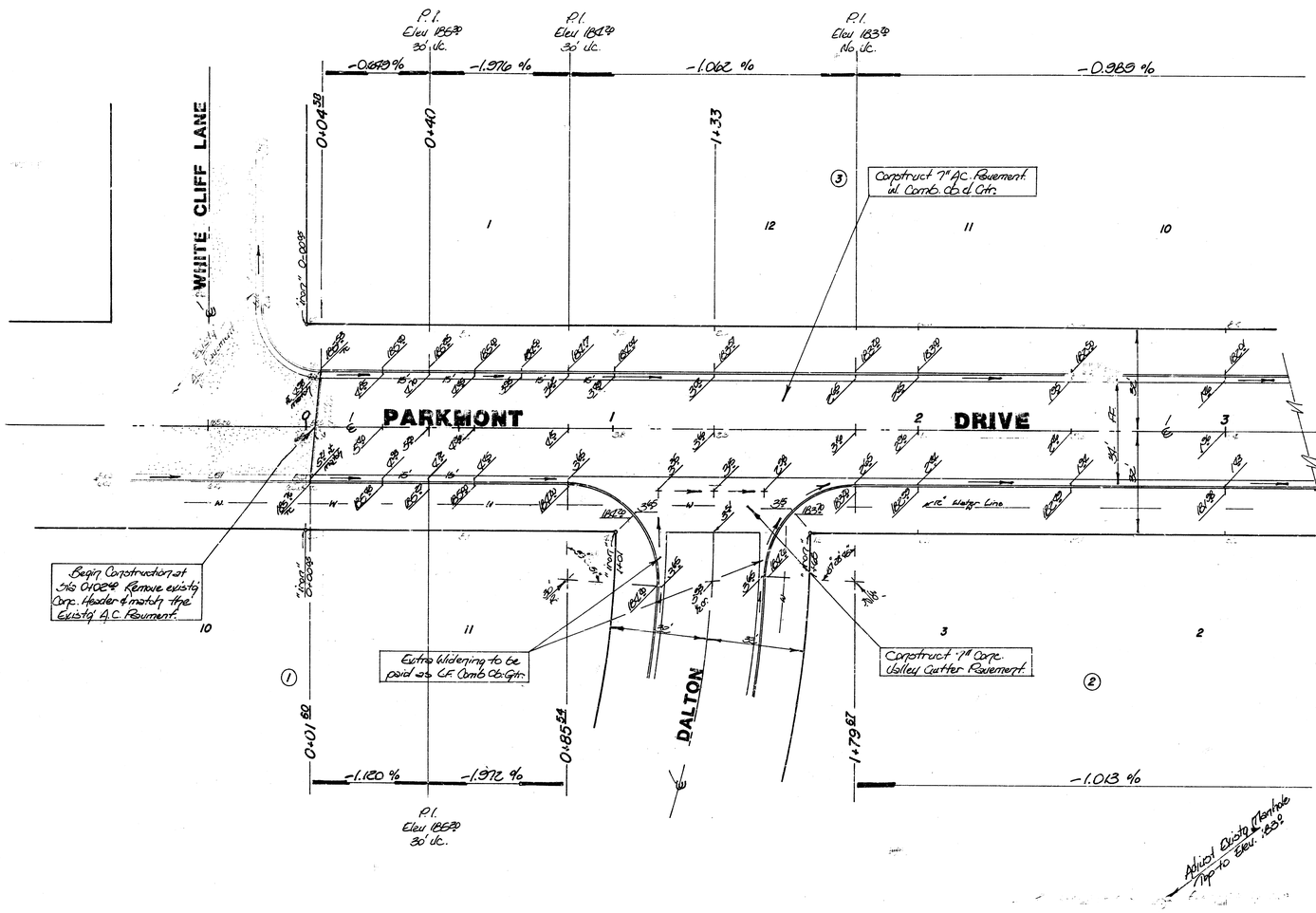
472-76-245-81127-000-000-001

3/20

PROJECT BENCH MARKS

B.M. 152.20 - City Standard Disc 40' South and 2' East of the ¼ corner, ½ mile East of Rock Road on Pawnee.

B.M. 189.20 - Top of the Southwest corner of the bottom step of House No. 8502 Parkmont.



Scale 1" : 20'

INTERSECTION QUANTITIES

- ___ S.Y. ___" Concrete Pavement
- 2008 S.Y. 7 " Asphaltic Conc. Pavement (6 " Bituminous Base)
- 161 S.Y. 2½" Bituminous Base
- 305 L.F. Combined Curb & Gutter
- 60 L.F. Integral Curb
- ___ S.F. 4" Wheelchair Ramp
- ___ S.F. 4" Walk
- ___ C.Y. Excavation
- ___ C.Y. Compacted Fill
- ___ Lbs. Reinforcing Steel
- 3275 S.Y. Mandatory
- ___ Tons Lime or Cement
- 1053 S.Y. V.G. 5 " Concrete & 2 " Asphaltic Concrete Base

PARKMONT DRIVE

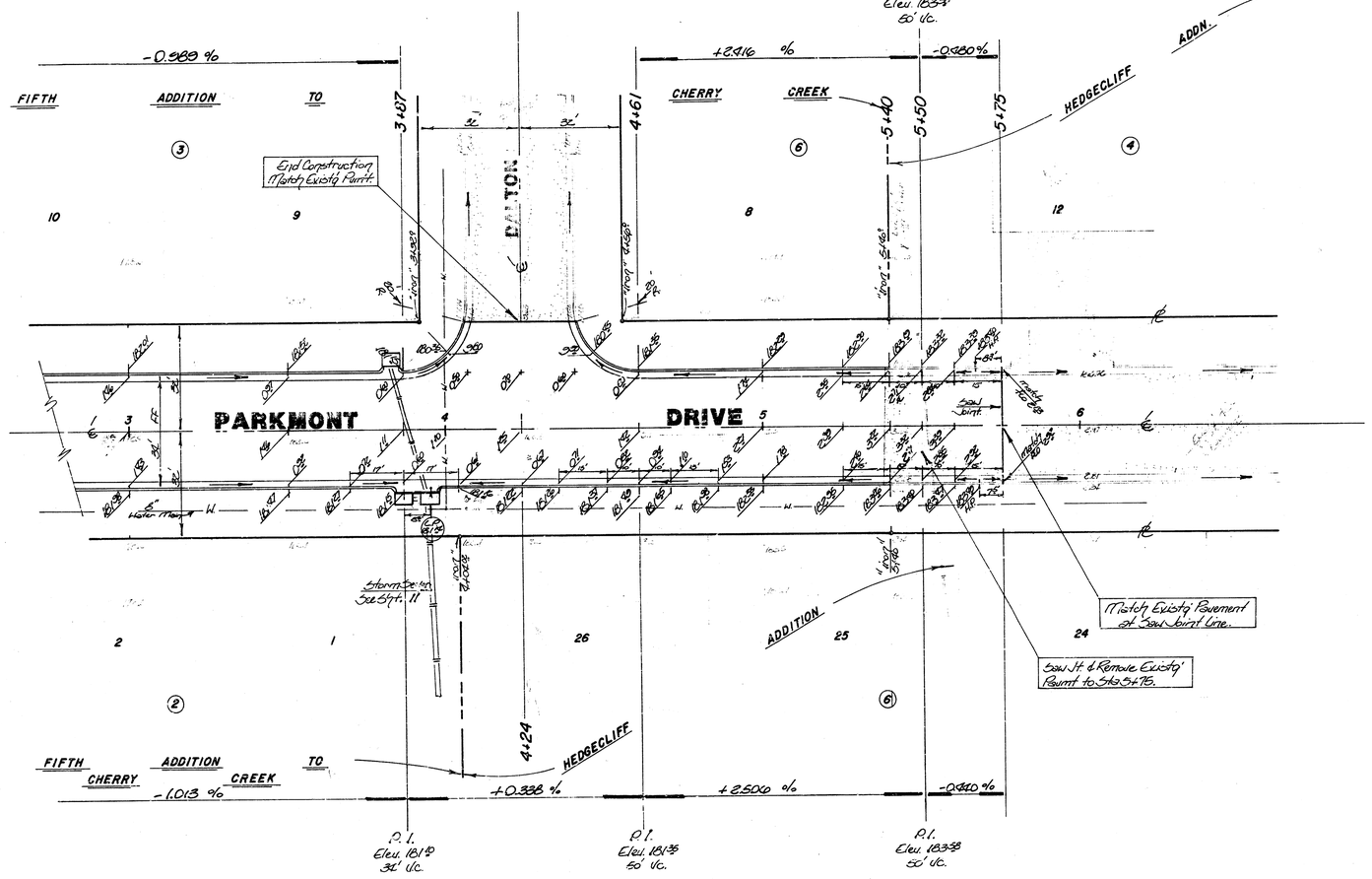
472-76-245-81127-000-000-001

4/20

PROJECT BENCH MARKS

B.M. 192.20 - City Standard Disc 40' South and 2' East of the ¼ corner, ½ mile East of Rock Road on Pawnee.

B.M. 189.20 - Top of the Southwest corner of the bottom step of House No. 8502 Parkmont.



