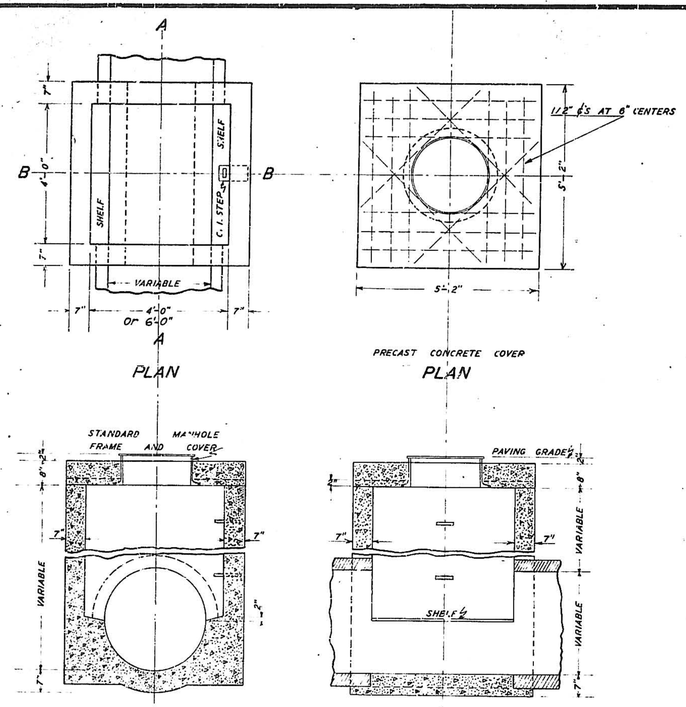
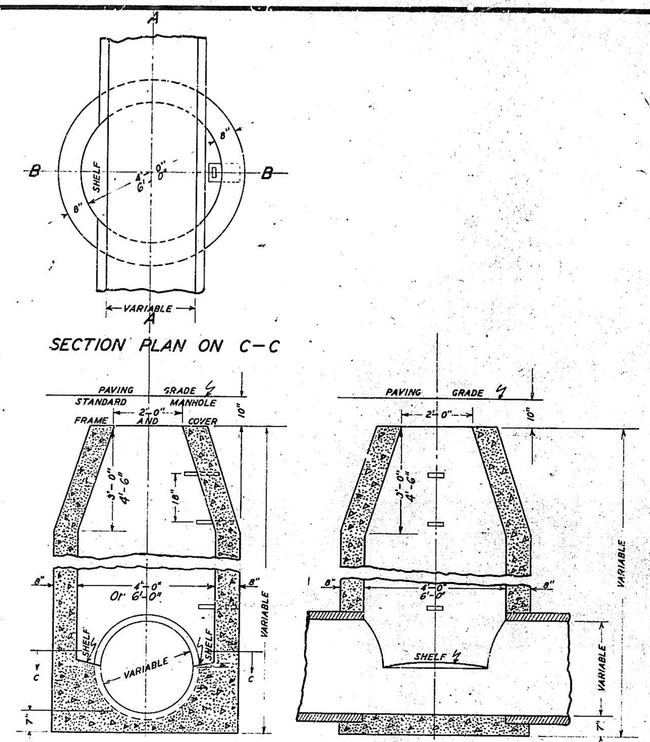
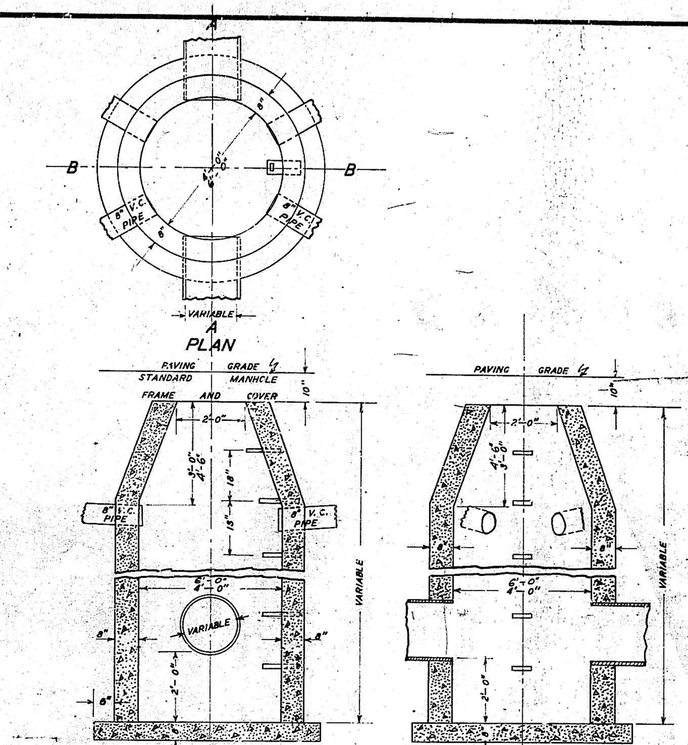
CITY LIMITS
16
15
Slate Ave. Intake Structure
CAMPUS
UNIVERSITY OF NEW MEXICO
U.S. INDIAN HOSPITAL RESERVATION
CITY RESERVOIR AND PARK
STADIUM
ROOSEVELT PARK
POSSIBLE PONTIC TOWN
CITY WATER PLANT
BROWNWELL ARMBRISTER CONVALESCENT HOSPITAL
LOS LUNAS
FOUNTAIN
CENTRAL
CRAWFORD
CROWELL
CARTICO
HARVARD
CORNELL
DARTMOUTH
PRINCETON
HIGHLAND
DUKE
COLE
SILVER
LEAD
COPPER
GOLD
ROMA
SIGMA
CHI
NORTH
EAST
WEST
SOUTH
AVENUE
BLVD
ROAD
PLACE
STREET
WEST ALBUQUERQUE



SECTION ON B–B SECTION ON A–A
STANDARD STORM SEWER MANHOLE "A"
Scale 1/2" = 1'



SECTION ON B–B SECTION ON A–A
STANDARD STORM SEWER MANHOLE "B"
Scale 1/2" = 1'



SECTION ON B–B SECTION ON A–A
STANDARD STORM SEWER MANHOLE "C"
Scale 1/2" = 1'

Addendum

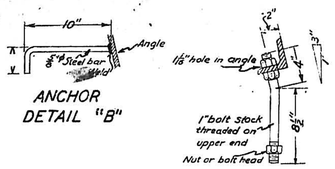
~~NOTE~~

The Contractor has the option of building the masonry walls of all manholes of solid concrete brick or blocks, having a thickness of not less than 4 inches, a width of not less than 8 inches and a length of 12 to 14 inches. The concrete from which such bricks or blocks are constructed shall meet the specifications for class "A" as set forth in Storm Sewer Specifications for the City of Albuquerque, New Mexico. Type of block must be approved by the "Engineer" and each block shall be molded with a curvature equal to and matching exactly that of the manhole being built. All concrete blocks shall conform in all respects to the Standard Specifications for "Solid Load-Bearing Concrete Masonry Units." A.S.T.M. Designation: C 145 - 40 or any subsequent revisions thereof.

08 392 0239 110

STATE OF NEW MEXICO
CITY OF ALBUQUERQUE
HIGHLAND STORM SEWER
STANDARD MANHOLE DESIGNS

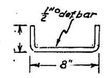
DRAWN R.P.S. RECOMMENED
TRACED R.P.S. APPROVED E.O. Rittel
CHECKED
ALBUQUERQUE, NEW MEXICO AUGUST 23, 1938
SHEET NO. 2



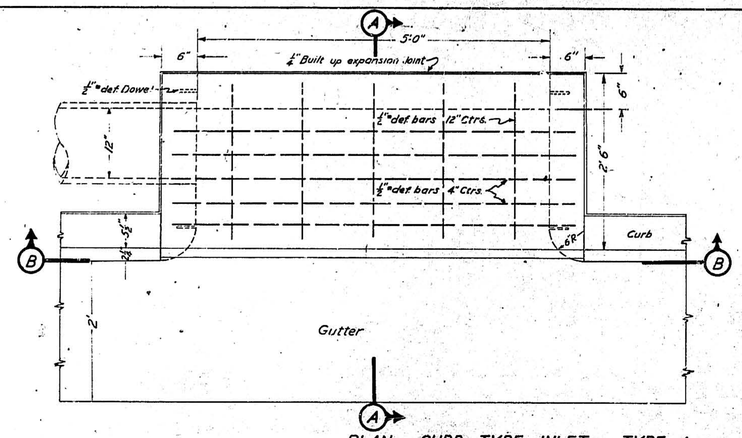
ANCHOR DETAIL "B"

GRATE BOLT DETAIL "A"

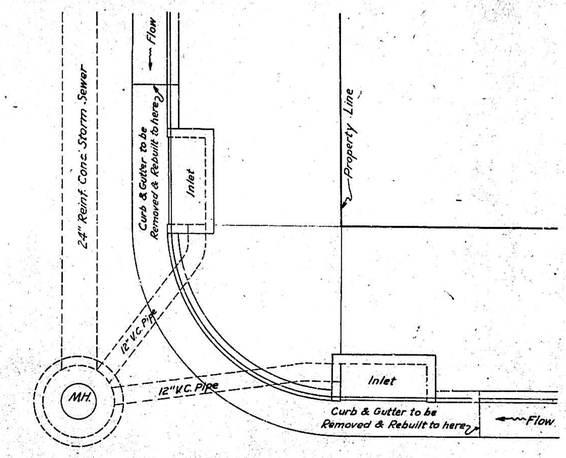
Scale 1½"=1'-0"



DOWEL DETAIL "C"

