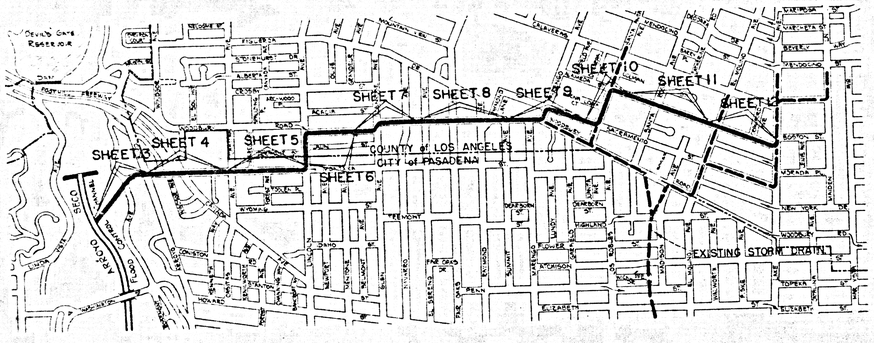
PROJECT NO. 560
WOODBURY ROAD

CITY OF PASADENA, CALIFORNIA.



LOCATION MAP
SCALE-1"=1000'
1000 500 0 1000 2000 3000

INDEX TO DRAWINGS

SHEET NOS. 1-2 GENERAL NOTES, LOCATION MAP & INDEX
SHEET NOS. 3-12 WOODBURY ROAD DRAIN
SHEET NO. 13 LATERALS ON CASITAS, LINCOLN, FAIR OAKS
SHEET NO. 14 PROTECTION BARRIER, TYPICAL CONNECTOR PIPE PROFILE & FREEWAY DETOUR PLAN
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SHEET NO. 20 CATCH BASIN CONNECTOR PIPE PROFILE & TYPICAL CONCRETE COLLAR

GENERAL NOTES

1. Numbers in circles ○ indicate items under which payment is made.
2. Elevations shown are in feet above the U.S.C.S. datum adopted 10 Nov. 1930. (Equals L.A. County 1952 Adjustment)
3. Stations shown on profile are along centerline of conduit or on a line normal to centerline of conduit.
4. Stations & invert elevations of pipe inlets, shown on profiles, are at the inside face of the conduit wall unless otherwise shown.
5. All pipe in open cut shall be bedded according to Standard Drawing 2-D177, Case III
6. Concrete backfill indicated on Standard Drawing 2-D213.1 for pipe 36" in diameter or less shall be used around reinforced concrete pipe.
7. Pipe connections to the main line storm drain shall conform to Standard Drawing 2-D193 or 2-D191 unless otherwise shown.
8. Existing utilities shall be maintained in place by contractor unless otherwise shown.
9. Sanitary sewer and house lateral reconstruction or encasement shall be according to Standard Drawing 2-D250 & 2-D251 and all sanitary sewers shall be supported across trenches according to Standard Drawing 2-D173.1, 2-D173.2, 2-D173.3
10. For preliminary field notes, see F.B. No. 10451 of the City of Pasadena.
11. Structures shall be sealed with 8" brick & mortar where called for on drawings.
12. All local depressions shall be No. 2 Case B or No. 3 Case A unless otherwise shown.
13. Resurfacing shall conform to specifications No. 31 of the City of Pasadena unless otherwise specified.
14. For special provisions see Drawing No. G-1112, sheets 1 to 6, inclusive (City of Pasadena)
15. Test hole borings were made during the month of June, 1952.
16. All abandoned sewer or drainage structures shall be removed or maintained in place as specified. All openings resulting from the cutting or partial removal of existing structures shall be sealed per note 11 unless otherwise shown on plans.
17. The contractor shall make exploratory excavations to determine the location & depth of all utilities where so indicated by the symbol ▲.
18. C.B.'s designated by symbol ⧗, where no curb exists, shall be constructed with 12" C.F. @ the opening & 8" C.F. at ends of depressed curb. C.B.'s designated by symbol ①, where no curb exists, shall be constructed with 9" C.F. @ the opening & 8" C.F. at ends of depressed curb.
19. The depth of the upstream end of catch basins 10 feet or more in length shall be equal to the curb face plus 12" unless otherwise shown.
20. All Pasadena water lines shown on the drawings are cast iron unless otherwise shown.
21. All dimensions of trees shown on the drawings are inches in diameter.
22.

STREET	EXISTING PAVEMENT	REPAVE WITH
Rosemont Ave	3" A.C.	4" A.C.
Montana St - Arroyo Blvd. to Cañada Ave	4" A.C.	5" A.C.
Montana St - at Cañada Ave	5" A.C.	Per 2-D.187
Montana St - Cañada Ave to Lincoln Ave	1" O.M. / 2" P.M.	4" A.C.
Lincoln Ave - Montana St to Woodbury Rd	PASADENA - 2" P.C.C. / LA COUNTY - 2" P.M.	3" P.M.
Woodbury Rd - Lincoln Ave to Alley	3" P.M.	4" P.M.
Glenrose Ave. - Woodbury Rd. to Woodbury Rd.	3" P.M.	4" P.M.
Woodbury Rd - Glenrose Ave. to Fair Oaks Ave.	3" P.M.	4" P.M.
Woodbury Rd - Fair Oaks to Marengo Ave.	4" P.M.	5" P.M.
Marengo Ave - Woodbury Rd. to Sacramento St.	4" P.M.	5" P.M.
Santa Anita Ave. - Sacramento St. to Alameda St.	3" P.M.	4" P.M.
Alameda St - Santa Anita Ave. to Lake Ave.	3" P.M.	4" P.M.
Lake Ave.	5" P.M.	6" P.M.