Scale 1" : 20'

INTERSECTION QUANTITIES

___ S.Y. ___" Concrete Pavement
2025 S.Y. 7 " Asphaltic Conc. Pavement (5 " Bituminous Base)
157 S.Y. 2½" Bituminous Base
529 L.F. Combined Curb & Gutter
___ L.F. Integral Curb
___ S.F. 4" Wheelchair Ramp
___ S.F. 4" Walk
___ C.Y. Excavation
___ C.Y. Compacted Fill
___ Lbs. Reinforcing Steel
221 S.Y. Manipulation
___ Tons Lime or Cement
___ S.Y. V.G. ___" Concrete & ___" Asphaltic Concrete Base

PARKMONT DRIVE

472-76-245-81127-060-000-001

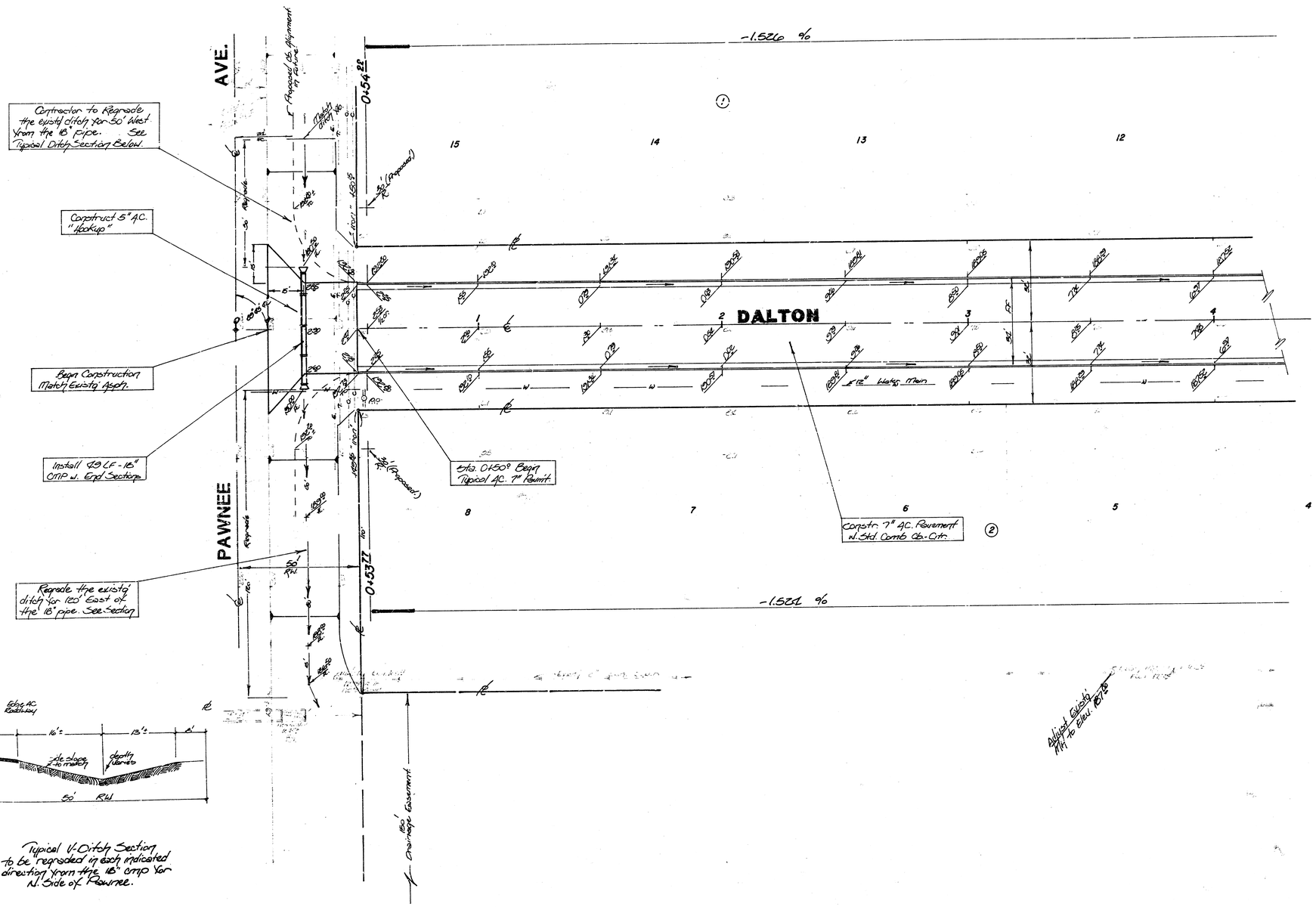
5/20

PROJECT BENCH MARKS

B.M. 192.20 - City Standard Disc 40' South and 2' East of the ¼ corner, ½ mile East of Rock Road on Pawnee.

B.M. 189.20 - Top of the Southwest corner of the bottom step of House No. 8502 Parkmont.

Scale 1" : 20'



Typical V-Ditch Section to be regraded in each indicated direction from the 18" cmp for N. Side of Pawnee.

DALTON

472-79-245-81127-000-000-001

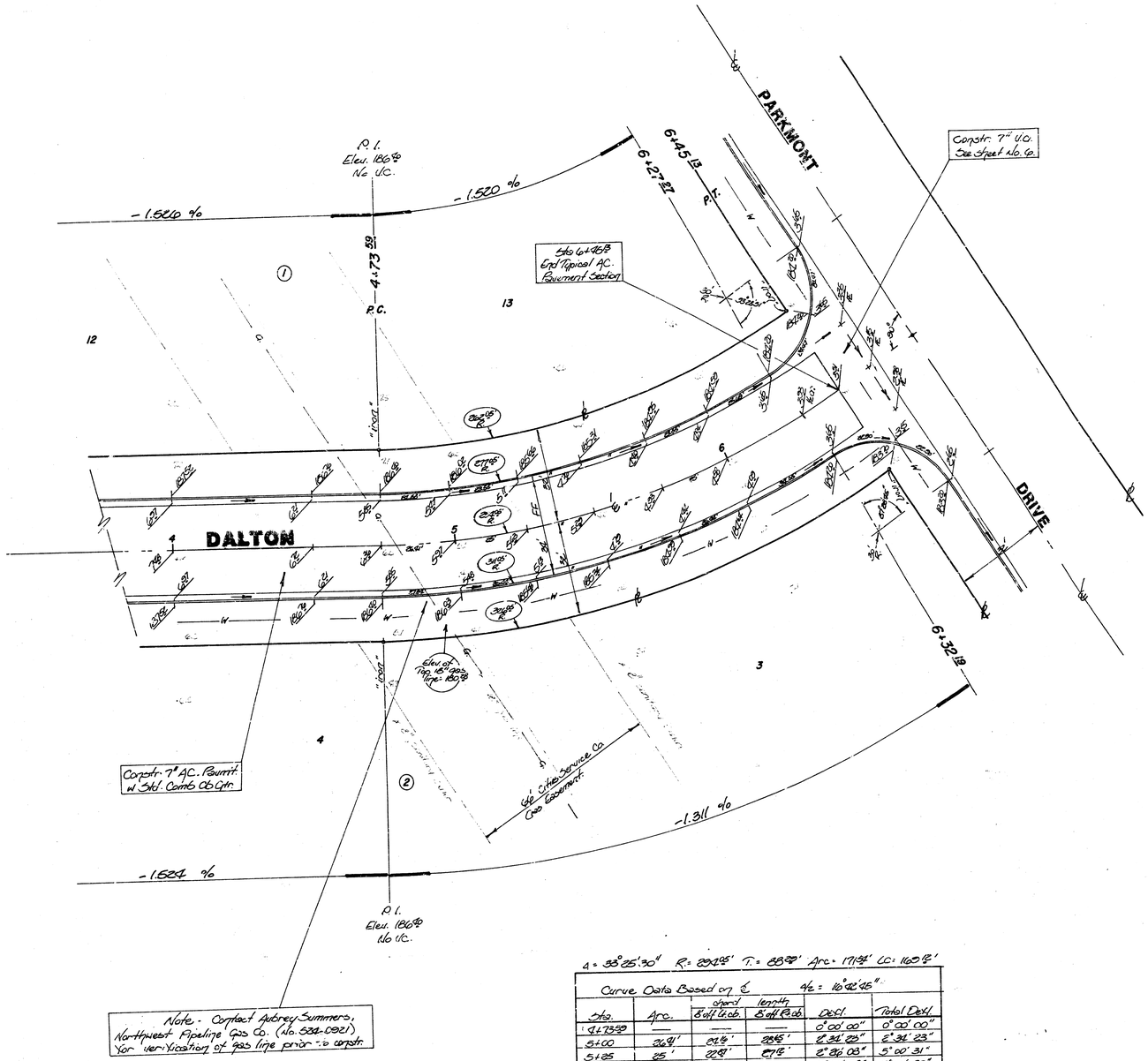
6/20

PROJECT BENCH MARKS

B.M. 192.70 - City Standard Disc 40' South and 2' East of the ¼ corner, ½ mile East of Rock Road on Pawnee.

B.M. 189.20 - Top of the Southwest corner of the bottom step of House No. 8502 Parkmont.

Scale 1" : 20'



Note - Contact Aubrey Summers, Northwest Pipeline Gas Co. (No. 534-0921) for verification of gas line prior to constr.

Δ = 33°25'30" R = 300' T = 88.9' Arc = 175.1' LC = 160.8'

Curve Data Based on ℄ 4½ = 10°22'45"