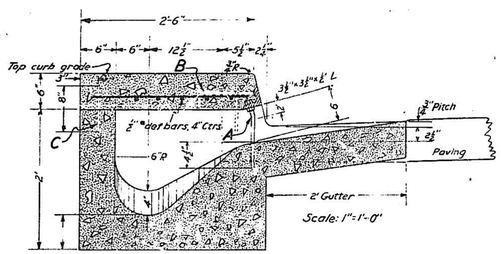


PLAN - CURB TYPE INLET - TYPE A

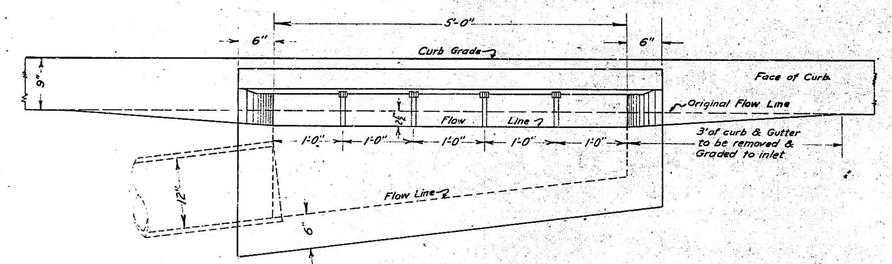


LOCATION OF INLETS IN STREET

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

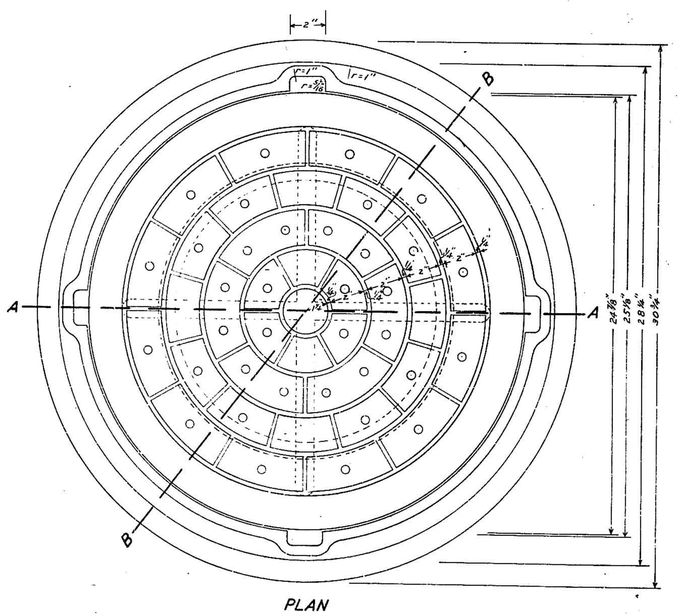


SECTION A-A



SECTION B-B

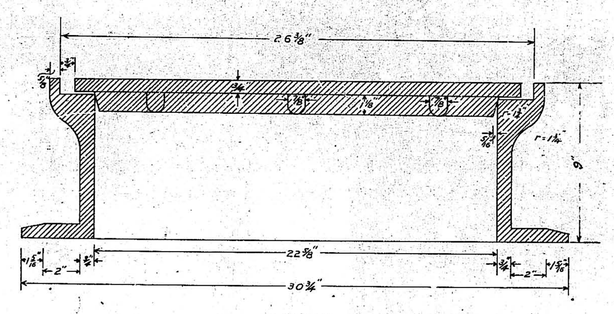
Scale: 1"=1'-0"



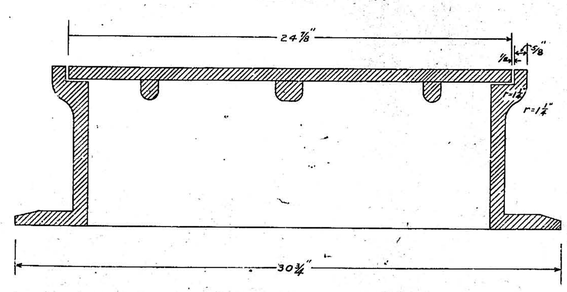
PLAN

STANDARD MANHOLE FRAME AND COVER

Scale: 1/4"=1"



SECTION A-A



SECTION B-B

Scale: 1/4"=1"

08 392 0339 10

STATE OF NEW MEXICO

CITY OF ALBUQUERQUE

HIGHLAND STORM SEWERS

TYPE A

CURB TYPE INLET

AND

STANDARD MANHOLE FRAME AND COVER

DRAWN E.E.A.

TRACED S.S.H.

CHECKED

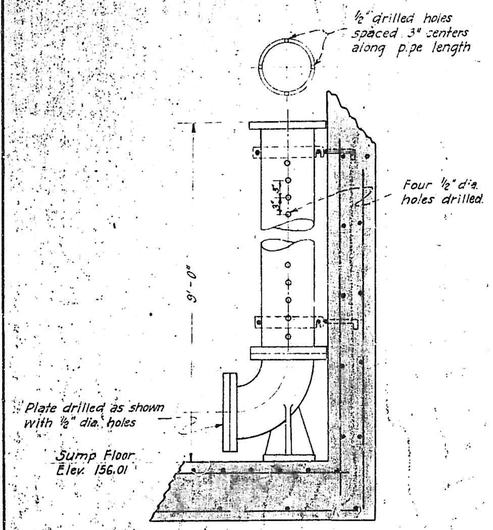
RECOMMENDED

APPROVED E. O. Reith

ALBUQUERQUE, NEW MEXICO

OCTOBER 8, 1938

SHEET NO. 5



8"-125# CAST IRON PIPE STILLING WELL
Scale 1"=1'

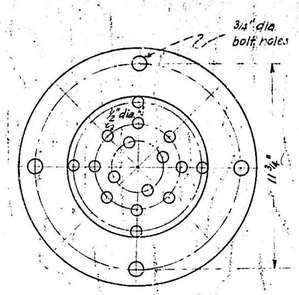
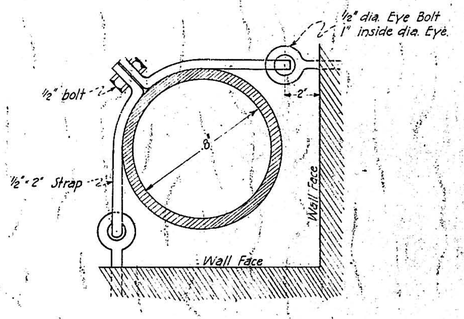
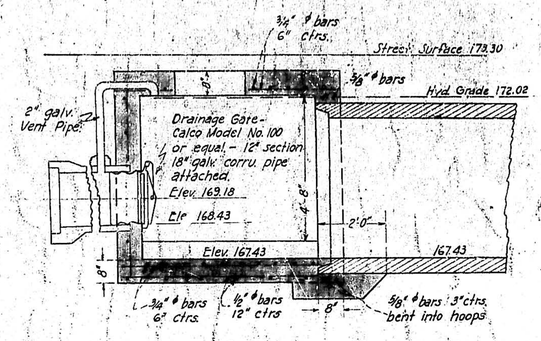


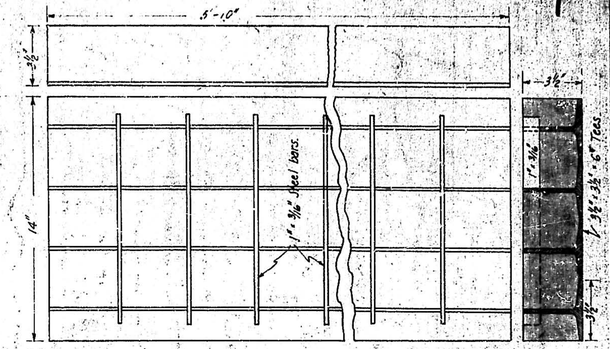
PLATE DETAIL



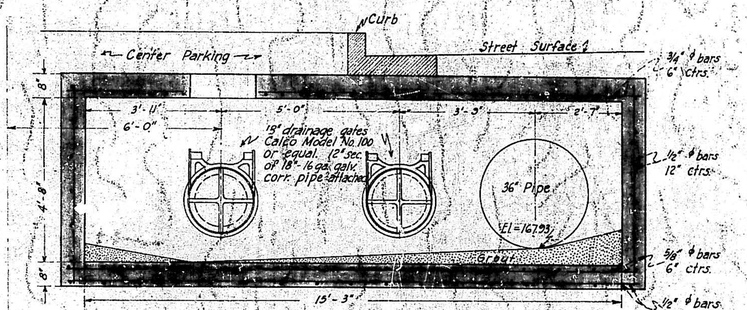
DETAIL
STILLING WELL SUPPORT
Scale 3"=1'



SECTION A-A
Scale 1/2"=1'-

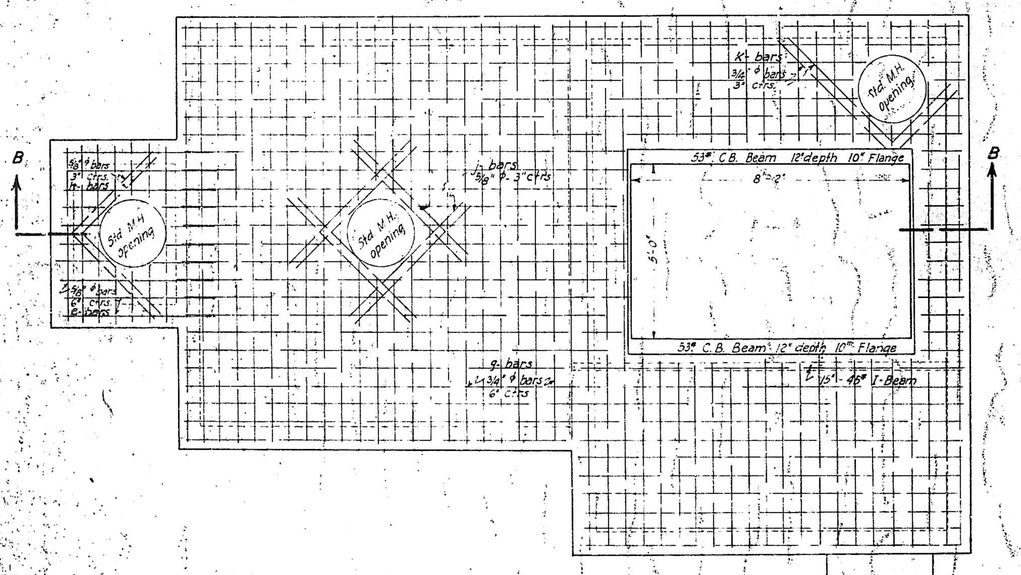


CARNEGIE STEEL CO. T-TRI-LOK. SLAB OR EQUAL
Scale 3"=1'

