# SWS 215, SEWER AT 13th & WOODLAWN

CITY OF WICHITA, KANSAS

DEPARTMENT OF ENGINEERING

R.W. BRUGGEMAN, DIRECTOR OF ENGINEERING / CITY ENGINEER

PROJECT NO. 468-76-245-80816-000-000-001

DATE: _____

GENERAL NOTES

1. ~~ALL CORRUGATED METAL PIPE ON THIS PROJECT SHALL BE FULLY COATED.~~

2. CURB INLETS ON THIS PROJECT SHALL BE LOCATED BY THE ENGINEER WITH REFERENCE TO THE CONSTRUCTION PLANS. ANY INLET OR PIPE WHICH CONFLICTS WITH EXISTING UTILITIES MAY BE ALTERED IF SUCH ALTERATION IS SATISFACTORY IN THE OPINION OF THE ENGINEER. THE FIELD ENGINEER SHALL HAVE THE PREROGATIVE TO INTERCHANGE TYPE "I" CURB INLETS AND TYPE "I-A" CURB INLETS WITHOUT A CHANGE OF BID ITEMS.

3. CONTRACTOR SHALL COORDINATE WORK WITH WATER, ELECTRIC, TRAFFIC CONTROL, GAS AND OTHER UTILITY COMPANIES SO MINIMUM INCONVENIENCE WILL OCCUR TO GENERAL PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR RELOCATION OF EXISTING SERVICES.

4. EARTHWORK DOWNSTREAM FROM HEADWALL AND FOR RIP-RAP SHALL BE PAID FOR IN OTHER BID ITEMS.

5. ~~ALL IRONS AND THIMBLES DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED BY THE ENGINEER.~~

6. ALL CONCRETE SHALL BE "6-SACK CONCRETE" UNLESS OTHERWISE SPECIFIED.

7. COST OF "HOOK-UP" FROM GUTTER TO CURB INLET TO BE CONSIDERED IN BID FOR CURB INLET AND/OR CURB AND GUTTER AND SHALL NOT BE A SEPARATE PAY ITEM WITHIN THIS PROJECT. GUTTER FLOWLINE SHALL BE 1" BELOW STANDARD GUTTER AT INLET. SEE SHEET 9 FOR "HOOK-UP" DETAILS.

8. COMBINED CURB AND GUTTER AND SEPARATE CURB AND GUTTER REMOVED AND REPLACED ON THIS PROJECT SHALL BE BID AS "COMBINED CURB AND GUTTER REMOVED AND REPLACED". EXISTING PAVING PLANS OF 13TH STREET AND WOODLAWN INDICATE THAT CURB AND GUTTER AND CONCRETE BASE FOR ASPHALT WEARING SURFACE ARE TIED TOGETHER WITH DOWELS. SUCH DOWELS SHALL REMAIN FOR CURB AND GUTTER REPLACED.

9. THE ASPHALT WEARING SURFACE REMOVED AND REPLACED SHALL BE PAID FOR AS SQUARE YARD BID FOR "ASPHALT MAT REMOVED AND REPLACED". SAW JOINTS SHALL BE USED AT REMOVAL LIMITS.

10. ~~EXISTING CURB ALIGNMENT TO BE MAINTAINED.~~

11. ANY NEW CURB ON 13TH STREET TO BE AT SAME ELEVATIONS AS EXISTING CURB PRIOR TO REMOVAL. FIELD ENGINEER TO DETERMINE THE AMOUNT OF CURB AND GUTTER TO BE REMOVED AND REPLACED IN THE AREA BETWEEN DRAINAGE CHANNEL AND WOODLAWN.

12. PROPOSED CURB ELEVATIONS ON WOODLAWN SHALL BE AS SHOWN ON THE PLANS. ANY AREA WHERE THE CONCRETE BASE SHOULD BE REMOVED IN THE JUDGEMENT OF THE ENGINEER - SUCH CONCRETE BASE REMOVAL AND REPLACEMENT SHALL BE PAID FOR AS SQUARE YARD BID FOR "CONCRETE BASE REMOVED AND REPLACED".

13. FIELD ENGINEER SHALL DETERMINE ALL REMOVAL LIMITS. REMOVAL OF CONCRETE DRIVES, WALKS, ETC., TO BE AT NEAREST JOINT WHERE POSSIBLE. ALL OTHER REMOVAL LIMITS TO BE BY SAW JOINT.