STREET	EXIST PAVE.	REPAVE WITH
Casitas Ave.	2" O.M.	3" A.C.
Fair Oaks Ave.	4" P.M.	5" P.M.
Sacramento St - Marengo to Santa Anita Ave.	2" P.M.	3" P.M.

1958 STORM DRAIN BOND ISSUE

STANDARD DRAWINGS

DWG. NO.	
2-D88	Local Depression No. 2
2-D96	Standard Drop Step
2-D101	Catch Basin No. 4
2-D102	Manhole No. 1
2-D104	Manhole No. 3
2-D107	Concrete Rings, Reducer & Pipe For Manhole Shaft
2-D109	Catch Basin No. 6
2-D112	Junction Structure No. 2
2-D170	Catch Basin No. 7
2-D156	Manhole Frame & Cover For Catch Basins
2-D157	Catch Basin Reinforcement for Round Manholes
2-D158	Detail Of Bolt Support For Catch Basins
2-D160	Catch Basin No. 1
2-D161	Angle & Anchor For Catch Basin
2-D162	Catch Basin No. 2
2-D163	Catch Basin No. 3
2-D171	Standard A-305 Reinforcing Bars
2-D172	Catch Basin Reinforcement
2-D173.1, 173.2, 173.3	Pipe Supports Across Trenches

CITY OF PASADENA STANDARD DRAWINGS

S-402A	Standard Driveway Curb Return Design
S-403A	Standard Driveway Dust Pan Design
S-406	Standard Curb & Gutter
G-1112	Standard Plan
G-1420	Catch Basin Detail showing Utility Clearance
AA 107	Junction Structure No. 107

DWG NO.	
2-D175	Removable Protection Bar For Catch Basins
2-D177	Pipe Bedding In Trenches
2-D181	Standard Non-Rocking Manhole Frame & Cover
2-D184	Manhole No. 2
2-D187	Pavement Removal, Excavation, Backfill & Resurfacing In State Highways
2-D188	Transition Structure No. 3
2-D189	Junction Structure No. 1
2-D191	Junction Structure No. 3
2-D193	Junction Structure No. 4
2-D195	Catch Basin No. 5A
2-D213.1, 213.2	"D" Load Table For Design Of Rein. Conc. Pipe
2-D214.1, 214.2, 214.3, 214.4	Steel Area For Rein. Conc. Pipe
2-D224	Connection To Catch Basins For Pipes 12" Thru 72"
2-D227	Frame & Grating For Catch Basins
2-D248	Local Depression No. 3
2-D250	Remodeling Of Sanitary Sewer House Connections
2-D251	Protection For Mainline & House Connection Sewers
2-D264	Adjustable Protection Bar Stirrup

LOS ANGELES CO ENGR. STANDARD DRAWINGS

S-a104	Sanitary Sewer Manhole
S-a117	Standard Manhole Frame & Cover
M57-39R	Concrete Replacement For Cross Gutters Which Are To Be Paved With Asphalt
M57-45R	Specifications For Repairs Of Cuts In Concrete Pavement

DWG. NO.	
2-D113	Manhole No. 4
2-D215	Detail Of Catch Basin Opening
2-D232	Detail Of Catch Basin Opening
2-D235	Transition Structure No. 1
2-D239	Transition Structure No. 2
2-D190	Pipe Connections to Existing Storm Drains

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C. V. Green 11/16/60
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING - STREET DEPARTMENT.
DRAWN BY BEACH — DESIGNED BY H. WILSON
TRACED BY BEACH — QUANTITIES BY [illegible]
CHECKED BY Kurzenberger — RECOMMENDED BY A.F. Lewis
APPROVED BY [signature] CITY ENGR. & SUPT. OF STREETS

REVISIONS		
MARK	DATE	DESCRIPTION

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

PROJECT NO. 560
WOODBURY ROAD
REINFORCED CONCRETE PIPE DRAIN
INDEX, GENERAL NOTE & LOCATION MAP

DRAWN BY PASADENA — CHECKED BY PASADENA
TRACED BY PASADENA — PLOTTED BY BBR
RECOMMENDED BY [signature] CHIEF ENGINEER
APPROVED BY [signature] CHIEF ENGINEER

SCALE AS SHOWN — DATE MAY 61 — SHEET 1 OF 20 — NO. 275-560-D-2.1

GENERAL NOTES (CONTINUED)

23. Utilities designated by the symbol ⊗ will be abandoned in place and the owner will install a new section of the affected utility at a location which does not physically interfere with the proposed storm drain conduit and appurtenant structures.
24. Telephone and power poles designated by the symbol ⊖ are to be relocated by others.
25. Locations of catch basin connector pipe junctions with catch basins as shown on the drawings are schematic. It is the intent that such junctions be located at the downstream ends of the catch basins unless otherwise shown. In all cases, the exact locations will be determined in the field by the engineer to meet field conditions.
26. Trees designated by (12) shall be removed. Replacement shall be made according to tree schedule where item Number (1) is designated on the drawings.
27. All telephone poles (Tel Pole) are the property of Pacific Telephone and Telegraph Company.
28. All power poles are property of the Southern California Edison Company.
29. All sanitary sewers are the property of the City of Pasadena or the County of Los Angeles.

