PROJECT TITLE

SAN JOSE DRAIN IMPROVEMENTS

OWNER OR AGENT

CITY OF ALBUQUERQUE, NEW MEXICO

DATE:

FEBRUARY, 1977

1 2 3 4 5 6 7 8 9 10 11 12
0 8 | 0 0 3 | 0 1 | 7 9

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER-FIELD
C.H. Quintana
DATE 12/4/79

RECORD DRAWING
DATE MAY 7 1979

GORDON HERKENHOFF & ASSOCIATES, INC.
302 Eighth Street, N.W.
Albuquerque, New Mexico 87102
(505) 247-0294

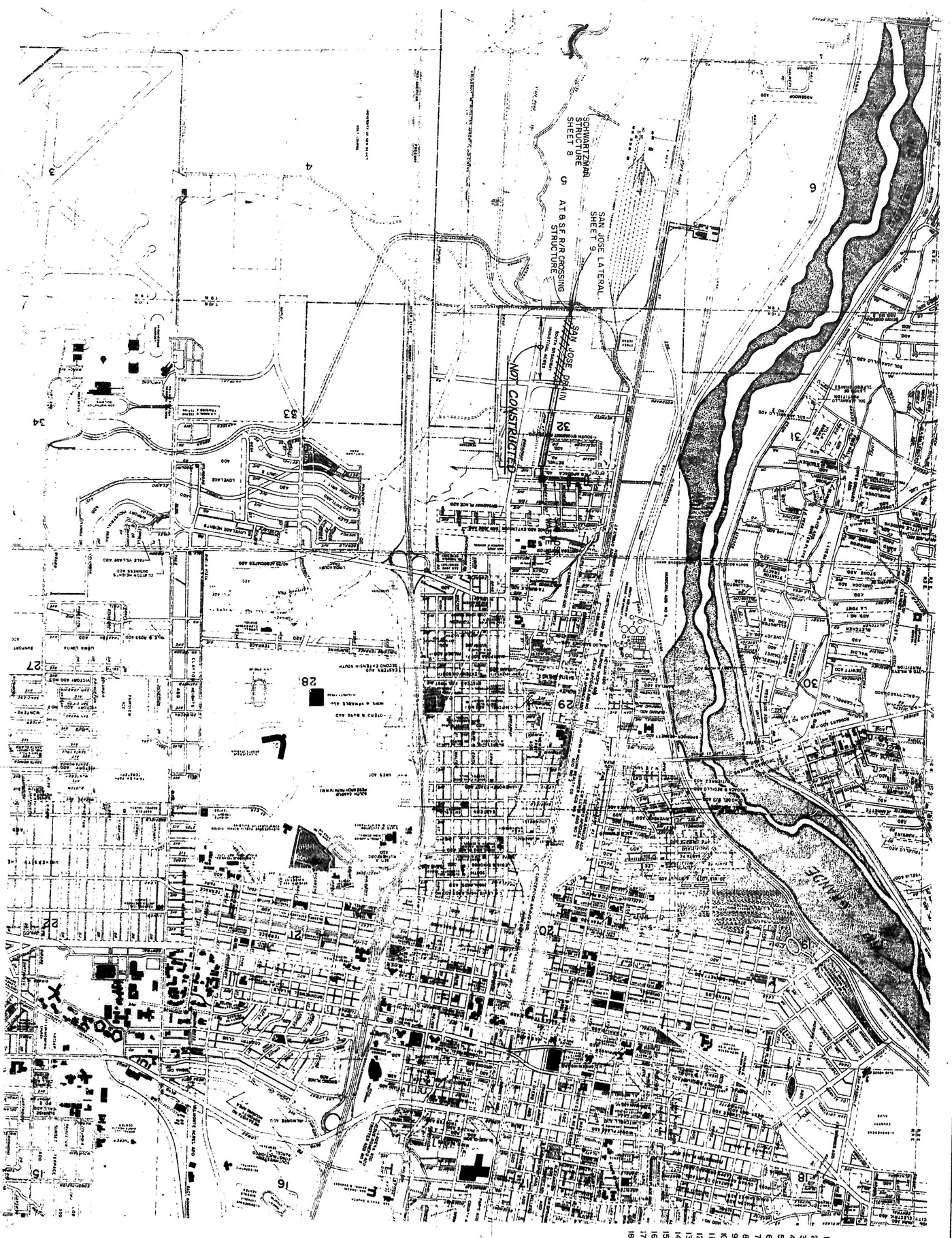
HOBBS FARMINGTON SANTA FE

GORDON E. HERKENHOFF
NEW MEXICO
243
REGISTERED LAND SURVEYOR
REGISTERED PROFESSIONAL ENGINEER

G E Herkenhoff

DRAWING 44-122

08-003-79



INDEX OF DRAWINGS

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SCALE 1" = 1,000'

RECORD DRAWING
DATE MAY 7 1979

APPROVED AS BUILT DRAWINGS
ASST. CITY ENGINEER-FIELD
DATE 5-8-79

08 09 02 14

GORDON HERKENHOFF & ASSOCIATES, INC.
302 Eighth Street, N.W. Albuquerque, New Mexico 87102

Project Title: SAN JOSE DRAIN IMPROVEMENTS
Sheet Title: LOCATION MAP - INDEX
Project Location: ALBUQUERQUE, N.M.
Date: 10-20-76
Drawn: D.C.
Designed
Checked
Quantities
Record

Sheet 2 of 18

Sta. 0-35 ~ Begin channel bottom transition.

New Multiplate Arch
14'-0" Span, 7'-3" Rise, 8 Gage
Remove Existing 2-72" C.M.P.

Existing headwall & pipe to be removed

Sta. 1+50 ~ End channel bottom transition

33" R.C.P.

12" M.P.

G.E. Plant

6' Chain link Fence

Sta. 1+52.5 ~ Build Headwall & Rundown See Detail II Sheet No 14

Sta. 2+65 ~ Build Headwall & Rundown. See Detail III Sheet No 14

10' Wire Enclosed Riprap

Inv. EL. 33.54

Inv. EL. 31.80

Inv. 24.65

Remove 4"ø steel pipe guardrail

NOTE:
1. See Sheet No 9 for structure Layout and details.
2. See Sheets No 19 & 15 for San Jose Lateral layout & details.

Set Rebar

Relocate Fence

AT & SF Railway spur tracks

AT & SF

200' Railway R/W

PROPERTY TIE
U.S.B.R. Brass Cap E. Right of way
STA. 109+41.60

Bench mark: top of conc. headwall on west side of drain 50' North S.L. corner General Electric plant fence EL= 4932.88

Survey line

Existing Channel

Sta. 2+26 ~ Build Conc. Headwall & Rundown. See Detail II Sheet No 14. Remove and replace exist. Flap Gate.

CHANNEL CONSTRUCTION NOT DONE UNDER THIS CONTRACT FROM STA. 1+60 TO STA. 16+15

100'
Transition Berm width from 0 to 2'

36" C.M.P. w/ Flap Gate

Power line

120' R/W

East R/W Line

33" R.C.P. STA. 1+52.5

36" C.M.P. STA. 2+26

12" C.M.P. STA. 2+65

Existing Ground

Cut

Existing Channel Profile

S=0.00173333

S=0.00144408

Slope Paving

Channel Invert

Multiplate Arch

INV. EL. 24.90

INV. EL. 25.04

INV. EL. 25.19

INV. EL. 25.33

INV. EL. 25.48

STA. 6+25 ~ Build Concrete Headwall. See Detail IV Sheet No 14

STA. 7+16 ~ Cut existing 4" Steel Pipe to match slope

STA. 8+21.8 ~ Remove Headwall & cut existing 21" R.C.P. to match slope

STA. 9+03.5 ~ Build Concrete Headwall. See Detail IV Sheet No 14

STA. 9+56 ~ Cut existing 4" Steel Pipe to match slope

STA. 9+99 ~ Build concrete Headwall. See Detail IV Sheet No 14

STA. 10+35 ~ Build Headwall. See Detail IV Sheet No 14

STA. 10+55 ~ Build Headwall. See Detail IV Sheet No 14

STA. 11+58.5 ~ Build Headwall for 2-5" Steel Pipes. See Detail V Sheet No 14

STA. 11+70.5 ~ Cut 4" Steel Pipe to match slope.

G.E. Plant

Existing Channel

8' Chain Link Fence

3" Steel Line

4" Steel Line

8" Steel Line

5" Steel Lines

& Construction and & Channel

STA. 6+00

STA. 7+00

STA. 9+00

STA. 12+00

STA. 6+50 ~ Cut existing 8" Steel Pipe to match slope

STA. 7+35 ~ Cut existing 4" Steel Pipe to match slope

STA. 7+86 ~ Cut existing 4" Steel Pipe to match slope

Inv. EL. 31.59

STA. 9+48 ~ Build Conc. Headwall and Rundown. See Detail I. Remove and replace existing Flap Gate.

STA. 10+52 ~ Cut 4" Steel Pipe to match slope.

Survey Line

Note: Right-of-way boundaries shown on these plans are based upon deeds of trust descriptions used in conjunction with plat maps on file in the Bernalillo County Courthouse. Right-of-way lines have not been verified by actual field survey.

Bench mark #1 in pole #3065

18" C.M.P. with Flap Gate

+48

23.76'

90°

PROPERTY TIE
STA. 9+53.20

3/4" I.P.

120' R/W

East R/W Line

BENCH MARK: #1
3/8" spike in power pole #3065
Right of Station 7+00. Elev. 4935.65

NOTE:
City datum is 0.28' lower than these plans.

SCALES:
1" = 20' Horiz.
1" = 10' Vert.

Power line

Existing Ground

Cut

Existing Channel Profile

S=0.00144408

Slope Paving

Channel Invert

+25 +30 +16 +35 +86 +21.8 +03.5 +99 +55 +52 +55 +59.5 +72.5

INV. EL. 25.43
INV. EL. 25.62
INV. EL. 25.77
INV. EL. 25.91
INV. EL. 26.06
INV. EL. 26.20
INV. EL. 26.34

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER-FIELD
DATE 12-4-79

RECORD DRAWING
DATE MAY 7 1979

E. E. Reinhardt
NEW MEXICO
241
REGISTERED PROFESSIONAL ENGINEER

PLATE 2 - DOUBLE PLAN
CHARLES BRUNING
MADE IN U. S. A.

SAN JOSE DRAIN IMPROVEMENTS SHEET 3 OF 18

STA. 12+13 ~ Build 8" Headwall. See Detail III Sheet Nº 14

STA. 12+17

STA. 12+25 Cut 5" & 8" Steel Pipes to match slope.

STA. 12+89.5

STA. 12+97.5 STA. 13+46.5 Cut 4", 8" & 5" Steel Pipes to match slope

STA. 13+48 ~ Build 8" Headwall. See Detail IV Sheet Nº 14

STA. 13+89 ~ Cut 5" Steel Pipe to match

8' Chain link fence

G.E. Plant

3-12" C.M.P.

STA. 13+20 ~ Cut existing 18" CMP to match slope.

STA. 14+79 Cut 5" Steel & 3~12" C.M.P. to match slope

STA. 14+82

STA. 14+84

STA. 14+86

STA. 14+93 ~ Cut 24" R.C.P. to match slope.

Remove conc. headwall

STA. 15+34 ~ Cut 5" Steel Pipe to match slope.

STA. 16+25 ~ Begin Channel Bottom Transition

STA. 16+42.475

INV. El. 4926.96

Existing Channel

STA. 16+04.4 ~ Build Headwall w/ Flap Gate & Rundown. See Detail I Sheet Nº 13

Wire Enclosed Riprap

STA. 16+53.4 ~ Cut C.I. Pipe to match slope

Survey line

STA. 12+00

38.99'

40.16'

STA. 16+00

40.59'

CHANNEL CONSTRUCTION NOT DONE UNDER THIS CONTRACT FROM STA. 1+60 TO STA. 16+15

PROPERTY TIE STA. 13+10.31 3/4" I.P.

29.41' 84°52'20"

Power line

Existing Ground

Cut

East R/W Line

PROPERTY TIE STA. 16+66.91 3/4" I.P.

U.S.B.P. Brass Cap STA. 125+76

S=0.00144408

Slope Paving

Channel Invert

Existing Channel Profile

Guard rail ~ See Woodward Rd. Structure Layout sheet

STA. 17+75 ~ End Channel Bottom Transition

STA. 17+58.425

INV. El. 4927.12

72" R.C.P.

Oil Well

Remove 72" R.C.P.

72" R.C.P. See Pavement note below

STA. 0+00

STA. 0+75

95°31'

95°31'

Nail & Shiner

WOODWARD

S.D.M.H.

Water M.H.

PROPERTY TIE STA. 17+41.38 3/4" I.P.

Power line

Existing Ground

30" R.C.P.

1~72" R.C.P. & 1~72" C.M.P. (To be removed)

℄ Channel & ℄ Structure 40.32' LT. STA. 17+00.425 See Sheet Nº 10 for Structure Details

MANHOLE DATA

S.D.M.H. 16+75.27 Rt.

Rim El. = 36.64

30" E. INV. El. = 29.72

30" S.W. INV. El. = 29.54

S.D.M.H. 17+04.5, 87.5 Lt.

Rim El. = 37.94

12" E. INV. El. = 25.74

12" W. INV. El. = 25.49

Bench mark: 'a' at top of S. end pipe at Woodward and San Jose El. = 4934.33

INV. EL. = 27.21 | 27.36 | 27.50 | 27.64 | 27.78 | 27.92 | 27.07 | 28.08

4930 4920 4910 4900

STA. 20+40 ~ Cut C.M.P.A. to match slope

INV. El. 4931.50

STA. 21+75 ~ Begin Channel Bott. Transition

INV. El. 4927.62

STA. 21+94

℄ Construction and ℄ Channel

Existing Channel

STA. 22+78

STA. 23+00 ~ End Channel Bottom Transition To be removed

72" C.M.P.

INV. El. 4927.81

STA. 24+00

℄ Channel & ℄ Structure 41.75' LT. STA. 22+36.

STA. 1+35

STA. 1+00

Guard rail ~ See Wesmeco Structure Layout sheet

Replace existing 12" steel pipe thru Multiplate Arch. Build Concrete Collar around pipe @ arch.

Pavement Note

Remove existing pavement and replace with new. Build easy riding connections. See Sheet Nº 11 (Wesmeco) or Sheet Nº 10 (Woodward) for Structure details.