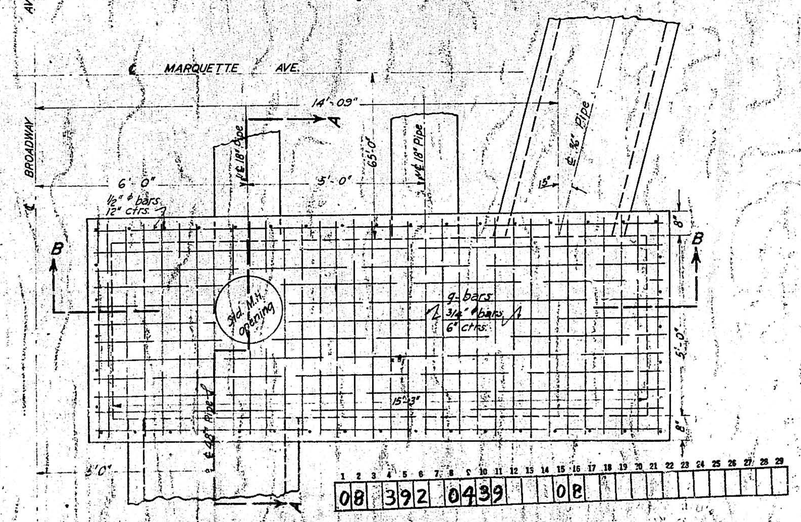


SECTION B-B
Scale 1/2"=1'

REINFORCING STEEL						
BAR	NO.	SIZE	LENGTH	SPACING	TOTAL LENGTH	WEIGHT
a	6	1/2" ϕ	12'	12"	72'	44.0
a	6	"	4'-2"	"	25'	15.7
a	10	"	23'-4"	"	233'-4"	146.0
a	1	"	19'-4"	"	19'-4"	12.3
a	9	"	8'-8"	"	77'-6"	48.6
a	18	"	15'	"	270'	169.0
a	1	"	4'-6"	"	36'-6"	23.3
a	1	"	4'-6"	"	4'-6"	5.0
a		"	5'	"	5'	2.0
a	3	"	11'	"	33'	56.0
a	3	"	8'-8"	"	26'	16.3
a	9	"	11'-8"	"	104'	70.0
a	8	"	18'	8"	144'	166.0
b	4	"	4'-2"	"	16'-8"	11.1
b	4	"	22'-4"	"	89'-4"	59.6
b		"	15'-4"	"	61'-4"	40.9
b	5	"	18'	"	90'	60.0
b	5	"	11'	12"	55'	36.7
b	9	"	18'	"	162'	108.0
b	2	"	12'	"	24'	16.0
b	1	"	5'-6"	"	5'-6"	3.7
b	2	"	8'-6"	"	17'	11.3
b	2	"	8'-6"	"	17'	11.3
b	2	"	8'-6"	"	17'	11.3
c	10	"	3'	24"	30'	20.0
c		"	3'	"	3'	2.0
c	7	"	18'	"	126'	84.0
c	17	"	10'	"	170'	113.4
c	2	"	1'-6"	"	3'	2.0
c	2	"	6'-6"	"	13'	8.7
c	6	"	10'	12"	60'	40.0
c	17	"	12'	"	204'	136.0
c	2	"	8'-6"	"	17'	11.3
c	5	"	8'-6"	"	42'	28.0
c	8	"	8'-6"	"	27'	18.0
d	28	1/2" ϕ	3'	"	252'	252.0
d	7	"	3'	"	21'	14.0
d	28	"	18'	"	504'	336.0
d	68	"	10'	"	680'	453.3
d	6	"	1'-6"	"	9'	6.0
d	4	"	6'-6"	"	26'	17.3
d	6	"	6'	"	36'	24.0
d	6	"	6'-6"	"	39'	26.0
d	10	"	3'	"	30'	20.0
e	6	"	8'	"	48'	32.0
e	8	5/8" ϕ	3'-6"	"	28'	30.6
f	3	"	3'	12"	12'-6"	13.7
f	9	"	3'	"	37'	40.0
g	19	3/4" ϕ	7'	"	133'	148.0
g	8	"	5'	"	40'	44.5
g	6	"	16'	"	90'	135.0
g	14	"	8'-6"	"	119'	132.2
g	16	"	4'	"	64'	71.1
g	8	"	27'-4"	"	218.66'	242.6
g	4	"	15'-6"	"	62'	69.0
g	4	"	12'	"	48'	53.3
g	12	"	12'-9"	"	153'	170.0
g	12	"	12'-9"	"	153'	170.0
g	6	"	11'-6"	"	69'	76.7
h	8	3/4" ϕ	5'	"	40'	44.7
h		"	4'-6"	"	9'	10.0
k	2	"	3'	"	6'	6.0
m	26	5/8" ϕ	12'	3"	312'	325.4
m	22	"	12'	"	264'	275.1
m	29	"	9'-4"	"	270.5'	281.1
m	29	"	8'-8"	"	251.4'	261.1
m	36	"	11'	"	396'	412.0
n	13	1/2" ϕ	12'	12"	156'	104.0
n	11	"	12'	"	132'	110.0
n	12	"	4'-4"	"	52'	34.7
n	12	"	8'-8"	"	104'	69.3
n	18	"	12'	"	216'	144.0
p	24	"	12'	"	288'	192.0
p	24	"	8'-8"	"	208'	138.7
q	2	1" ϕ	10'-8"	4"	21'-4"	71.0
					Total =	6953.2#
					Cu. Yds. Conc. =	44.69
					" " Grout =	0.81



ROOF PLAN
Scale 1/2"=1'

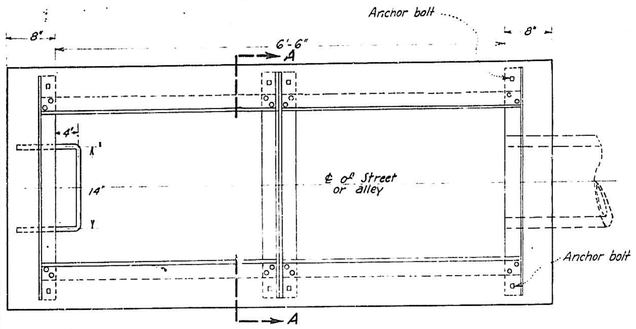


SPECIAL MANHOLE "C" ROOF PLAN
Scale 1/2"=1'

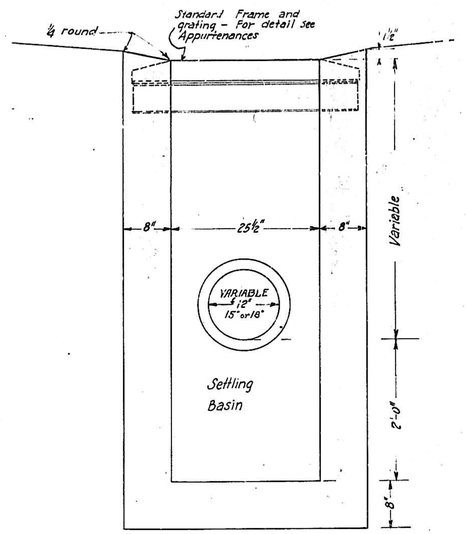
STATE OF NEW MEXICO
CITY OF ALBUQUERQUE
HIGHLAND STORM SEWER
P.W.A. DOCKET NO. N.MEX. 1126-F

ROMA AVENUE PUMPING STATION

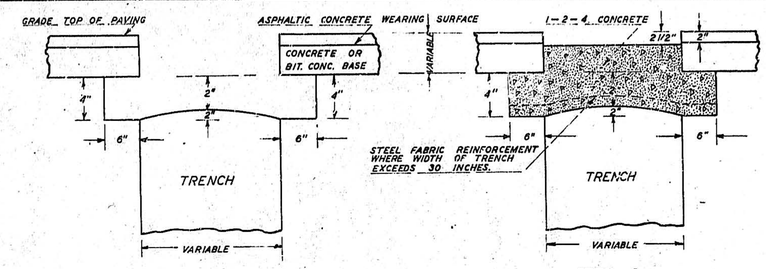
DRAWN H.W. Rankin
TRACED B.P.S.
CHECKED
RECOMMENDED
APPROVED E. O. Fitzi
ALBUQUERQUE, NEW MEXICO
OCTOBER 18, 1939
Sheet No. 4



PLAN
STANDARD CATCH BASIN TYPE - D
Scale 1"=1'



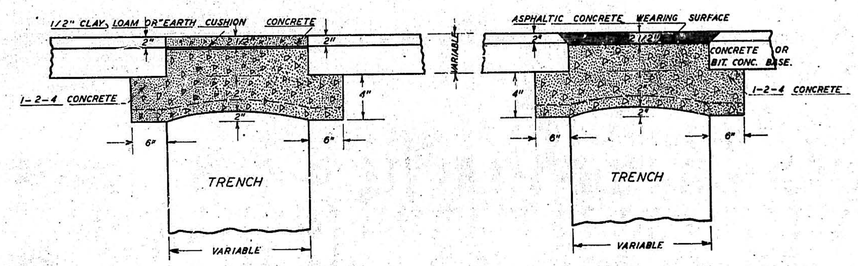
SECTION A-A



STEP 1. STEP 2.

