CITY OF

ALBUQUERQUE—NEW MEXICO

PLANS FOR CONSTRUCTION OF

BEL-AIR STORM SEWER (BEL-AIR DRIVE TO SAN MATEO)

AND

LAGUNA BLVD. RELIEF LINES

42

5,210

08 581 0158 20

GORDON HERKENHOFF AND ASSOCIATES INC. CONSULTING ENGINEERS

SHEET 1 OF

RIO GRANDE BLVD SIPHON

LAGUNA BLVD RELIEF LINES

LINE A

BEL-AIR STORM SEWER LINE A

LINE A-II

INDUSTRIAL SUBDIVISION

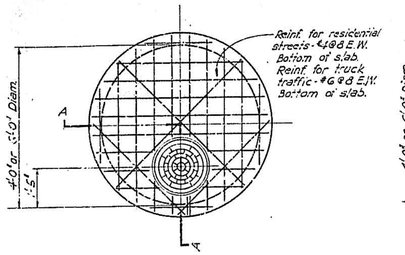
ALBUQUERQUE, NEW MEXICO

BEL-AIR & LAGUNA BLVD STORM SEWER EXTENSIONS

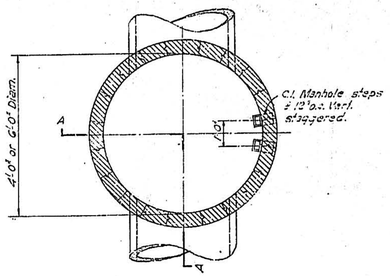
GENERAL LAYOUT

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

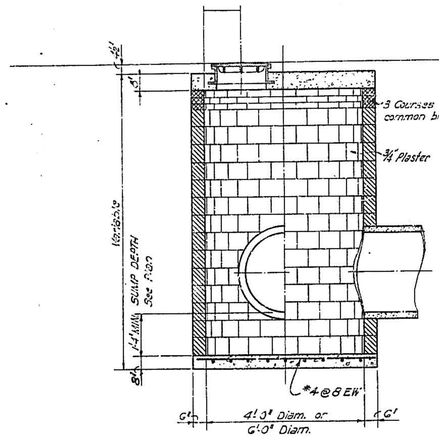
SCALE	DATE	DRAWN C.A.D.	SHEET 2
1" = 1000'	JUNE 1957	CHECKED A.D.	OF 14



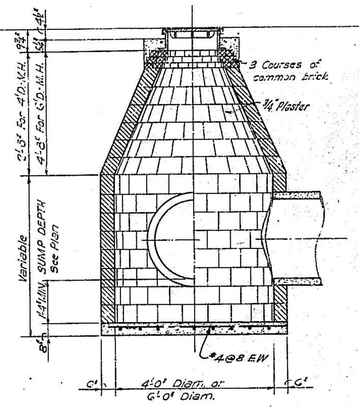
TOP PLAN OF TYPE A



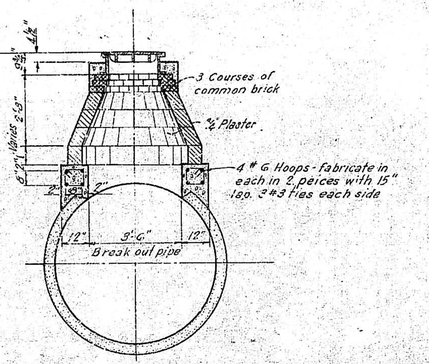
SECTION PLAN OF TYPE A & TYPE B



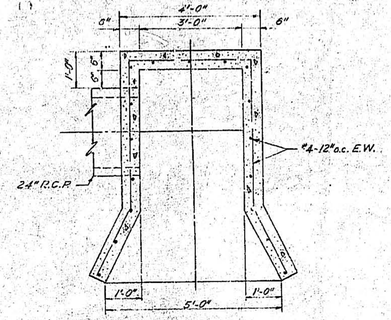
SECTION A-A - TYPE A MANHOLE
(WITH SUMPED INVERT)



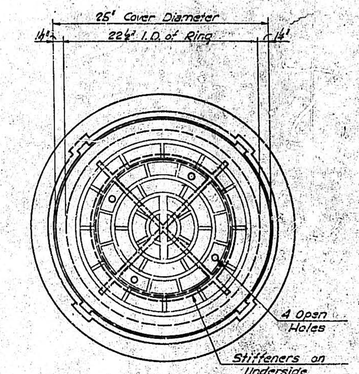
SECTION A-A - TYPE B MANHOLE
(WITH SUMPED INVERT)



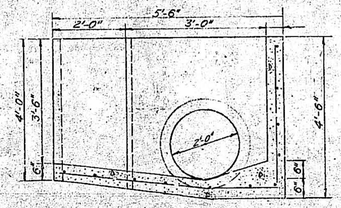
TYPE C
INTERMEDIATE MANHOLE



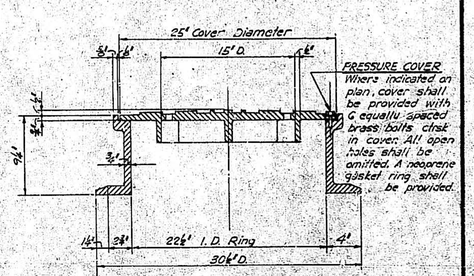
HEADWALL PLAN SECTION
SCALE: ½" = 1'-0"



PLAN



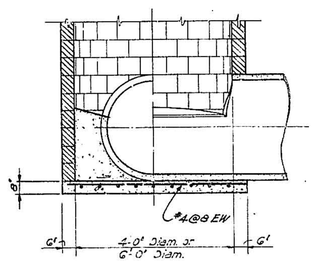
HEADWALL LONGITUDINAL SECTION
SCALE: ½" = 1'-0"



SECTION

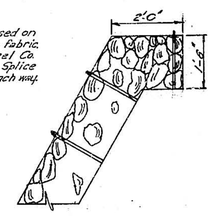
NOTE: Manhole ring and cover shall be 400 lbs. min.

TYPICAL DETAILS OF CAST IRON MANHOLE RING AND COVER
SCALE: 1½" = 1'-0"

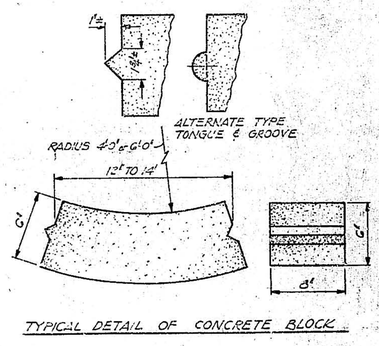


SECTION A-A - TYPE A OR TYPE B MANHOLE
(WITHOUT SUMPED INVERT)

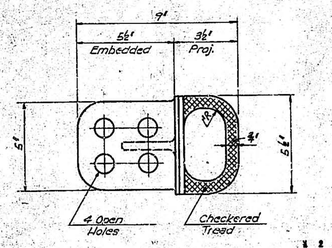
NOTE:
Rip-rap shall be 18" in depth, enclosed on all sides, top and bottom with wire fabric. Wire fabric shall be American Steel Co. spec. U or style 163 galv. or equal. Splice and tie with 9GA. wire at 2'-0" o.c. each way.



