STORM WATER SEWER NO. 144

CITY OF WICHITA, KS.

DEAN SELLERS - ACTING CITY ENGINEER

PROJECT NO. 468 76 245 80620 000 000 001

DATE :

GENERAL NOTES

1.) CONTRACTOR SHALL COORDINATE WORK WITH PAVING AND SANITARY CONTRACTORS, AND CONTACT RELEVANT UTILITY COMPANIES AND OTHER AGENCIES INVOLVED WITH THIS PROJECT FIVE DAYS MINIMUM

2.) FIELD ENGINEER SHALL TAKE TIES TO ALL FOUND AND ESTABLISHED PROPERTY CORNERS IN PROJECT AREA BEFORE CONSTRUCTION BEGINS. FIELD ENGINEER SHALL REPLACE ALL SUCH IRONS AND MONUMENTS DISTURBED BY CONSTRUCTION.

3.) THE TOPS OF INLETS AND MANHOLES AS NOTED ON THE PLANS MAY HAVE TO BE ADJUSTED TO MEET PROPOSED TOP OF CURB ELEVATIONS OR PAVEMENT ELEVATIONS. THE FIELD ENGINEER SHALL INSPECT INLETS AND MANHOLES WITH REFERENCE TO PROPOSED PAVING GRADE OF THE PERTINENT STREETS.

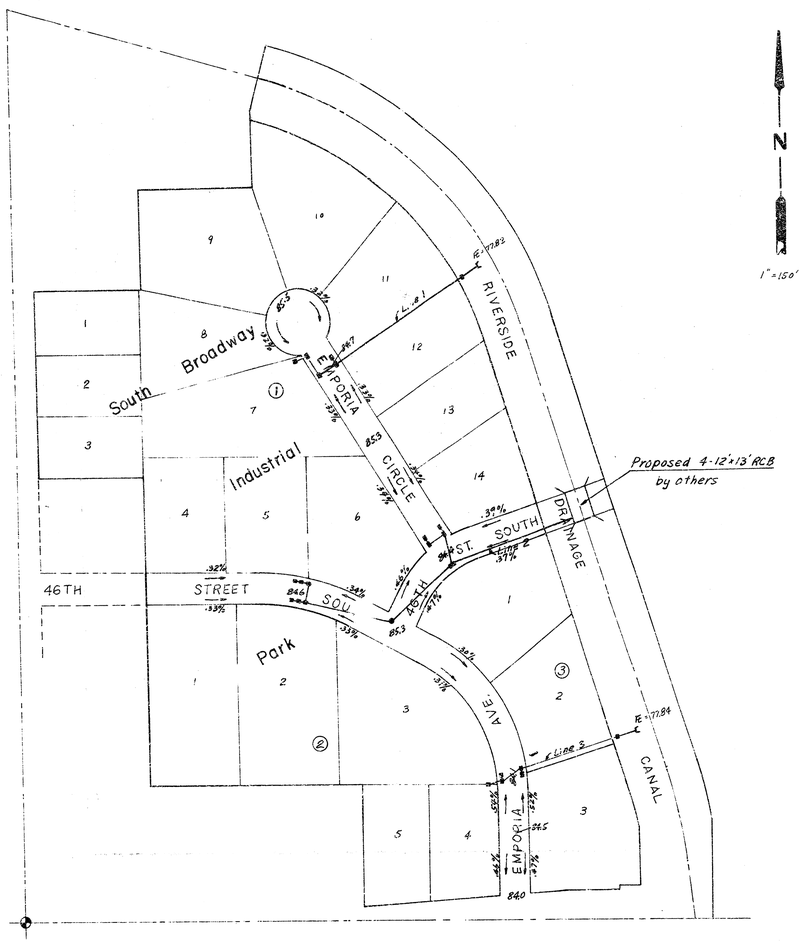
4.) ALL METAL PIPES SHALL BE HELICALLY CORRUGATED PIPE FULLY COATED BOTH INSIDE AND OUTSIDE. THE COATING MAY BE BITUMINOUS OR POLYMERIC AS SPECIFIED IN AASHTO DESIGNATION: M246 - 79, TYPE B. ALL SUCH COATED CORRUGATED PIPE SHALL BE SMOOTH FLOW PIPES FOR SIZES 24" DIAMETER OR LARGER. ALL CONNECTIONS FOR INLET PIPES SHALL BE FULLY COATED OR FULLY PAVED AND FULLY COATED PIPES SHALL BE FAIRLY WATERTIGHT CONSTRUCTED USING HOOGEN TYPE COUPLER OR EQUAL.

