Cactus Road & 51st Avenue Survey notes @ AZ Canal

(3)

EDM DISTANCES

A-E

SLOPE D. 2641.34

VERT. ∡ 90°08'44"

HORZ. D. 2641.33

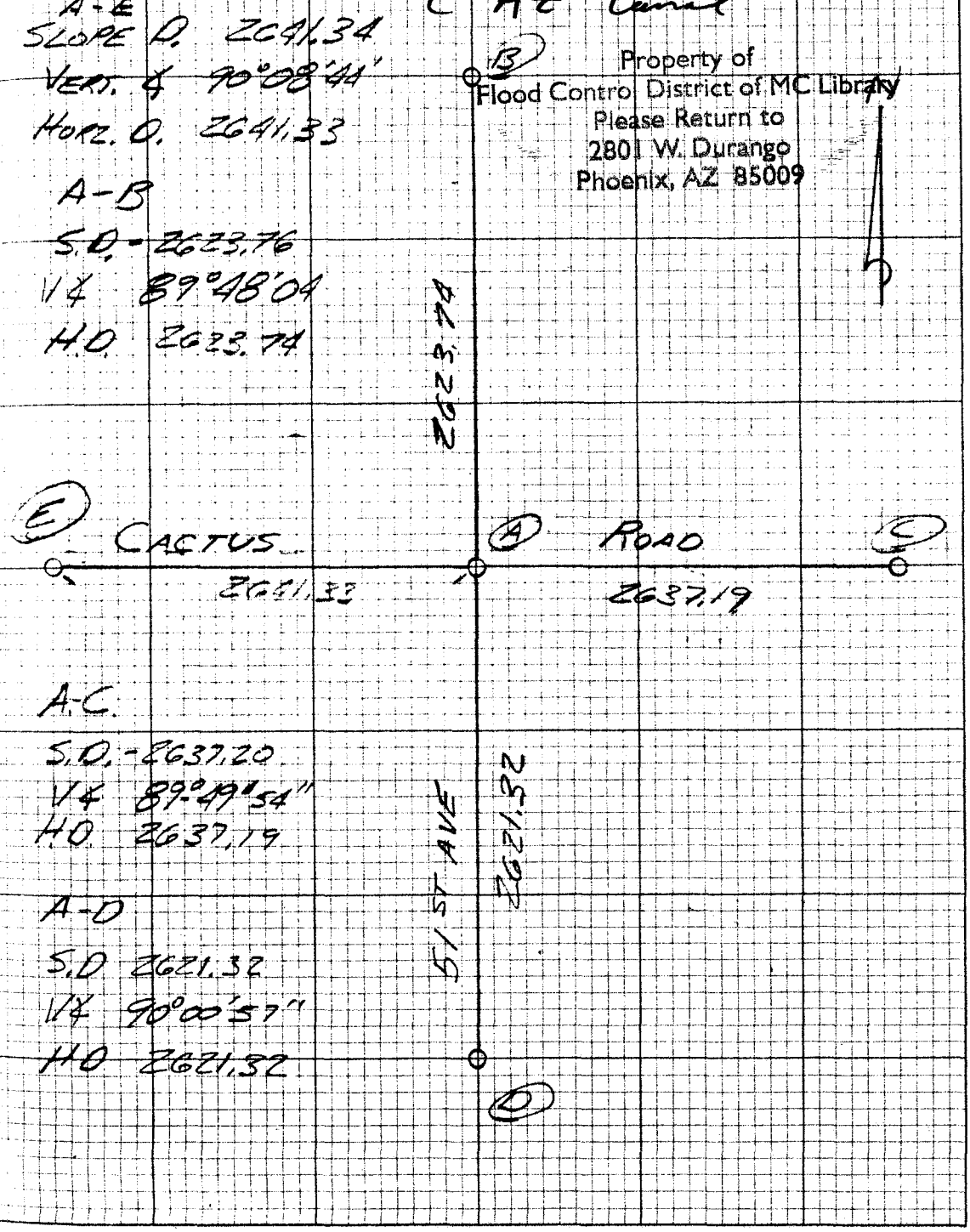
A-B

S.D. - 2623.76

V∡ 89°48'04

H.D. 2623.74

Property of
Flood Control District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009



A-C.

S.D. - 2637.20

V∡ 89°49'54"

H.D. 2637.19

A-D

S.D 2621.32

V∡ 90°00'57"

H.D 2621.32

HORZ. CONTROL FOR BASELINES

MONUMENTS FOUND

PT. - A - 3" M.C.H.D. BRASS CAP IN H.H. 0.5' BELOW SURFACE

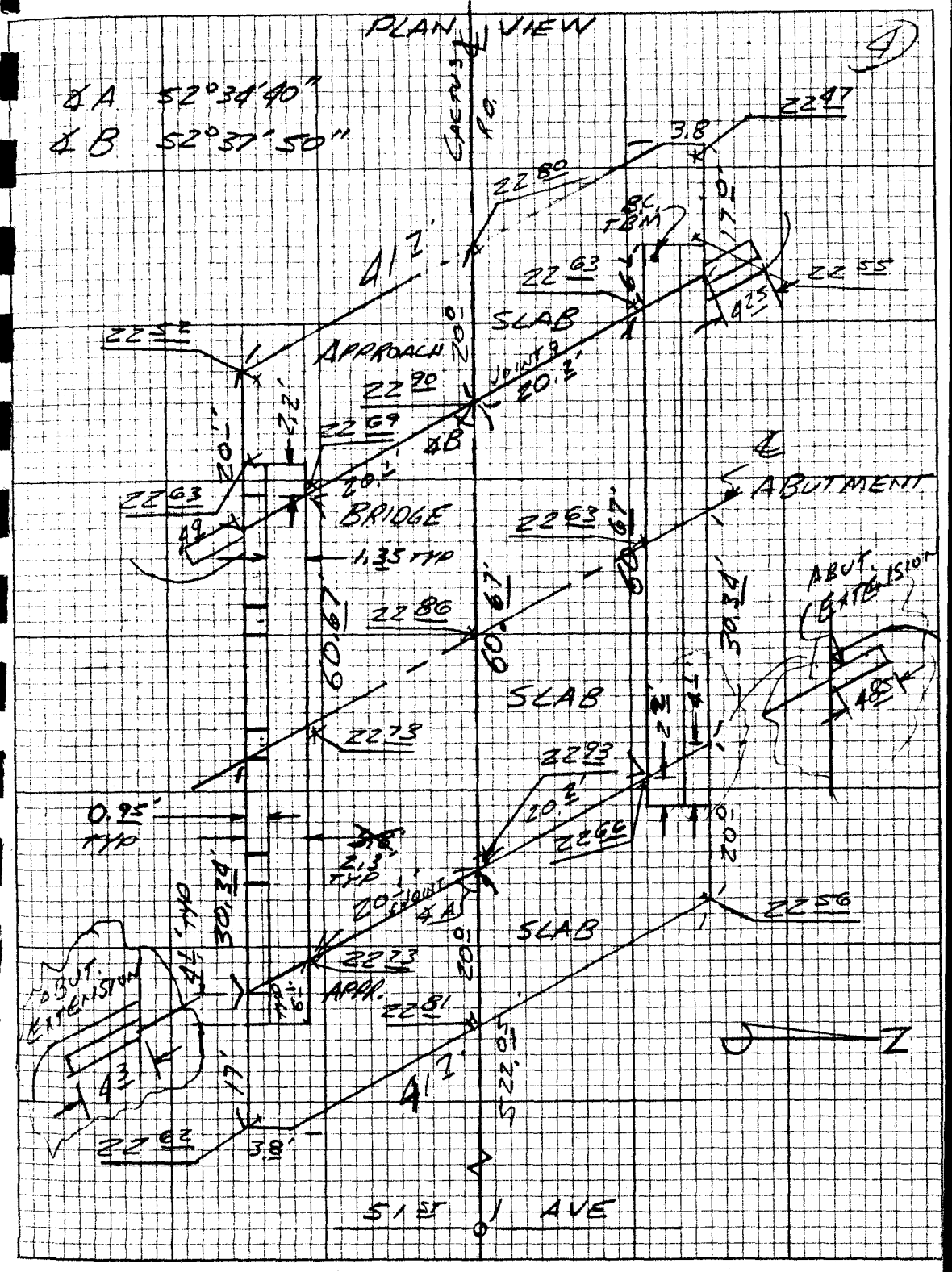
B - 3" M.C.H.D. BC IN H.H. 0.60' BELOW SURFACE

C - 3" M.C.H.D. BC IN H.H. 0.56' BELOW SURFACE

D. 3" CITY OF GLENDALE B.C. FLUSH

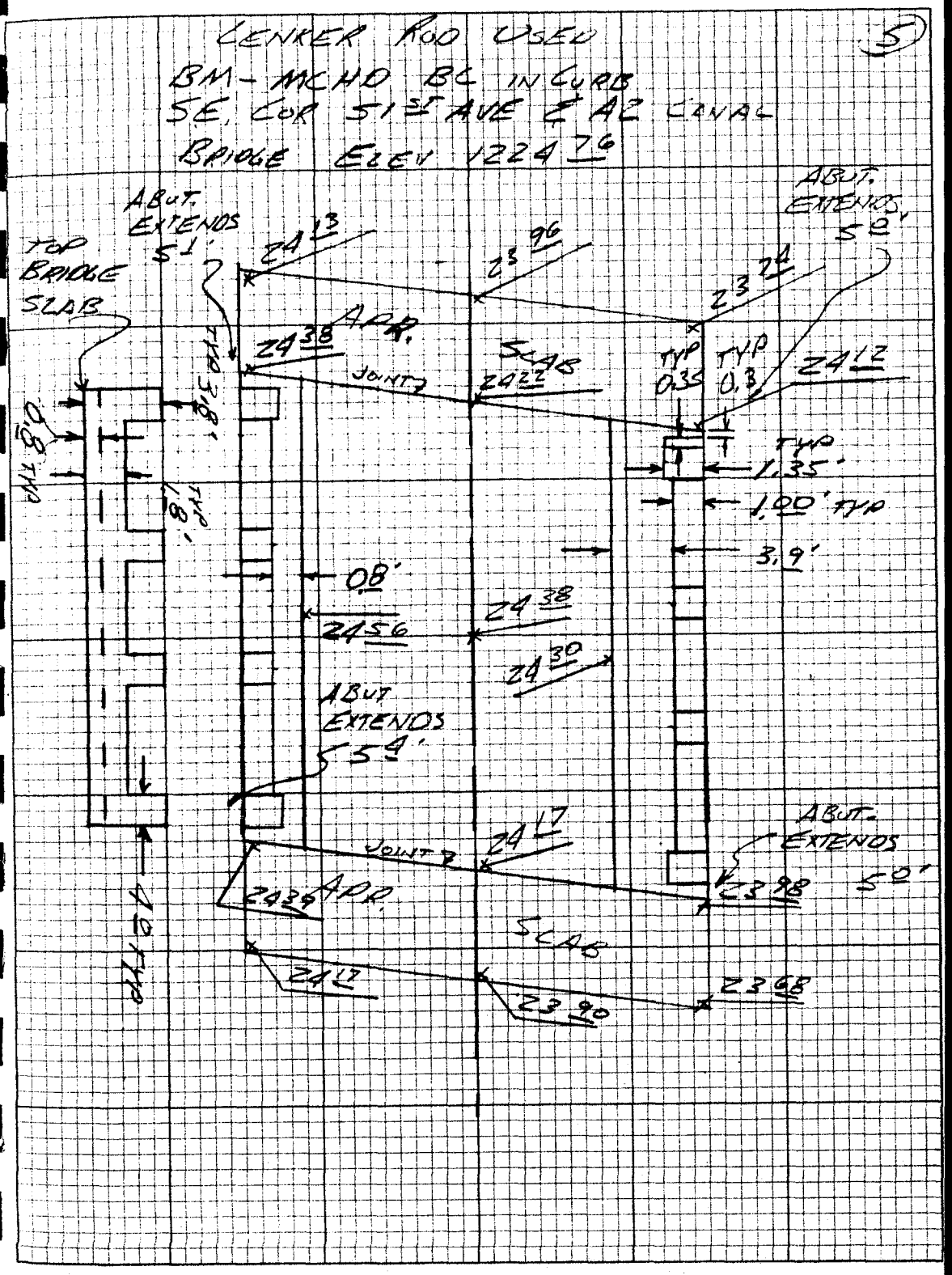
E - 3" MCHD BC IN HH 0.65' BELOW SURFACE

TURNED ANGLES RIGHT		CLOSED HORIZON ∡s	
∡ BAC	89°23'43"	∡	270°36'11"
2x	178°47'49"	2x	181°12'21"
∡ BAD	180°04'35"		179°55'29"
2x	0°09'11"	2x	359°50'58"
∡ BAE	269°38'17"		90°21'44"
	179°16'40"		180°43'30"


PLAN VIEW
4
∡A 52°34'40"
∡B 52°37'50"
CACTUS RD.
22 47
3.8
22 80
B.C. TBM
22 63
22 55
4.25
41.2'
SLAB
22 52
APPROACH
20.0
JOINT 9
20.2'
22 90
22 69
∡B
20.1'
22 63
BRIDGE
1.35 TYP
ABUTMENT
22 63
60.67'
22 86
60.67'
30.34'
ABUT. EXTENSION
4.85
SLAB
22 73
22 93
20.2'
22 66
0.95' TYP
2.3' TYP
20.1' JOINT ∡A
22 56
SLAB
22 73
APPR.
22 81
ABUT. EXTENSION
4.3
17'
41.2'
522.05'
22 62
3.8'
51 ST AVE
N

STA	LEFT	℄	RIGHT	ELEV	DISCRIPTION
11+45		℄			BASELINE MEET
+08	19.7			16.2	BB CANAL @
+08	11.5			22.3	TB GUNITE LINING
11+08	8.0			23.2	TB (GND) CANAL
				14.2	BB @ END GATE
11+00	12.2			22.2	TB GUNITE LINING
11+00	10.3			23.2	TB (GND) CANAL
11+00			27.0	18.1	BB @ FE LINE
11+00			15.0	22.9	POWER POLE @ NOTE: U/G ELEC TO WELL SITE WE

