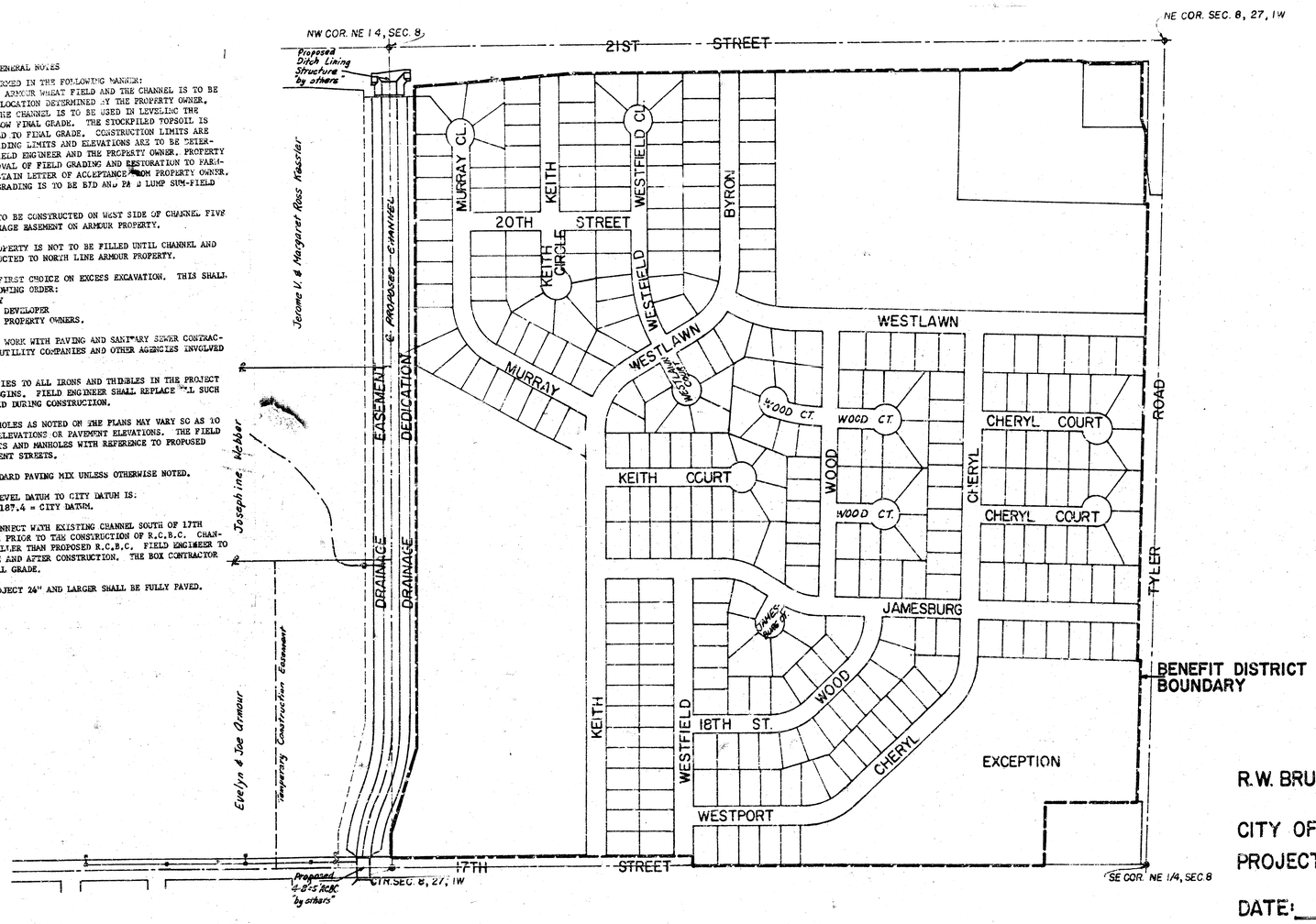
STORM WATER DRAIN NO. 45

IN JAMESBURG PARK ADDITION

GENERAL NOTES

1. FIELD GRADING IS TO BE PERFORMED IN THE FOLLOWING MANNER: THE TOP 6" OF TOPSOIL IN THE ARMOUR WHEAT FIELD AND THE CHANNEL IS TO BE REMOVED AND STOCKPILED IN A LOCATION DETERMINED BY THE PROPERTY OWNER. THE EXCESS EXCAVATION FROM THE CHANNEL IS TO BE USED IN LEVELING THE FIELD TO A MAXIMUM OF 6" BELOW FINAL GRADE. THE STOCKPILED TOPSOIL IS TO BE USED TO BRING THE FIELD TO FINAL GRADE. CONSTRUCTION LIMITS ARE APPROXIMATE ONLY; ACTUAL GRADING LIMITS AND ELEVATIONS ARE TO BE DETERMINED IN THE FIELD BY THE FIELD ENGINEER AND THE PROPERTY OWNER. PROPERTY OWNER IS TO HAVE FINAL APPROVAL OF FIELD GRADING AND RESTORATION TO FARMABLE LAND. CONTRACTOR TO OBTAIN LETTER OF ACCEPTANCE FROM PROPERTY OWNER. ALL WORK INVOLVED IN FIELD GRADING IS TO BE BID AND PAID LUMP SUM-FIELD GRADING.
2. 3-STRAND BARBED WIRE FENCE TO BE CONSTRUCTED ON WEST SIDE OF CHANNEL FIVE FEET EAST OF WEST LINE DRAINAGE EASEMENT ON ARMOUR PROPERTY.
3. EXISTING DITCH ON ARMOUR PROPERTY IS NOT TO BE FILLED UNTIL CHANNEL AND INLET STRUCTURES ARE CONSTRUCTED TO NORTH LINE ARMOUR PROPERTY.
4. PROPERTY OWNERS SHALL HAVE FIRST CHOICE ON EXCESS EXCAVATION. THIS SHALL BE ACCOMPLISHED IN THE FOLLOWING ORDER:
   1. ARMOUR PROPERTY
   2. JAMESBURG PARK DEVELOPER
   3. OTHER ADJACENT PROPERTY OWNERS.
5. CONTRACTOR SHALL COORDINATE WORK WITH PAVING AND SANITARY SEWER CONTRACTORS, AND CONTACT RELEVANT UTILITY COMPANIES AND OTHER AGENCIES INVOLVED WITH THIS PROJECT.
6. FIELD ENGINEER SHALL TAKE TIES TO ALL IRONS AND THIMBLES IN THE PROJECT AREA BEFORE CONSTRUCTION BEGINS. FIELD ENGINEER SHALL REPLACE ALL SUCH IRONS AND THIMBLES DISTURBED DURING CONSTRUCTION.
7. THE TOPS OF INLETS AND MANHOLES AS NOTED ON THE PLANS MAY VARY SO AS TO MEET PROPOSED TOP OF CURB ELEVATIONS OR PAVEMENT ELEVATIONS. THE FIELD ENGINEER SHALL LOCATE INLETS AND MANHOLES WITH REFERENCE TO PROPOSED PAVING PLANS OF THE PERTINENT STREETS.
8. ALL CONCRETE SHALL BE STANDARD PAVING MIX UNLESS OTHERWISE NOTED.
9. CONVERSION FROM MEAN SEA LEVEL DATUM TO CITY DATUM IS:
   MEAN SEA LEVEL -1187.4 = CITY DATUM.
10. CHANNEL IS TO BE DUG TO CONNECT WITH EXISTING CHANNEL SOUTH OF 17TH STREET TO PROVIDE DRAINAGE PRIOR TO THE CONSTRUCTION OF R.C.B.C. CHANNEL SHOULD BE SLIGHTLY SMALLER THAN PROPOSED R.C.B.C. FIELD ENGINEER TO TAKE CROSS-SECTIONS BEFORE AND AFTER CONSTRUCTION. THE BOX CONTRACTOR SHALL PROVIDE FILL TO FINAL GRADE.
11. ALL METAL PIPE ON THIS PROJECT 24" AND LARGER SHALL BE FULLY PAVED.



N

Scale: 1" = 200'

INDEX

Sheet	
1	Cover Sheet
2, 3	Proposed Channel
4, 5	Proposed SWS on 17th ST.
6	Type IA Curb Inlet
7	Field Inlet
8-15	Channel Cross Sections

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

CITY OF WICHITA, KANSAS

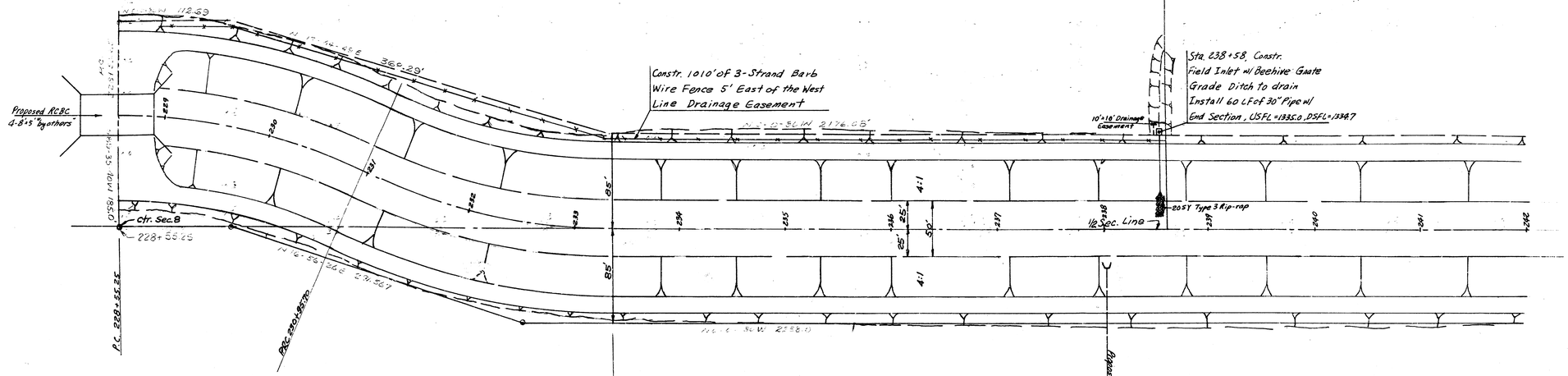
PROJECT NO. 468 76 245 80986 000 000 001