(A). BACKFILL AND HAND-TAMP THE OPEN TRENCH IN SUCCESSIVE LAYERS OF NOT MORE THAN NINE INCHES IN THICKNESS.
(B). SQUARE UP EXPOSED EDGES OF PAVING IN A NEAT MANNER.
(C). EXCAVATE DIRECTLY UNDER EDGE OF PAVING A TRENCH 6 WIDE AND 4 DEEP AS SHOWN ABOVE.
(D). ARCH BACKFILL IN CENTER OF TRENCH MAKING THE CROWN AT CENTER 2 BELOW BOTTOM EDGE OF PAVING
(E). DEPTH OF PATCH WILL VARY ACCORDING TO TYPE OF PAVING TO BE REPAIRED.

(A). WASH OFF THE EXPOSED PAVING EDGES AND WET THE SUBGRADE LIGHTLY.
(B). FILL WITH A 1-2-4 MIX CONCRETE TO WITHIN 2 1/2 OF GRADE OR TOP OF PAVING TAMP THE CONCRETE THOROUGHLY ESPECIAL CARE BEING TAKEN TO COMPLETELY FILL AND TAMP THE CONCRETE INTO THE TRENCH UNDER EDGE OF PAVING.
(C). WHERE THE WIDTH OF TRENCH EXCEEDS 30 INCHES PLACE ONE LAYER OF STEEL FABRIC REINFORCEMENT WEIGHING NOT LESS THAN 35 POUNDS PER 100 SQ. FT., 2" ABOVE THE BOTTOM OF THE CONCRETE.
(D). STRIKE THE SURFACE OF THE CONCRETE OFF ROUGHLY WITH A SHOVEL BUT DO NOT FINISH SMOOTH.

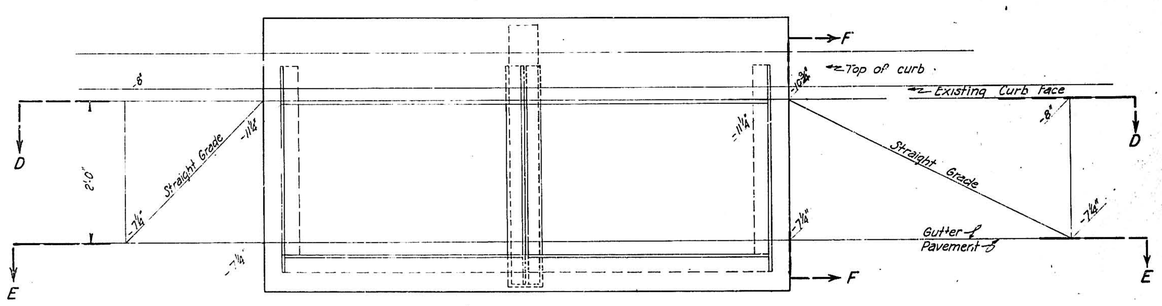


STEP 3. STEP 4.

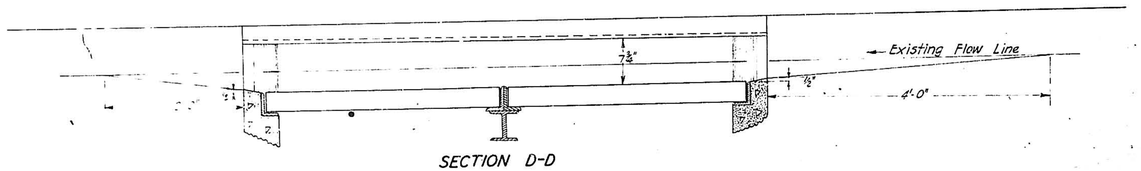
(A). AFTER THE CONCRETE PLACED IN STEP 2. HAS TAKEN ITS INITIAL SET PLACE A 1/2" LAYER OF CLAY, LOAM OR ORDINARY EARTH (NOT SAND) OVER THE SURFACE OF THE CONCRETE
(B). FILL REMAINDER OF CUT WITH 1-2-4 MIX CONCRETE TO TOP OF PAVING AND FINISH WITH WOODEN FLOAT.
(C). BARRICADE AGAINST TRAFFIC FOR AT LEAST 24 HOURS AFTER PLACING TOP COURSE. AT NIGHT PLACE LANTERNS OR TORCHES BY THE BARRICADES.

NOTE: TO REPAIR CUTS IN PLAIN CONCRETE, ALLEY PAVING. PREPARE THE OPENING AS IN STEP 1. FILL WITH 1-2-4 MIX CONCRETE AND FINISH FLUSH WITH TOP OF PAVING.

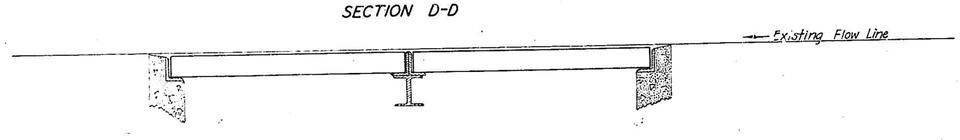
(A). BREAK AND CHIP OUT THE 2" TOP COURSE OF CONCRETE AND 1/2" LAYER OF DIRT.
(B). CUT BACK THE EDGE OF PRESENT ASPHALTIC CONCRETE SURFACE ON AN ANGLE OF 45° WITH VERTICAL OR 1 TO 1 SLOPE.
(C). CLEAN OUT, CUT AND SWEEP CLEAN WITH HEAVY BROOM.
(D). HAUL AWAY AND DISPOSE OF ALL WASTE MATERIALS.
(E). REPAIR CUT WITH ASPHALTIC CONCRETE WEARING SURFACE IN ACCORDANCE WITH CITY PAVING SPECIFICATIONS. THE SURFACE FINISH TO BE THE SAME TYPE AS THAT OF PAVING SURROUNDING THE PATCH.
(F). THE STREET IN VICINITY OF PATCH SHALL BE THOROUGHLY CLEANED UP BEFORE BEING OPENED TO TRAFFIC.