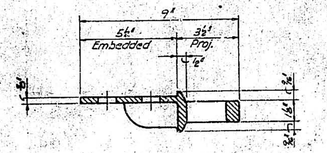
RIP-RAP DETAIL



TYPICAL DETAIL OF CONCRETE BLOCK



PLAN



SECTION

TYPICAL DETAILS OF STANDARD MANHOLE STEPS
SCALE: 8" = 1'-0"

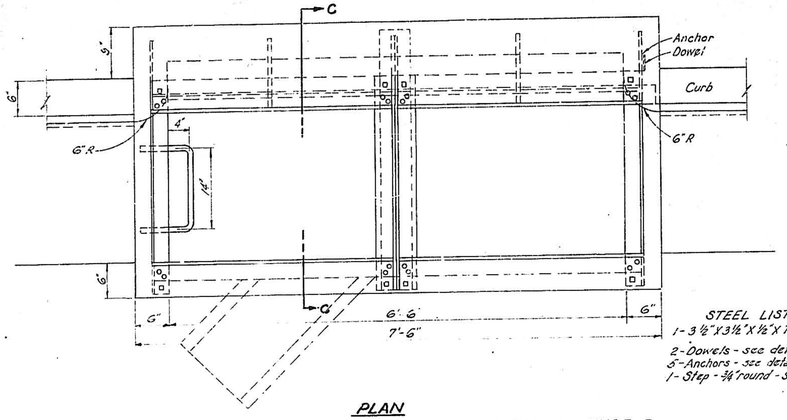
ALBUQUERQUE, NEW MEXICO

STORM SEWER STANDARDS

MANHOLE DETAILS

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN	SHEET
AS SHOWN		J.F.B.	3
		CHECKED G.A.T.	OF 14

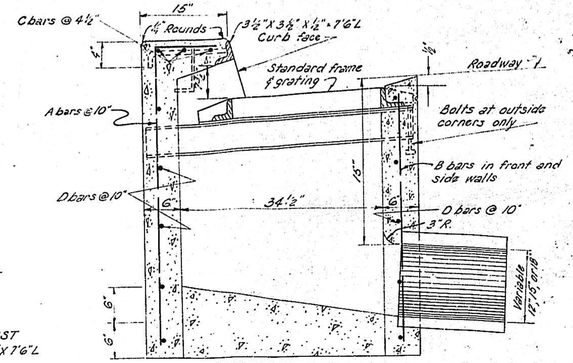


STEEL LIST
1 - 3½"X3½"X½"X7'6"L
2 - Dowels - see detail
3 - Anchors - see detail
1 - Step - ¾" round - see plan

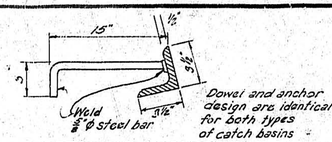
PLAN

DOUBLE GRATES STANDARD CATCH BASIN - TYPE C

SCALE 1"=1'-0"

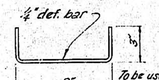


SECTION C-C
TYPE C



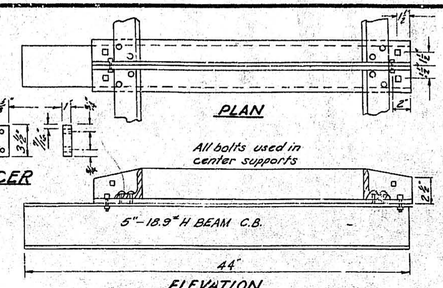
Dowel and anchor design are identical for both types of catch basins

DETAIL OF ANCHOR

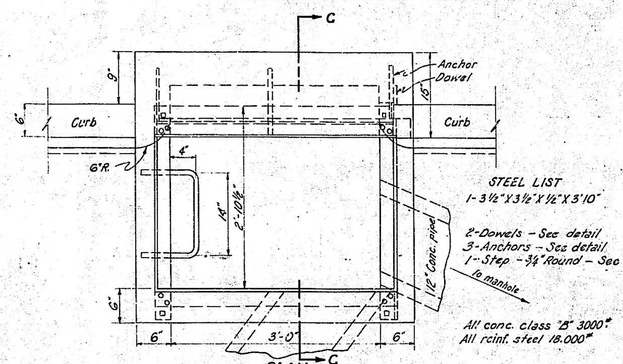


To be used when top is poured separate.

DETAIL OF DOWEL



ELEVATION
CENTER SUPPORT ASSEMBLY



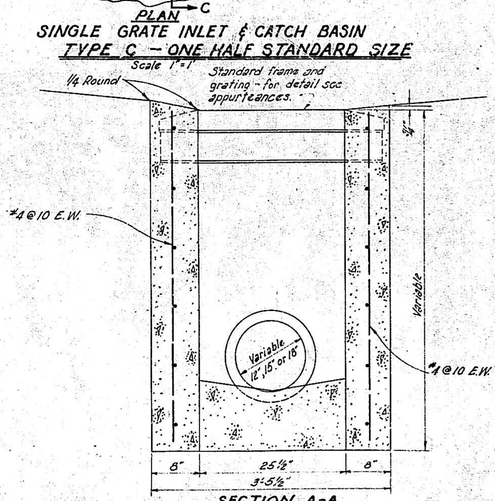
STEEL LIST
1 - 3½"X3½"X½"X3'10"
2 - Dowels - See detail
3 - Anchors - See detail
1 - Step - ¾" Round - See detail

All conc. class "B" 3000#
All reinf. steel 18,000#

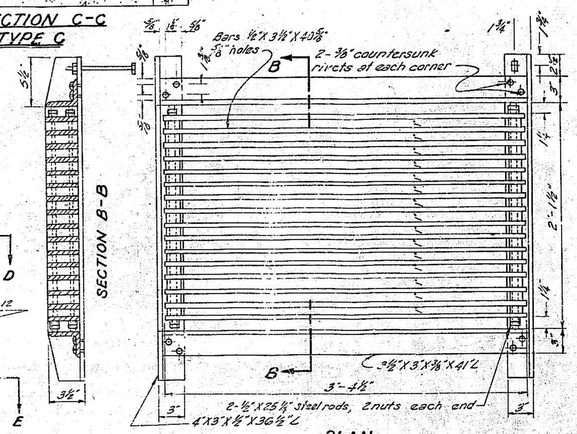
PLAN

SINGLE GRATE INLET & CATCH BASIN TYPE C - ONE HALF STANDARD SIZE

Scale 1"=1'