TREE REPLACEMENT SCHEDULE

1. Montana Street - Tristania Conferta (Brisbane Box)
2. Casitas Avenue - Ceratonia Siliqua (Carob Tree)
3. Within Unincorporated Territory of the County of Los Angeles

Approx. Sta.	Replacement
76+80	Liquid Amber
77+24	Crape Myrtle
109+13	4' Palm in Kind
114+80	Crape Myrtle
115+85	Holly Oak
116+40	Holly Oak
116+90	Holly Oak

NOTE CHANGE IN VERTICAL SCALE
ON SHEETS 3, 4, 9 & 10

1958 STORM DRAIN BOND ISSUE

REVISIONS			LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MARK	DATE	DESCRIPTION	PROJECT NO 560 WOODBURY ROAD GENERAL NOTES

CITY OF PASADENA
ENGINEERING-STREET DEPARTMENT
DRAWN BY E.R.R. | DESIGNED BY H. WILSON
TRACED BY E.R.R. | SUBMITTED BY [illegible]
CHECKED BY [illegible]
APPROVED BY [illegible] CITY ENGR. & SUPT. OF STREETS

DRAWN BY PASADENA | DESIGNED BY PASADENA | APPROVED BY [illegible] CHIEF ENGINEER
TRACED BY PASADENA | SUBMITTED BY R.B.R.
CHECKED BY
RECOMMENDED BY [illegible] ASSISTANT CHIEF ENGINEER
SCALE AS SHOWN | DATE MAY 61 | NO. 275-560-D2.2 | SHEET 2 OF 21

T.B.M. Elev. 923.10 L.A.C.F.C.D. Disc W. Side Wash 15' W/O & Drain (F.C.B.M. 503-e)

(31) (All Proposals)
(Sta 14+48.35-21+90.52) 72" R.C. Non-Cylinder Pressure Pipe
Elliptical single cage reinforced with rubber gasket joint.
140' Head
Use "D" Loads As Shown
503'-1250 D (31-B)

72'-2000 D (31-A)

175'-1250 D

Toe of East Channel Wall (Beginning of Project)

14+42.35 End 72" R.C.P.

14+72.63 B.C.

15+38.17 8" Pasa. Water

15+89.90 E.C.

Ground Line at ℄ of Storm Drain

Invert

S = 0.0050

S = 0.20778

Special Outlet Structure (see detail sheet No 15)

STATIONS	PROPOSALS				
	1	2	3	4	5
21+90.5 — 21+98	T.S. # 3				TS#1
22+80.35	M.H. # 2				MH#3
25+98 — 26+08	TS#3	T.S. #1			TS#2
27+29.86	MH#2	M.H. # 3			

18+80 Elev. 915.64
Vertical Curve Pl.
Vertical Curve Data (Invert)
Δ = 12°45'24" R = 90'
T = 10.06' L = 20.04'

PROFILE
HORIZ. 1" = 40'
VERT. 1" = 8'

SCALE

NOTE

T.B.M. Elev. 1023.14 Ramset Top of Rock & Conc Wall
60'± L.O. & Drain. Sta. 22+10±

Prop 12314-195' | 90 R C P 1700 D (20)
Proposal 5-200' | 6'-4" x 7'-6" R.C. Box "A"

Ground Line at ℄ of Storm Drain

22+80.35 M.H. No 2 or Manhole No. 3

22+20 Vertical Curve Pt. Elev. 1025.89

24+04.70 B.C.

25+28.71 E.C.

24+15.71 E.C.

(27) Manhole No 2 or 3
(27+27.53 E.C.) (27+29.86 ± C.L. Sta)

24" Inlet N. 27+29.86

Trans Struct. No 3. or Trans Struct. No 1. or Trans Struct No 2.

T.B.M. Elev. 1063.19 - Spk. E end C.R. S.E. Cor. Montana St ℄ Arroyo Blvd.

Vertical Curve Data (Invert)
Δ = 10°12'44" R = 90'
T = 8.04' L = 16.04'

Prop 12314-200' - 90" R.C.P. 2150 D (18)
Proposal 5-200'-6'-4" x 7'-6" R.C. Box "P"

Proposal 1 168.114" R.C.P. Section II (7)
Prop 23415-192-8'-0"x9'6" R.C. Box "B"

Trans Struct. No. 3 or Trans Struct. No. 1

(59) Manhole No 1
(41) 26'-24" RCP 2050 D

ROSEMONT AVENUE

Edge of Pavement

℄ Storm Drain

Trans Struct No 3 or No 2 (61)

Manhole No 2 (60)
Manhole No 3 (61)

Seal

Exist 14" R.C.P.
Exist 36" R.C.P.
4" So Cal Gas

Match Line

MONTANA STREET

SEE SHEET NO 4

3" So Cal Gas 4' N.S.
24" Water (F.M.W.D.)
16" Pasa. Water
36" RCP Drain

Curve Data
Δ = 55°55'01"
R = 160.00'
T = 84.01'
L = 156.16'

Manhole No 2
Manhole No 3

Test Hole No 2
42" CMP Drain
6" Welded Pasa Water
24" Water (F.M.W.D.)
3" So Cal Gas 4' N.E.