DATE: _____

Sht 2&3 Only

As Built
12/18/81
CBS

1/15



Sta. 228+55.25
Center of Section
Drainage Area: 2110 ac.
Q_{100} = 1965 cfs
Q_{100} = 1620 cfs

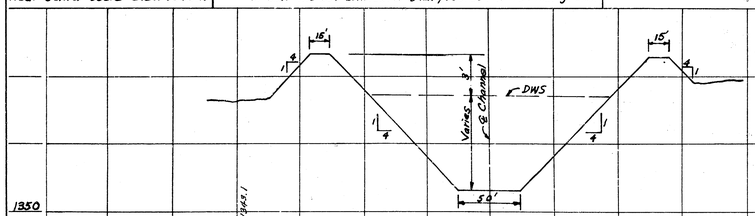
℄ Curve Data
D = 10° 00'
Δ = 24° 02' 40"
R = 572.96'
T = 122.02'
L = 240.45'
Ch = 238.69'

℄ Curve Data
D = 10° 00'
Δ = 24° 06' 50"
R = 572.96'
T = 122.38'
L = 241.14'
Ch = 239.36'

PT 233+36.84

FCBM:- RR spike in hedge stump near center Sec. 8 Elev. 1343.11

Note: Channel is to be dug to connect with existing channel south of 17th St. to provide draining prior to the constr. of box. The box contractor shall provide f-ll to final grade.

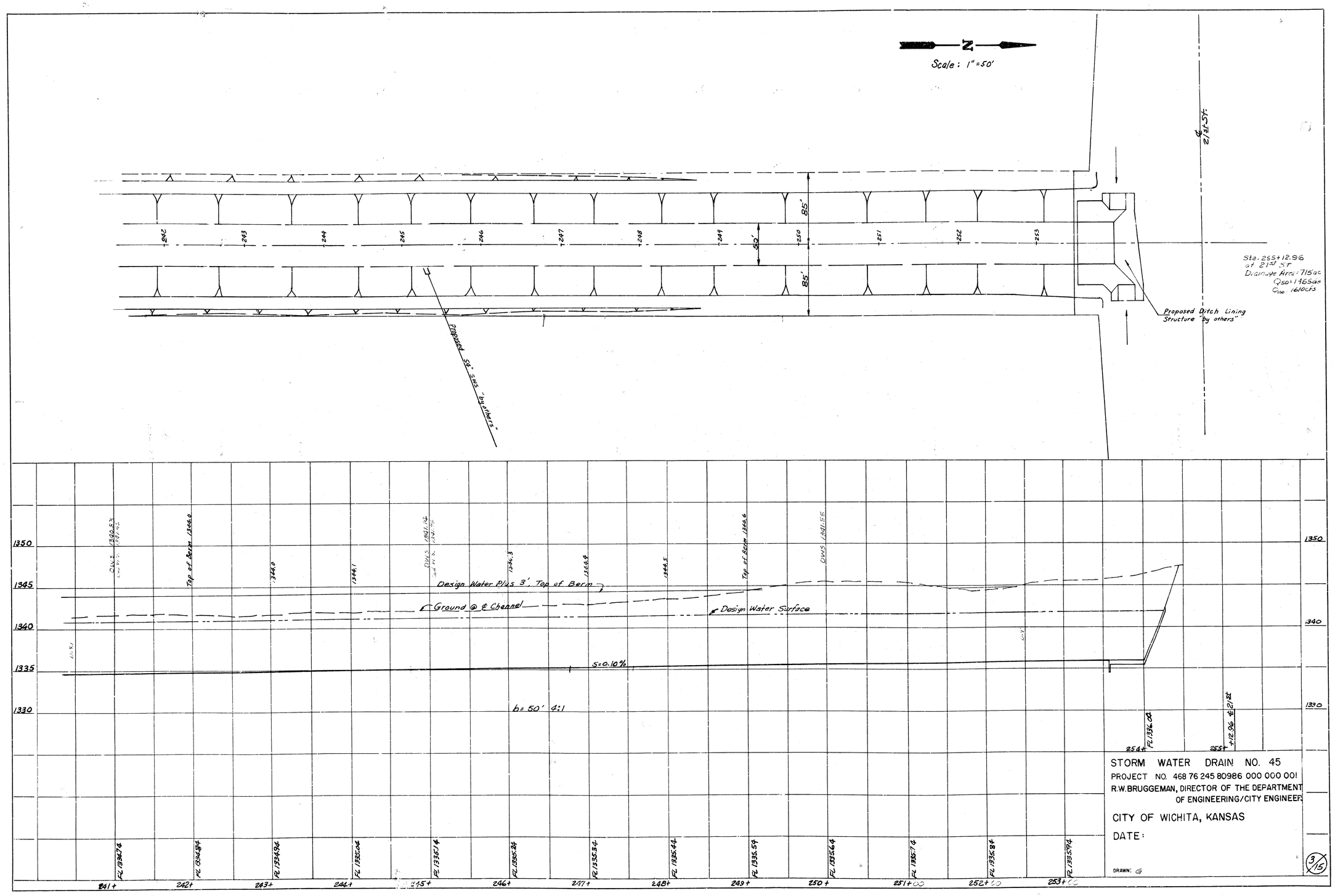


Typical Section

* CITY DATUM = MEAN SEA LEVEL - 1187.4

STORM WATER DRAIN NO. 45
PROJECT NO. 468 76 245 80986 000 000 001
R.W. BRUGGEMAN, DIRECTOR OF THE DEPARTMENT OF ENGINEERING/CITY ENGINEER
CITY OF WICHITA, KANSAS
DATE:
DRAWN: CT

2/15



STORM WATER DRAIN NO. 45

PROJECT NO. 468 76 245 80986 000 000 001

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

CITY OF WICHITA, KANSAS

DATE:

DRAWN: G

3/15

N

Scale: 1" = 20'

AMARADO

Lot 40, Blk. 4

Drainage Dedication

AMARADO

ESTATES

Lot 20, Blk. 5

Lot 19, Blk. 5

Lot 18, Blk. 5

Reserve A

Iron

Iron

Ctr., Sec. 8

Proposed 4-8'x5' RCBC "by others"

17TH STREET NORTH

Future SWS "by others"

B-B Proposed Pavement

37'

70' R/W

Install 36" SWS

Install 36" SWS

Install 36" SWS

Install 36" SWS

0 1 2 3 4 5

Sta. 0+00

100'

Drainage Easement

St. Sta. 11+43.59, Lt, Constr. Field Inlet w/ Beehive Grate Install 24 Lf of 18" Pipe USFL = 148.50, DSFL = 148.25

Sta. 0+90, St. Sta. 11+43.59, Lt. Constr. Type 1A Curb Inlet W = 6'0", Top = 154.9

10'x10' Drainage Easement

Sta. 1+61.16, St. Sta. 10+72.43, Lt. Constr. Type 1A Curb Inlet W = 6'0", Top = 153.7, Install 4 LF 18" StubN, FL = 149.25

St. Sta. 8+70, Lt, Constr. Field Inlet w/ Beehive Grate Install 24 LF of 24" Pipe USFL = 149.46, DSFL = 149.22

Sta. 3+63.59, St. Sta. 8+70, Lt. Constr. Type 1A Curb Inlet W = 6'0", Top = 154.3

10'x10' Drainage Easement

20'x30' Temporary Construction Easement

Temporary Construction Easement

B.M. 155.71 RR Spike in hedge stump near center of Sec. 8

Sta. 0+00, Proposed RCBC

Sta. 0+17, Pipe connect to RCBC by the Contractor

Sta. 0+90, Constr. Type 1A Curb Inlet, W = 6'0", Top = 154.9

Sta. 1+61.16 Constr. Type 1A Curb Inlet, W = 6'0", Top = 153.7

Sta. 3+63.59 Constr. Type 1A Curb Inlet, W = 6'0", Top = 154.3

Install 73 LF of 36" RCP @ 0.60%
Alt. 73 LF of 36" CMP @ 0.60%
(Fully Paved) Typ.