BENCH MARK: #2

3/8 spike in power pole

Right of Station 18+75 Elev. 4936.58

B.M. #2 in power pole

Power line

East R/W Line

PROPERTY TIE STA. 22+09.36

1" I.P.

WESMECO

Existing Ground

2~72" C.M.P.

SCALES

1" = 20' Horiz.

1" = 10' Vert.

RECORD DRAWING

DATE MAY 7 1979

0 0 | 0 0 3 | 0 4 7 9

APPROVAL OF AS BUILT DRAWINGS

ASST. CITY ENGINEER - FIELD

DATE 5/7/79

PLATE 2 - DOUBLE PLAN - CHARLES BRUNINGA MADE IN U.S.A.

SAN JOSE DRAIN IMPROVEMENTS SHEET 4 OF 18

PLAN — SURVEYED / PLOTTED / NOTE BOOK / NO. — ALIGNMENT CALCULATED BY / PLOTTED BY / CHECKED BY / STRUCTURE NOTATIONS CHKD. BY — DATE

PROFILE — SURVEYED / PLOTTED / NOTE BOOK / NO. — ALIGNMENT CALCULATED BY / PLOTTED BY / CHECKED BY / STRUCTURE NOTATIONS CHKD. BY — DATE

2.8'x4.3' C.M.P.A.

STA. 25+39 ~ Cut C.M.P.A. to match slope.

Build Conc. Headwall W/Flap Gate & Rundown. See Detail I Sheet Nº 13. 36" R.C.P. installed under Project Nº N.M.-A-1-2.

℄ Descanso St

36" R.C.P. W/Flap Gate

Exist. Conc. Headwall ~ To be removed

STA. 28+26 ~ Build Conc. Headwall & Rundown. Remove & replace exist. Flap Gate, See Det. I Sheet Nº 13

℄ Construction and ℄ Channel

STA. 28+18 ~ Build Concrete Headwall & Rundown. See Detail I Sheet Nº 13.

Build Conc. Headwall W/Flap Gate & Rundown. See detail I Sheet Nº 13. 36" R.C.P installed under Project Nº N.M.-A-1-2.

℄ Existing Channel

Survey line

BENCH MARK #3
3/8" spike in power pole
Right of station 28+05 Elev. 4937.99

Power line

120' R/W

East R/W Line

B.M. #3 in power pole

Channel Invert

INV. EL. 4932.27

S=0.00144408

℄ Existing Ground

Slope Paving

Existing Channel Profile

INV. EL. 4930.58

INV. EL. 4929.71

INV. EL. 4929.46

36" CMP

36" R.C.P. W/Flap Gate

NEW 6' CHAIN LINK FENCE

℄ Abajo St.

Extend 42" R.C.P. and cut to match slope STA. 33+80 ~

12' GATE

Remove temporary curb, gutter & paving. Replace with New Curb & Gutter, Sidewalks and Paving. Build to match existing.

Install new multiplate arch 12'-0" Span 6'3" Rise 12 gage

2 - Existing 72" C.M.P. to be removed

℄ Const.

Existing 8" C.I. water line to remain in service during construction and placed on top of new structure as directed by the Engineer.

8" Water Line was cut and capped inside San Jose reservoir fence.

P.I. STA. 34+60.01 ℄ Const.
Δ = 9°00' LT.
STA. 34+22.83 ℄ Const. = STA. 15+75.28 ℄ Bethel Ave.

Sta. P.I.+60' ℄ Survey

Build Conc. Headwall W/Flap Gate & Rundown. See detail I Sheet Nº 13. 36" R.C.P. installed under Project Nº N.M.-A-1-2.

Build 2½" ϕ Pipe Handrail See detail Sheet Nº 12

Cedar

Bethel Dirt Road

PROPERTY TIE STA. 34+00

1½" I.P.

S=0.0036363 Multiplate Arch

Existing 2-72" C.M.P. (To be removed)

12'-0" Span, 6'-3" Rise 12 gage

SCALE
1" = 20' Horiz.
1" = 10' Vert.

INV. EL. 4929.95

INV. EL. 4929.77

INV. EL. 4929.37

INV. EL. = 28.03 / 28.22 / 28.37 / 28.51 / 28.66 / 28.80 / 28.94 / 29.09 / 29.23 / 29.38 / 29.56 / 29.93 / 30.30

4930 / 4920 / 4910 / 4900

24 25 26 27 28 29 30 31 32 33 34 35 36

RECORD DRAWING
DATE MAY 7 1979

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER-FIELD
DATE 12-6-78

REGISTERED PROFESSIONAL ENGINEER

PLATE 2 - DOUBLE PLAN - CHARLES RUNNING MADE IN U. S. A.

SAN JOSE DRAIN IMPROVEMENTS SHEET 5 OF 18

BENCH MARK # 4
3/8" spike in power pole # 2720
Right of Station 36+70 Elev. 4942.12

BENCH MARK # 5
3/8" spike in base 36" elm on North side.
Left of Station 41+00 Elev. 4941.36

N

STA. 36+60.01 Const. ℄ =
STA. 37+39.65 Survey Line

B.M. # 4 in power pole # 2720

P.I. STA. 37+07.45 Sur.
Δ=38°56' L.T.

STA. 37+05.01
Δ=89°56' L.T.
End Multiplate Arch
Build Junction Box No. 3
See Sheet Nº 15

Limits of Grading

Remove existing 2-72" C.M.P.
Multiplate Arch
12' Span, 6'3" Rise, 12 Gage

8' C.L.

31.67'

16" C.M.P. to be removed

Remove & Salvage Fence

6' Chain link

Survey line

℄ Construction

72" R.C.P.

4' Wash line

24" R.C.P.
INV. EL. 34.40

36" R.C.P.
INV. EL. 34.98

10" Steel
24" R.C.P.
12" C.M.P.
10" Steel

Build 6' Dia Type 'C' Manhole

Remove and Salvage fence

WV

Opening in fence, no gate.

Remove & Salvage Fence

6' Chain Link

R/W Line

Limits of Grading

STA. 40+57.84
Build Junction Box No. 4
See Sheet Nº 14

54" R.C.P.
INV. EL. 31.40

72" R.C.P.
INV. EL. 32.09

STA. 40+99.58 ~ 17' RT. Const. ℄
Build Junction Box Nº 5
See Sheet Nº 15

℄ Existing 72" R.C.P.

Willows
Ditch ℄
Willows & Small trees (To be removed)
Ditch ℄
B.M. # 5 in tree
Small trees

Building
Concrete pad

Note: Right-of-way boundaries shown on these plans are based upon deeds of trust descriptions used in conjunction with plat maps on file in the Bernalillo County Courthouse. Right-of-way lines have not been verified by actual field survey.

SCALE
1"=20' Horiz.
1"=10' Vert.

CONSTRUCTION NOTES ~ 24" R.C.P., 10" Steel & 12 & 36" C.M.P.
1. Remove existing concrete headwalls and slabs.
2. Remove existing 24" R.C.P. to first joint & extend into manhole.
3. Construct concrete collar at connection of 24" R.C.P.
4. Construct concrete collars at connection of 10" steel and 12" C.M.P. and extend pipes into junction box.

CONSTRUCTION NOTES ~ 54" & 72" R.C.P.
1. Remove existing concrete headwalls and slabs.
2. Remove existing 54" & 72" R.C.P. to first joint & extend into J.B.
3. Construct concrete collar at 54" & 72" R.C.P. connections. See Sheet Nº 14 for details.
4. Existing chain link fence to be removed and delivered to city yards.
5. All willows, trees & brush to be removed from old ditch area.

PROFILE
SURVEYED
PLOTTED
DRAWN CHECKED
NOTE BOOK
NO.
BY
DATE

Existing Ground
Finish Grade
4' Dia Access M.H.
S=0.003363
Existing 2-72" C.M.P. (To be removed)
12'-0" Span x 6'-3" Rise
Multiplate Arch ~ 12 Gage
S=0.00156
2-72" R.C.P.
Existing Channel Profile
Floor Elev. = 31.40
S=0.00156
2-72" R.C.P.
4940
4930
4920

INV. EL. = 30.30
End Multiplate Arch
Build Junction Box No. 3
Out INV. EL. = 30.65
See Sheet No. 15
Build Junction Box No. 2
IN INV. EL. = 31.19
INV. EL. = 31.34
INV. EL. = 31.49
INV. EL. = 31.65
Build Junction Box No. 4
IN and OUT INV. EL. = 31.74
North INV. EL. = 31.40
West INV. EL. = 31.74
INV. EL. = 31.80
STA. 40+99.58 ~ Build Junction Box Nº 5, 17' Rt. of Const. ℄
INV. IN. = 32.00
INV. OUT = 31.90

38 37+05.01 37+05.01 39 40 41 42

1 2 3 4 5 6 7 8 9 10 11 12
0 8 0 0 3 1 0 6 1 9

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER-FIELD
DATE 12/6/82

RECORD DRAWING
DATE MAY 7 1979

E. E. Herkenhoff
NEW MEXICO
243
REGISTERED PROFESSIONAL ENGINEER
AND LAND SURVEYOR

PLATE 1 SINGLE PLAN
CHARLES BRUNING
MADE IN U.S.A.

PLAN
SURVEY(ED) PLOTTED HORIZONTAL CHECKED RT O' WAY CHECKED
NOTE BOOK NO.
BY DATE

PROFILE
SURVEYED PLOTTED GRADES CHECKED BENCH TIES STRUCTURE NOTATNS CHKD
NOTE BOOK NO.
BY DATE

45

N

39.0 40.0 41.0 42.0 43.0 38.0 4938 4940 4942 4945 4935

Ditch ℄ Willows & Small Trees (to be removed)

B.M. #6 in stump Ditch ℄ Small trees

R/W Line

BENCH MARK # 6
3/8" spike in top 4" stump in ditch. Left of Station 45+00 Elev. 4942.32

6' Chain link Remove & Salvage Fence

℄ Survey

72" R.C.P.

24" R.C.P. INVEL=33.91

Conc. headwall

℄ Construction

STA. 45+46.19
Build Junction Box No 6
See Sheet No 15

STA. 45+31.81 (℄ Surv.)

INVEL 35.46

INVEL 32.62

INVEL 33.51

S.S.M.H.

Drop Inlet

36" RCP

10" C.I. pipe

Conc. INV=33.00 10" C.I.

INV=32.50

Conc.

Remove & Salvage Fence to S.E. corner of well house fence.

Existing 6' Chain-link fence

STA 43+30.19 Build 8' DIA. Type 'C' Manhole

Limits of Grading

Θ = 22°30'
Φ = 45°00'

CONSTRUCTION NOTES ~ 24" R.C.P.
1. Remove existing concrete headwall.
2. Remove existing 24" R.C.P. to first joint & extend to J.B.
3. Construct concrete collar at connection of 24" R.C.P. See Sheet No 14 for details.

CONSTRUCTION NOTES AT END OF PROJECT
1. Remove all existing concrete headwalls and slabs.
2. Remove existing 36" & 72" R.C.P. to first joint & extend to J.B.
3. Construct concrete collar at connection of 36" & 72" R.C.P. and at 10" C.I. See Sheet No 14 for details.
4. Remove existing 10" C.I. pipe to first joint and extend to J.B.
5. Remove existing 6' chain link fence and deliver to City Yards.
6. Remove and dispose of all brush and small trees from old ditch area.

SCALES
1"=20' Horiz.
1"=10' Vert.

Finish Grade

4' Dia. Access M.H.

2-72" R.C.P. S=0.00156 72" R.C.P.