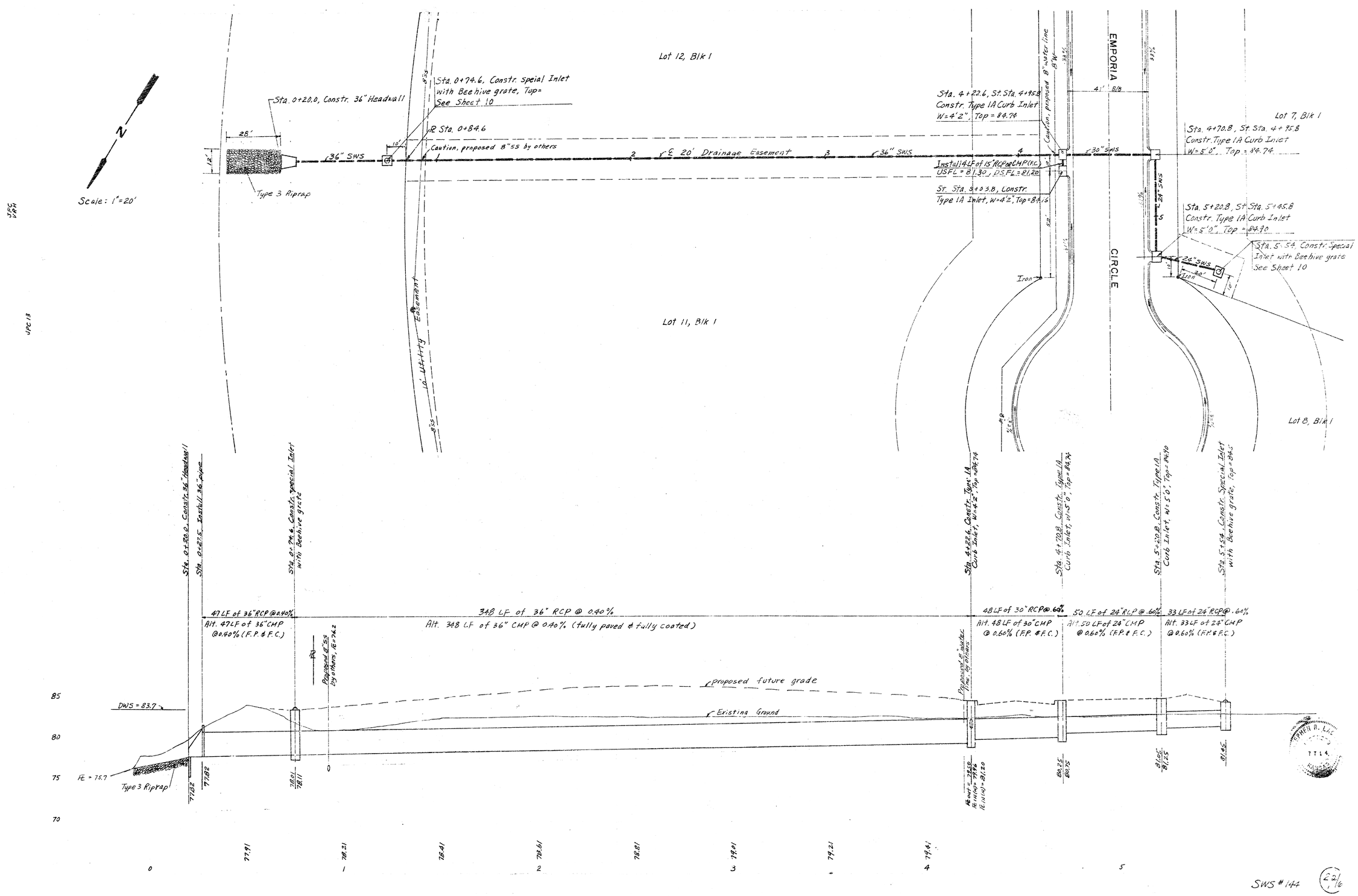
5.) ALL CONCRETE SHALL BE "6-SACK CONCRETE" UNLESS OTHERWISE NOTED.