Curve Data
Δ = 16°23'36"
R = 180'
T = 26.09
L = 51.82'

8" Sani Sewer 33' E.W.
8" D. Pasa Water 0' N.E.
4" So Cal Gas 8' N.E.

ARROYO BOULEVARD

Curve Data
Δ = 35°48'00"
R = 180'
T = 59.14
L = 112.47

Special Outlet Structure See Detail Sheet No 15 (30)

ARROYO SECO

Levee

Toe of Channel Wall

Valley Channel Center Line

Valley Channel Wall

8" Pasa. Water

30" Water (Foothill Municipal Water District)

16" Welded Pasadena Water

L.A.C.F.C.D. Easement

Storm Drain

Test Hole No 24

Test Hole No 23

Test Hole No 1

E. O. NAY GOLF COURSE

PLAN
SCALE - 1" = 40'
25 0 50 100
SCALE of FEET

IDENTICAL

Curve Data
Δ = 10°55'00"
R = 180'
T = 17.20
L = 34.30'

Paved Area

Rock & Conc. Wall 2.5 Slope (typ.)

L.A.C.F.C.D. Easement

Trans Struct. No 3 or No 1 (65) (66)

37.20± (Remove)
2.20± (Remove)

1958 STORM DRAIN BOND ISSUE

REVISIONS			LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MARK	DATE	DESCRIPTION	
			PROJECT NO. 560
			WOODBURY ROAD
			STA. 13+81.85 to STA. 28+00
			PLAN, PROFILE & SECTION

DRAWN BY PASADENA	DESIGNED BY PASADENA	APPROVED BY	CHIEF ENGINEER
TRACED BY Pasadena	QUANTITIES BY P.B.A.	SCALE AS SHOWN	DATE MAY 61
CHECKED BY	SUBMITTED BY	NO. 275-560-23	
RECOMMENDED BY G.V. Calkins DIVISION ENGINEER		SHEET 3	OF

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C.V. Green 11/17/60
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING - STREET DEPARTMENT
DRAWN BY BEACH — DESIGNED BY W. WILSON
TRACED BY BEACH — QUANTITIES BY
CHECKED BY Remaley — SUBMITTED BY
APPROVED BY

STATIONS			PROPOSALS				
T.S.	M.H.	1	2	3	4	5
32+17.50 to 32+22.50	32+20	M.H.#2	T.S.#1 M.H.#3		T.S.#2 M.H.#3	
	38+00		M.H.#2		M.H.#3	

(6) Support Sani. Sewer house lateral

8" Sani. Sewer

Ground Line at ℄ of Storm Drain

3411 2"Sq Cut Grb

32+20 Manhole No.2 or Manhole No.3

3394 15"R.C.P. Storm Conduit

3418 8" Pdwa Water

3418 8" Pdwa Water

3418 12" Pdwa Water

3418 8" FMWD Water

3418 15" R.C.P. Storm Conduit

3418 12" Pdwa Water

3418 15"R.C.P. Storm Conduit

38+00 Manhole No.2 or Manhole No.3

8" Sani. Sewer

1060 1050 1040 1030

15" inlet (4) 29+45

30" inlet (4) 31+70

Invert 2 S=0.0050

029.87

031.87

032.87

032.87

Trans. Struct No.2 (Proposals 3,4,5)

Trans. Struct No.1 (Proposal 2)

Grade Change

1021.59

1033.18

1033.78

18" in Line 3-#66

S=0.00971

15" in Line 40-#10

Invert 2 S=0.00971

1038.05

1040.27

BM AE 341 Elev. 1062.32 Br. Sp. in Montana Curb Sa. Side 10 E/O ℄ Windsor Produced.

PROFILE

SCALE - HORIZ. 1"=40' VERT. 1"=8'

NOTE

(7) 418'-114" R.C.P. Section II Proposal 1

417.50'-8'0"x9'6" R.C. Box "B" Proposals 2,3,4&5

(8) 576'-108" R.C.P. Section III Proposals 1/2

577.50'-7'6"x9'0" R.C. Box "C" Proposals 3,4&5

(9) 298'-108" R.C.P. Section IV Proposals 1/2

300'-7'6"x9'0" R.C. Box "D" Proposals 3,4&5

(10) 203'-108" R.C.P. Section V Proposals 1/2

200'-7'6"x9'0" R.C. Box "B" Proposals 3,4&5

23+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00

Trans. Struct No.3
A-66"
B-15"
C-2'-2"
D-18"
D1-18"
E1 R=106.48
E1 S=106.43

Junct. Struct No.2
A-68"
B-18"
C-2'-5"
D-24"
E-1'-8"
F-6"
G-5"
L=2'-11"
E1 R=106.08
E1 S=106.05

Slope C.B. 30+16 1/2

266.50 Curb
266.20 Flow Line
266.36 Curb
266.13 Curb
266.01 Curb

C.B. W. Side Windsor Ave.

8" So Cal Gas 16' WE
18" RCP 18' WE
8" Sani. Sewer 25' WE
8" Pdwa Water 20' EW
1 STD PP&T 8' EW

(40) 35-24"R.C.P. 2350D

WINDSOR AVE.