Existing Channel Profile

Floor EL. 32.50

4940 4930 4920 4910

+30 42 INV.EL.=31.96

43 INV.EL.=32.12

+30.19 Build 8' DIA. Type 'C' Manhole & INV.EL.=32.16

INV.EL.=32.27

45 INV.EL.=32.43

+46.19 Build Junction Box No 6 INV. Out EL. 32.50

08 003 07 7 4

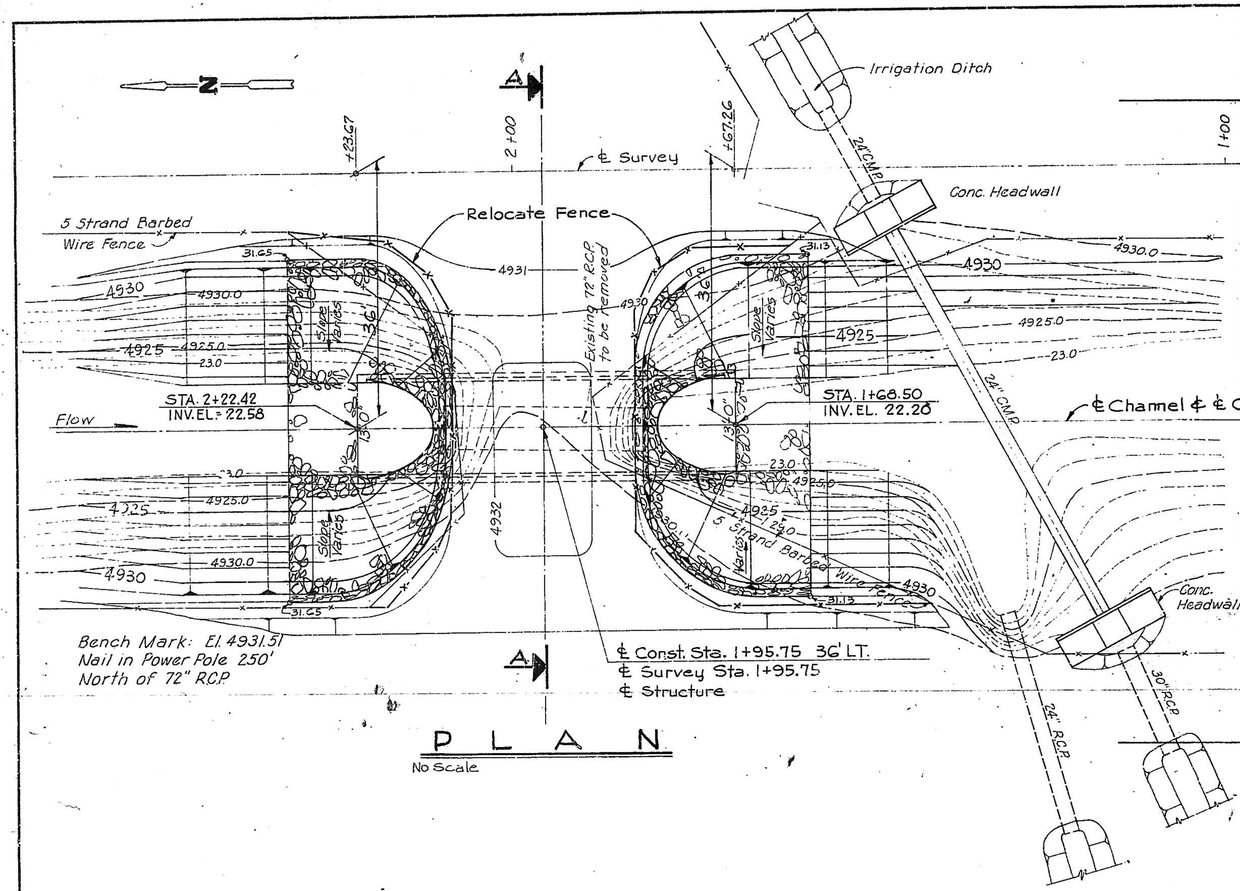
APPROVAL OF AS BUILT DRAWINGS:
ASST. DIST. ENGINEER - FIELD
DATE 10/2/79

RECORD DRAWING
DATE MAY 7 1979

G. E. REBKEWITZ
NEW MEXICO
243
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

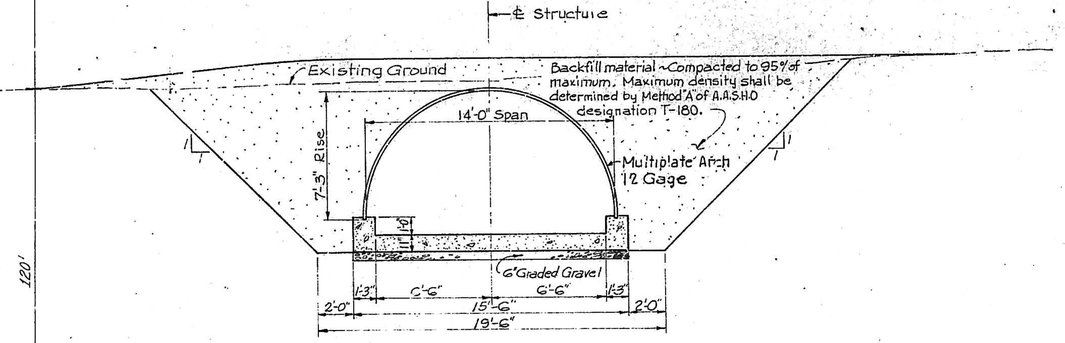
G. E. Rebkewitz

PLATE 1 SINGLE PLAN - CHARLES BRUNING MADE IN U.S.A.



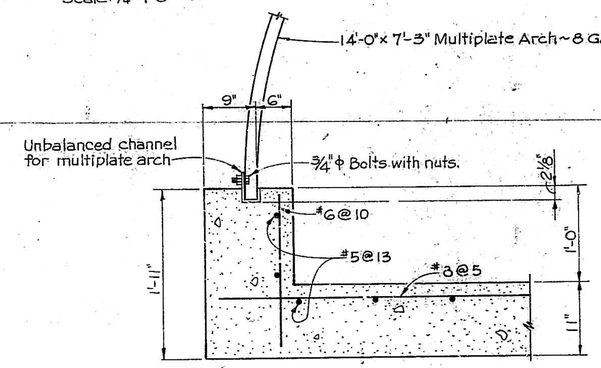
PLAN

No Scale



SECTION A-A

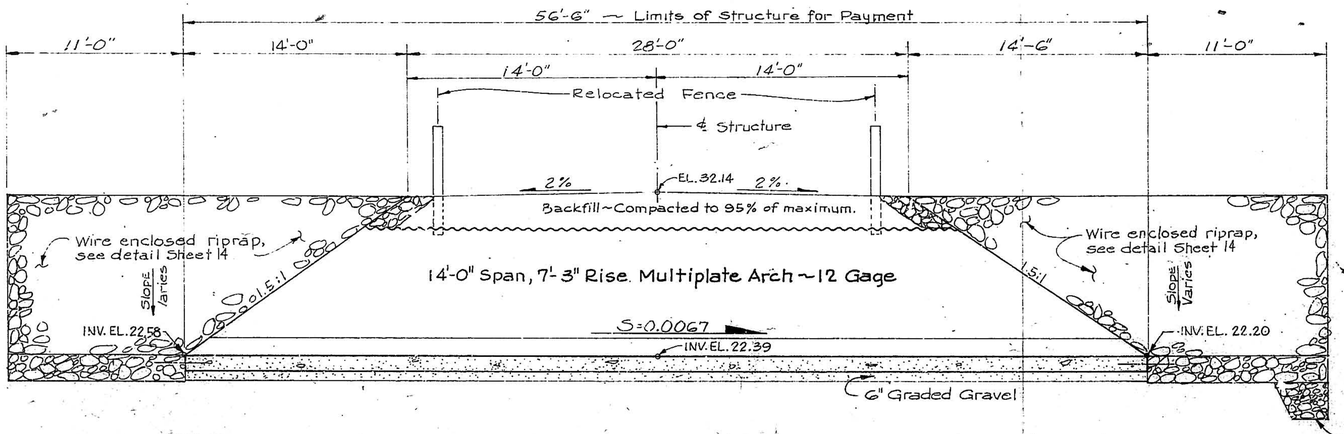
Scale: 1/4"=1'-0"



ARCH CONCRETE FOUNDATION AND BEARING RECESS DETAIL

No Scale

NOTES:
1. Reinforced concrete foundation, unbalanced channel, 1/16" ϕ anchor bolts and miscellaneous items required to complete structure to be included in the unit price bid for per lineal foot of 14'-0" x 7'-3" Multiplate Arch ~ 8 Gage.
2. Contractor shall provide and maintain cattle crossing with fences during construction.



LONGITUDINAL SECTION

No Scale

1	2	3	4	5	6	7	8	9	10	11	12
0	8	0	0	3	0	8	7	9			

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER - FIELD
DATE 12-6-79

RECORD DRAWING
DATE MAY 7 1979

G. E. HERRENHOFF NEW MEXICO 243 REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

ALBUQUERQUE, NEW MEXICO

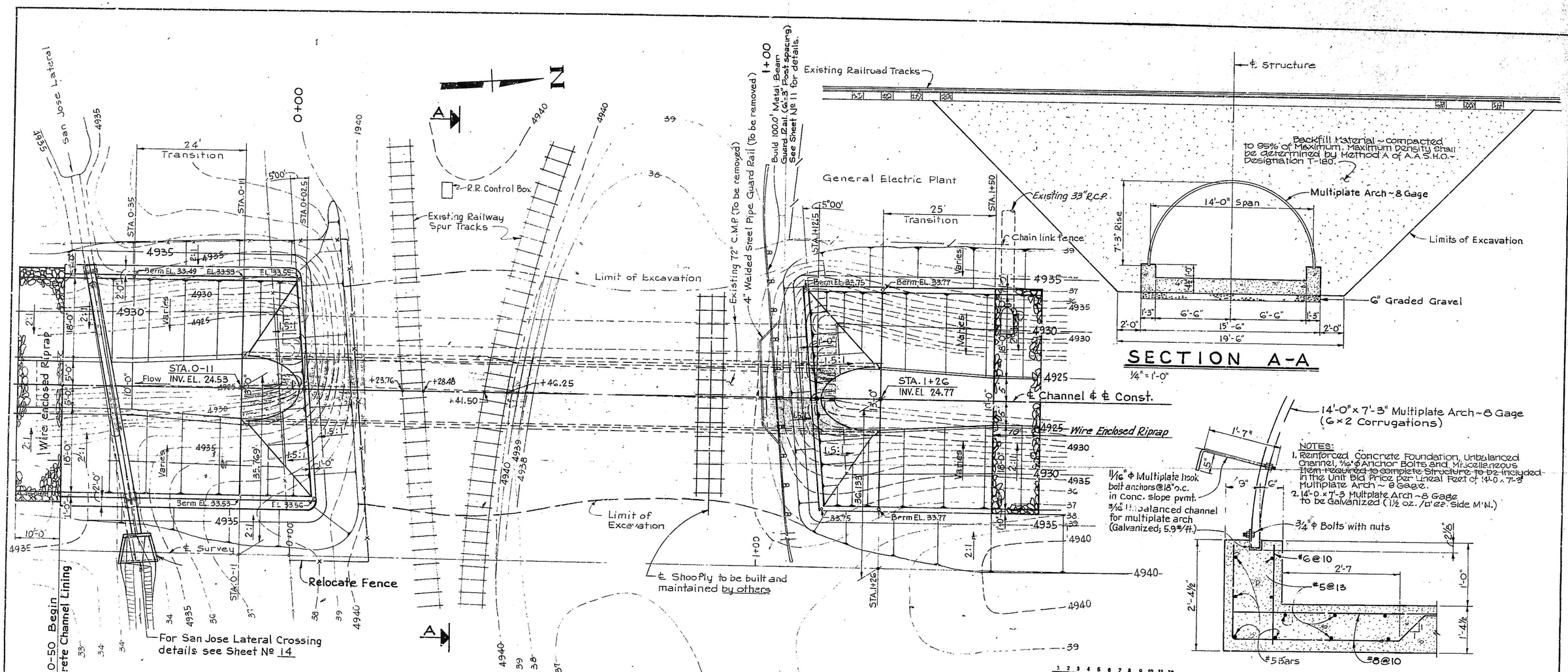
MODEL NEIGHBORHOOD AREA DRAINAGE IMPROVEMENTS WSNM-20

SAN JOSE DRAIN IMPROVEMENTS

SCHWARTZMAN CROSSING

GORDON HERRENHOFF & ASSOCIATES, INC.
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

SCALE	DATE	DRAWN: J.R.J.	SHEET 8
1" = 100'	JUNE 1971	CHECKED: G.A.J.	OF 18



NOTES:
1. Contractor shall provide and maintain detour road during construction.
2. Railway Shoofly to be built, maintained and removed by others. See Specifications.
3. Construction sequence shown on plan this sheet.

RECORD DRAWING
DATE MAY 7 1979

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER-FIELD
DATE 12/6/79

0 6 3 0 0 3 0 9 7 9

ALBUQUERQUE - NEW MEXICO
MODEL NEIGHBORHOOD AREA DRAINAGE IMPROVEMENTS WSNM-20
SAN JOSE DRAIN IMPROVEMENTS
ATCHISON, TOPEKA & SANTA FE RAILWAY CROSSING

GORDON HERKENHOFF & ASSOCIATES, INC.
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN: R.D.M.	SHEET 9
AS SHOWN	JUNE 1971	CHECKED: L.M.P.	OF 18

E. E. HERKENHOFF NEW MEXICO 243 REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
E. E. Herkenhoff

CONST. ℄ STA. 17+00.425
℄ Structure ≠
℄ Channel ≠
℄ Woodward Dr. - Sta. 1+00

10' Wire Enclosed Riprap

Build 87'-6" Metal Beam Guard Rail (6'-3" Post Spacing)

20' Transition

Existing Asphalt

SMH

Build Easy Riding Connection

Sta. 1+25 End Const.

S.E.

Existing 72" R.C.P. To be removed

Existing 72" C.M.P.

Build 75'-0" Metal Beam Guard Rail (6'-3" Post Spacing)

Sta. 16+42.425
Inv. El. 26.98

17.425' Transition

Flow

EL. 37.75

Sta. 17+58.425
Inv. El. 27.15

Sta. 17+75

Flow

Sta. 0+75 Beg. Const.

R.D.

EL. 37.70

Build Easy Riding Connection

Pavement cut. See connection detail this sheet.

℄ Survey

Sta. 1+04.34

℄ WOODWARD

Sta. 17+58.46

40.475'

For continuation and details see Drawing № P-16A

Beg. or End Roadway Const.

Original Cut

Existing Pavement

1½" Asphaltic Concrete surface course

2½" Asphaltic Concrete base course

6" C.T.B.

Compacted Backfill

PROPERTY TIE

¾" I.P.

Sta. 16+66.91 (℄ Survey)
28.88' Rt.

PAVEMENT CONNECTION DETAIL

P L A N

Scale: 1" = 10'

¾" I.P.

PROPERTY TIE
Sta. 17+47.38 ~ 28.95' Rt (℄ Survey)

Timber Block

8"=½"ϕ x 6'-0 Timber Post

Guard Rail 12 ga Steel

Set Posts Vertical

NOTES:
Unless otherwise provided, rail elements and terminal sections shall be 12 gauge steel. Rail elements may be furnished in 12½ ft or 25 ft. lengths.
Timber blocks to be 8" x 8" x 14" high. Timber blocks and timber posts to be treated with pentachlorophenol. Blocks may be rough or S4S. Lap shall be in direction of traffic.

GUARD RAIL DETAIL

5/16"ϕ Multiplate hook-bolt anchors 18" on centers.

12'-0" x 6'-3" Multiplate Arch - 12 Gage

¾" ϕ Bolts & Nuts

NOTE : Reinforced concrete Foundation, Unbalanced Channel, 5/16"ϕ Anchor Bolts and Miscellaneous item required to complete Structure to be included in the Unit Bid Price per Lineal Foot of 12-0 x 6-3 Multiplate Arch ~ 12 Gage.

ARCH CONCRETE FOUNDATION AND BEARING RECESS DETAIL

Scale: 1" = 1'

For continuation and details see Drawing № P-16A

Metal Beam Guard Rail - See Details This Sheet.

Existing asphalt

See Connection Detail this Sheet

For Pavement Details see Longitudinal Sect. this Sheet.

Compacted Backfill to 95% of Maximum density

Limits of Excavation

24" Steel Pipe Sleeve w/¼" end plate. See detail this Sheet

Existing 15" Sanitary Sewer

T R A N S V E R S E S E C T I O N

Scale: ½" = 1'

Beginning Structure for Payment

STA. 16+42.425

Metal Beam Guard Rail

1½" Asphaltic concrete surface 60-70 penetration A-C with hydrated lime Anti-Stripping Additive.