14. DO NOT REPLACE ANY WALK OR DRIVE NOT SERVING A PURPOSE.

15. MINIMUM OF TWO LANES OF TRAFFIC TO BE MAINTAINED AT ALL TIMES.

16. CROSSWALK LIGHT AT 13TH AND WOODLAWN TO BE REMOVED AND REPLACED BY DEPARTMENT OF OPERATIONS AND MAINTENANCE.

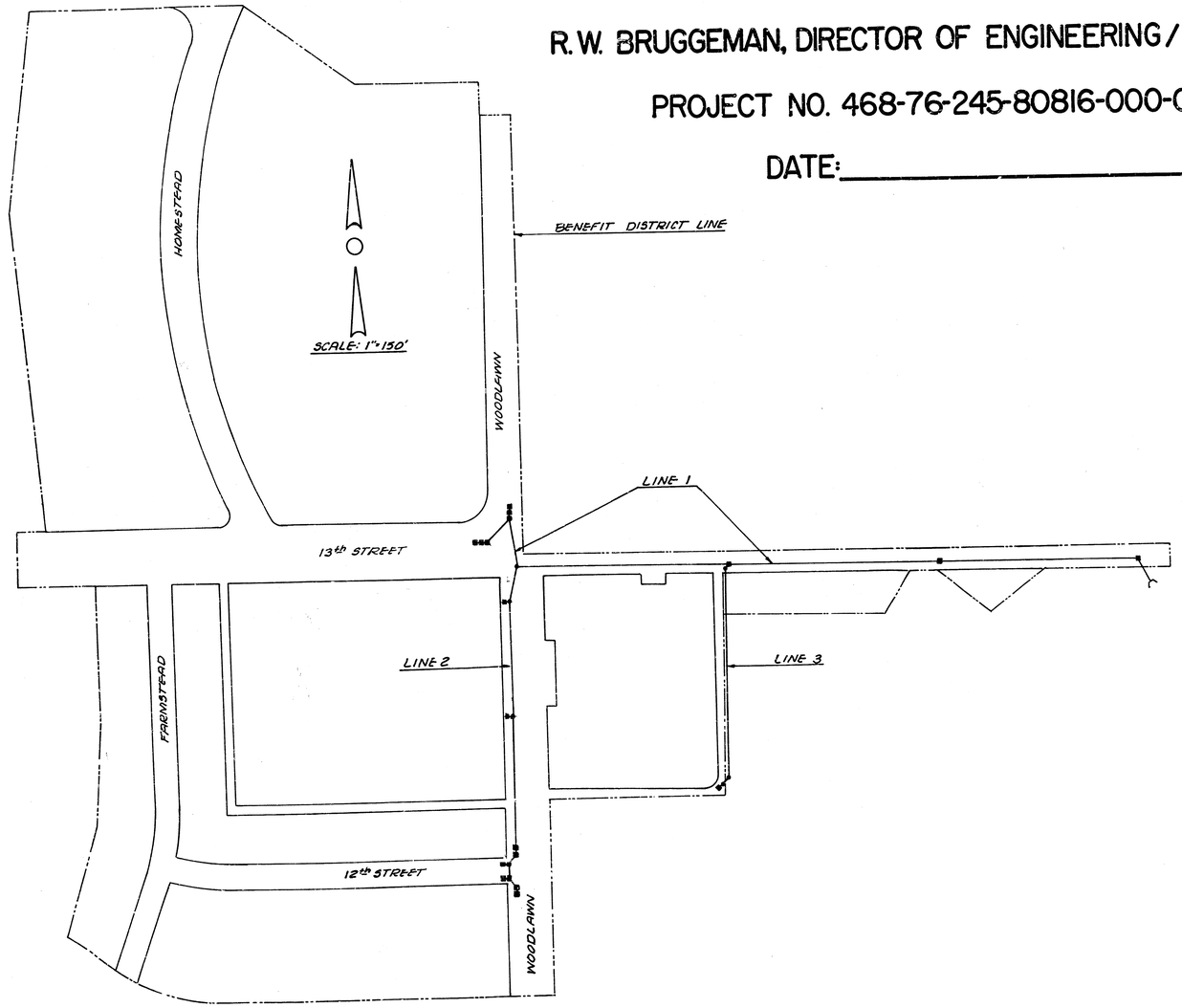
17. SIDEWALK REMOVED AT INTERSECTIONS IS TO BE REPLACED WITH WHEELCHAIR RAMPS.

18. CONTRACTOR IS TO CONTACT TRAFFIC MAINTENANCE, DEPARTMENT OF OPERATIONS AND MAINTENANCE BEFORE BEGINNING CONSTRUCTION. TRAFFIC MAINTENANCE WILL DO ALL WORK CONCERNING TRAFFIC SIGNALS AND CROSSWALK LIGHTS.

19. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE OPERATION OF THE SCHOOL CROSSING SIGNAL AT 13TH AND STRATFORD AT ALL TIMES DURING ITS NORMAL OPERATING TIMES. THE METHOD OF MAINTAINING THE OPERATION OF THE SCHOOL CROSSING SHALL BE LEFT TO THE CONTRACTOR. HOWEVER, THE METHOD USED SHALL BE APPROVED BY PAUL TAYLOR, DIRECTOR OF TRAFFIC MAINTENANCE, DEPT. OF OPERATIONS AND MAINTENANCE PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL ALSO BE REQUIRED TO PROVIDE ACCESS FOR PEDESTRIAN TRAFFIC ACROSS TRENCH DURING THE TIMES THE SIGNAL IS IN OPERATION.

20. TEMPORARY ASPHALT HOOKUPS SHALL BE PROVIDED FROM BACK OF EXISTING CURB TO NEW INLETS WHERE REQUIRED TO PROVIDE DRAINAGE UNTIL THE PAVING PROJECT IS CONSTRUCTED. COST SHALL BE INCIDENTAL TO PROJECT.

THE CONTRACTOR SHALL BE [illegible] FOR PRESERVING PROPERTY [illegible]. THE CONTRACTOR SHALL BE RESPONSIBLE TO RE-ESTABLISH ANY PROPERTY [illegible] ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH [illegible] SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.

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DRAINAGE 13th & WOODLAWN

Sheet 1 of 9

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BM 188.38 Brass Cap E-end handrail, N-side RCB 13th St. west of Lawrence Ln.

BM 188.20 "a" E-cb Armour E' N of N-ft wk east of NE Cor. Armour & 13th

Install Type 3 Rip-Rap

Drainage Dedication

LAWRENCE LANE

Sta 0+40 Constr. Headwall. See Sheet 6

Install 42" Pipe

Lot Line 1°23

Lot 1, Blk 5
4th Add'n to Pine Valley Estate

Remove & Replace Walk

Iron 2.79 P
2°12.5 NW

8" San. Sewer (Active)

ARMOUR STREET

R/w 3.93

Lot 1, Replat of Blk 6
4th Add'n to Pine Valley

SCALE: 1"=20'

Lot 11, Replat of Blk 6,
4th Add'n in Pine Valley

Lot Line 4°43

E.L. Stratford St. Sta. 5+93

16" C.I. Water

8" H.P. Gas

15" Dead Tree

Remove & Replace Drive

Remove & Replace Valley Gutter & Pav't as required, Replace with 8" Conc. Pavement

Plug 15" RCP

Remove 5'± of 8" San. Sewer
Install 2 pipe plugs

Abandoned 8" San. Sewer

Remove 2 Curb Inlets
Remove 15" RCP

Sta. 1+00 Constr. Type 1A Curb Inlet
w=40', Top 185.35

Constr. Inlet
See Sheet 3

℄ 13th STREET

Blk 549
Wsk

LINE 1

$Q_s$ = 52.89 cfs
$H_p$ = 0.14'
$H_m$ = 0.49'

Sta. 0+40 End Recon Start Pipe
DWS 180.86

Sta 1+00 Inlet, w=4.0' Toe 182.35
DWS 181.47

$Q_s$ = 52.89 cfs
$H_p$ = 1.15'
$H_m$ = 0.49'

Match Line Sta. 5+80

Mound Soil 1'± over top of Pipe

Existing Ground Line

Existing Channel Flowline

Constr. ditch (4'± bottom, 4:1 sides) from headwall to Channel. Cost to be incidental to project.