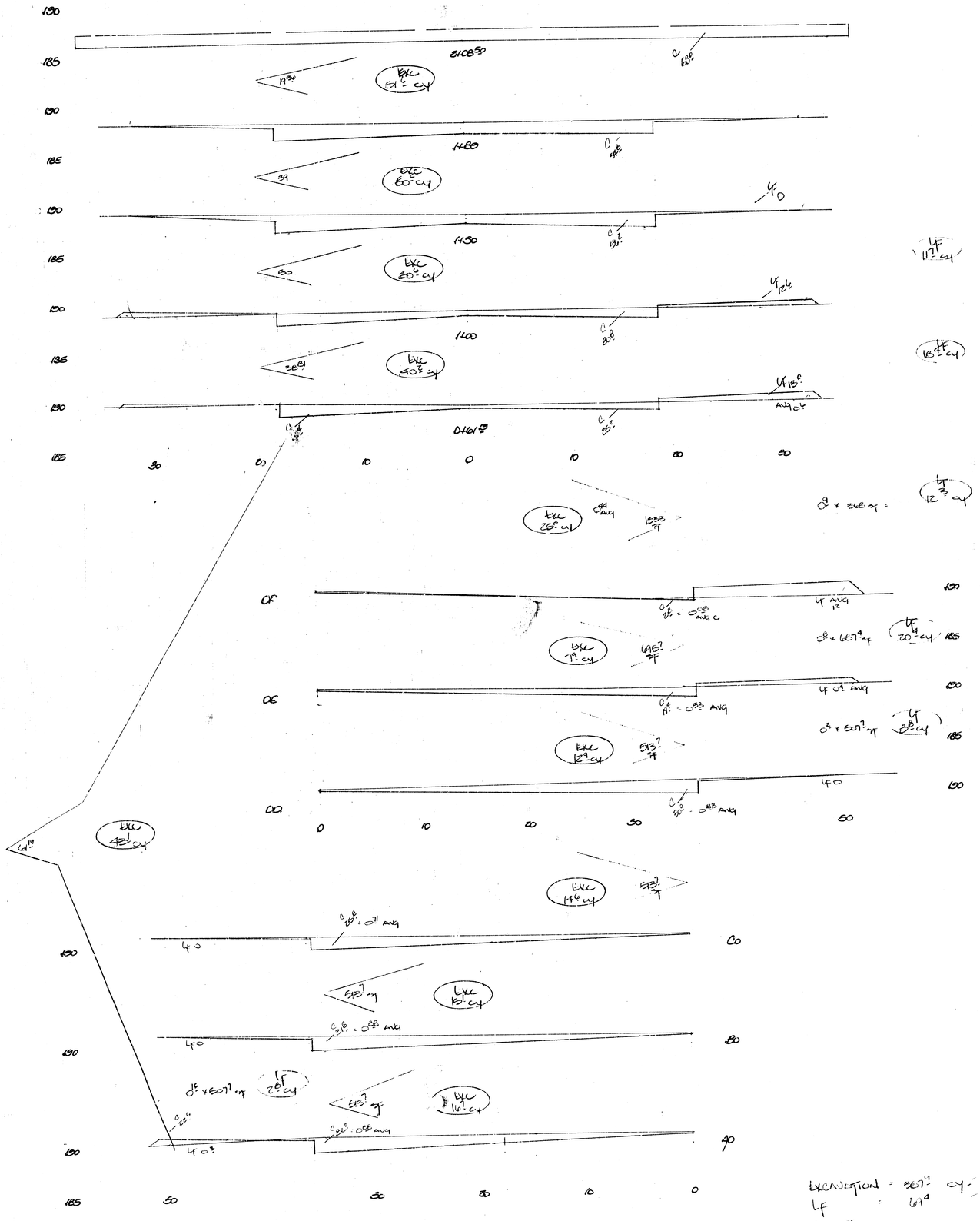
Sta.	Arc.	chord Bdry Curb	length Bdry Curb	Defl.	Total Defl.
4+73.59	—	—	—	0°00'00"	0°00'00"
5+00	26.4'	26.4'	26.4'	2°31'23"	2°31'23"
5+25	25'	22.8'	27.2'	2°26'05"	5°00'31"
5+50	"	"	"	2°26'05"	7°26'36"
5+75	"	"	"	2°26'09"	9°52'46"
6+00	25'	22.8'	27.2'	2°26'09"	12°18'56"
6+27.27	27.3'	24.9'	↓	2°39'24"	14°58'20"
6+32.19	4.9'	↓	32.9'	0°28'46"	15°27'06"
6+45.13	12.9'	16.4'	14.4'	1°15'39"	16°22'45"

Defl./Ft. = 5.8466/ft mfg

DALTON

472-76-245-81127-000-000-001

7/20

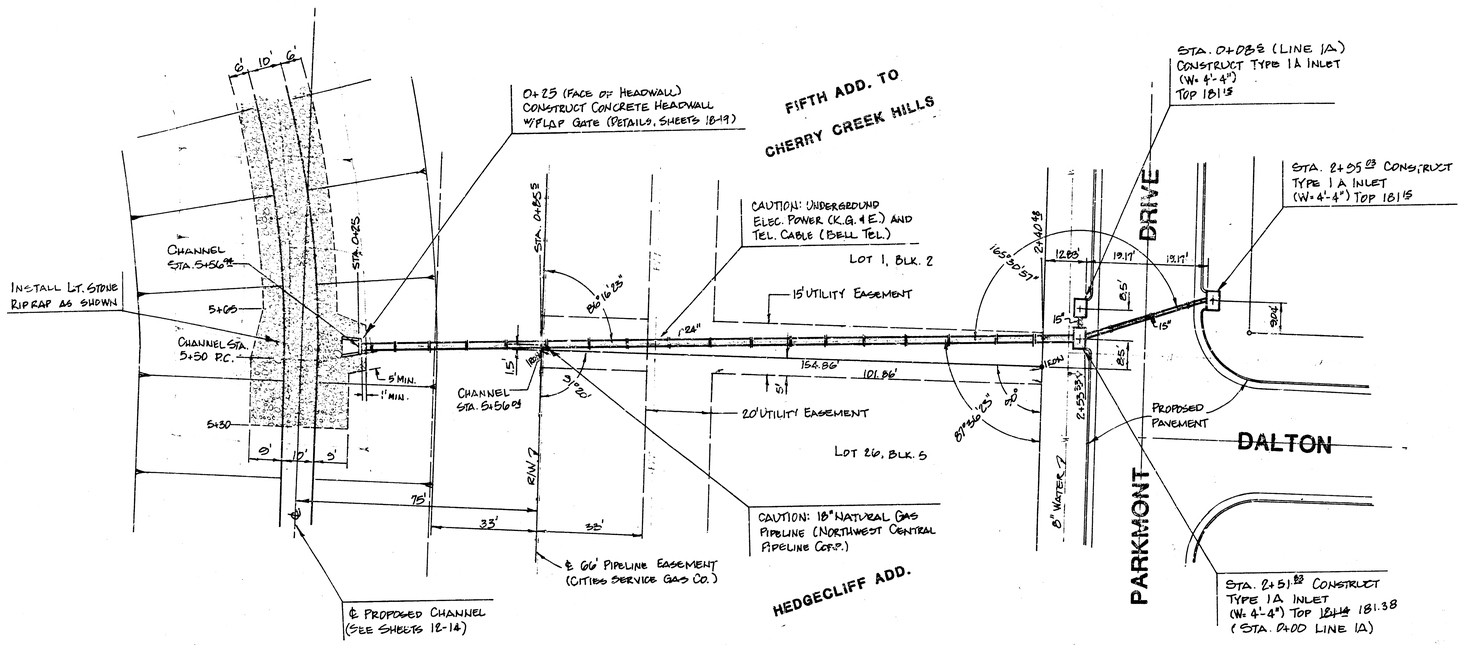

190
185
180
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35
30
25
20
15
10
5
0
EXC 53 CY
EXC 60 CY
EXC 60 CY
EXC 40 CY
EXC 25 CY
EXC 79 CY
EXC 129 CY
EXC 48 CY
EXC 146 CY
EXC 85 CY
EXC 16 CY
EXC 22 CY
12 CY
20 CY
38 CY
4 AVG
4 AVG
4 AVG

EARTHWORK SECTIONS
PARKMONT DRIVE

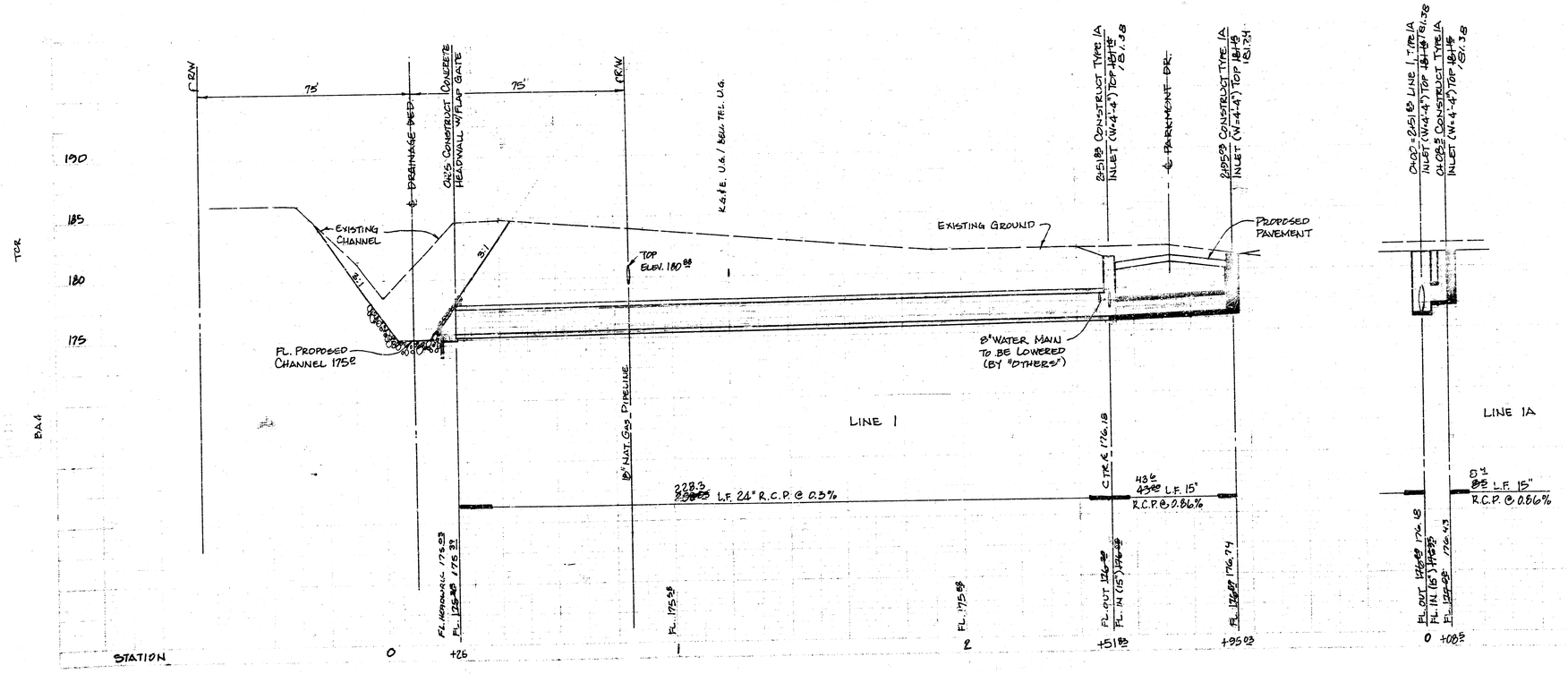
1"=10'