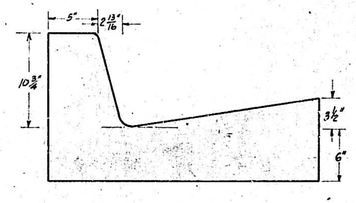
PLAN
STANDARD LOCAL DEPRESSIONS FOR CATCH BASINS
TYPES A, B AND C



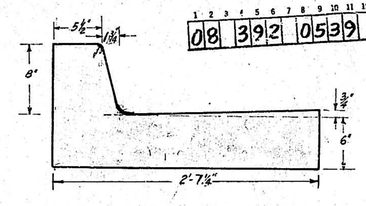
SECTION D-D



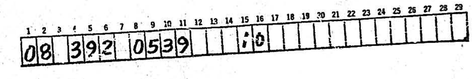
SECTION E-E



SECTION F-F



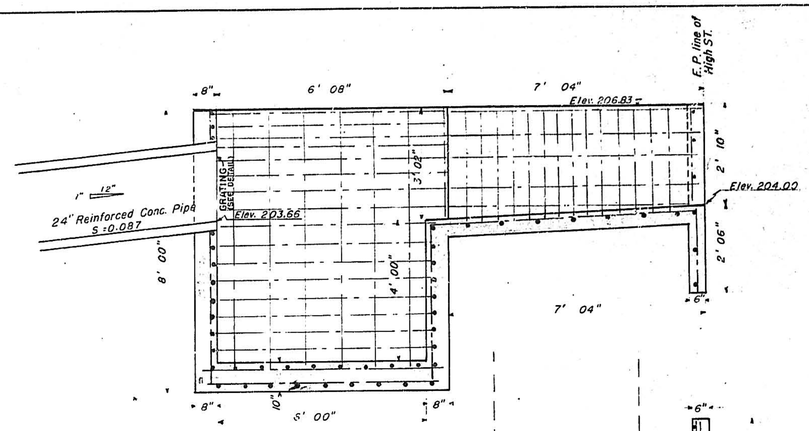
STANDARD SECTION CURB AND GUTTER



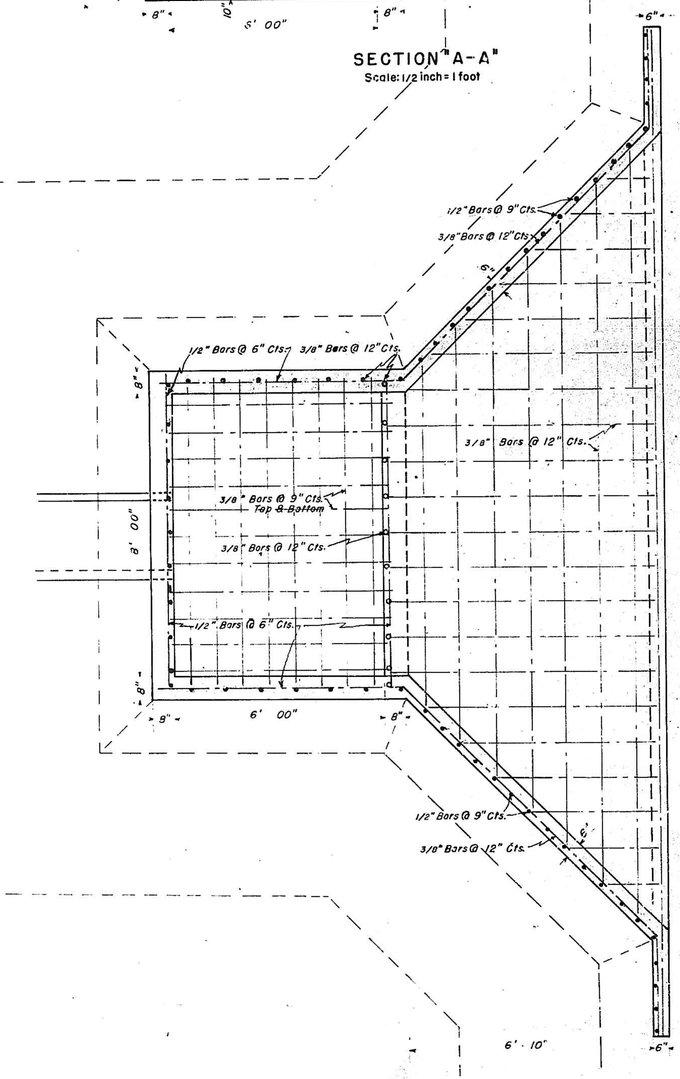
STATE OF NEW MEXICO
CITY OF ALBUQUERQUE
HIGHLAND STORM SEWERS

STANDARD METHOD OF REPAIRING CUTS IN PAVEMENTS
Also
STANDARD LOCAL DEPRESSIONS FOR CATCH BASINS

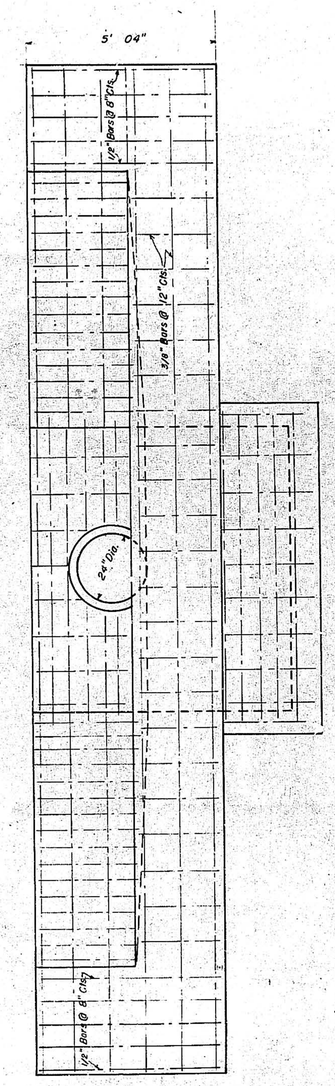
DRAWN R.S.H.
TRACED R.P.S.
CHECKED
RECOMMENDED
APPROVED E. O. Britton
ALBUQUERQUE, NEW MEXICO
OCTOBER 23, 1933
SHEET NO. 5



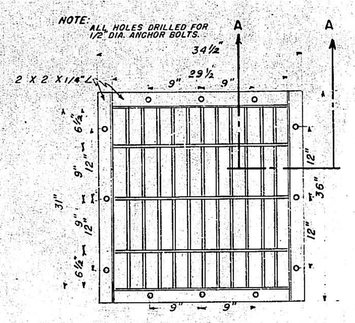
SECTION "A-A"
Scale: 1/2 inch = 1 foot



PLAN VIEW
Scale: 1/2 inch = 1 foot

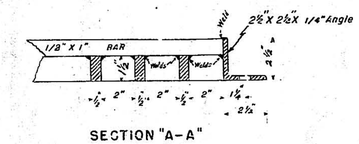


EAST ELEVATION
Scale: 1/2 inch = 1 foot



GRATING DETAIL
PLAN VIEW
Scale: 1" = 1'

1/2" ANCHOR BOLTS
12 Req. with nuts and washers



SECTION "A-A"
Scale: 3" = 1'