Install 71 LF of 36" RCP @ 0.50%
Alt. 71 LF of 36" CMP @ 0.50%

Install 202 LF of 36" RCP @ 0.45%
Alt. 202 LF of 36" CMP @ 0.45%

Install 293 LF of 36" RCP @ 0.35%
Alt. 293 LF of 36" CMP @ 0.35%

155

150

145

Proposed TC

Exist'g Ground

Proposed RCBC FL = 146.1

FL = 145.8

Einv(in) = 146.64
Einv(out) = 146.39
FL = 148.25

Einv = 147.10
Einv(in) = 147.27
Einv(out) = 149.25

Einv = 148.12
Einv(in) = 148.22
Einv(out) = 149.22

0 - 146.1

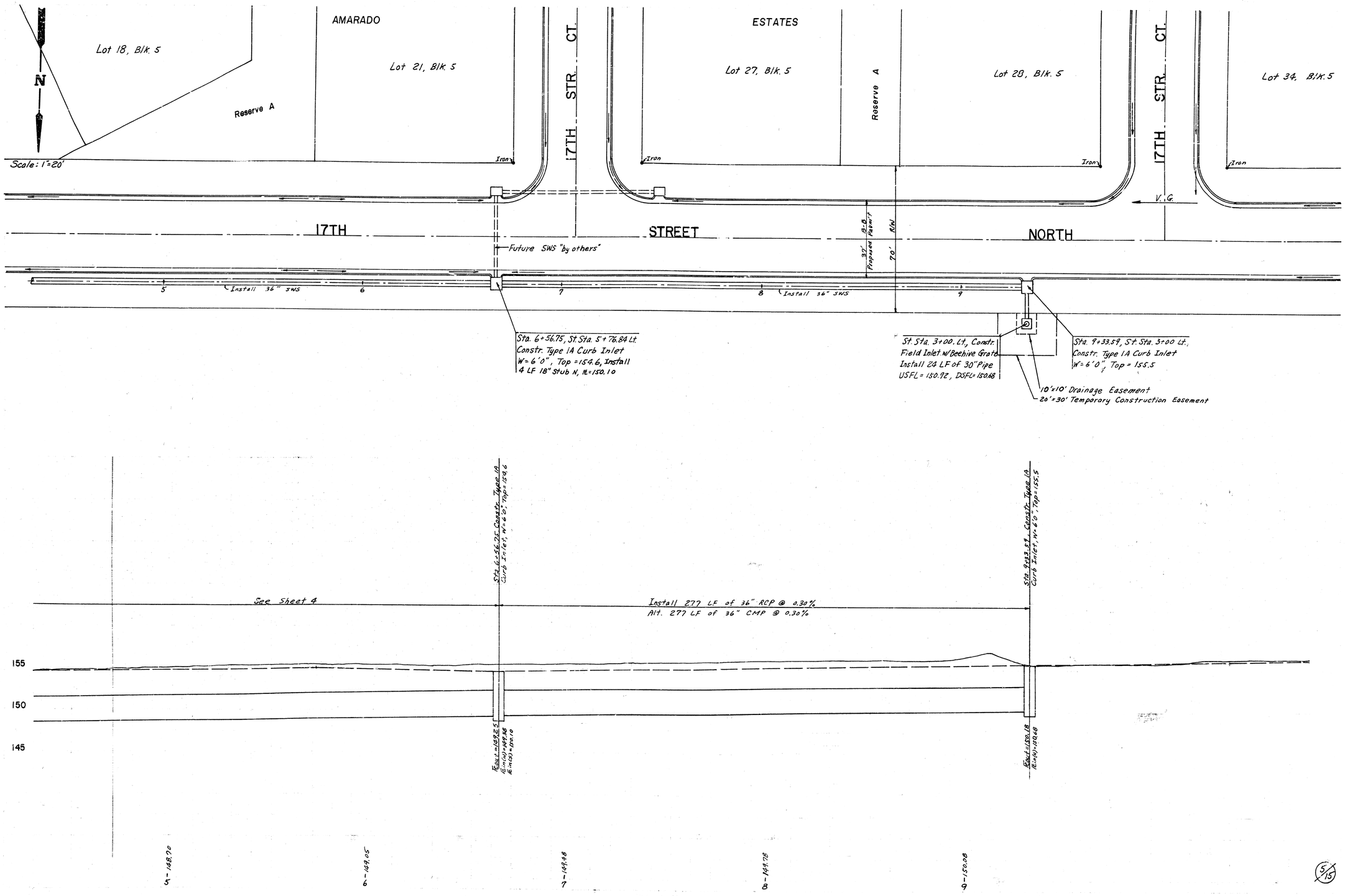
1 - 146.79

2 - 147.38

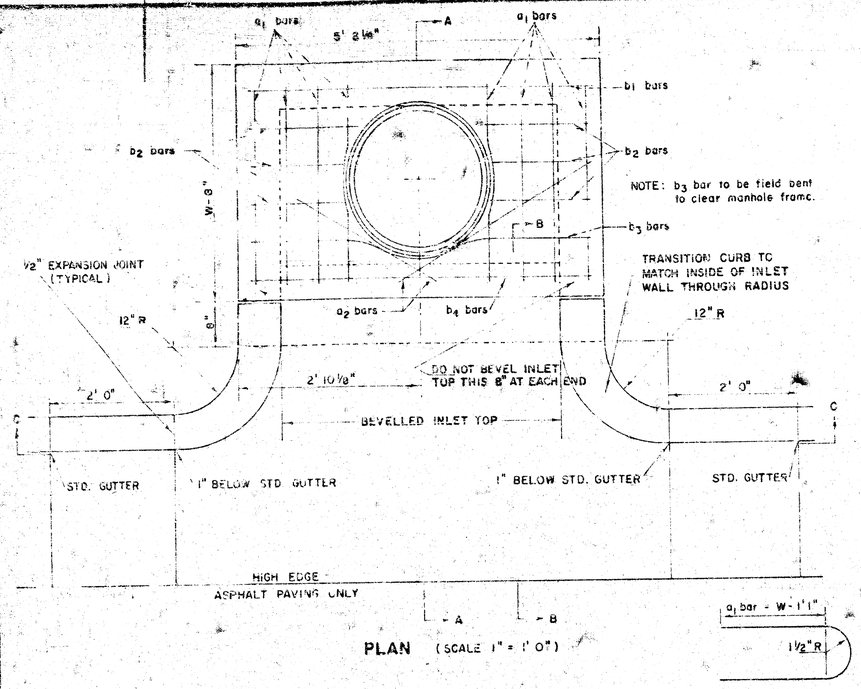
3 - 147.83

4 - 148.35

5 - 148.76



AMARADO
ESTATES
Lot 18, Blk. 5
Lot 21, Blk. 5
Lot 27, Blk. 5
Lot 28, Blk. 5
Lot 34, Blk. 5
Reserve A
Reserve A
17TH STR. CT.
17TH STR. CT.
N
Scale: 1"=20'
Iron
Iron
Iron
Iron
V.G.
17TH
STREET
NORTH
Future SWS "by others"
37' Proposed B-B Pavm't
70' R/W
5
Install 36" SWS
6
7
8
Install 36" SWS
9
Sta. 6+56.75, St. Sta. 5+76.84 Lt.
Constr. Type 1A Curb Inlet
W=6'0", Top=154.6, Install
4 LF 18" Stub N, FL=150.10
St. Sta. 3+00. Lt., Constr.
Field Inlet w/Beehive Grate
Install 24 LF of 30" Pipe
USFL=150.92, DSFL=150.68
Sta. 9+33.59, St. Sta. 3+00 Lt.
Constr. Type 1A Curb Inlet
W=6'0", Top=155.5
10'x10' Drainage Easement
20'x30' Temporary Construction Easement
Sta. 6+56.75, Constr. Type 1A
Curb Inlet, W=6'0", Top=154.6
Sta. 9+33.59, Constr. Type 1A
Curb Inlet, W=6'0", Top=155.5
See Sheet 4
Install 277 LF of 36" RCP @ 0.30%
Alt. 277 LF of 36" CMP @ 0.30%
155
150
145
FLout=149.25
FLin(W)=149.38
FLin(S)=150.10
FLout=150.18
FLin(W)=150.68
5-148.70
6-149.05
7-149.48
8-149.78
9-150.08



PLAN (SCALE 1" = 1'0")

BENDING DIAGRAM

STEEL SCHEDULE

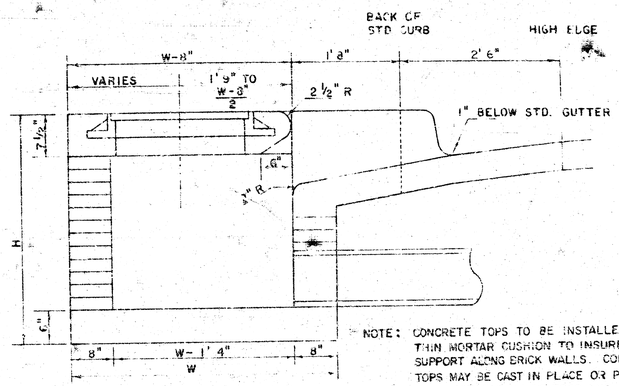
BAR	a_1	a_2*	b_1 W=4'2"	b_1 W=5'0"	b_1 W=6'0"	b_1 W=7'0"	b_1 W=8'0"	b_2	b_3	b_4	WT. LBS.
NUMBER	8	2	1	3	5	7	9	6	1	1	
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#5	
W=4'2"	6'8"	3'4"	5'5"	–	–	–	–	1'5"	5'6"	5'5"	60#
W=5'0"	8'1"	4'4"	–	5'5"	–	–	–	1'5"	5'6"	5'5"	77#
W=6'0"	10'1"	5'4"	–	–	5'5"	–	–	1'5"	5'6"	5'5"	97#
W=7'0"	11'1"	6'4"	–	–	–	5'5"	–	1'5"	5'6"	5'5"	111#
W=8'0"	12'1"	7'4"	–	–	–	–	5'5"	1'5"	5'6"	5'5"	128#