6.) THE RIPRAP FOR THIS PROJECT SHALL BE TYPE 3. THE TYPE 3 RIPRAP SHALL BE 12" RIPRAP ON 6" SAND AND GRAVEL BEDDING. THE ROCK FOR RIPRAP AND GRAVEL PRODUCTION SHALL BE HARD, DENSE, DURABLE, AND SHALL BE REASONABLY WELL GRADED. THE SIZE RANGE OF ROCK USED SHALL BE A MAXIMUM OF 150 CUBIC FOOT AND A MINIMUM OF 12 INCH. THE 6 INCH SAND AND GRAVEL BEDDING FOR RIPRAP SHALL BE A CONTINUOUS LAYER OF SAND AND GRAVEL OR HAND CHIPPED ROCK, REASONABLY WELL GRADED TO A MAXIMUM OF 1½ INCHES IN SIZE.

7.) CONTRACTOR SHALL AVOID UNCOVERING EXISTING WATERLINES UNLESS ABSOLUTELY NECESSARY. UNCOVERING SHALL BE DONE ONLY IN THE PRESENCE OF A WATER DEPARTMENT ENGINEER.

8.) CONTRACTOR SHALL HAVE THE OPTION OF INSTALLING PRE-CAST TYPE 1A CURB INLET IN LIEU OF THE BRICK TYPE STRUCTURE. USE STANDARD DETAIL PRE-CAST TYPE 1A CURB INLET DATED AUGUST, 1979.


N
1"=150'
South Broadway
Industrial
CIRCLE
EMPORIA
RIVERSIDE
DRAINAGE
46TH
STREET
SOUTH
ST.
SOU.
AVE.
Park
CANAL
Proposed 4-12'x13' RCB by others
E=17783
E=17784
E=17784
E=17784