2½" Asphaltic concrete course 85-100 penetration A-C

6" Cement Treated Base Course 96% modified Proctor (A.S.T.M. D 1557 Method A)

Backfill Material - compacted to 95% of Maximum. Maximum Density shall be determined by Method A of A.S.T.M. D 1557

12'-0 Span x 6'-3 Rise Multiplate Arch ~ 12 Gage

S = 0.00144408 ft

℄ Existing 15" sanitary sewer to be encased in 24" x ¼" Steel Pipe Sleeve w/¼" end plate and Pressure Grouted. See Detail this Sheet.

6" Graded Gravel

Dowels ϕ4 x 3'-0" @ 12

INV. EL. 26.98

INV. EL. 27.15

End structure for Payment

℄ Woodward
Sta. 17 + 00.425

Limits of Structure for Payment

L O N G I T U D I N A L S E C T I O N

Scale: 1" = 5'

24" Steel Pipe Sleeve

Existing 15" S.S. Pressure Grouted

Flow

6" Graded Gravel

24" STEEL PIPE SLEEVE DETAIL

Scale: ¾" = 1'

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER-FIELD
DATE 6/6/79

G. E. HERKENHOFF NEW MEXICO 243 REGISTERED PROFESSIONAL ENGINEER

1 2 3 4 5 6 7 8 9 10 11 12
0 8 0 0 3 1 0 7 9

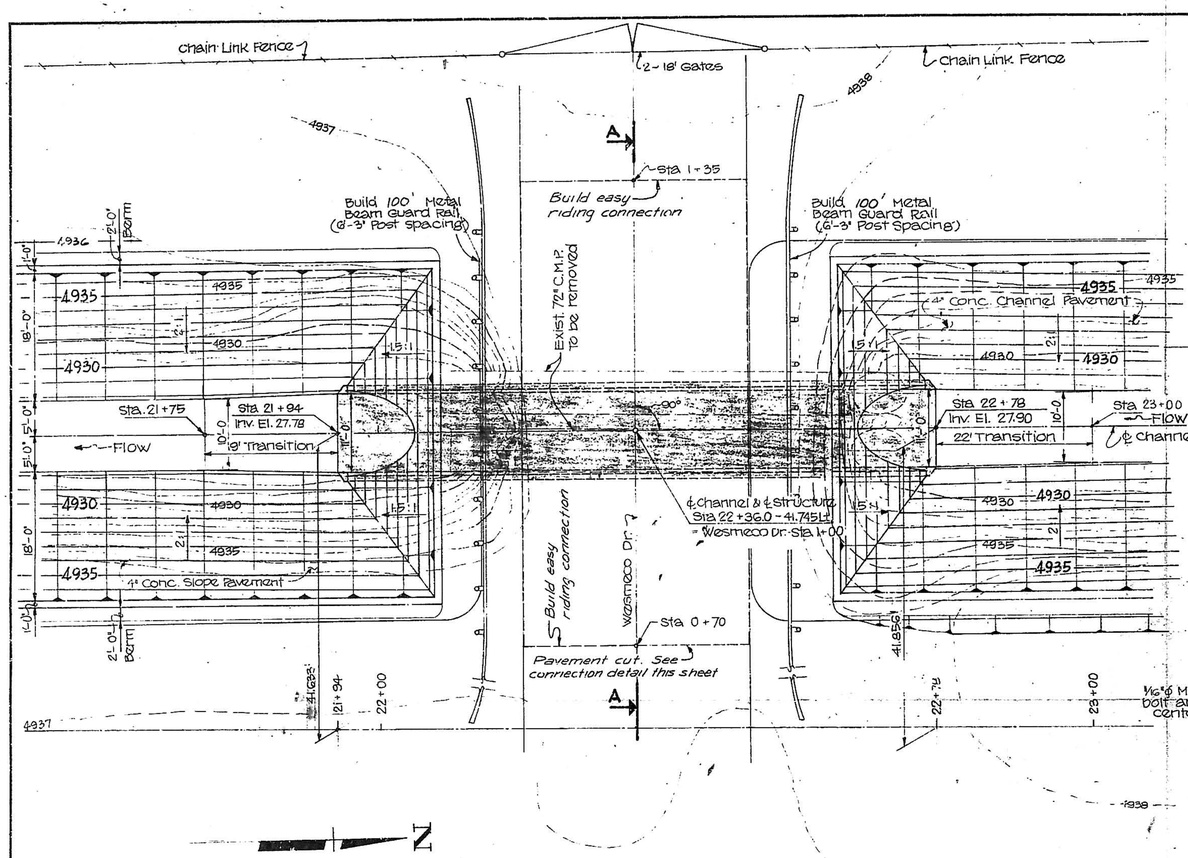
RECORD DRAWING
DATE MAY 7 1979

NOTE: Contractor shall provide and maintain detour road during construction. See Specifications.

ALBUQUERQUE, NEW MEXICO
MODEL NEIGHBORHOOD AREA
DRAINAGE IMPROVEMENTS WSNM-20
SAN JOSE DRAIN IMPROVEMENTS
℄ WOODWARD RD. STRUCTURE

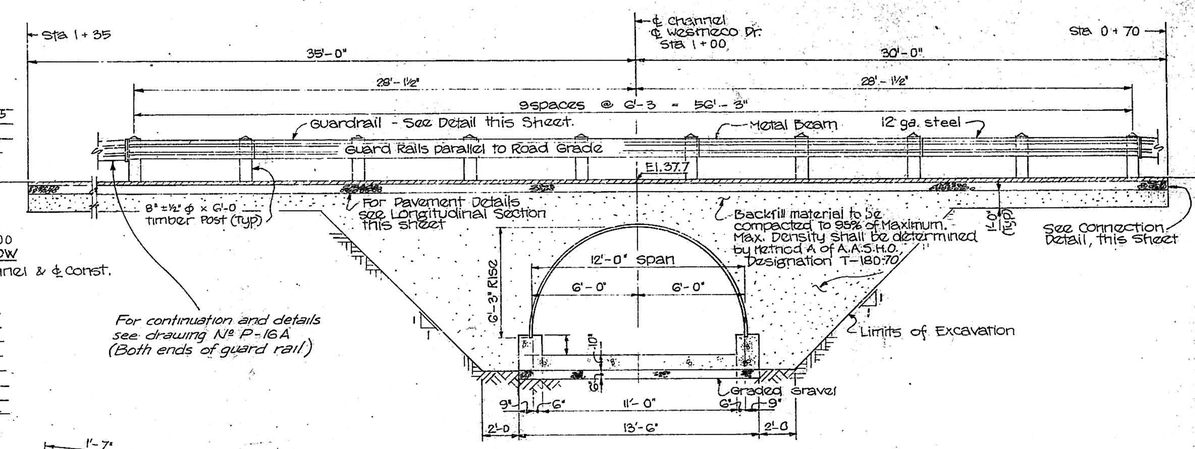
GORDON HERKENHOFF & ASSOCIATES, INC.
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

SCALE	DATE	DRAWN: R.D.M.	SHEET 10
AS SHOWN	JUNE 1971	CHECKED: L.M.P.	OF 19



PLAN

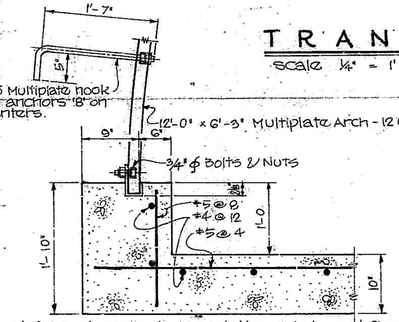
Scale : 1" = 10'



For continuation and details see drawing Nº P-16A (Both ends of guard rail)

TRANSVERSE SECTION A-A

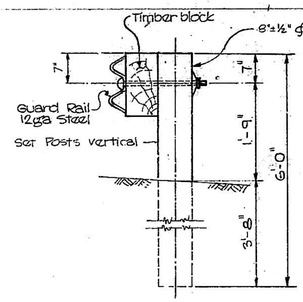
Scale ½" = 1'



NOTE : Reinforced concrete foundation unbalanced Channel ⅞" ϕ Anchor Bolts and Miscellaneous Item required to complete structure to be included in the unit Bid Price per lineal feet of 12'-0 x 6'-3 Multiplate Arch ~ 12 Gage.

ARCH CONCRETE FOUNDATION AND BEARING RECESS DETAIL

Scale : 1" = 1'



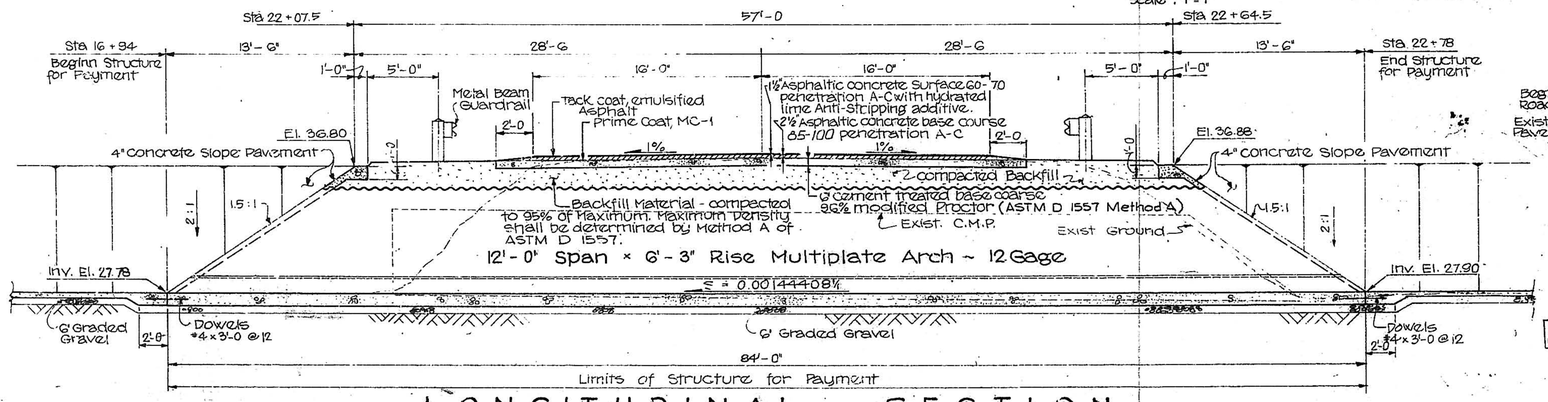
NOTES:

Unless otherwise provided, rail elements and terminal sections shall be 12 gauge steel. Rail elements may be furnished in 12½ ft. or 25 ft. lengths.

Timber blocks to be 8" x 8" x 14" high. Timber blocks and timber posts to be treated with pentachlorophenol. Blocks may be rough or S4S. Lap shall be in direction of traffic.

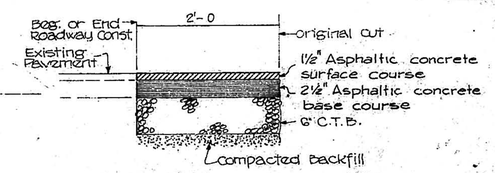
For detail of end sections, See Specifications.

GUARD RAIL DETAIL



LONGITUDINAL SECTION

Scale : 1" = 5'



PAVEMENT CONNECTION DETAIL

NOTE: Contractor shall provide and maintain detour road during construction. See Specifications.

RECORD DRAWING
DATE MAY 7 1979

1	2	3	4	5	6	7	8	9	10	11	12
0	8	0	0	3	1	1	7	9			

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER - FIELD
DATE 12/6/78

G. E. HERKENHOFF NEW MEXICO 243 REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

G. E. Herkenhoff

ALBUQUERQUE, NEW MEXICO

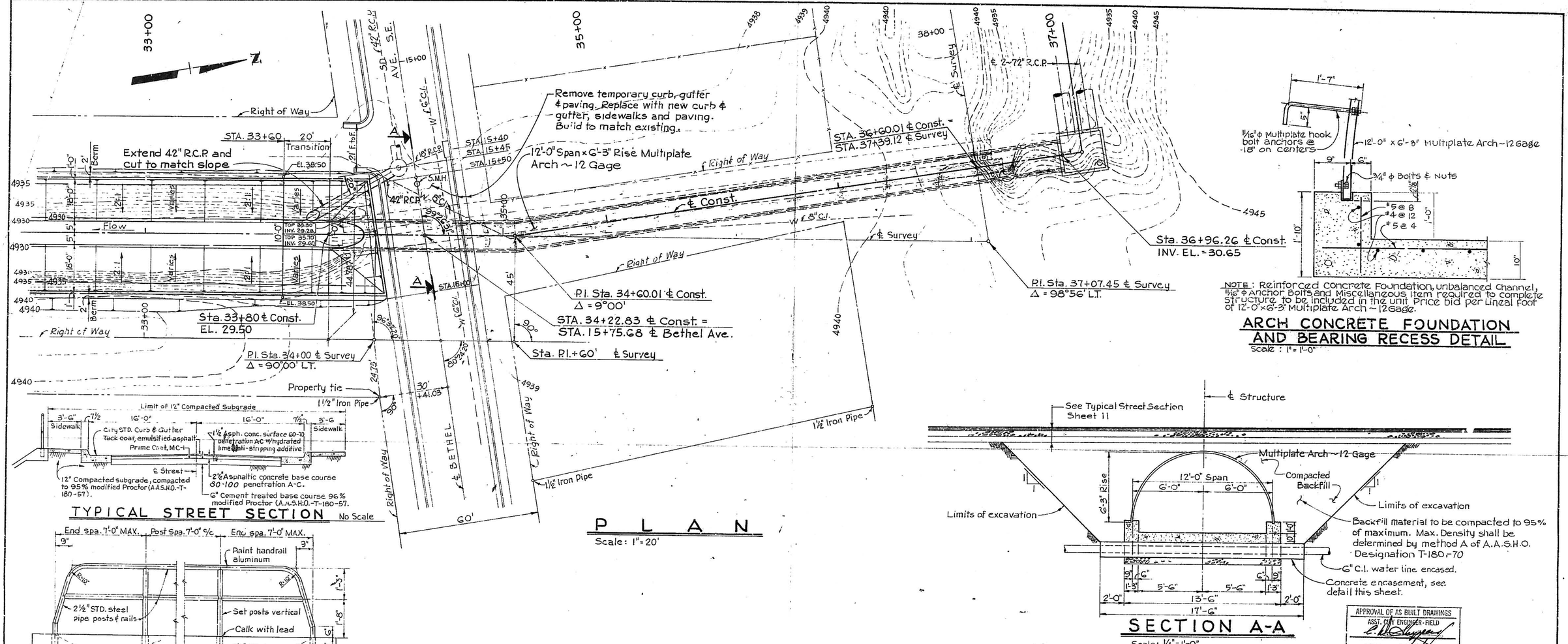
MODEL NEIGHBORHOOD AREA DRAINAGE IMPROVEMENTS WSNM-20

SAN JOSE DRAIN IMPROVEMENTS

WESMECO DR. STRUCTURE

GORDON HERKENHOFF & ASSOCIATES, INC.
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

SCALE	DATE	DRAWN: I.F.H.	SHEET 11
AS SHOWN	JUNE 1971	CHECKED: L.M.P.	OF 18

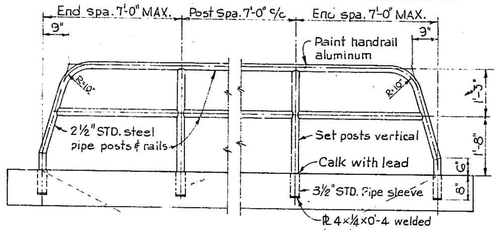


PLAN

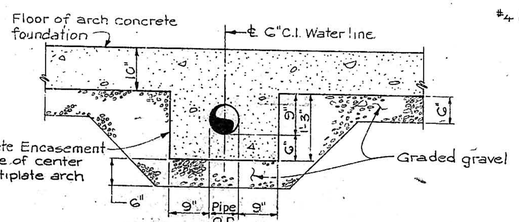
Scale: 1" = 20'

TYPICAL STREET SECTION

No Scale



HANDRAIL DETAIL



CONCRETE ENCASEMENT DETAIL

Scale: ¾" = 1'-0"

NOTE: Reinforced concrete Foundation, unbalanced Channel, ½" ϕ Anchor Bolts and Miscellaneous Item required to complete Structure to be included in the unit Price bid per Lineal Foot of 12'-0" x 6'-3" Multiplate Arch ~ 12 Gage.

