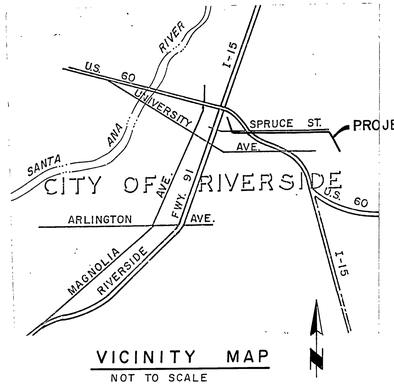
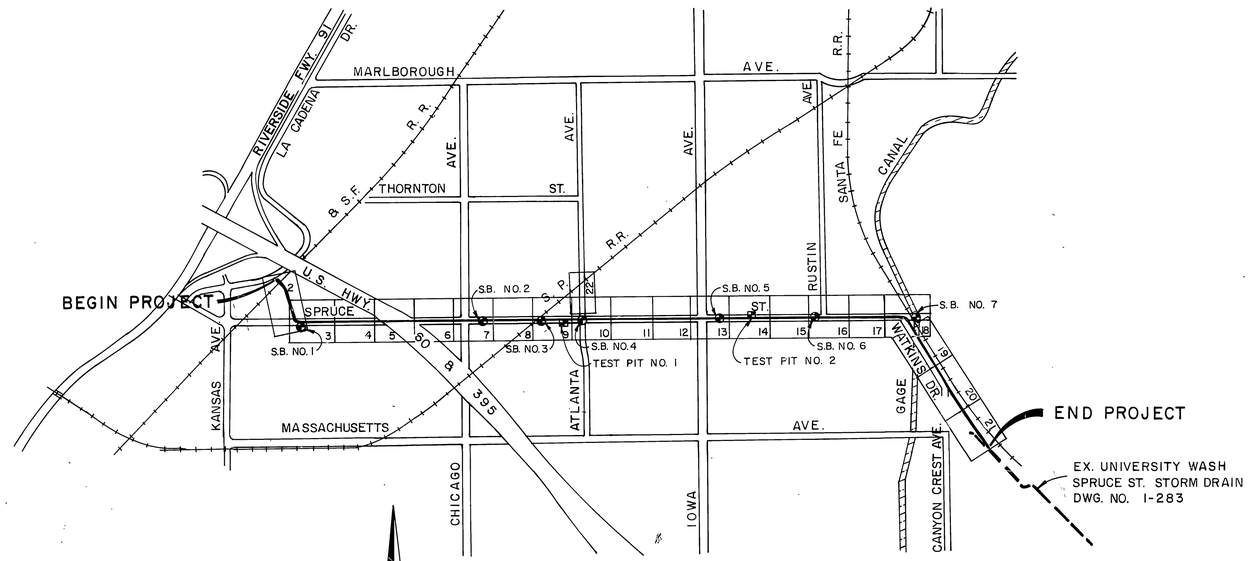
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT



VICINITY MAP
NOT TO SCALE



LOCATION MAP
800' 0 800'

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CITY OF RIVERSIDE STANDARD DRAWINGS

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GENERAL NOTES

1. TOPOGRAPHIC FEATURES, BOTH CONTOURS AND CULTURE ARE BASED UPON RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT PHOTOGRAMMETRY DATED 3-14-76.
2. ALL ELEVATIONS SHOWN ARE IN FEET, BASED ON USC & GS DATUM.
3. SOIL TEST BORINGS FOR THIS PROJECT WERE DONE ON 8-1-78.
4. TIES TO CATCH BASINS ARE FROM THE CURB RETURN TO THE CENTERLINE OF THE CATCH BASIN UNLESS OTHERWISE SHOWN. WHERE NO TIE IS SHOWN, LOCAL DEPRESSION SHALL BEGIN AT CURB RETURN.
5. STREET RESURFACING SHALL BE 4" A.C. ON 6" CLASS 3 AGGREGATE BASE FOR SPRUCE STREET AND 2½" A.C. ON ATLANTA ST.
6. PIPE CONNECTIONS TO MAINLINE SHALL CONFORM TO J.S. NO. 3 & J.S. NO. 4 UNLESS OTHERWISE SHOWN.
7. OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES OR SIMILAR STRUCTURES SHALL BE SEALED WITH 8" OF BRICK & MORTAR OR 6" OF CONCRETE, NOTED ON THE PLANS AS "PLUG."
8. WATER SERVICES WILL BE RELOCATED DURING CONSTRUCTION. SEE SPECIAL PROVISIONS, SECTION 5.6.
9. GAS SERVICES WILL BE RELOCATED DURING CONSTRUCTION.

CITY OF RIVERSIDE
PUBLIC UTILITIES DEPT.
ELECTRIC DIVISION

LOCATIONS OF EXISTING STREET LIGHTING AND ELECTRIC FACILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY

BEFORE EXCAVATING CALL 714-787-7381 FOR FIELD LOCATION AND CONFIRMATION OF FACILITIES

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

AS BUILT

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S.L.M.
DATE DRAWN: 9-77
CHECKED BY: N.L.S.

APPROVED BY: Kenneth F. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

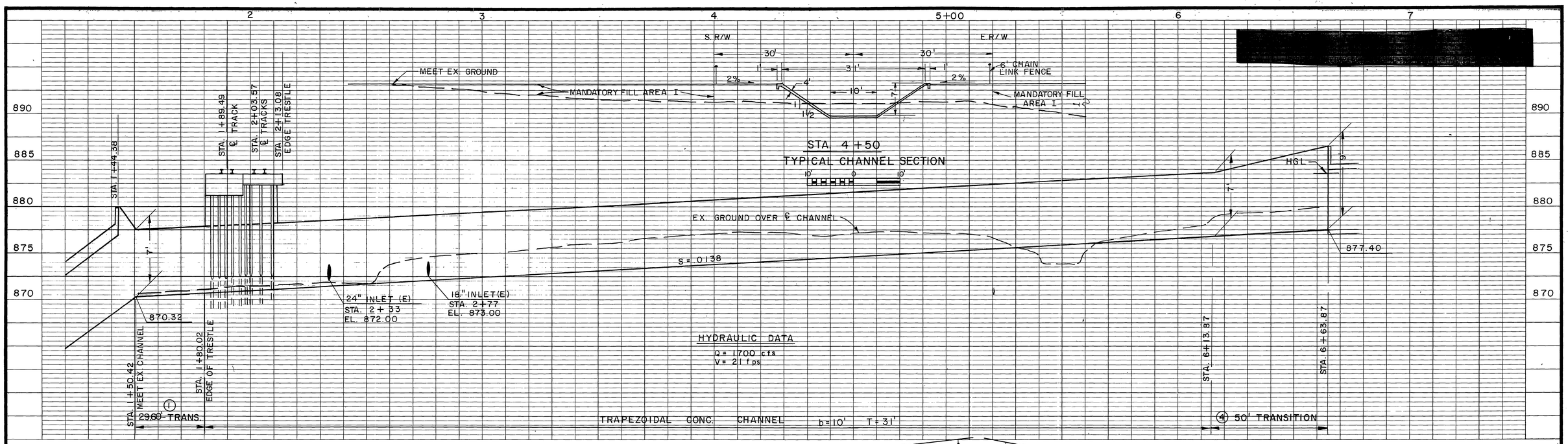
UNIVERSITY WASH
SPRUCE STREET STORM DRAIN
STAGE II

1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

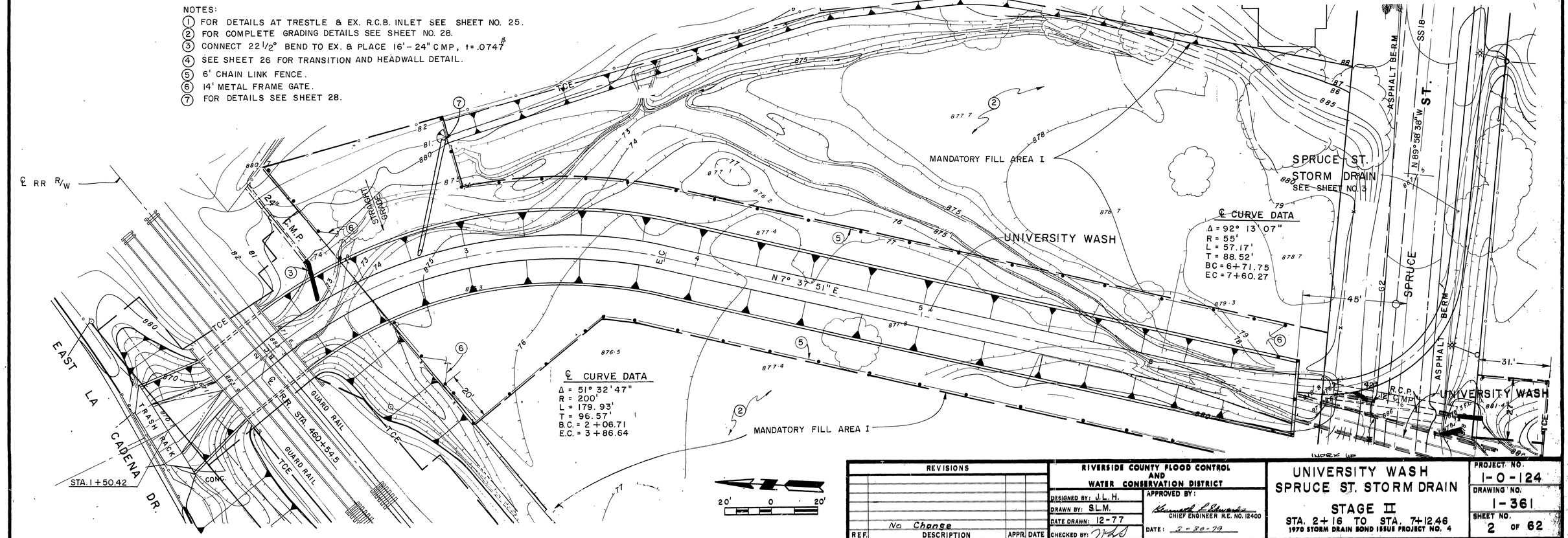
INDEX OF

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 1 OF 62

D-2



NOTES:
① FOR DETAILS AT TRESTLE & EX. R.C.B. INLET SEE SHEET NO. 25.
② FOR COMPLETE GRADING DETAILS SEE SHEET NO. 28.
③ CONNECT 22½° BEND TO EX. & PLACE 16'-24" CMP, t=.0747"
④ SEE SHEET 26 FOR TRANSITION AND HEADWALL DETAIL.
⑤ 6' CHAIN LINK FENCE.
⑥ 14' METAL FRAME GATE.
⑦ FOR DETAILS SEE SHEET 28.



REVISIONS			
REF.	DESCRIPTION	APPR	DATE
	No Change		

AS BUILT

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J.L.H.
DRAWN BY: S.L.M.
DATE DRAWN: 12-77
CHECKED BY: W.d.S

APPROVED BY: Kenneth L. Edwards, CHIEF ENGINEER R.E. NO. 12400
DATE: 2-20-79

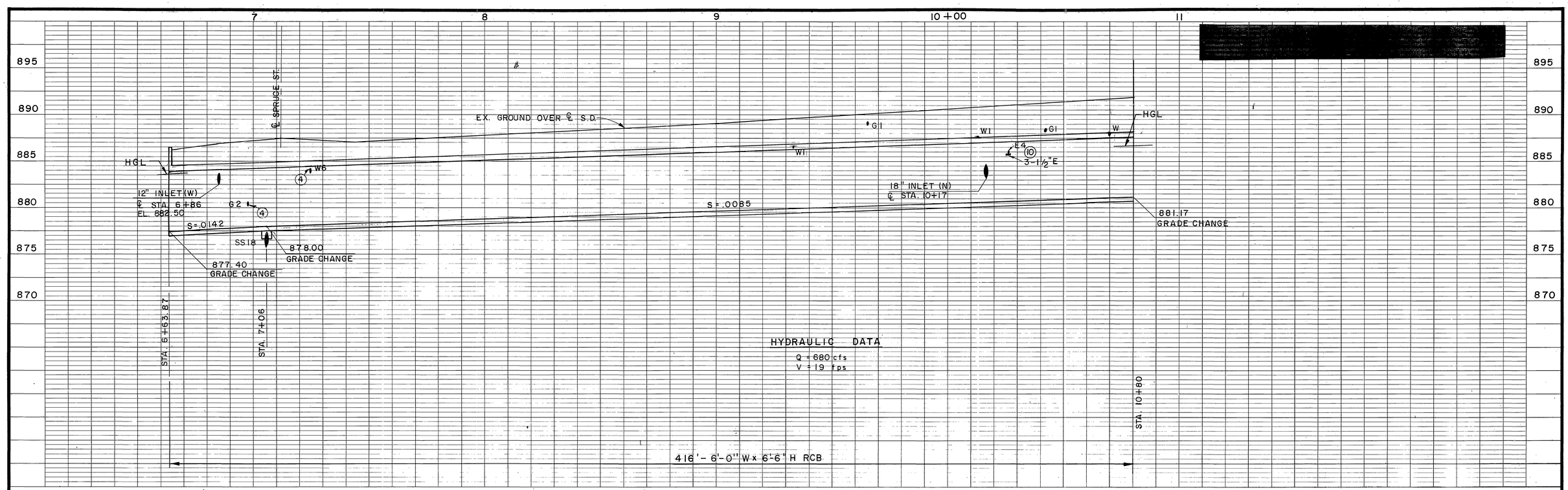
UNIVERSITY WASH SPRUCE ST. STORM DRAIN

STAGE II

STA. 2+16 TO STA. 7+12.46
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

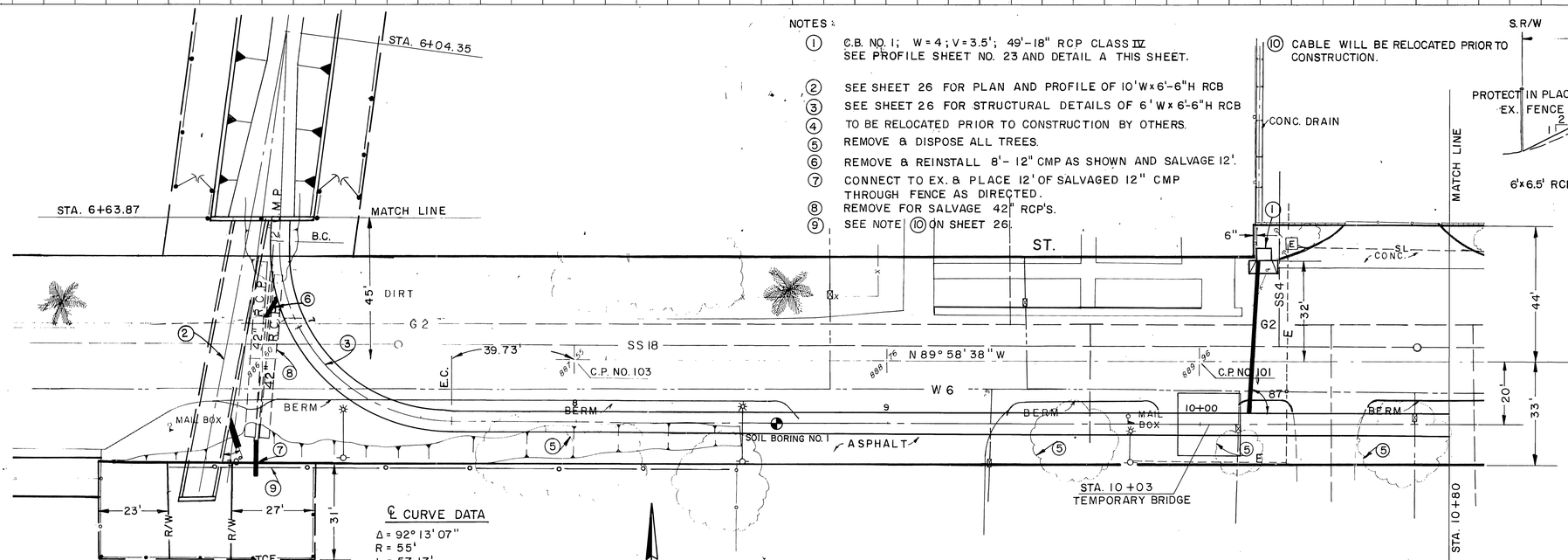
PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 2 OF 62

D-496



HYDRAULIC DATA

Q = 680 cfs
V = 19 fps



℄ CURVE DATA

Δ = 92° 13' 07"
R = 55'
L = 57.17'
T = 88.52'
B.C. = 6+71.75
E.C. = 7+60.27

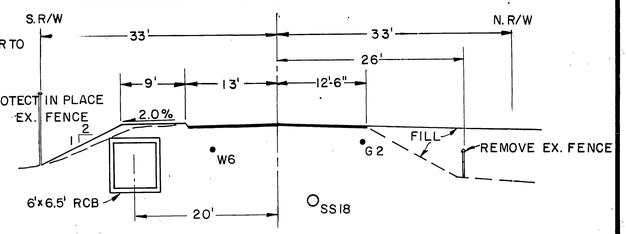
PLAN

1" = 20'

20' 0 20'

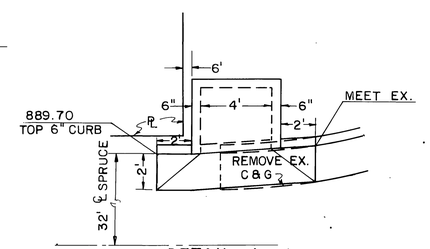
NOTES:

1. C.B. NO. 1; W = 4; V = 3.5'; 49'-18" RCP CLASS III SEE PROFILE SHEET NO. 23 AND DETAIL A THIS SHEET.
2. SEE SHEET 26 FOR PLAN AND PROFILE OF 10'W x 6'-6"H RCB
3. SEE SHEET 26 FOR STRUCTURAL DETAILS OF 6'W x 6'-6"H RCB
4. TO BE RELOCATED PRIOR TO CONSTRUCTION BY OTHERS.
5. REMOVE & DISPOSE ALL TREES.
6. REMOVE & REINSTALL 8'-12" CMP AS SHOWN AND SALVAGE 12'.
7. CONNECT TO EX. & PLACE 12' OF SALVAGED 12" CMP THROUGH FENCE AS DIRECTED.
8. REMOVE FOR SALVAGE 42" RCP'S.
9. SEE NOTE (10) ON SHEET 26.
10. CABLE WILL BE RELOCATED PRIOR TO CONSTRUCTION.



SECTION AT STA. 8+00

10' 0 10'



DETAIL A

4' 0 4'

INDEX 46

BENCH MARK EL. 884.64
SET RR SPIKE IN PP # 16369 J
AT SPRUCE ST. & KANSAS AVE.