Install Type 3 Rip-Rap

Top of Curb

Abandoned 8" San. Sewer. Remove pipe as required & plug ends of remaining.

16" Water

8" H.P. Gas

176.00

176.40
176.80

60' of SWS @ +1.00%
42" RCP

480' of SWS @ + 0.56%
42" RCP

179.49

195
190
185
180
175

0
1
2
3
4
5

174.40
174.80
177.36
177.92
178.48
179.04

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Line 1 Sheet 2 of 9
Drainage, 13th & Woodlawn

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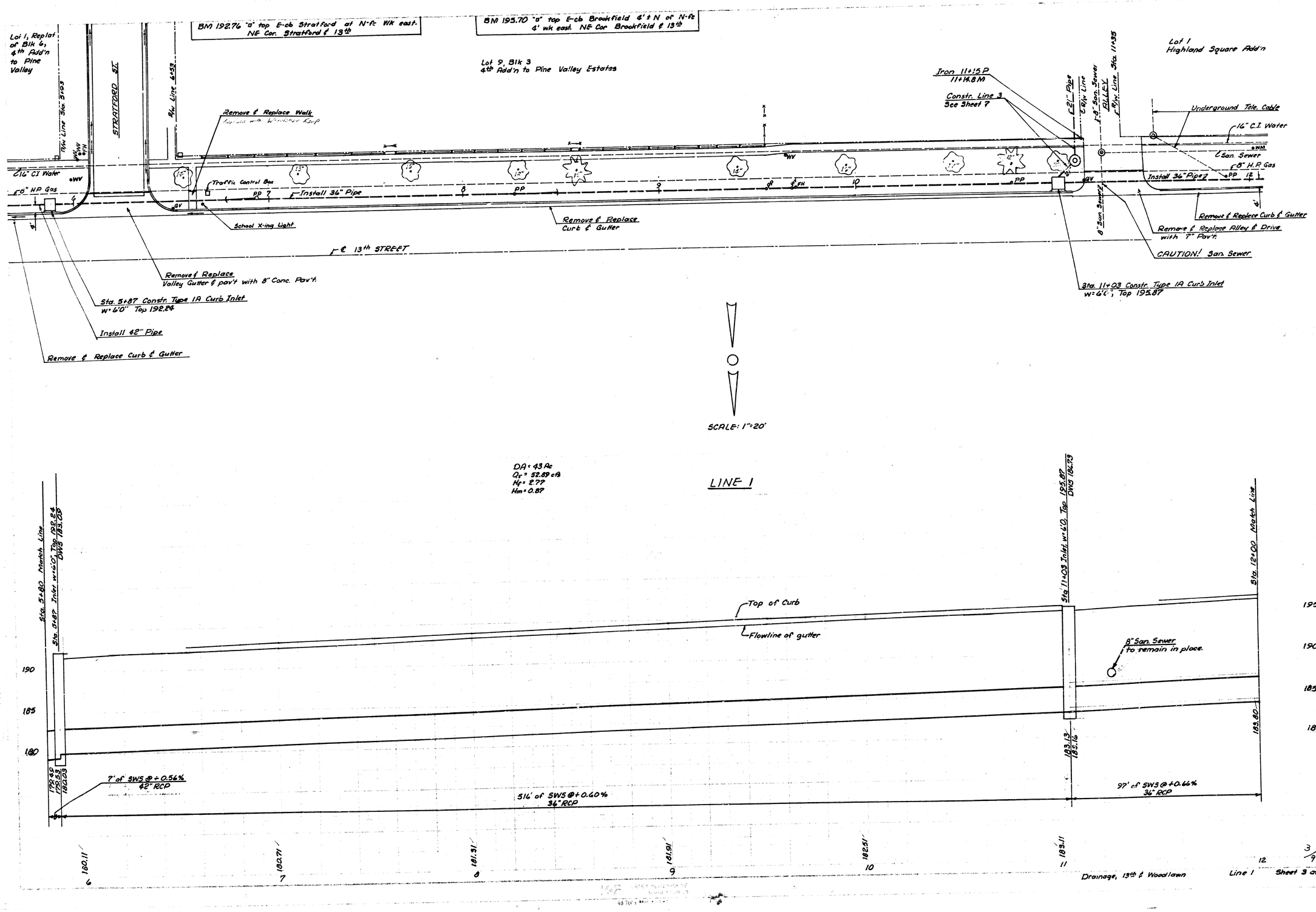
BM 192.76 "a" top E-cb Stratford at N-ft Wk east. NE Cor. Stratford & 13th
BM 193.70 "a" top E-cb Brookfield 4'± N of N-ft 4' wk east. NE Cor Brookfield & 13th
Lot 1, Replat of Blk 6, 4th Add'n to Pine Valley
Lot 9, Blk 3 4th Add'n to Pine Valley Estates
Lot 1 Highland Square Add'n
STRATFORD ST.
R/W Line Sta. 5+93
R/W Line 4+59
Remove & Replace Walk
Replace with Wheelchair Ramp
16" C.I. Water
8" H.P. Gas
Traffic Control Box
Install 36" Pipe
School X-ing Light
Remove & Replace Curb & Gutter
Remove & Replace Valley Gutter & pav't with 8" Conc. Pav't.
℄ 13th STREET
Sta. 5+87 Constr. Type 1A Curb Inlet W=6'0" Top 192.84
Install 42" Pipe
Remove & Replace Curb & Gutter
Iron 11+15 P 11+19.8 M
Constr. Line 3 See Sheet 7
21" Pipe
8" W.L. Line
8" San. Sewer
ALLEY
8" W.L. Line Sta. 11+35
Underground Tele. Cable
16" C.I. Water
8" San. Sewer
8" H.P. Gas
Install 36" Pipe
Remove & Replace Curb & Gutter
Remove & Replace Alley & Drive with 7" Pav't
CAUTION! San. Sewer
Sta. 11+03 Constr. Type 1A Curb Inlet W=6'0", Top 195.87
SCALE: 1"=20'
DA = 4.3 Ac
Qf = 52.89 cfs
Hf = 2.77
Hm = 0.87
LINE 1
Sta. 5+80 Match Line
Sta. 5+87 Inlet W=6'0" Top 192.84 DW3 183.09
Sta. 11+03 Inlet W=6'0" Top 195.87 DW3 184.73
Sta. 12+00 Match Line
Top of Curb
Flowline of gutter
8" San. Sewer to remain in place.
7' of SW3 @ +0.56% 42" RCP
516' of SW3 @ +0.40% 36" RCP
97' of SW3 @ +0.66% 36" RCP
192.45
190.53
180.03
183.13
182.16
183.80
190
185
180
195
180.11
180.71
181.31
181.91
182.51
183.11
6
7
8
9
10
11
12
Drainage, 13th & Woodlawn
Line 1
Sheet 3 of 9

DLK-350, DCD-182, DLK-349
W.S.K.