EARTHWORK SECTIONS
DALTON

- 20 -



AS BUILT
11-1-84
M.C. GREENE

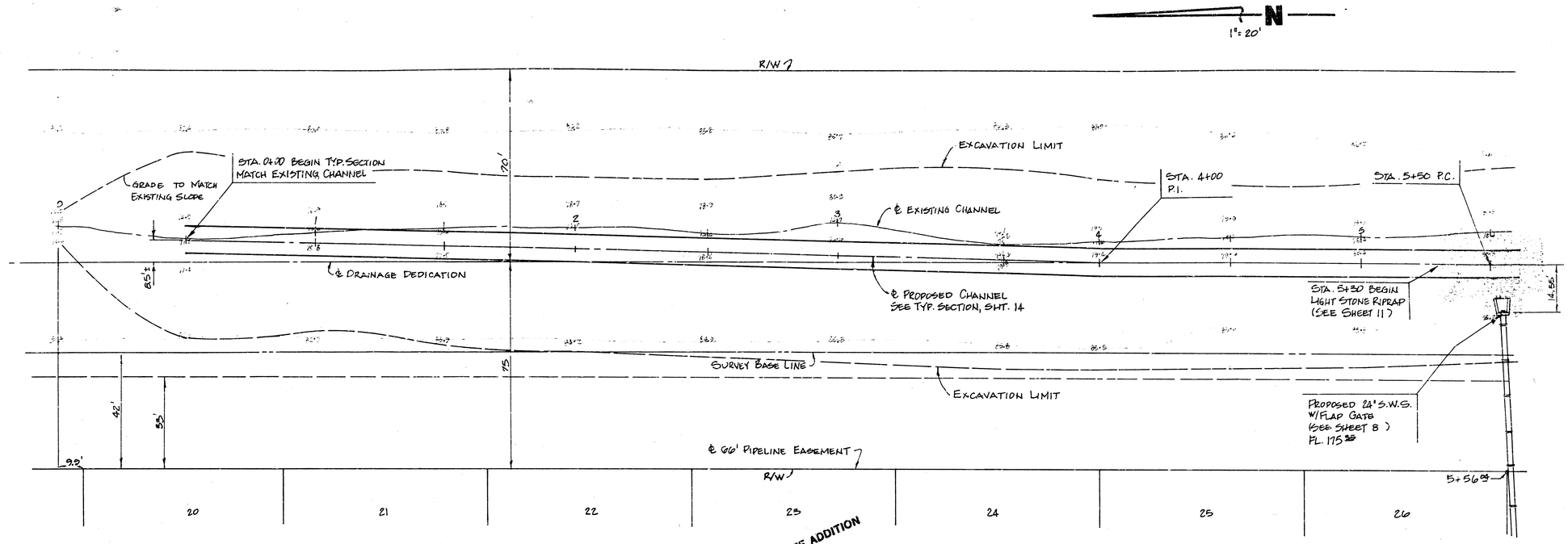


INCIDENTAL DRAINAGE
PARKMONT DRIVE

Project no. 472-78-245-81127-000-000-001

11/20

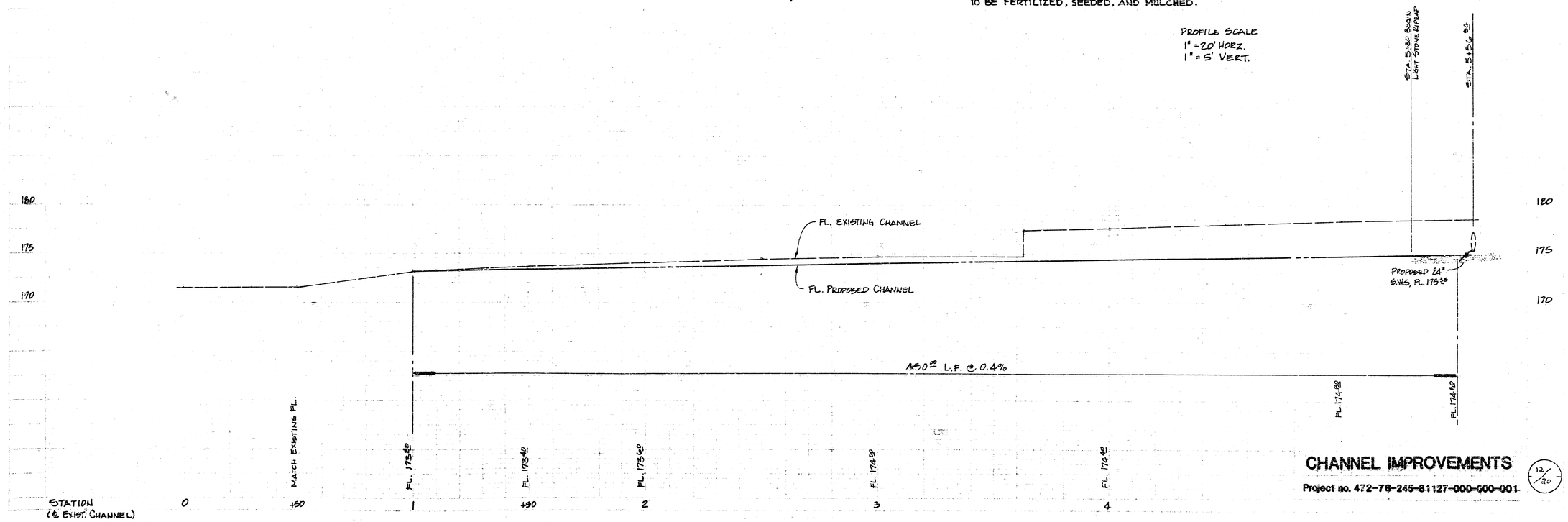
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HEDGECLIFF ADDITION

NOTE: ALL DISTURBED AREAS WITHIN THE DRAINAGE RIGHT OF WAY TO BE FERTILIZED, SEEDED, AND MULCHED.

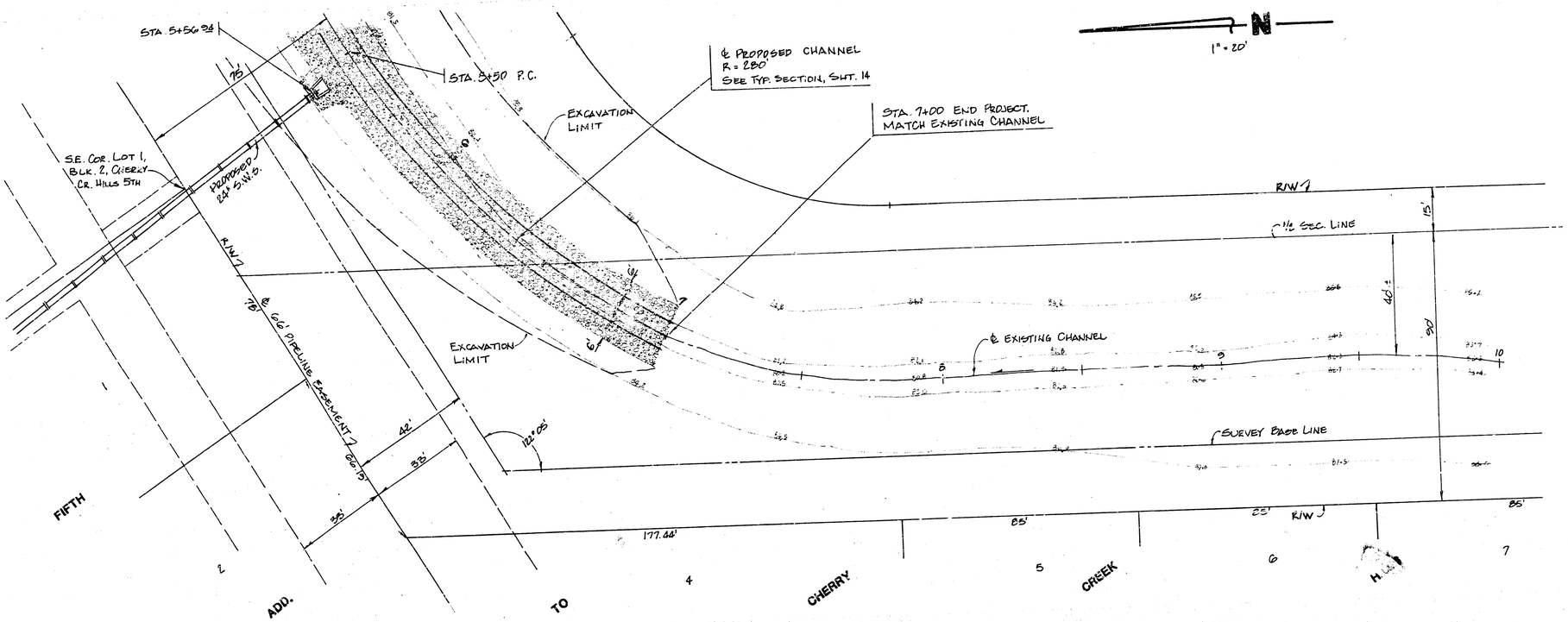
PROFILE SCALE
1"=20' HORZ.
1"=5' VERT.