C.B. No.3 W-110'6-1420 (71)
L.D. No.2 (57) (83)
28-15"R.C.P. 1500D (68)
Trans. Struct. No.3
Junct. Struct. No.2 (64)
C.B. No.3 (72)
L.D. No.2
36-18"R.C.P. 1500D (51)
Est. 70 to No.3
C.B. No.2 (70) (60)
L.D. No.2
11-15"R.C.P. 1500D

Manhole No.2 or Manhole No.3 (61) (67)
Trans. Struct. No.2

Exist. C.B. To Remain
52-30"R.C.P. 2250D (37)

Seal

FOOTHILL FREEWAY (STATE HIGHWAY)

Reverse Curve Data
Δ 38° 06' 38"
R 90
T 31.82'
L 61.17'

C.B. No.3
21-18"R.C.P. 2000D
L.D. No.2 (49)

Power Pole
28 Palm
Guy Wire

40' Pepper (2)
Tel. Pole

123' Comm. Drive

2-6" Roof Drains
Traffic Sig. Box

4" Roof Drain (Connect to C.B.)

Test Hole No.4

28' Palm (2)
Traffic Sig. Box

4" Tree (2)

10' Pepper (2)

6' Tree (2)

24' Palm (2)

Chain Link fence along N. R/W

50' Tree (2)

26' Palm (2)

8" Tree (2) 15" C.B. outlet (Remove)

8" Tree (2) Connect Pipe to C.B.

16-15"R.C.P. 2000D
C.B. No.3 W-110
L.D. No.2

32' Pepper (2)

24' Palm (2)

8" Tree (2)

22' Pepper (2)

Light Vault

24' Palm (2)

20' Pepper (2)

SEE SHEET NO. 5

℄ Storm Drain

MONTANA STREET

15" I.P. Tr. Sig Conduit 85' SW
8" So Cal Gas 18' SW
6" Pdwa Water 21' SW
8" Sani. Sewer 25' SW
24" Pdwa Water 30' SW
24" FMWD Water 35' SW

Manhole No.2
Manhole No.3

40+00 ℄ E.C. 40+11.2

SEE SHEET NO. 3

29+45

MONTANA STREET

℄ Storm Drain

24" RCP S.D. 18' SW
6" Pdwa Water 21' SW
8" Sani. Sewer 25' SW

30+00

2" So Cal Gas 6' EW 55' SW
24" Pdwa Water 35' SW
24" Water FMWD 35' SW
8" Pdwa Sewer
24" Pdwa Water
24" FMWD Water

North ℄

North Curb

48" RCP
16" Pdwa Water
8" Sani. Sewer
24" Pdwa Water
24" FMWD Water

10'

64

WINDSOR AVE.

5" AC Pavement

10'

South ℄

South Curb

15" R.C.P. S.D.
16" Pdwa Water

Tr. Sig Detector Plates

15" Tr. Sig Conduit

8" Pdwa Water

20" Pdwa Water 15' NE

CAÑADA AVE.

89°

HIGHWAY

E.C. 34+49.9

P.R.C. 35+55.65

P.C.C. 35+26.28

2-15" I.P. Tr. Sig Conduit

PLAN

SCALE - 1"=40'

25 0 50 100

SCALE of FEET

108"RCP or T-6"x9' Box

Elev. 1062.70

16"

18"

36

Pay lines for R.C. Box excavation

CROSS SECTION
STA. 33+00
SCALE 1"=8'-0"

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C. N. Green 11/17/61
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING-STREET DEPARTMENT
DRAWN BY BEACH — DESIGNED BY H. WILSON
TRACED BY BEACH — QUANTITIES BY
CHECKED BY Rocha — APPROVED BY

1958 STORM DRAIN BOND ISSUE

REVISIONS		
MARK	DATE	DESCRIPTION

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

PROJECT NO. 560
WOODBURY ROAD
STA 28+00 to STA 43+00
PLAN, PROFILE & SECTION

DRAWN BY PASADENA — DESIGNED BY PASADENA — APPROVED BY
TRACED BY PASADENA — QUANTITIES BY — SCALE — DATE — NO. 275-560-02 4
CHECKED BY — SUBMITTED BY — AS SHOWN — MAY 61 — SHEET 4 OF 20
RECOMMENDED BY

B.M. A.E. 338 Elev. 1064.68 Bolt in curb on S. prod. of Parnell Way Montana St. (So. Side) at Parnell Way

B.M. A.E. 336 Elev. 1063.89 Bolt in curb at W. end curb return, S.W. corner Montana & Lincoln Ave.

B.M. A.E. 332 Elev. 1063.48 Bt. spk. E. End curb return S.E. corner Montana & Casitas Ave.