BM 199.40 City Std SE Cor 13th & Woodlawn 40'S, 42.5'E of ℄ both.
BM 201.74 Top SW Cor. 2.6 sq Brick Monument NE Cor. 13th & Woodlawn

Lot 1 Highland Square Add'n
Lot 2
Lot 3 Highland Square Add'n
Part of Lot 10, Blk 3, 4th Add'n to Pine Valley Estates

Lot Line 12+43
Lot Line 12+53
Lot Line 13+13
Lot Line 14+03
Bell Tele. MH
Lot Line 13+53
City Std. B.M.
Traffic Control MH
Traffic Light Pole
Back of Proposed Curb
℄ WOODLAWN
Line 2 See Sheet 5
18" Water
Conc. Base
Remove Walk
14" C.I. Water
San. Sewer 3
8" H.P. Gas Install 32" Pipe
Remove & Replace Drive Typical
Cross Walk Light
14" C.I. Water
Sta. 16+09.51 Constr. Type B 5' dia. Manhole
Iron 16+03 P
16+03.51 M
Constr. 26" SWS
Install 6' of 18" Pipe, DSFL 194.6, USFL 194.7
Install 6' of 15" Pipe, DSFL 194.8, USFL 194.9
Top elevations (East inlet 200.54) (Center inlet 200.67) (West inlet 200.76)
Constr. 3-Type 1A Curb Inlets, w=2' @ 8' cts.
East inlet @ Sta. 17+90.51
Constr. 21" SWS
See Paving Plan for proposed location of curb returns.
Traffic Control Light
(Valley Gutter)
8" Water
12" Water
℄ 13th STREET

NOTE: See Paving Plan for top elevation of manhole & inlets.
Remove pavement as required for construction.
Pavement, curb, walks, drives removed west of east line of Woodlawn, shall be replaced with 5" Asphaltic Concrete (SC-1) if so required by Engineer.

Removal east of east line of Woodlawn shall be replaced as per pay item for such work.

SCALE: 1" = 20'

Sta. 17+19.51
Constr. Type 1A Curb Inlet, w=5'; Top 200.30
Install 6' of 18" Pipe, DSFL 197.3, USFL 197.4
Constr. Type 1A Curb Inlet, w=2', Top 200.40
Install 6' of 15" Pipe, DSFL 197.7, USFL 197.8
Constr. Type 1A Curb Inlet, w=4'-2", Top 200.50
33.75' ℄ to ℄
Back of Proposed Curb
R/W Line

NSP #1128
Harry Kouri Jr. Sprinkler

DA = 38 Ac
Qs = 46.74 cfs
Hp = 2.18'
Hm = 0.68'

LINE 1

DA = 25 Ac
Qs = 30.75
V = 9.79 fps (24")
Hp = 1.73'
Hm 1.06

Qs = 15.37 cfs
V = 6.39 cfs (21")
Hp = 0.57'
Hm = 0.44'

DWS (36") 189.65
Sta. 16+09.51 Manhole
DWS (24") 195.82

Sta. 17+19.31 Inlet
DWS 198.59

Sta. 17+90.51 Inlet
DWS 199.40

14" C.I. Water

Top of Curb
℄ Flowline of gutter
Pav't Surface

12" Water
12" Water

195.10
195.35
194.51

Sta. 12+00 Match Line

183.80
184.64
185.12
185.78
186.44

409.51' of 36" SWS @ +0.66%
36" RCP

110'± of 24" SWS @ +2.52%
24" RCP

71'± of 21" SWS @ +1.64%
21" RCP

Lower SWS to clear existing utility & sprinkler systems if so required.

200
195
190
185
180

12 13 14 15 16 17

Line 1
Drainage, 13th & Woodlawn

Sheet 4 of 9

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BM 201.74 Top SW Cor. Brick Monument NE Cor. 12th & Woodlawn

SCALE: 1"=20'

℄ E 19th STREET

Sta. 16+26 Constr. Manhole, See Sheet 4
Line 1 Sta. 16+09.51

36" SWS

12" Water

Line 1 See Sheet 4

24" SWS

Constr. 27" SWS

33.75' ℄ to B

Sta. 17+12.71 Constr. Type B 6'ϕ Manhole, Top 199.15
See Paving Plan for top elevation

Constr. 27" SWS

℄ WOODLAWN

Sta. 19+70 Constr. Type B 6'ϕ Manhole, Top 198.69
See Paving Plan for top elevation.

Constr. 27" SWS

33.75' ℄ to B

20

21

26.5' ℄ to B

Proposed Back of Curb

24.5' ℄ to B

DLK 350
WSK

OFW

Opp

18' Proposed Back of Curb

19

12" Water ℄

San. Sewer ℄

Upp

℄ 12" Water

San. Sewer

Opp

22

WM

Traffic Control Structures

Iron: 16+53.51 P
16+53.5 M

Install 6' of 15" Pipe
USFL 195.5; DSFL 195.3

Constr. Type 1A Curb Inlet, w=6'2", Top 199.55
See Paving Plan for location, alignment & top elevation.
(Pavement Sta. 11+87.30)

Overhead Arch

Install 6' of 15" Pipe
USFL 195.0; DSFL 194.8

Constr. Type 1A Curb Inlet, w=6'2", Top 199.09
See Paving Plan for location, alignment, and top elevation
If required to clear water line, move both inlet & manhole south.
(Set inlet back to 33.75' Bk Cb Alignment)
(Pav't Sta. 9+30.28)

Sta 21+64.08
San. Sewer ℄

ALLEY

4" roof drain
to remain

Iron Sta 21+86.08 P
Sta. 21+86.3 M

59.20'