SCALE:

DATE:

REVISIONS

REF.	DESCRIPTION	APPR.	DATE
	No Change		

AS BUILT

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY: [illegible]

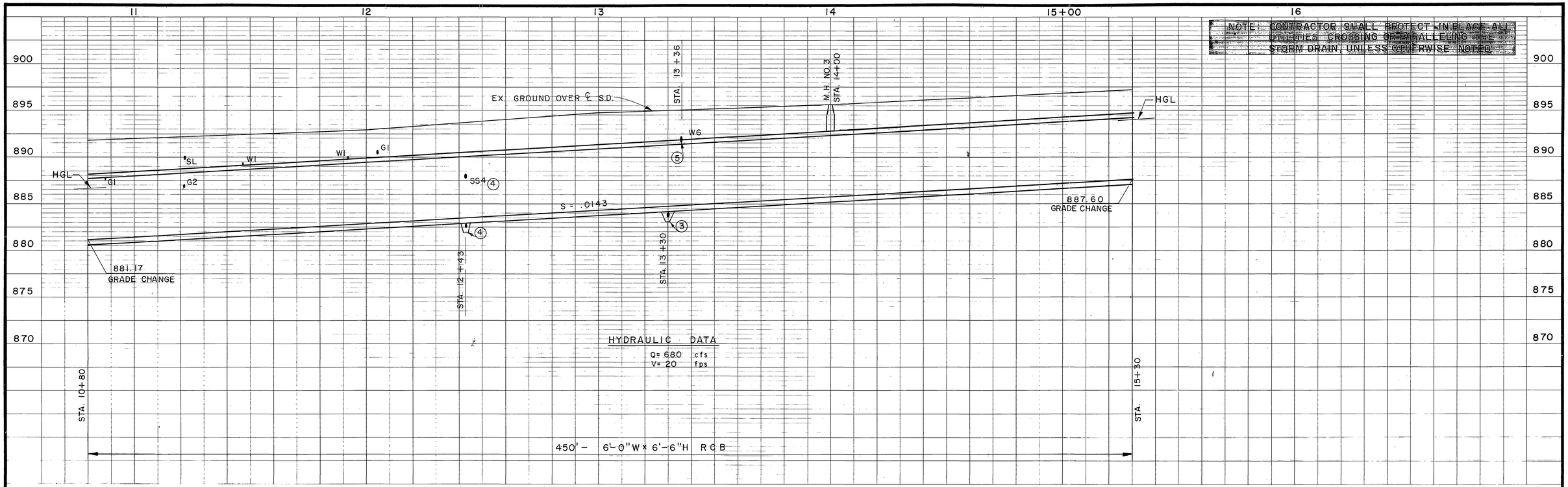
APPROVED BY:
[signature]
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-78

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 6+83.59 TO STA. 10+80
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 3 OF 62

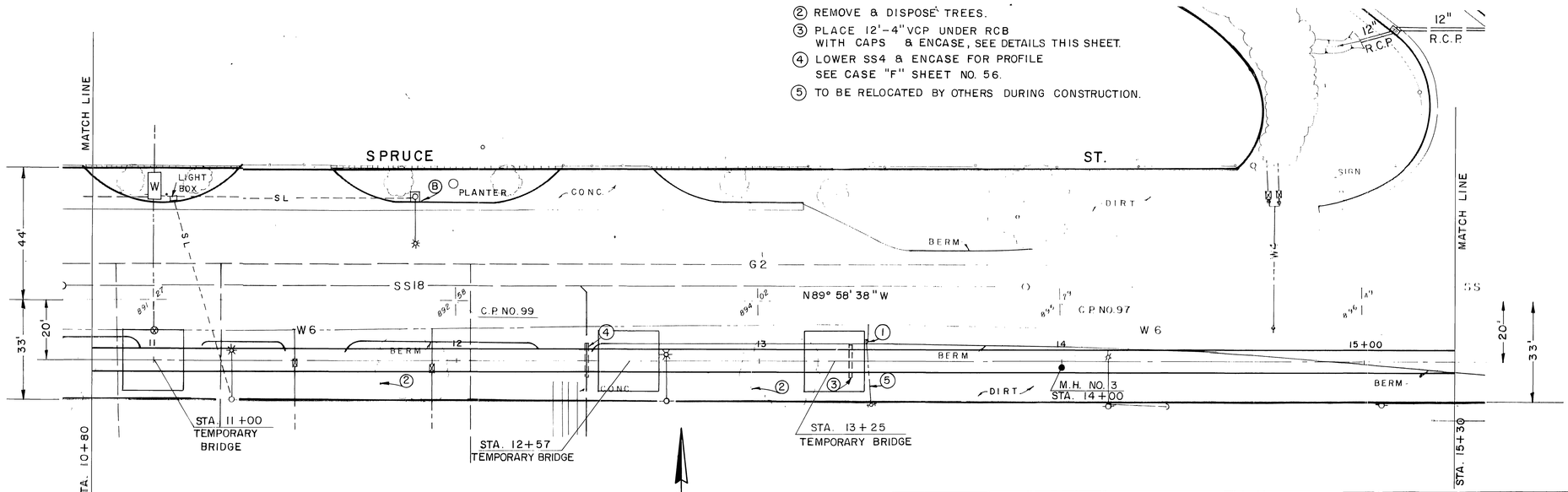
D-446

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.

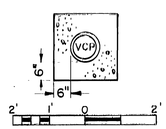


NOTES:

1. PROTECT WATER VALVE IN PLACE.
2. REMOVE & DISPOSE TREES.
3. PLACE 12'-4" VCP UNDER RCB WITH CAPS & ENCASE, SEE DETAILS THIS SHEET.
4. LOWER SS4 & ENCASE FOR PROFILE SEE CASE "F" SHEET NO. 56.
5. TO BE RELOCATED BY OTHERS DURING CONSTRUCTION.



S.S. ENCASEMENT DETAIL
UNDER RCB FOR FULL WIDTH



S.S. ENCASEMENT DETAIL
2' OUTSIDE RCB ON EACH SIDE

PLAN

1"=20'

20' 0 20'

BENCH MARK EL. 891.63
"X" CUT IN S.E. CORNER OF CONC. LIGHT STANDARD BASE.
NOTED (B)

SCALE:

DATE:

REVISIONS

REF.	DESCRIPTION	APPR.	DATE
	No Change		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY:

APPROVED BY:
Kenneth L. Edwards
CHIEF ENGINEER RE. NO. 12400
DATE: 3-30-78

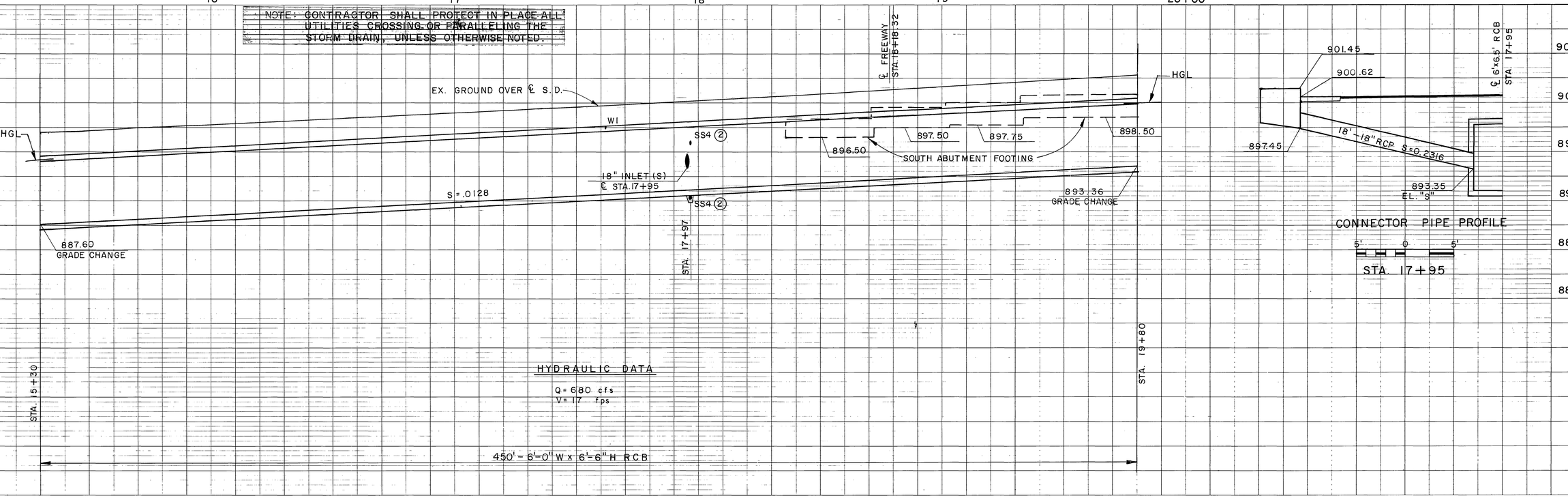
UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 10+80 TO STA. 15+30
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 4 OF 62

AS BUILT

D-446

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.



HYDRAULIC DATA

Q = 680 cfs
V = 17 fps

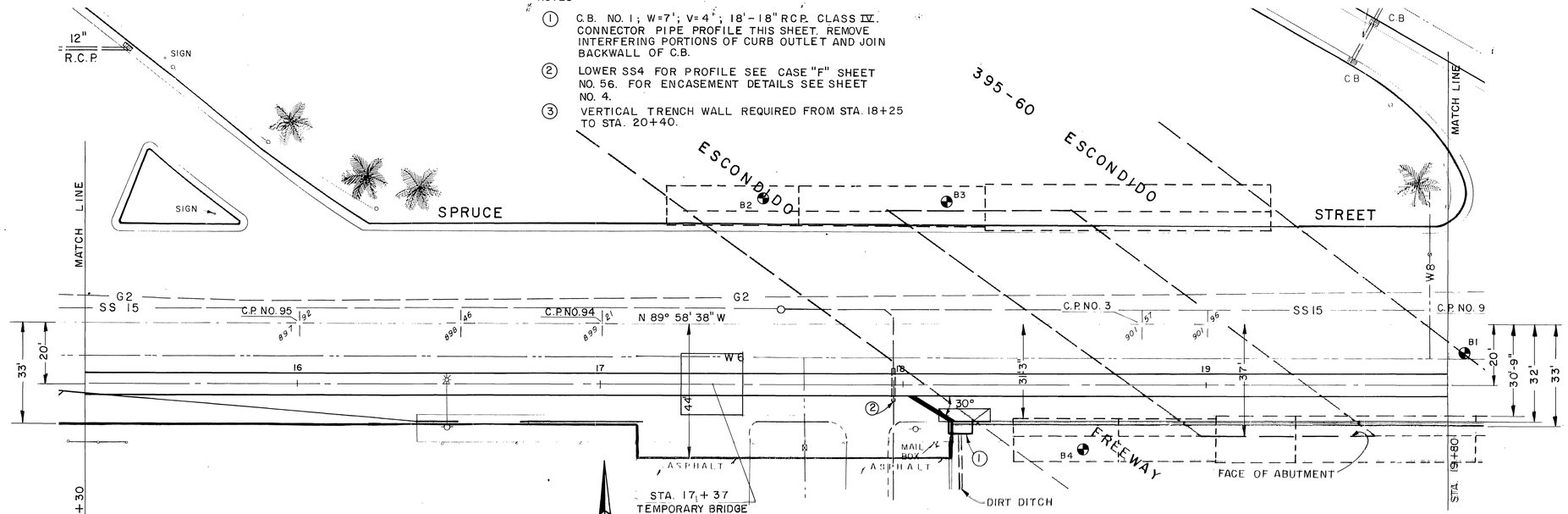
450' - 6'-0" W x 6'-6" H RCB

NOTES:

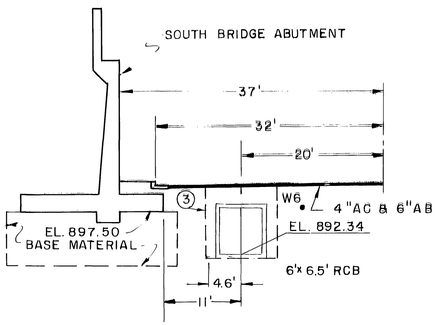
① C.B. NO. 1; W=7'; V=4'; 18'-18" RCP. CLASS IV. CONNECTOR PIPE PROFILE THIS SHEET. REMOVE INTERFERING PORTIONS OF CURB OUTLET AND JOIN BACKWALL OF C.B.

② LOWER SS4 FOR PROFILE SEE CASE "F" SHEET NO. 56. FOR ENCASEMENT DETAILS SEE SHEET NO. 4.

③ VERTICAL TRENCH WALL REQUIRED FROM STA. 18+25 TO STA. 20+40.



PLAN
1"=20'
20' 0 20'



SECTION AT STA. 19+00
10' 0 10'

BENCH MARK EL. 901.57
TOP OF STATE HWY. STREET MONUMENT NOTED C.P. NO. 3

SCALE:

DATE:

REVISIONS

REF.	DESCRIPTION	APPR.	DATE
	No Change		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY: MAK

APPROVED BY:
Kenneth L. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 2-20-79

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 15+30 TO STA. 19+80
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

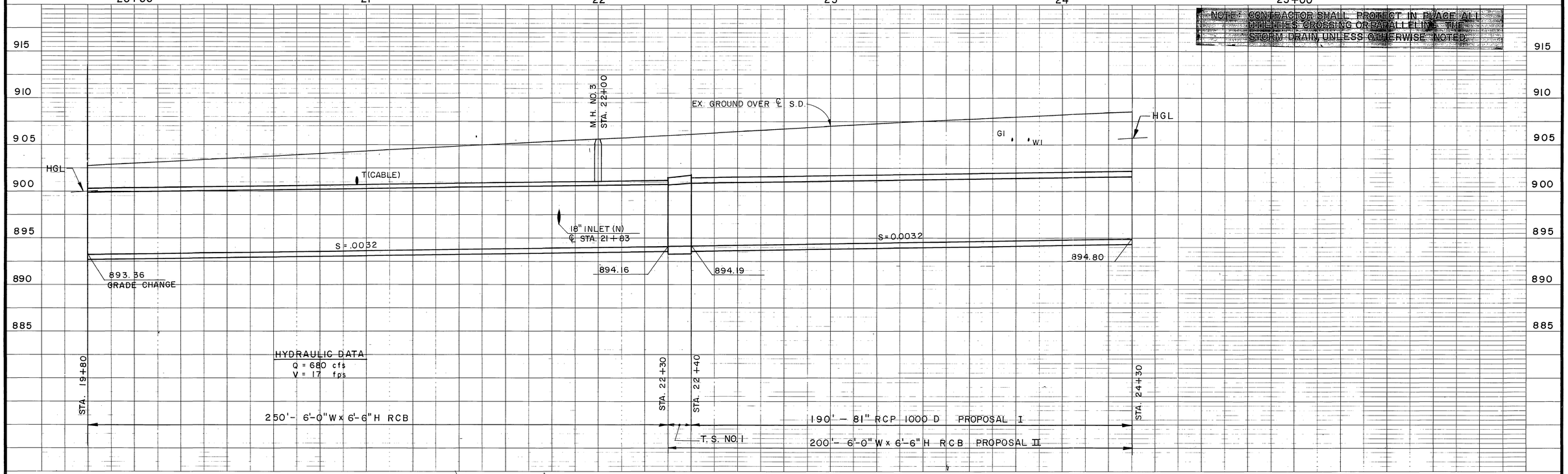
INDEX NO.

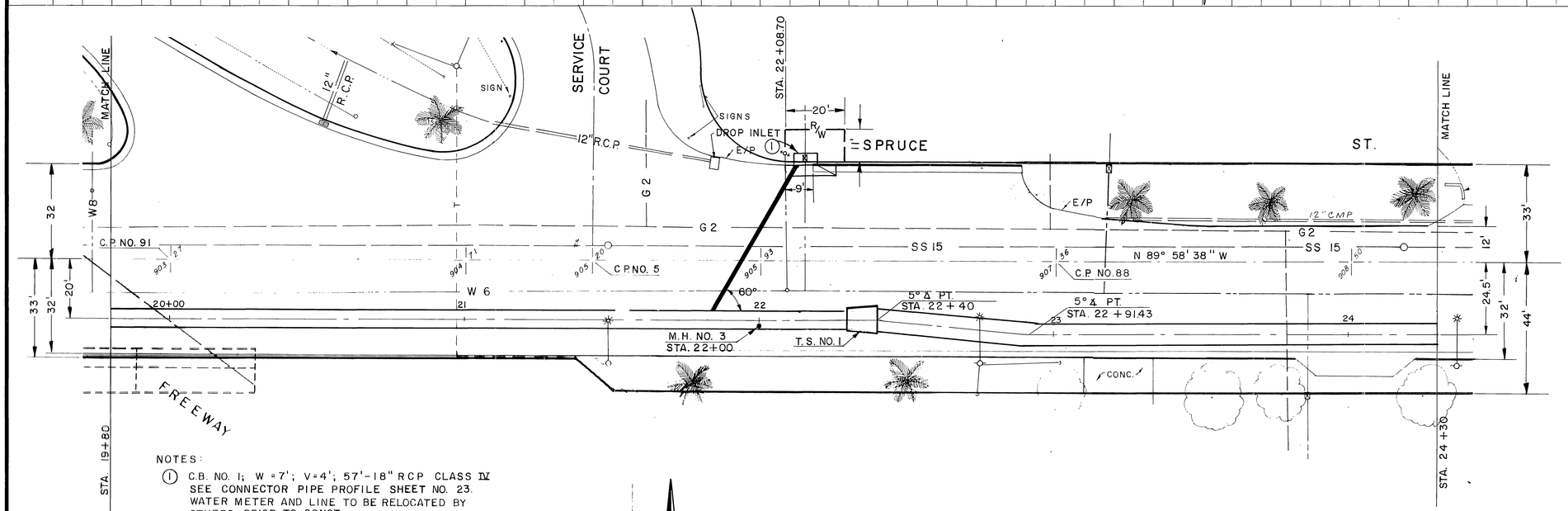
PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 5 OF 62

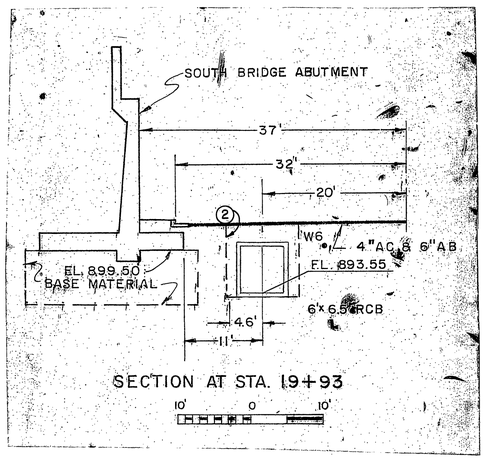
AS BUILT

D-446

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.







NOTES:

1. C.B. NO. 1; W = 7'; V = 4'; 57'-18" RCP CLASS IV SEE CONNECTOR PIPE PROFILE SHEET NO. 23. WATER METER AND LINE TO BE RELOCATED BY OTHERS PRIOR TO CONST.
2. SEE NOTE 3 ON SHEET NO. 5.

PLAN

1"=20'

20' 0 20'

N

BENCH MARK EL. 905.18
TOP OF STATE HWY. STREET MONUMENT. NOTED C.P. NO. 5

SCALE:

DATE:

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE
	No Change		

AS BUILT

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY:

APPROVED BY:
Kenneth P. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 8-30-77

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 19+80 TO STA. 24+30
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

INDEX 5

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 6 OF 62

D-996

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.

25+00 26 27 28

920 915 910 905 900 895 890

℄ CHICAGO AVE. STA 26+40.29

M.H. NO. 2 WITH M.H. DROP INLET STA. 27+10

912.50

EX. GROUND OVER ℄ S.D.

HGL

18"CMP

GI

E

ABND. IRR.

T

W6

W12

W1

G2

903.51 ④

SS 15

S = .0032

894.80

895.50 GRADE CHANGE

S = .01416

898.62

896.35

HYDRAULIC DATA
Q = 680 cfs
V = 19 fps

HYDRAULIC DATA
Q = 650 cfs
V = 18 fps

STA. 24+30

STA. 26+50

STA. 28+70

278'-81" RCP 1000 D PROPOSAL I

440'-6'-0" W x 6'-6" H RCB PROPOSAL II

152'-81" RCP 1000 D PROPOSAL I

33' 55'

MATCH LINE

SPRUCE

AVENUE

CHICAGO

ST.

WEIR

SIGN

BERM

CONC.

12" C.M.P.

SS15

N 89° 58' 38" W

C.P. NO. 86

C.P. NO. 6

2° 30' Δ PT.
STA. 26+57.31

C.P. NO. 83

PLUG ②

18" C.M.P.

W6

W12

G4

G2

SS15

25+00

26

28

ABND. IRR.

2° 30' Δ PT.
STA. 26+00

SIGNS

① M.H. NO. 2 WITH M.H. DROP INLET STA. 27+10 (RCP)

M.H. NO. 3 WITH M.H. DROP INLET (RCB)

ASPHALT PARKING

FLAG POLE

10"

SOIL BORING NO. 2

M.B.

BC

PRC

R/W

E.C.

33' 12' 24.5' 33' 44'

32' 13' 36' 44'

PLAN
1"=20'
20' 0 20'

NOTES:

① M.H. NO. 2 WITH M.H. DROP INLET STA. 27+10 OPENING ON W & E. SIDE W = 3', V = 4'

② INSTALL CLEARANCE MARKER.

③ REMOVE THREE PALM TREES FOR REPLANTING. FOR REPLANTING LOCATIONS SEE NOTE ⑤ SHEET 10 AND NOTE ② SHEET 13.

④ SEE CITY OF RIVERSIDE STD. DWG. NO. 564 FOR DETAILS OF SEWER ENCASMENT.

⑤ REMOVE & REINSTALL DRIVEWAY CULVERTS & GRADE DITCH AS DIRECTED.

℄ REVERSE CURVE DATA
Δ = 16° 01' 53"
R = 180'
L = 50.36'
T = 25.35'
BC = 27+57.28
PRC = 28+07.64
EC = 28+58

BENCH MARK EL. 912.00
SPIKE & CITY ENG. TAG.
NOTED C.P. NO. 6

SCALE:

DATE:

REVISIONS

REF.	DESCRIPTION	APPR.	DATE
	No Change		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY:

APPROVED BY:
Kenneth J. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-78

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 24+30 TO STA. 28+70
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 7 OF 62

INDEX 15

1.17

AS BUILT

D-446

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLEL TO THE STORM DRAIN, UNLESS OTHERWISE NOTED.