Scale: 1"=20'
N
Lot 12, Blk 1
Lot 11, Blk 1
Lot 7, Blk 1
Lot 8, Blk 1
EMPORIA
CIRCLE
Sta. 0+20.0, Constr. 36" Headwall
Sta. 0+74.6, Constr. speial Inlet with Beehive grate, Top= See Sheet 10
℞ Sta. 0+84.6
Caution, proposed 8" SS by others
36" SWS
℄ 20' Drainage Easement
Type 3 Riprap
10' Utility Easement
Sta. 4+22.6, St. Sta. 4+95.8 Constr. Type 1A Curb Inlet W=4'2", Top=84.74
Install 4 LF of 15" RCP or CMP (F.C.) USFL=81.30, DSFL=81.20
St. Sta. 5+03.8, Constr. Type 1A Inlet, W=4'2", Top=84.16
Caution, proposed 8" water line
30" SWS
Sta. 4+70.8, St. Sta. 4+95.8 Constr. Type 1A Curb Inlet W=5'0", Top=84.74
Sta. 5+20.8, St. Sta. 5+45.8 Constr. Type 1A Curb Inlet W=5'0", Top=84.90
Sta. 5+54, Constr. Special Inlet with Beehive grate See Sheet 10
24" SWS
Iron
Sta. 0+20.0, Constr. 36" Headwall
Sta. 0+27.5, Install 36" pipe
Sta. 0+74.6, Constr. special Inlet with Beehive grate
Sta. 4+22.6, Constr. Type 1A Curb Inlet, W=4'2", Top=84.74
Sta. 4+70.8, Constr. Type 1A Curb Inlet, W=5'0", Top=84.74
Sta. 5+20.8, Constr. Type 1A Curb Inlet, W=5'0", Top=84.90
Sta. 5+54, Constr. Special Inlet with Beehive grate, Top=84.5
47 LF of 36" RCP @ 0.40%
Alt. 47 LF of 36" CMP @ 0.40% (F.P. & F.C.)
348 LF of 36" RCP @ 0.40%
Alt. 348 LF of 36" CMP @ 0.40% (fully paved & fully coated)
48 LF of 30" RCP @ .60%
Alt. 48 LF of 30" CMP @ 0.60% (F.P. & F.C.)
50 LF of 24" RCP @ .60%
Alt. 50 LF of 24" CMP @ 0.60% (F.P. & F.C.)
33 LF of 24" RCP @ .60%
Alt. 33 LF of 24" CMP @ 0.60% (F.P. & F.C.)
Proposed 8" SS by others, FE=76.2
Proposed 8" water line, by others
proposed future grade
Existing Ground
DWS = 83.7
FE = 75.7
Type 3 Riprap
85
80
75
70
77.82
77.82
78.01
78.11
0
80.25
80.75
81.05
81.25
81.45
77.91
78.21
78.41
78.61
78.81
79.01
79.21
79.41
0
1
2
3
4
5

SWS # 144

22/6

N

Scale: 1"=20'

Sta. 0+23, Start to install 42" Pipe

Sta. 0+42.5

Caution, proposed 8" SS

42" SWS

Lot 1, Blk 3

Sta. 3+20, Street Sta. 2+13.43
Constr. Type 22 Curb Inlet
L=10', W=6', Top=84.65

Δ=44°25'21" R=215' L=166.62

46TH ST. SOUTH

Δ=44°25'21"

Install 78 LF of 24" RCP, Alt. 24" CMP (F.P. & F.C.)
USFE = 79.74, DSFE = 79.48

R=350' L=193.83'

24" SWS

Caution, proposed 8" water line

EMPORIA CIR.

Install 45 LF of 18" Pipe Alt I 18"RCP, Alt II 18"CMP (F.C.)
USFE = 80.42, DSFE = 80.24

18" SWS

St. Sta. 0+52 Emporia Cir. Rt.
Constr. Type 1A Curb Inlet
W=5'0", Top=84.40

Install 4 LF 15" Pipe, USFE = 80.25
15" RCP or 15" CMP (F.C.) DSFE = 80.47

St. Sta. 0+60 Emporia Cir. Rt.
Constr. Type 1A Curb Inlet
W=4'2", Top=84.40

St. Sta. 0+52 Emporia Cir. Lt.
Constr. Type 1A Curb Inlet
W=4'2", Top=84.40

Install 4 LF of 15" RCP or 15" CMP (F.C.), USFE = 80.26, DSFE = 80.47

St. Sta. 0+60 Emporia Cir. Lt.
Constr. Type 1A Curb Inlet
W=4'2", Top=84.40

Lot 14, Blk 1

Lot 6, Blk 1

Sta. 3+20, Constr. Std. Type 22 Curb Inlet, L=10', W=6', Top=84.65

Sta. 5+10.5, Constr. Std. Type 8 M.H., 5' Dia., Top=84.97

Sta. 5+13.5, Constr. Std. Type 8 M.H. 5' Dia., Top=84.97

EMPORIA AVE.

46TH ST. S.