* NOTE: a_2 BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

STANDARD CURB INLET PRECAST TOPS

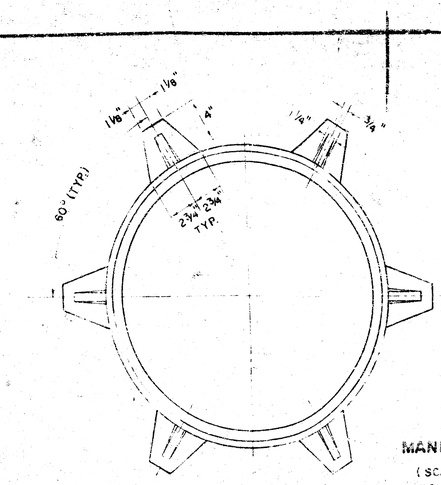
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC
4' 2"	36"x5'8 1/4"x7 1/2"	24" Ø SMALLER	0.46 *
5' 0"	44"x5'8 1/4"x7 1/2"	30" Ø 30"	0.57 *
6' 0"	54"x5'8 1/4"x7 1/2"	36" Ø 42"	0.71 *
7' 0"	64"x5'8 1/4"x7 1/2"	48" Ø 54"	0.84 *
8' 0"	74"x5'8 1/4"x7 1/2"	60" Ø 66"	0.97 *

* GROSS VOLUME

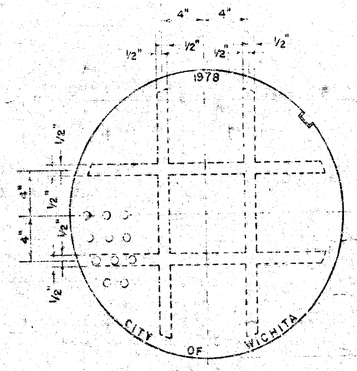


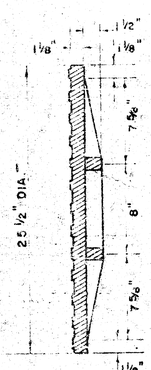
SECTION A-A
(SCALE 1" = 1'0")

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 FOR INLET TOPS AND FLOORS SHALL BE 6-SACK PAVING MIX.

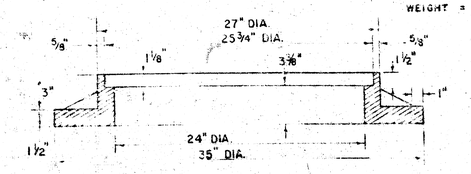


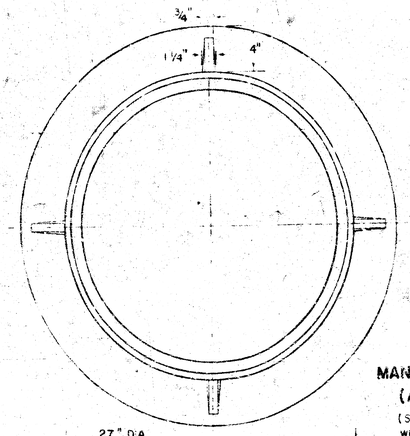
MANHOLE FRAME
(SCALE 1" = 6")
WEIGHT = 180 LBS.



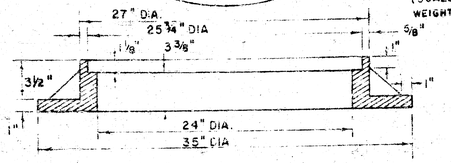


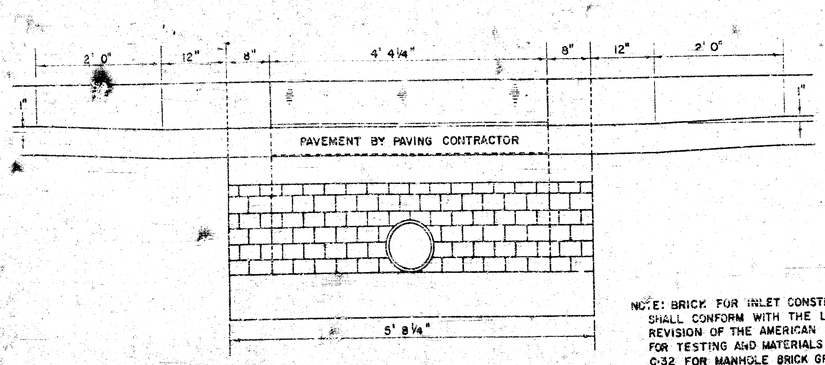
MANHOLE COVER
(SCALE 1" = 6")
WEIGHT = 170 LBS.





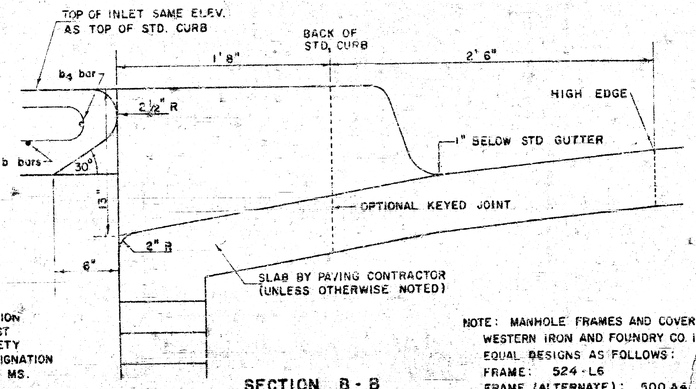
MANHOLE FRAME (ALTERNATE)
(SCALE 1" = 6")
WEIGHT = 180 LBS.





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

NOTE: BRICK FOR INLET CONSTRUCTION SHALL CONFORM WITH THE LATEST REVISION OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS DESIGNATION C-32 FOR MANHOLE BRICK GRADE MS.



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-L6
FRAME (ALTERNATE): 500 A4
COVER: 222 S4 "NOBBY"

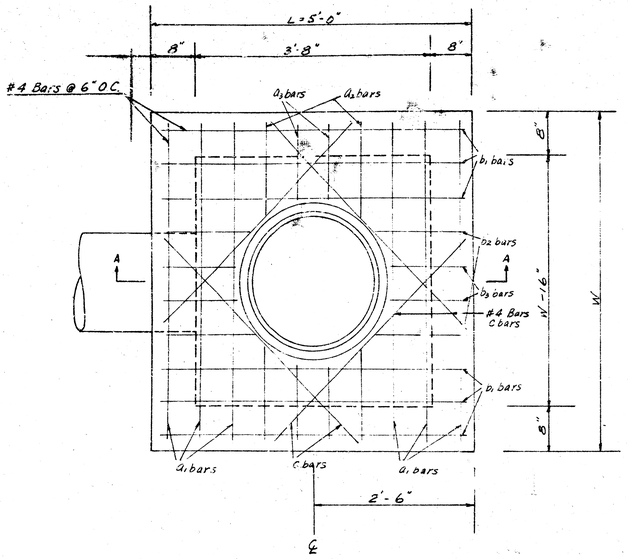
DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