08 392 0639 10 5 1 3

STATE OF NEW MEXICO

CITY OF ALBUQUERQUE

ENGINEERING DEPARTMENT

THIRD EXTENSION

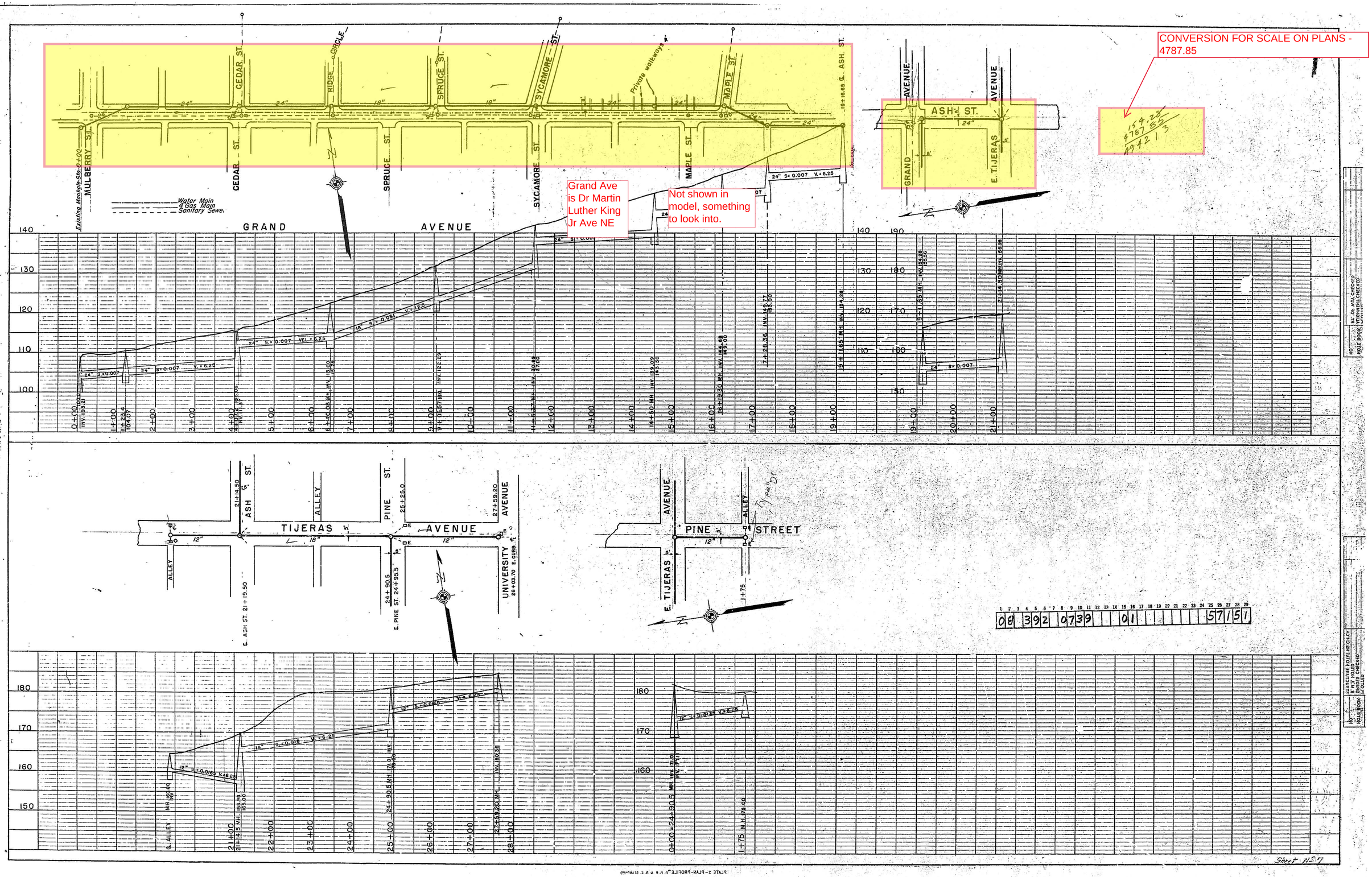
HIGHLAND STORM SEWER

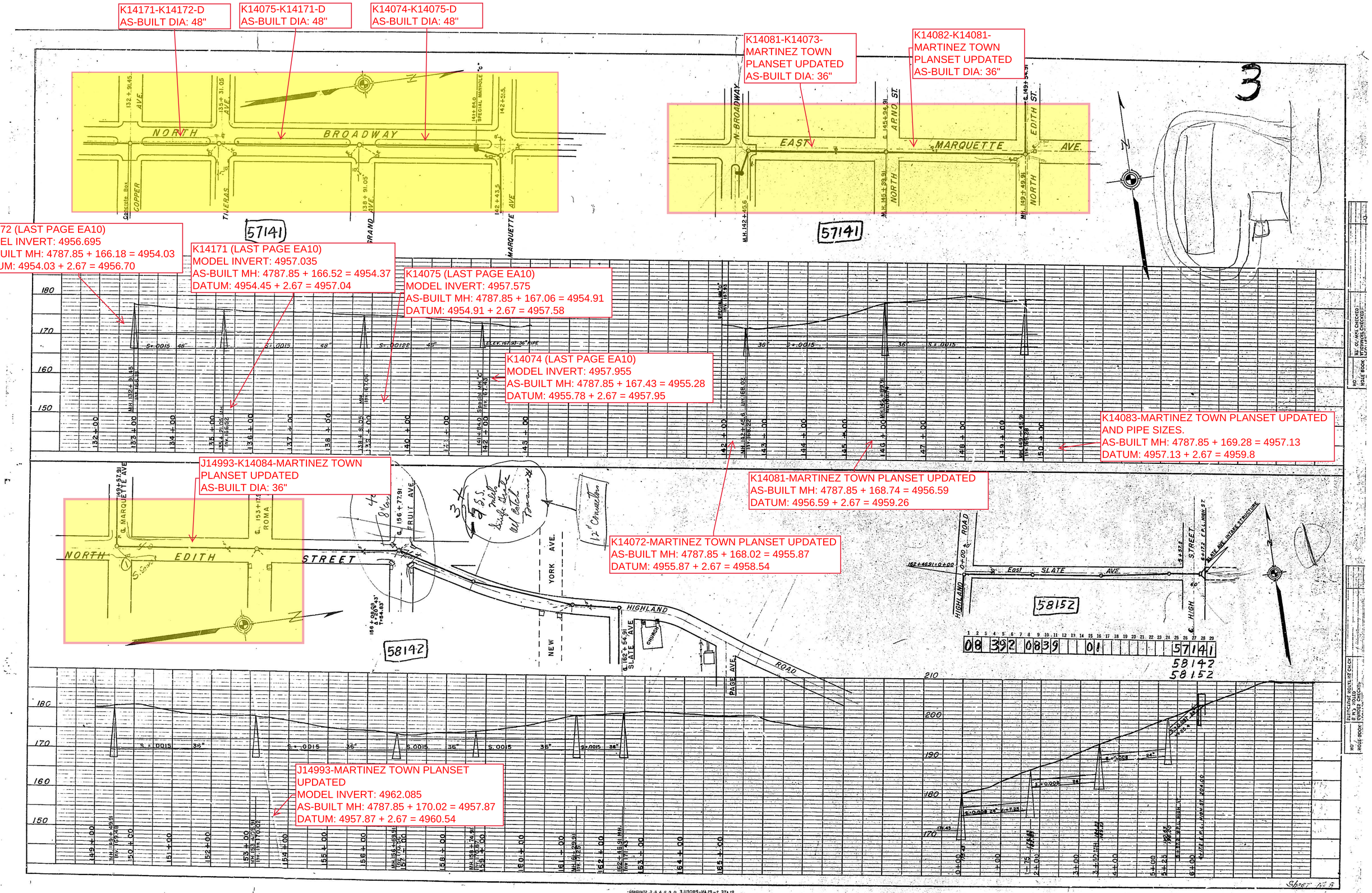
SLATE AVENUE INTAKE STRUCTURE

Drawn by: H. W. Rankin
Traced by: H. W. Rankin

JUNE 1947

Approved by: _____
Sheet No. 6 of 9


CONVERSION FOR SCALE ON PLANS - 4787.85
Grand Ave is Dr Martin Luther King Jr Ave NE
Not shown in model, something to look into.
MULBERRY ST.
CEDAR ST.
RIDGE CIRCLE
SPRUCE ST.
SYCAMORE ST.
MAPLE ST.
Private walkways
G. ASH ST.
Existing Manhole Sta. 0+00
Water Main
Gas Main
Sanitary Sewer
GRAND AVENUE
ASH ST.
E. TIJERAS AVENUE
24" S=0.007 V=6.25
18" S=0.05 V=12.0
TIJERAS AVENUE
ASH ST.
ALLEY
PINE ST.
UNIVERSITY AVENUE
G. ASH ST. 21+19.50
G. PINE ST. 24+95.5
26+25.0
27+59.20
28+03.70 E. curb
PINE STREET
E. TIJERAS AVENUE
11+75
Type "D"
12" S=0.0165 V=6.25
18" S=0.016 V=6.25
12" S=0.0165 V=6.25
G. ALLEY
24+90.5 MH. INV. 71.0
INV. 70.11
11+75 M.H. 79.00
Sheet 1 of 7


K14171-K14172-D
AS-BUILT DIA: 48"
K14075-K14171-D
AS-BUILT DIA: 48"
K14074-K14075-D
AS-BUILT DIA: 48"
K14081-K14073-
MARTINEZ TOWN
PLANSET UPDATED
AS-BUILT DIA: 36"
K14082-K14081-
MARTINEZ TOWN
PLANSET UPDATED
AS-BUILT DIA: 36"
K14172 (LAST PAGE EA10)
MODEL INVERT: 4956.695
AS-BUILT MH: 4787.85 + 166.18 = 4954.03
DATUM: 4954.03 + 2.67 = 4956.70
K14171 (LAST PAGE EA10)
MODEL INVERT: 4957.035
AS-BUILT MH: 4787.85 + 166.52 = 4954.37
DATUM: 4954.45 + 2.67 = 4957.04
K14075 (LAST PAGE EA10)
MODEL INVERT: 4957.575
AS-BUILT MH: 4787.85 + 167.06 = 4954.91
DATUM: 4954.91 + 2.67 = 4957.58
K14074 (LAST PAGE EA10)
MODEL INVERT: 4957.955
AS-BUILT MH: 4787.85 + 167.43 = 4955.28
DATUM: 4955.78 + 2.67 = 4957.95
K14083-MARTINEZ TOWN PLANSET UPDATED
AND PIPE SIZES.
AS-BUILT MH: 4787.85 + 169.28 = 4957.13
DATUM: 4957.13 + 2.67 = 4959.8
J14993-K14084-MARTINEZ TOWN
PLANSET UPDATED
AS-BUILT DIA: 36"
K14081-MARTINEZ TOWN PLANSET UPDATED
AS-BUILT MH: 4787.85 + 168.74 = 4956.59
DATUM: 4956.59 + 2.67 = 4959.26
K14072-MARTINEZ TOWN PLANSET UPDATED
AS-BUILT MH: 4787.85 + 168.02 = 4955.87
DATUM: 4955.87 + 2.67 = 4958.54
J14993-MARTINEZ TOWN PLANSET
UPDATED
MODEL INVERT: 4962.085
AS-BUILT MH: 4787.85 + 170.02 = 4957.87
DATUM: 4957.87 + 2.67 = 4960.54
NORTH BROADWAY
EAST MARQUETTE AVE.
NORTH EDITH STREET
HIGHLAND ROAD
East SLATE AVE
57141
58142
58152
08 392 0839 01
57141
58142
58152

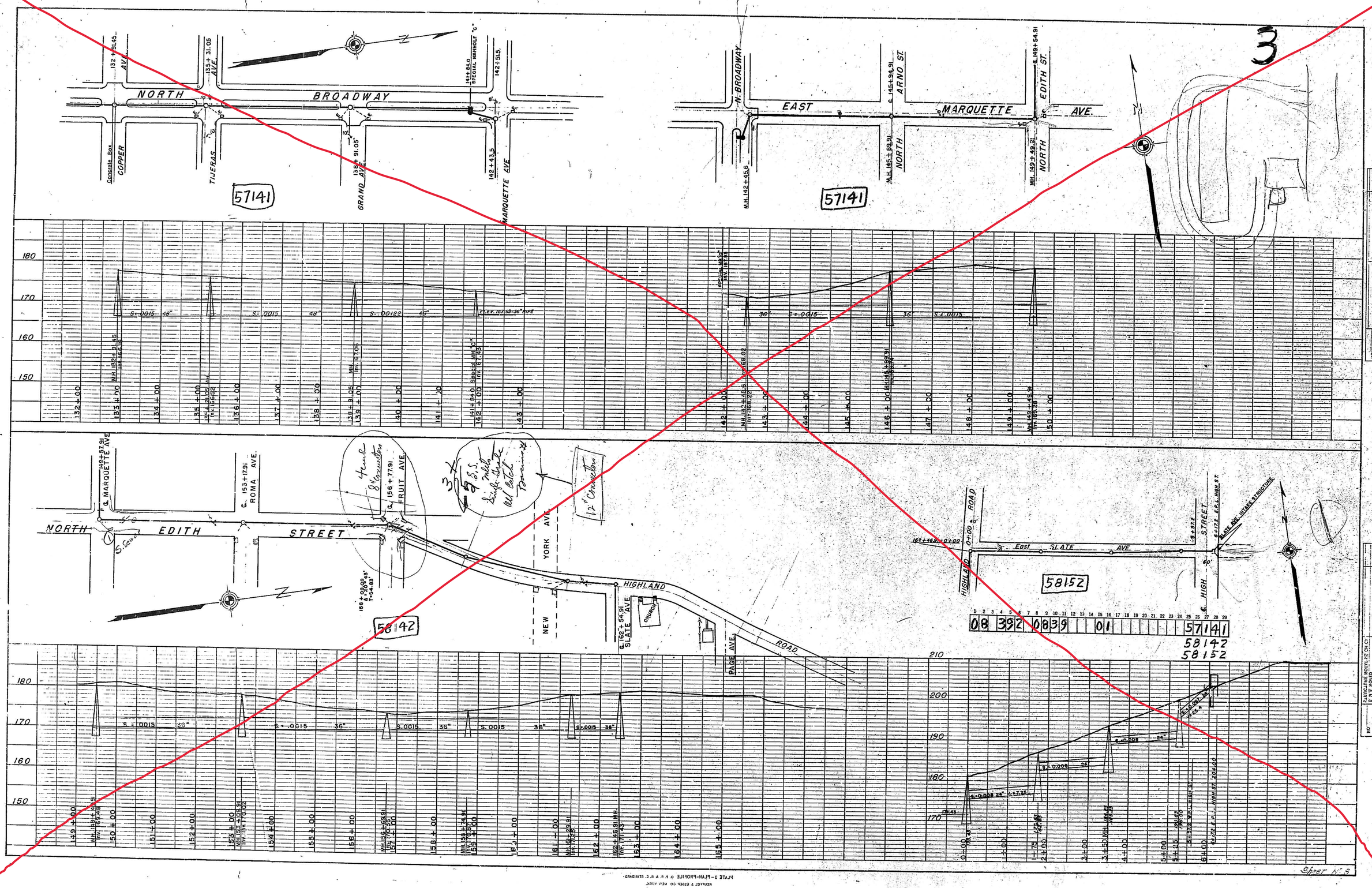
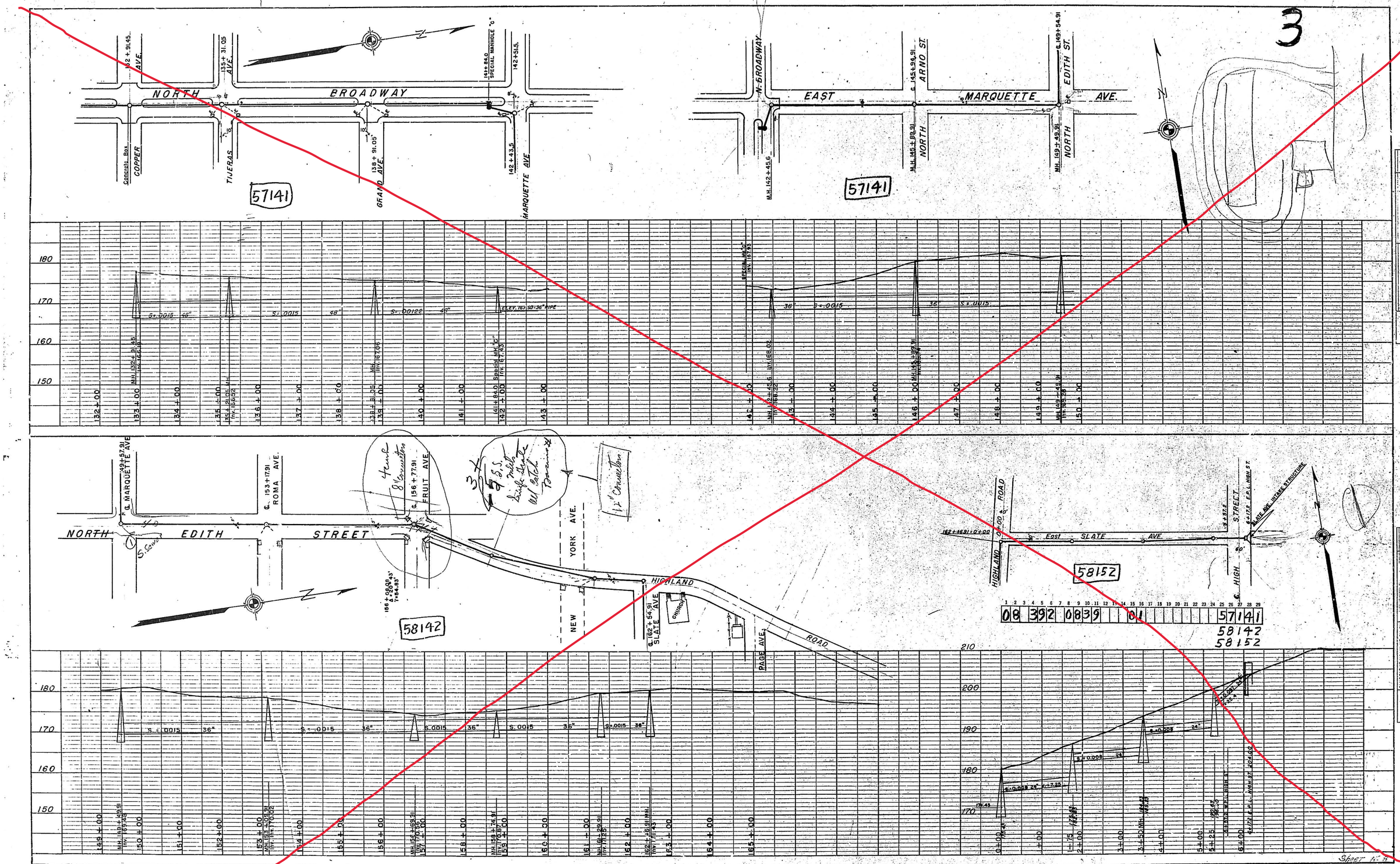
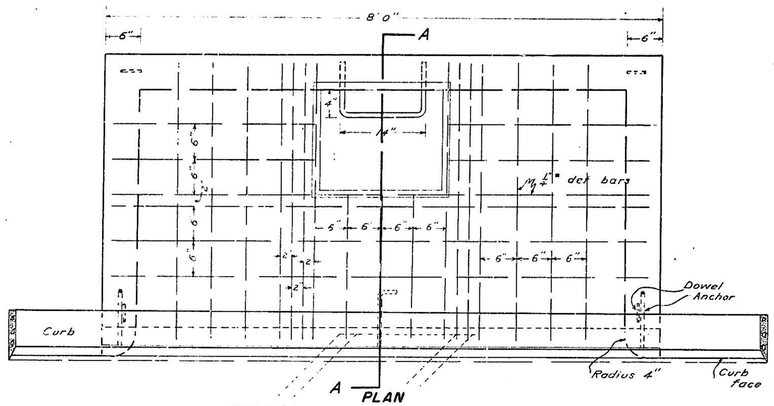