NOTE: Remove pav't as required for construction.
If required by Engineer, replace with 6" Asphaltic Concrete (SC-1)

Lot 18, Blk A
McEwen 5th Addn

Lot 1, Blk A
McEwen 5th Add'n

LINE 2

Sta 16+09.51 Line 1 See Sheet 4
Sta 16+26 Line 2
Manhole
DWS 189.07

Qs = 29.84 cfs
Hp = 0.64'
Hm = 0.89'

Sta. 17+12.71 Manhole
DWS 190.58

Qs = 27.72 cfs
Hp = 1.78'
Hm = 0.76'

Sta. 19+20 Manhole
DWS 193.12

Sta 22+00 Match Line Sheet 5
Sta 22+15.01 Match Line Sheet 6

Existing top of Curb

Proposed top of Curb

200
195
190
185

187.75

188.55
188.57

192.24
190.96

192.62

85' of SWS @ +0.92%
27" RCP

217.25' of SWS @ +0.92%
27" RCP

230' of SWS @ +0.72%
27" RCP

187.92

188.42
17

189.38
18

190.30
19

191.19
20

191.90
21

192.62
22

Drainage, 19th & Woodlawn — Line 2 — Sheet 5 of 9

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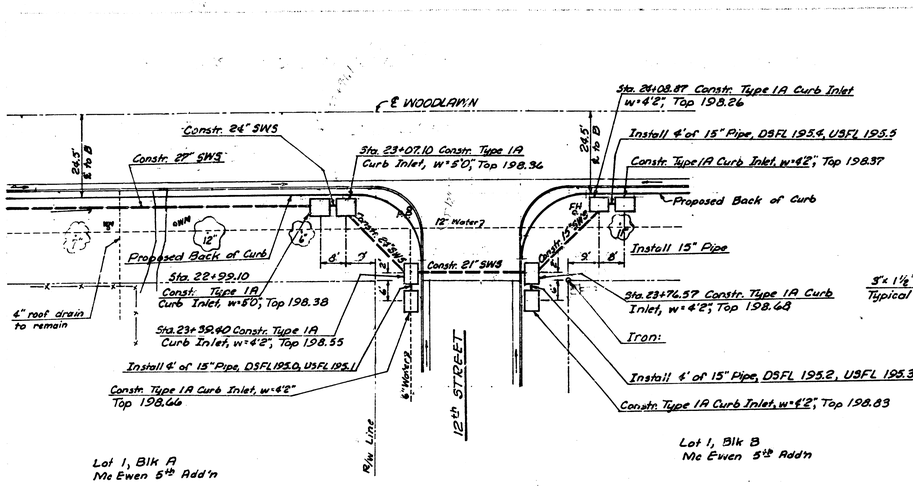
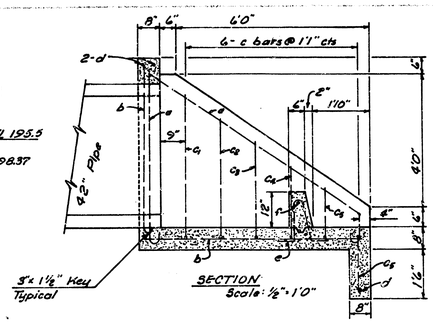
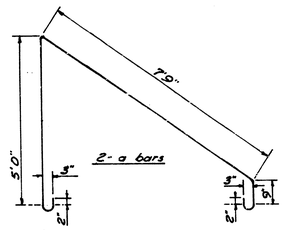
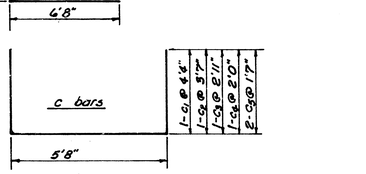



NOTE: See Paving Plans for top elevation of Manhole & Inlets. Remove pavement as required for construction. If required by Engineer, replace pavement with 5" Asphaltic Concrete (SC-1).

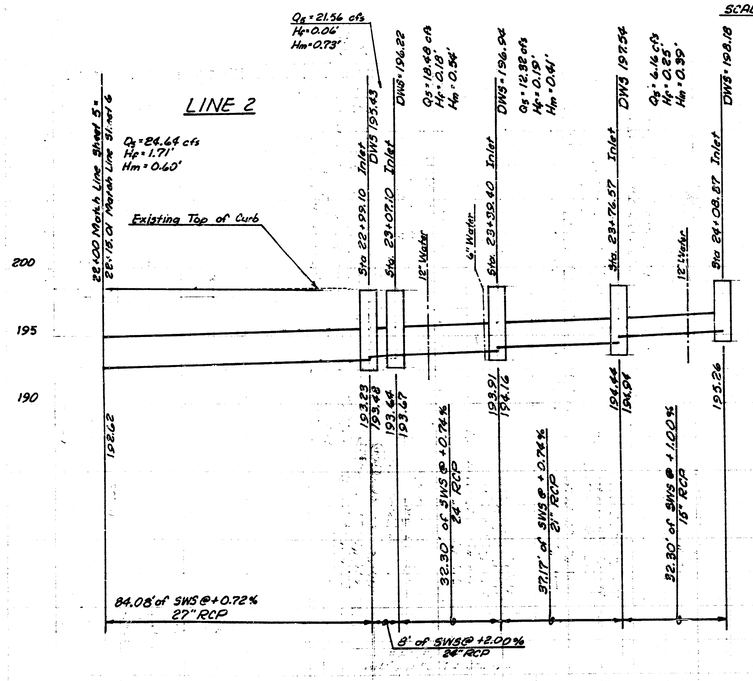



HEADWALL FOR 42" PIPE, STA. 0+80 Line 1

SCALE: 1" = 20'




Line 2, Headwall Detail
Drainage, 15th & Woodlawn

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Sheet 6 of 9

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BM 199.40 City Std SE Cor. 13th & Woodlawn 40'S, 825'E of ℄ Both

Lot 9, Blk 3, 4th Add'n to Pine Valley Estates

SCALE: 1"=20'

NOTE: Trees east of fence are newly planted trees (approx. 1" trees) and shall be "SAVED". Any tree not saved shall be replaced in kind at Contractor's expense.

Drainage Easement Line

Sta. 14+55 Constr. Type H 4'dia. Manhole, Top 192.8±

CAUTION: 2-1" Water Service Lines

Remove & Replace chain link fence.