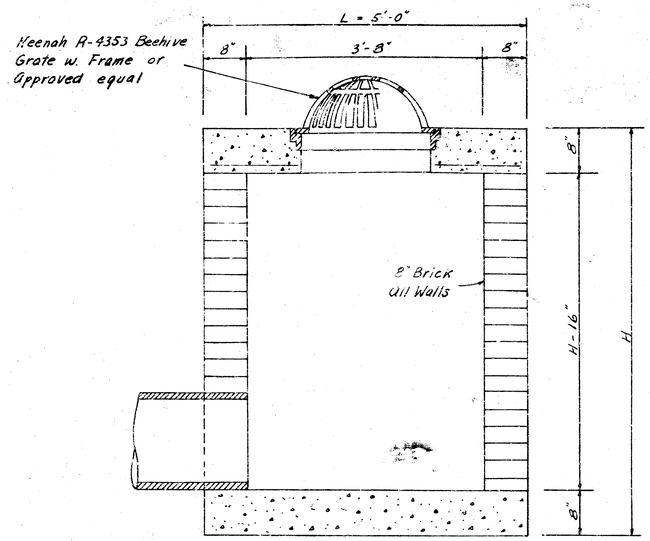
R. W. LINN – CITY ENGINEER

OCTOBER 1978

4/15



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

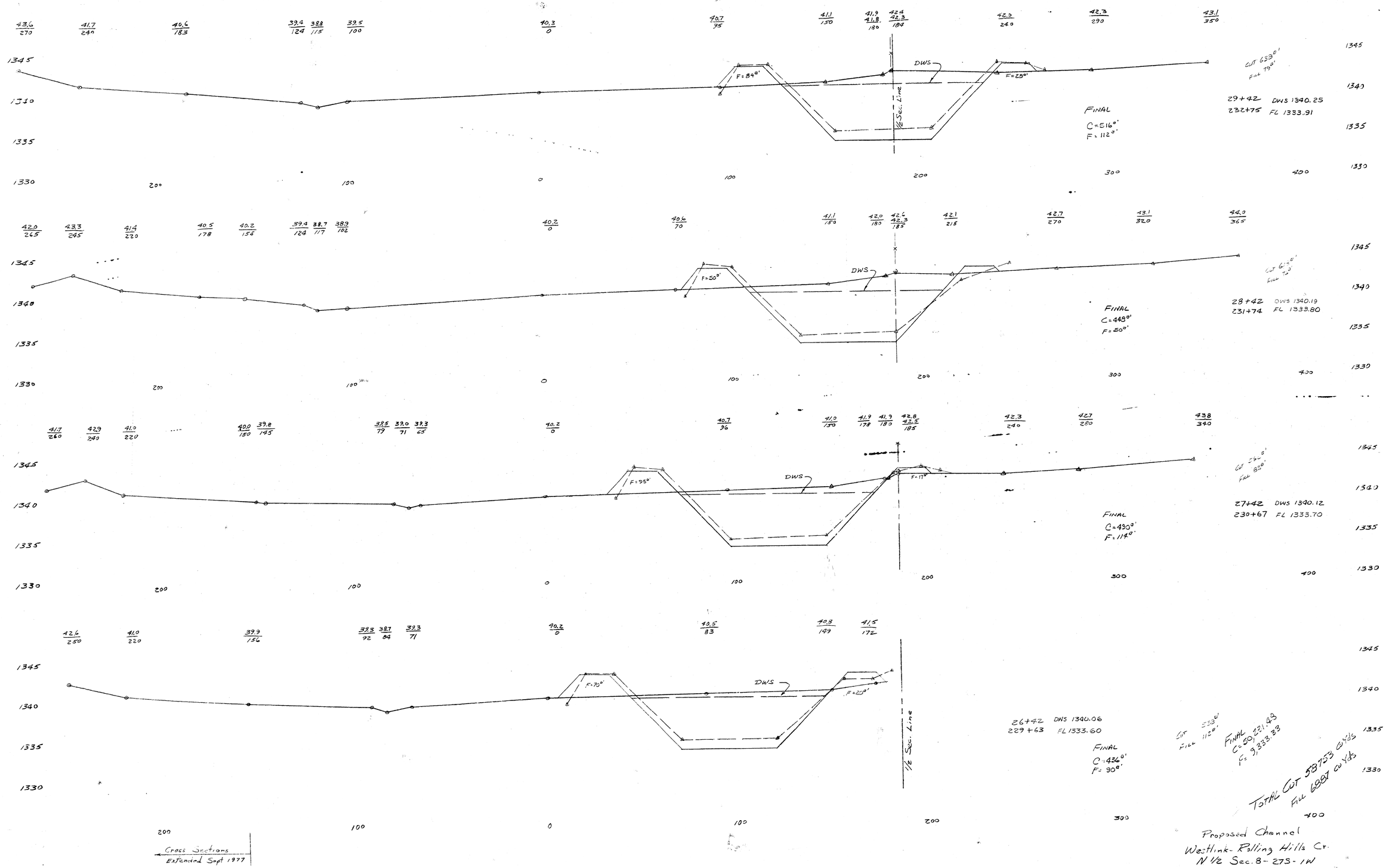
SPECIAL INLET WITH BEEHIVE GRATE

CITY OF WICHITA, KANSAS

S. W. D. NO. 45

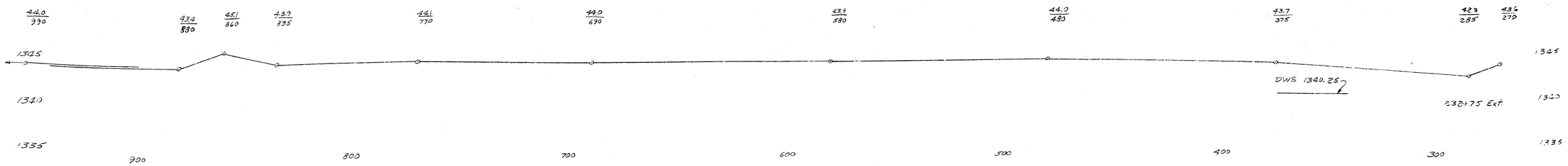
PROJECT NO. 468 76 245 80986 000 000 001

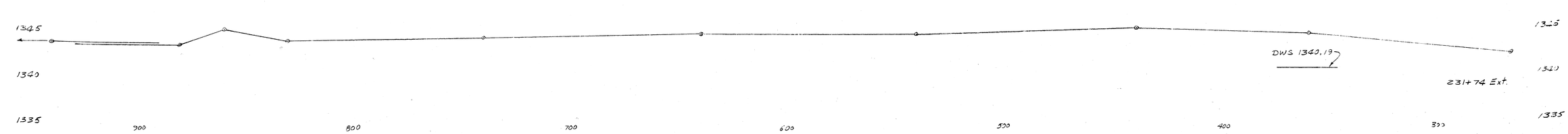
7/15

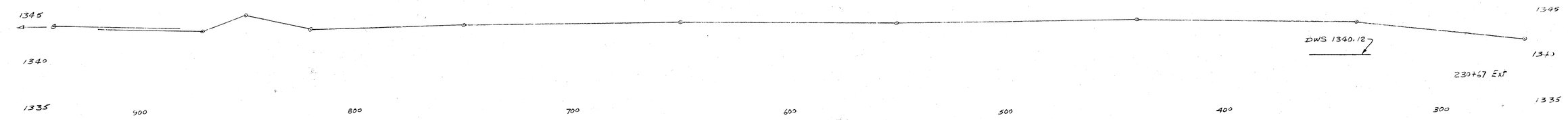


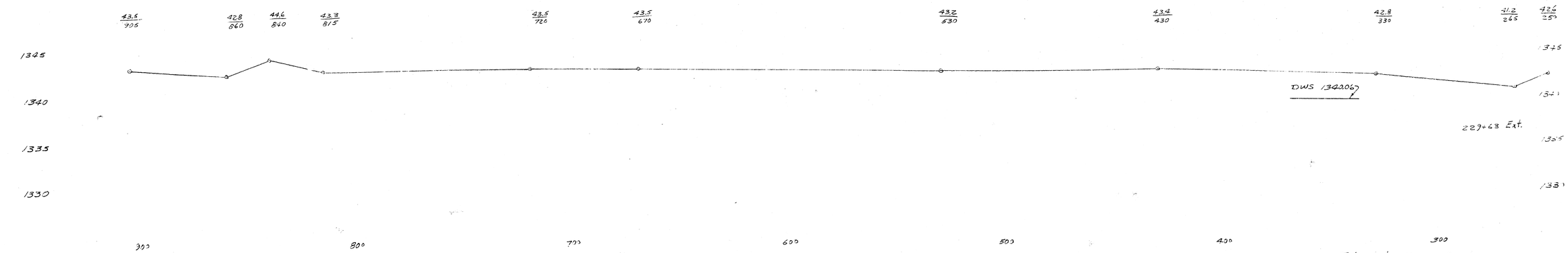
Cross Sections
Extended Sept 1977

Proposed Channel
Westlink-Rolling Hills Cr.
N ½ Sec. 8-27S-1W
May 1974
Sheet 9 of 15

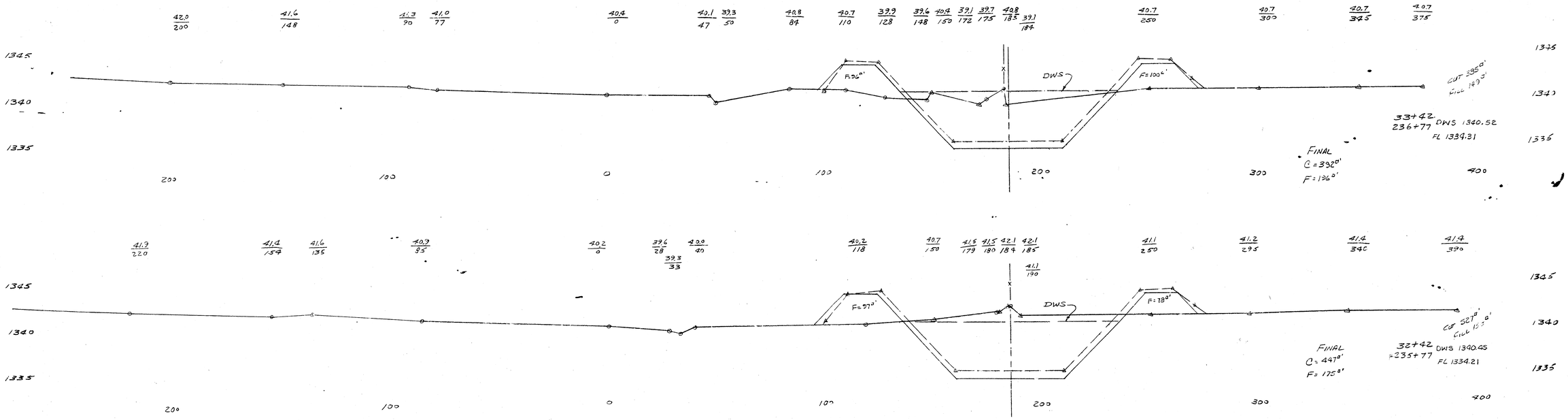








Extended Cross Sections
Westlink - Rolling Hills Co.
N½ Sec. 8 T2S R1W
Sept. 1977 Sheet 8A of 15