ARCH CONCRETE FOUNDATION AND BEARING RECESS DETAIL

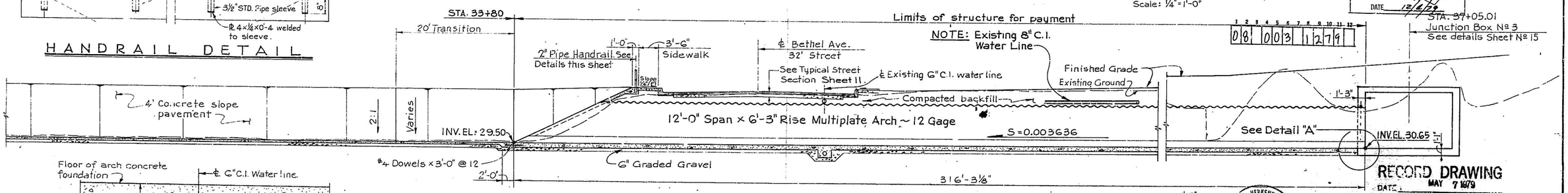
Scale: 1" = 1'-0"

SECTION A-A

Scale: ¼" = 1'-0"

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER-FIELD
DATE 12/6/79

STA. 37+05.01
Junction Box № 3
See details Sheet № 15

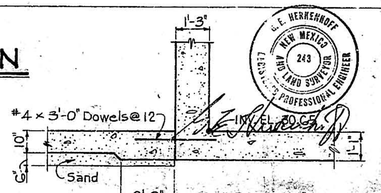


RECORD DRAWING
MAY 7 1979
DATE

LONGITUDINAL SECTION

Scale: ⅛" = 1'-0"

NOTES:
1. Existing 6" C.I. water line in Bethel Ave. to be lowered and concrete encased by the contractor as shown. Cost to be included in the unit price bid per linear foot of structure.
2. Contractor shall provide and maintain detour road during construction.



DETAIL "A"

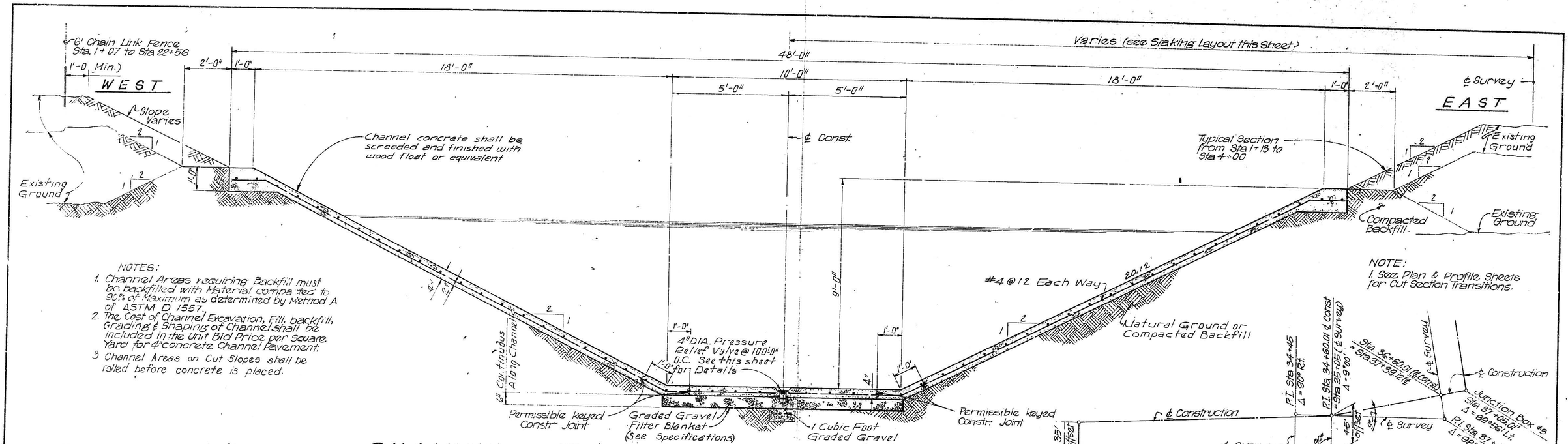
Scale: ⅜" = 1'-0"

L. E. HERKENHOFF NEW MEXICO 243 LAND SURVEYOR PROFESSIONAL ENGINEER 12827

ALBUQUERQUE, NEW MEXICO
MODEL NEIGHBORHOOD AREA
DRAINAGE IMPROVEMENTS WSNM-20
SAN JOSE DRAIN IMPROVEMENTS
BETHEL AVE. STRUCTURE

GORDON HERKENHOFF & ASSOCIATES, INC.
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

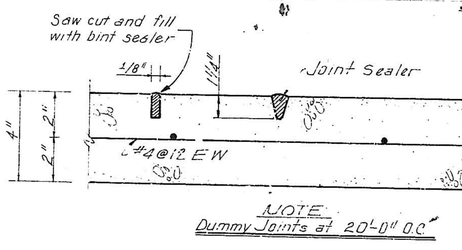
SCALE	DATE	DRAWN: R.D.M.	SHEET 12
AS SHOWN	JUNE 1971	CHECKED: L.M.P.	OF 18



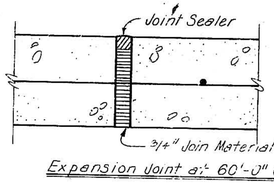
CHANNEL TRANSVERSE SECTION

Scale: 1" = 2'-0 (Looking North along ℄)

CHANNEL STAKING LAYOUT PLAN



NOTE
Dummy Joints at 20'-0" O.C.



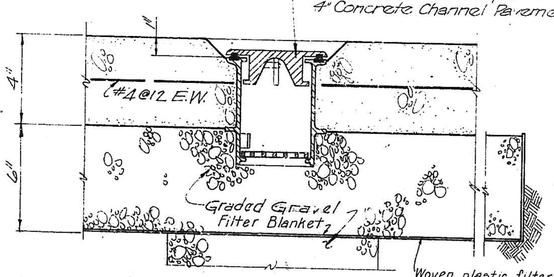
Expansion Joint at 60'-0" O.C.

CONTRACTION JOINTS

Scale: 3" = 1'-0"

Note: Relief valves to be placed in center between expansion joints and/or dummy joints.

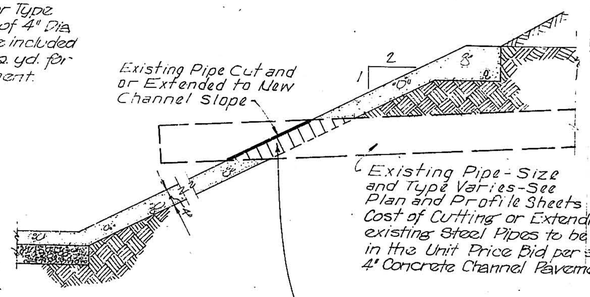
4" DIA. Pressure Relief Valve as manufactured by James B. Clow & Sons, Inc. * F-1492 Floor Type or Approved Equal. Cost of 4" Dia Pressure Relief Valves to be included in the Unit Price Bid per sq. yd. for 4" Concrete Channel Pavement.



PRESSURE RELIEF VALVE DETAIL

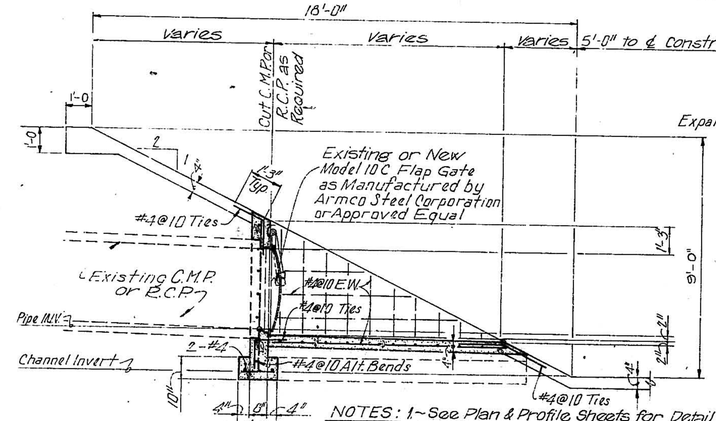
Scale: 3" = 1'-0"

34 REQUIRED



EXISTING PIPE CUTOFF DETAIL

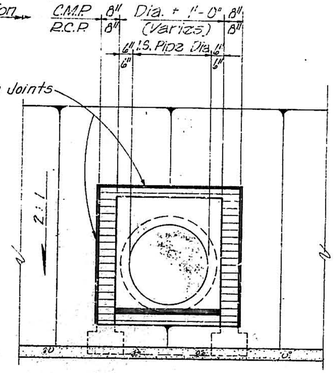
Not To Scale



NOTES: 1-See Plan & Profile Sheets for Detail I' Locations and Pipe Invert Elevations.
2.-Pipe Invert Elevations are at Ends of Existing Pipes. At Cut Lines for Flap Gates the Invert Elevations will be Greater: Make Dimension Adjustments as necessary.
3.-Cost of Concrete Headwall & Rundown to be included in the unit Price Bid per sq. yd. for 4" Concrete Channel Pavement.

DETAIL I

LONGITUDINAL SECTION



ELEVATION

FLAP GATE DETAILS

Not To Scale

RECORD DRAWING
DATE MAY 1, 1979

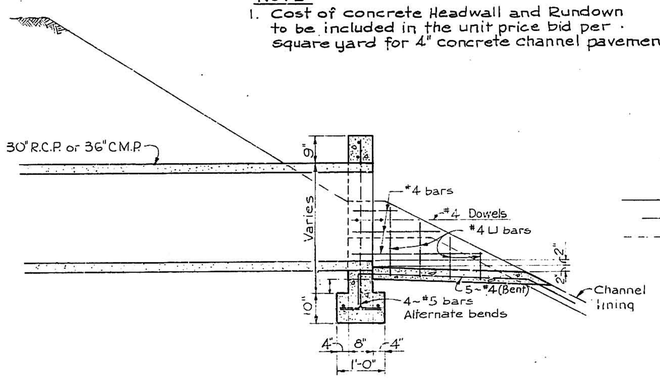
H. E. Kerkenhoff
NEW MEXICO
243
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

ALBUQUERQUE, NEW MEXICO
MODEL NEIGHBORHOOD AREA
DRAINAGE IMPROVEMENTS WSNM-20
SAN JOSE DRAIN IMPROVEMENTS
CHANNEL LINING DETAILS

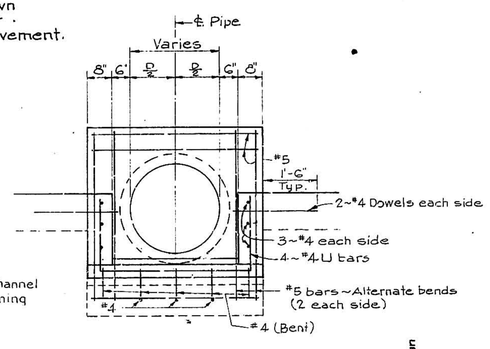
GORDON HERKENHOFF & ASSOCIATES, INC.
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

SCALE	DATE	DRAWN: B.G.C.	SHEET 13
AS SHOWN	JUNE 1971	CHECKED: L.M.P.	OF 18

NOTE:
1. Cost of concrete Headwall and Rundown to be included in the unit price bid per square yard for 4" concrete channel pavement.