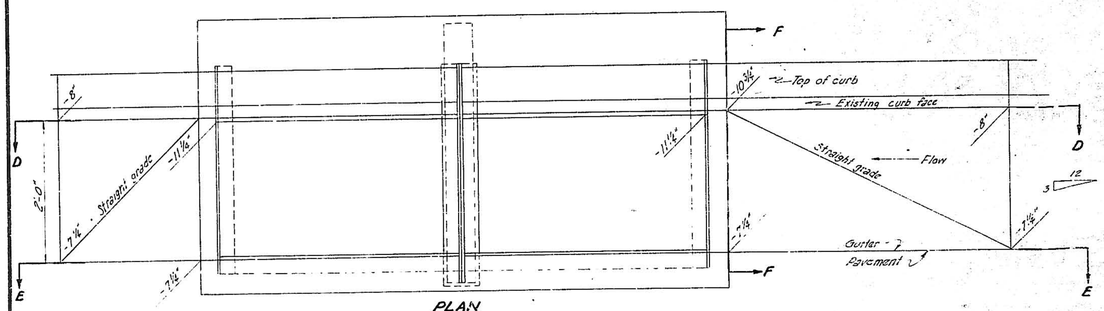
SECTION A-A
TYPE-D



PLAN

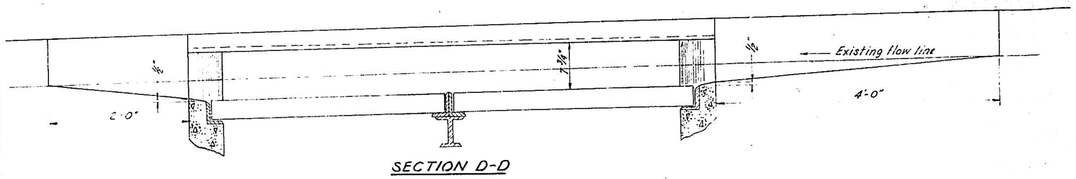
STANDARD FRAME AND GRATING

SCALE 1"=1'



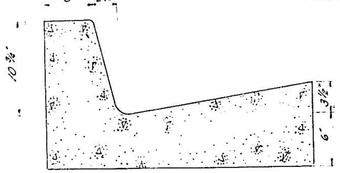
PLAN

STANDARD LOCAL DEPRESSIONS FOR CATCH BASINS TYPES A, B, C, AND C-1

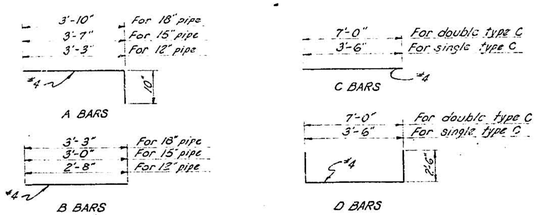


SECTION D-D

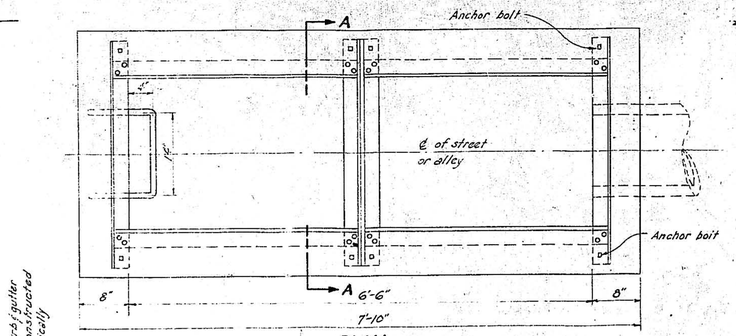
SECTION E-E



SECTION F-F

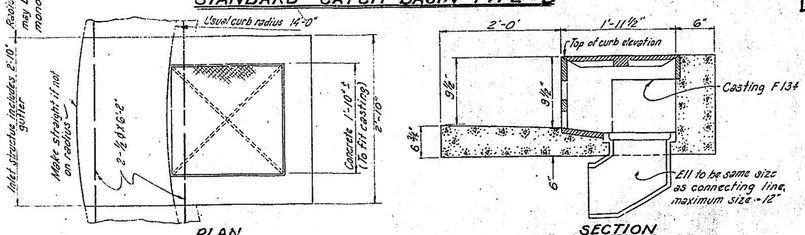


BAR BENDING DIAGRAM



PLAN

STANDARD CATCH BASIN TYPE-D



PLAN

SECTION

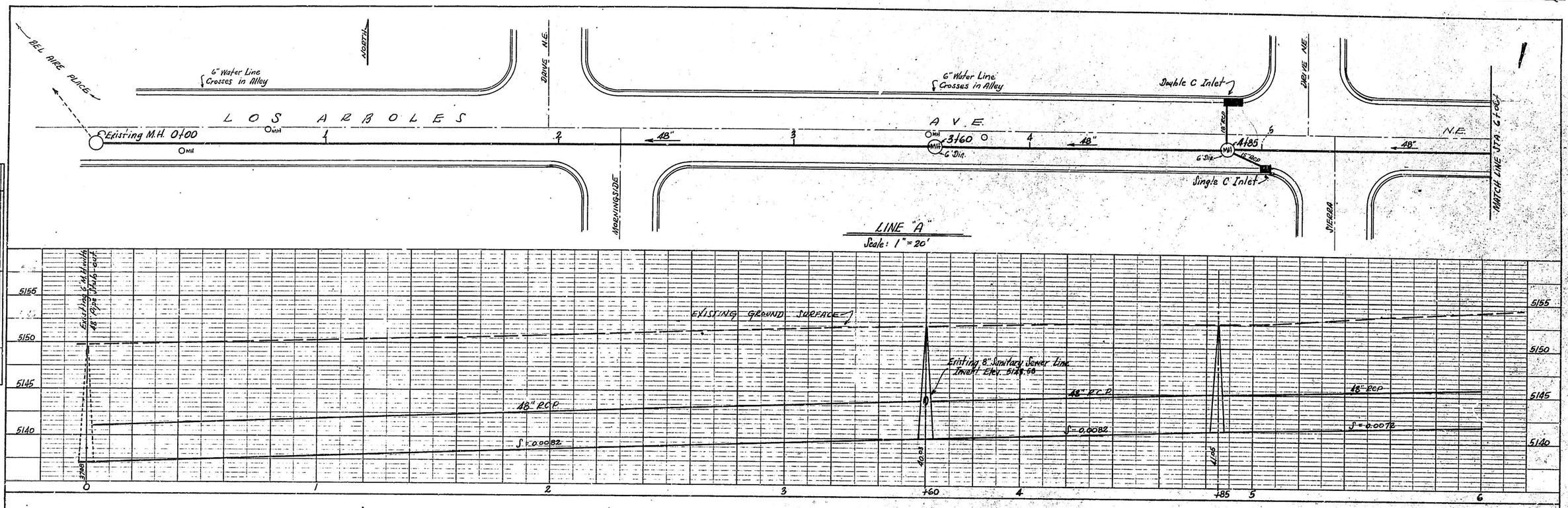
TYPE F INLET

ALBUQUERQUE, NEW MEXICO			
STORM SEWER STANDARDS			
INLET DETAILS			
HERKENHOFF & ASSOCIATES CONSULTING ENGINEERS SANTA FE ALBUQUERQUE			
SCALE AS SHOWN	DATE JULY 1957	DRAWN R.G.T. CHECKED G.A.J.	SHEET 4 OF 14