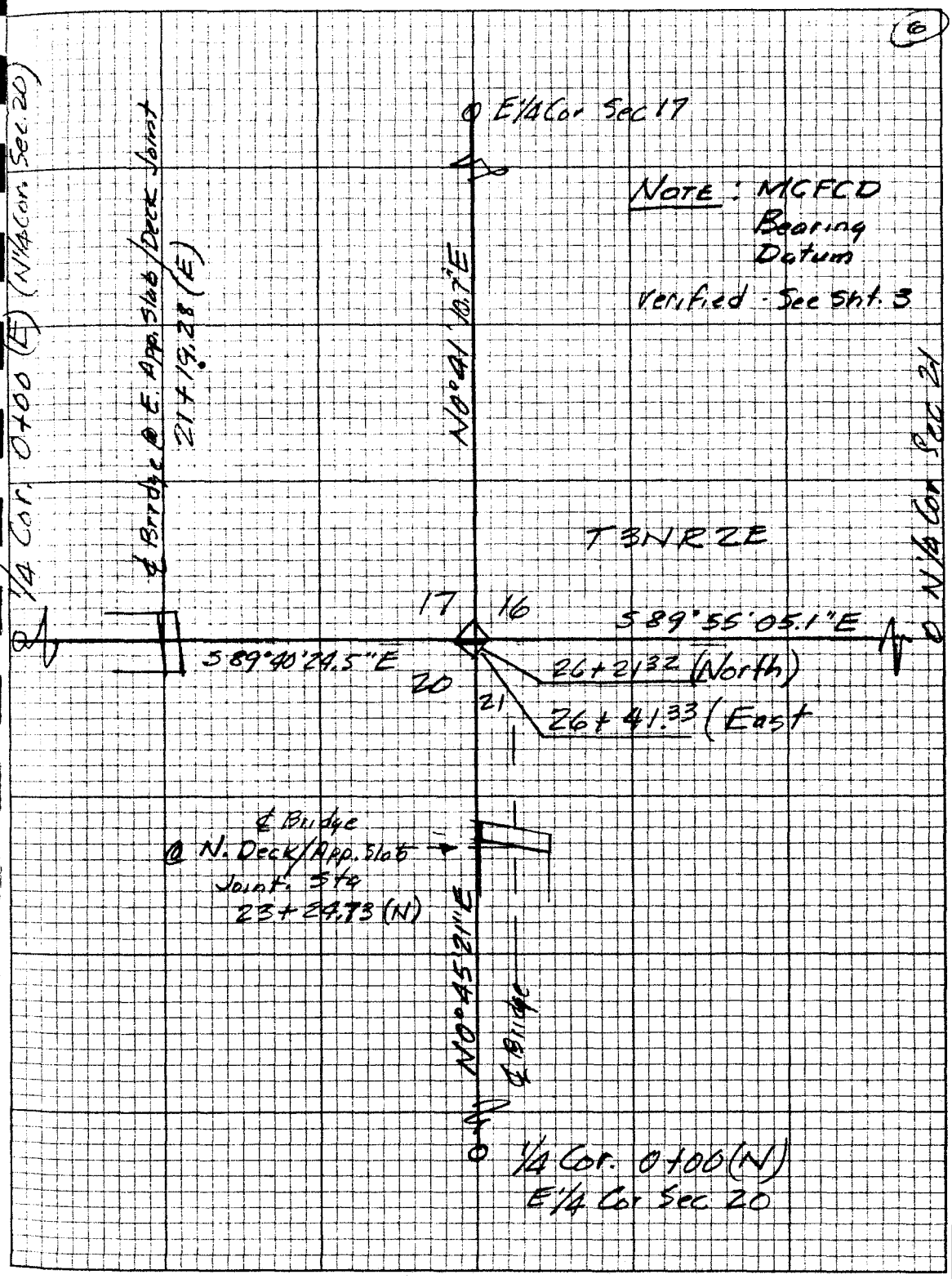
CONT FROM LAST PAGE



CENKER ROD USED
BM - MCHD BC IN CURB
SE. COR 51ST AVE & A2 CANAL
BRIDGE ELEV 1224.76
5
ABUT. EXTENDS 5.1'
ABUT. EXTENDS 5.0'
TOP BRIDGE SLAB
24.13
23.96
23.74
APR.
24.38
SLAB
JOINT
24.22
TYP 0.35
TYP 0.3
24.12
TYP 3.8'
0.8 TYP
TYP 1.8'
TYP 1.35'
1.00' TYP
3.9'
0.8'
24.56
24.38
24.30
ABUT EXTENDS 5.4'
ABUT. EXTENDS 5.0'
JOINT
24.17
23.98
24.39
APR.
SLAB
24.17
23.90
23.68
4.0 TYP

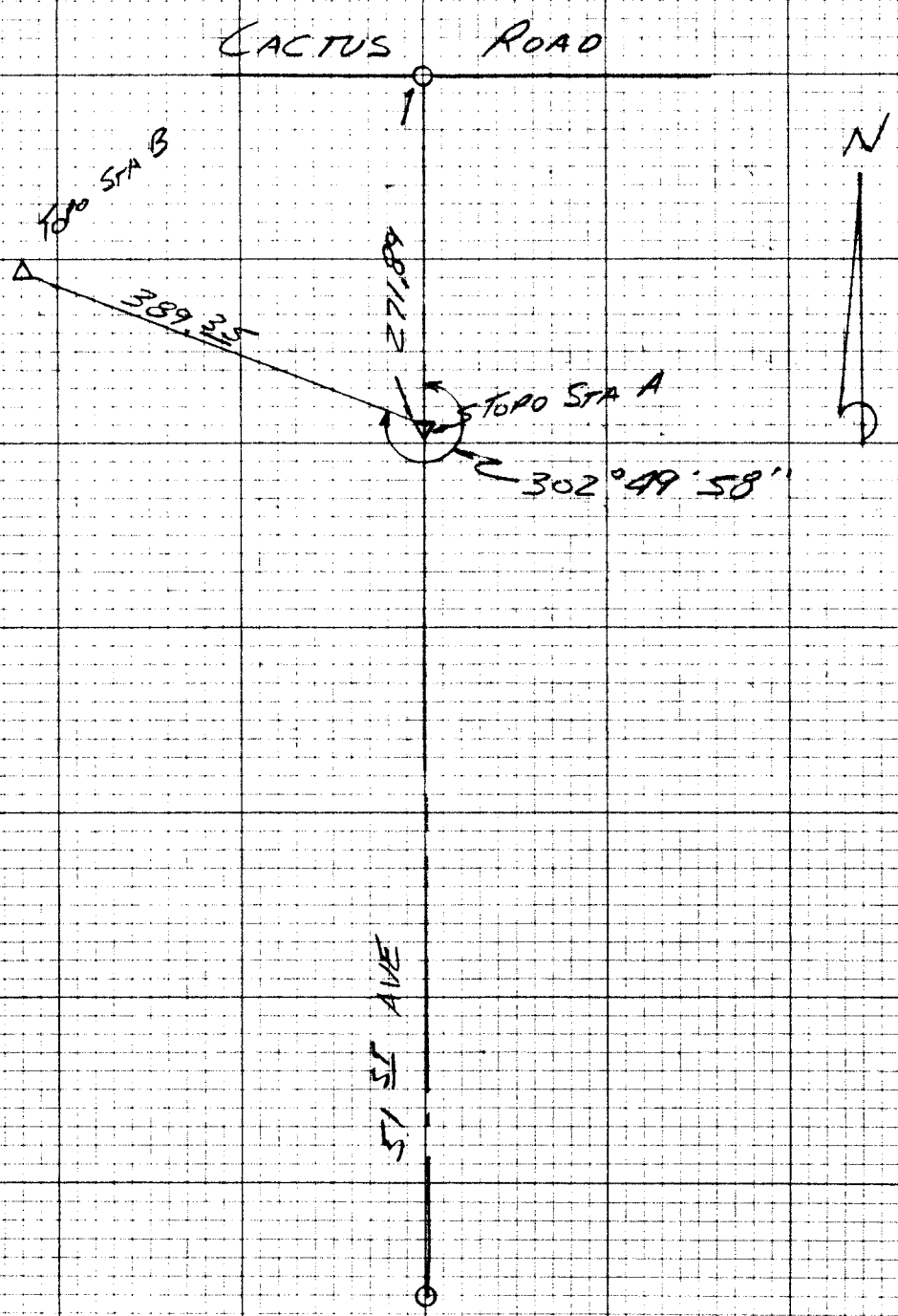
CONT NEXT PAGE

STA	LEFT	℄	RIGHT	ELEV	DESCRIPTION
+80			22 9	21 27	TB GUNITE
+80			82	22 3	BB AC, RO
+80		23 7 (GND)	7 3	23 9	TB AC RO
+69			27 7	14 6	BB CANAL
+69			20 7	21 28	TB GUNITE
+65		℄			BASELINE INTER-X
+61 66			5 38		NE COR (9'x6')
+55 71			4 0		NW COR "
+54 31			11 00	TOP 22 00	SW COR (9'x6')
+54			8 3	21 8	TB GND
+44			7 0	21 7	TB (GND)
+44			13 5	18 85	TB STONE & M. @
+44			19 0	13 1	BB CANAL
+12			4 0	19 06	TB BEGIN STONE & MORTAR
+11			3 0	20 2	TB GUNITE @ END
+10			10 0	12 9	BB CANAL
+07 5	0 5			TOP STR 21 20	℄ 4 7 DIA. ROUND CON
9+00	3 0			22 2	TB (GND) CANAL


6
E1/4 Cor Sec 17
NOTE: MCFCD Bearing Datum verified - See Sht. 3
N0°41'10.7"E
T3NR2E
17
16
S89°55'05.1"E
S89°40'29.5"E
20
21
26+21.32 (North)
26+41.33 (East
N1/4 Cor Sec 21
1/4 Cor. 0+00 (E) (N1/4 Cor Sec. 20)
℄ Bridge @ E. App. Slab/Deck Joint
21+19.28 (E)
℄ Bridge
@ N. Deck/App. Slab Joint. Sta 23+29.73 (N)
N0°45'21"E
℄ Bridge
1/4 Cor. 0+00 (N)
E1/4 Cor Sec 20

CONT FROM P. 24

STA	LEFT	℄	RIGHT	ELEV	DISCRIPTION
10+00			34.4	13.4	BB CANAL
10+00			26.6	21.25	TB GUNITE
10+00			21.4	24.0	TOP ℄ ABUT @ WEST
10+00		GND 14.0			
9+95			20.3	24.0	TOP ℄ ABUT @
9+90			18.6		REFLECTOR


CACTUS ROAD
TOPO STA B
389.35
271.89
TOPO STA A
302°49'58"
N
51 ST AVE

Cont Next P.

STA	LEFT	℄	RIGHT	ELEV	DISCRIPTION
9+00	14 0			13 0	BB CANAL
	8 0			10 00	TB @ END GUNITE ℄
9+00	1 0			21 5	TB (GND) CANAL
+98					END 6' CONC. & RH
+74	16 5			13 3	BB CANAL
	6 5			20 25	TB GUNITE
+74	3 5			21 5	TB (GND) CANAL
8+50			27 8	TOP CONC 19 41	℄ 6' CONC IRR. DITCH
			21 2	20 3	TB AC RD
	16 0				BB CANAL
	7 2				TB GUNITE
8+50	5 5				TB (GND) CANAL
8+00			22 0	TOP CONC 19 3	℄ 6' WIRE CONC
			15 3	20 1	TB ACCESS ROAD
	21 5			11 8	BB CANAL
	13 3			20 05	TB GUNITE
8+00	10 3			21 1	TB (GND) CANAL

DESCRIPTION

TOP ABUT. N.E COR BRIDGE 51 AVE
T.B. (TOP BANK) GUNITE
T.B. W. SIDE CANAL GATE STR.
W (WATER LINE) W. SIDE " "
℄ FOND. N W COR GATE STR. ~~(T.B.)~~
" " N.E " " " (T.B.)
W " " " " "
T.B. GUNITE @ END GUNITE
T.B. (DIRT)
W @ END GUNITE
T.B. CANAL
W CANAL
T.B. ACCESS RD
GND (EXIST W RESERVOIR)
T.B CANAL
W "
T.B AC. RD.
GND (EXIST W RES)
T.B CANAL
W "
T.B AC RD.
GND (EXIST W RES)
TOP ℄ ABUT S.E. COR BRIDGE
TOP B. GUNITE
T.B GUNITE SW COR GATE STR
T.B DIRT SE " " "
T.B GUNITE " " " "
W SE COR " "
T.B GUNITE @ END GUNITE (S. SIDE CANAL)
T.B DIRT " " "

CONT NEXT P.

STA	LEFT	℄	RIGHT	ELEV	DISCRIPTION
+50	04			21 30	TB GUNITE
+50	25			22 0	TB (GND) CANAL
+39	16 0			13 3	BB CANAL
	6 6			19 25	TB STONE & M.
	3 1			21 1	TB GUNITE ⊗
+39	1 5			21 9	TB (GND)
+16 5	11 2				END CONC PIPE (24")
+17			38 9	19 5	CHN. LK. EE. COR (S & E)
+16 4			31 5		SEE SKETCH
+16			37 4		
+13 0			31 1		
+09 5			29 8		SEE SKETCH
+09 5			26 0	20 5	TB AC. RD.
+04 8			32 4		SEE SKETCH
+04 4			36 4		SEE SKETCH
+03 3			20 9	TOP 20 60	WATER VALVE
9+00			34 0		℄ 4' CONC DITCH
9+00			26 0	20 6	TB AC. RD
			CONT		

DESCRIPTION

TB CANAL

W "

TB AC RD.

BB " "

TB CANAL

W "

TB AC. RD.

BB @ FE. LINE

TB CANAL

W CANAL

TB AC. RD.

BB @ FE. LN.

RIVER RLE

" "

TOP & ABUT. SW COR BRIDGE

TB GUNITE

TB DIRT

TB GUNITE @ END GUNITE BEGIN STONE BANK TO WEST

STA	LEFT	℄	RIGHT	ELEV	DISCRIPTION
10+00	13.1			13.6	BB CANAL
10+00	4.6			21.4	TB GUNITE
10+00	3.0			23.2	℄ ABUT. @ W. EDGE
+94	4.8			21.47	TB GUNITE
+94	2.3			23.71	TOP ℄ ABUT @ END
+93	0.5			23.7	TB(GND) CANAL
+89	12.8			13.6	BB CANAL
+89	5.8			21.75	TB GUNITE
+75			26.0	22.1	TB AC RD
+68	14.5			14.1	BB CANAL
	7.0			21.89	TB GUNITE
+68	6.0			22.4	TB(GND) CANAL
+64		℄			BASELINE INTER X
+63			27.3	19.7	CHN. LK. FE. COR. (5'E W)
+63			21.5	21.8	TB AC RD
+50			30.2	19.6	BB @ FE LINE
9+50			24.0	21.5	TB AC. RD
			CONT		

DISCRIPTION

HIGH W ON GUNITE

TB STONE

TB DIRT

TB STONE

N.E. COR CHN. CR. FE. PUMP AREA

N.W. " " " " " "

~~℄ IRRG STR POWER POLE~~

℄ IRRG. STR

TOP CONC CULVERT (SEE SKETCH)

℄ " " " "

℄ TOP IRRG STR " "

℄ " " " " "