STATIONS		PROPOSALS				
I.S.	M.H. & J.S.	1	2	3	4	5
43+35 to 43+45	43+39	M.H.# 4			M.H. # 3 J.S. # 1	
	48+00	M.H.# 2			M.H. # 3	
	52+50	M.H.# 2			M.H. # 3	
57+21.16 to 57+26.16	57+23.49	M.H.# 2			T.S. # 2 M.H. # 3	

(10) 39'-108" R.C.P. Section V Proposals 1,12
B21-7'6"x9'-0" R.C. Box BB Proposals 3,415

455'-108" R.C.P. Section VI Proposals 1,12 (11)
461'-7'6"x9'-0" R.C. Box CC Proposals 3,415

(12) 446'-108" R.C.P. Section VII Proposals 1,12
450'-7'6"x9'-0" R.C. Box EE Proposals 3,415

198'-108" R.C.P. Section VII Proposals 1,12
205'-7'6"x9'-0" R.C. Box E Proposals 3,415

271'-108" R.C.P. Section VIII Proposals 1,12 (13)
271.16'-7'6"x9'-0" R.C. Box F Proposals 3,415

74'-102" R.C.P. Section IX Proposals 1,12 (14)
74'-9"x3'-0" R.C. Box GG Proposals 3,415

Ground Line at ℄ of Storm Drain

Support 8" Sani. Sewer & C.I. Sewer House Laterals (93)

4" So. Cal. Gas (X)

Manhole No. 2 or Manhole No. 3

Test Hole No. 5

Test Hole No. 6

Manhole No. 4 or Manhole No. 1 Junct. Struct. No. 1

Manhole No. 2 or Manhole No. 3

Manhole No. 2 or M.H. No. 3 & Trans. No. 2

Trans. Struct. No. 2

S=0.00971 invert 2

S=0.00040 invert 2

S=0.00040

S=0.01132

S=0.00837 ℄

S=0.00837

S=0.00837

S=0.00837

B.M. A.E. 345 Elev. 1077.08 - Bf. spk. in N. Cp. Vermont St. W. of W. end C.P. N.W. Cor. Lincoln & Vermont St.

B.M. A.E. 346 Elev. 1082.67 - Bf. spk. in curb 18' S/O ℄ Prod. of Woodbury Rd. W. Side Lincoln Ave.

STATIONS		PROPOSALS				
T.S.	M.H. & J.S	1	2	3	4	5
—	62+40	M.H.#2		M.H.#3		
—	62+99	J.S.#2		J.S.#3		
67+17.50 to 67+22.50	67+20	M.H.#2		M.H.#3		
				T.S.#1	T.S.#2	

℄ Curve Data
Δ=31°47'18" R=90'
T=25.63 L=49.93'

VERMONT ST.

LINCOLN AVENUE

LAUN ST.

WOODBURY ROAD

EQUATION (ECR)
59+27.94 Back
59+55.36 Ahead

Junction Structure N° 3 or Junction Structure N° 2

Manhole N° 2 or Manhole N° 3

Trans. N° 1 or Trans. N° 2

Test Hole #7

Test Hole #8

Test Hole #9

For lateral see sheet No. 13

SEE SHEET NO 5

SEE SHEET NO 7

CROSS SECTION STA. 60+00 SCALE 1"=8'-0"

CROSS SECTION STA. 70+00 SCALE 1"=8'-0"

PLAN SCALE-1"=40'

NOTE: ✱ Indicates C.B. opening per 2-D215 or 2-D232

SCALE of FEET

1958 STORM DRAIN BOND ISSUE

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C. A. Green 11/17/60
DESIGN DIVISION ENGINEER

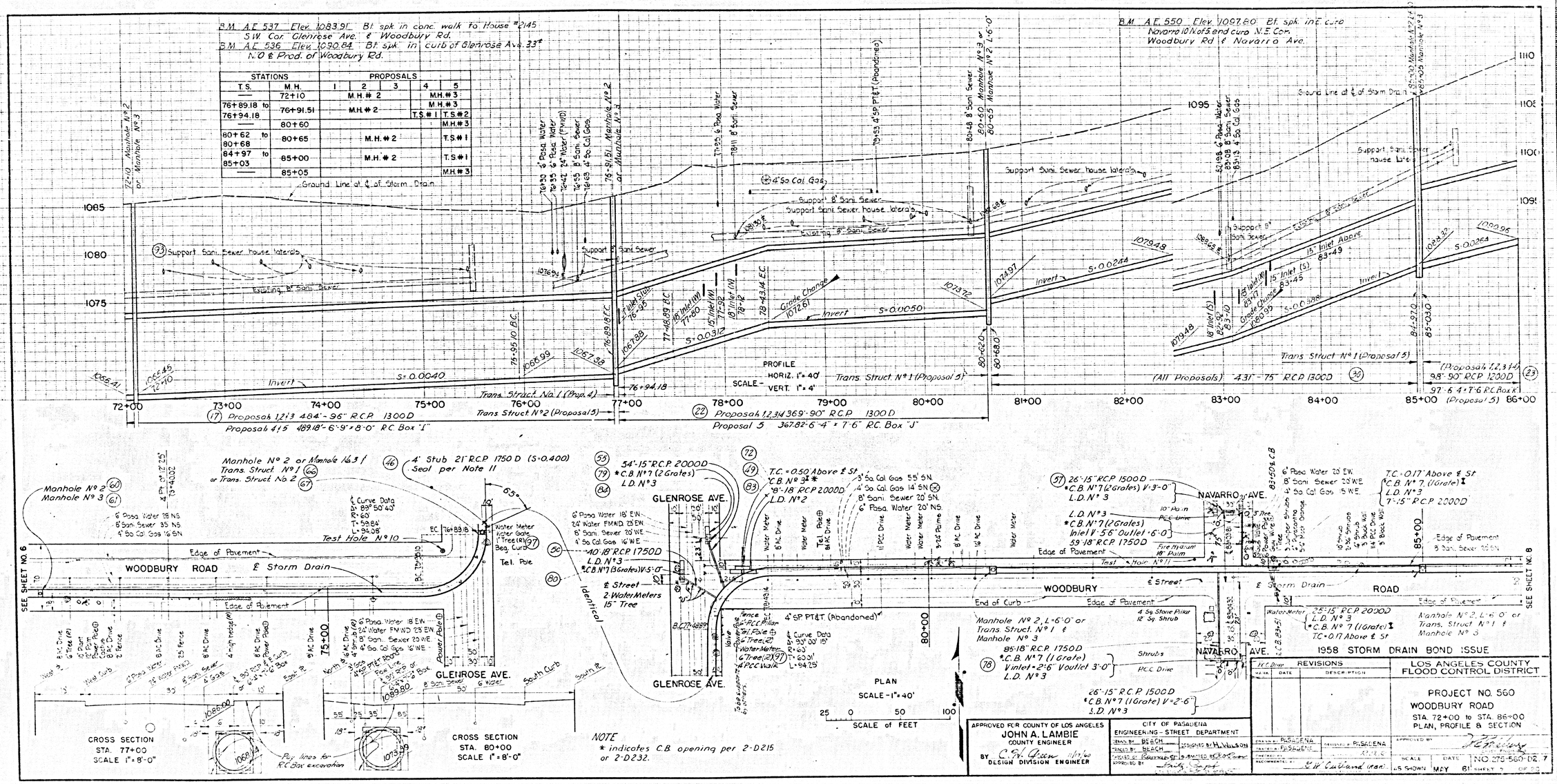
CITY OF PASADENA
ENGINEERING - STREET DEPARTMENT
DRAWN BY BEACH — DESIGNED BY H.W. SONS
TRACED BY BEACH — SUBMITTED BY Ford
CHECKED BY Schmidt — SUBMITTED BY Ford
APPROVED BY Andy Ford CITY ENGINEER