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

08 501 0458 10

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, AS INSPECTED — NOTE BOOK — NO. — DATE — BY



PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, EL. & NOTED, STRUCTURE INSPECTING OFFICE — NOTE BOOK — NO. — DATE — BY

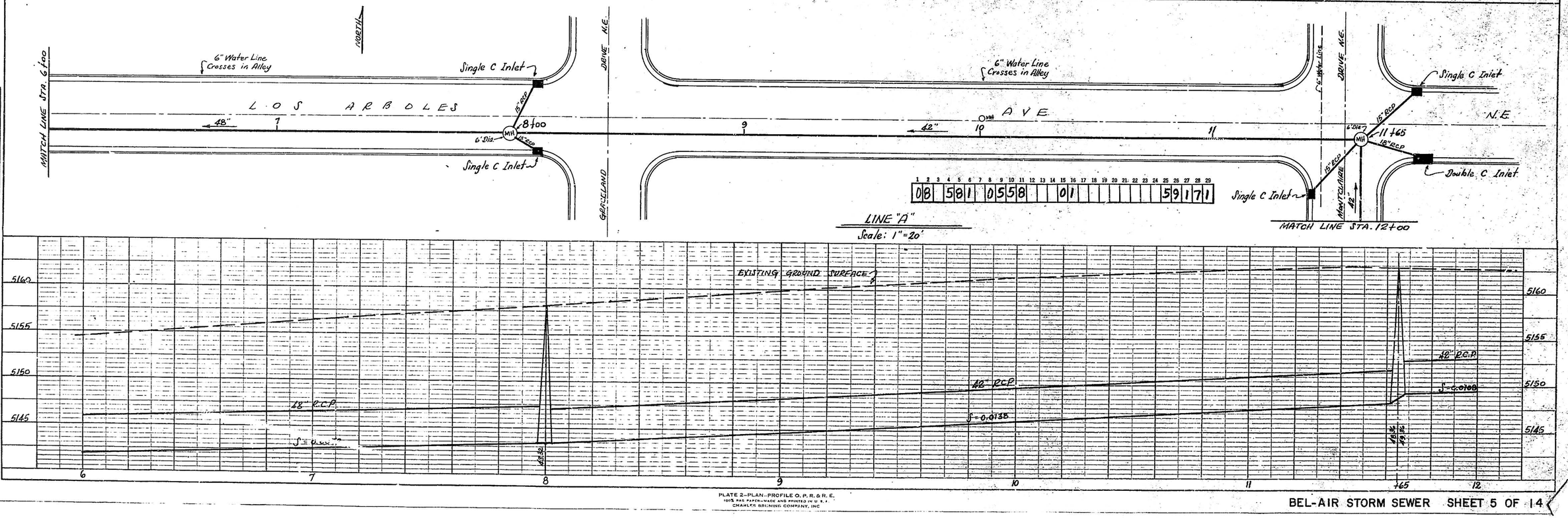


PLATE 2—PLAN—PROFILE O. P. R. & R. E.
100% RAG PAPER—MADE AND PRINTED IN U. S. A.
CHARLES BRUNING COMPANY, INC

NORTH

MATCH LINE 12+00

W.M. W.M. W.M. W.M. W.M. W.M. W.M. W.M. W.M. W.M. W.M.

13 42" 14 MH 15+00 6' Dia. 16 42" 17

MONT CLAIRE DRIVE N.E.

6" Water Line

W.V. W.V.

MATCH LINE 18+00

LINE "A"
Scale: 1"=20'

5165 5160 5155 5150

EXISTING GROUND SURFACE

10" RCP S=0.0108

12" RCP S=0.0108

52.50

12 13 14 15 16 17 18

MATCH LINE 18+00

Double "C" Inlet 18" RCP 42" DRIVE N.E. 42" 6' Dia. MH 13" RCP 18+20 Single "C" Inlet

NORTH

Note: Gas Mains & 6" Water Lines cross Claremont in every alley.

6" Water Line

CLAREMONT AVE.

6' Dia. MH 18+43 18" RCP 19 36" MH 20+00 4' Dia. 36" 21 4 Dia. Sta. 21+32 MH 18" RCP

Double "C" Inlet Single "C" Inlet

6" Water Line MONTCLAIRE Line "A-1" Enters See Other Sheet

ST. N.E. 6" Water Line N.E.

4 Dia. 21+80 MH 22 36" 23 MH 23+30 36" 4' Dia. MH

WASHINGTON 18" RCP Double "C" Inlet MATCH LINE 24+00

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

0 8 5 8 1 0 6 5 8 0 1 5 9 1 7 1

LINE "A"
Scale: 1"=20'