TB DIRT

TB GUNITE @ BEGIN GUNITE BANK

℄ CULVERT

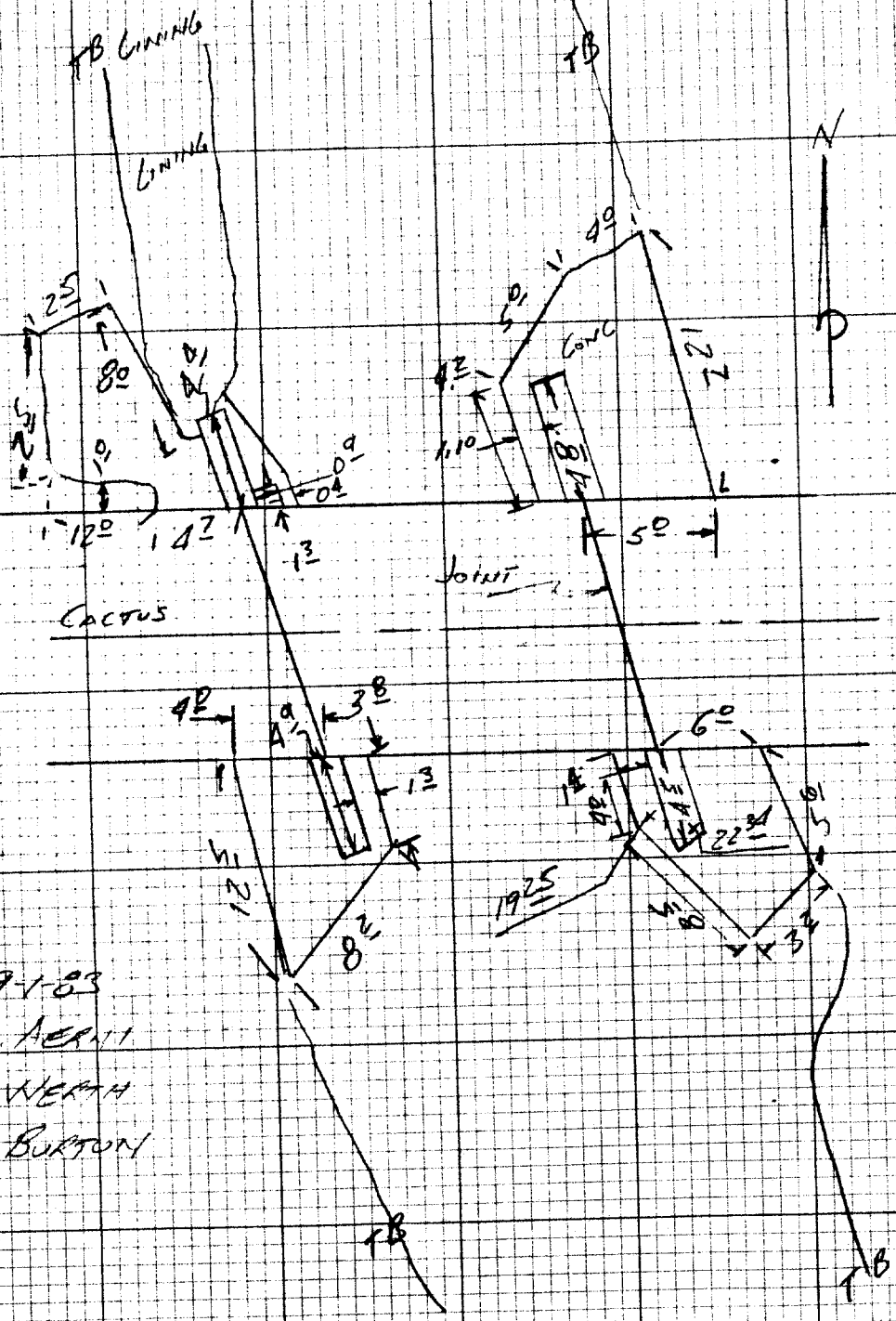
TOP "

TB AC, RD,

℄ CONC IRRG. DITCH (6º WIDE 2º DEEP)

TB (BETWEEN IRRG DITCHS)

CACTUS BRIDGE X-SEC



9-1-83
A. AERNI
L. WERTH
D. BURTON

DESCRIPTION
℄ DITCH
TB
TB CANAL
WATER VALVE
HIGH W (ON GUNITE)
TB AC. RD.
℄ CONC IRRG DITCH (6' WIDE 2½' DEEP)
TB. (GND)
℄ CONC IRRG DITCH (5½ WIDE 1½ DEEP)
T. BERM 7± WIDE
B. B. (BOTTOM BANK)
℄ TOP BERM ⊗ & PT BERM
℄ TOP BERM

CONT NEXT P.

STA	LEFT	℄	RIGHT		
+50	24.0			BB	CANAL
+50	10.8			TB	CANAL
+37			9.0	∡ PT	ED. AL. RD @ TB
+23.5		℄		EP	CACTUS.
10+00					
+82		℄		EP	CACTUS
+75	26.0			BB	CANAL
+75	15.0			TB	CANAL
+50			39.7	E.P.	SO. CACTUS
+50	14.0			TB	CANAL
+50	24.0			BB	"
+05	20.0			BB	
+05	10.0			TB	END WASH AREA @ ER.
9+00			10.5	ER.	ACCESS RD
9+00	5.8			TB	WASH OUT AREA

DISCRIPTION

BB

BB

BB

TB

℄ (4.5' WIDE, 1.5' DEEP) CONC. IRRG. DITCH

TB

℄ (6.0' WIDE, 2.0' DEEP) CONC. IRRG. DITCH

TB AC. RD.

TB (DIRT) CANAL

TB (GUNITE) @ END GUNITE

HIGH W/ @ END GUNITE

TB (DIRT) " " "

POWER POLE

ELEC. MANHOLE (APROX. 1' BELOW SURFACE)

TB CANAL

TB. AC. RD.

℄ (6.0' WIDE, 1.5' DEEP) CONC. IRRG. DITCH

TB

STA	LEFT	℄	RIGHT	DISCRIPTION
+50			12°	ER AC. RD.
+50	22°			BB CANAL
+50	11 ±			TB CANAL
11+00			10 ±	ER AC. RD.
11+00	12°			TB CANAL
11+00	24°			BB "
+66°			3°	STEEL GATE POST (4°)
+66 ±	9 ±			STEEL GATE POST
10+64			4 ±	SRP SIGN

DISCRIPTION

℄ (4.5' WIDE, 1.6' DEEP) CONC IRRG. DITCH

TOP IRRG. DITCH (SOUTH SIDE)

GND

POWER POLE

ELEV 1223.35 DIRECT - +3.84

TBM NW COR BRIDGE CACTUS RD INDIRECT - +3.94 MEAN +3.89

TB CANAL (WASHED OUT AREA)

8-18-83

TB AC. RD.

A.A.

℄ (6.0' WIDE, 2.4' DEEP) CONC IRRG DITCH

C.W.T.

D.B.

TB

℄ (4.5 WIDE, 1.6' DEEP) CONC IRRG DITCH

TOP IRRG DITCH (SOUTH SIDE)

GND

TB CANAL (WASHED OUT AREA)

TB AC. RD.

℄ (6.0' WIDE, 2.4' DEEP) CONC IRRG DITCH

T.B.

℄ (4.5 WIDE, 1.6' DEEP) CONC IRRG. DITCH

TOP IRRG. DITCH (SOUTH SIDE)

GND

TB CANAL

CONT NEXT P.

STA	LEFT	℄	RIGHT	DISCRIPTION
+46	23.8			EDGE HOWL. @ END
+18				BB
+18			9.2	TB (END WASHED
9+00	24.0		~~24.0~~	EDGE CONC IRRG. DITCH
	20.3		~~20.3~~	ER @ TB
9+00			19.0	BB
9+00			8.6	TB
+50	21.2			EDGE IRRG DITCH (6.0) WIDE
	17.4			ER @ TB
+50			12.3	TB CANAL
+50			21.0	BB CANAL
8+00	11.0			ER.
	14.5			EDGE. CONC IRRG DITCH
8+00			19.0	TB CANAL (WASH)
			28.0	BB CANAL

DISCRIPTION

T.B. AC. RD.

TOP HEADWALL @ END (6' WIDE) CONC DITCH, -4' TO ℄ 36" PIPE

APPROX END (4' WIDE) CONC DITCH

GND

POWER POLE (GND. EL.)

GND @ N.W. COR. BRIDGE 51st AVE

E.R. CANAL @ ER. 51 AVE

GND @ ER 51st AVE

TOP GUNITE NW COR. BRIDGE 51 AVE

TOP GUNITE BANK @ ℄ RT. CANAL BANK

" " "

TOP GUNITE @ OUTLET CONC. IRRG STR

TOP. BEGIN STONE BANK

TOP SE COR (6½' x 7') CONC. IRRG STR (-3' FROM TOP HOING TO ℄ S.)

TOP NE COR (" ") " " " (-4' FROM TOP HOING TO ℄ N.)

T.B. DIRT (@ BEG STONE BANK)

TOP STONE BANK @ END STONE BANK

STA	LEFT	℄	RIGHT	DISCRIPTION
+70		EC 20 L		
+60	11.0			FE. POST (FE. WEST)
+54	8.0		~~8.0~~	SRP SIGN
+50	6.0			EDGE AC RD & PT
+50	41.5			EP CACTUS
+50			12.0	TB GUNITE
+50			10.5	TB (GND) CANAL
+50			21.0	BB CANAL
+24			10.5	EDGE CONC (TB)
+20	4.0			& PT W/ S & W
10+00				
+80	14.0			& PT TB @ ER
+76		℄		APPROACH SLAB
+56			8.0	EDGE CONC
9+50	16.5			ER @ TB
9+50			7.5	TB
9+50			18.0	BB

DESCRIPTION

TOP GUNITE @ BEG. GUNITE BANK

TB CANAL (DIRT)

TOP N. EDGE ROUND (4" DIA) LONG 1ARG STR (NOT USED)

EDGE AC. RD

GND

HIGH W ON GUNITE

TB (DIRT) CANAL

TOP GUNITE

EDGE AC. RD.

GND

TOP GUNITE @ END GUNITE BANK

HIGH W @ " " "

TB (DIRT) CANAL

TB CANAL (WASHED AREA)

EDGE AC. RD.

GND

STA	LEFT	℄	RIGHT	
450	3°			ER ACRO
			21°	BB
			13°	TB GUNITE
450			12°	TB DIRT
11400	4°			ER ACRO
			21°	BB
			13°	TB GUNITE
11400			12°	TB DIRT

DISCRIPTION
TB CANAL (WASHED AREA)
TB CANAL (" ")
EDGE AC. RD.
STEEL POWER POLE (HIGH VOLTAGE)
GND
TB CANAL (WASHED AREA)
EDGE AC. RD.
TB CANAL
EDGE AC. RD.
GND @ ER CACTUS (CER. EDGE RD)
GND
HIGH W NW COR BRIDGE CACTUS
TOP. E ABUTMENT SW COR BRIDGE CACTUS RD
" " " SE " " " "
" " " NE " " " "
" " " NW " " " "
TOP GUNITE BANK CANAL
" " " "
TB CANAL (DRY)

STA	LEFT	℄	RIGHT	DISCRIPTION
48+00	100/21.2			TOP BERM (10' WI
	79/18.1 BB		46.7/17.2	BB @ FE LINE
			39/21.8	TB
	35/18.7 GND		30.8/22.09	EP
			17.5/22.51	℄ PAVING
48+00			24/22.09	EP
+97			45	POWER POLE
+63			48	END BRUSH @ FE LINE
+58			35	SIGNAL AHEAD SI
+50			47/17.0	BB @ FE LINE
			40/20.5	TB
			30.3/20.50	EP
			17.5/21.00	℄ PAVING
+50			23/20.50	EP
+36				BEG. BRUSH @ FE LINE
+30			58	ORANGE TREE
47+00	93/14.2			BB
	71.5/20.3			TOP ℄ BERM (10' WIDE)
47+00	56/17.2			BB

DISCRIPTION

EDGE AC. RD.

GND

TOP HEADWALL @ BEGIN CONC IRRG DITCH

TOP GUNITE BANK CANAL

TB CANAL (DIRT)

EDGE AC RD.

BB

TB

℄ CONC IRRG DITCH (5' WIDE, 1' DEEP)

CHAIN LINK FENCE

TOP GUNITE BANK

TB CANAL (DIRT)

EDGE AC. RD.

BB

TB

℄ CONC IRRG DITCH (5' WIDE, 1' DEEP)

CHN. LK. FE.

TB CANAL (DIRT) EAST SIDE

STA	LEFT	℄	RIGHT	DISCRIPTION
+50			$39^{0}/22^{6}$	TB
	$41/18^{9}$ GND		$30^{8}/23^{28}$	EP
			$17^{8}/23^{20}$	℄ PAVING
+50			$2^{2}/23^{48}$	EP
+49	~~4~~		44^{5}	POWER POLE
+48			$46^{8}/18^{7}$ GND @ FE. COR. PAGE	
+39	43^{0}			GUY
+38			14^{8}/TOP 23^{45} T.V. 16^{30}	WATER V.
+25	41^{0}			COR. CHN. LK FE (8' HI
+24	42^{3}		~~42^{3}~~	POWER POLE
+24			45^{0}	GUY

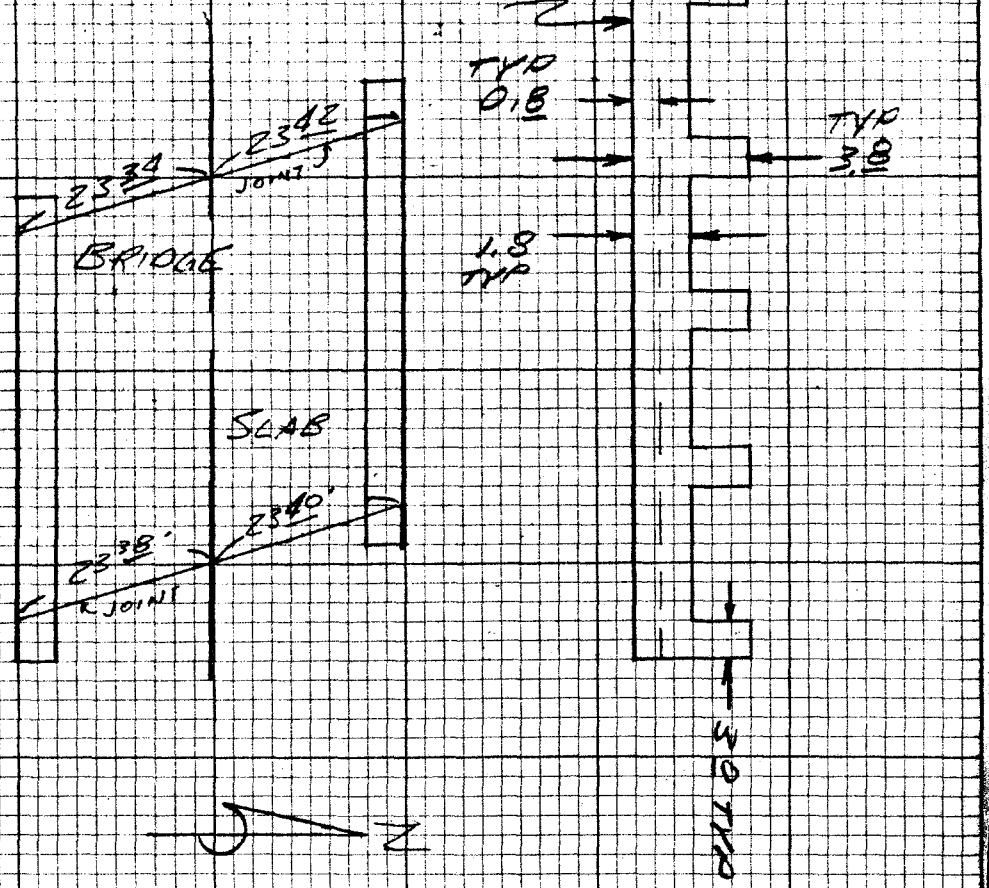
DISCRIPTION				
EDGE AC. RO.				
GNO (1/4 RESAVOIR)				
TB CANAL				
EDGE AC. RO				
GNO				
TB CANAL				
EDGE AC RO				
GNO				