29 30+00 31 32 33

925 920 915 910 905 900

MATCH LINE

HGL

EX. GROUND OVER ℄ OF STORM DRAIN

G1 W1 G1

S=0.0233

S=0.01416

907.00

901.87
GRADE CHANGE
STA. 31+00

898.62

STA. 28+70

STA. 33+20

HYDRAULIC DATA
Q= 650 cfs
V= 18 fps

450'- 81" RCP 1000D PROPOSAL I
6'-0" W x 6'-6" H RCB PROPOSAL II

S.R/W ℄ N.R/W
EX. R/W
44' 44'
33' 32'
13'
W12 G2 IRR10 E
36'
SS15

SECTION AT STA. 30+50
10' 0 10'

ASPHALT PARKING
SPRUCE ST.
PARKING AREA
CONC. E
WEIR
10" IRR (APPROX. LOCATION)
10" IRR (APPR
G2
W6
SS15
C.P. NO. 81
C.P. NO. 79
W12
W12
E/P
2 M.B.
18" C.M.P.
44' 36' 33' 12'
32'
13'
33'
36'
12'
5' 2'
29 30+00 31 32 33
R/W R/W
10' R.R. S.D. EASEMENT
TCE
STA. 30+17
TEMPORARY BRIDGE

NOTE:
(1) REMOVE AND DISPOSE CLUSTER OF PALM TREES.

N

PLAN
1"=20'
20' 0 20'

BENCH MARK EL. 927.25
SPIKE & TIN AT INTERSECTION OF SPRUCE & RR TRACKS

SCALE:

DATE:

REVISIONS

REF.	DESCRIPTION	APPR.	DATE
	No Change		

AS BUILT

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY: NLA

APPROVED BY:
Kenneth L. Schwankl
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-78

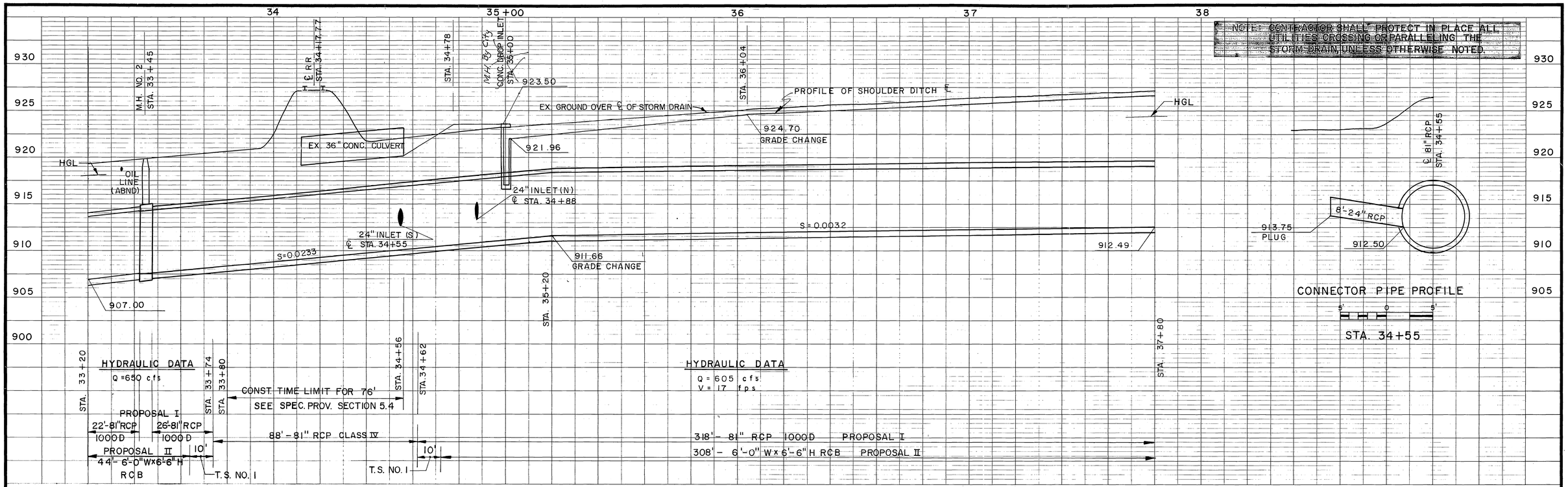
UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 28+70 TO STA. 33+20
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

INDEX NO.

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 8 OF 62

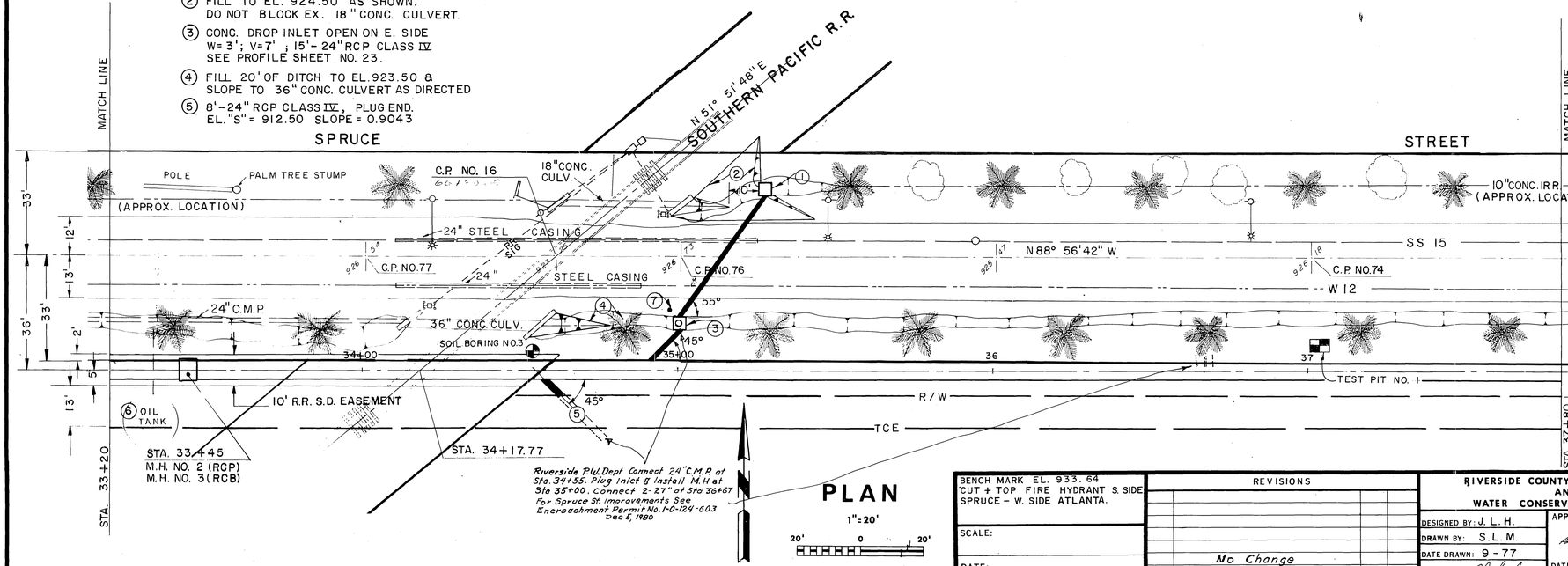
D-446

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.

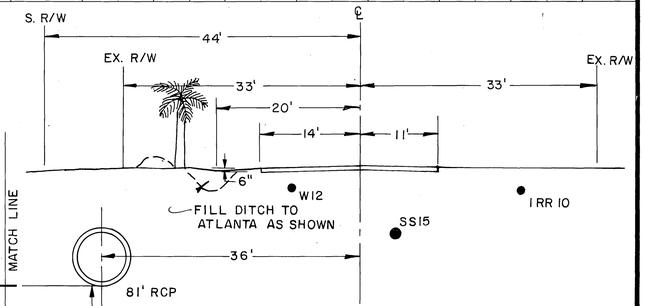


NOTES:

1. CONC. DROP INLET OPEN ON N. & E. SIDES TOP EL. 924.50 W=3', V=5' 47'-24" RCP CLASS IV SEE PROFILE SHEET NO. 23.
2. FILL TO EL. 924.50 AS SHOWN. DO NOT BLOCK EX. 18" CONC. CULVERT.
3. CONC. DROP INLET OPEN ON E. SIDE W=3'; V=7'; 15'-24" RCP CLASS IV SEE PROFILE SHEET NO. 23.
4. FILL 20' OF DITCH TO EL. 923.50 & SLOPE TO 36" CONC. CULVERT AS DIRECTED
5. 8'-24" RCP CLASS IV, PLUG END. EL. "S" = 912.50 SLOPE = 0.9043
6. PROTECT IN PLACE
7. INSTALL CLEARANCE MARKER.



PLAN
1"=20'
20' 0 20'



SECTION AT STATION 36+40
10' 0 10'

INDEX NO. D-446

BENCH MARK EL. 933.64 'CUT + TOP FIRE HYDRANT S. SIDE SPRUCE – W. SIDE ATLANTA.	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	UNIVERSITY WASH SPRUCE ST. STORM DRAIN STAGE II STA. 33+20 TO STA. 37+80 1970 STORM DRAIN BOND ISSUE PROJECT NO. 4
SCALE:	REF. / DESCRIPTION / APPR. / DATE: No Change	DESIGNED BY: J. L. H.	PROJECT NO. 1-0-124
DATE:		DRAWN BY: S. L. M.	DRAWING NO. 1-361
		DATE DRAWN: 9-77	SHEET NO. 9 OF 62
		CHECKED BY:	APPROVED BY: Kenneth L. Edwards, CHIEF ENGINEER R.E. NO. 12400, DATE: 3-30-79

AS BUILT

38 39 40 41 42

940 935 930 925 920 915 910

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.

MATCH LINE SHEET 22

PROFILE OF SHOULDER DITCH ℄

HGL

M.H. NO. 4 STA. 38+74.14

℄ ATLANTA ST. STA. 39+30.01

EX. GROUND OVER ℄ S.D.

T W8 G2 SS12

See Plan
33" INLET (S)
33" INLET (N)
℄ STA. 38+74.14

18" INLET (S) ℄ STA. 39+43

18" INLET (N) ℄ STA. 39+88.00

S=.0032 S=0.0309

912.49 912.79 912.83 913.00 GRADE CHANGE

922.26 GRADE CHANGE

W6 HGL

STA. 39+40

HYDRAULIC DATA
Q = 605 cfs
V = 17 fps

HYDRAULIC DATA
Q = 540 cfs
V = 21 fps

STA. 37+80 STA. 38+75.40 STA. 38+87.60

95'-81" RCP 1000D PROPOSAL I
8'-81" RCP CLASS IV
77'-6'-0"W x 6'-6" H RCB PROPOSAL II
10'
TS. NO. 1

352'-69" RCP 1200D

STA. 42+40

M.H. NO. 4 STA. 38+74.14

EX. GROUND OVER ℄ S.D.

T. W12 W12 101RR HGL

S=0.0098 921.43

SS 10 921.00 STA. 0+56.00 CONC. COLLAR

S=0.1403

PLUG

914.03 EL. "R" 913.95

915.00 EL. "R"

STA. 0+20.50 STA. 0+12.50 STA. 0+12.25 STA. 0+56 STA. 1+00

44'-33" RCP 1300D 44'-33" RCP 950D

8'-33" RCP 1300D

MATCH LINE SHEET 22

℄ CURVE DATA
Δ = 54° 56' 45"
R = 90.00'
L = 86.31'
T = 46.80'
BC = STA. 0+39.52
EC = STA. 1+25.83

25' 17' 25' 2'

W12 IRR 4

MATCH LINE

SPRUCE ST

SIGN

WELL

IRR LOCATION

DIRT

E/P

SEE SHEET 22

STA. 1+00

G4

10" CONC. IRR. (APPROX. LOCATION)

STREET

MATCH LINE

33' 11' 44' 36' 33' 10'

N 88° 56' 42" W

SS 10

C.P. NO. 72 C.P. NO. 70 C.P. NO. 71 C.P. NO. 69

Δ PT. 5° 19' 41" STA. 39+90.06

N 88° 57' 04" W

W12

40+00 41 42

Δ PT. 5° 19' 41" STA. 38+17.69

BC

38 39 39+30.01

SOIL BORING NO. 4

HEADWALL

ABANDON 4' WIDE X 1.5' HIGH CONC. BOX CULVERT

City of Riverside P.W. Dept. Connect 33" R.C.P. At Sta. 38+74.14 St. Improvements See Encroachment Permit No 1-0-124-603, Dec. 5, 1980

SL S/W

Δ PT. 16° 30' 00" STA. 0+23.30 (1) DIRT

SIGN 18" R.C.P.

W8 ATLANTA ST. SS12 G2

18' 18' 30' 33'

STA. 37+80 STA. 42+40

20' 32' 44'

NOTES:

(1) INSTALL 24'-18" RCP CL. IV. JOIN TO EX. 18" RCP WITH CONC. COLLAR REMOVE INTERFERING PORTIONS OF EX. 4' W x 1.5' H CONC. BOX CULVERT & PLUG. SEE PROFILE SHEET NO. 23.

(2) SEE CITY OF RIVERSIDE STD. DWG. NO. 564 FOR SEWER ENCASEMENT DETAILS.

(3) MANHOLE NO. 4 STA. 38+74.14
(N) A = 30° B = 33" C = 12'-3" EL. "R" = 915.00 EL. "S" = 914.00
(S) A = 30° B = 33" C = 12'-6" EL. "R" = 913.95 EL. "S" = 913.89

(4) REMOVE & DISPOSE HEADWALL PLUG BOX & FILL DITCH AS DIRECTED.

(5) PALM TREE SHALL BE REPLANTED AS DIRECTED. SEE SH. 7 FOR REMOVAL.

(6) 34'-18" RCP CL. IV SEE PROFILE SHEET 23.

PLAN
1"=20'
20' 0 20'

BENCH MARK "X" CUT IN TOP OF F.H. AT S.W. CORNER OF ATLANTA
EL. 933.64

SCALE:

DATE:

REVISIONS

REF.	DESCRIPTION	APPR	DATE
	No Change		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY:

APPROVED BY:
Kenneth L. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 37+80 TO STA. 42+40
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 10 OF 62

INDEX 6

AS BUILT

D-496

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.

43 44 45+00 46 47

950 945 940 935 930 925 920

EX. GROUND OVER ℄ S.D.

HGL

W6 SL W4 G2 G2

HGL

932.32

S=.0234

922.26
GRADE CHANGE

HYDRAULIC DATA
Q = 540 c.f.s
V = 21 f.p.s

STA. 42+40

STA. 46+70

430'- 69" RCP 1000-D

S.R/W ℄ N.R/W
44' 44'
32' 32'
E W12 G4 IRR10
20'
SS10
69" RCP

SECTION AT STA. 46+00
10' 0 10'

MATCH LINE

SPRUCE STREET

(APPROX LOCATION) 10" IRR

DIRT DIRT

WEIR

G4

E/P

SS 10

N 88°58'44" W

C.P. NO. 67 C.P. NO. 65

W 12 W 12

SL SL SL

S/W

CLEMSON WAY

SIGN

33' 10' 20' 44' 32' 20'

43 44 45+00 46

STA. 42+40

STA. 46+70

MATCH LINE

32' 44' 20' 32' 44'

PLAN
1"=20'
20' 0 20'

BENCH MARK EL. 945.52
CUT + TOP OF FIRE HYDRANT
S. SIDE OF SPRUCE & E. SIDE
CLEMSON WAY.

SCALE:

DATE:

REVISIONS

REF.	DESCRIPTION	APPR.	DATE
	No Change		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY:

APPROVED BY:
Kenneth J. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 2-20-79

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 42+40 TO STA. 46+70
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

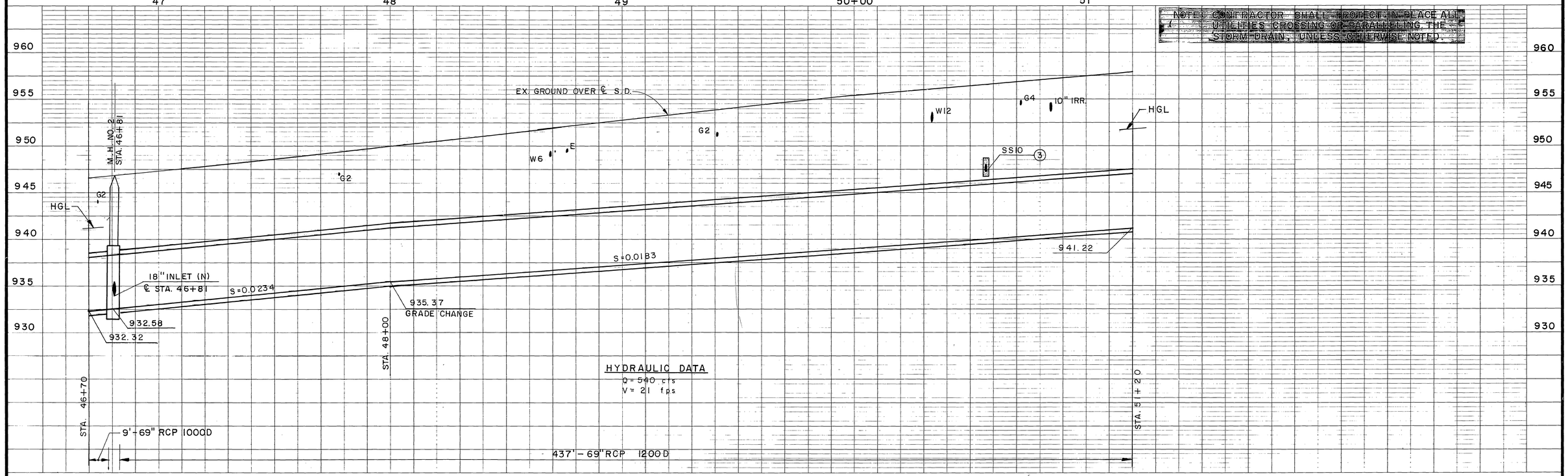
INDEX 45

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 11 OF 62

AS BUILT

D-446

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.

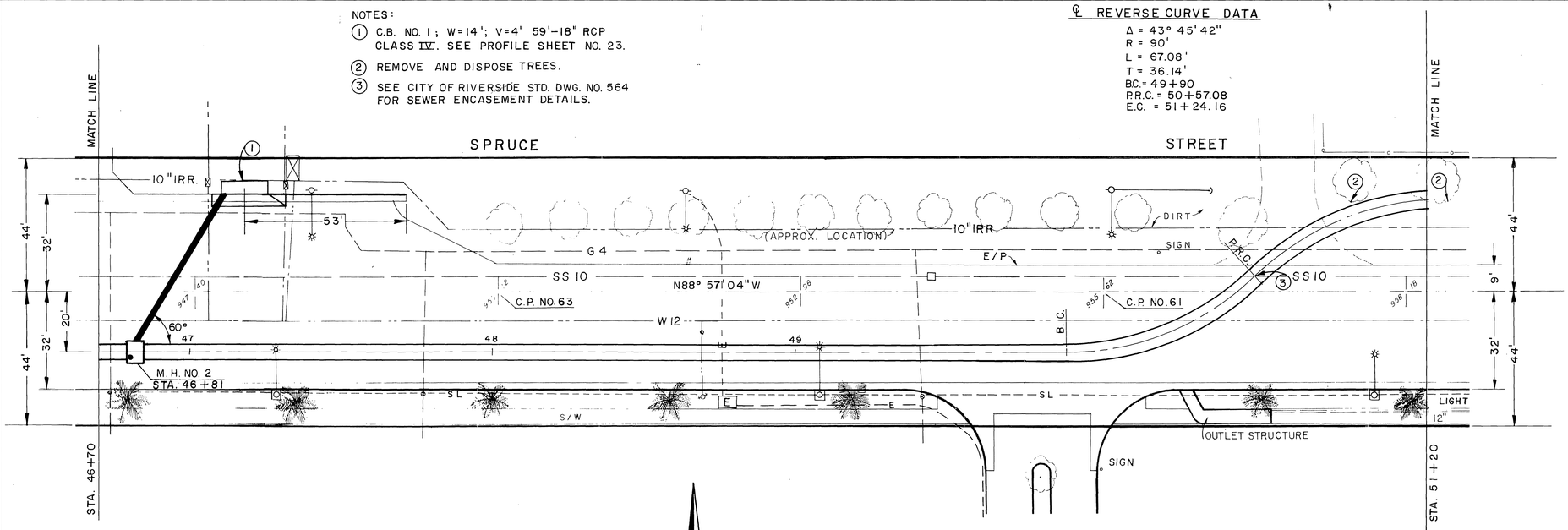


NOTES:

1. C.B. NO. 1; W=14'; V=4' 59'-18" RCP CLASS IV. SEE PROFILE SHEET NO. 23.
2. REMOVE AND DISPOSE TREES.
3. SEE CITY OF RIVERSIDE STD. DWG. NO. 564 FOR SEWER ENCASEMENT DETAILS.