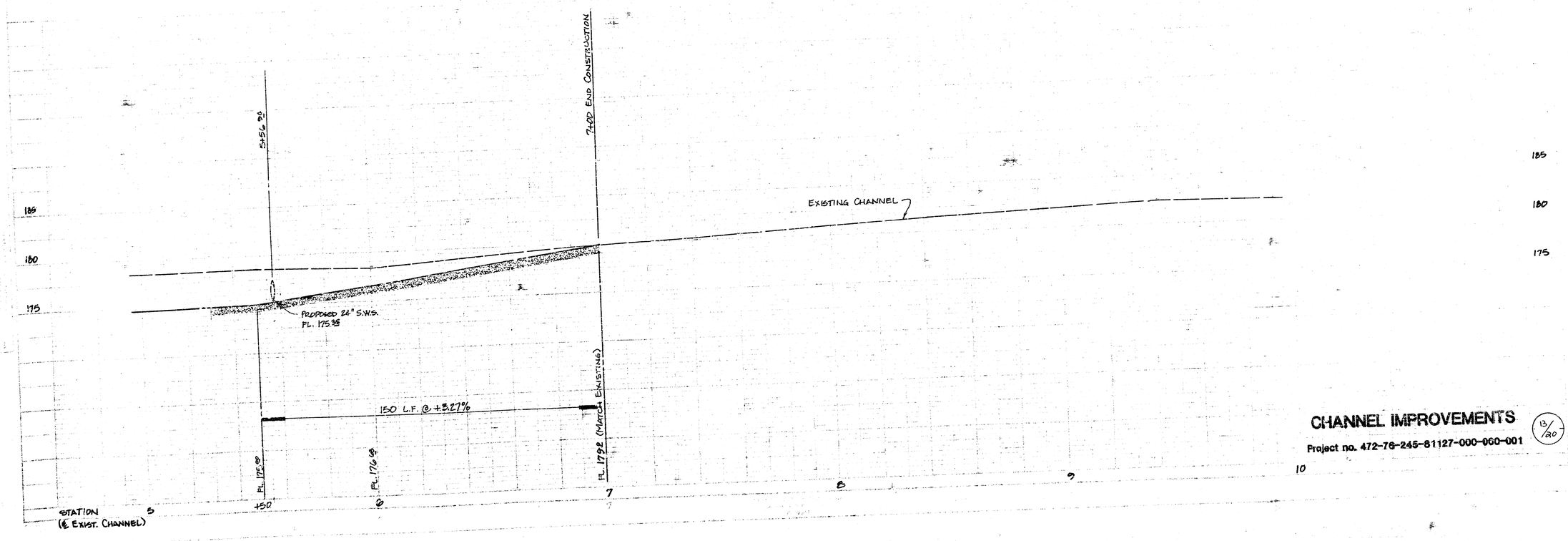


CHANNEL IMPROVEMENTS

Project no. 472-76-245-81127-000-000-001

12/20

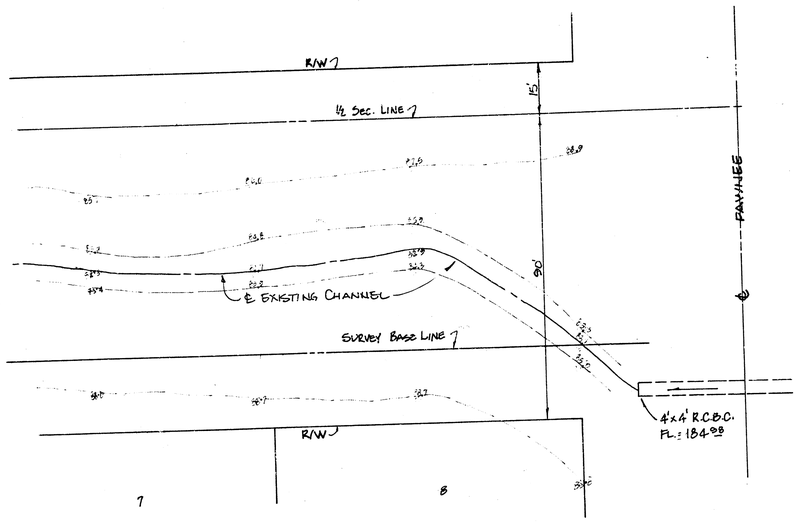




CHANNEL IMPROVEMENTS

Project no. 472-76-245-81127-000-000-001

13/120



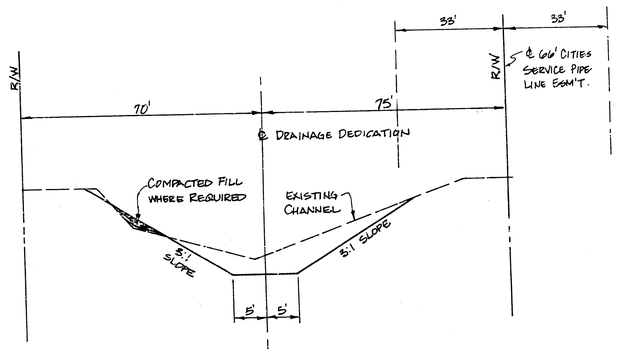
FIFTH ADD. TO CHERRY CREEK HILLS

NOTE: NO CONSTRUCTION THIS SHEET

1"=20'

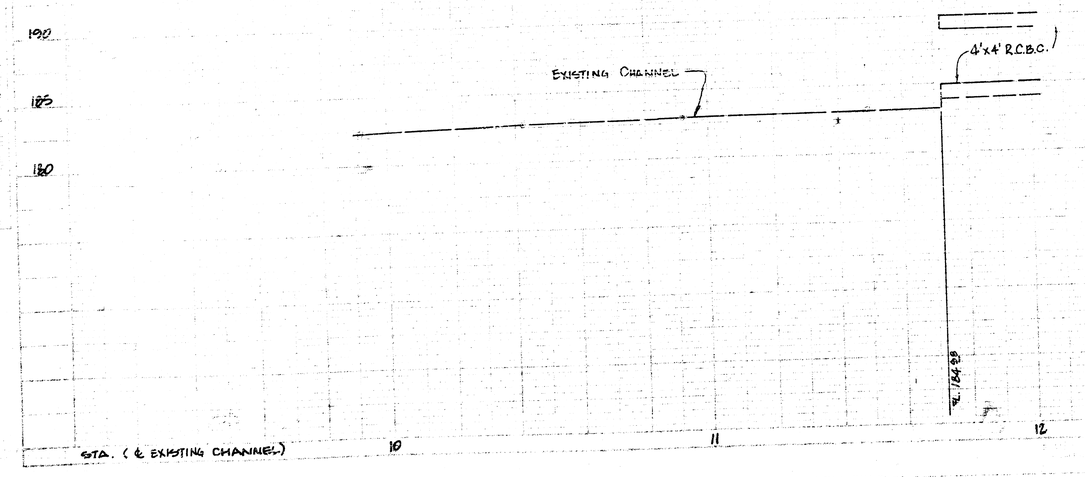
NOTE:

ALL DISTURBED AREAS SHALL BE RE-SEEDED WITH K-31 FESCUE (25D LBS./ACRE) AND FERTILIZED (350 LBS./ACRE) PER STANDARD SPECIFICATIONS OF THE CITY OF WICHITA.