5170 5165 5160 5155

EXISTING GROUND SURFACE

12" RCP S=0.0100 12" RCP S=0.0108 36" RCP S=0.0098 36" RCP S=0.0098 36" RCP S=0.0098 36" RCP S=0.0086 36" RCP S=0.0086

Existing 8" Sanitary Sewer Line Invert Elev. 5169.11

Existing 8" Sanitary Sewer Invert Elev. 5165.57

55.44 54.94 57.19 56.69 72.69 64.19 64.19 62.07

18 +20 +43 19 20 21 +32 +80 22 23 +30 24

PLAN — SURVEYED ____ DRAWN ____ ALIGNMENT CHECKED ____ PT. OF WAY CHECKED ____ NOTE BOOK ____ NO. ____

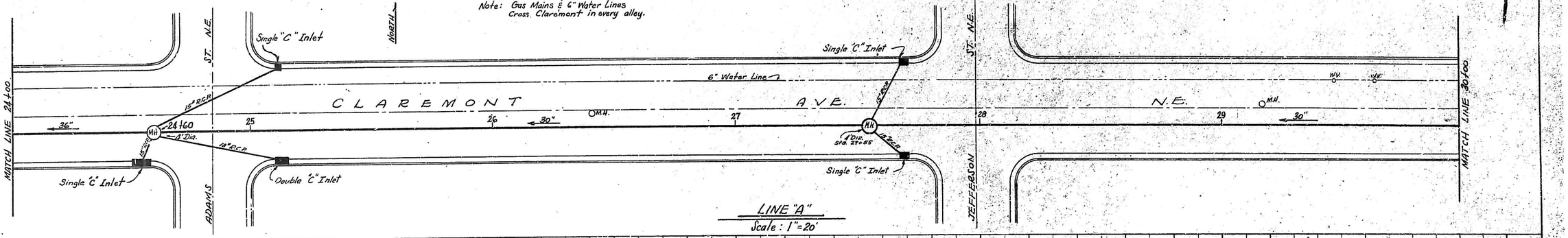
PROFILE — SURVEYED ____ DRAWN ____ GRADES CHECKED ____ B. M. + NOTED ____ STRUCTURE QUANTITIES CHCK. ____

DATE BY

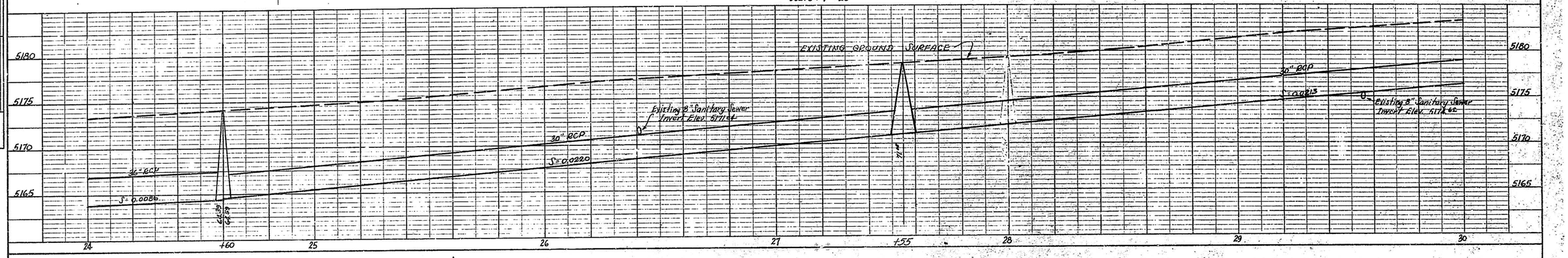
PLATE 2—PLAN—PROFILE O. P. R. & R. E.
100% RAG PAPER—MADE AND PRINTED IN U. S. A.
CHARLES BRUNING COMPANY, INC

PLAN — SURVEYED ____ PLOTTED ____ ALIGNMENT CHECKED ____ FT. OF MAT CHECKED ____ NOTE BOOK ____ NO. ____ BY ____ DATE ____

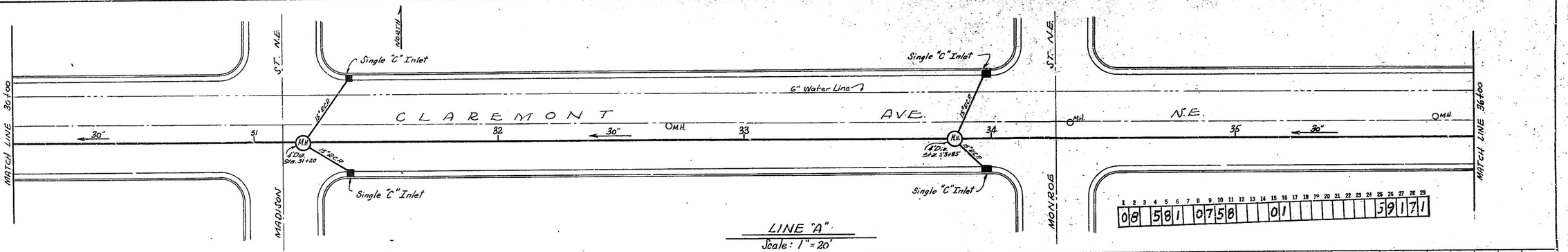
Note: Gas Mains & 6" Water Lines Cross Claremont in every alley.



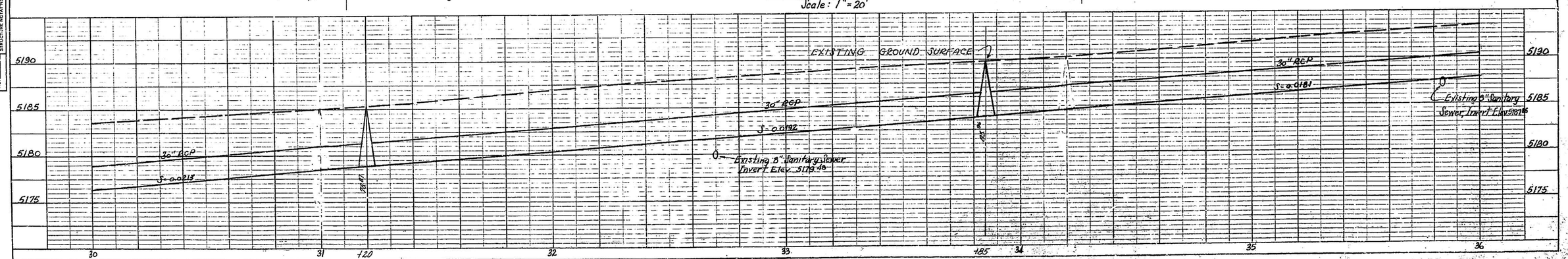
LINE "A"
Scale: 1"=20'



PROFILE — SURVEYED ____ PLOTTED ____ GRADES CHECKED ____ R. M.'s NOTED ____ STRUCTURE LOCATIONS CH'CK. ____ NOTE BOOK ____ NO. ____ BY ____ DATE ____