℄ REVERSE CURVE DATA

Δ = 43° 45' 42"
R = 90'
L = 67.08'
T = 36.14'
B.C. = 49+90
P.R.C. = 50+57.08
E.C. = 51+24.16



PLAN

1"=20'

20' 0 20'

BENCH MARK EL. 964.22 "X" CUT IN TOP OF F.H. S.W. CORNER AT IOWA.	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SCALE:		DESIGNED BY: J. L. H.
DATE:		DRAWN BY: S. L. M.
		DATE DRAWN: 9-77
	REF. DESCRIPTION APPR. DATE	CHECKED BY:
	No Change	APPROVED BY: Kenneth L. Graves, CHIEF ENGINEER R.E. NO. 12400, DATE: 3-30-79

AS BUILT

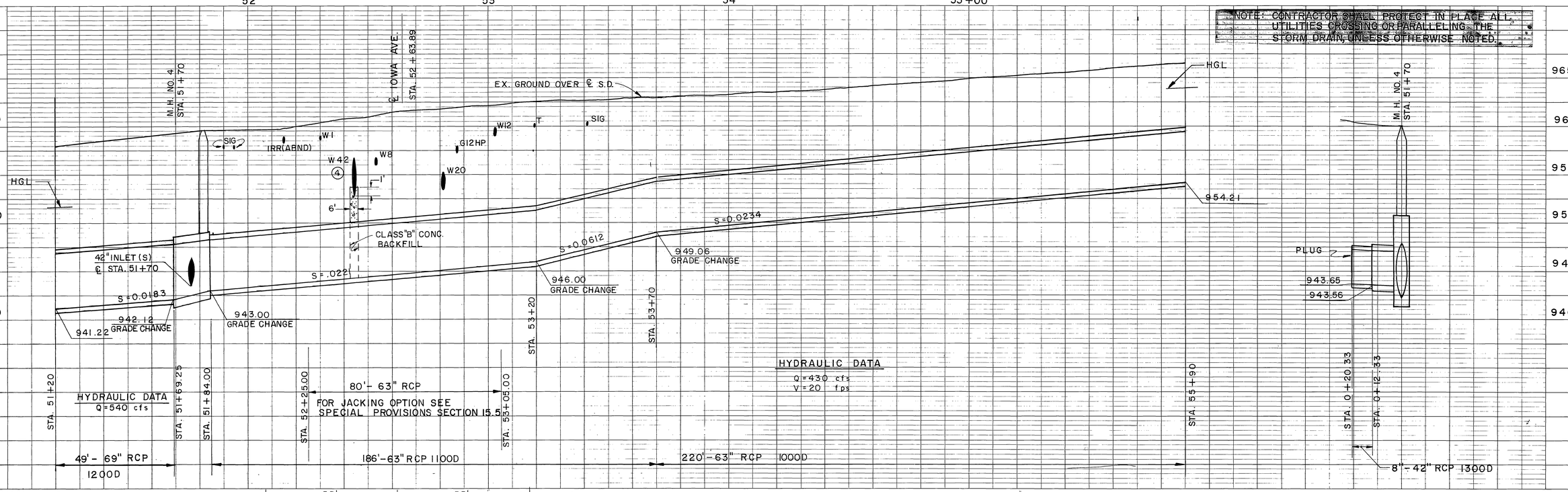
UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 46+70 TO STA. 51+10
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

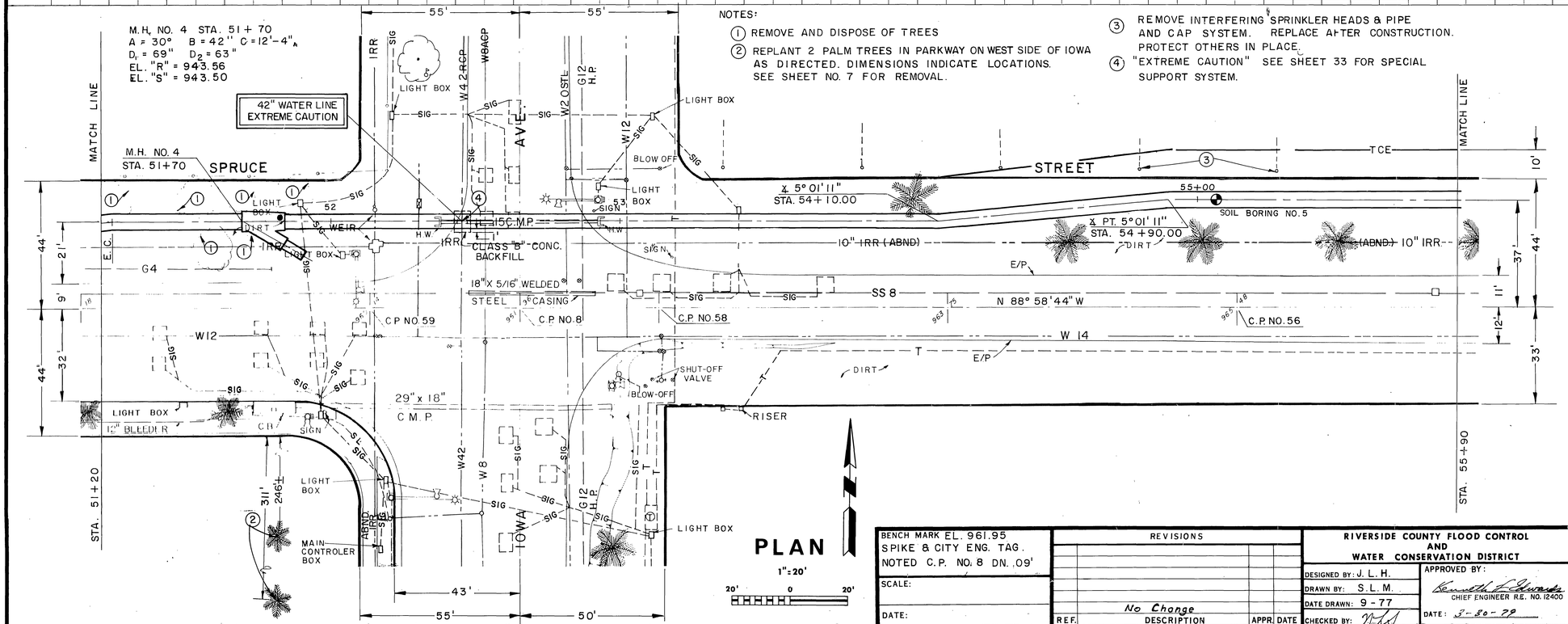
INDEX 6P

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 12 OF 62

D-946

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.





NOTES:

1. REMOVE AND DISPOSE OF TREES
2. REPLANT 2 PALM TREES IN PARKWAY ON WEST SIDE OF IOWA AS DIRECTED. DIMENSIONS INDICATE LOCATIONS. SEE SHEET NO. 7 FOR REMOVAL.
3. REMOVE INTERFERING SPRINKLER HEADS & PIPE AND CAP SYSTEM. REPLACE AFTER CONSTRUCTION. PROTECT OTHERS IN PLACE.
4. "EXTREME CAUTION" SEE SHEET 33 FOR SPECIAL SUPPORT SYSTEM.

PLAN
1"=20'
20' 0 20'

BENCH MARK EL. 961.95
SPIKE & CITY ENG. TAG.
NOTED C.P. NO. 8 DN. .09'

SCALE:

DATE:

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE
	No Change		

AS BUILT

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY:

APPROVED BY:
Kenneth L. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 51+10 TO STA. 55+80
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

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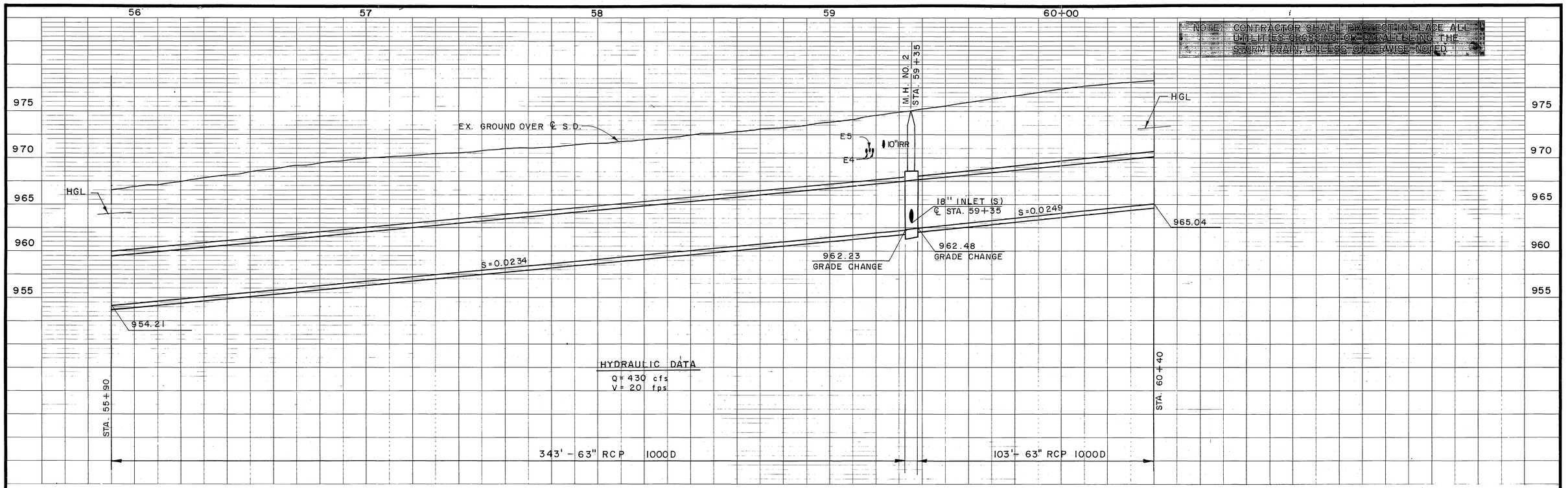
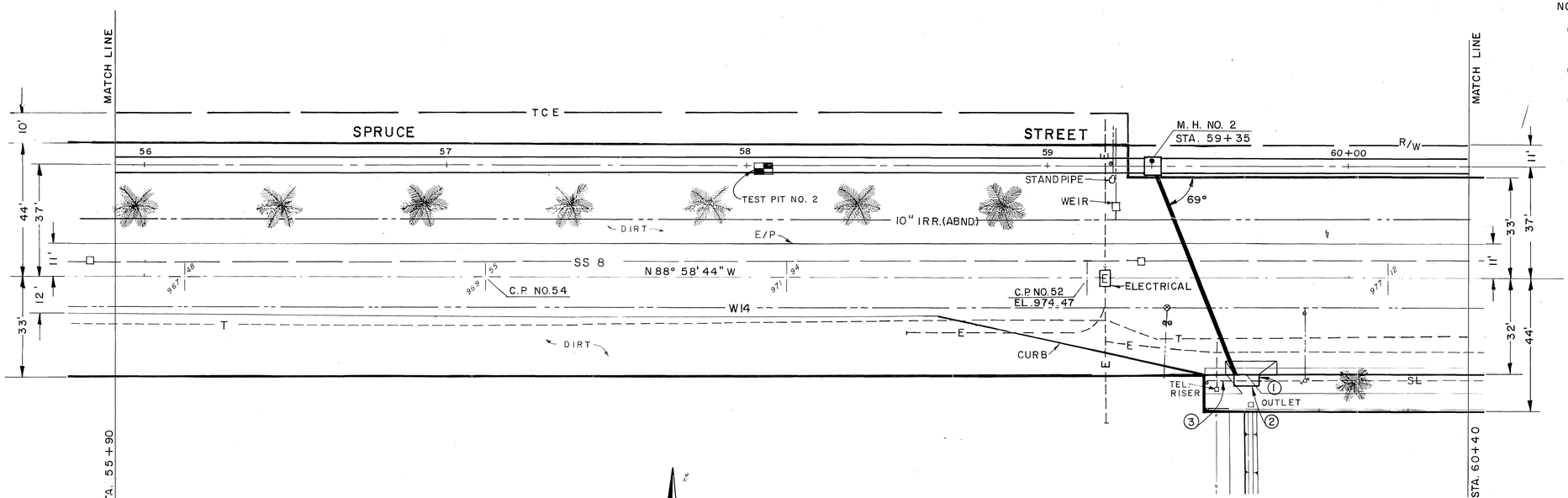
PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 13 OF 62

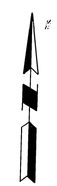
D-446





NOTES:

1. C.B. NO. 1, W=7'; V=4'
   67'-18" RCP CLASS IV
   SEE PROFILE SHEET NO. 23.
2. REMOVE INTERFERING PORTIONS OF CURB OUTLET AND JOIN BACK WALL OF C.B.
3. RELOCATE S.L. AROUND C.B.



PLAN

1"=20'

20' 0 20'

BENCH MARK EL. 978.57
CUT + TOP OF FIRE HYDRANT NEAR N.W. COR. OF SCHOOL YARD S. SIDE OF SPRUCE.

SCALE:

DATE:

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE
	No Change		

AS BUILT

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY:

APPROVED BY:
Kenneth L. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-78

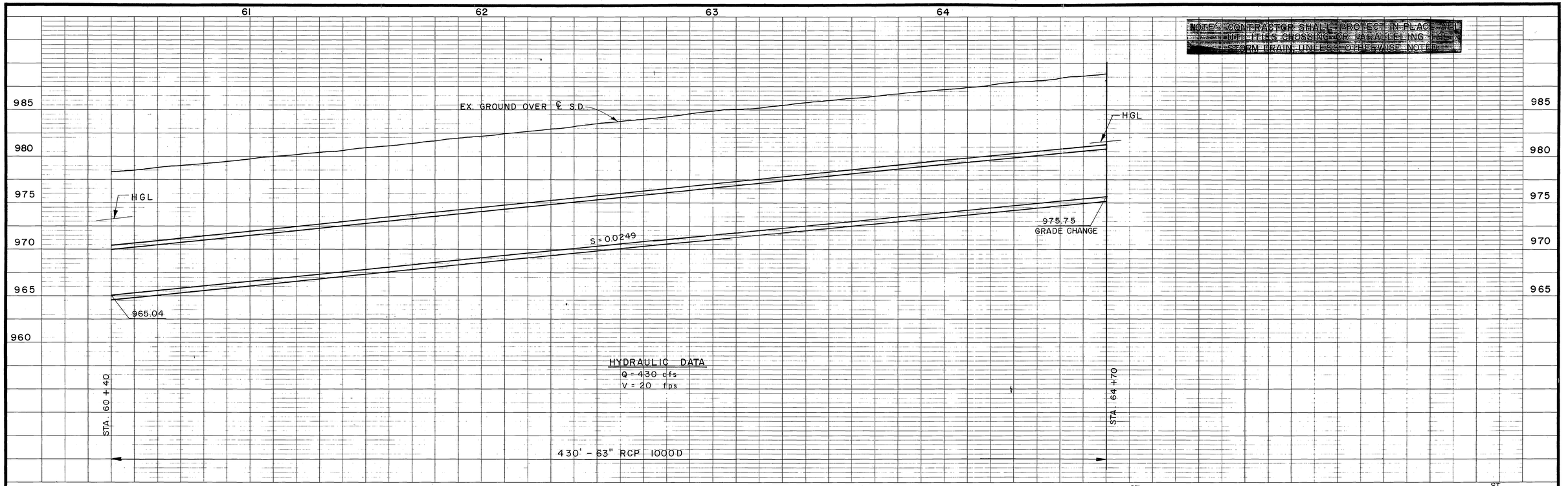
UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 55+80 TO STA. 60+30
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

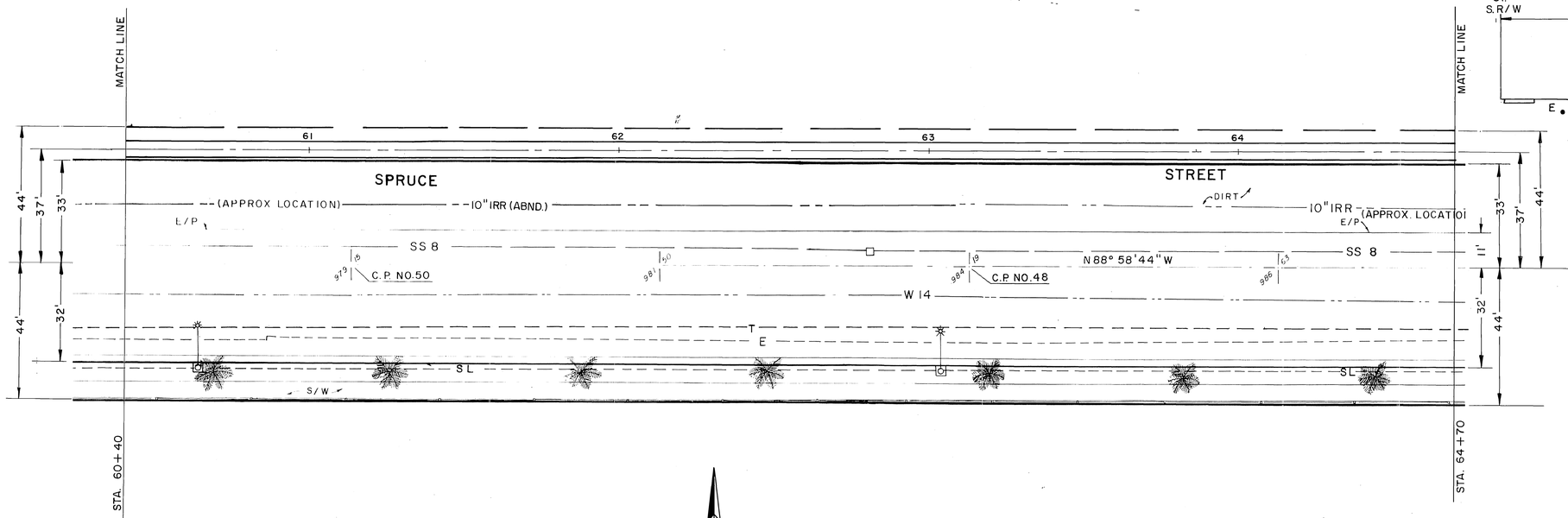
INDEX 6

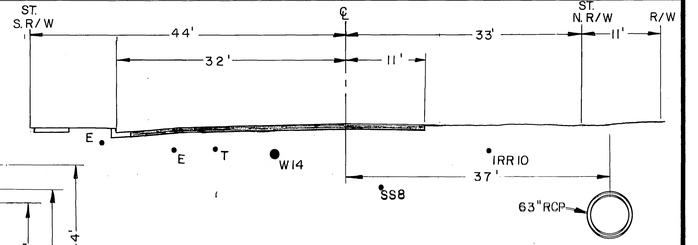
PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 14 OF 62

D-996

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.