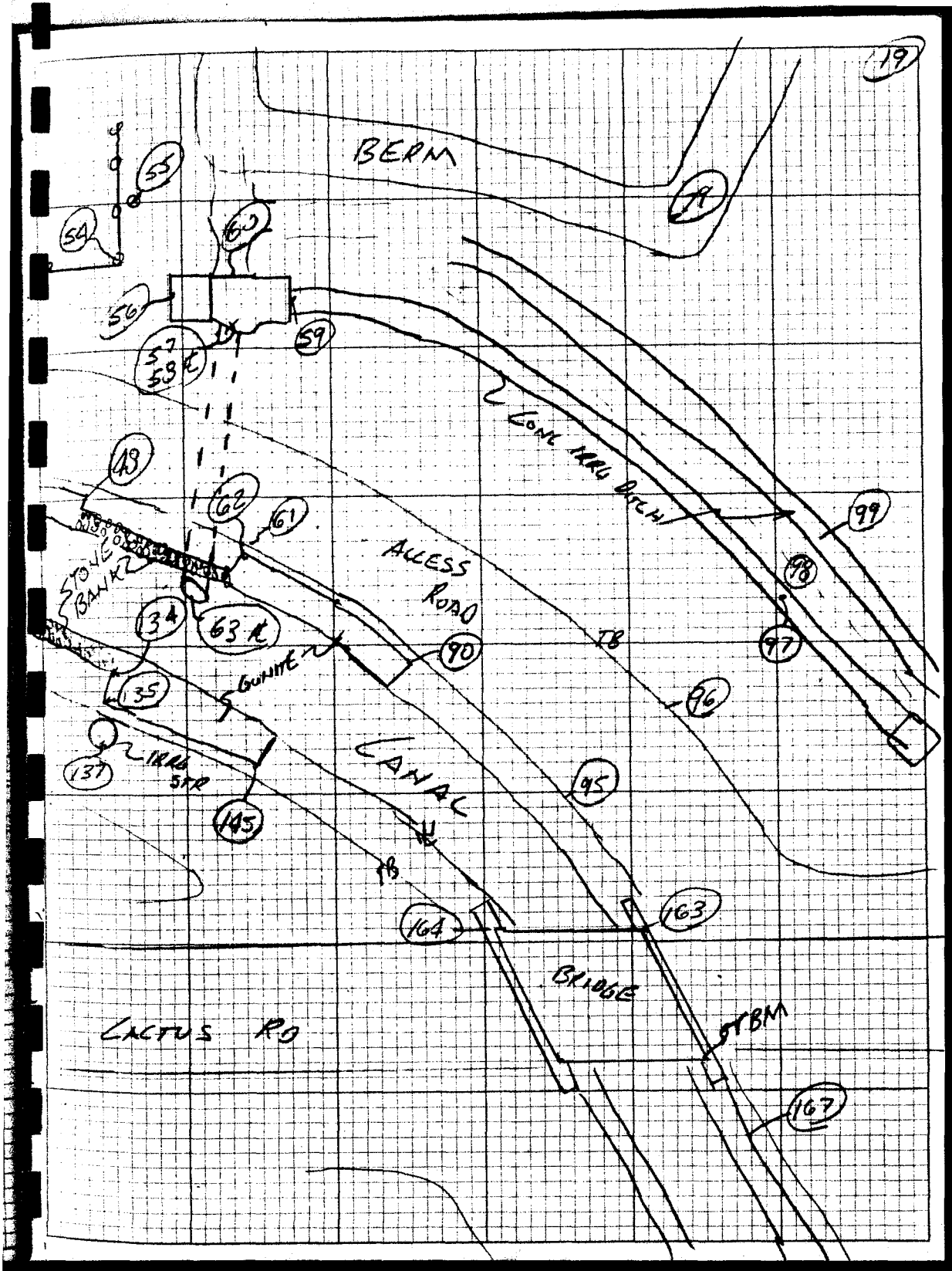
CACTUS ROAD BRIDGE

LOCATION & ELEV

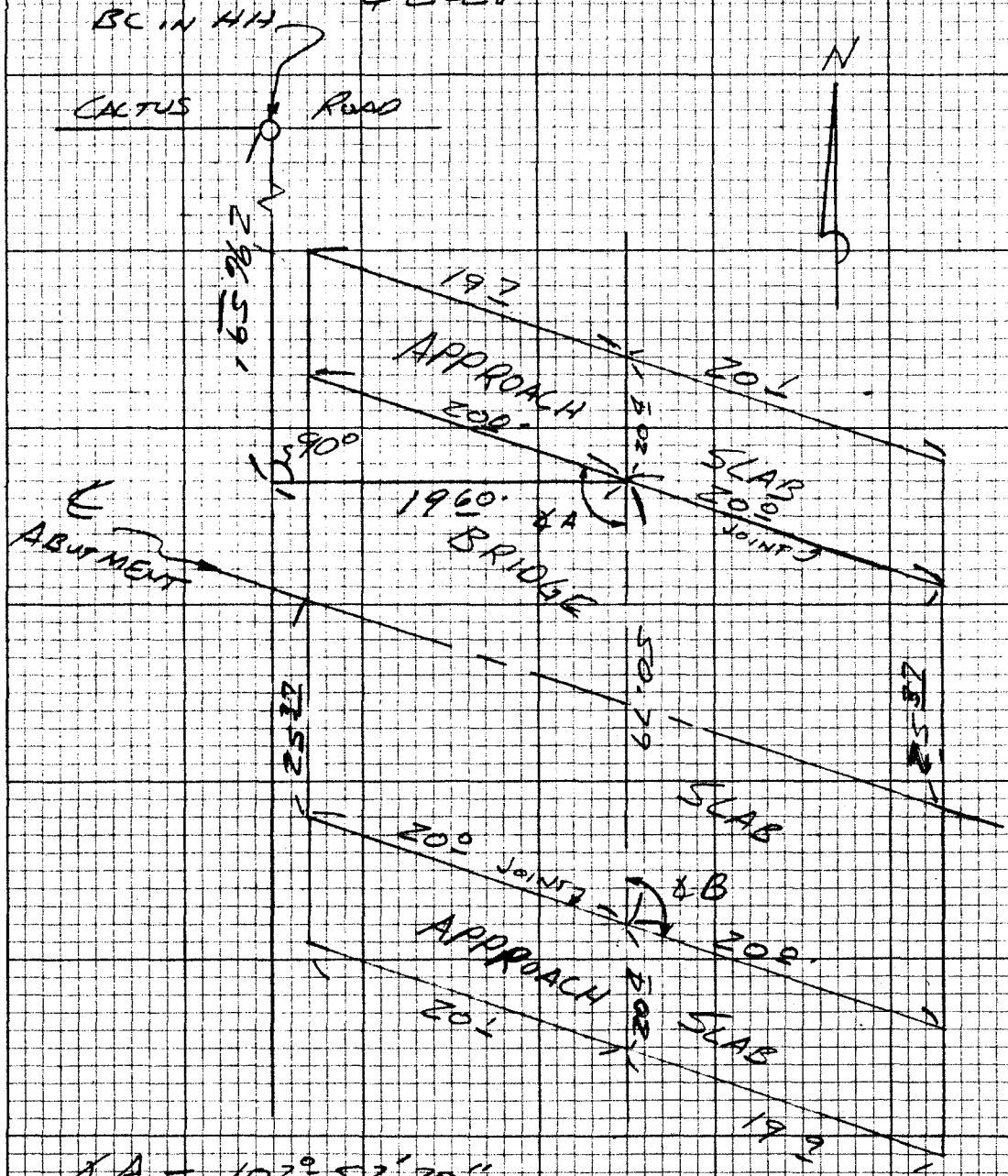
TBM - B.C. N.W. COR. BRIDGE
CACTUS & AZ CANAL
ELEV 1223.35

LENKER ROD USED



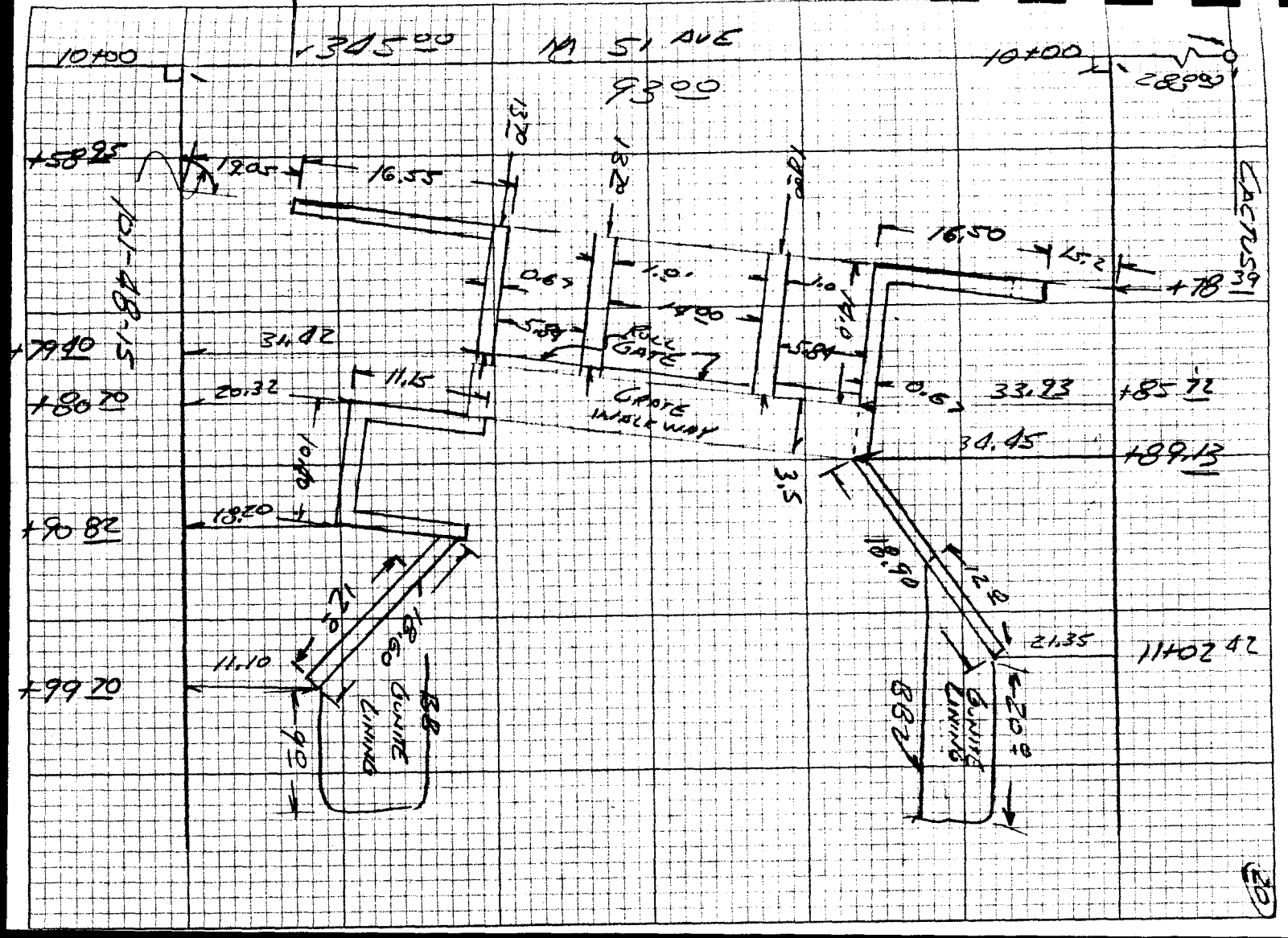

19
BERM
79
55
54
60
56
57
58 ft
59
CONC IRRG DITCH
99
98
97
48
62
61
STONE BANK
ACCESS ROAD
134
63 ft
90
TB
GUNITE
135
96
137
IRRG STR
CANAL
95
145
TB
164
163
BRIDGE
CACTUS RD
TBM
167

51ST AVE BRIDGE LOCATION & ELEV



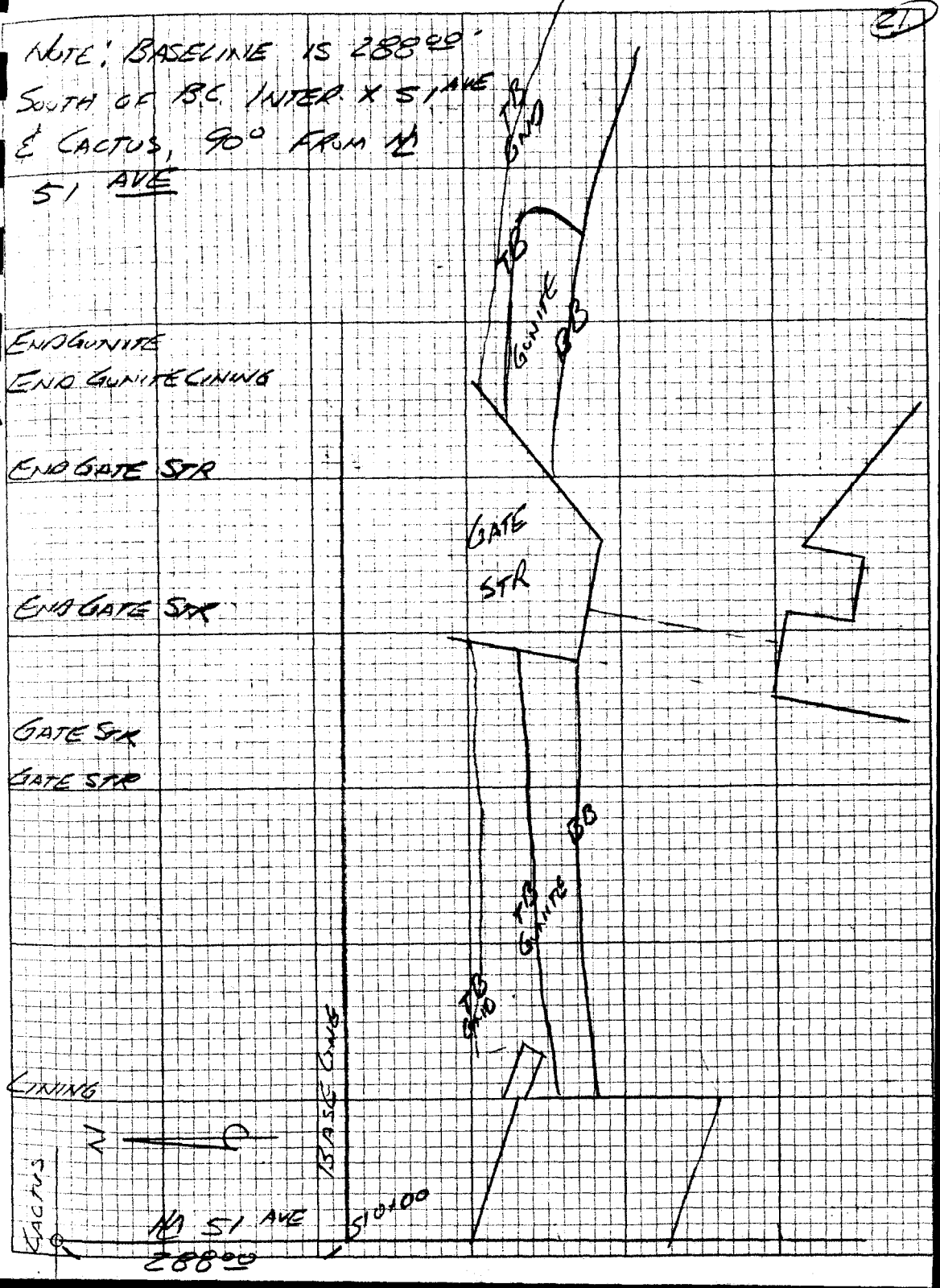
∡A – 102° 52' 30"