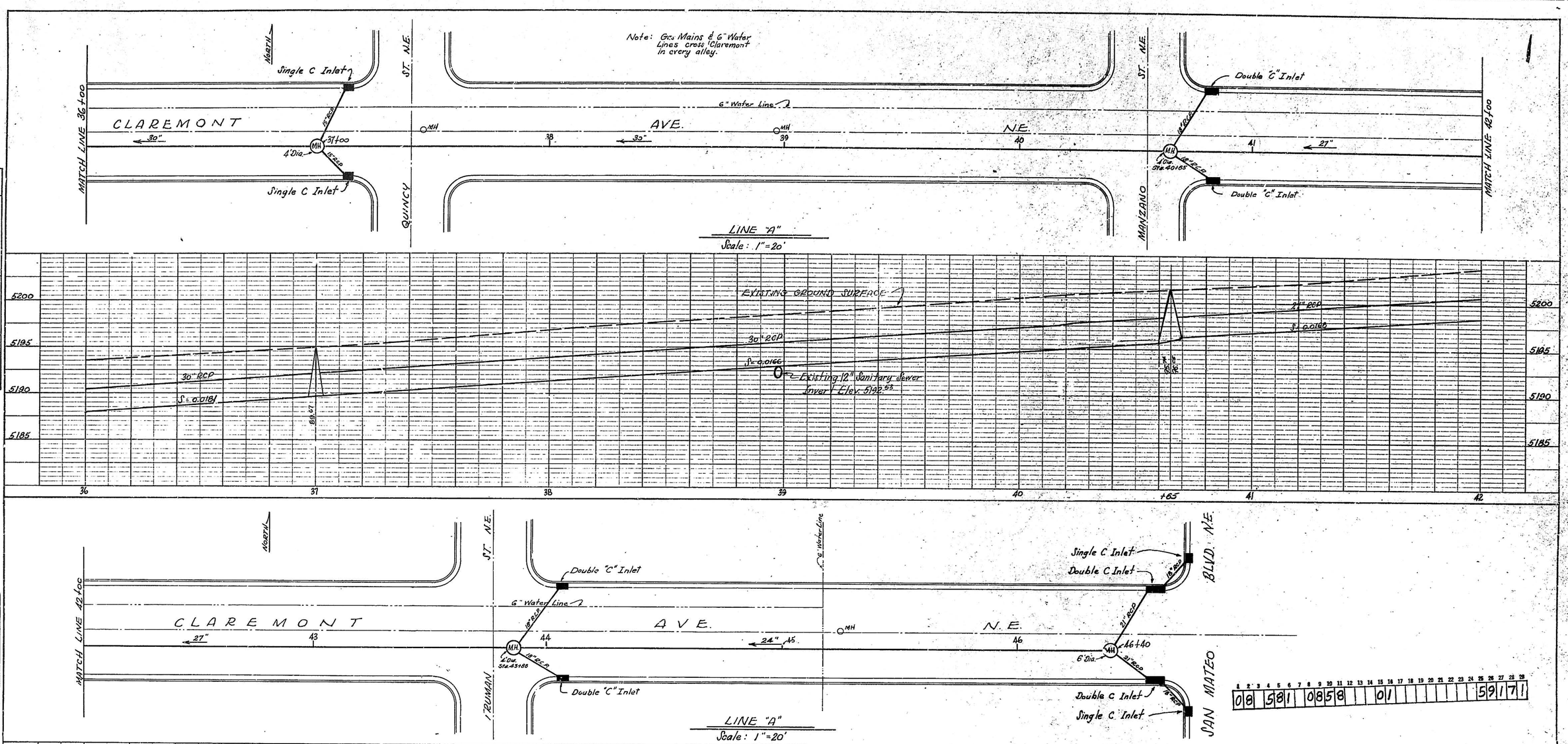
LINE "A"
Scale: 1"=20'



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
0 8 5 8 1 0 7 5 0 0 1 5 9 1 7 1

PLATE 2—PLAN-PROFILE O. P. R. & R. E.
DES. 1941 PHOTOGRAPHED AND PRINTED IN U. R. A.
CHARLES F. BRUNING COMPANY, INC.

PLAN — SURVEYED ____ PLOTTED ____ GRADES CHECKED ____ R. M.'s NOTED ____ STRUCTURE QUANTITIES CHECK ____ RT. OF WAY CHECKED ____ NOTE BOOK ____ NO. ____ BY ____ DATE ____



PROFILE — SURVEYED ____ PLOTTED ____ GRADES CHECKED ____ R. M.'s NOTED ____ STRUCTURE QUANTITIES CHECK ____ NOTE BOOK ____ NO. ____ BY ____ DATE ____

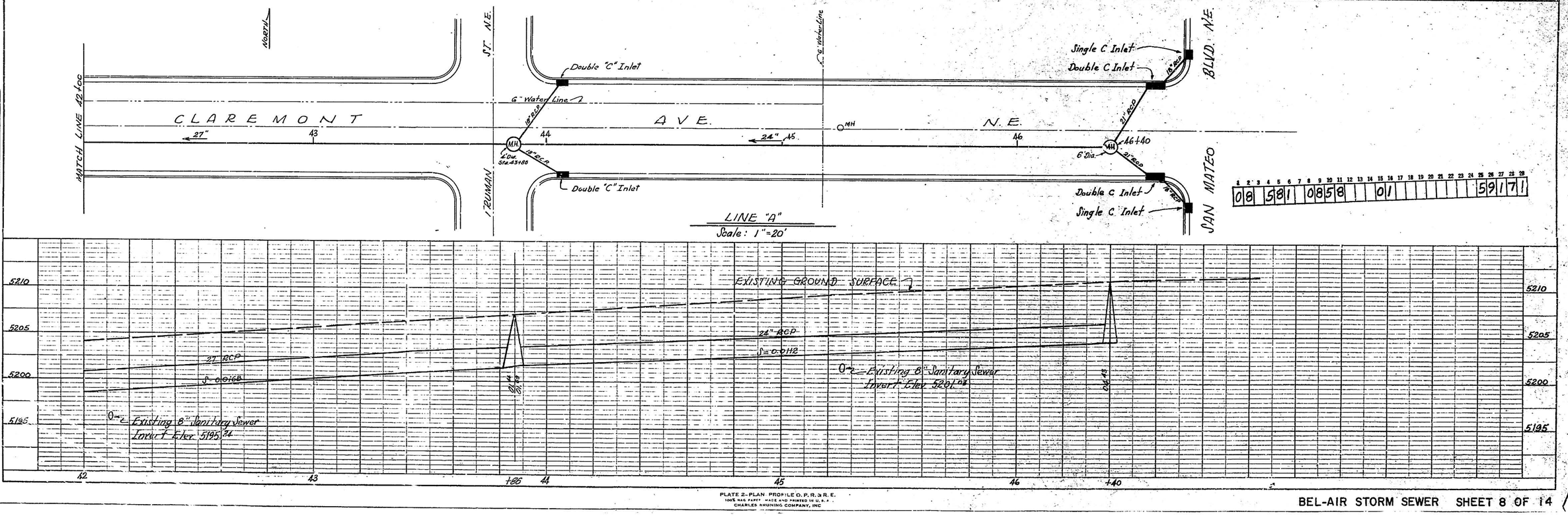


PLATE 2-PLAN PROFILE O. P. R. & R. E.
100% RAG PAPER MADE AND PRINTED IN U. S. A.
CHARLES RHUNING COMPANY, INC

NORTH

"LINE A"

"LINE A"
18143
0+00

MONTCLAIRE. DRIVE N.E.