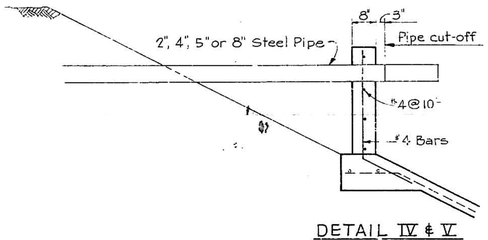


SECTION

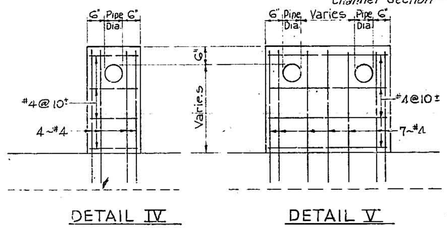


ELEVATION

DETAIL II

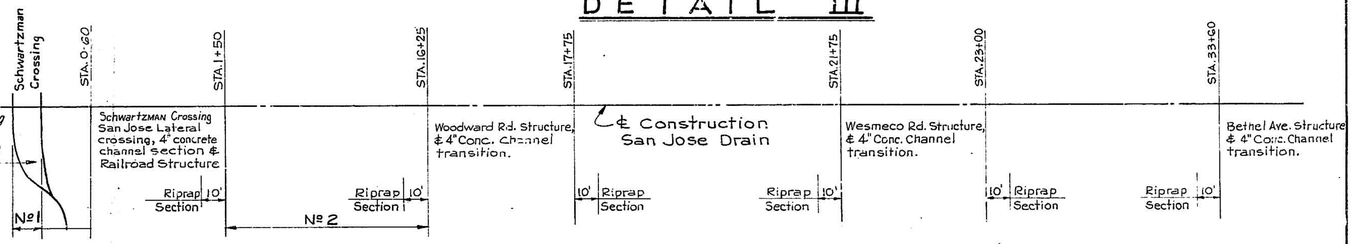


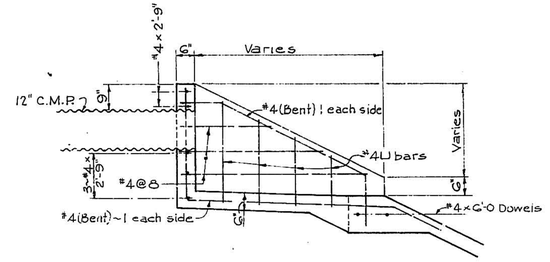
DETAIL IV & V
SECTION



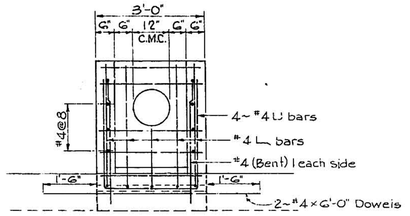
DETAIL IV DETAIL V
ELEVATION

DETAIL IV & V



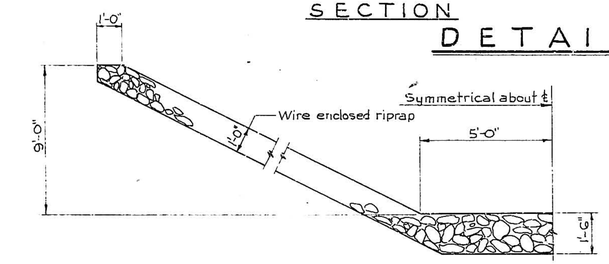


SECTION

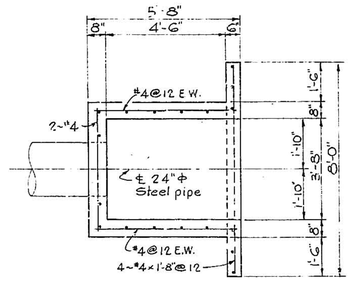


ELEVATION

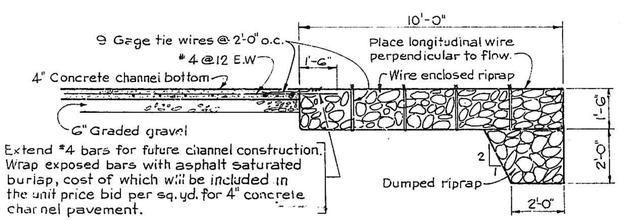
DETAIL III



TYPICAL TRANSVERSE SECTION



PLAN SECTION

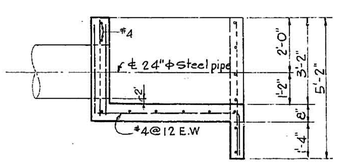


LONGITUDINAL SECTION @ END OF CHANNEL CONSTRUCTION

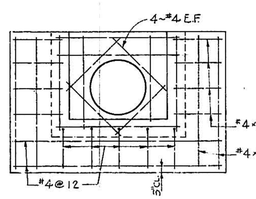
RIPRAP DETAILS

Scale: 3/8" = 1'-0"

NOTE: Wire for wrapping rock to be specification J-3 Colorado V mesh as manufactured by the Colorado Fuel & Iron Co. or equal.

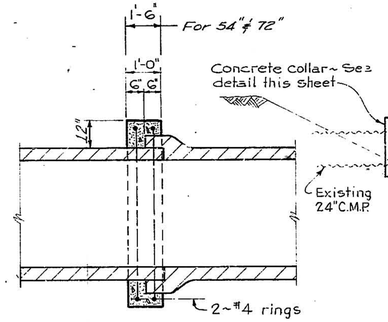


SECTION



ELEVATION

HEADWALL DETAILS

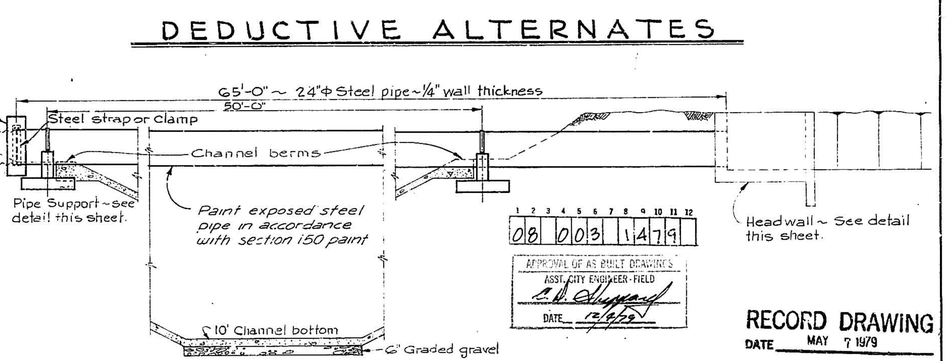


CONCRETE COLLAR DETAIL

Scale: ½" = 1'-0"

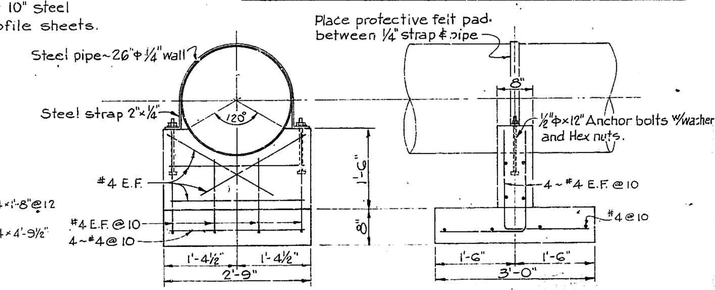
NOTE:
Concrete collars to be constructed at 24", 36", 54" & 72" R.C.P. and at 10" steel and 12" C.M.P. See Plan & Profile sheets.

DEDUCTIVE ALTERNATES



RECORD DRAWING
DATE MAY 7 1979

CHANNEL CROSSING FOR SAN JOSE LATERAL



PIPE SUPPORT DETAIL

Scale: 3/4" = 1'-0"

R. E. BENEDICT NEW MEXICO 223 LAND SURVEYOR REGISTERED PROFESSIONAL ENGINEER

G. E. Herkenhoff

ALBUQUERQUE, NEW MEXICO

MODEL NEIGHBORHOOD AREA DRAINAGE IMPROVEMENTS WSNM-20

SAN JOSE DRAIN IMPROVEMENTS

MISCELLANEOUS DETAILS

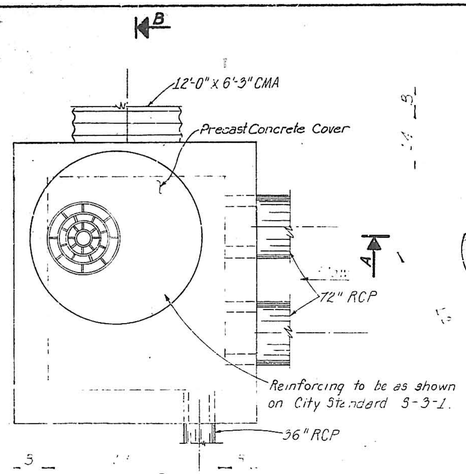
GORDON HERKENHOFF & ASSOCIATES, INC.
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

SCALE	DATE	DRAWN: R.D.M.	SHEET 14
AS SHOWN	JUNE 1971	CHECKED: L.M.P.	OF 18

Nº	STATION	PIPE IN SIZE	PIPE IN INV. ELEV.	PIPE OUT SIZE	PIPE OUT INV. ELEV.	DIMENSIONS H	L1	L2	L3	L4	L5	L6	L7	ROOF A	ROOF D	WALLS B	WALLS E	FLOOR C	FLOOR F	EST QUANT. CONC. CU. YD.
	SAN JOSE DRAIN																			
3	37+05.01	2~72"	4931.19	12"x6'-3" horizontal	4930.65	9'-8"	16'-0"	17'-6"						10"	#5@6"	15"	#8@6"	13"	#7@6	51.83
4	40+57.19	1-54" 2~72"	4931.40 4931.74	2~72"	4931.74	8'-6"	6'-0"	29'-6"						10"	#4@7½"	10"	#3@6½"	12"	#5@7½"	30.82
5	40+98.93~17'RT.	72"	4932.00	72"	4931.90	8'-1"	8'-9½"	7'-6"	6'-9½"	5'-5¾"	2'-0¼"	4'-0¼"	3'-0¾"	10"	#4@6"	10"	#8@8"	12"	#5@7"	12.82
6	45+46.19	1~36"&10"x8" 1~36"&72"	4933.00 4932.50	2~72"	4932.50	8'-3"	9'-0"	22'-9"						10"	#5@6"	12"	#7@6½"	10"	#6@6½"	33.51

* see Sheet____

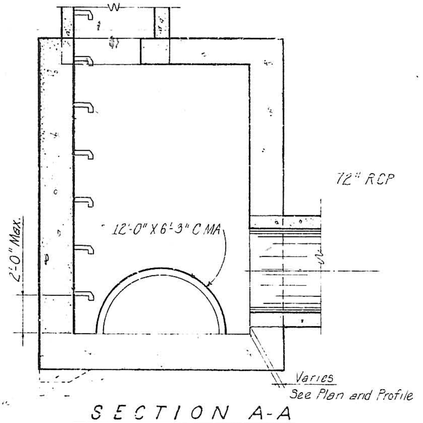
Incl. concrete in wet well and foundation slab.



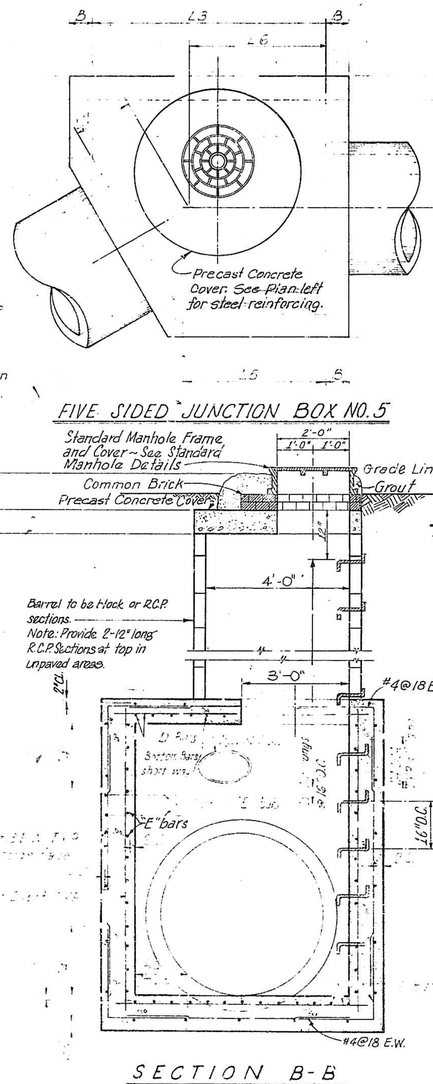
PLAN

NOTE: MANHOLE DETAILS TO CONFORM TO CITY OF ALBUQUERQUE STANDARDS FOR TYPE 'C' MANHOLES DRWG. 5-2-1.