SECTION AT STA. 62+00

10' 0 10'

PLAN

1" = 20'

20' 0 20'

BENCH MARK EL. 992.28
CUT + TOP OF FIRE HYDRANT NEAR N E CORNER OF SCHOOL YARD, SOUTH SIDE SPRUCE

SCALE:

DATE:

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE
	No Change		

AS BUILT

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY:

APPROVED BY:
Kenneth L. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 2-20-79

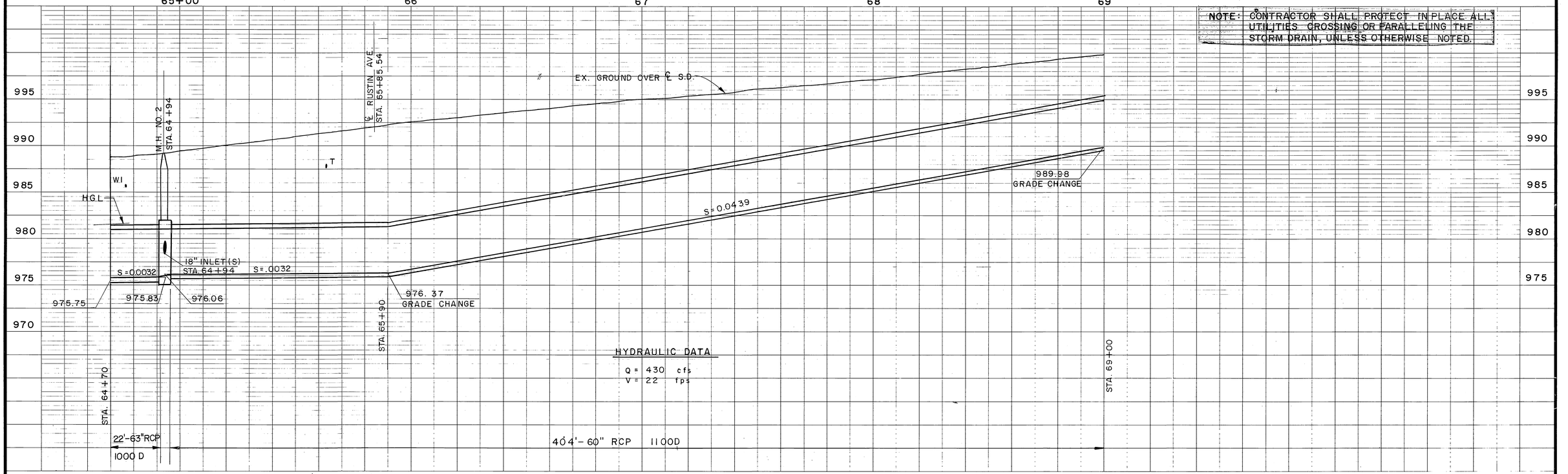
UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 60+30 TO STA. 64+60
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

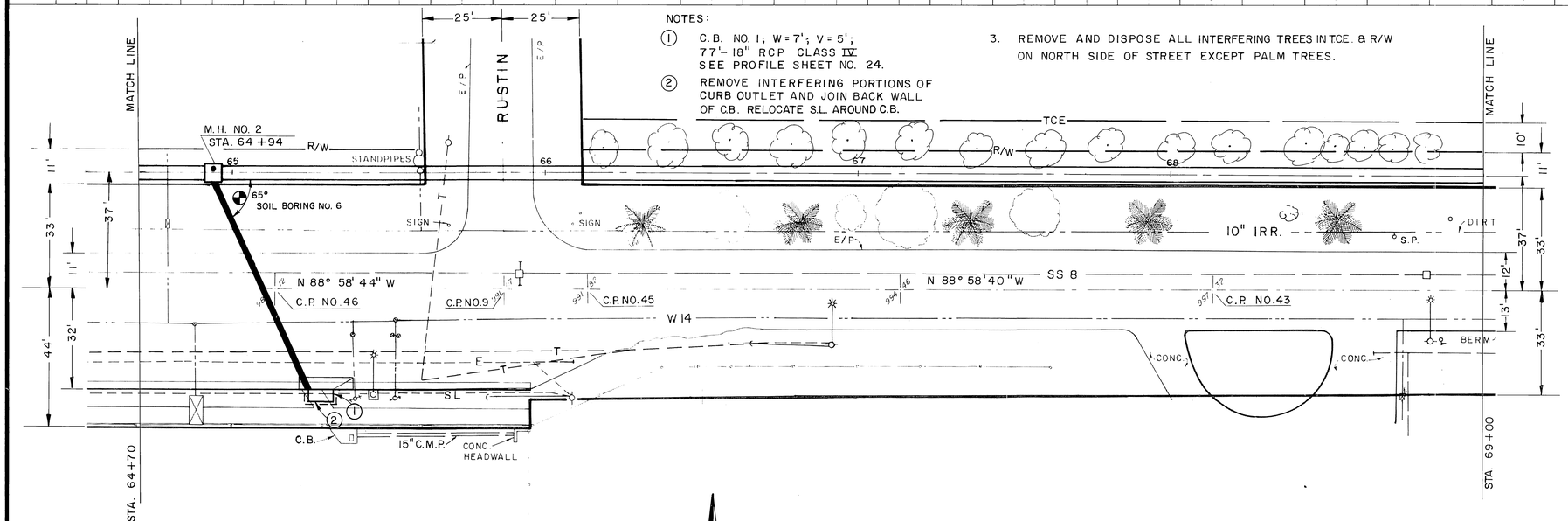
INDEX 4F

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 15 OF 62

D-946

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.





NOTES:

1. C.B. NO. 1; W=7'; V=5'; 77'-18" RCP CLASS IV SEE PROFILE SHEET NO. 24.
2. REMOVE INTERFERING PORTIONS OF CURB OUTLET AND JOIN BACK WALL OF C.B. RELOCATE S.L. AROUND C.B.
3. REMOVE AND DISPOSE ALL INTERFERING TREES IN TCE. & R/W ON NORTH SIDE OF STREET EXCEPT PALM TREES.

PLAN

1"=20'

20' 0 20'

BENCH MARK EL. 991.07
SPIKE & CITY ENG. TAG.
NOTED C.P. NO. 9

SCALE:

DATE:

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE
	No Change		

AS BUILT

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY: MAS

APPROVED BY:
Kenneth L. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 2-30-79

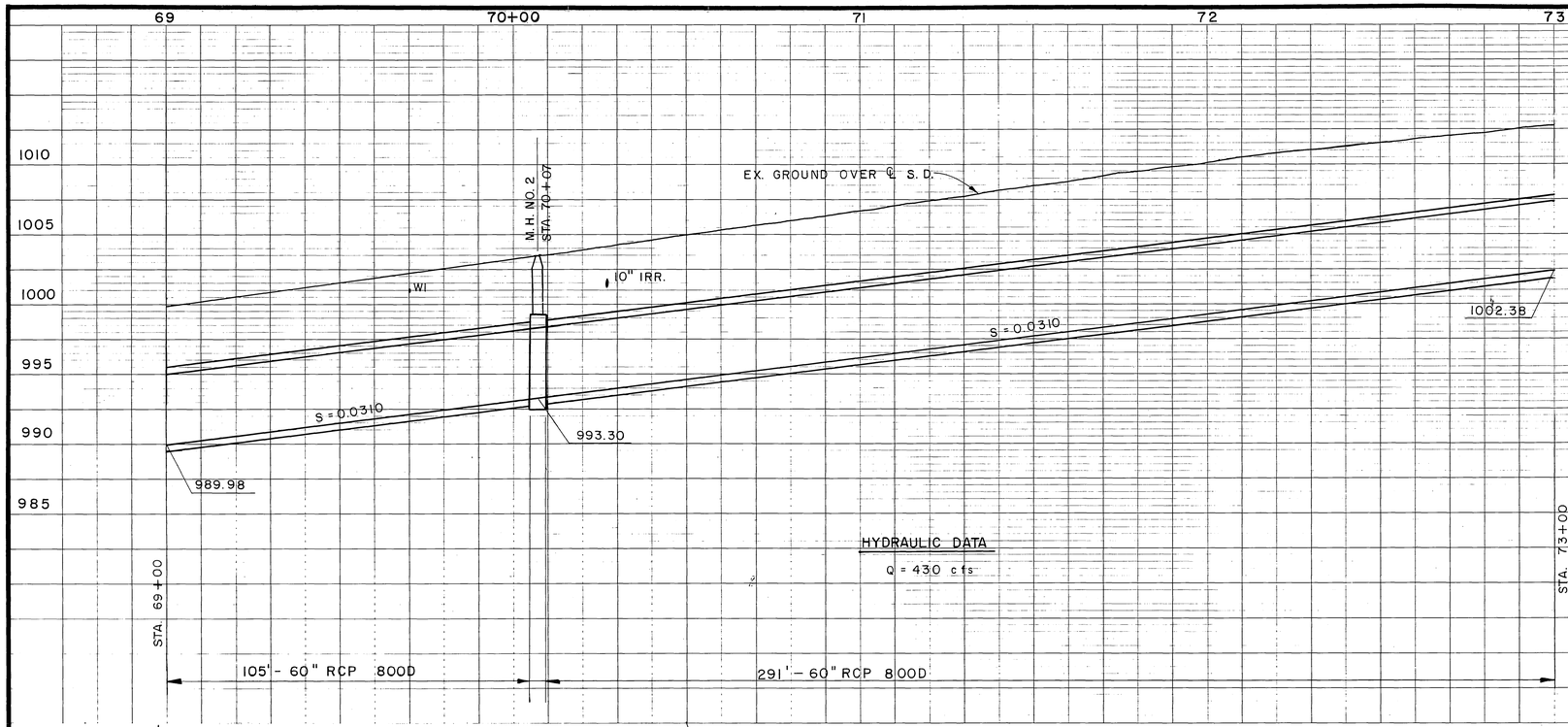
UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 64+60 TO STA. 68+90
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

INDEX 4F

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 16 OF 62

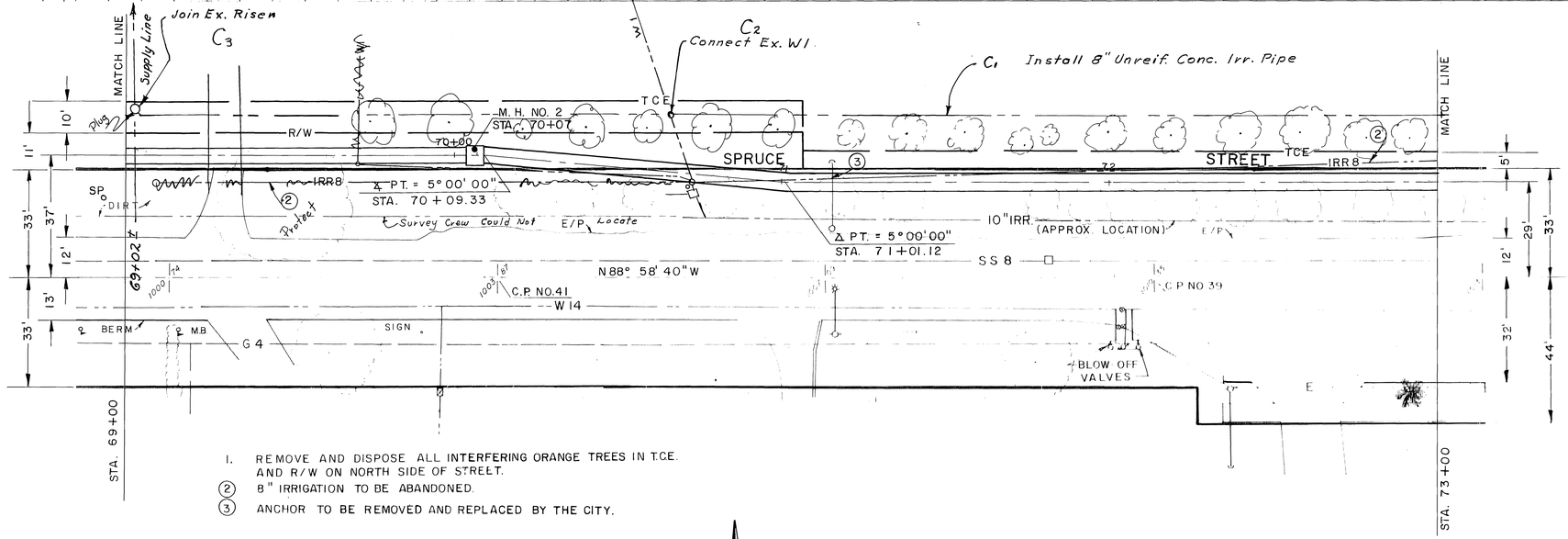
D-996

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.

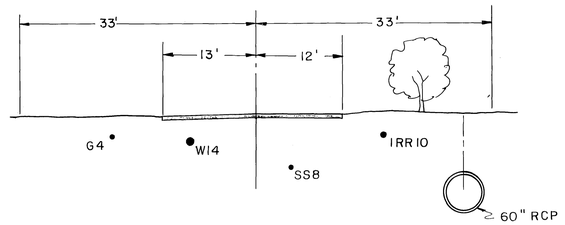


HYDRAULIC DATA

Q = 430 cfs



1. REMOVE AND DISPOSE ALL INTERFERING ORANGE TREES IN T.C.E. AND R/W ON NORTH SIDE OF STREET.
2. 8" IRRIGATION TO BE ABANDONED.
3. ANCHOR TO BE REMOVED AND REPLACED BY THE CITY.



SECTION AT STA. 72+00

10' 0 10'

PLAN

1"=20'

20' 0 20'

BENCH MARK	
SCALE:	
DATE:	

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE
C_3	Changes As Shown	dds	2/4/80
C_2	Connect Ex WI	dds	2/4/80
C_1	Installed Irr 8" Pipe As Shown	dds	2/4/80

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY: WJ

APPROVED BY: Kenneth L. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-20-78

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 68+90 TO STA. 73+00
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

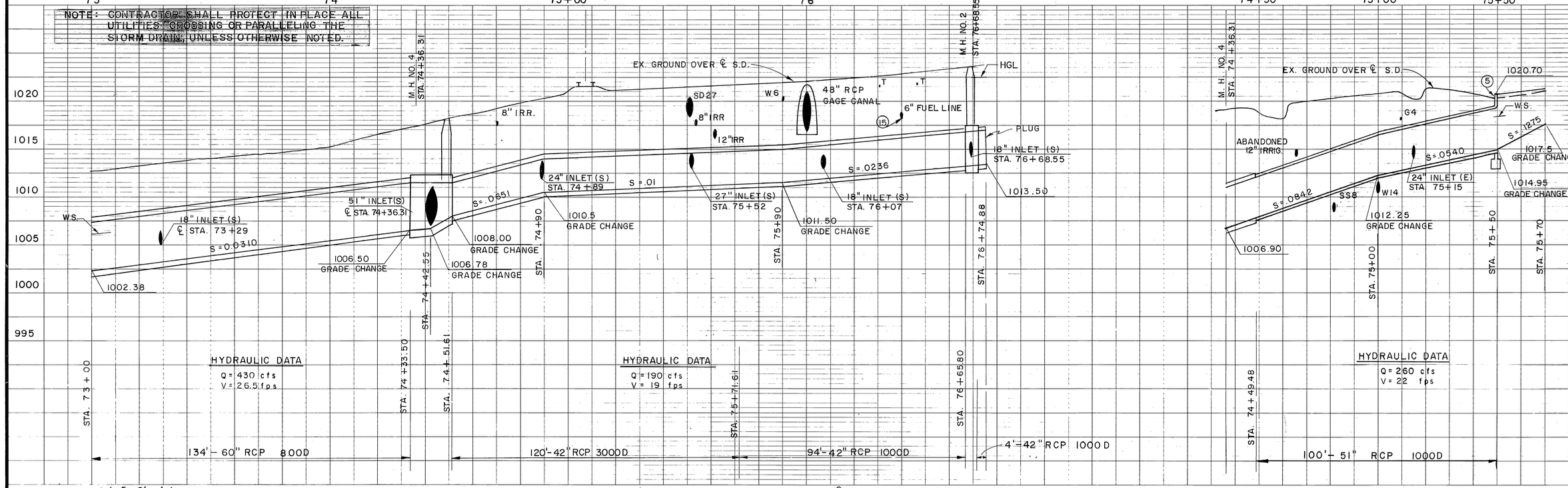
INDEX 45

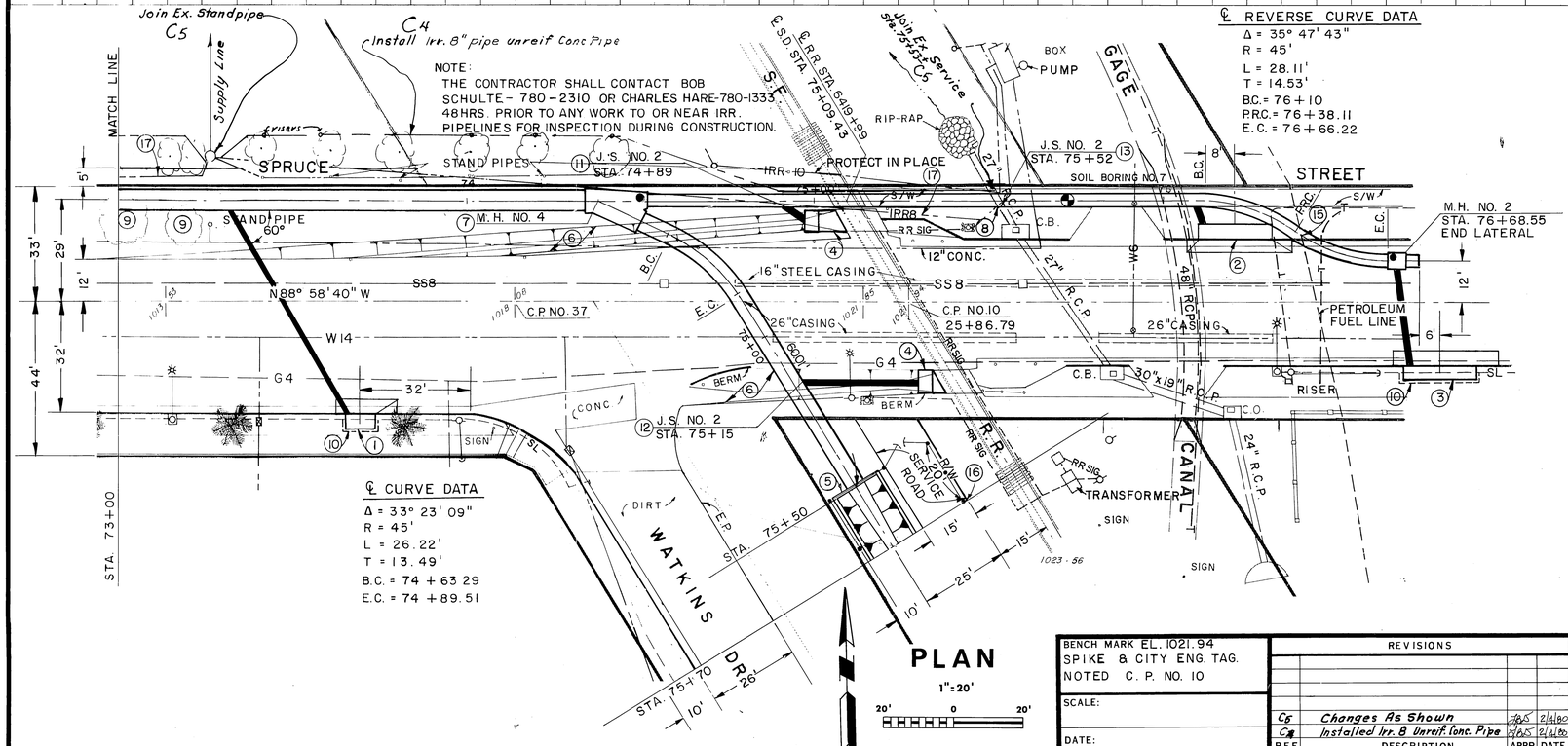
PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 17 OF 62

AS BUILT

D-9966

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.





℄ REVERSE CURVE DATA
Δ = 35° 47' 43"
R = 45'
L = 28.11'
T = 14.53'
B.C. = 76 + 10
P.R.C. = 76 + 38.11
E.C. = 76 + 66.22

NOTES:

1. C.B. NO. 1 ; W = 7' ; V = 5'
   69'-18" RCP CLASS IV
   SEE PROFILE SHEET NO. 24.
2. C.B. NO. 1, W = 21', V = 5'
   8'-18" RCP CLASS IV
   SEE PROFILE SHEET NO. 24.
3. C.B. NO. 1, W = 21'; V = 6'
   30'-18" RCP CLASS IV
   SEE PROFILE SHEET NO. 24.
4. FOR DROP INLET DETAILS
   SEE SHEET NO. 27.
   SEE PROFILES SHEET NO. 24.
5. FOR HEADWALL DETAILS
   SEE SHEET NO. 27.
6. REMOVE A.C. DITCH & FILL AS DIRECTED.
7. M. H. NO. 4, STA. 74+36.31
   A = 25° B = 51" C = 13'-7"
   D_1 = 60" D_2 = 42"
   ELEV. "R" = 1007.95 ELEV. "S" = 1006.90
8. CONNECT EX. 27" R.C.P.
9. REMOVE AND DISPOSE TREES.
10. RELOCATE S.L. AROUND C.B.
11. J.S. NO. 2 STA. 74+89
    A = 30° B = 24" C = 7.6' D = 42"
    E = 6.4' F = 1.6' G = 1.4' L = 5.8'
    EL. "R" = 1015.00 EL. "S" = 1011.80
12. J.S. NO. 2 STA. 75+15
    A = 60° B = 24" C = 4.5' D = 48"
    E = 3.0' F = 2.1' G = 1.7' L = 3.3'
    EL. "R" = 1014.30 EL. "S" = 1014.00
13. J.S. NO. 2 STA. 75+52
    A = 60° B = 27" C = 4.3' D = 42"
    E = 3.0' F = 0.6' G = 1.7' L = 3.6'
    EL. "R" = 1015.00 EL. "S" = 1013.00
14. G4 TO BE RELOCATED BY OTHERS PRIOR TO CONSTRUCTION.
15. 6" HIGH PRESSURE REFINED PETROLEUM PRODUCTS PIPELINE. 48 HOURS PRIOR TO EXCAVATION CALL MR. N.H. WILHELM AT (714) 877-2373.
16. END OF 6' CHAIN LINK FENCE.
17. 8" IRR. TO BE ABANDONED.