∡B – 103° 03' 50"



10+00
345.00
M 51 AVE
93.00
10+00
283.00
+58.95
19.05
16.55
13.70
13.20
10.00
16.50
15.2
+78.39
0.67
1.0
14.00
5.84
ROLL GATE
1.0
14.0
5.84
0.67
33.93
+85.72
+79.40
31.42
11.15
20.32
+80.70
GRATE WALKWAY
34.45
+89.13
3.5
10.40
18.20
+90.82
18.90
12.0
21.35
11+02.42
12.0
18.60
11.10
+99.70
90
BB GUNITE LINING
BB2
20.0
GUNITE LINING
CACTUS
101-48-15

NOTE: BASELINE IS 288+00'
SOUTH OF B.C. INTER. X 51 AVE
& CACTUS, 90° FROM N



51ST AVE & CACTUS [illegible]
CANAL CROSS SECTIONS

RADIAL SURVEY
TOPCON GTS-2

π @ TOPO STA A-271.89' SOUTH
OF BC in HH INTER-X 51ST AVE & CACTUS
ON MONUMENT LINE 51ST AVE

0°00' NORTH TO BC @ INTER-X, ALL ∠'S RIGHT

INST H.I. PHILLY ROD ON BM-MCHD. B.C.
S.E. COR. 51ST AVE & A2 CANAL BRIDGE
ELEV 1224.76 DIRECT - +5.00
π. H.I. ELEV 1229.27 INDIRECT +5.02
PRISM H.I. 5.0 UNLESS NOTED

8-16-83
A. AERNI
L. WERTH
D. BURTON

(CONT)

CANAL X-SEC EAST OF 51 AVE
℄ NORTH OF CANAL

1' ABOVE GND
CONC STR

GATE STR
GATE STR
GATE STR

RD.
EXTENDS 1' ABOVE GND

CONC STR

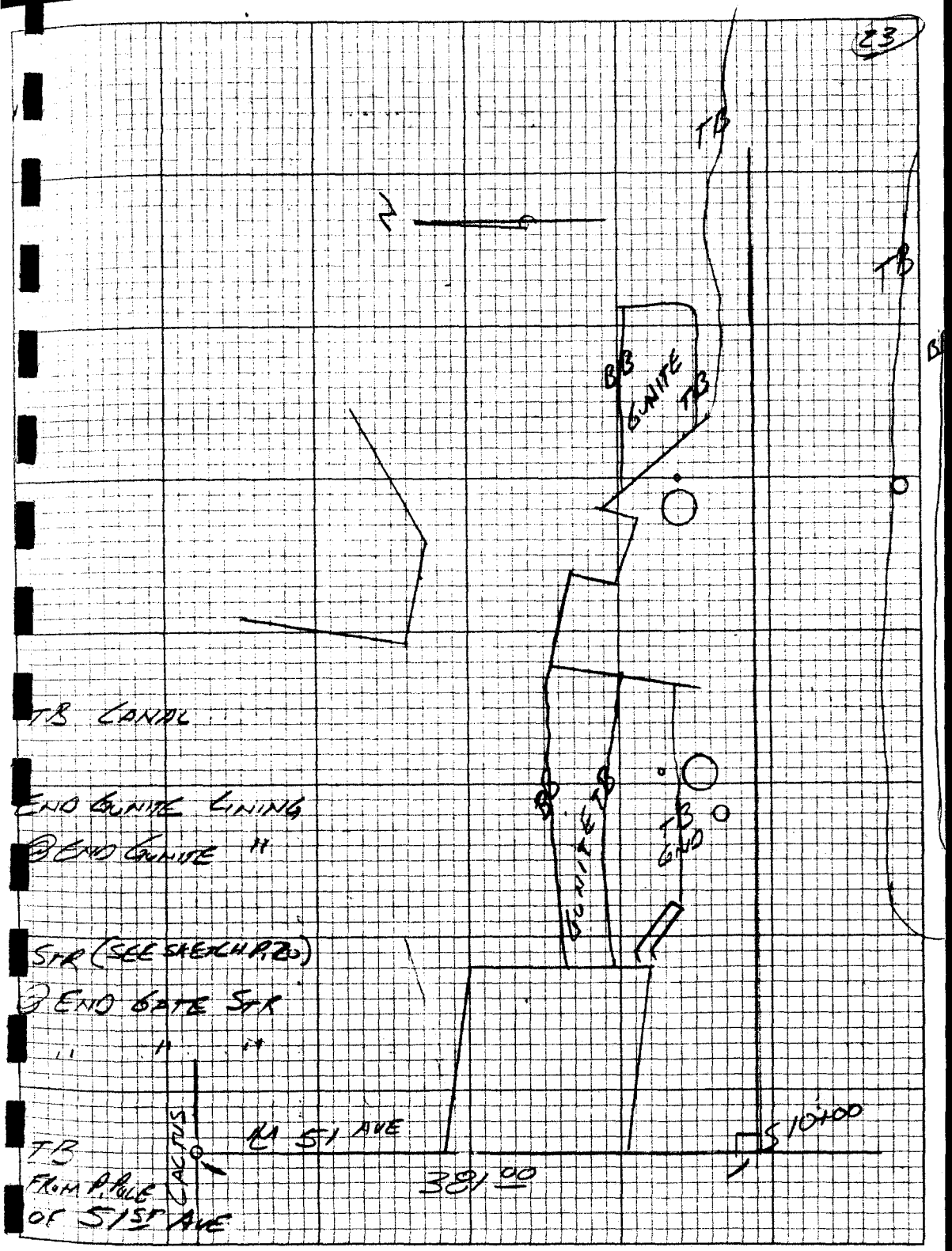
END ABUT.

EAST EDGE BRIDGE

PHI = PRISM HI = 5° UNLESS NOTED

#	HORZ ∡	VERT ∡	HORZ D	DIFF EL	ELEV
1	126-53-10	90-53-30	49 91	-0 37	24 00
2	130-09-50	90-07-48	51 60	-1 05 (PHI:7°)	~~23 72~~ 21 22
3	118-11-10	92-05-48	81 83	-2 99	21 78
4	121-27-00	93-13-42	84 47	-4 76 (PHI:8°)	12 76
5	114-23-25	91-28-30	82 33	-2 12	22 65
6	110-21-30	91-13-42	109 90	-2 36	22 41
7	111-34-10	92-21-12	110 13	-4 53	20 24
8	108-48-20	91-05-48	128 20	-2 45	22 32
9	107-40-50	90-55-15	127 15	-2 04	22 73
10	110°-18-00	92-04-25	127 38	-4 61	20 16
11	106-37-50	90-52-30	137 35	-2 10	22 67
12	108-12-15	91-54-15	139 03	-4 62	20 15
13	91-07-40	91-06-00	142 20	-2 74	22 03
14	81-26-50	92-43-00	160 24	-7 60 (P-8°)	14 17
15	104-42-20	90-35-54	227 90	-2 38	22 37
16	105-30-30	91-09-40	228 80	-4 64	20 16
17	96-01-50	90-09-36	230 40	-0 64 (P.7°)	22 13
18	88-22-20	92-05-42	238 12	-8 22 (P.7°)	14 05
19	103-43-30	90-23-06	313 28	-2 10	22 67
20	104-17-50	90-51-09	313 75	-4 67	20 10
21	96-38-30	90-30-00	312 20	-2 23	22 04
22	92-00-40	91-56-30	315 25	10 7	14 07
23	153-27-00	90-30-00	88 20	-0 37	24 00
24	152-51-40	90-54-00	87 47	-1 37 (P.7°)	21 40
25	142-34-30	90-57-48	104 49	-1 76 (P.6°)	22 01
26	134-54-40	90-37-54	141 14	-1 56	23 21
27	134-08-20	91-02-36	139 25	-2 54	22 23
28	133-32-00	91-27-18	137 32	-3 48 (P.6°)	20 29
29	132-10-20	90-59-50	146 63	-2 55	22 22
30	133-25-20	90-35-06	148 12	-1 51	23 26

(CONTINUED)

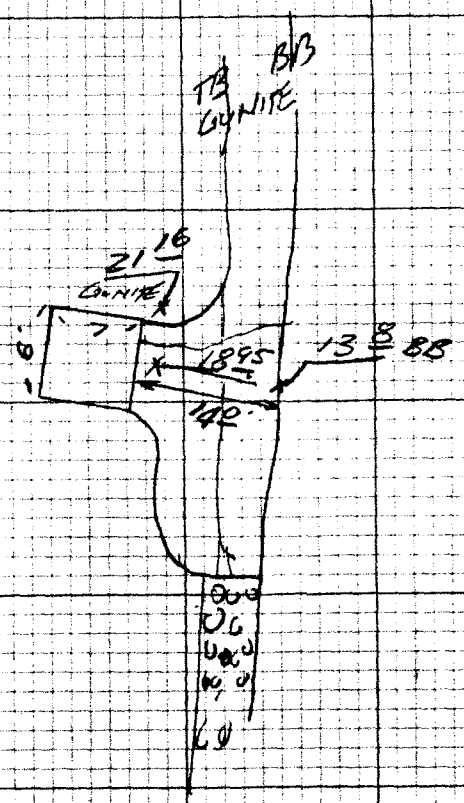

23
TB
TB
BB
GUNITE
TB
TB CANAL
END GUNITE LINING
@ END GUNITE "
STR (SEE SKETCH P.20)
@ END GATE STR
" " "
BB
GUNITE
TB
TB
GND
CACTUS
TB
FROM P. POLE
OF 51ST AVE
℄ 51 AVE
381.00
S 10+00

(CONT)

#	HORZ ∡	VERT ∡	HORZ D	DIFF EL	ELEV
31	130-17-10	90-29-54	163 77	-1 42	23 35
32	129-07-40	91-35-30	162 38	-4 51	20 26
33	134-40-30	90-26-00	174 74	-1 32	23 85
34	136-48-30	91-43-30	181 40	-5 46	19 31
35	120-18-00	90-15-00	241 10	-1 05	23 22
36	119-33-10	91-06-42	239 52	-4 65	20 12
37	124-01-10	90-15-30	247 26	-1 11	23 66
38	126-11-20	91-18-50	252 05	-5 78	18 99
39	115-14-30	90-11-18	325 34	-1 07	23 70
40	114-44-20	90-48-33	323 26	-4 57	20 20
41	118-04-10	90-13-15	329 67	-1 26	24 51
42	120-50-30	90-55-24	332 50	-5 36	19 41
43	141-18-00	90-56-36	158 86	-2 62	22 15
44	146-31-20	90-40-18	102 67	-1 20	23 57
45	180-15-00	90-49-54	70 99	-1 02	23 75
46	180-15-00	93-07-18	68 72	-3 25 (P-4 25)	21 27
47	223-56-50	92-08-54	86 20	-3 23 (P-4 25)	21 79
48	224-50-30	92-31-24	83 76	-3 69	21 08

(CONT NEXT P.)

E4



WATERLINE

CONC IRRG STR

" "

CONC IRRG STR

END STONE LINING

LINING

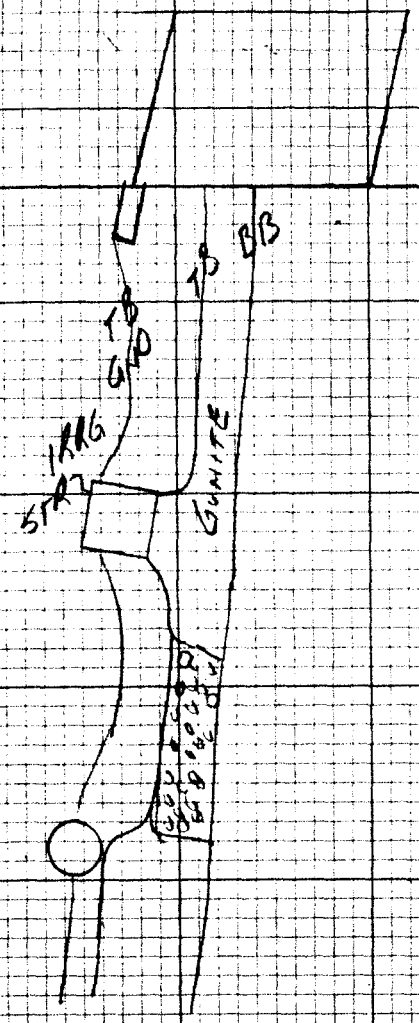
GUNITE LINING

IRRG STR (FULL OF DIRT)

(CONT)

#	HORZ ∡	VERT ∡	HORZ D.	DIFF EL	ELEV
49	225-54-50	94-48-24	79 30	-6 68	18 09
50	226-47-20	93-50-24	82 50	-5 54	19 23
51	242-27-10	91-38-40	116 97	-3 30	21 41
52	243-49-20	93-15-00	108 64	-6 17	18 60
53	203-19-40	92-13-06	102 16	-3 96	20 81
54	222-43-50	92-19-27	131 26	-5 35	19 42
55	222-51-20	92-18-36	136 27	-5 52	19 25
56	223-36-00	91-56-30	129 03	-4 37	20 40
57	226-35-40	92-23-42	128 01	-5 35	19 42
58	226-31-40	93-52-48	128 63	-8 22	16 05
59	227-38-20	92-18-27	134 40	-5 43	19 35
60	225-35-40	92-12-54	135 20	-5 22	19 55
61	248-54-40	91-24-48	133 26	-3 29	21 48
62	250-27-40	92-00-36	132 04	-4 63	20 14
63	239-28-20	96-06-00	93 31	-9 97	14 80
64	239-19-00	94-46-40	93 24	-9 29	16 98
65	234-05-20	91-46-12	135 20	-4 19	20 58
66	233-29-20	93-24-00	144 25	-8 60	16 17
67	231-40-40	91-49-48	150 42	-4 81	19 96

(CONT NEXT P)



EDGE BRIDGE

END

CONT

#	HORZ ∡	VERT ∡	HORZ D	DIFF EL	ELEV
68	231-09-10	92-31-30	161 14	-7 11 (R6°)	16 66
69	230-27-00	91-26-21	168 60	-4 24 (R6°)	19 53
~~70~~					
~~71~~					
~~72~~					
~~73~~					
~~74~~					

T @ TOPO STA (B), BS. 0°00' TO TOPO STA. (A)

H.I. PHILLY ROD TOP T.B.M. - BC N.W. COR. BRIDGE CACTUS & AZ CANAL ELEV. 1223 35

DIRECT +3 97 MEAN +4 00

INDIRECT +4 02

H.I = 1227 35

PRISM H.I 5° UNLESS NOTED (P-5°)

70	28-32-20	90-16-54	272 90	-1 34	21 01
71	18-46-20	90-15-45	367 50	-1 48	20 67
72	27-41-50	90-53-12	269 40	-4 16	18 19
73	32-12-10	90-24-43	290 79	-2 09	20 26
74	32-56-30	91-04-20	295 89	-5 54	16 81
75	33-43-40	90-38-00	300 26	-3 32	19 03
76	35-01-10	91-09-45	308 02	-6 25	16 10
77	36-37-10	90-16-36	319 00	-1 54	20 91
78	40-07-40	90-51-24	339 15	-5 07 (P-8°)	14 28
79	49-49-40	90-11-36	279 02	-0 94	21 41
80	52-03-20	90-15-12	348 80	-1 54	20 81