Sprinkler System

Sta. 9+76 Constr. Inlet, See Sheet 3
Sta 11+03 Line 1

Install 21" Pipe

Sta. 9+90 Constr. Type A Manhole 4'dia, Top 196.1±

Remove & Replace Walk

Drainage Easement Line

13th STREET

36" Pipe Line 1, See Sheet 3

8" H.P. Gas

16" C.I. Water

Concrete Pav't

San. Sewer

ALLEY

Iron: Sta. 10+00

Install 21" Pipe

San. Sewer

Conc. Pav't

R/W Line

Install 21" Pipe

6" PVC Force Main

Sta. 14+91± Constr. Type B 4'dia. Manhole to intercept 6" P.V.C. Force Main. Plug PVC 3E of M.H. Cost included with Manhole bid.

Install 21" Pipe

Sta. 15+00 Existing Inlet to remain. See note below

Joint between Conc. & Asph. Pav't

Remove & Replace Pav't in kind (Conc. 7", Asph. 4")

Remove & Replace Power Poles (Horiz.) for guard for chain link fence. To be paid for lump sum bid for "Fence Guard Removed & Replaced."

3WS Pump Station

Asph. Pav't

8" H.P. Gas: Coated & wrapped line, 9" dia. total. 16.90' N. of S.L. 13th St. Top of pipe elev. @ 192.36

Lot 1 | Lot 4, Highland Square Add'n | Lot 5

Lot Line Sta 11+50 | Lot Line 12+65

$Q_5$ = 11.85 cfs
$H_F$ = 2.22'
$H_m$ = 0.38'

LINE 3

Line 1 Sta 11+03 DWS (36") 186.23
Sta 9+76 Inlet, w/ 6.0' Top 192.87
DWS 192.68
$Q_5$ = 11.85, $H_F$ = 0.07', $H_m$ = 0.38'
Sta. 9+90 Manhole Top 194.1
DWS 188.13

Existing Surface

Sta. 14+55 Manhole Top 192.82
DWS 190.73

$Q_5$ = 11.85 cfs
$H_F$ = 0.17'
$H_m$ = 0.38'

Water Service Lines

Sta 14+91± Manhole Top 191.91
DWS 191.28

Sta 15+00 Existing Drop Inlet Top 191.84
DWS 191.70

DA=8.0 Ac
$Q_5$ = 11.85 cfs
$H_F$ = 0.04'
$H_m$ = 0.38'

Connect 21" Pipe to existing inlet, Plug existing 12" RCP, Shape bottom for 21" Pipe. To be paid for as "Pipe Inlet Connection."

6" San. Sewer

36" out 183.18
185.91

185.97
186.00

187.84
187.65

188.09
188.04

188.10

36' of SWS @ +0.40% 21" RCP

445' of SWS @ 0.40% 21" R.C.P.

14' of SWS @ +0.40% 21" RCP

9' of SWS @ +0.40% 21" RCP

186.04 | 186.44 | 186.84 | 187.24 | 187.64

10 | 11 | 12 | 13 | 14 | 15

Drainage, 13th & Woodlawn
Line 3 Sheet 7 of 9

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# SEWER APPURTENANCES

CITY OF WICHITA, KANSAS
ENGINEERING DIVISION
BY
ADOPTED AS STANDARD DESIGN
DETAILS OF

R. W. LINN CITY ENGINEER

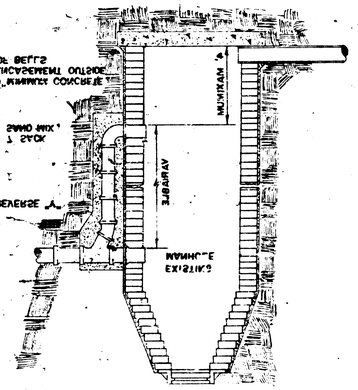
REVISED 4-12-77

## GENERAL NOTES

- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 2 SACKS OF CEMENT PER CUBIC YARD.
- STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL DROP MANHOLES TYPE 'A' OR TYPE 'B' SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE MANHOLE DIAMETERS MUST BE 4' DIAMETER INDICATED OTHERWISE.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED TO INSURE HARMONIC EFFICIENCY USING 8 SACK SAND MIX CONCRETE. PIPES INSTALLED WITHIN THE MANHOLE EXCAVATION SHALL BE CHARGED WITH CONCRETE TO THE INVERT OF THE MANHOLE EXCAVATION. COST OF CHARGE WITHIN MANHOLE EXCAVATION SHALL BE INCLUDED IN THE PRICE BID FOR THE MANHOLE. CHARGE SHALL EXTEND TO FIRST JOINT OUTSIDE OF MANHOLE WHEN CLAY PIPE IS USED.

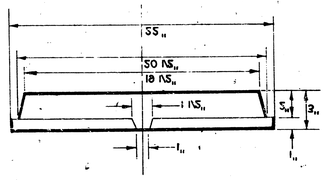
## DETAIL OF DROP STACK

FOR EXISTING MANHOLES IN GROUND WATER



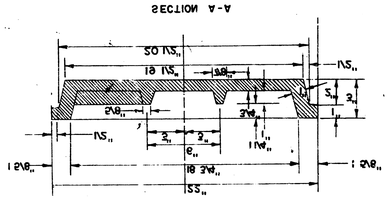

## MANHOLE COVER

SIDE VIEW




## MANHOLE COVER

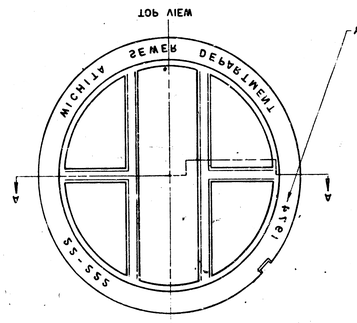
SECTION A-A




## MANHOLE COVER

WEIGHT 110 LBS.