JUNCTION BOX NO. 3

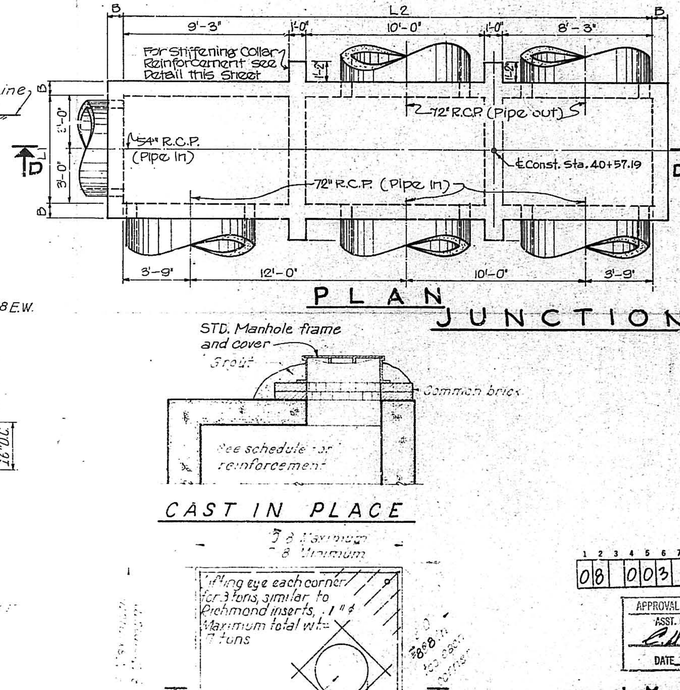


SECTION A-A

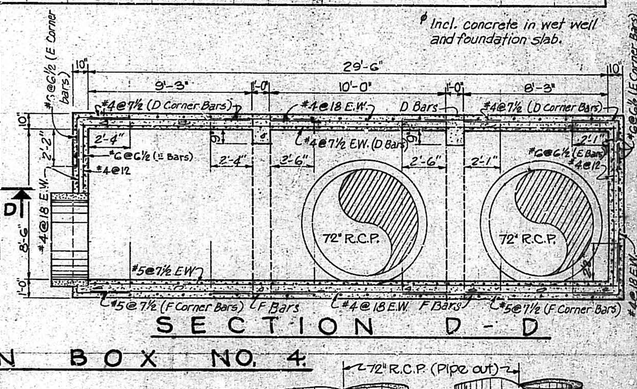


SECTION B-B

FIVE SIDED JUNCTION BOX NO. 5

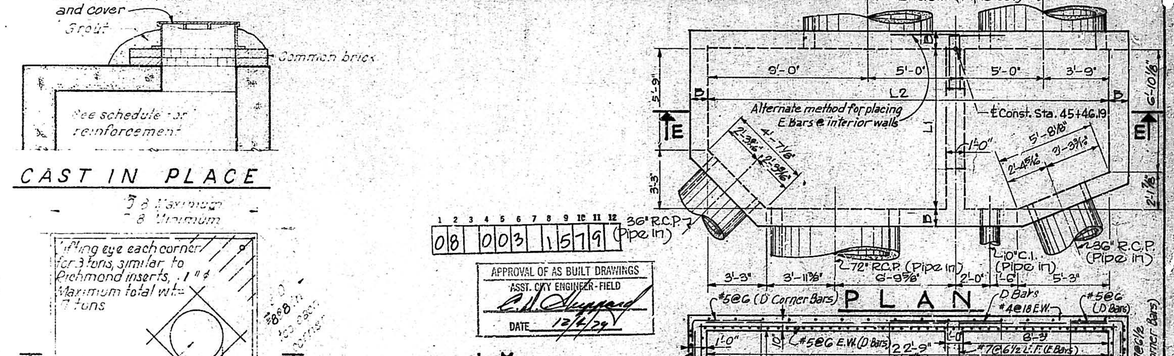


PLAN

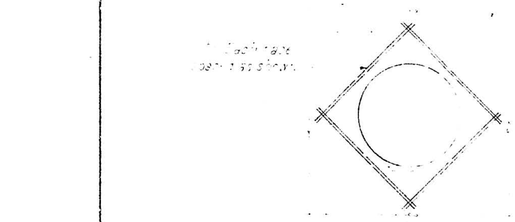


SECTION D-D

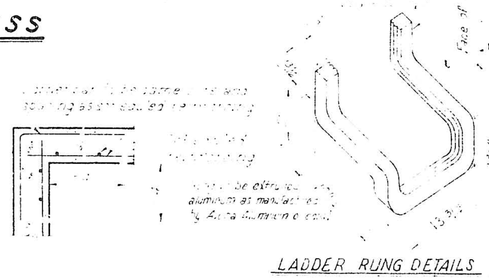
JUNCTION BOX NO. 4.



APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER-FIELD
DATE 12/4/79

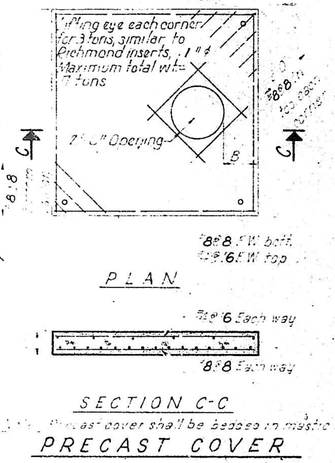


TYPICAL REINFORCING AT OPENINGS



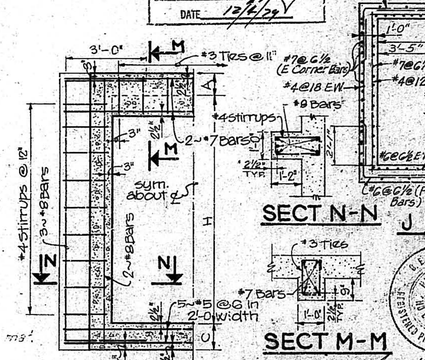
CORNER BAR DETAIL

LADDER RUNG DETAILS



PRECAST COVER

DIRECT BOX ACCESS



ELEVATION STIFFENING COLLAR REINFORCEMENT

NOTE: Regular Reinforcement of the Junction Box not shown.

JUNCTION BOX NO. 6.

ALBUQUERQUE, NEW MEXICO

STORM DRAIN DETAILS

RECORD DRAWING

DATE MAY 7 1979

JUNCTION BOX DETAILS

GORDON HERKENHOFF & ASSOCIATES, INC.
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN: R.A.L.	SHEET 15
AS SHOWN	JUNE 1971	CHECKED: G.A.J.	OF 19

SAN JOSE DRAIN

SCALES
1"=20' Horiz.
1"=5' Vert.

6' Chain Link Fence
1' Min.
℄ Const. 36.00'
3+00
C = 1.43
F = 0.00
4925.04
4935
4930
4925

6' Chain Link Fence
℄ Const.
2+00
℄ Survey
C = 1.88
F = 0.00
4921.90
4935
4930
4925

1+50
C = 1.65
F = 0.00
4924.81
4935
4930
4925

1+26
C = 1.32
F = .19
4924.77
4935
4930
4925

Railroad Structure
Sta. 0-11 to
Sta 1+26

0-11
C = 1.81
F = .35
4921.53
4935
4930
4925

0-35
C = 1.39
F = .12
4924.49
4935
4930
4925

35.66'
0-50
C = 1.09
F = .05
4924.47
4935
4930
4925
℄ Survey

6' Chain Link Fence
1' Min.
℄ Const.
57.93'
℄ Survey
8+00
C = .74
F = .04
4925.77
4935
4930
4925

7+00
C = 1.82
F = 0.00
4925.62
4935
4930
4925

6+00
C = 1.45
F = 0.00
4925.48
4935
4960
4925

5+00
C = 1.05
F = .01
2
1
Typical
4925.33
4935
4930
4925

6' Chain Link Fence
1' Min.
℄ Const.
36.96'
4+00
C = 1.44
F = 0.00
4925.19
4935
4930
4925
℄ Survey

6' Chain Link Fence
1' Min.
℄ Constr.
49.26'
℄ Survey
13+00
C = 1.17
F = 0.00
4926.48
4935
4930
4925

12+00
C = .90
F = 0.00
4926.34
4935
4930
4925

120' R/W Typical all sections
50'
70'

11+00
C = .85
F = 0.00
4926.20
4935
4930
4925

10+00
C = 1.44
F = .01
4926.06
4935
4930
4925

6' Chain Link Fence
1' Min.
℄ Const.
38.19'
3+00
C = 1.33
F = 0.00
4925.91
4935
4930
4925
℄ Survey

℄ Const.
40.84'
℄ Survey
18+00
C = 1.01
F = .02
4927.21
4935
4930
4925

17+75
C = .87
F = .18
4927.17
4935
4930
4925

17+58.425
C = 1.12
F = .19
4927.15
4935
4930
4925

Woodward Rd. Structure
Sta. 16+42.425 to
Sta. 17+58.425

16+42.425
C = .68
F = .01
4926.58
4935
4930
4925

16+25
C = .54
F = .01
4926.96
4935
4930
4925

16+00
C = .91
F = .01
4926.92
4935
4930
4925

15+00
C = .59
F = .08
4926.78
4935
4930
4925

℄ Const.
39.52'
14+00
C = 1.99
F = 0.00
4926.63
4935
4930
4925
℄ Survey

6' Chain Link Fence
1' Min.

0 8 | 0 0 3 | 1 6 7 9

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER-FIELD
Ed Shepard
DATE 12/4/72

RECORD DRAWING
MAY 1973
DATE

R. E. Wenkenbach
NEW MEXICO
243
REGISTERED PROFESSIONAL ENGINEER

R. E. Wenkenbach

CHANNEL CROSS-SECTIONS
SAN JOSE DRAIN IMPROVEMENTS SHEET 16 OF 18

FINAL SURVEY — SURVEYED — PLOTTED — TEMPLATE — NOTE BOOK — NO. — AREAS CHECKED — BY — DATE

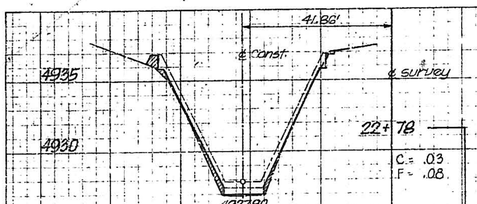
ORIGINAL SURVEY — SURVEYED — PLOTTED — TEMPLATE — NOTE BOOK — NO. — AREAS CHECKED — BY — DATE

BROWNS NO. [illegible]

PLATE 3 — CROSS SECTION [illegible]
CHARLES PRUDHOMME COMPANY

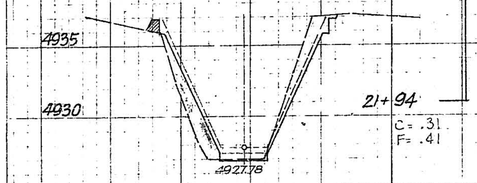
SAN JOSE DRAIN

SCALE
1" = 20' Horiz.
1" = 5' Vert.

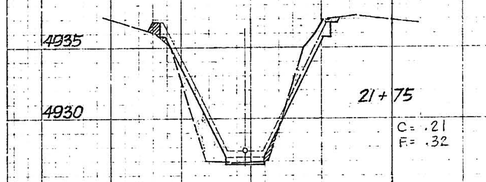


22+78
C = .03
F = .08

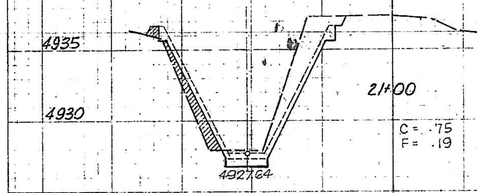
Wesmeco Structure
From Sta. 21+94 to
Sta. 22+78



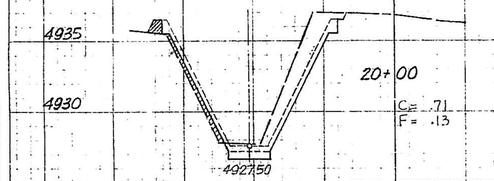
21+94
C = .31
F = .41



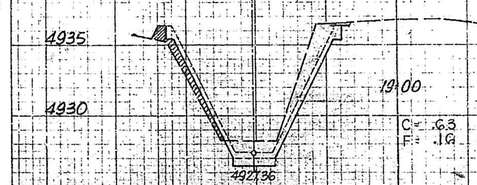
21+75
C = .21
F = .32



21+00
C = .75
F = .19

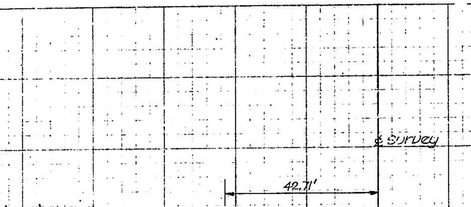


20+00
C = .71
F = .13

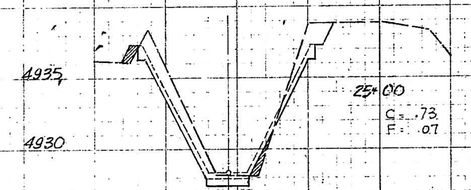


19+00
C = .63
F = .16

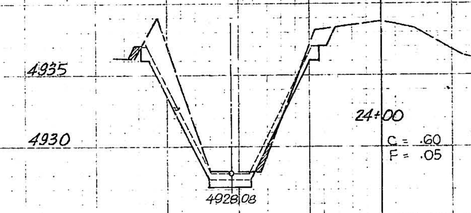
℄ Survey



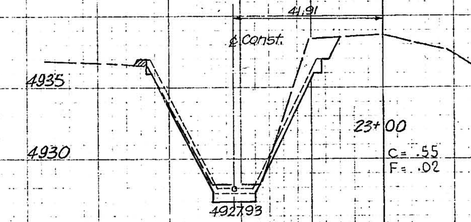
20+00
C = .31
F = .09



25+00
C = .73
F = .07

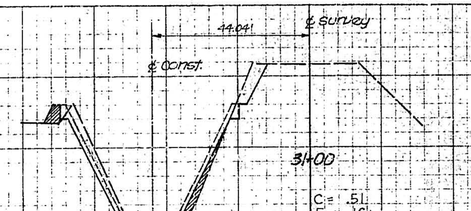


24+00
C = .60
F = .05

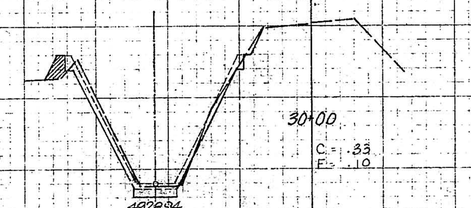


23+00
C = .55
F = .02

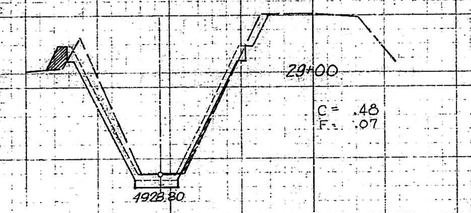
℄ Survey



31+00
C = .51
F = .16



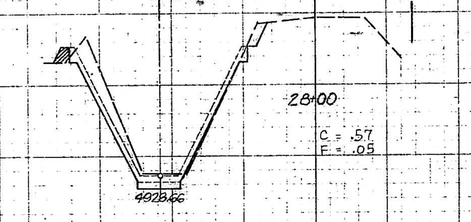
30+00
C = .33
F = .10



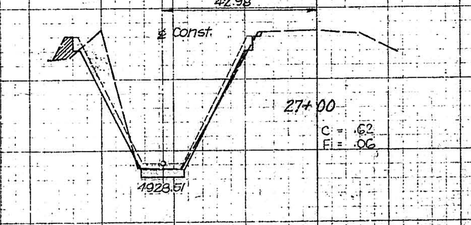
29+00
C = .48
F = .07

120' R/w Typical all sections

50' 70'



28+00
C = .57
F = .05



27+00
C = .62
F = .06

℄ Survey

LEGEND

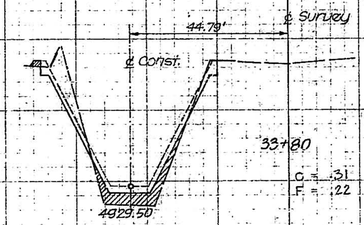
Excavation (Cut) Area

Fill Area

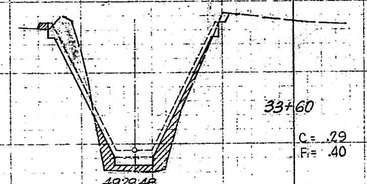
ESTIMATED QUANTITIES FOR CONCRETE CHANNEL PAVEMENT
(FOR CONTRACTOR'S INFORMATION ONLY)

DESCRIPTION	EXC.	FILL	FILL & SHRINKAGE	EXCESS
Excavation (Cu.Yd.)	10,300			9,440
Fill (Cu.Yd.)		690	860	

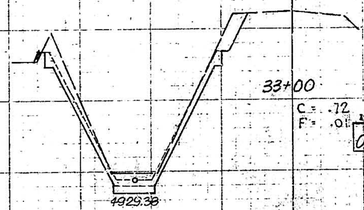
NOTE: The cost of channel excavation, fill, backfill, grading, and shaping of channel shall be included in the unit bid price per square yard for 4" concrete channel pavement



33+80
C = .31
F = .22



33+60
C = .29
F = .40

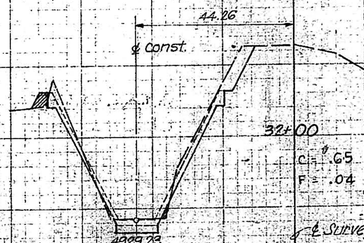


33+00
C = .72
F = .01

08 00 3 1 7 79

APPROVAL OF AS BUILT DRAWINGS
ASST. CITY ENGINEER - FIELD
C. A. Duggard
DATE 12/2/79

RECORD DRAWING
DATE MAY 7 1979



32+00
C = .65
F = .04

℄ Survey

R. E. Hernandez
NEW MEXICO
No. 943
REGISTERED PROFESSIONAL ENGINEER

CHANNEL CROSS-SECTIONS
SAN JOSE DRAIN IMPROVEMENTS SHEET 17 OF 18

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, NOTE BOOK, NO., DATE, BY, AREAS CHECKED

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, NOTE BOOK, NO., DATE, BY, AREAS CHECKED

PLATE 3—CROSS SECTION OF A RIVER
MEAD AND HUNTER IN U.S.A.
CUSHETT BRUNING COMPANY

BRUNING NO 142-103

SAN JOSE STILLING BASIN

SCALES
1" = 20' Horiz.
1" = 5' Vert.