PLATE 2—PLAN-PROFILE O.P.R.R.R.C. STANDARD.
KEUFFEL & ESSER CO. NEW YORK.


3
NORTH BROADWAY
COPPER AVE.
TUCRAS AVE.
GRAND AVE.
MARQUETTE AVE
142+91.45
135+31.05
138+91.05
142+43.5
141+84.0 SPECIAL MANHOLE "C"
142+51.5
Concrete Box
57141
N. BROADWAY
EAST MARQUETTE AVE.
ARNO ST.
EDITH ST.
NORTH
M.H. 142+45.6
M.H. 145+89.91
M.H. 149+49.91
57141
NORTH EDITH STREET
MARQUETTE AVE
ROMA AVE.
FRUIT AVE
YORK AVE.
NEW
HIGHLAND
SLATE AVE
PAGE AVE.
ROAD
CHURCH
58142
East SLATE AVE.
HIGHLAND ROAD
HIGH STREET
PLATE 3-PLAN-PROFILE C.R.R.R.R.C. STANDARD
KEUFFEL & ESSER CO. NEW YORK
08 392 0839 01 57141
58142
58152

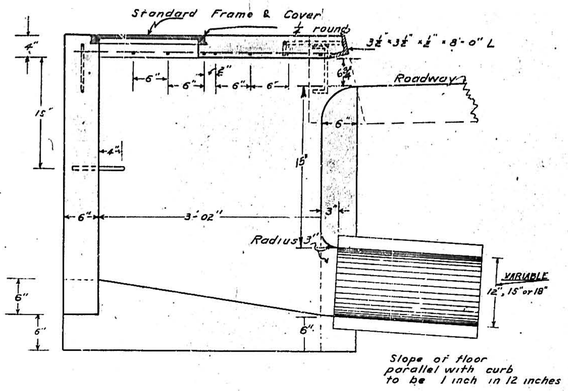


STANDARD CATCH BASIN – TYPE B.

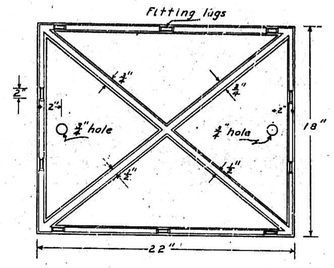
SCALE: 1 INCH = 1 FOOT

STEEL LIST

1 - 3½"x3½"x½" x 8'-0" L
14 - ½" ⌀ def. bars 3'11" long
3 - ½" ⌀ " " 2'0" "
6 - ½" ⌀ " " 7'10" "
4 - Dowels - see detail
3 - Anchors " "
1 - Step - ¾" round - see plan

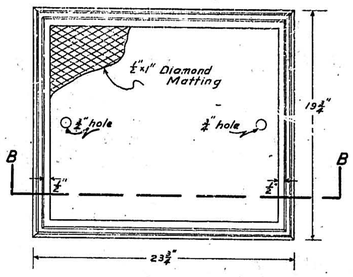


SECTION A–A



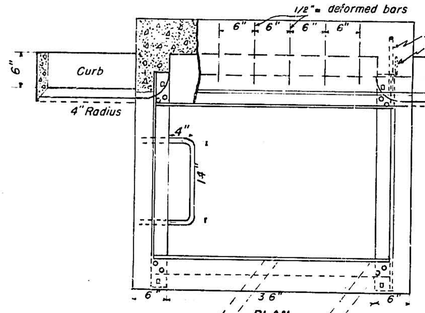
BOTTOM PLAN OF COVER

Scale 1" = 6"



PLAN OF FRAME AND COVER

SECTION B–B



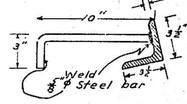
STEEL LIST

1 - 3½"x3½"x½" x 4' 6" L
10 - ½" ⌀ def. bars 11" long
2 - Dowels - see detail
3 - Anchors " "
1 - Step - ¾" round - see detail

PLAN

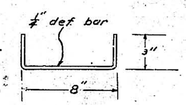
STANDARD CATCH BASIN – TYPE E.

SCALE: 1 INCH = 1 FOOT



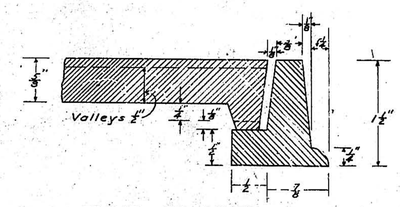
DETAIL OF ANCHOR

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



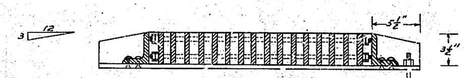
DETAIL OF DOWEL

To be used when top is poured separate

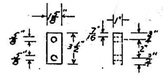


FRAME AND COVER CONNECTION

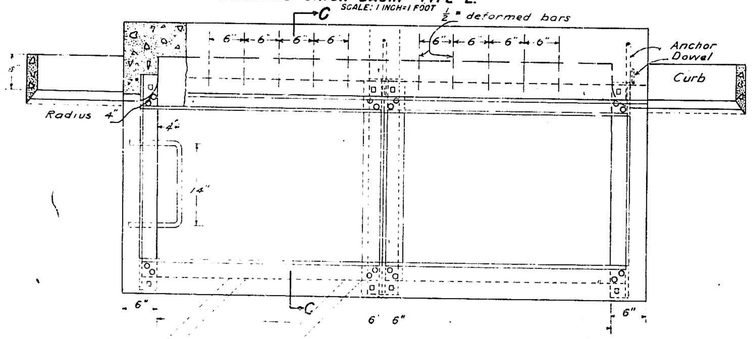
Scale 1" = 1"



SECTION D–D



SPACER



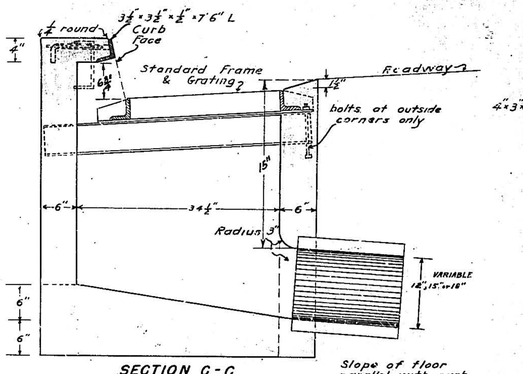
STEEL LIST

1 - 3½"x3½"x½" x 7' 6" L
10 - ½" ⌀ def. bars 11" long
2 - Dowels - see detail
3 - Anchors " "
1 - Step - ¾" round - see plan