Caution, proposed 8" water line

Iron

8"W

Sta. 0+23, Face of RCB, Start Install 42" Pipe

297 LF of 42" RCP @ 0.33%
Alt. 297 LF of 42" CMP @ 0.33% (fully paved & fully coated)

190.5 LF of 30" RCP @ 0.35%
Alt. 190.5 LF of 30" CMP @ 0.35% (fully paved & fully coated)

Proposed 18" SS by others, FE = 79.48

Proposed 18" water by others

Proposed TC El.

Existing ground

DWS = 83.4

Channel Bottom = 76.0

RCB FL = 74.1

FLIN = 74.5

IE out = 77.48
IE in (4) = 78.48
IE in (10) = 79.48

IE out = 78.45
IE in = 79.25

90
85
80
75
70

0 76.59 1 76.75 76.91 2 77.08 77.25 3 77.41 78.59 4 78.76 78.94 5 79.11

SWS #144

3/16

Sta. 7+32, Constr. Type 1A Curb Inlet W=5'0", Top=84.67

St. Sta. 6+40, Rt. Constr. Type 1A Curb Inlet W=4'2", Top=84.63 Install 4 LF of 15" Pipe USFL=81.25, DSFL=81.17

St. Sta. 6+32 Rt. Constr. Type 1A Curb Inlet W=4'2", Top=84.66 Install 4 LF of 15" Pipe USFL=81.60, DSFL=81.50