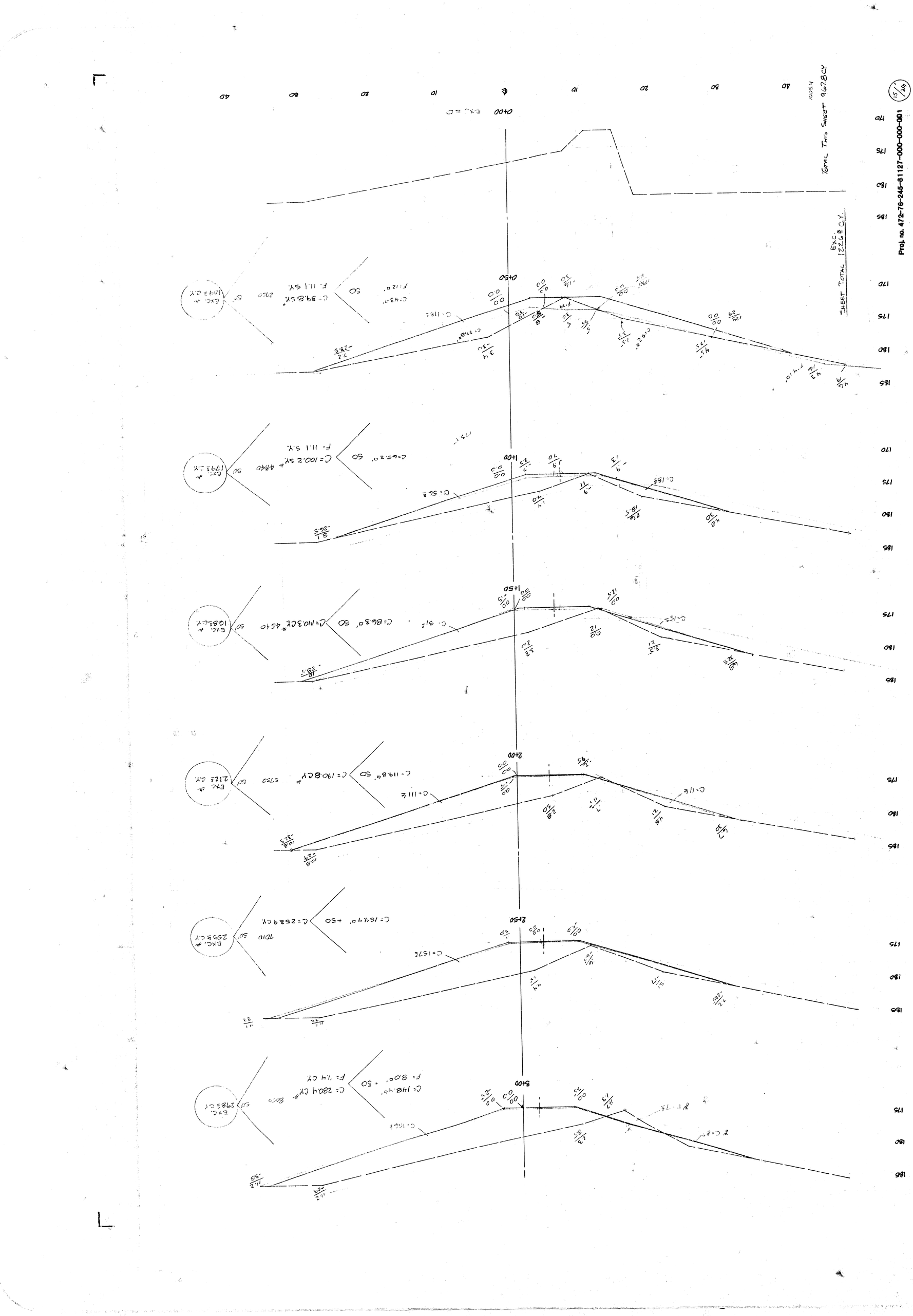
TYPICAL SECTION
IMPROVED CHANNEL

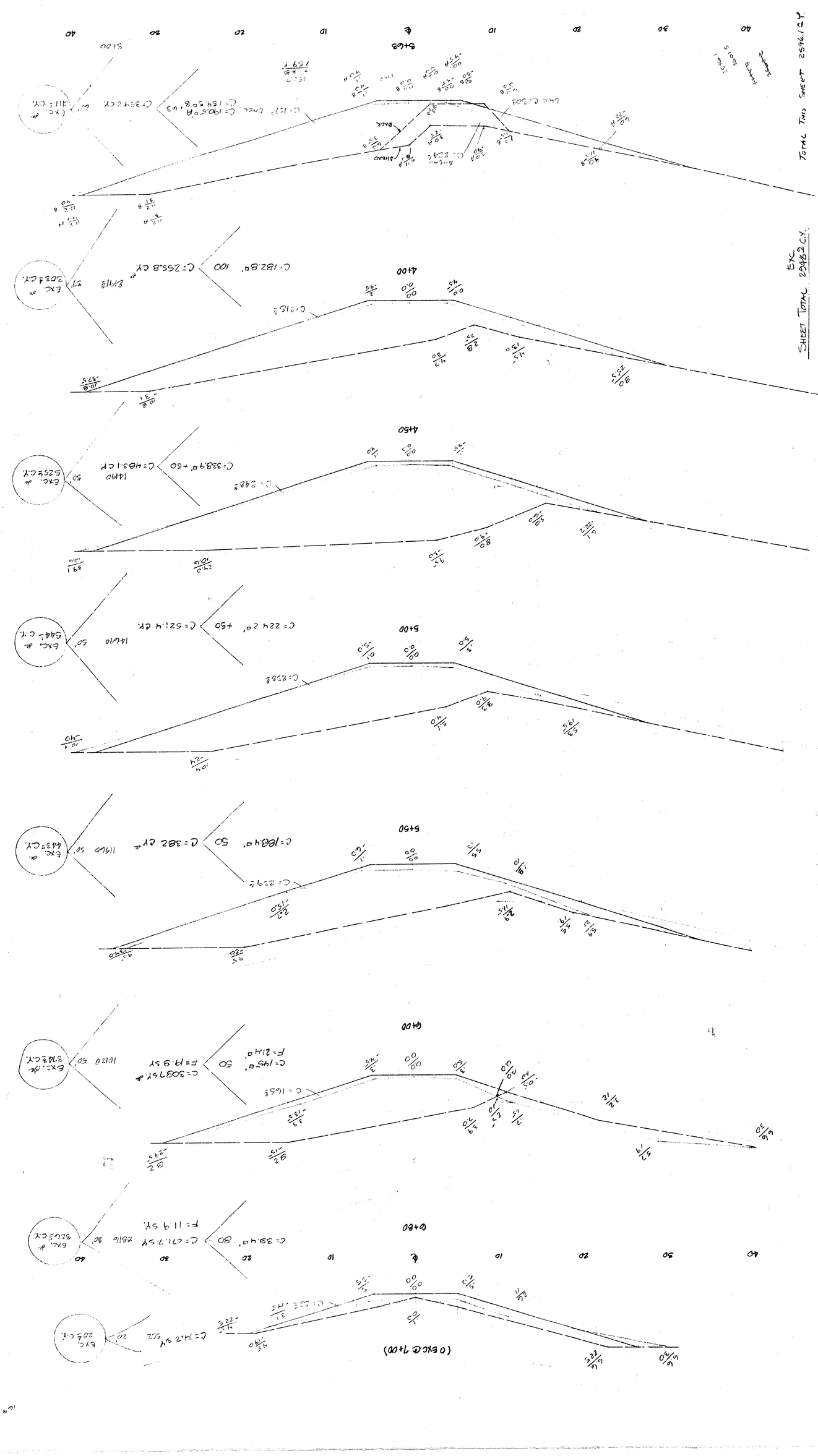
PROFILE SCALE
1" = 20' HORZ.
1" = 5' VERT.

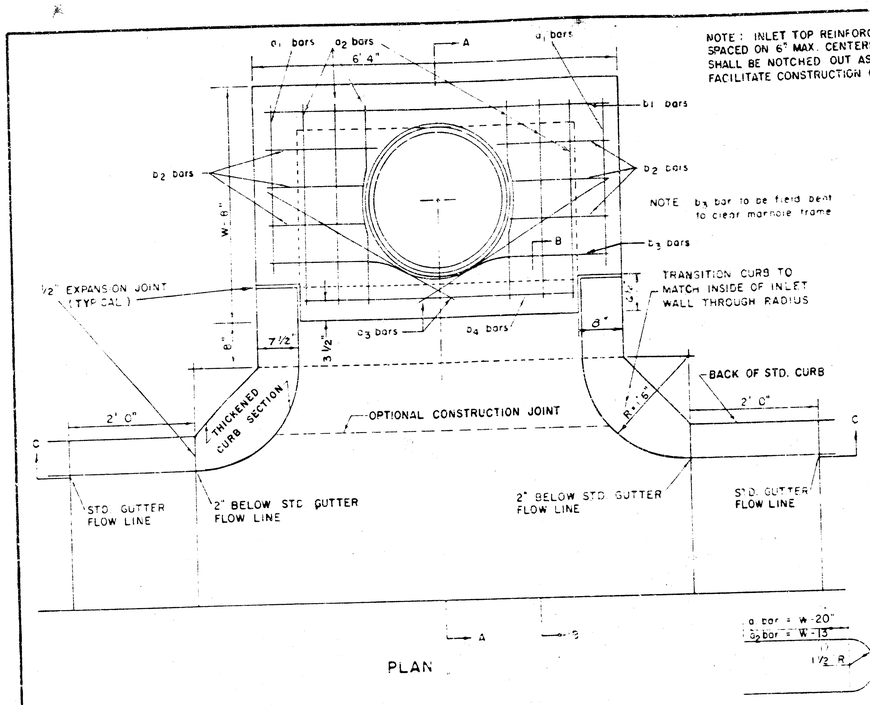


CHANNEL IMPROVEMENTS (11/20)

Project no. 472-78-245-81127-000-000-001


Proj. no. 472-76-245-81127-000-000-001
15/20
TOTAL THIS SHEET 9678CY
EXC. 1226.8 C.Y.
SHEET TOTAL
0400 EXC. = C
0450
1+00
1+50
2+00
2+50
3+00
C= 43.8 SY
F: 11.1 SY
EXC. = 129 = C.Y.
C= 100.2 SY
F= 11.1 S.Y.
EXC. = 1793 C.Y.
C= 190.8 CY
EXC. = 2128 C.Y.
C= 258.9 CY.
EXC. = 2595 C.Y
C= 280.4 CY
F= 7.4 CY
EXC. = 2983 C.Y
C= 146.3°
C= 91°
C= 86.3°
C= 111 E
C= 157 E
C= 150 E
C= 158
C= 182
C= 52.8
C= 116
C= 139.8°
C= 43.8°
F= 12.0'
C= 52.8°
F= 7.4 10.
C= 119.8°
C= 154.4°
C= 140.3CY
C= 148.4°
F= 8.0°
R= 75'
R C= 87'
1005.4


(0 EXC @ 7+00)
C = 14.2 sv
EXC. 20½ C.Y.
C = 52.4 2 0' +50
C = 22.4 2 0'
C = 52.4 4 R.
EXC. 644± C.Y.
14490
50'
5+00
C = 25.8 E
C = 33.4 0' +50
C = 48 3.1 C R
EXC. 625± C.Y.
C = 24.8
C = 21.8 8
4+50
C = 182.8 0' 100
C = 255.8 C R
EXC. 2028 C.Y.
C = 19.5 0' R
C = 159.5 0 B' 0 3
C = 33 7 2 C R
EXC. 411± C.Y.
C = 12.7 E
C = 22.4 E
AHEAD
BACK
4+00
5+63
EXC. 2948.2 C.Y.
SHEET TOTAL
TOTAL THIS SHEET 2596.1 C.Y.
PROJECT TOTAL 4175.1 C.Y.
TOTAL FOR PROJECT 3601.5 C.Y.
Project no. 472-78-245-81127-000-000-001
16/20
C = 27.9 E
C = 38 2 0' +50
C = 38 2 C R
EXC. 443± C.Y.
11490
50'
5+50
C = 30.3 7 5 C R
C = 19.5 0'
F = 21.4 0'
F = 19.9 5 R
EXC. 374± C.Y.
10120
50'
6+00
C = 33.4 0' 80
C = 29 1.7 5 R
F = 11.9 5 R.
EXC. 32.5 C.Y.
8516
80'
40
30
20
10
0
10
20
30
40
175
180
185



PLAN

NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.

NOTE b_3 bar to be field bent to clear manhole frame

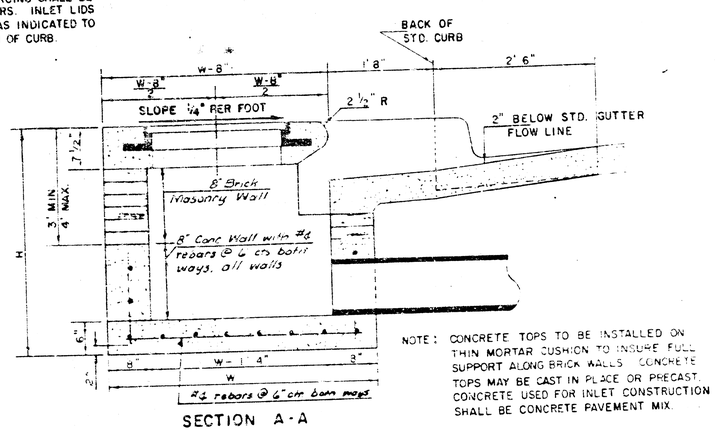
BENDING DIAGRAM

STEEL SCHEDULE

BAR	a_1	a_2	a_3*	L 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	2	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"	4'8"	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

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU YD CONC
4' 4"	3'6" x 6'4" x 7 1/2"	21" & SMALLER	0.38±
5' 4"	4'8" x 6'4" x 7 1/2"	24" & 30"	0.51±
6' 4"	5'8" x 6'4" x 7 1/2"	36" & 42"	0.64±
7' 4"	6'8" x 6'4" x 7 1/2"	48" & 54"	0.77±
8' 4"	7'8" x 6'4" x 7 1/2"	60" & 66"	0.90±



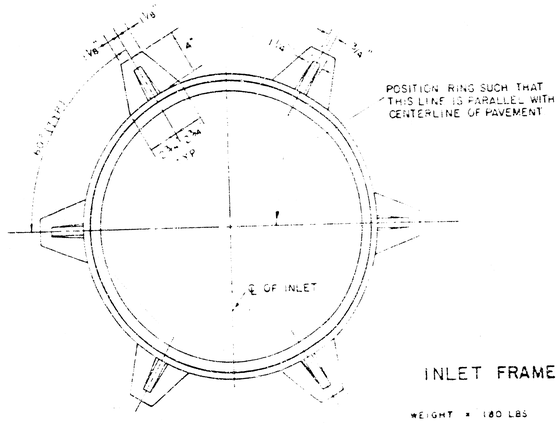
SECTION A-A

NOTE: 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.

NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 8'4" AND H = 6'3" OR LESS.