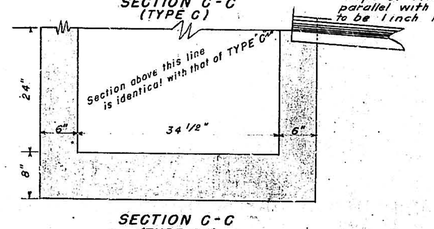
PLAN

STANDARD CATCH BASIN – TYPE C

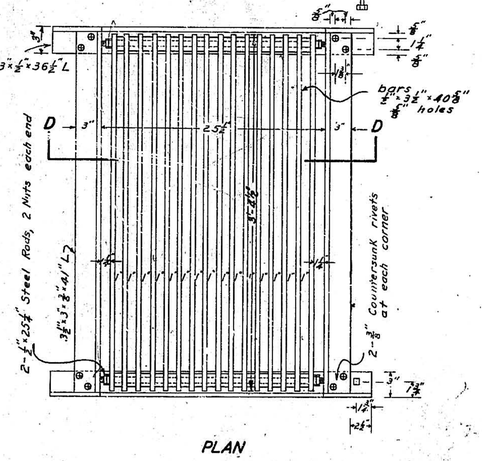
Scale 1" = 12"



SECTION C-C (TYPE C)



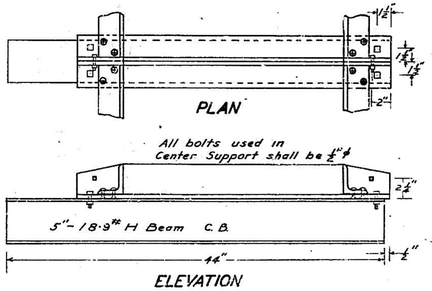
SECTION C-C (TYPE C-1)



PLAN

STANDARD FRAME AND GRATING

Scale ⅜" = 1"



ELEVATION

CENTER SUPPORT ASSEMBLY

STATE OF NEW MEXICO

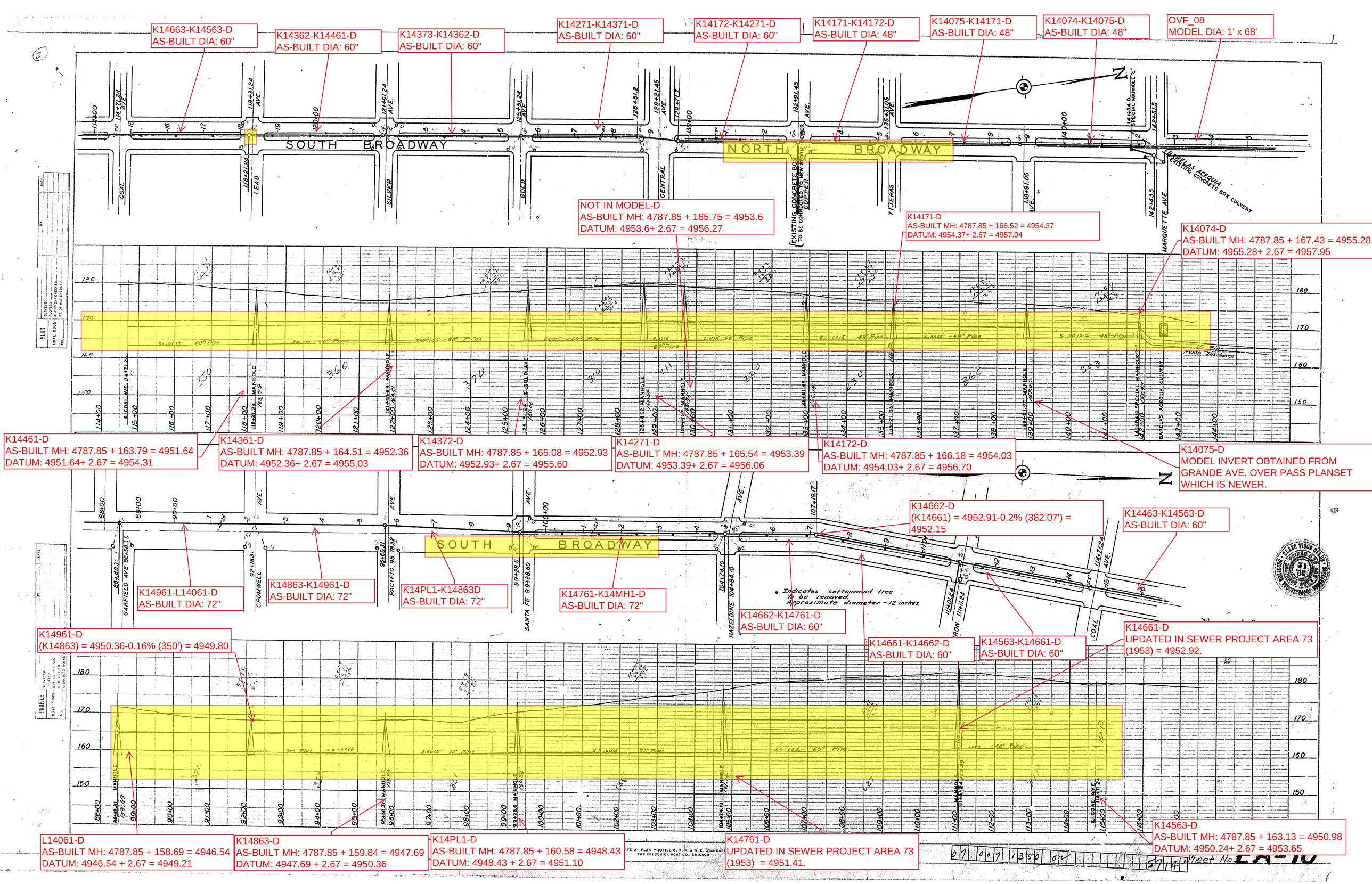
CITY OF ALBUQUERQUE

HIGHLAND STORM SEWERS

STANDARD CATCH BASINS, TYPES B&C, AND APPURTENANCES

DRAWN	RECOMMENDED
TRACED	APPROVED C.O. Bitter
CHECKED	ALBUQUERQUE NEW MEXICO OCTOBER 14 1938 — SHEET NO. 9

08 39 2 0939 10


K14663-K14563-D
AS-BUILT DIA: 60"
K14362-K14461-D
AS-BUILT DIA: 60"
K14373-K14362-D
AS-BUILT DIA: 60"
K14271-K14371-D
AS-BUILT DIA: 60"
K14172-K14271-D
AS-BUILT DIA: 60"
K14171-K14172-D
AS-BUILT DIA: 48"
K14075-K14171-D
AS-BUILT DIA: 48"
K14074-K14075-D
AS-BUILT DIA: 48"
OVF_08
MODEL DIA: 1' x 68'
SOUTH BROADWAY
NORTH BROADWAY
BARELAS ACEQUIA
EXISTING CONCRETE BOX CULVERT
NOT IN MODEL-D
AS-BUILT MH: 4787.85 + 165.75 = 4953.6
DATUM: 4953.6+ 2.67 = 4956.27
K14171-D
AS-BUILT MH: 4787.85 + 166.52 = 4954.37
DATUM: 4954.37+ 2.67 = 4957.04
K14074-D
AS-BUILT MH: 4787.85 + 167.43 = 4955.28
DATUM: 4955.28+ 2.67 = 4957.95
K14461-D
AS-BUILT MH: 4787.85 + 163.79 = 4951.64
DATUM: 4951.64+ 2.67 = 4954.31
K14361-D
AS-BUILT MH: 4787.85 + 164.51 = 4952.36
DATUM: 4952.36+ 2.67 = 4955.03
K14372-D
AS-BUILT MH: 4787.85 + 165.08 = 4952.93
DATUM: 4952.93+ 2.67 = 4955.60
K14271-D
AS-BUILT MH: 4787.85 + 165.54 = 4953.39
DATUM: 4953.39+ 2.67 = 4956.06
K14172-D
AS-BUILT MH: 4787.85 + 166.18 = 4954.03
DATUM: 4954.03+ 2.67 = 4956.70
K14075-D
MODEL INVERT OBTAINED FROM
GRANDE AVE. OVER PASS PLANSET
WHICH IS NEWER.
K14662-D
(K14661) = 4952.91-0.2% (382.07') =
4952.15
K14463-K14563-D
AS-BUILT DIA: 60"
K14961-L14061-D
AS-BUILT DIA: 72"
K14863-K14961-D
AS-BUILT DIA: 72"
K14PL1-K14863D
AS-BUILT DIA: 72"
K14761-K14MH1-D
AS-BUILT DIA: 72"
K14662-K14761-D
AS-BUILT DIA: 60"
K14661-K14662-D
AS-BUILT DIA: 60"
K14563-K14661-D
AS-BUILT DIA: 60"
K14661-D
UPDATED IN SEWER PROJECT AREA 73
(1953) = 4952.92.
K14961-D
(K14863) = 4950.36-0.16% (350') = 4949.80
L14061-D
AS-BUILT MH: 4787.85 + 158.69 = 4946.54
DATUM: 4946.54 + 2.67 = 4949.21
K14863-D
AS-BUILT MH: 4787.85 + 159.84 = 4947.69
DATUM: 4947.69 + 2.67 = 4950.36
K14PL1-D
AS-BUILT MH: 4787.85 + 160.58 = 4948.43
DATUM: 4948.43 + 2.67 = 4951.10
K14761-D
UPDATED IN SEWER PROJECT AREA 73
(1953) = 4951.41.
K14563-D
AS-BUILT MH: 4787.85 + 163.13 = 4950.98
DATUM: 4950.24+ 2.67 = 4953.65
Indicates cottonwood tree to be removed. Approximate diameter - 12 inches.
Sheet No. EA-10