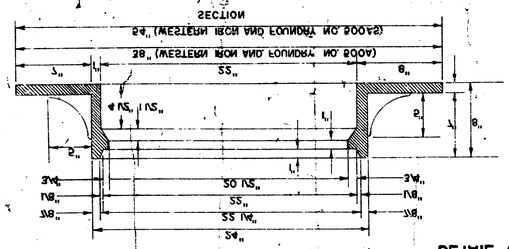
TOP VIEW




## MANHOLE RING

RING TO BE MACHINE FIT AND THE INNER FACE AND SEAT OF OUTSIDE CIRCUMFERENCE OF COVER

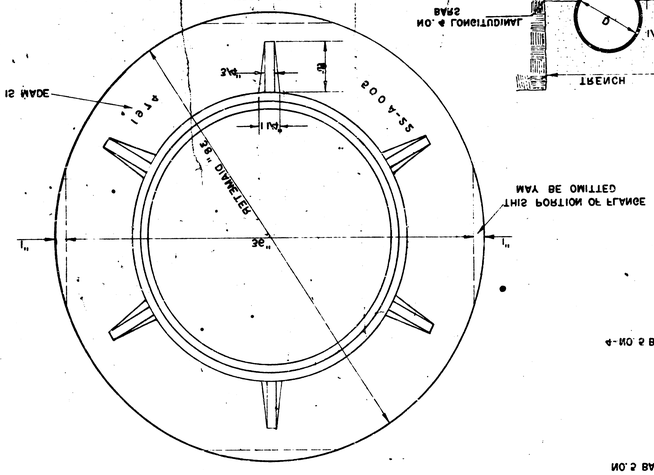
SECTION



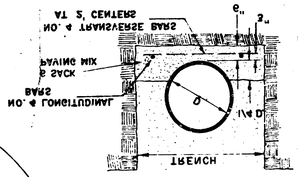

WEIGHT 359 LBS. RING NO. 2000
WEIGHT 800 LBS. RING NO. 2000S

## MANHOLE RING

TOP VIEW

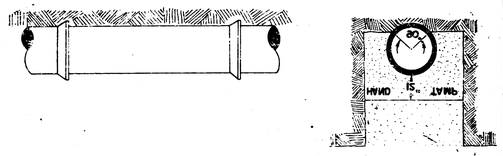



## DETAIL OF CONCRETE CRADLE



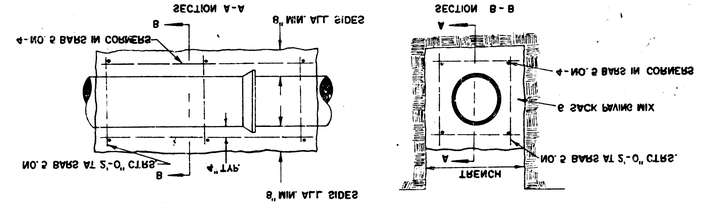

## ORDINARY BEDDING METHOD

STORM SEWER PIPE




NOTE: CONCRETE ENCASEMENT AND CONCRETE CRADLE SHALL BEGIN AND END AT A JOINT WHEN CLAY PIPE IS USED.

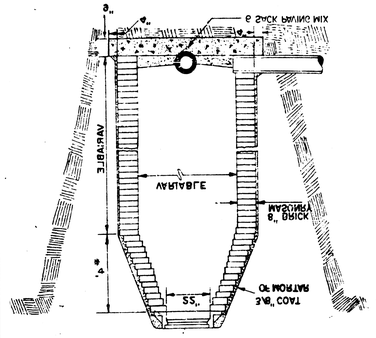
## REINFORCED CONCRETE ENCASEMENT



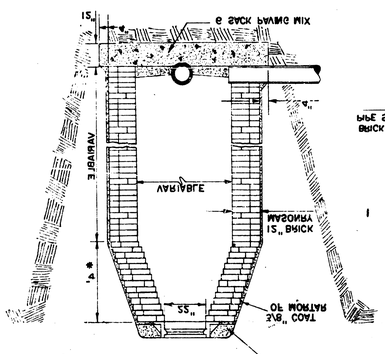

NOTE: REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES 6" ABOVE THE BOTTOM. REINFORCING STEEL SHALL CONSIST OF NO. 4 BAR PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE COST OF REINFORCING STEEL IS TO BE INCLUDED IN THE PRICE BID FOR THE MANHOLE.

GROUT TO BE PLACED AROUND MANHOLE RING ONLY WHEN MANHOLE IS CONSTRUCTED IN UNPAVED AREAS. (TYPICAL ALL MANHOLES)