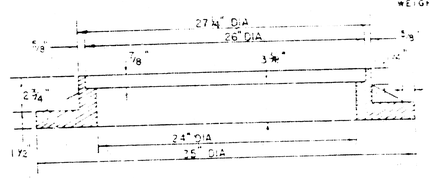
ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOOK-UP.

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.

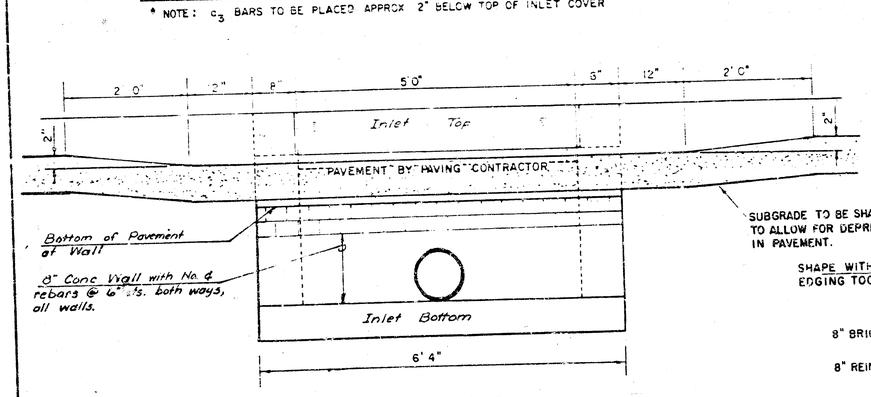


INLET FRAME

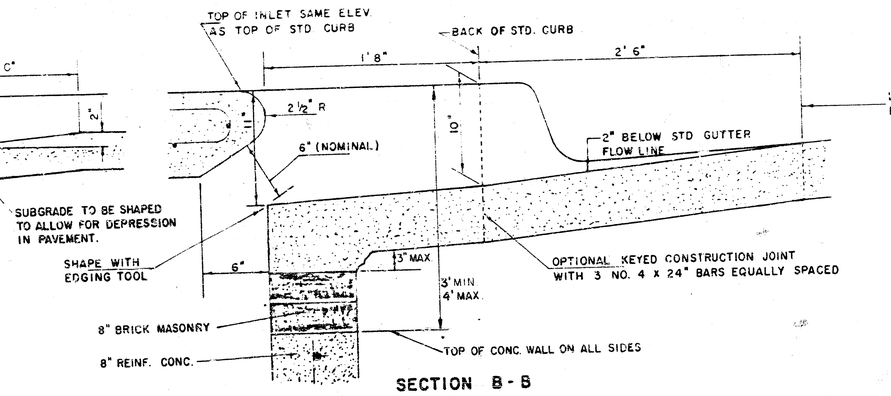
WEIGHT = 180 LBS



SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.



SECTION C-C



SECTION B-B

DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

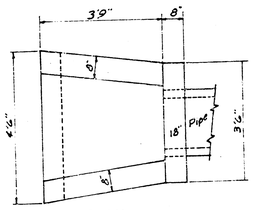
INLET OPENING = 6" × 5' 0"

Proj. no. 472-76-245-81127-000-000-001

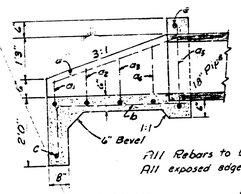
MARCH 1984

17/20

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PLAN
Scale: ½"=1'0"



All Rebars to be #4.
All exposed edges to have ½" bevel.

SECTION
Scale: ½"=1'0"

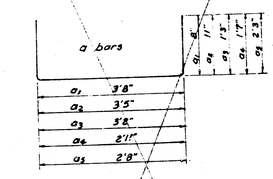
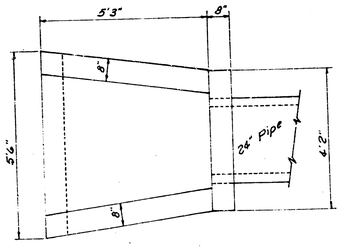
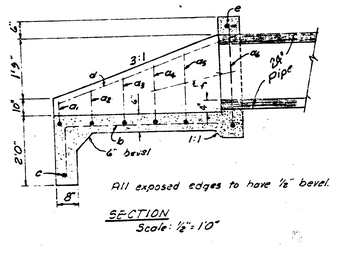


TABLE OF QUANTITIES				
BAR	NUMBER	LENGTH	SHAPE	WEIGHT
a_1	1	5'0"		3.34
a_2	1	5'3"		3.51
a_3	1	5'8"		3.79
a_4	1	4'1"		4.06
a_5	1	7'2"		4.79
b	5	5'6"		18.37
c	1	6'0"		2.67
d	2	6'0"		5.34
e	1	3'2"		2.18
Total Rebar, lbs				47.99
Conc, C.Y.				0.91

HEADWALL FOR 18" PIPE



PLAN
Scale: ½"=1'0"



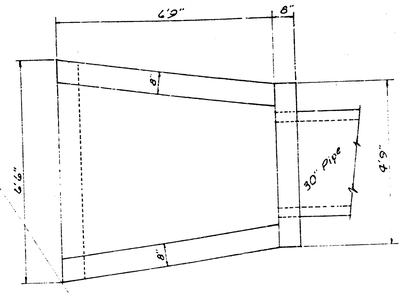
All exposed edges to have ½" bevel.

SECTION
Scale: ½"=1'0"

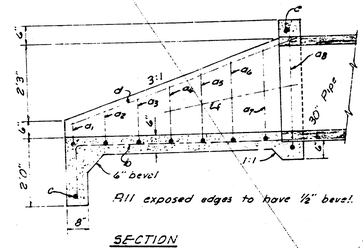
TABLE OF QUANTITIES				
BAR	NUMBER	LENGTH	SHAPE	WEIGHT
a_1	1	6'3"		4.51
a_2	1	7'0"		4.68
a_3	1	7'5"		4.96
a_4	1	7'10"		5.23
a_5	1	8'5"		5.51
a_6	1	10'1"		6.73
b	6	6'11"		27.72
c	1	5'0"		3.37
d	2	5'10"		7.79
e	1	3'10"		2.54
f	2	2'9"		3.47
Total Rebar, lbs.				76.73
Concrete, CY				1.52

All Rebars to be #4

HEADWALL FOR 24" PIPE



PLAN
Scale: ½"=1'0"



All exposed edges to have ½" bevel.

SECTION
Scale: ½"=1'0"

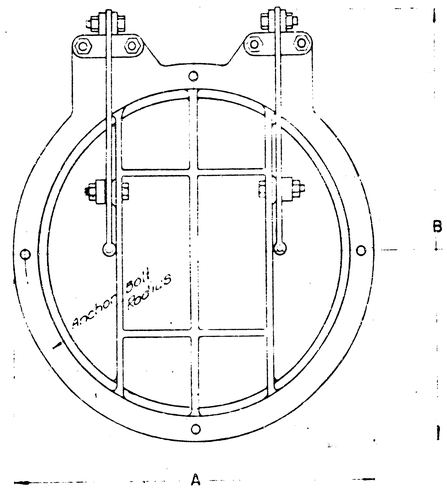
TABLE OF QUANTITIES				
BARS	NUMBER	LENGTH	SHAPE	WEIGHT
a_1	1	7'0"		4.68
a_2	1	7'4"		4.90
a_3	1	7'9"		5.18
a_4	1	8'2"		5.46
a_5	1	8'6"		5.68
a_6	1	9'0"		6.01
a_7	1	9'5"		6.29
a_8	1	11'1"		7.40
b	7	8'6"		39.07
c	1	6'0"		4.01
d	2	7'6"		10.02
e	1	4'5"		2.95
f	2	6'3"		5.68
Total Rebars, lbs				103.39
Concrete, C.Y.				2.01

All Rebars to be #4

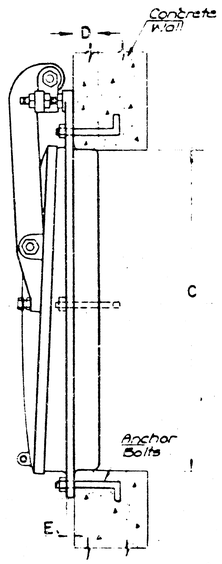
HEADWALL FOR 30" PIPE

Proj. no. 472-76-245 81127-000-000-001

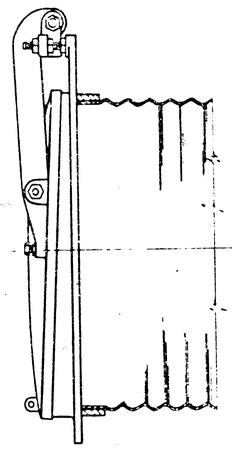
18/20



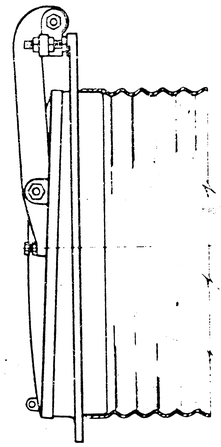
ELEVATION



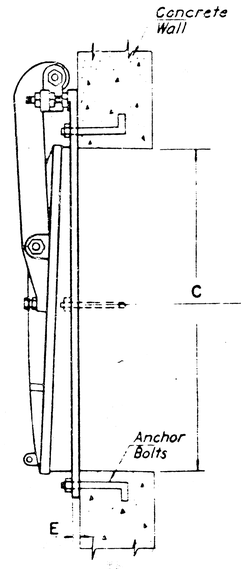
SIDE VIEW & SECTION
THRU CONCRETE WALL
SPIGOT BACK



SIDE VIEW & SECTION
THRU CORRUGATED METAL PIPE
SPIGOT BACK



SIDE VIEW & SECTION
THRU CORRUGATED METAL PIPE
SPIGOT BACK



SIDE VIEW & SECTION
THRU CONCRETE WALL
FLAT BACK

FLAT BACK & SPIGOT BACK CAST IRON FRAME AND GATE

INSTALLATION WITH CONCRETE WALL
& ATTACHED TO CORRUGATED METAL PIPE

Gate Size Diameter	A	B	C	D	E	Weight in Pound	Anchor Bolts Diam.	Projection	Pad
8"	13½"	14½"	9¼"	2"	½"	50	½"	1¾"	2½"
10"	16"	16¾"	11"	2"	½"	60	½"	1¾"	2½"
12"	19"	18¾"	13"	2"	½"	85	½"	1¾"	2½"
15"	22½"	23¾"	15¾"	2"	½"	130	½"	1¾"	2½"
18"	26½"	28¼"	19"	2"	½"	165	½"	1¾"	2½"
21"	28"	30½"	22¾"	2"	½"	225	½"	1¾"	2½"
24"	32"	35¼"	26¼"	2½"	¾"	300	¾"	2¼"	14¾"
30"	37"	42"	31½"	2½"	¾"	425	¾"	2¼"	20½"
36"	44"	49½"	37½"	3"	¾"	605	¾"	2¼"	22½"
42"	50⅜"	58"	43½"	3½"	1"	780	⅞"	3½"	25"
48"	54⅛"	63⅜"	49⅞"	3"	1"	950	⅞"	3½"	19¾"
54"	60½"	72"	55⅝"	4"	1"	1395	1"	3½"	30"
60"	69"	80½"	62"	4"	1⅛"	1910	1"	3½"	33"
66"	80"	90"	68¼"	4"	1¼"	2685	1"	3½"	33"
72"	86"	95½"	74¼"	4"	1¼"	2850	1⅛"	3½"	33"
84"	100"	112½"	86⅜"	4"	2"	5500	1⅜"	3½"	42½"

NOTE: Automatic flap gates shall conform to the dimensions and approximate weights shown in the tables. The gate shall be installed in accordance with the manufacturers' recommendations.