1 — 30" — 2 — 3 — 3+20 — 4 — 30" — 5

4'Dia MH

6"Water Line

MATCH LINE 6+00

1

LINE "A-1"
Scale: 1"=20'

5170
5165
5160
5155

30" RCP
S=0.0072

5.57 IB
5.28 IB

6.48

0 — 1 — 2 — 3 — +20 — 4 — 5 — 6

5170
5165
5160
5155

30" RCP
S=0.0072

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	ALIGNMENT CHECKED		
NOTE BOOK	RT. OF WAY CHECKED		
NO.			

MATCH LINE 6+00

6"Water Line

DRIVE N.E.

30"

Single "C" Inlet

12"RCP

6+55

6'Dia MH

12"RCP

"F" Inlet

MONTCLAIRE

NORTH

Note: Gas Mains & 6" Water Lines cross Phoenix in every alley.

PHOENIX AVE.

Single "C" Inlet

6"Water Line

15"RCP

8 — 27" — 9

9+80

4'Dia MH

15"RCP

"F" Inlet

Single "C" Inlet

WASHINGTON ST. N.E.

12"RCP

MATCH LINE 12+00

10 — 11 — 27"

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
08	58	1	09	58			01																	59	17	1		

LINE "A-1"
Scale: 1"=20'

5175
5170
5165
5160

27" RCP
S=0.0114

30" RCP
S=0.0072

6.88
6.39

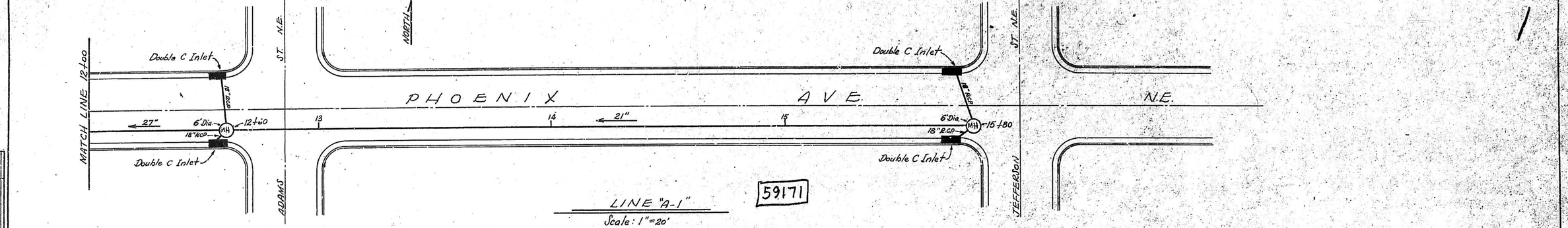
6.05
6.29

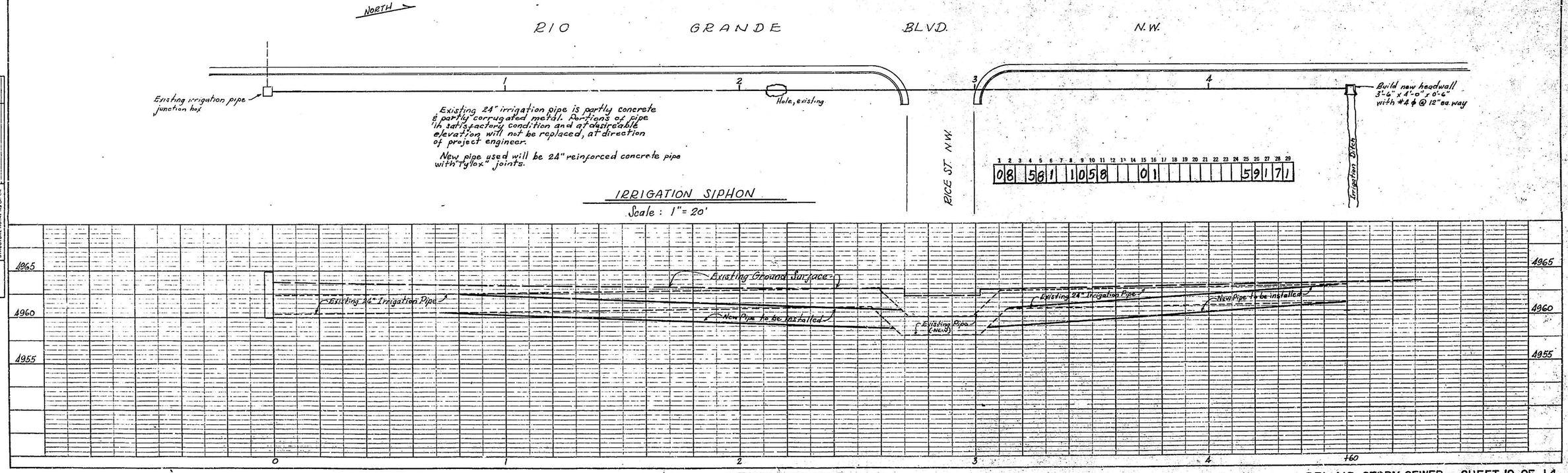
27" RCP
S=0.0108

+55 — 7 — 8 — 9 — +80 — 10 — 11 — 12

PROFILE	STUDIED	BY	DATE
	PLOTTED		
	PLANS CHECKED		
NOTE BOOK	G. H. & NOTED		
NO.	STRUCTURE NOTATIONS CHECK		

PLATE 2- PLAN-PROFILE O. P. R. & R. E.
100% RAG PAPER-MADE AND PRINTED IN U. S. A.
CHARLES BRUNING COMPANY, INC





PLAN — SURVEYED ____ DRAWN ____ NOTE BOOK ____ NO. ____ — ALIGNMENT CHECKED ____ RT. OF WAY CHECKED ____ — BY ____ DATE ____

PROFILE — SURVEYED ____ DRAWN ____ NOTE BOOK ____ NO. ____ — GRADES CHECKED ____ B. M. & NOTES ____ STRUCTURES LOCATING OFFICE ____ — BY ____ DATE ____

PLATE 2—PLAN—PROFILE O. P. R. & R. E.
100% RAG PAPER—MADE AND PRINTED IN U. S. A.
CHARLES BRUNING COMPANY, INC

LAGUNA BLVD. S.W.

EXISTING TYPE 'D' INLET

EXISTING CURB INLET

EXISTING S.S. M.H.

EXISTING PIPE

Station 0+75
New S.S.M.H.

Pl. Δ = 43°57'33"

Station 2+29.2
New S.S.M.H.

Station 5+37.5
New S.S.M.H.

Station 6+62.6
New S.S.M.H.

End Construction

EXISTING PIPE

24" R.C.P.

EXISTING S.S.M.H.