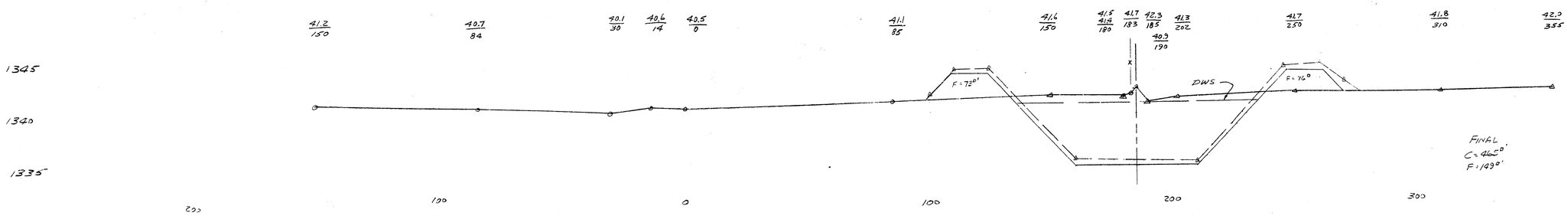


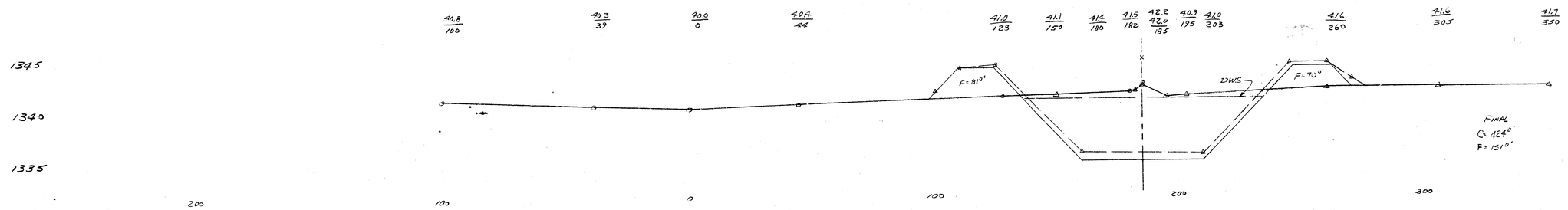
Cross Sections
Extended Sept 1977

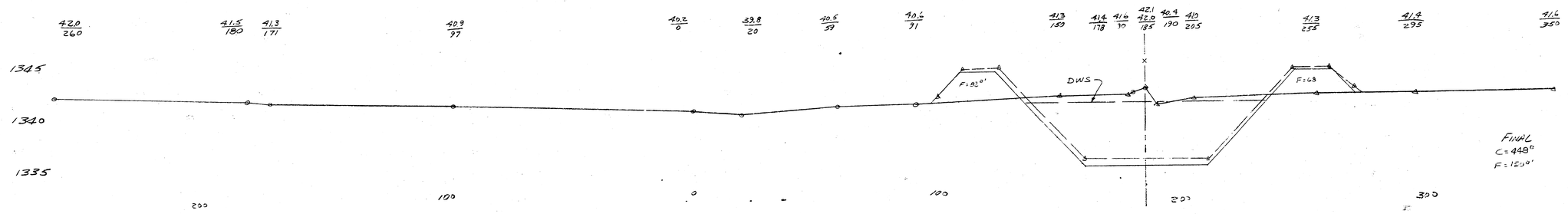
Proposed Channel
Westlink-Rolling Hills Cr.
N½ Sec 8-27S-1W

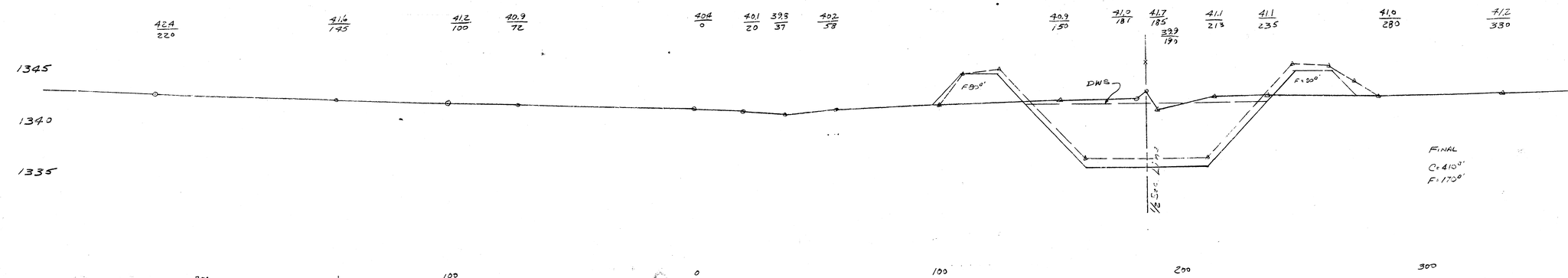


Extended Cross Sections
Westlink - Rolling Hills Cr
N½ Sec. 8 T27S R1W
Sept. 1977 Sheet 7A of 15