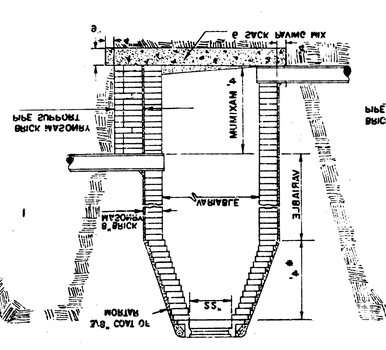
## TYPE "A" STANDARD MANHOLE



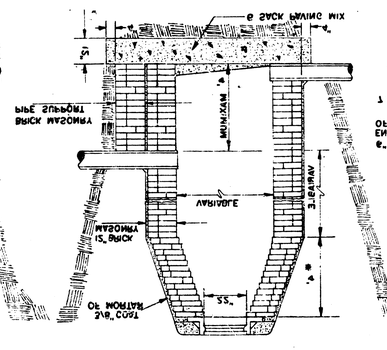

## TYPE "B" STANDARD MANHOLE



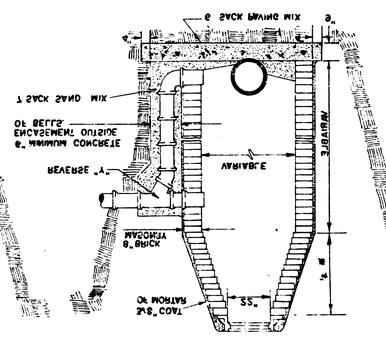

## TYPE "A" DROP MANHOLE



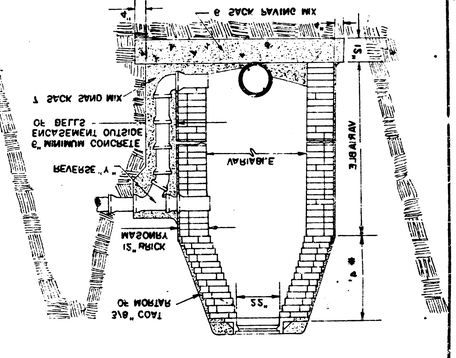

## TYPE "B" DROP MANHOLE



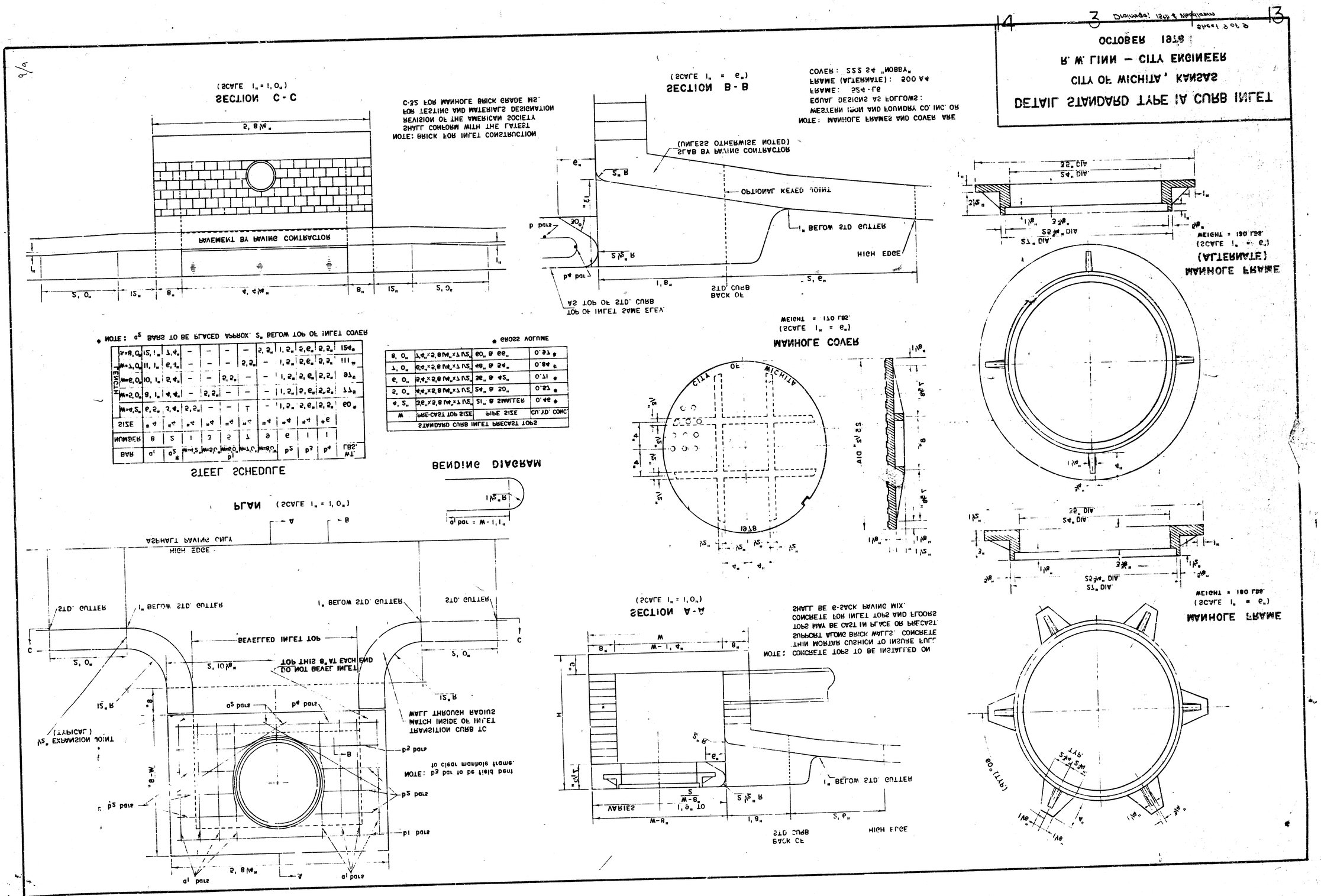

## TYPE "A" OUTSIDE DROP MANHOLE




## TYPE "B" OUTSIDE DROP MANHOLE




* DRAW = 6, ON 8, DIA. M.H.


DETAIL STANDARD TYPE A1 CURB INLET
CITY OF WICHITA, KANSAS
R. W. LINN – CITY ENGINEER
OCTOBER 1978
SECTION C-C
(SCALE 1" = 1'-0")
PAVEMENT BY PAVING CONTRACTOR
SECTION B-B
(SCALE 1" = 6")
NOTE: MANHOLE FRAMES AND COVER ARE
WESTERN IRON AND FOUNDRY CO. INC. OR
EQUAL DESIGNS AS FOLLOWS:
FRAME: 524-J5
FRAME (ALTERNATE): 500 A4
COVER: 222 S4 "NOBBY"
(UNLESS OTHERWISE NOTED)
SLAB BY PAVING CONTRACTOR
OPTIONAL KEYED JOINT
1" BELOW STD. GUTTER
HIGH EDGE
STD. CURB BACK OF
AS TOP OF STD. CURB TOP OF INLET SAME ELEV.
MANHOLE FRAME
(ALTERNATE)
WEIGHT = 190 LBS.
(SCALE 1" = 6")
MANHOLE COVER
WEIGHT = 170 LBS.
(SCALE 1" = 6")
CITY OF WICHITA
STEEL SCHEDULE
BENDING DIAGRAM
PLAN
(SCALE 1" = 1'-0")
ASPHALT PAVING ONLY
HIGH EDGE
STD. GUTTER
1" BELOW STD. GUTTER
BEVELLED INLET TOP
TOP THIS 8" AT EACH END DO NOT BEVEL INLET
MALL THROUGH RADIUS MATCH INSIDE OF INLET TRANSITION CURB TO
NOTE: p3 pair to be field bent to clear manhole frame.
SECTION A-A
(SCALE 1" = 1'-0")
NOTE: CONCRETE TOPS TO BE INSTALLED ON
SHALL BE 6-SACK PAVING MIX
CONCRETE FOR INLET TOPS AND FLOORS
TOPS MAY BE CAST IN PLACE OR PRECAST
SUPPORT ALONG BRICK WALLS. CONCRETE
THIN MORTAR CUSHION TO INSURE FULL
VARIES
STD. CURB BACK OF
HIGH EDGE
MANHOLE FRAME
WEIGHT = 180 LBS.
(SCALE 1" = 6")