BENCH MARK EL. 1021.94
SPIKE & CITY ENG. TAG.
NOTED C. P. NO. 10

SCALE:

DATE:

REVISIONS			
C5	Changes As Shown	JDS	2/14/80
C4	Installed Irr. 8 Unreif. Conc. Pipe	JDS	2/14/80
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY: MLS

APPROVED BY: Kenneth F. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

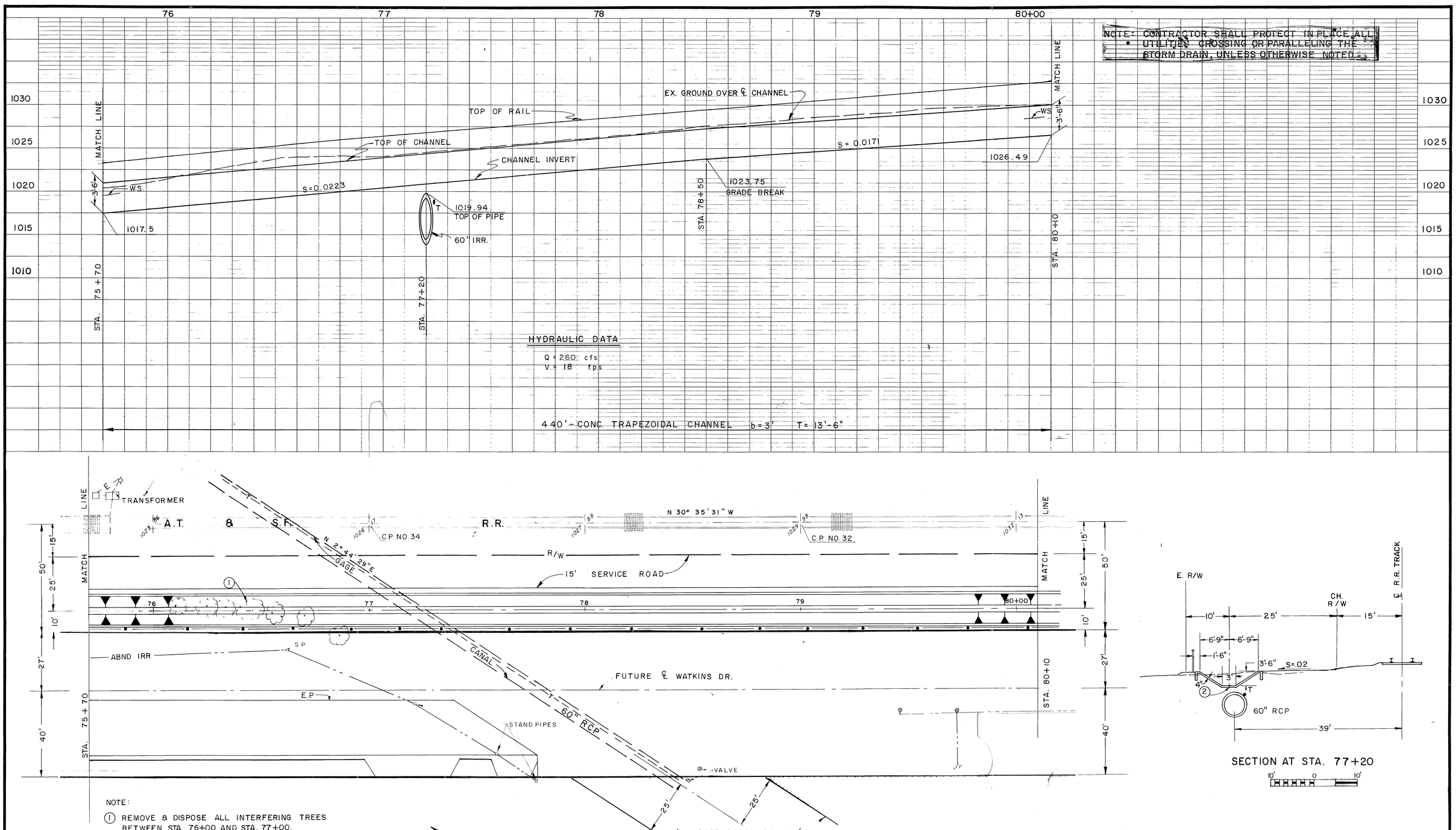
UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 73+00 TO STA. 75+70
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

INDEX 5

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 18 OF 62

AS BUILT

D-446



INDEX WF

BENCH MARK EL. 1022.64
CUT + IN BASE OF RR FLASHER S.W. SIDE OF RR & SPRUCE

SCALE:

DATE:

REVISIONS

R.E.F.	DESCRIPTION	APPR.	DATE
	No Change		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J. L. H.
DRAWN BY: S. L. M.
DATE DRAWN: 9-77
CHECKED BY:

APPROVED BY:
Kenneth P. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

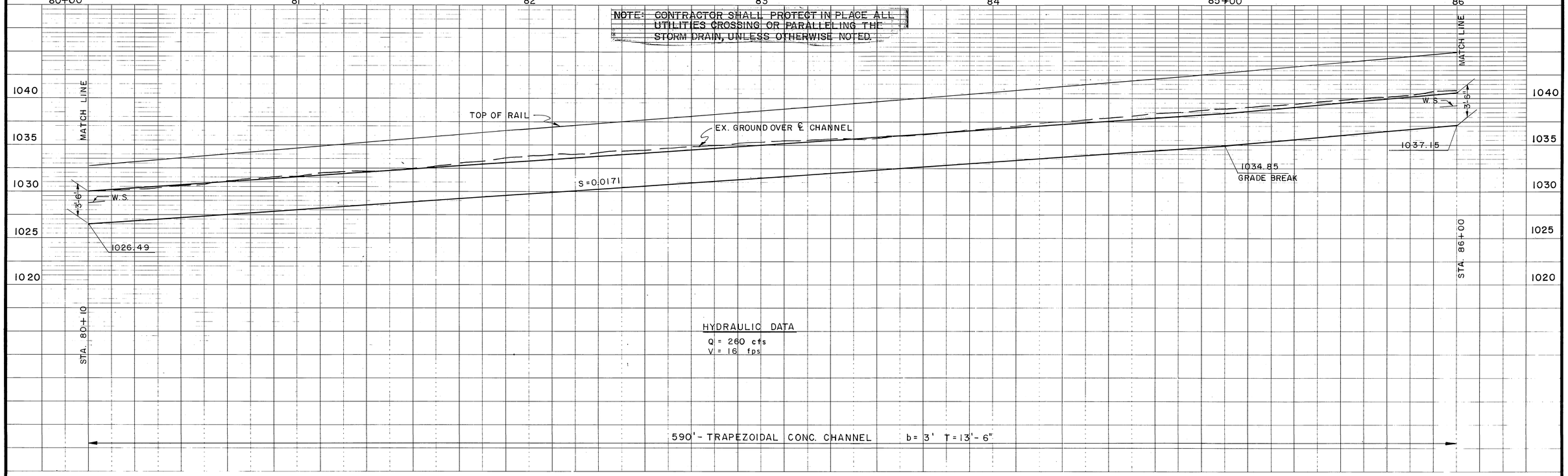
UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II
STA. 75+70 TO STA. 80+10
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

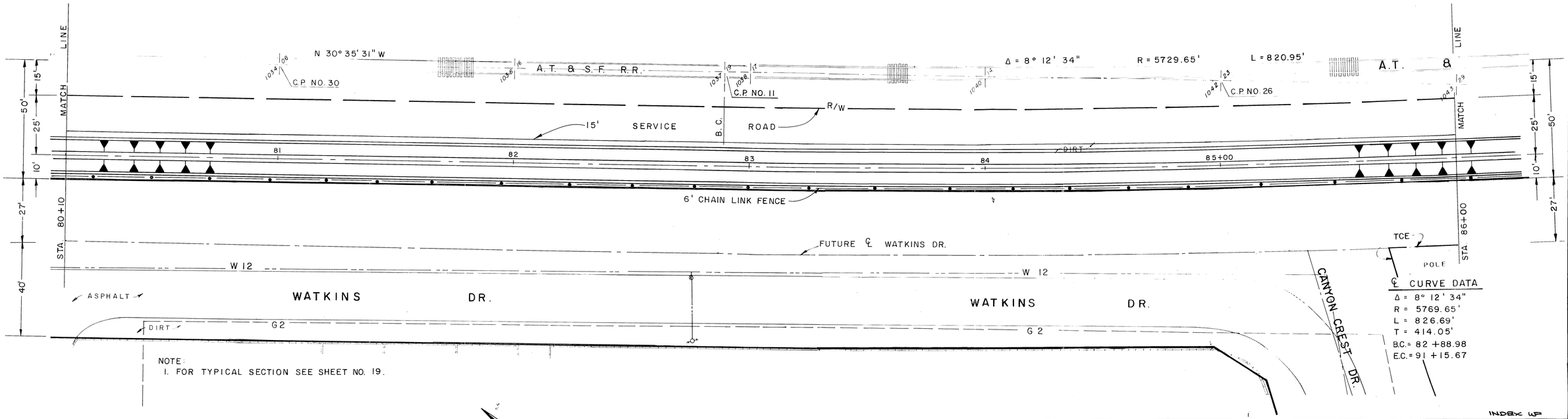
PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 19 OF 62

AS BUILT

D-446

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.





NOTE:
1. FOR TYPICAL SECTION SEE SHEET NO. 19.

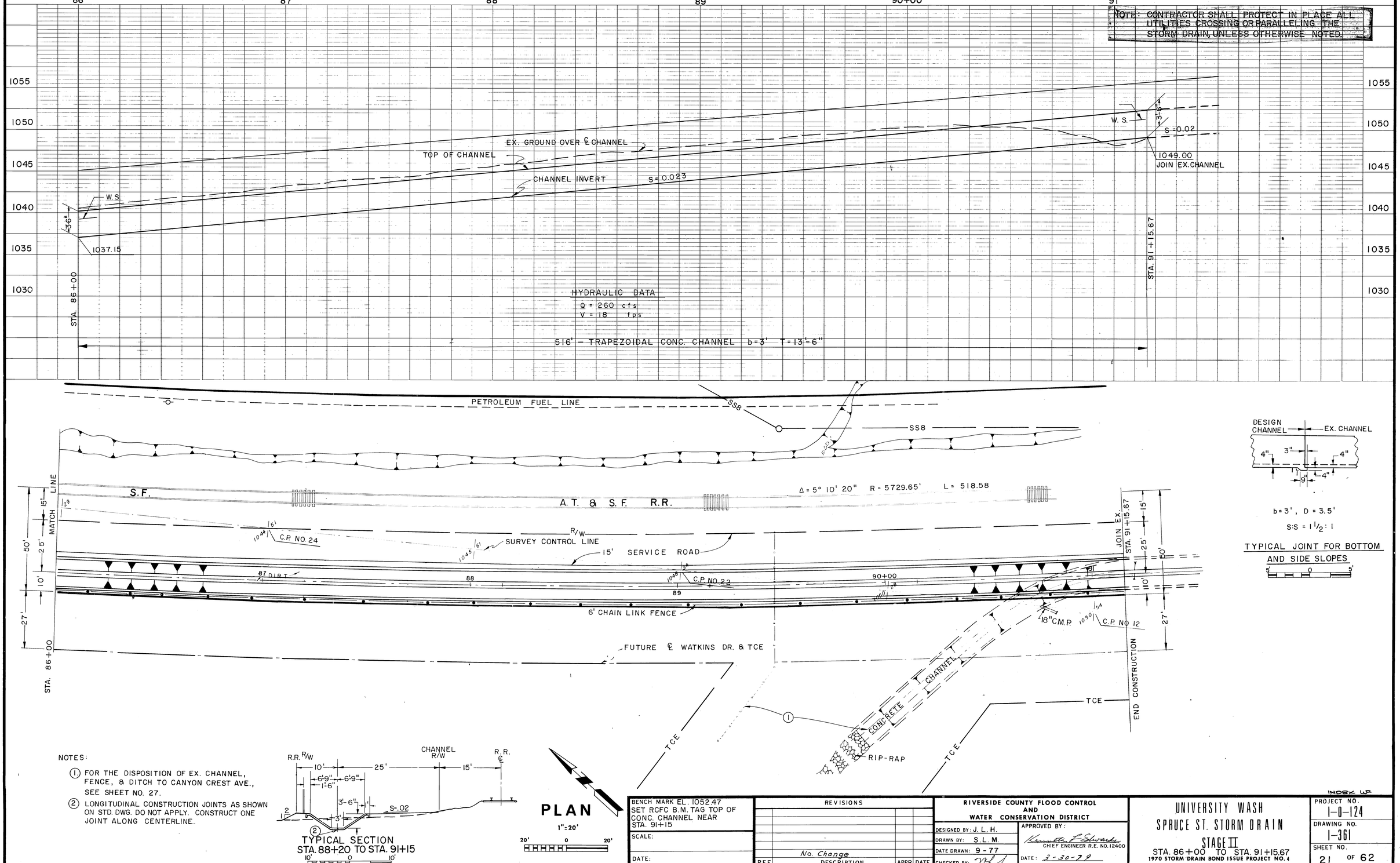
PLAN
1"=20'
20' 0 20'

INDEX 45

BENCH MARK EL. 1037.19 TOP OF 2" I.P. NOTED C.P. NO. 11	REVISIONS	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	UNIVERSITY WASH SPRUCE ST. STORM DRAIN STAGE II STA. 80+10 TO STA. 86+00 1970 STORM DRAIN BOND ISSUE PROJECT NO. 4
SCALE:	REF. No Change DESCRIPTION APPR. DATE	DESIGNED BY: J. L. H. DRAWN BY: S. L. M. DATE DRAWN: 9-77 CHECKED BY:	APPROVED BY: Kenneth L. Edwards CHIEF ENGINEER R.E. NO. 12400 DATE: 3-30-79
DATE:	AS BUILT		PROJECT NO. 1-0-124 DRAWING NO. 1-361 SHEET NO. 20 OF 62

D-9946

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN, UNLESS OTHERWISE NOTED.



b = 3', D = 3.5'

S:S = 1 1/2 : 1

TYPICAL JOINT FOR BOTTOM AND SIDE SLOPES

5' 0 5'

NOTES:

1. FOR THE DISPOSITION OF EX. CHANNEL, FENCE, & DITCH TO CANYON CREST AVE., SEE SHEET NO. 27.
2. LONGITUDINAL CONSTRUCTION JOINTS AS SHOWN ON STD. DWG. DO NOT APPLY. CONSTRUCT ONE JOINT ALONG CENTERLINE.

② TYPICAL SECTION STA. 88+20 TO STA. 91+15

10' 0 10'

PLAN

1"=20'

20' 0 20'

BENCH MARK EL. 1052.47 SET RCFC B.M. TAG TOP OF CONC. CHANNEL NEAR STA. 91+15	REVISIONS				RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SCALE:					DESIGNED BY: J. L. H.
DATE:					DRAWN BY: S. L. M.
					DATE DRAWN: 9-77
	R.E.F.	No. Change DESCRIPTION	APPR.	DATE	CHECKED BY:

APPROVED BY: Kenneth F. Edwards, CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

UNIVERSITY WASH SPRUCE ST. STORM DRAIN STAGE II

STA. 86+00 TO STA. 91+15.67

1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

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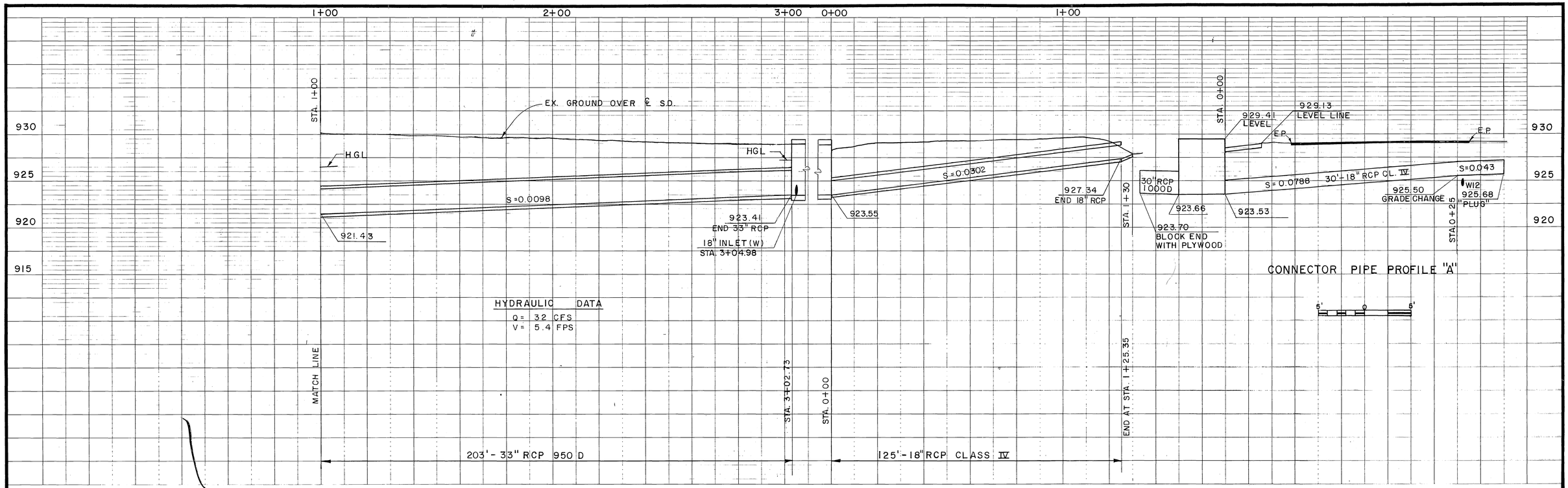
PROJECT NO. 1-0-124

DRAWING NO. 1-361

SHEET NO. 21 OF 62

AS BUILT

D-446

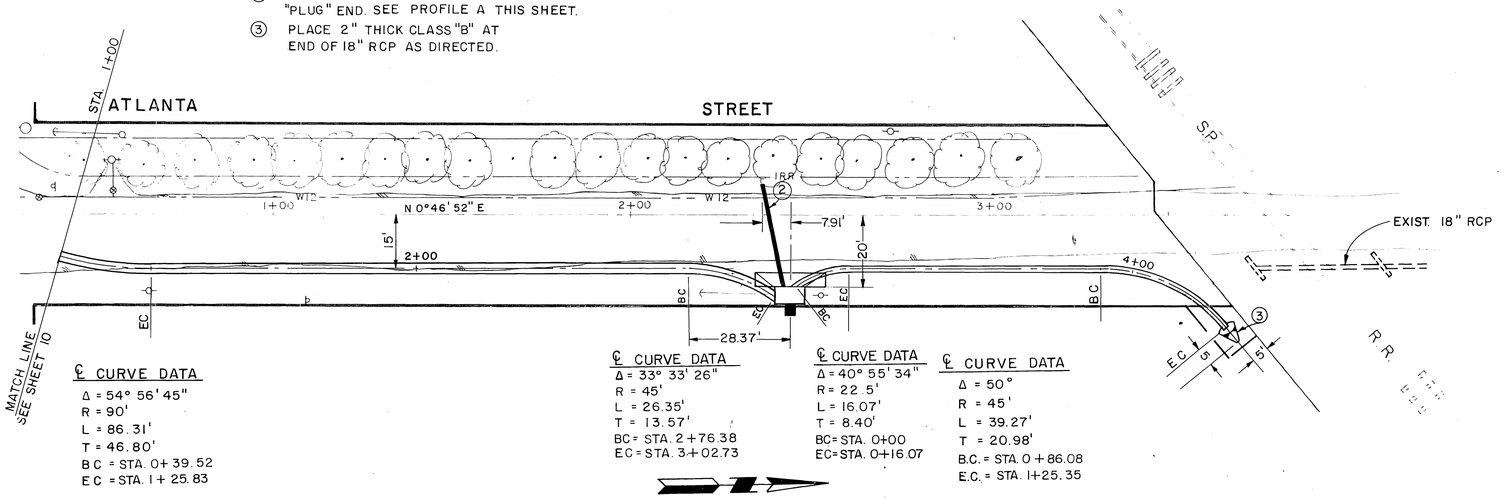


NOTES:

① CB NO. 1, W=7', V=6.5' A'=4'
4'-30" RCP 10000. CONNECT THROUGH BACKWALL OF CATCH BASIN. 6" C.F. AT BOTH ENDS OF L.D.