Lot 3, Blk 2

Lot 2, Blk 2

Lot 1, Blk 2

Iron

6' City Service Pipe Line Easement

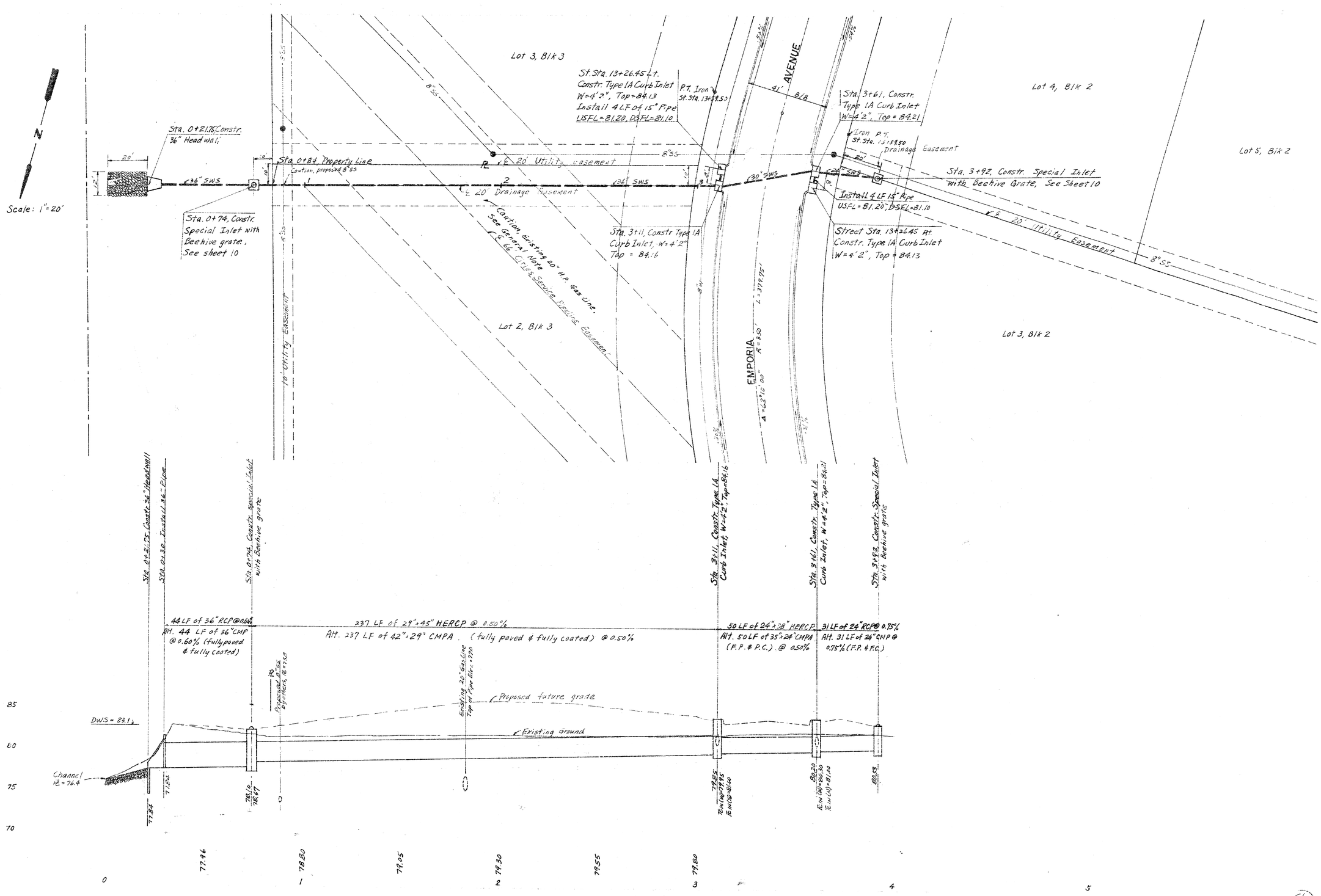
Existing 20" High Pressure Gas Line

EMPORIA AVE.