EXISTING CURB INLET

EXISTING TYPE 'D' INLET

EXISTING TYPE 'C' INLET

EXISTING S.S.M.H.

This section of pipe to be abandoned

Note:
All curb and gutter existing.

KIT CARSON AVE.

ESCALANTE AVE.

21" C.M.P.

L 24" R.C.P.

Sta 0+16

RIVERSIDE DRAIN

Station 0+00
Begin Construction

NOTE: PROVIDE 10'x10'x16" WIRE-ENCLOSED RIP-RAP. 5 C.Y. TO BE DUMPED IN FRONT OF OUTLET

S.S. 1 2 3 4 5 6

E.I. 5.1' 5.45' 5.6'

52°43'01"

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
BY
DATE
ALIGNMENT DIRECTED
RT. OF WAY CHECKED

PROFILE
TIE-IN KNO
PLOTTED
CURVES CHECKED
BY
NOTE BOOK
NO.
STRUCTURE ALIGNING WITH

PT
DATE

100.0
95.0
90.0
100.0
95.0
90.0

10'x10'x16" Wire Enclosed Rip-Rap

5 cy Grouted Rip Rap

21" C.M.P.

24" R.C.P.

EXISTING GROUND SURFACE

Slope: 0.00152

TOP OF PIPE = 92.18
INVERT ELEV. = 88.68
(SUPPOSED)

TOP OF PIPE = 92.18
INVERT ELEV. = 88.68
(SUPPOSED)

TOP OF PIPE = 92.18
INVERT ELEV. = 91.68

0 +16 +75 1 2 +29.2 3 4 5 +37.5 6 +62.6

08 501 11+50 01 57+37

PLATE 1—PLAN—PROFILE O. P. R. & R. E.
100% RAG PAPER—MADE AND PRINTED IN U. S. A.
CHARLES BRUNING COMPANY, INC.

PLAN — SURVEYED / PLOTTED / CURVES CHECKED / FL. M. + NOTES / STRUCTURE PLOTTING CHECK — NOTE BOOK — NO. — BY — DATE

PROFILE — SURVEYED / PLOTTED / ALIGNMENT CHECKED / FL. GR. LINE CHECKED — NOTE BOOK — NO. — BY — DATE

EXISTING TYPE 'C' INLET

EXISTING 36" S.S.M.H.

Existing 24" R.C.P.

Existing 36"

EXISTING PIPE

EXISTING SAN. M.H.

24" R.C.P.

Station 0+00
Begin Construction

EXISTING SAN. M.H.

Station 0+44.9
New S.S. M.H.

Δ = 24°03'00" Lt.

PARK AVE. S.W.

LAGUNA BLVD. S.W.

S A N P A S Q U A L E A V E. S. W.

EXISTING TYPE 'C' INLET

EXISTING GAS VALVE BOX & M.H.

Station 4+30
New S.S.M.H.

EXISTING SAN. M.H.
EXISTING PIPE
EXISTING SAN. M.H.

NOTE:
ALL CURB & GUTTER EXISTING

EXISTING GROUND SURFACE

Slope 0.00858

Slope 0.00088

Begin Const. Invert Elev. 94.75

Elev. of Existing Structure 96.62

6'0" Min. (Bottom of Inc. Elev.)

100.0
95.0
90.0

0
+44.9
1
2
3
4
+30
5
6

08 581 1258 01 58132

PLATE 1—PLAN—PROFILE O. P. R. & R. E.
"OUR RAG PAPER—MADE AND PRINTED IN U. S. A."
CHARLES BRUNING COMPANY, INC.

LAGUNA BLVD. RELIEF LINES SHEET 12 OF 14

PLAN
DRAFTED BY
PLOTTED
ALIGNMENT CHECKED
RE. LOT MAP CHECKED
NOTE BOOK
NO.
DATE

PROFILE
DRAFTED BY
PLOTTED
GRADES CHECKED
RE. LOT MAP CHECKED
NOTE BOOK
NO.
STRUCTURE NOTATIONS CHECK
DATE

EXISTING 24" R.C.P.
M.H.
EXISTING TYPE 'C' INLET
Abandon in Place
EXISTING SAN. M.H.
Station 8+200
New S.S.M.H.
EXISTING CURB INLET
EXISTING GAS M.H.
24" R.C.P.
SS
6
7
8
9
10
11
12
220'
222'
NOTE:
ALL CURB & GUTTER EXISTING.

SAN PASQUALE AVE. S.W.

LOS ALAMOS AVE. S.W.

SAN CRISTOBAL AVE. S.W.

EXISTING GROUND SURFACE
24" R.C.P.
SLOPE .00088
6 DIA M.H. (Stamped) INVELEV= SET AS
100.0
95.0
90.0
420
440

08 58 L 1350 011 5813 2

PLATE 1—PLAN—PROFILE O. P. R. & R. E.
105 R.I.S. PAPER—MADE AND PRINTED IN U.S.A.
BLUEPRINTING COMPANY INC.

LAGUNA BLVD. RELIEF LINES SHEET 13 OF 14

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.

ALIGNMENT CHECKED
FIT OF WAY SKETCHED

DATE
BY

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.

GRADES CHECKED
R. W.'S NOTED

STRUCTURE NOTATIONS CHECK

SAN PASQUALE AVE. S.W.

12 24"R.C.P. SS 13 SS 14 SS

Station 14+500
New S.S.M.H.

Reinstall Flap-Gate From Existing M.H. in M.H. at Sta. 14+50

EXISTING M.H.

24" R.C.P. 15 SS

Station 15+433
New S.S.M.H.
End Construction

EXISTING S.S.M.H.

EXISTING S.S.M.H.

EXISTING INLET

Abandon EXISTING PIPE

EXISTING 24" R.C.P.

M.H.

24" R.C.P.

EXISTING TYPE 'C' INLET

Abandon M.H.

22.0'

21.7'

EXISTING CURB INLET

EXISTING CURB INLET

NOTE:
ALL CURB & GUTTER EXISTING

CHACOMA AVE. S.W.

EXISTING M.H.

100.0
95.0
90.0

EXISTING GROUND SURFACE

24" R.C.P. S=22.5=0.00888 24" R.C.P.

6'-0" dia. M.H. (Surcharged) Invert Elev.= 93.01

6'-0" dia. M.H. Surveyed Invert Elev.= 93.30 End Const.

12 13 14 450 15 443.9

100.0
95.0
90.0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
08 50 1 14 50 01 50 32

PLATE 1- PLAN--PROFILE O. P. W. S. E.
100% RAG PAPER--MADE AND PRINTED IN U.S.A.
CHARLES BRUNING COMPANY, INC.

LAGUNA BLVD. RELIEF LINES SHEET 14 OF 14