LEGEND

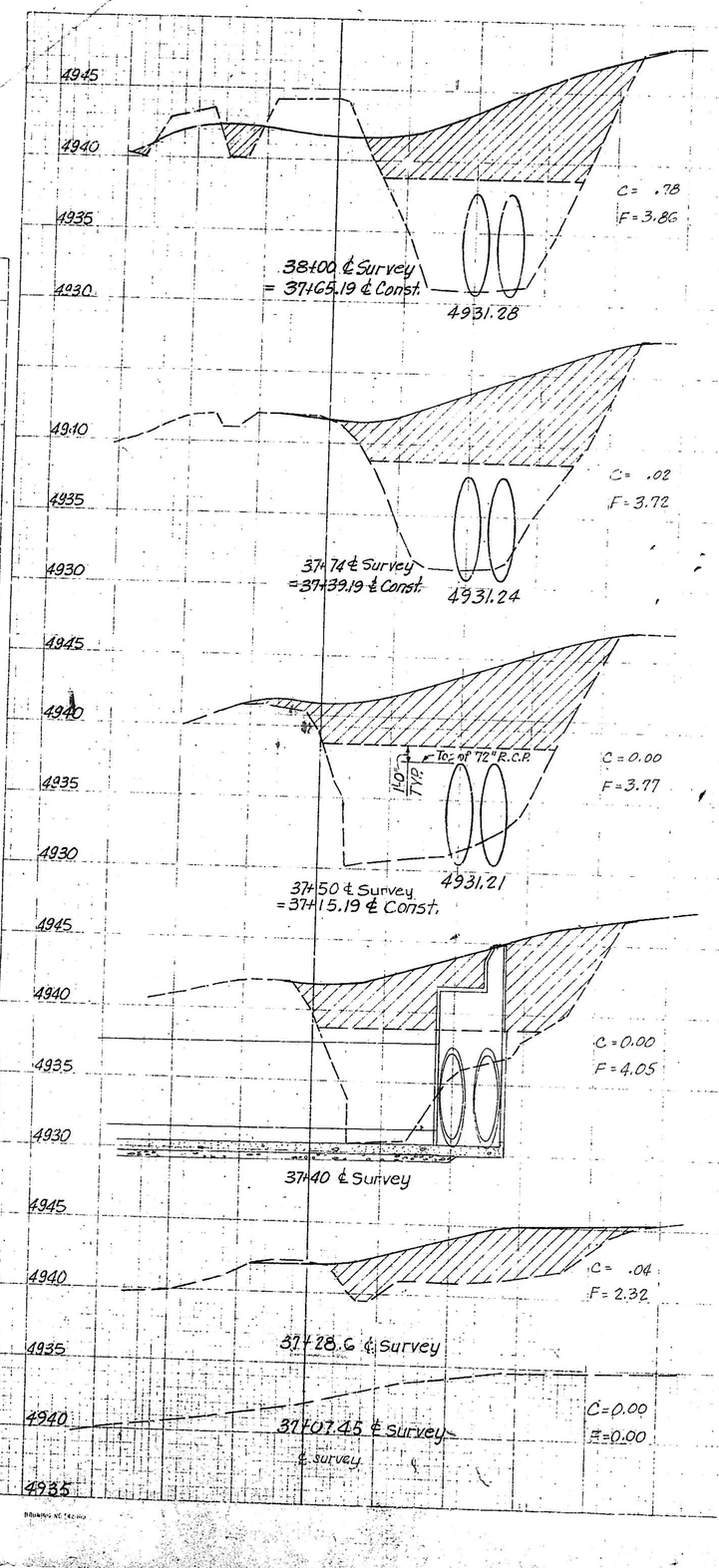
Excavation (Cut) Area
Fill Area (Pay Item)
Fill Area (No Pay Item)

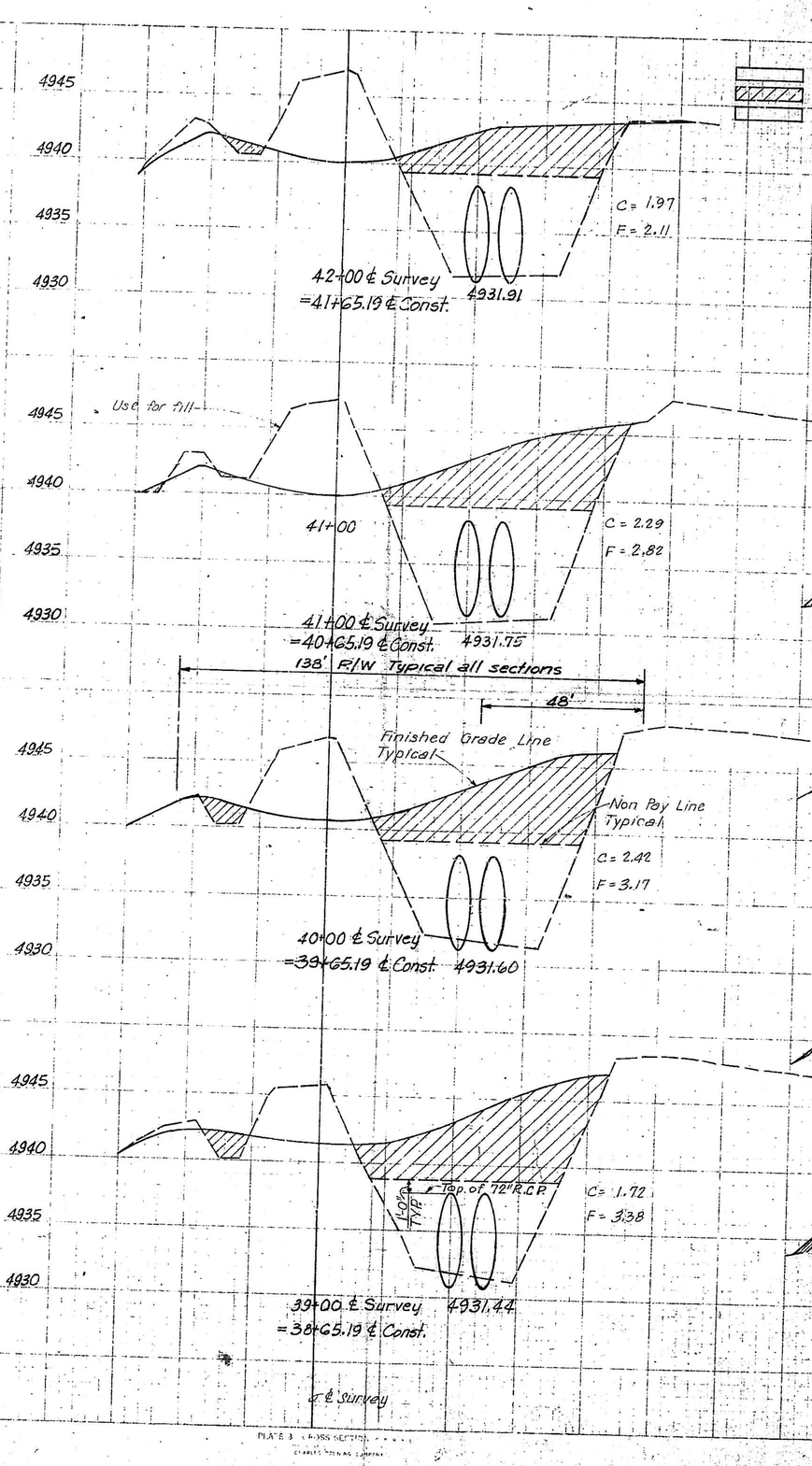
ESTIMATED QUANTITIES FOR STILLING BASIN

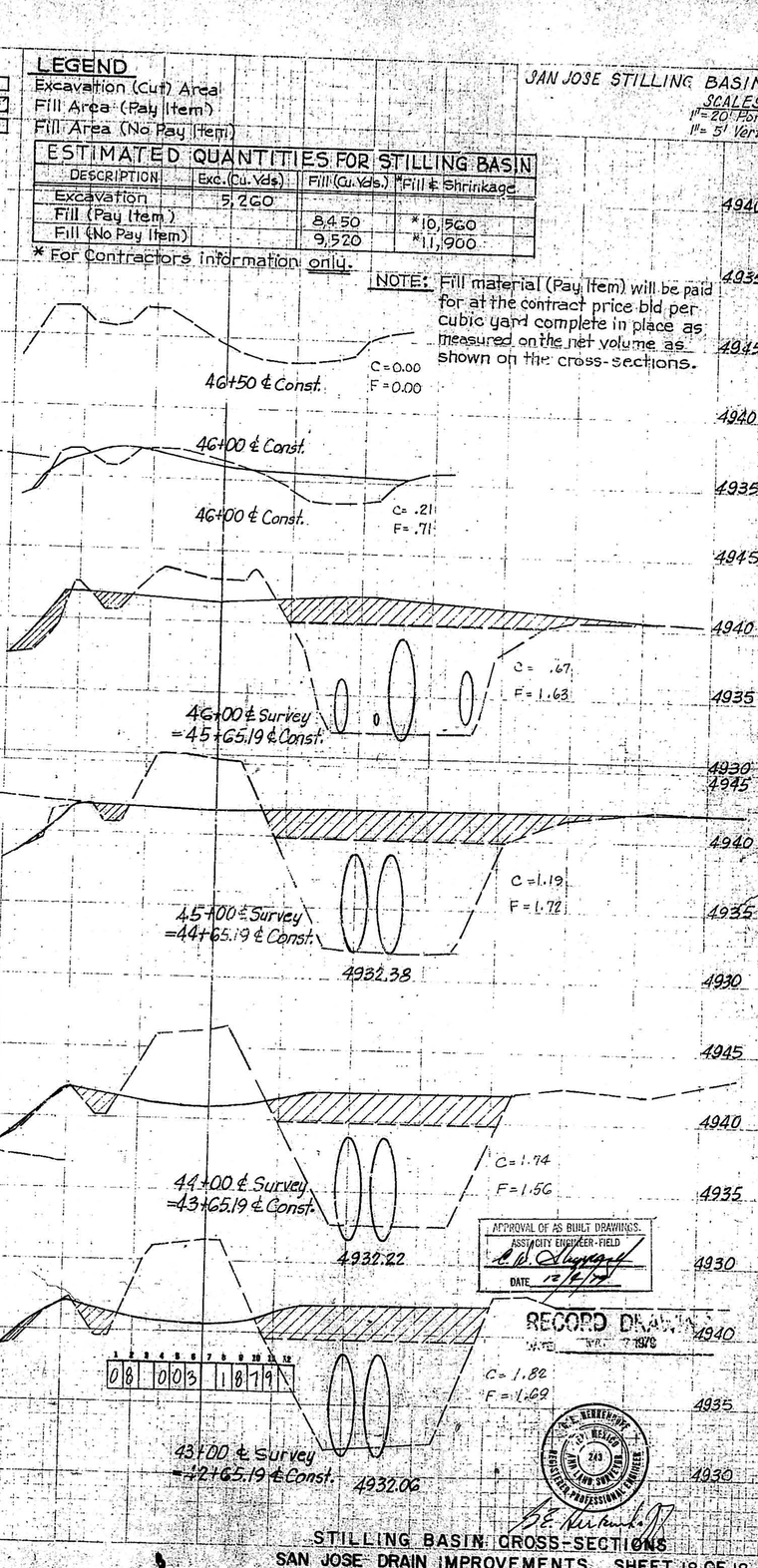
DESCRIPTION	Exc. (Cu. Yds)	Fill (Cu. Yds.)	*Fill & Shrinkage
Excavation	5,260		
Fill (Pay Item)		8,450	*10,560
Fill (No Pay Item)		9,520	*11,900

* For Contractors information only.

NOTE: Fill material (Pay Item) will be paid for at the contract price bid per cubic yard complete in place as measured on the net volume as shown on the cross-sections.







APPROVAL OF AS BUILT DRAWINGS.
ASST. CITY ENGINEER - FIELD
DATE 12-17-79

RECORD DRAWING
APR 7 1980

0 8 | 0 0 3 | 1 8 7 9

FINAL SURVEY — SURVEYED ... PLOTTED ... NOTE BOOK ... DATE ... NO.

ORIGINAL SURVEY — SURVEYED ... PLOTTED ... NOTE BOOK ... DATE ... NO.

PLATE 3 (CROSS SECTIONS)
CHARLES TOWNS COMPANY

STILLING BASIN CROSS-SECTIONS
SAN JOSE DRAIN IMPROVEMENTS SHEET 18 OF 18