Iron

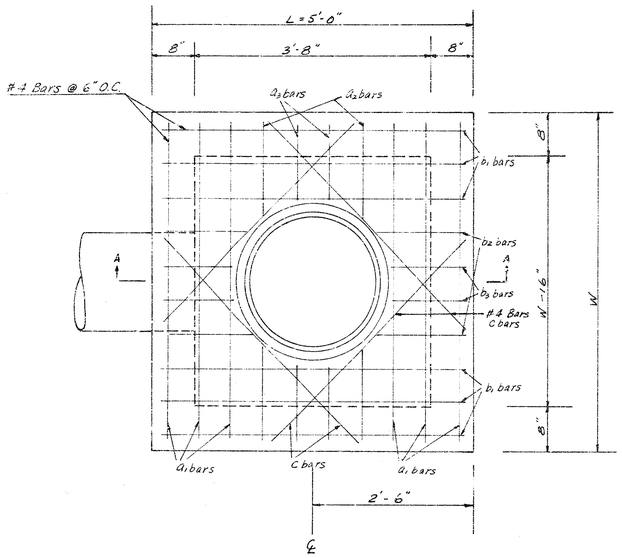
Iron

Iron

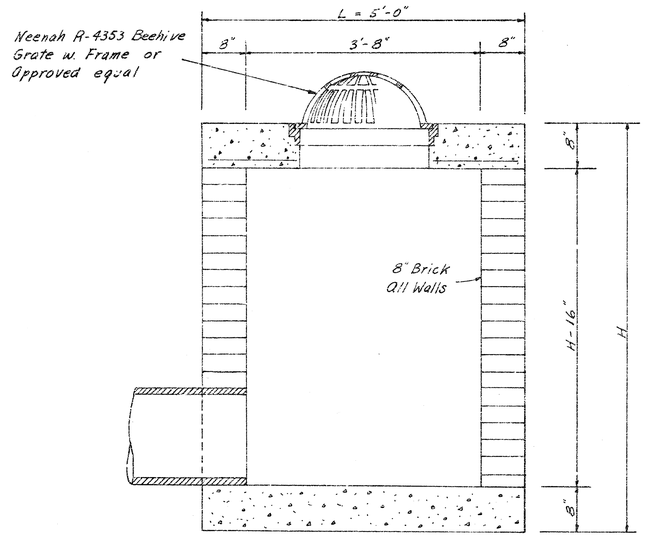


Scale: 1"=20'
N
Lot 3, Blk 3
Lot 4, Blk 2
Lot 5, Blk 2
Lot 2, Blk 3
Lot 3, Blk 2
AVENUE
EMPORIA
St. Sta. 13+26.45 Lt. Constr. Type 1A Curb Inlet W=4'2", Top=84.13 Install 4 LF of 15" Pipe USFL=81.20, DSFL=81.10
P.T. Iron St. Sta. 13+59.50
Sta. 3+61, Constr. Type 1A Curb Inlet W=4'2", Top=84.21
Iron P.T. St. Sta. 13+59.50
Drainage Easement
Sta. 0+21.75, Constr. 36" Headwall
Sta. 0+84, Property Line
Caution, proposed 8" SS
36" SWS
30" SWS
20' Utility Easement
20' Drainage Easement
Sta. 3+92, Constr. Special Inlet with Beehive Grate, See Sheet 10
Install 4 LF 15" Pipe USFL=81.20, DSFL=81.10
Sta. 0+74, Constr. Special Inlet with Beehive grate, See sheet 10
Sta. 3+11, Constr Type 1A Curb Inlet, W=4'2" Top = 84.16
Street Sta. 13+26.45 Rt. Constr. Type 1A Curb Inlet W=4'2", Top = 84.13
Caution, Existing 20" H.P. Gas Line. See General Note
66' Cities Service Pipeline Easement
10' Utility Easement
8" SS
Sta. 0+21.75, Constr. 36" Headwall
Sta. 0+30, Install 36" Pipe
Sta. 0+74, Constr. Special Inlet with Beehive grate
Sta. 3+11, Constr. Type 1A Curb Inlet, W=4'2", Top=84.16
Sta. 3+61, Constr. Type 1A Curb Inlet, W=4'2", Top=84.21
Sta. 3+92, Constr. Special Inlet with Beehive grate
44 LF of 36" RCP @ 0.60%
Alt. 44 LF of 36" CMP @ 0.60% (fully paved & fully coated)
237 LF of 29"x45" HERCP @ 0.50%
Alt. 237 LF of 42"x29" CMPA (fully paved & fully coated) @ 0.50%
50 LF of 24"x38" HERCP
Alt. 50 LF of 35"x24" CMPA (F.P. & P.C.) @ 0.50%
31 LF of 24" RCP @ 0.75%
Alt. 31 LF of 24" CMP @ 0.75% (F.P. & F.C.)
Proposed future grade
Existing Ground
DWS = 83.1
Channel
85
80
75
70
77.84
71.84
78.10
78.67
79.85
80.20
80.53
77.96
78.80
79.05
79.30
79.55
79.80
0
1
2
3
4
5

SWS #144 5/6



PLAN
(SCALE 1" = 1'0")



SECTION A-A
(SCALE 1" = 1'0")

STEEL SCHEDULE

BAR	a_1	a_2	a_3	b_1 W=5'0"	b_1 W=6'0"	b_2	b_3	C	WT. LBS	PIPE SIZE	Cu. Yd. Conc.
NUMBER	6	4	4	6	8	4	4	4			
SIZE	#4	#4	#4	#4	#4	#4	#4	#4			
LENGTH W=5'0"	4'8"	1'6"	1'1"	4'8"	–	1'6"	1'1"	4'4"	63	24"	1.17
LENGTH W=6'0"	5'8"	2'0"	1'7"	–	4'8"	1'6"	1'1"	4'10"	77	36"	1.41

DETAILS OF

SPECIAL INLET WITH BEEHIVE GRATE

CITY OF WICHITA, KANSAS

S.W.S. NO. 144

PROJECT NO. 468 76 245 80620 000 000 001

4/6