When no water is against the face of the gate, the flap shall seat on the finished frame. Seating surfaces of both frame and flap shall be cast iron and machined to a close fit.

The gate flap, frame and links shall be cast iron. Anchor bolts assembly bolts and nuts shall be galvanized steel.

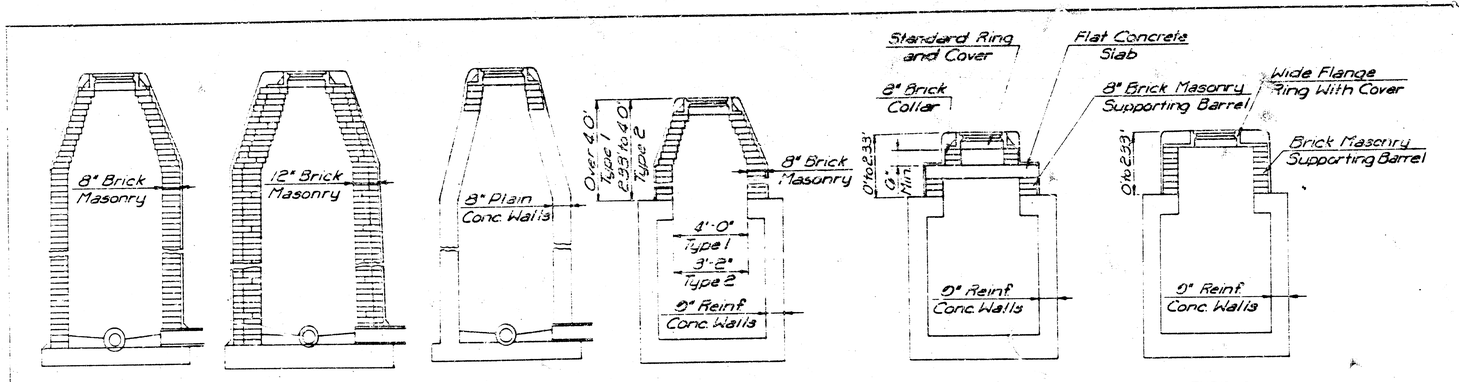
The gate is designed to withstand a maximum operating head of Ten (10) feet on the check side measured from the center line of the gate to the high water level.

The illustrations, notes and table of dimensions shown are for Armco Model 20C, However, a Standard Waterman Model F-10 Flap Gate or equal may be used.

AUTOMATIC FLAP GATE

Proj. no. 472-78-245-81127-000-006-G01

(19/20)



TYPE A
Single Wall Brick Masonry

TYPE B
Double Wall Brick Masonry

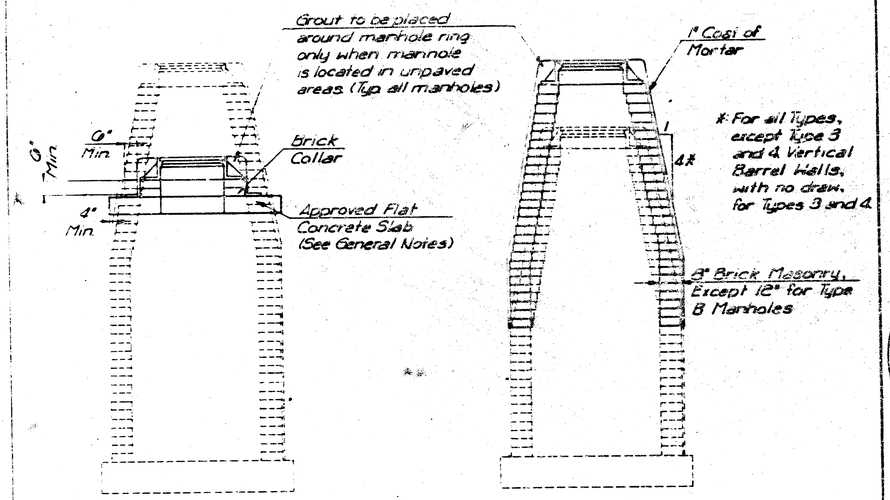
TYPE C & D
Cast in Place
(Type D is plastic lined & has brick draw)

TYPE 1 & 2
Reinforced Concrete

TYPE 3
Reinforced Concrete

TYPE 4
Reinforced Concrete
(Wide Flange Ring)

DEFINITION SKETCHES - CITY OF WICHITA STANDARD MANHOLES



* For all Types, except Type 3 and 4 Vertical Barrel Walls, with no draw, for Types 3 and 4.

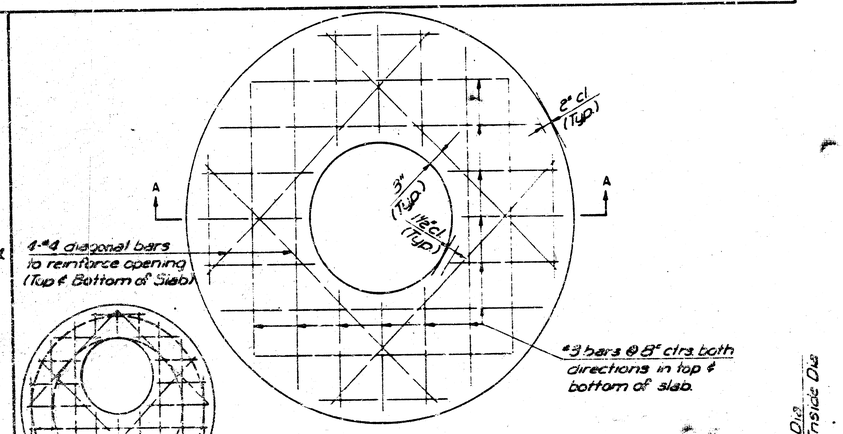
DOWNWARD ADJUSTMENT
(GREATER THAN 12")
All Types

THE APPROPRIATE PORTIONS OF THE DRAW AND BARREL OF TYPE A, B, C, D, 1 AND 2 MANHOLES SHALL BE REMOVED. A FLAT CONCRETE SLAB SHALL BE PLACED AND THE RING AND COVER RESET. ALL WORK AND MATERIALS SHALL CONFORM TO THE DETAILS SHOWN AND THE GENERAL NOTES.

COURSES OF BRICK BARREL SUPPORTING THE WIDE FLANGE RING FOR TYPE 4 MANHOLES AND FLAT CONCRETE SLAB FOR TYPE 3 MANHOLES SHALL BE REMOVED AS NECESSARY PRIOR TO RESETTING THE WIDE FLANGE RING OR FLAT CONCRETE SLAB AND RING. ALL WORK AND MATERIALS SHALL CONFORM TO THE DETAILS SHOWN AND THE GENERAL NOTES.

UPWARD ADJUSTMENT
(GREATER THAN 12")
All Types

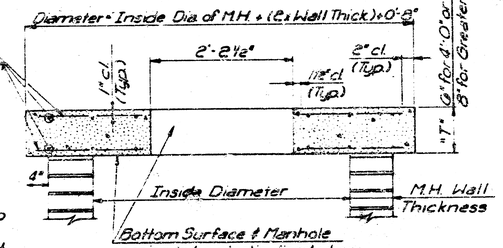
THE ENTIRE DRAW OF TYPES A, B, C, D, 1 AND 2 MANHOLES SHALL BE REMOVED, THE REMAINING BARREL RAISED THE APPROPRIATE AMOUNT, A NEW DRAW CONSTRUCTED, AND THE RING AND COVER RESET. THE UPPER PORTION OF TYPE 3 MANHOLES SHALL BE REMOVED TO THE BOTTOM OF THE FLAT CONCRETE SLAB. THE BRICK MASONRY BARREL SUPPORTING THE SLAB SHALL BE RAISED THE APPROPRIATE AMOUNT, AND THE SLAB AND RING AND COVER RESET. THE WIDE FLANGE RING AND COVER OF TYPE 4 MANHOLES SHALL BE REMOVED. THE BRICK MASONRY BARREL SUPPORTING THE RING SHALL BE RAISED THE APPROPRIATE AMOUNT AND THE RING AND COVER RESET. ALL WORK REQUIRED FOR A GREATER THAN TWELVE INCH (12") UPWARD ADJUSTMENT OF ANY MANHOLE SHALL BE ACCOMPLISHED WITH BRICK MASONRY IN ACCORDANCE WITH THE DETAILS SHOWN AND THE GENERAL NOTES.



PLAN

PLAN
ALTERNATE OPENING LOCATION

#3 bars @ 8" ctrs both directions in top & bottom of slab.



Bottom Surface of Manhole opening to be plastic lined when Slab is Constructed for sanitary sewer manhole.

SECTION A-A

* To be used only if necessary to keep ring and cover from conflicting with curb or combined curb and gutter. Flat concrete slab shall be rotated on existing manhole to position ring and cover in pavement or behind curb.

FLAT CONCRETE SLAB DETAILS

19
19-A

MANHOLE ADJUSTMENT DETAILS

CITY OF WICHITA, KANSAS
M. E. LINDEBAK – CITY ENGINEER

Designed by		Checked by	
			JOB No.