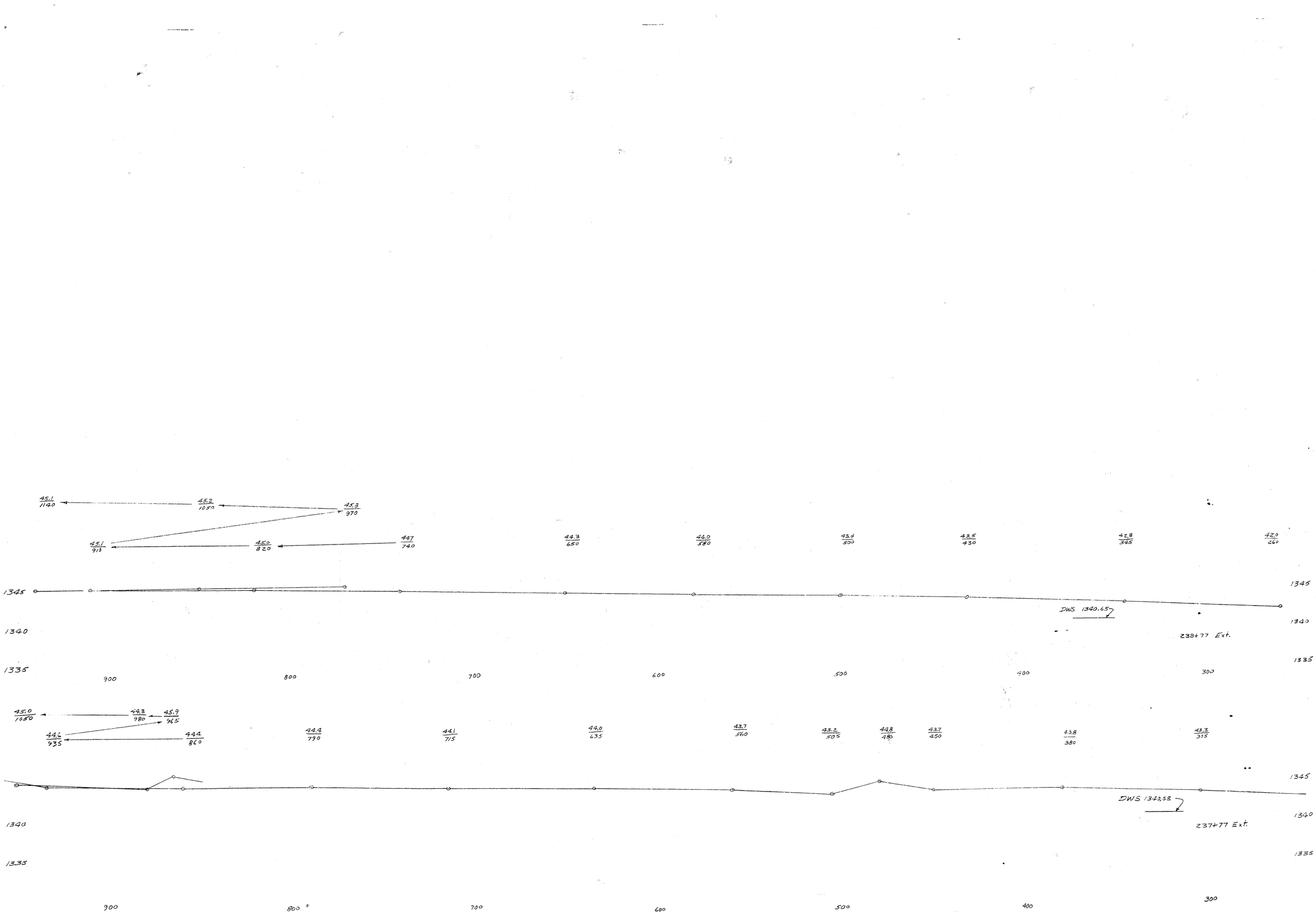




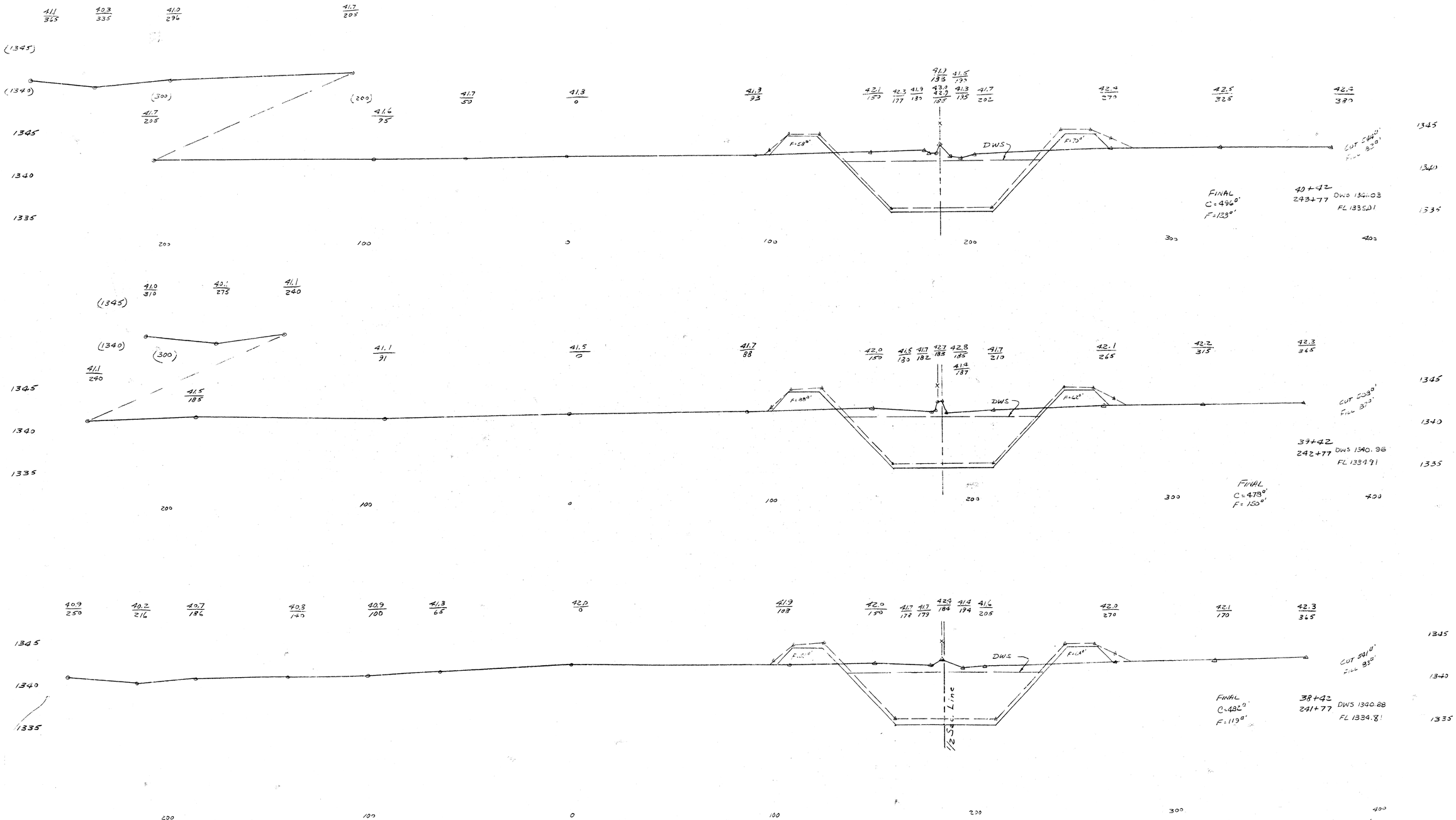


Cross Sections
Extended, Sept. 1977

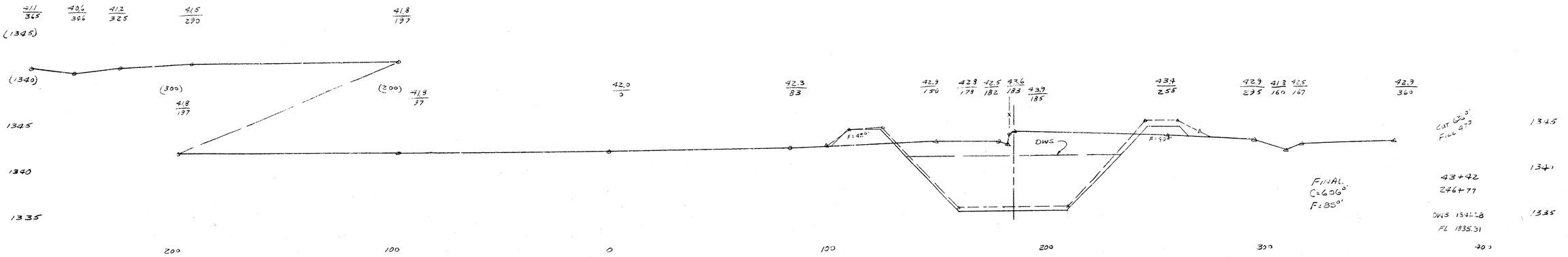
Proposed Channel
Westlink - Rolling Hills Cr.
N½ Sec. 8-27S-1W
May 1978
Sheet 10 of 15

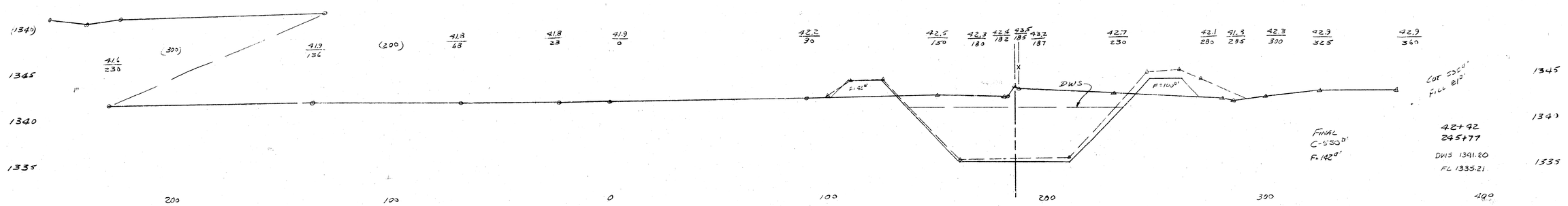


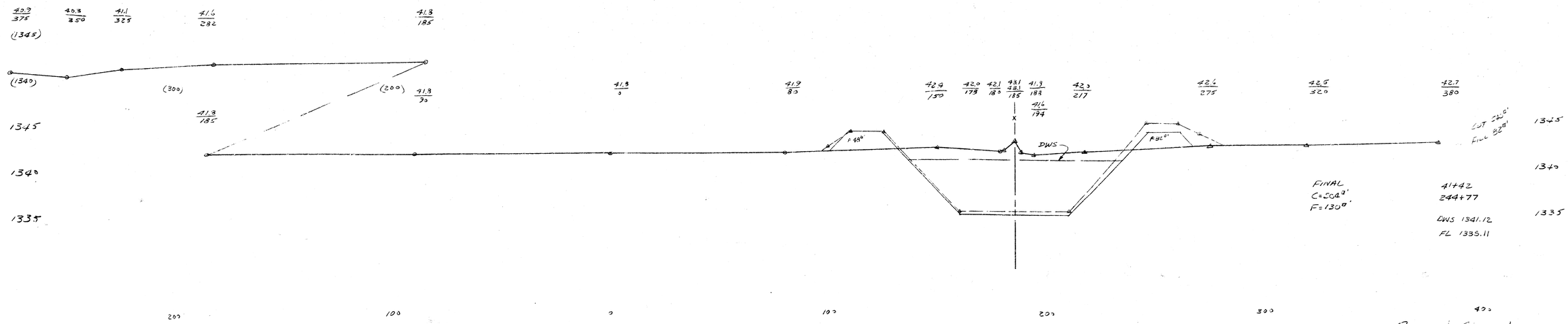
Extended Cross Sections
Westlink - Rolling Hills Cr.
N1/2 Sec. 8 T27S R1W
Sept. 1977 Sheet 10A of 15



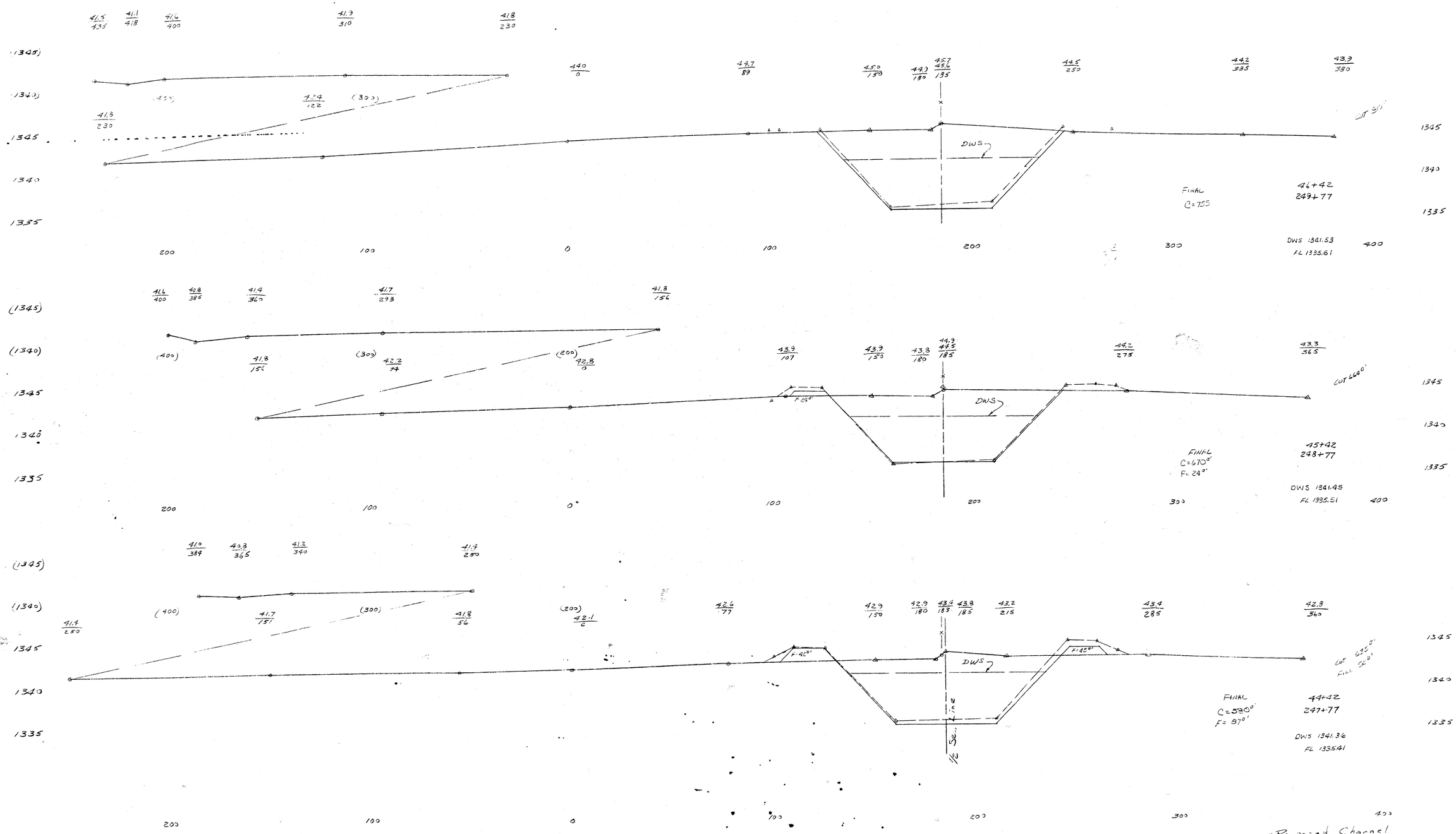
Proposed Channel
Westlink - Rolling Hills Creek
N½ Sec. 3 - 27S - 1W
May 1974
Sheet 11 of 15