REVISIONS		
MARK	DATE	DESCRIPTION

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

PROJECT NO. 560
WOODBURY ROAD
STA 58+00 to STA 72+00
PLAN, PROFILE & SECTION

DRAWN BY P-SADENA — DESIGNED BY PASADENA — APPROVED BY H.W. Sons CHIEF ENGINEER
TRACED BY P-SADENA — SUBMITTED BY Ford
CHECKED BY — RECOMMENDED BY H.W. Sons
SCALE AS SHOWN — DATE MAY 61 — SHEET 5 OF 20 — NO. 275-560-D2.6



B.M. A.E. 537 Elev. 1083.91 Bt. spk. in conc. walk to House #2145 S.W. Cor. Glenrose Ave. & Woodbury Rd.
B.M. A.E. 536 Elev. 1090.84 Bt. spk. in curb of Glenrose Ave. 33# N.O. & Prod. of Woodbury Rd.
B.M. A.E. 550 Elev. 1097.80 Bt. spk. in E. curb Navarro 10 N. of S. end curb N.E. Cor. Woodbury Rd. & Navarro Ave.
Ground Line at ℄ of Storm Drain
Support Sani. Sewer house laterals
Existing 8" Sani. Sewer
Support 8" Sani. Sewer
Grade Change
Invert
S=0.0040
S=0.0312
S=0.0050
S=0.0244
S=0.0384
S=0.0264
Trans. Struct. No. 1 (Prop. 4)
Trans. Struct. No. 2 (Proposal 5)
Trans. Struct. No. 1 (Proposal 5)
(All Proposals) 431'-75" R.C.P. 1300D
(Proposal 1,2,3,4) 98'-90" R.C.P. 1200D
97'-6 4'x7'-6 R.C. Box "K" (Proposal 5)
(17) Proposal 1,2,3 484'-96" R.C.P. 1300D
Proposal 4,5 489.18'-6'-9"x8'-0" R.C. Box "I"
(22) Proposal 1,2,3,4 369'-90" R.C.P. 1300D
Proposal 5 367.82'-6'-4"x7'-6" R.C. Box "J"
PROFILE
SCALE - HORIZ. 1"=40' VERT. 1"=4'
72+00
73+00
74+00
75+00
76+00
77+00
78+00
79+00
80+00
81+00
82+00
83+00
84+00
85+00
86+00
1085
1080
1075
1095
1110
1100
1090
Manhole No 2 or Manhole No 3 / Trans. Struct. No 1 or Trans. Struct. No 2
4' Stub 21" R.C.P. 1750 D (S=0.400) Seal per Note 11
Manhole No 2
Manhole No 3
Test Hole No 10
Edge of Pavement
WOODBURY ROAD
℄ Storm Drain
GLENROSE AVE.
Identical
54'-15" R.C.P. 2000D
*C.B. No 7 (2 Grates)
L.D. No 3
40'-18" R.C.P. 1750D
L.D. No 3
*C.B. No 7 (3 Grates) V=5'-0"
℄ Street
2 Water Meters
15" Tree
T.C. = 0.50' Above ℄ St.
*C.B. No 3
*8'-18" R.C.P. 2000D
L.D. No 2
4" SP. PT&T. (Abandoned)
26'-15" R.C.P. 1500D
*C.B. No 7 (2 Grates) V=3'-0"
L.D. No 3
L.D. No 3
*C.B. No 7 (2 Grates)
Inlet V=5'6" Outlet 6'-0"
59'-18" R.C.P. 1750D
NAVARRO AVE.
Fire Hydrant 18" Palm
Test Hole No 11
End of Curb
Manhole No 2, L=6'-0" or Trans. Struct. No 1 & Manhole No 3
85'-18" R.C.P. 1750D
*C.B. No 7 (1 Grate)
V inlet = 2'-6" V outlet 3'-0"
L.D. No 3
26'-15" R.C.P. 1500D
*C.B. No 7 (1 Grate) V=2'-6"
L.D. No 3
25'-15" R.C.P. 2000D
L.D. No 3
*C.B. No 7 (1 Grate)
T.C. = 0.17' Above ℄ St.
Manhole No 2, L=6'-0" or Trans. Struct. No 1 & Manhole No 3
SEE SHEET NO. 6
SEE SHEET NO. 8
CROSS SECTION STA. 77+00 SCALE 1"=8'-0"
CROSS SECTION STA. 80+00 SCALE 1"=8'-0"
Pay lines for R.C. Box excavation
PLAN SCALE - 1"=40'
SCALE of FEET
NOTE
* indicates C.B. opening per 2-D215 or 2-D232.
1958 STORM DRAIN BOND ISSUE
REVISIONS
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
PROJECT NO. 560
WOODBURY ROAD
STA. 72+00 to STA. 86+00
PLAN, PROFILE & SECTION
APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C. H. Green 11/17/60
DESIGN DIVISION ENGINEER
CITY OF PASADENA
ENGINEERING - STREET DEPARTMENT
DRAWN BY BEACH
TRACED BY BEACH
CHECKED BY
APPROVED BY
DESIGNED BY H. WILSON
SUBMITTED BY
DRAWN BY PASADENA
TRACED BY PASADENA
CHECKED BY
RECOMMENDED BY
DESIGNED BY PASADENA
SCALE AS SHOWN
DATE MAY 61
NO. 275-560-D2.7
SHEET 7 OF 20