(CONT. NEXT PAGE)

EG. STONE & MORTAR LINING

BEGIN 4' DITCH

2.9' DEEP

IRR. DITCH

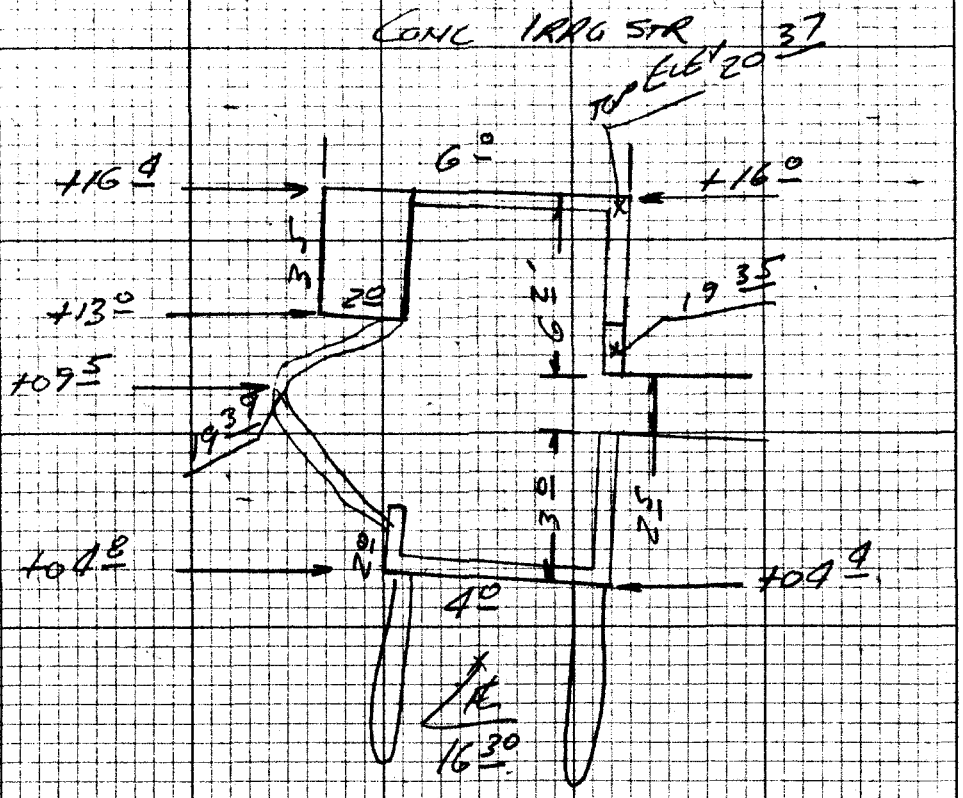
CONT

#	HORZ ∡	VERT ∡	HORZ ∅	DIFF EL	ELEV
81	54-51-00	91-03-06	348.36	-6.39	15.96
82	46-00-20	90-59-45	366.55	-6.37 (P.82)	12.98
83	54-05-30	91-15-54	262.26	-5.79	16.56
84	53-25-50	91-07-54	254.93	-5.02	17.33
85	53-12-10	91-30-48	251.85	-6.65	15.70
86	52-00-40	90-48-27	241.61	-3.40	18.95
87	51-33-30	91-25-30	236.29	-5.88	16.47
88	50-28-50	90-31-00	230.97	-2.08	20.27
89	45-55-00	90-27-57	205.69	-1.62	20.68
90	40-09-40	90-40-27	216.68	-2.55	19.80
91	39-50-50	91-07-48	215.08	-4.24	18.11
92	41-28-10	90-21-51	218.40	-1.39	20.96
93	47-29-00	90-43-07	252.94	-3.17	19.18
94	53-26-00	90-28-33	204.91	-1.70	20.65
95	73-42-10	90-27-47	162.43	-1.31	21.04
96	74-39-10	90-34-33	184.57	-1.86	20.49
97	75-14-50	91-45-54	192.75	-5.94	16.41
98	76-00-00	90-58-30	196.73	-3.35	19.00

(CONT NEXT PG)

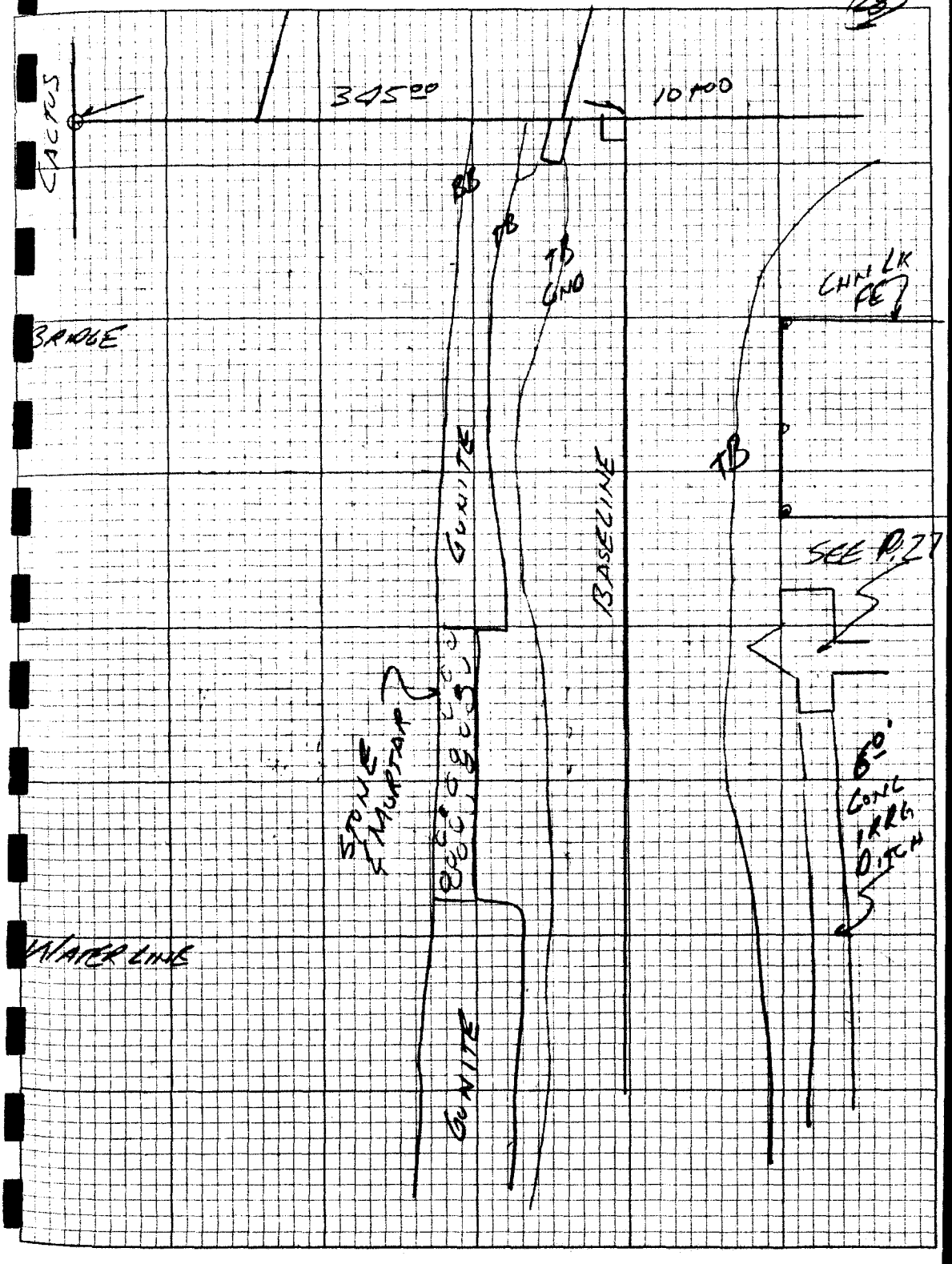
END STONE LINING

BEGIN GUNITE LINING



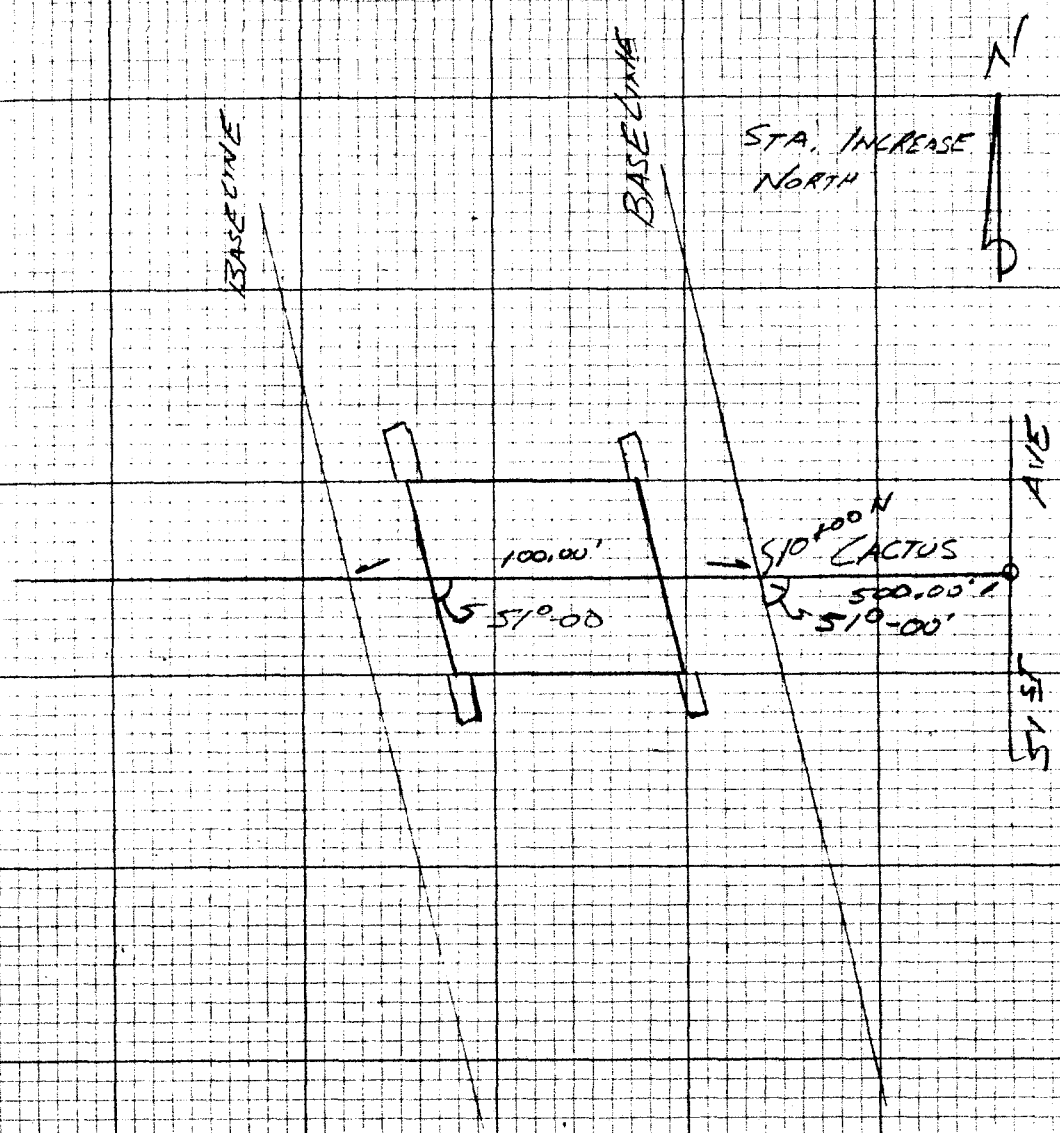
CONT

#	HORZ ∡	VERT ∡	HORZ O.	DIFF EL	ELEV
99	76-15-00	91-56-11	208 64	-7 05	15 30
100	76-17-00	91-27-13	211 03	-5 35	17 00
101	77-45-50	91-30-30	231 26	-6 10	16 25
102	94-29-20	90-59-57	199 55	-3 31	19 04
* ~~103~~	NOTE: NEW INST HEIGHT = 1227 24 B.S. - SAME				
103	107-30-30	90-25-42	155 04	-1 16	21 08
~~104~~ 104	106-24-10	90-43-44	182 85	-2 33	19 91
105	106-09-00	91-46-15	188 91	-5 82	16 42
106	106-01-20	90-59-18	192 20	-3 32	18 92
107	105-51-40	92-05-39	205 20	-7 52	14 72
108	105-34-00	91-39-03	207 80	-5 99	16 25
109	105-05-00	91-51-18	219 03	-7 09	15 15
110	136-48-10	90-30-45	190 75	-1 71	20 53
111	132-49-50	90-41-15	215 25	-2 58	19 66
112	132-20-40	91-34-00	221 40	-6 05	16 19
113	131-50-00	90-50-24	225 60	-3 31	18 93
114	130-41-40	91-49-06	236 44	-7 51	14 73
115	130-29-50	91-26-42	238 90	-6 02	16 22
116	129-05-30	91-39-00	251 80	-7 25	14 99
117	152-15-20	90-07-21	236 50	-0 51	21 73


CACTUS
345°°
10+00
BB
TB
TB
GND
CHN LK
FE
BRIDGE
GUNITE
BASELINE
TB
SEE P.27
STONE
& MORTAR
6°
CONC
IRRG
DITCH
WATER LINE
GUNITE

CONT

#	HORZ ∡	VERT ∡	HORZ D	DIFF E	ELEV
118	147-45-10	90-21-09	253 18	-1 56	20 69
119	146-22-20	90-09-06	258 62	-0 68 (P.7°)	19 56
120	144-26-00	91-18-15	270 85	-6 17	16 07
121	142-25-50	91-22-45	294 68	-7 09	15 15
122	146-25-30	90-08-39	263 55	-0 60 (P.8°)	18 58
123	02-10-10	89-42-21	396 90	+2 04	24 28
124	359-01-30	89-47-06	391 19	+1 43	23 67
125	353-10-30	90-00-49	253 60	-0 08	22 16
126	03-11-10	90-03-50	403 04	-0 45	21 79
127	05-14-00	90-03-36	375 56	-0 39	21 85
128	05-11-30	90-09-33	364 18	-1 01	21 23
129	05-15-00	90-30-30	361 31	-3 20	19 04
130	06-45-50	90-31-45	350 55	-3 44	18 80
131	04-59-30	90-01-51	363 74	-0 19	22 05
132	04-06-00	90-00-49	360 78	-0 08	22 16
133	04-52-20	90-00-20	346 06	-0 03	22 21
134	09-27-10	90-34-51	323 28	-3 28	18 96