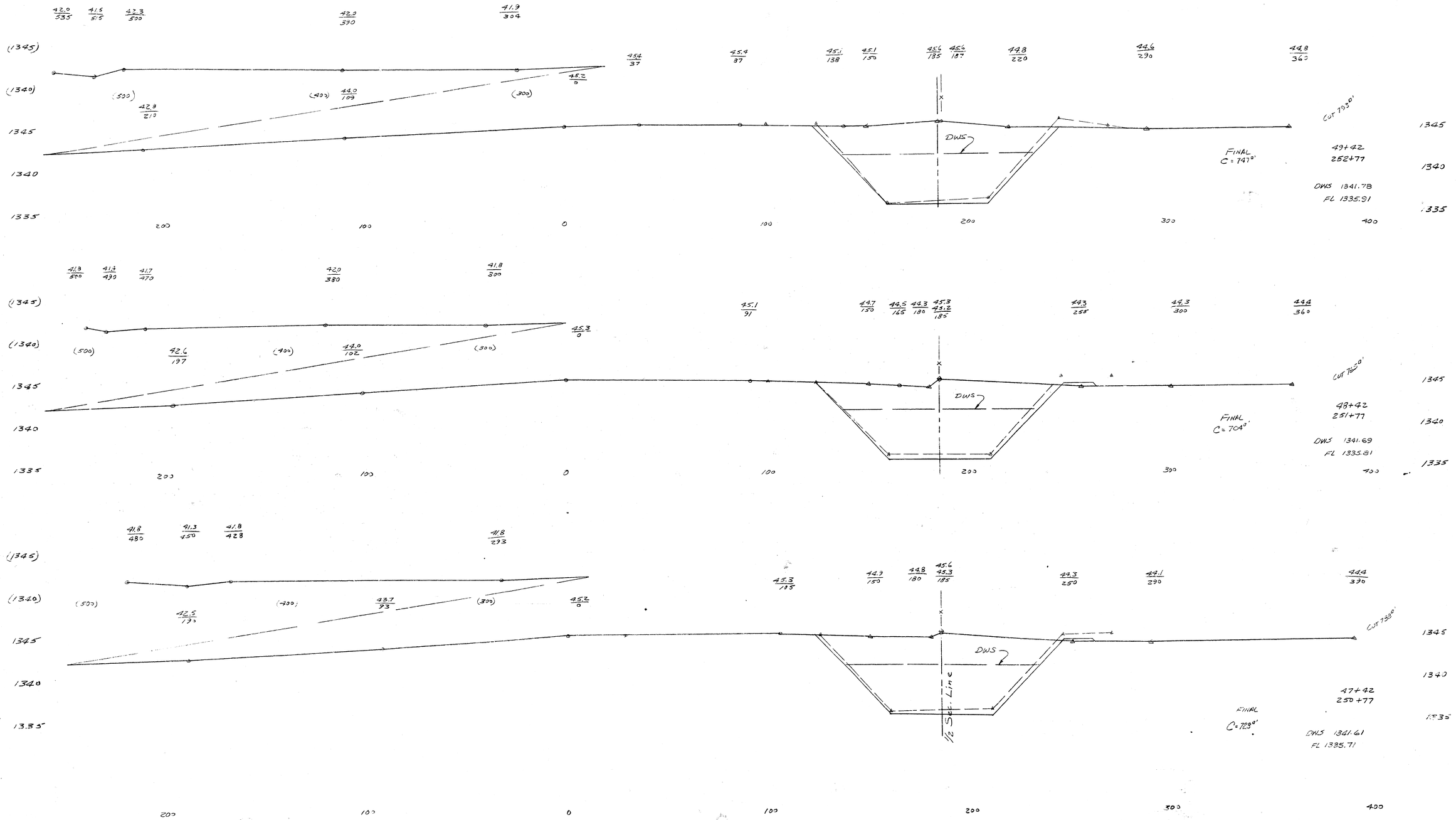




Proposed Channel
Westlink-Rolling Hills Cr.
N½ Sec. 8 - 27S - 1W
May 1974
Sheet 12 of 15

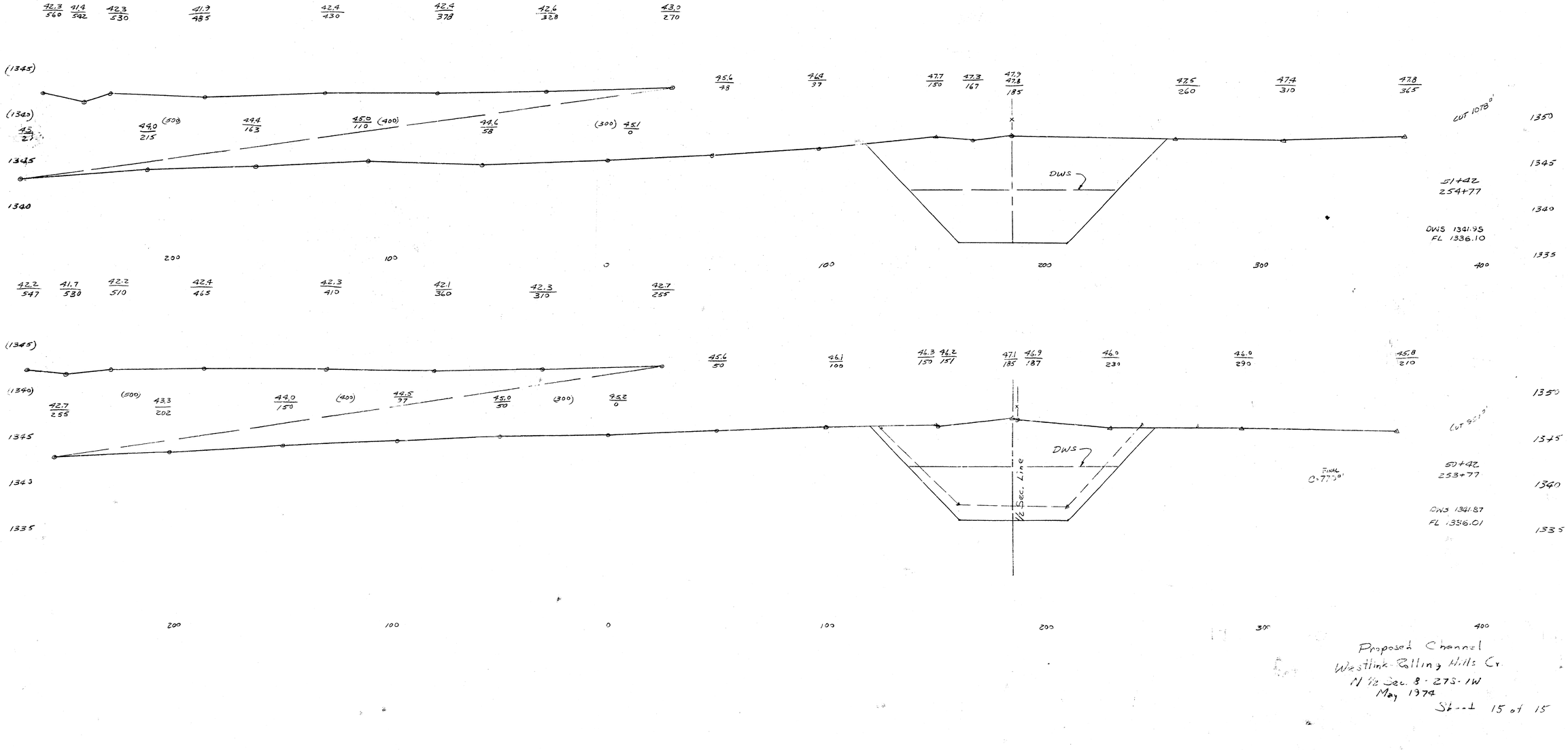


Proposed Channel
Westlink-Rolling Hill Cr.
N½ Sec 8 27S-1W
May 1974
Sheet 13 of 15



Proposed Channel
Westlink-Rolling Hills Ct.
N½ Sec 9-27S-1W
May 1984

Sheet 14 of 15



Proposed Channel
Westlink-Rolling Hills Cr.
N ½ Sec. 8 · 27S · 1W
May 1974
Sht--1 15 of 15