② INSTALL 30'-18" RCP, CLASS IV & "PLUG" END. SEE PROFILE A THIS SHEET.

③ PLACE 2" THICK CLASS "B" AT END OF 18" RCP AS DIRECTED.



℄ CURVE DATA
Δ = 54° 56' 45"
R = 90'
L = 86.31'
T = 46.80'
BC = STA. 0+39.52
EC = STA. 1+25.83

℄ CURVE DATA
Δ = 33° 33' 26"
R = 45'
L = 26.35'
T = 13.57'
BC = STA. 2+76.38
EC = STA. 3+02.73

℄ CURVE DATA
Δ = 40° 55' 34"
R = 22.5'
L = 16.07'
T = 8.40'
BC = STA. 0+00
EC = STA. 0+16.07

℄ CURVE DATA
Δ = 50°
R = 45'
L = 39.27'
T = 20.98'
B.C. = STA. 0+86.08
E.C. = STA. 1+25.35

PLAN
1"=20'
20' 0 20'

REVISIONS			
	No. Change		
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: P.A.U.
DRAWN BY: S.L.M.
DATE DRAWN: 3-79
CHECKED BY: MLD

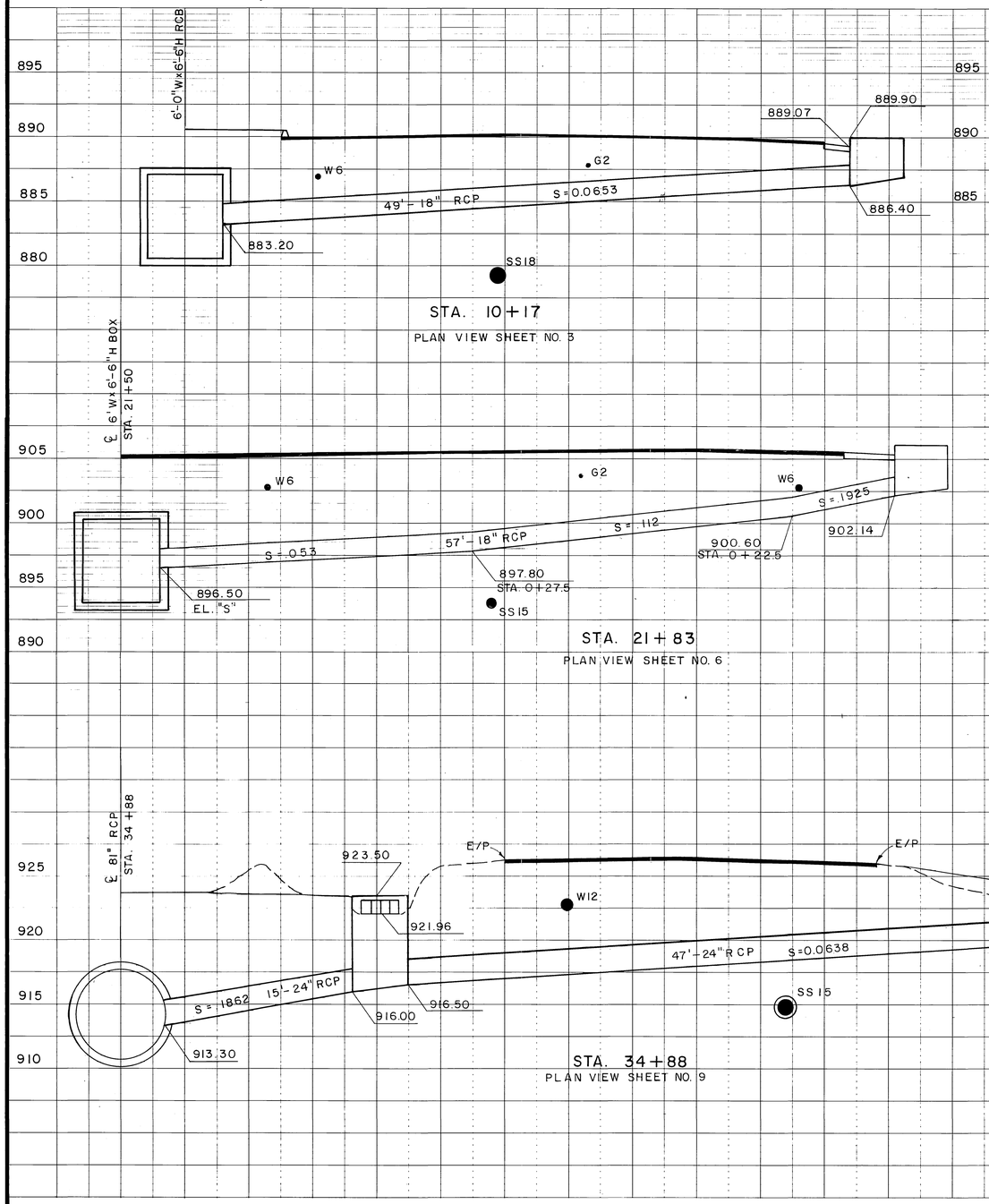
APPROVED BY:
Kenneth H. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

UNIVERSITY WASH SPRUCE ST. STORM DRAIN STAGE II
ATLANTA LATERAL
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 22 OF 62

AS BUILT

D-446



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REVISIONS			
No Change			
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: T. H.
DRAWN BY: S.L.M.
DATE DRAWN: 12-78
CHECKED BY: MBS

APPROVED BY: Kenneth L. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 2-20-79

UNIVERSITY WASH SPRUCE ST. STORM DRAIN STAGE II

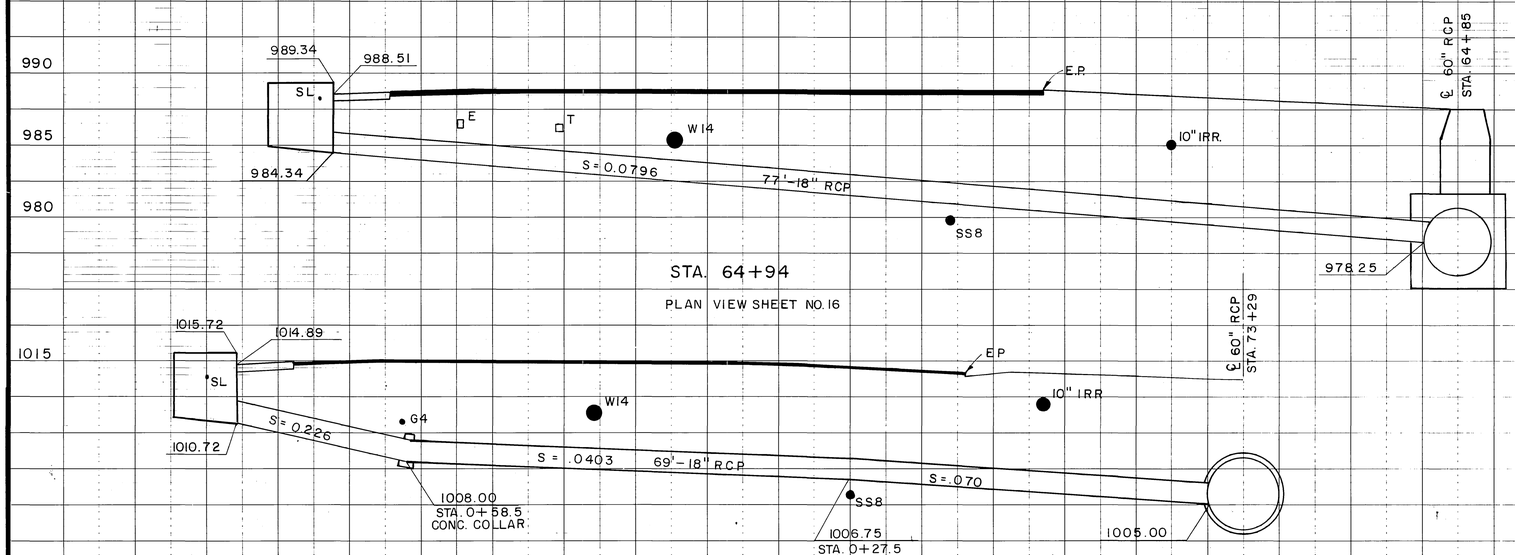
CONNECTOR PIPE PROFILES

1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 23 OF 62

AS BUILT

D-4496

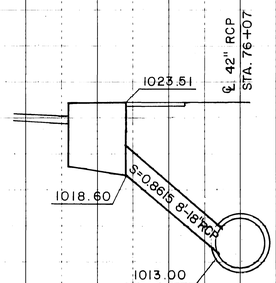


STA. 64+94

PLAN VIEW SHEET NO. 16

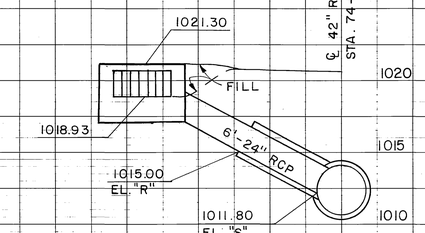
STA. 73+29

PLAN VIEW SHEET NO. 18



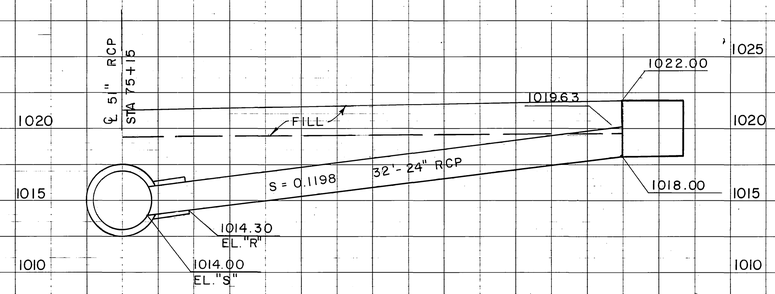
STA. 76+07

PLAN VIEW SHEET NO. 18



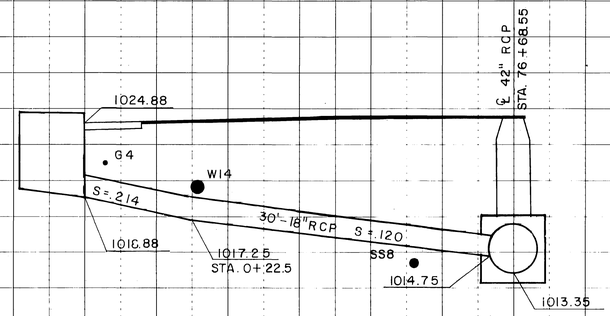
STA. 74+89

PLAN VIEW SHEET NO. 18



STA. 75+15

PLAN VIEW SHEET NO. 18



STA. 76+68.55

PLAN VIEW SHEET NO. 18

5' 0 5'

REVISIONS			
	No Change		
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: T. HUI
DRAWN BY: S.L.M.
DATE DRAWN: 5-78
CHECKED BY:

APPROVED BY: Kenneth L. Edwards
CHIEF ENGINEER RE. NO. 12400
DATE: 3-30-79

UNIVERSITY WASH SPRUCE ST. STORM DRAIN STAGE II

CONNECTOR PIPE PROFILES

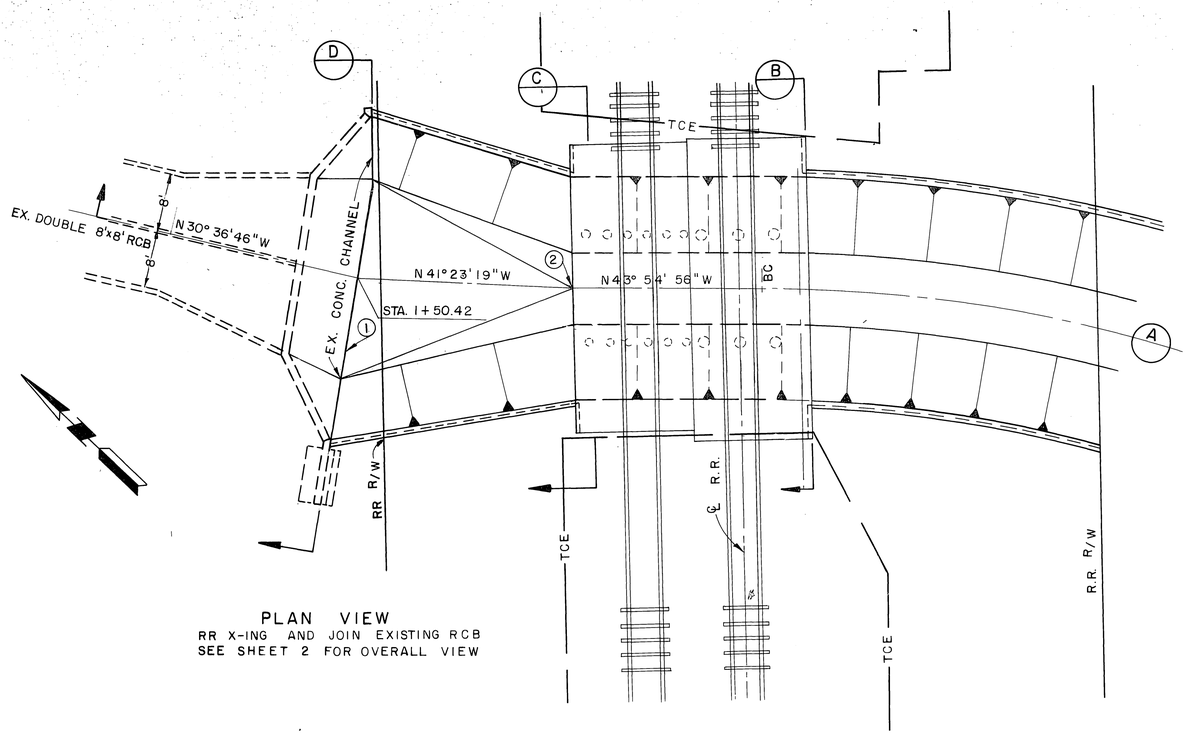
1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

INDEX WF

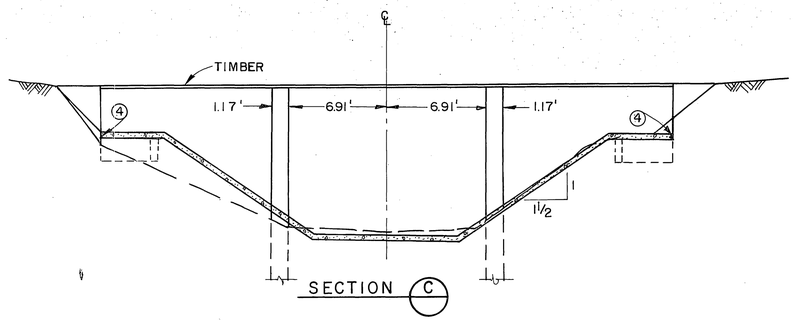
PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 24 OF 62

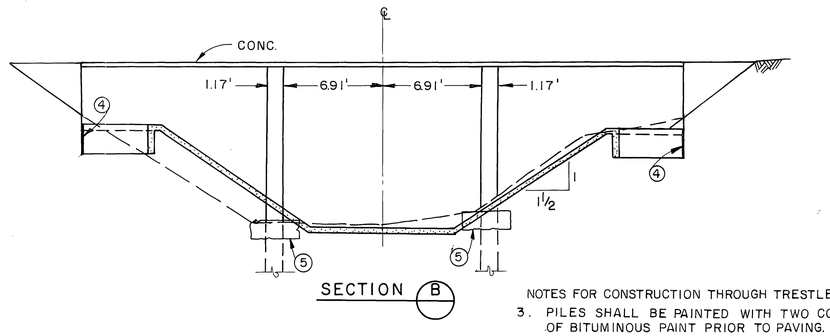
AS BUILT

D-446



PLAN VIEW
RR X-ING AND JOIN EXISTING RCB
SEE SHEET 2 FOR OVERALL VIEW





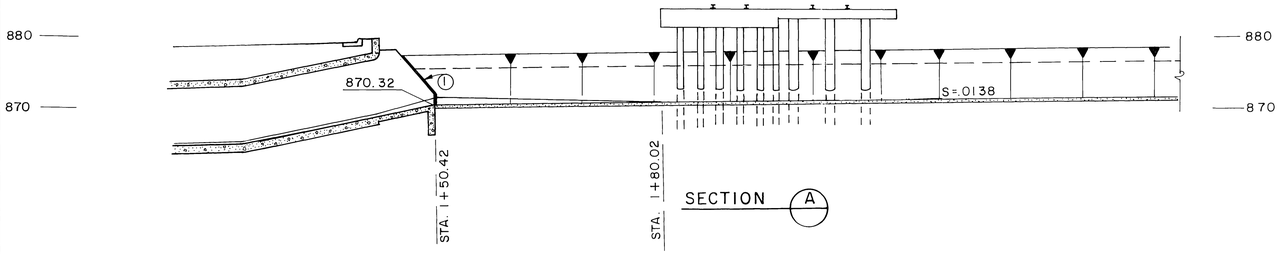
NOTES FOR CONSTRUCTION THROUGH TRESTLE

3. PILES SHALL BE PAINTED WITH TWO COATS OF BITUMINOUS PAINT PRIOR TO PAVING.

(4) PLACE ½" THICK EXPANSION JOINT MATERIAL BETWEEN CHANNEL PAVING AND ABUTMENTS.

(5) REMOVE INTERFERING PORTIONS OF EXISTING CONCRETE COLLARS AT PILES.

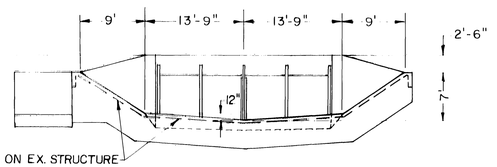
5' 0 5'



NOTES FOR CONSTRUCTION AT STATE RCB INLET

(1) PLACE ½" THICK EXPANSION JOINT MATERIAL BETWEEN STATE INLET AND NEW CONC.