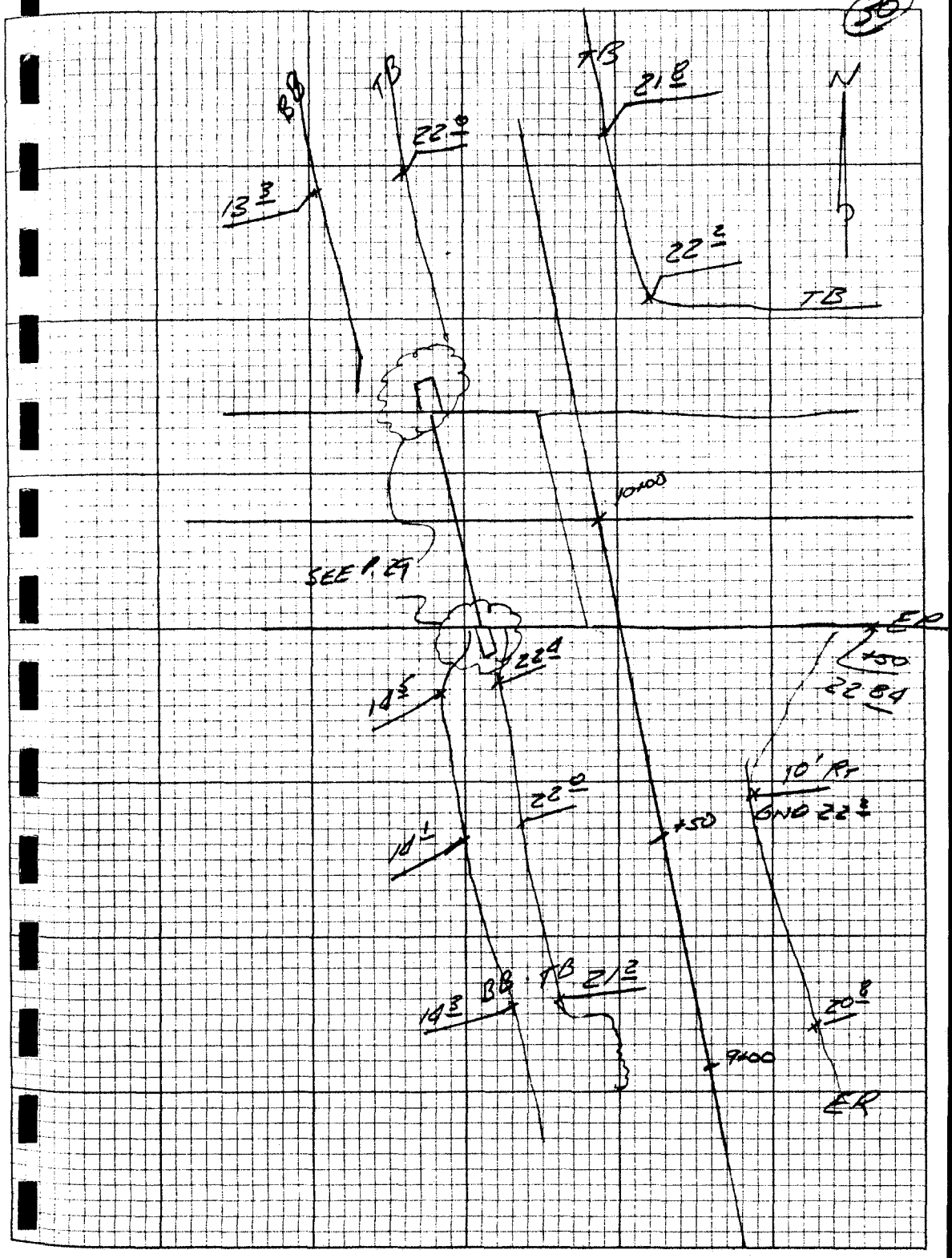

N
STA. INCREASE
NORTH
BASELINE
BASELINE
AVE
100.00'
51°-00
510+00 N
CACTUS
500.00'
51°-00'
51 ST

CONT

NOTE: NEW H.I. TBM NW COR BRIDGE CACTUS RD.
EL. 1223 35 DIRECT +3 79 MEAN 3 83
INDIRECT +3 88
HI = 27 18 BS. SAME

#	HORZ ∡	VERT ∡	HORZ D.	DIFF EL	ELEV
135	09-12-50	90-17-27	319 28	-1 62	20 56
136	08-07-10	89-59-00	317 40	+0 09	22 09
137	03-43-50	90-04-00	314 15	-0 37	21 81
138	05-19-30	90-03-15	309 86	-0 29	21 89
139	358-50-20	90-07-27	291 20	-0 63	21 55
140	10-22-00	90-45-15	314 45	-1 14	18 04
141	17-11-50	89-56-45	232 88	+0 22	22 10
142	17-56-40	90-32-45	235 27	-2 24 -2 24	19 94
143	14-01-40	90-03-24	223 52	-0 22	21 96
144	358-42-50	90-17-27	200 82	-1 06	21 12
145	30-34-00	90-36-57	176 55	-1 90	20 28
146	31-24-40	91-18-20	176 95	-1 03	18 15
147	29-33-20	90-07-57	174 80	-0 04	22 14
148	34-10-40	90-12-51	163 90	-0 61	21 57
149	28-28-40	90-25-24	146 98	-1 09	21 09
150	354-00-50	90-24-30	119 50	-0 95	21 35

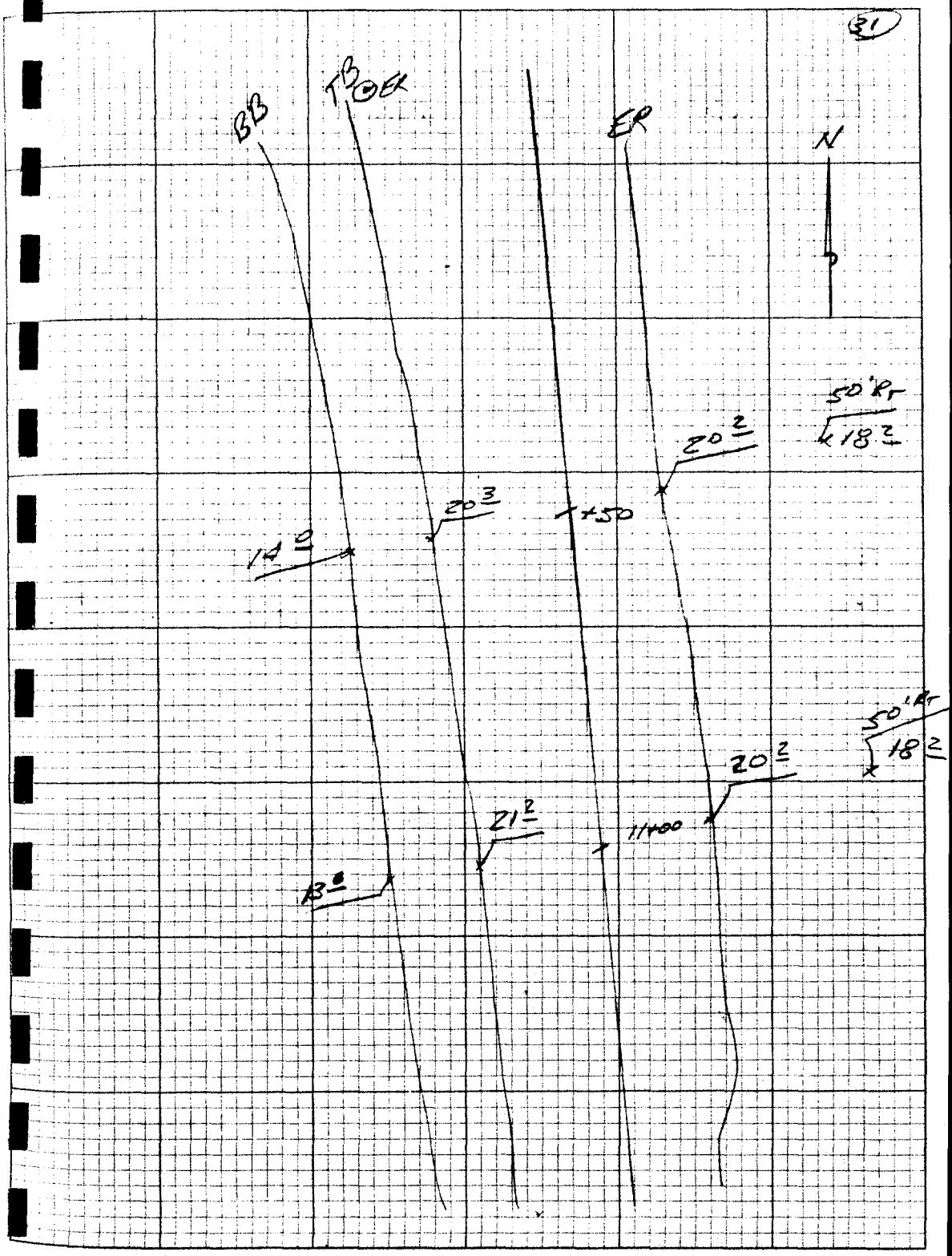
(CONT NEXT P.)


30
N
BB
TB
TB
21 8
22 0
13 3
22 2
TB
10+00
SEE P. 29
ER
+50
22 84
22 4
14 5
10' RT
GND 22 2
22 0
+50
14 1
14 3
BB
TB
21 2
20 8
9+00
ER

CONT

#	HORZ ∡	VERT ∡	HORZ D.	DIFF EL.	ELEV
151	39-06-00	90-27-48	141 82	-1 15	21 03
152	60-03-40	90-26-06	112 06	-0 85	21 33
153	55-52-20	90-44-30	96 83	-1 25	20 93
154	69-29-50	90-46-48	78 71	-1 07	21 11
155	354-07-00	89-58-30	41 34	+0 02	22 16
156	111-56-00	90-46-12	98 41	-1 32	20 86
157	113-35-30	90-56-09	85 60	-1 40	20 78
158	148-28-20	90-09-00	145 02	-0 38	21 80
159	150-01-20	90-21-12	126 88	-0 78	21 40
160	169-18-40	89-39-24	117 16	+0 70	22 88
161	149-59-30	91-41-57	31 89	-0 15	22 03
162	163-02-40	90-27-36	279 79	-2 25 (P-7 0)	17 93
163	156-07-00	89-54-30	243 48	+0 39	22 57
164	159-09-50	89-52-57	184 30	+0 38	22 56
165	167-01-20	89-55-21	222 66	+0 30	22 44
166	162-44-20	89-56-21	279 ~~80~~ 90	+0 30	22 44
167	163-27-10	90-~~22-24~~ .04-12	~~321~~ 291 78	-0 36	21 82
168	167-21-10	90-22-24	321 97	-2 10	20 08
169	167-23-30	90-15-42	324 00	-1 48	20 70

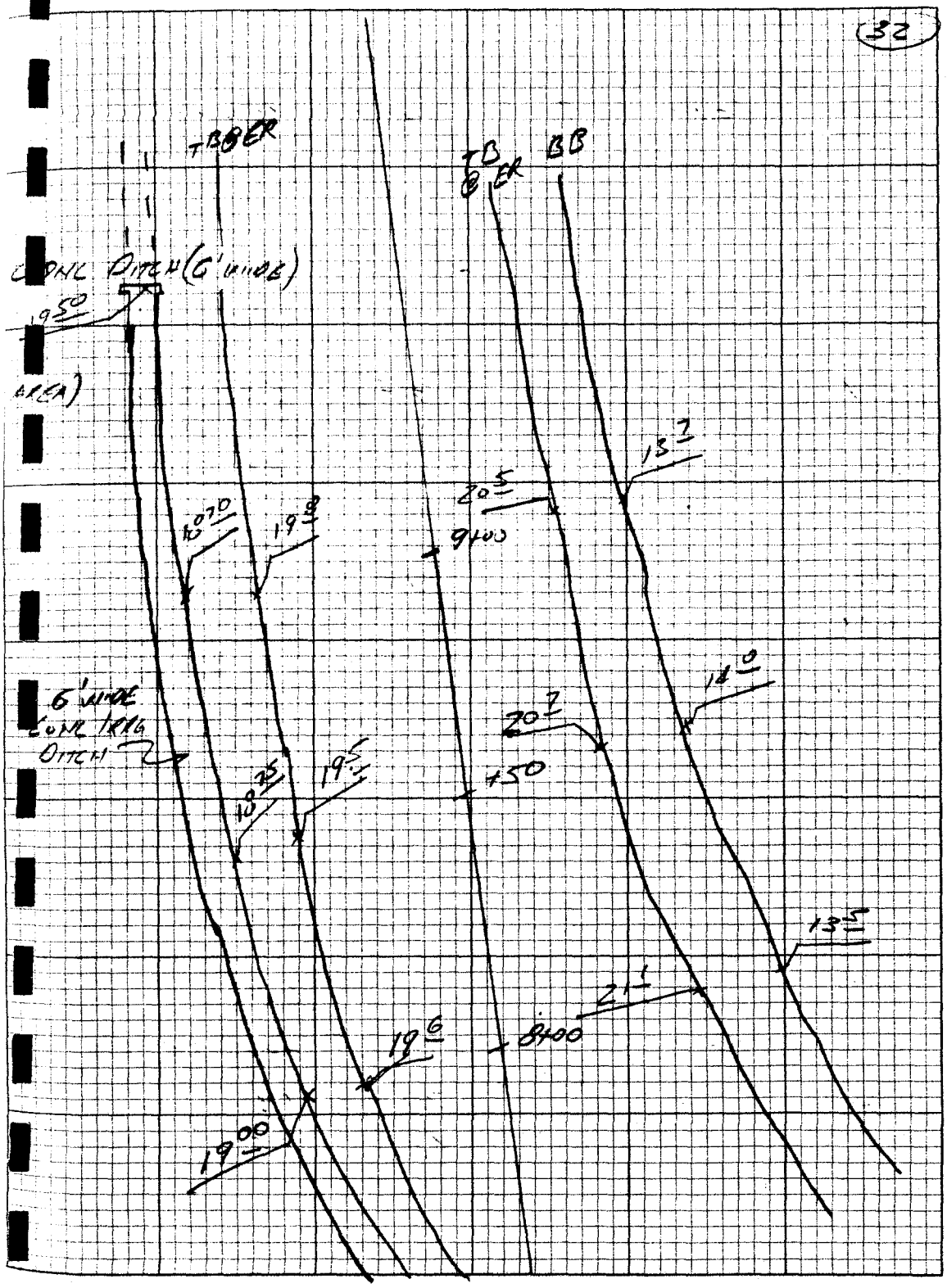
(CONT [illegible])


31
BB
TB
ER
N
50' RT
18 2
20 2
20 3
+50
14 0
50' RT
18 2
20 2
21 2
11+00
13 0

CONT

#	HORZ ∡	VERT ∡	HORZ D.	DIFFEL	ELEV
170	165-15-20	90-19-06	330 70	-1 84	
171	164-47-40	90-25-24	348 45	-2 57 (P-6°)	
172	164-47-40	90-22-00	377 07	-2 41	
173	174-00-50	90-17-50	401 96	-2 08	
174	173-49-50	90-15-54	402 60	-1 86	
175	172-10-20	90-23-39	411 41	-2 83	
176	168-39-20	90-36-48	424 50	-4 54	
177	168-20-30	90-30-57	427 04	-3 84	
178	167-56-10	90-50-51	430 79	-6 37	
179	167-40-50	90-~~14-45~~ 38-03	435 15 ~~483 16~~	-4 81 ~~-2 07~~	
180	178-07-40	90-14-45	483 16	-2 07	
181	178-00-50	90-12-12	484 65	-1 72	
182	176-31-20	90-18-09	489 57	-2 58	
183	173-12-10	90-32-06	498 54	-4 65	
184	172-57-10	90-27-24	499 97	-3 98	
185	172-33-50	90-45-27	503 14	-6 65	
186	172-13-40	90-35-03	505 05	-5 14	
187	176-35-20	90-17-24	302 54	-1 53	

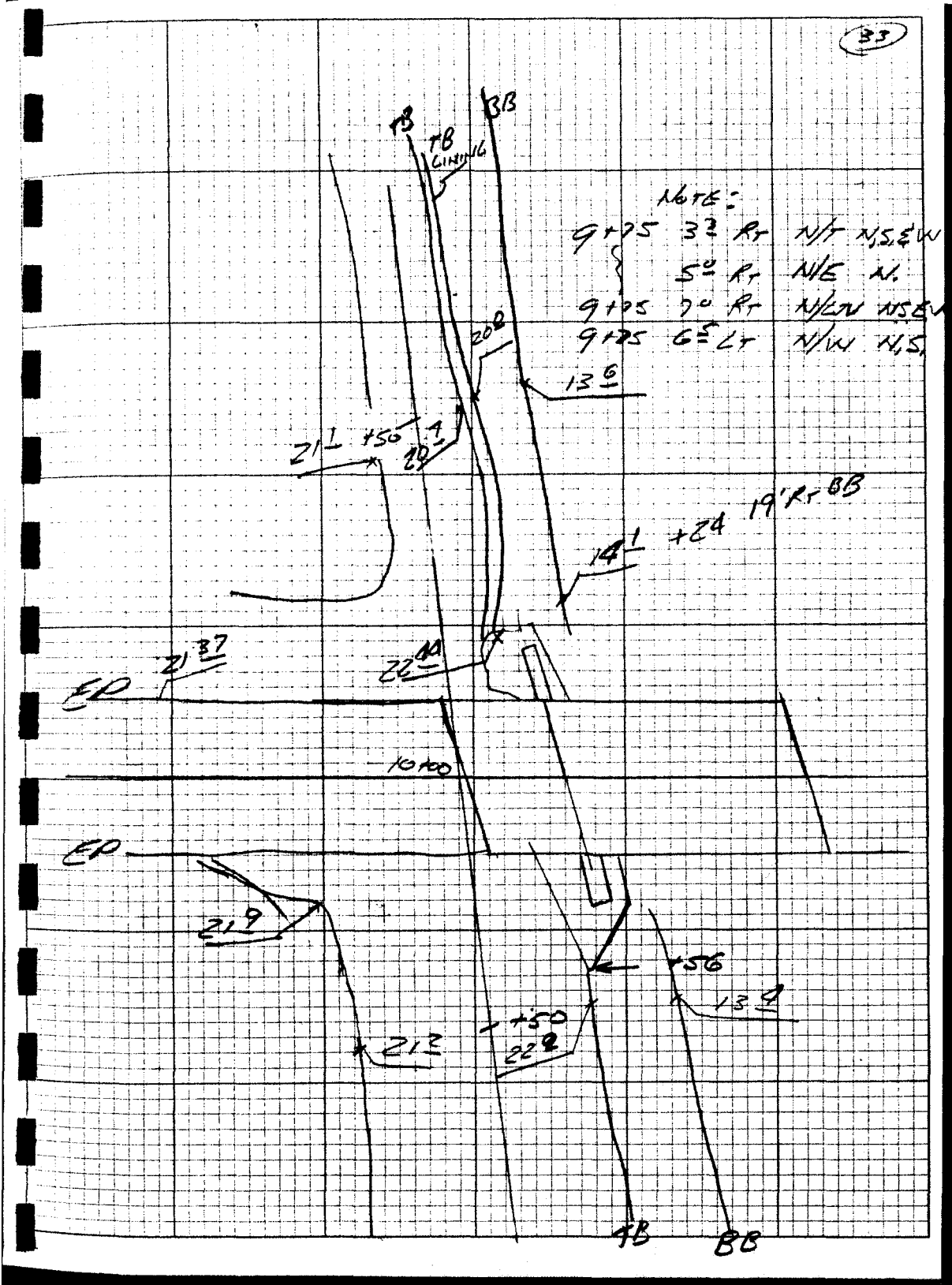
(CONT NEXT P.)

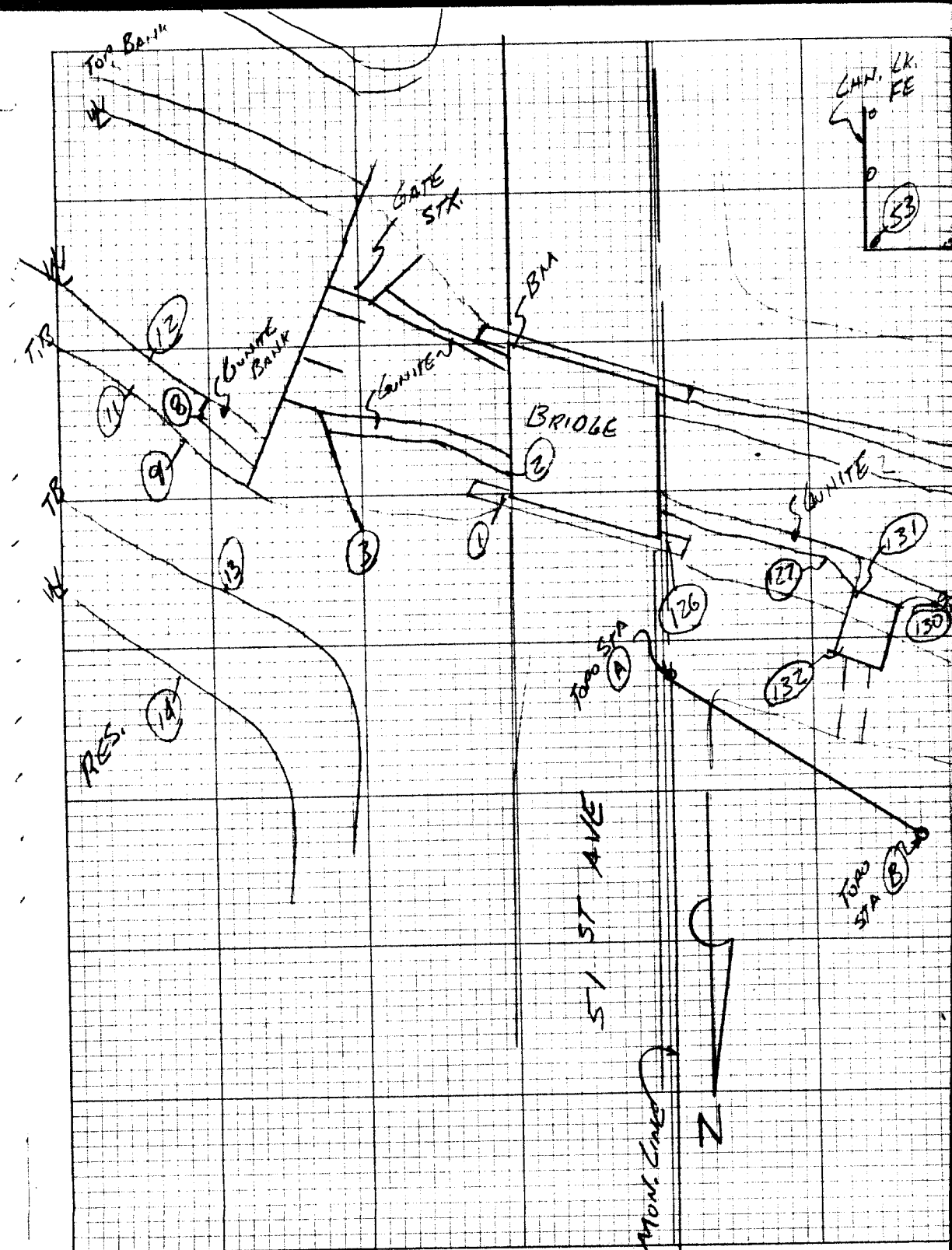

32
TB@ER
TB @ ER
BB
CONC DITCH (6' WIDE)
19.50
AREA)
13.7
20.5
9+00
18.70
19.8
6' WIDE
CONC TRAG
DITCH
14.0
20.7
+50
18.75
19.5
13.5
21.1
8+00
19.6
19.00

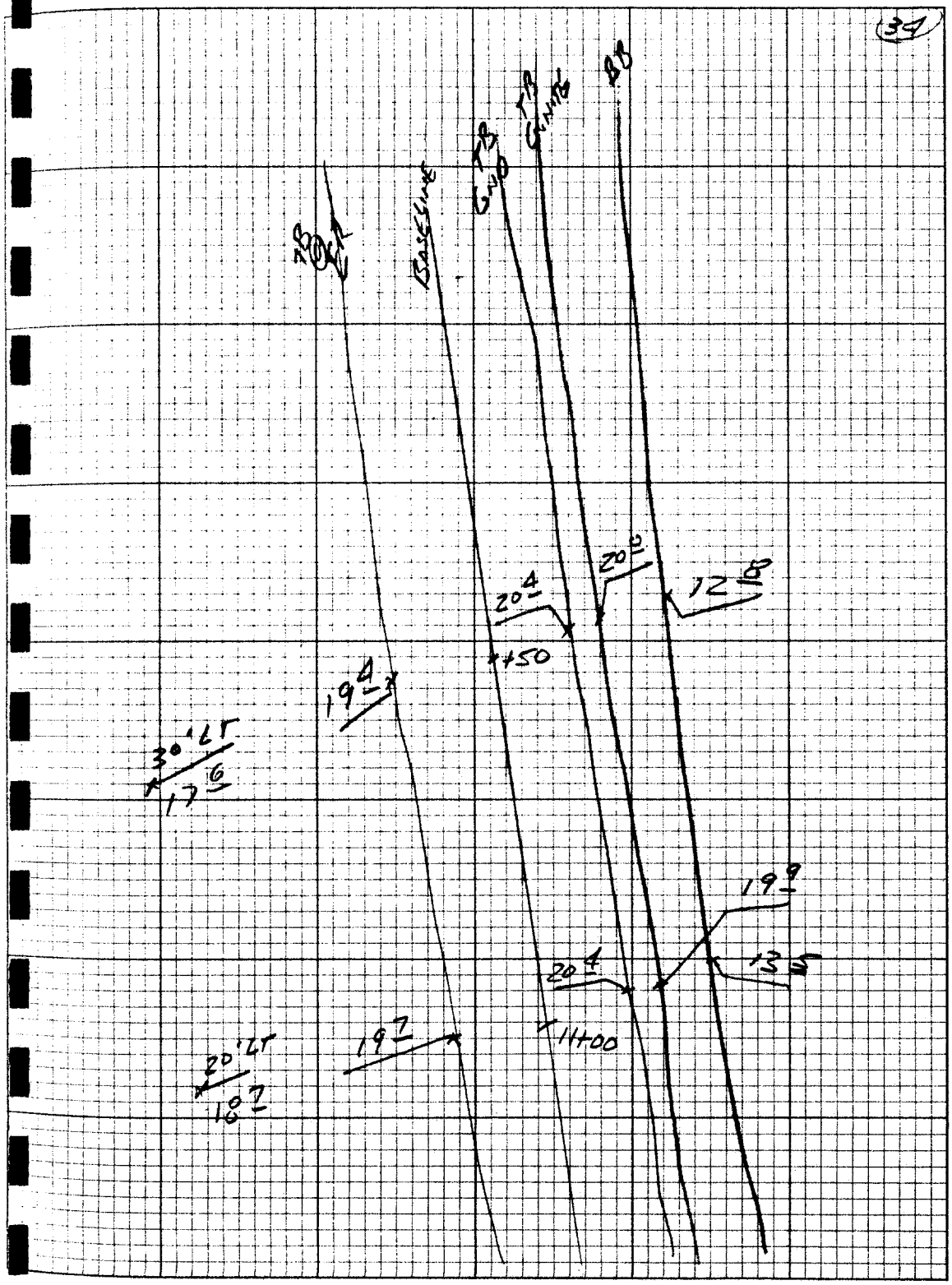
CONT

#	HORZ ∡	VERT ∡	HORZ D.	DIFF EL	ELEV
188	179-13-10	90-21-08	297 28	-1 82	
189	191-37-20	91-17-15	288 00	-6 47	
190	181-32-10	90-13-45	385 67	-1 54	
191	183-42-30	90-17-06	383 20	-1 91	
192	191-40-30	91-00-27	371 67	-6 53	
193	184-39-20	90-11-48	469 27	-1 61	
194	186-21-20	90-12-57	465 53	-1 75	
195	192-42-00	90-49-15	460 04	-6 59	

SEE SKETCH NEXT PAGE


33
NOTE:
9+75 3° Rt N/T N,S,&W
5° Rt N/E N.
9+75 7° Rt N/CW N,S,&W
9+75 6° Lt N/W N,S,
TB
TB LINING
BB
20.8
13.6
21.1 +50
20.4
14.1 +24 19' Rt BB
22.44
21.37
EP
10+00
EP
21.9
+56
13.4
+50
22.2
21.2
TB
BB


TOP BANK
GATE STK.
BM
CHN. LK. FE
53
T.B
12
11
8
9
GUNITE BANK
GUNITE
BRIDGE
2
1
3
TB
13
14
RES.
GUNITE
131
127
126
130
132
TORO STA A
TORO STA B
51 ST AVE
MON. LINE
N


BASELINE
TB GND
TB GUNITE
BB
20.4
20.0
12.8
+50
19.4
30' LT
17.6
19.9
13.5
20.4
11+00
19.7
20' LT
18.7

ADD'L INFO CANAL CROSS-X

A. AERNI
L. WERTH
D. BURTON

GATE STR. LOCATION

BASELINE WEST

CANAL SECTIONS EAST OF 51 AVE & SO. OF CANAL

LEVEL ROD USED

STA	LEFT	℄	RIGHT	ELEV	DESCRIPTION
12+00			36.8	22.0	TB GND
+50			27.4	22.2	TB GND
+23.5			28.1	23.3	TB GND
+21.5			33.8	14.3	BB GUNITE @
+21.5			25.8	22.5	TB GUNITE @
+03			19.8	23.4	TB GND
11+02			22.1	22.45	TB GUNITE @
+93.8			29.7	12.0	BB GUNITE @
+73.3			31.0	11.9	BB GUNITE @
+73.3			22.9	21.22	TB GUNITE @ BEG.
+60			20.8	21.81	TB GUNITE
+44			13.7	23.3	GND @ END ABUT
+44			14.7	23.90	TOP ℄ ABUT @ END
+39			25.4	13.4	BOT. BANK CANAL
+39			17.5	21.75	TOP BANK GUNITE
+39			13.5	23.98	TOP ℄ ABUT @ EAST EDGE BRIDGE
10+00					℄ 51ST AVE

WIDE (S & E)

(N & W)

CONT NEXT PAGE

STA	LEFT	℄	RIGHT	ELEV	DISCRIPTION
+94	17.7				3" OD PIPE EXTEND
+92	17.7				℄ 2.5' DIA ROUND
+64	34.8			11.9	BB CANAL @
+63	26.5			21.93	TB GUNITE @
+63	23.5			23.3	TB GND @
+58			20.0	17.9	BB @ FE. LINE
+58			9.0	22.5	TB CANAL ACCESS
+58	26.4				3" O.S. DIA PIPE
+58	24.3				℄ 2.6' DIA. ROUND
+55	23.7				POINTER POLE
+47	30.6			21.7	TB GUNITE
+47	25.9			23.5	TB GND
+42.5	28.2			23.97	TOP ℄ ABUT. @
+39	40.0			13.7	BB GUNITE
+39	31.9			21.64	TB GUNITE
+39	30.0			23.97	TOP ℄ ABUT @
10+00					