(2) STA. 1+80.02, Δ PT. 2° 31' 37"



SCALE
10' 0 10'

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REVISIONS			
No Change			
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY:
DRAWN BY:
DATE DRAWN:
CHECKED BY: NLA

APPROVED BY: Kenneth L. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

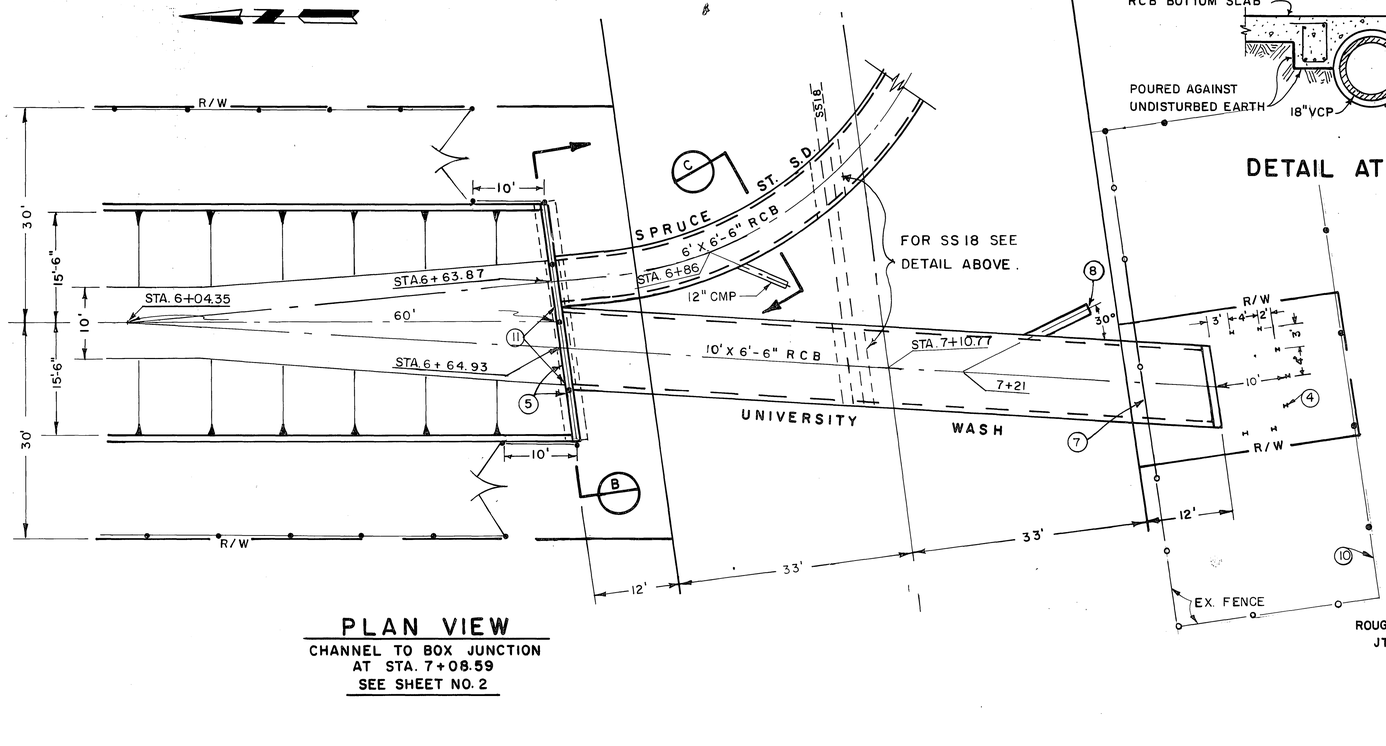
UNIVERSITY WASH SPRUCE ST. STORM DRAIN STAGE II

1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 25 OF 62

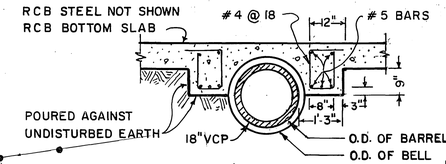
AS BUILT

D-496

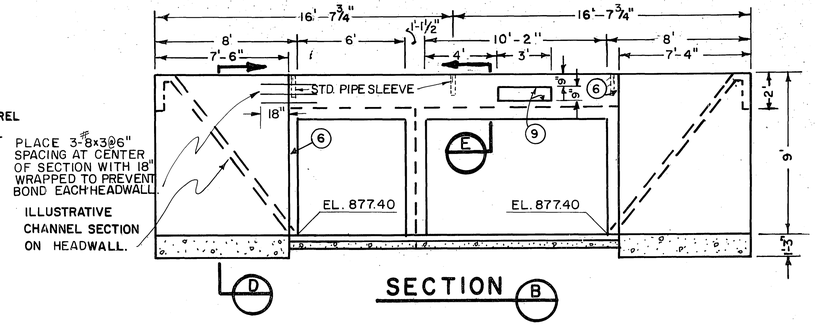


PLAN VIEW

CHANNEL TO BOX JUNCTION
AT STA. 7+08.59
SEE SHEET NO. 2



DETAIL AT SS 18



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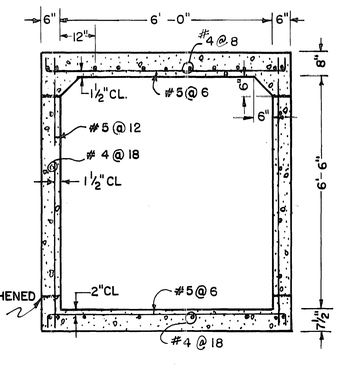

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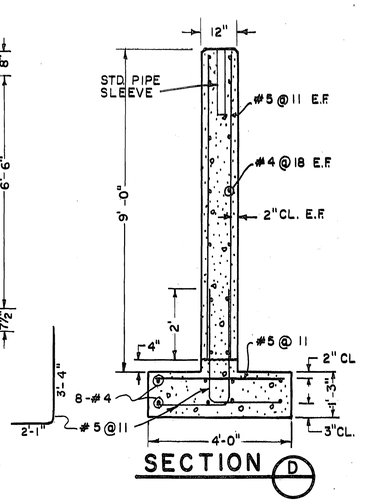

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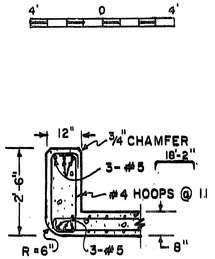

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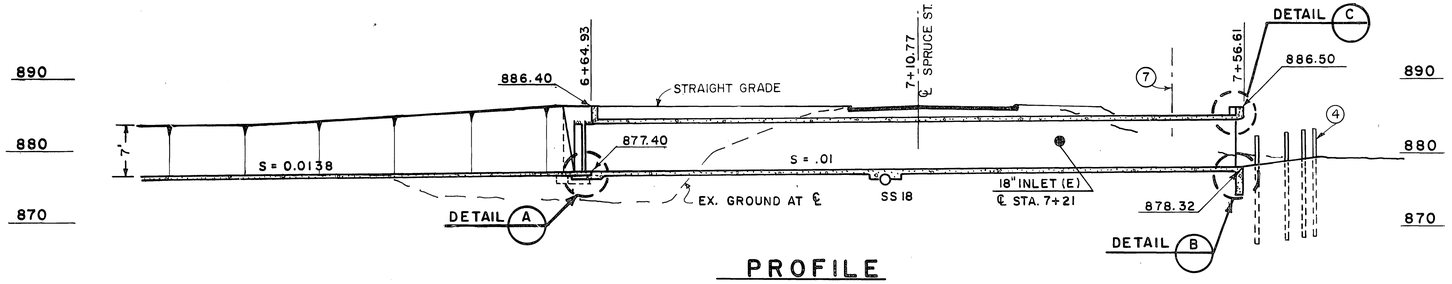


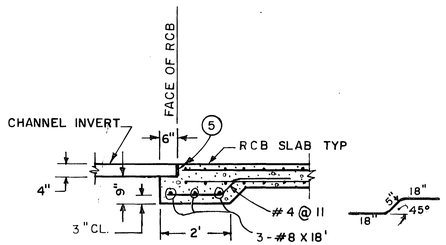
PROFILE

UNIVERSITY WASH

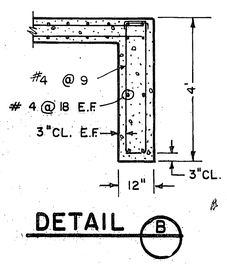
10' 0 10'

NOTES:

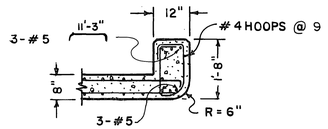
1. ALL REINFORCED CONCRETE SHALL BE CLASS "A".
2. 3/4" CHAMFER ON ALL EXPOSED EDGES OF CONCRETE.
3. SEE SHEET NO. 54 FOR RCB STRUCTURAL NOTES.
4. 7-60#/YD. RAIL, 15' LONG WITH 11' DRIVEN INTO GROUND LEAVING 4' EXPOSED.
5. PLACE 1/2" EXPANSION JOINT MATERIAL BETWEEN CHANNEL & REINFORCE CONCRETE. ALSO PLACE #4 x 20" @ 24"% WITH ONE END WRAPPED TO PREVENT BOND.
6. PLACE 1/2" EXPANSION JOINT MATERIAL BETWEEN BOXES AND HEADWALLS.
7. REMOVE AND REINSTALL METAL FENCE TO CLEAR RCB 2" ±.
8. INSTALL 8'-18" RCP CLASS IV AND PLUG. EL. "S"=881.07 SLOPE=0.1104.
9. FORMED OPENING FOR FUTURE ST. DRAINAGE. BLOCK WITH 1/2" PLYWOOD.
10. CONSTRUCT TEMPORARY CHAIN LINK FENCE AS SHOWN BEFORE REMOVING EX. FENCE.
11. BLOCK OPENING WITH 6' CHAIN LINK FENCE FABRIC. ANCHOR SECURELY IN PLACE AS DIRECTED. LEAVE 6" CLEAR AT BOTTOM SLAB. FABRIC TO REMAIN IN PLACE UNTIL FENCING IS COMPLETE FROM SPRUCE ST. TO R.R.



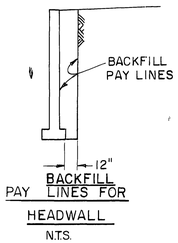
DETAIL A



DETAIL B



DETAIL C



TYPICAL SCALE

2' 0 2'

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE
	No Change		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY:
DRAWN BY: K.R.B.
DATE DRAWN:
CHECKED BY:

APPROVED BY: Kenneth L. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II

1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

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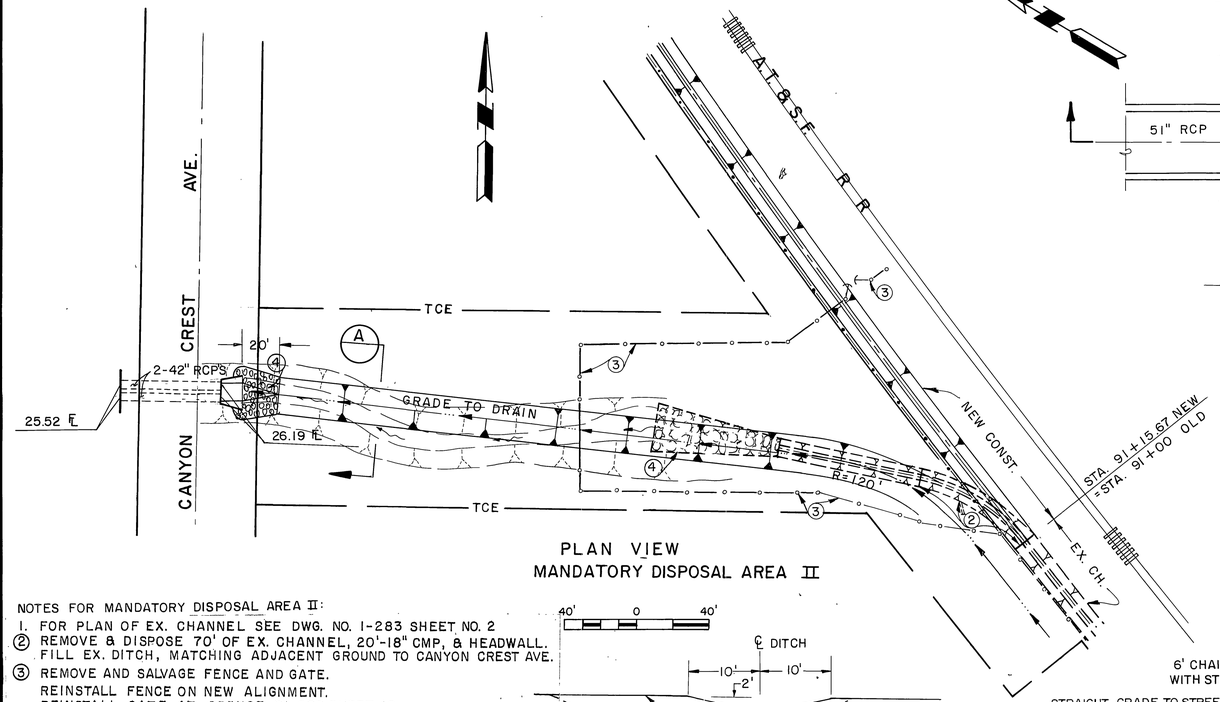
PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 26 OF 62

AS BUILT

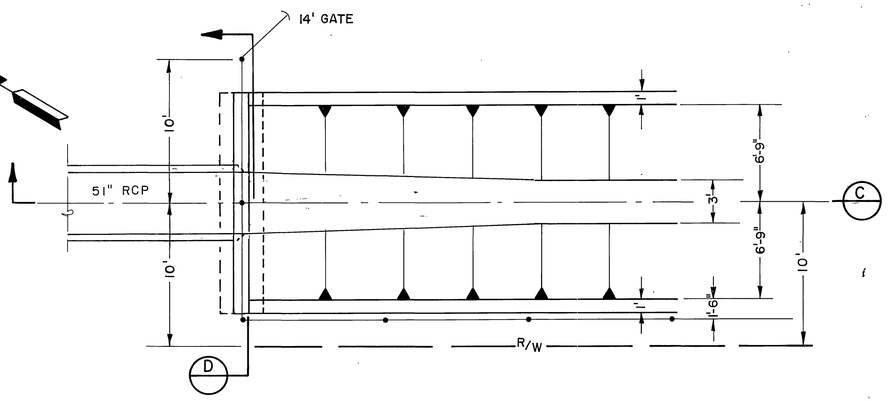
D-446



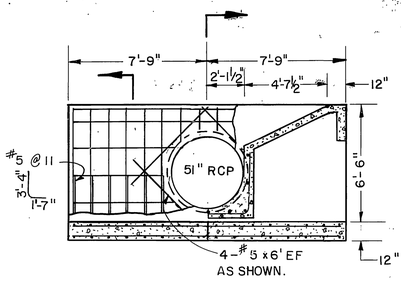
PLAN VIEW
MANDATORY DISPOSAL AREA II

NOTES FOR MANDATORY DISPOSAL AREA II:

1. FOR PLAN OF EX. CHANNEL SEE DWG. NO. I-283 SHEET NO. 2
2. REMOVE & DISPOSE 70' OF EX. CHANNEL, 20'-18" CMP, & HEADWALL. FILL EX. DITCH, MATCHING ADJACENT GROUND TO CANYON CREST AVE.
3. REMOVE AND SALVAGE FENCE AND GATE. REINSTALL FENCE ON NEW ALIGNMENT. REINSTALL GATE AT SPRUCE ST. SEE SHEET 18.
4. REMOVE RIPRAP AND PLACE AT INLET STRUCTURE AS DIRECTED BY THE ENGINEER.



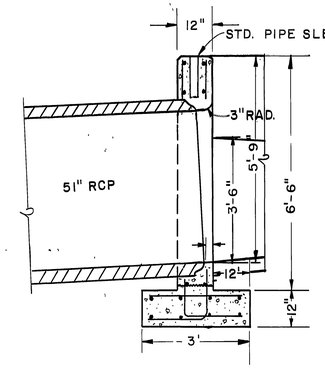
PLAN VIEW
CHANNEL AT STA. 75+50
FOR OVERALL VIEW SEE SHEET NO. 18

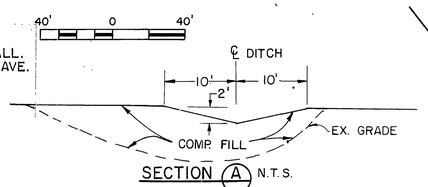


D / 26 — E

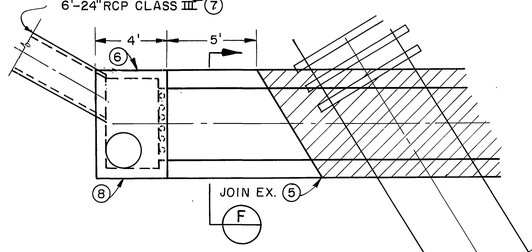
SECTION D

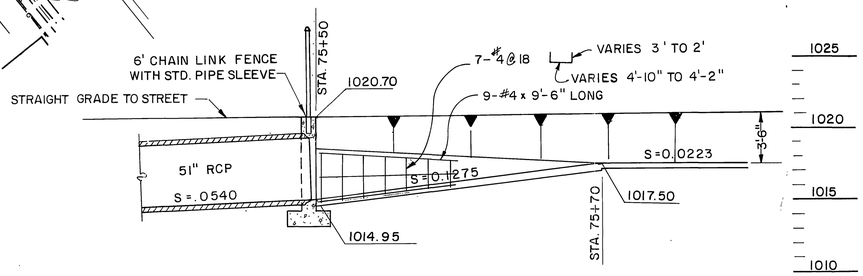
4' 0 4'





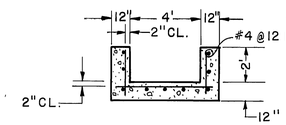
SECTION A N.T.S.





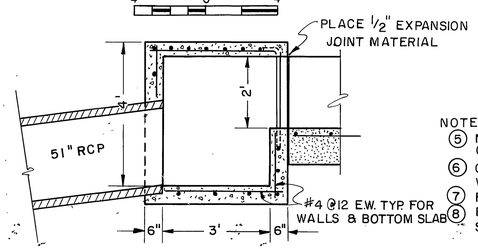
SECTION C

5' 0 5'



SECTION F

4' 0 4'



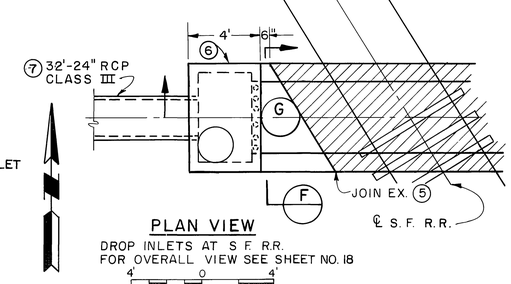
SECTION G

FOR ADDITIONAL DETAILS SEE STD. DWG. NO. C.B. 110

2' 0 2'

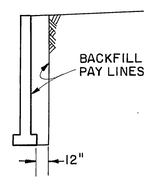
NOTES FOR DROP INLETS:

5. MEET EX. CHANNEL CLEAN & IMBED EX. RE-BARS.
6. CONC. DROP INLET W=4' V=4'
7. FOR PROFILE SEE SHEET NO. 24
8. REINFORCEMENT SHOWN IN SECTION "G" TYP. FOR N. DROP INLET



PLAN VIEW
DROP INLETS AT S.F. RR.
FOR OVERALL VIEW SEE SHEET NO. 18

4' 0 4'



BACKFILL PAY LINES FOR HEADWALL
N.T.S.

SECTION E

SEE SECTION D / 26 FOR ADDITIONAL DETAILS

2' 0 2'

NOTE:

SEE NOTES 1, 2, 5 ON SHEET 26.
ADJUST REINFORCEMENT LENGTHS AS REQUIRED.

REVISIONS			
	No Change		
REF.	DESCRIPTION	APPR.	DATE

AS BUILT

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: A.K.H & J.H.
DRAWN BY: S.L.M.
DATE DRAWN: 1-31-79
CHECKED BY:

APPROVED BY:
Kenneth T. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II

1970 STORM DRAIN BOND ISSUE PROJECT NO. 4

INDEX 6F

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 27 OF 62

D-996

NOTES:

1. F.G. DENOTES FINISHED GRADE
2. REMOVE & REPLACE R.R. FENCE
3. PROTECT IN PLACE, TRIM OVERHANGING BRANCHES AS REQUIRED
4. PLUG BOTH ENDS OF EX. 18" C.P. AND FILL DITCH TO GRADE AS DIRECTED.
5. REMOVE, SALVAGE AND REINSTALL EX. CHAIN LINK FENCE AFTER CONST.
6. INSTALL TEMPORARY CHAIN LINK FENCE.
7. REMOVE AND DISPOSE ALL TREES.
8. PLACE 52'-18" RCP CLASS IV. INLET EL.=878.76
9. PLACE 2" THICK CLASS "B" CONC. AT INLET AS DIRECTED.
10. SEE NOTE (10) ON SHEET 26.

STA 1+50.42

RETAINING WALL

12" R.C.P.

24" C.M.P.

14' GATE

STRAIGHT GRADE

878.76 F.G.

STRAIGHT GRADE

879.09 F.G.

TOE

TCE

MANDATORY FILL AREA I
GRADE EVEN WITH TOP OF CONC. CHANNEL

880 F.G.

881 F.G.

882 F.G.

883 F.G.

884 F.G.

885 F.G.

886 F.G.

6' CHAIN LINK FENCE

UNIVERSITY WASH

FILL AREA

14' GATE

RR STA. 460+54.6

GUARD RAIL

STRAIGHT GRADE 164± 10'

RADIAL LINE

REMOVE & REPLACE

REMOVE POSTS

C.P. NO. 2-4
2 X 2 B.B. TBM
EL. 877.96

100±

FILL AREA
GRADE SWALE AS SHOWN

REFLECTORS

BUILDINGS

ASPHALT

S/W

ASPHALT BERM

SS 15

W 6

ST.

SPRUCE ST. STORM DRAIN

REMOVE & DISPOSE

R.C.P.

E.C.

R/W

SPRUCE

CONC. DR.

20' 0 20'

INDEX 4E

REVISIONS			
	No. Change		
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: J.L.H.
DRAWN BY: S.L.M.
DATE DRAWN: 6-78
CHECKED BY: [illegible]

APPROVED BY:
Kenneth J. Edwards
CHIEF ENGINEER R.E. NO. 12400
DATE: 3-30-79

UNIVERSITY WASH
SPRUCE ST. STORM DRAIN
STAGE II

1970 STORM DRAIN BOND ISSUE PROJECT NO. 1

PROJECT NO. 1-0-124
DRAWING NO. 1-361
SHEET NO. 28 OF 62

D-496