B.M. A.E. 551 Elev. 1140 Bf. Spk. in curb 2' N. of N. end C.R. N.E. Cor. Woodbury Rd. & El Sereno Ave.

B.M. A.E. 334 Elev. 1122.62 Bf. Spk. in curb 20' N. of N. end C.R. N.E. Cor. Fair Oaks & Woodbury Rd.

STATIONS			PROPOSALS			
T.S. & J.S.		M.H.	2	3	4	5
86+97.5	to	89+00	M.H. # 2			M.H.# 3
89+02.5					TS#1	TS#2
——		93+50	M.H.# 2		M.H.# 3	
——		98+00	M.H.# 2		M.H.# 3	
90+92.73		——	J.S. # 2		J.S. # 3	
97+55		——	J.S.# 2		J.S.# 1	

B.M. A.E. 332 Elev. 1124.31 Bf. Spk. in curb 8' N. of N. end C.R. N.W. Cor. Raymond Ave. & Woodbury Rd.

B.M. A.E. 320 Elev. 1132.43 Bf. Spk. in Cr. driveway To house #125 N. side Woodbury Rd. 80± W. of E. Summit Ave.

PROFILE
SCALE — HORIZ. 1" = 40'
VERT. 1" = 4'

86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00 99+00 100+00 101+00

1110 1100 1120 1130

Trans. Struct. No. 1 Proposal 4
Trans. Struct. No. 2 Proposal 5
298.90'±2 C.P. 1200D Proposals 1,2,3 & 4 (23)
297.50'-6-4'-7'-6 R.C. Box 'K' Proposal 5
293.96'±2 C.P. 1300D Proposals 1, 2 & 3 (17)
597.50'-6-9'-8-3'±2 R.C. Box 'L' Proposals 4 & 5
200-6-9'-8-0 R.C. Box 'M' Proposals 4 & 5
396.96'±2 C.P. 1500D Proposals 1,2 & 3 (16)
400'-6-9'-8-0'±2 R.C. Box 'N' Proposals 4 & 5

Support 8" Sani. Sewer
Support Sani. Sewer house laterals
Existing 8" Sani. Sewer
Reconstruct 8" Sani. Sewer, Sani. Sewer Manholes & house laterals (See sheet No. 17)
Ground Line at ℄ of Storm Drain
Grade Change
Invert 2
Invert 12
Support 16" Pasa Water
Support 12" Pasa Water
Support 6" Pasa Water
Support 6" Sa. Cal. Gas
Support 8" Sani. Sewer
Support 8" Pasa Water
Support 8" Pasa Water (Abond.)
Support 8" Sani. Sewer
Support 6" Pasa Water
Support 6" Sa. Cal. Gas
Support 8" Sani. Sewer
Support 8" Pasa Water
Support 8" Sani. Sewer
Support 6" Pasa Water
Support 6" Sa. Cal. Gas

B.M. A.E. 320 Elev. 113.30 Bolt in curb, 2' E/O & prod. of Marengo Ave. Woodbury Rd. (So. Curb) at Marengo Ave. to N.

B.M. A.E. 348 Elev. 114.55 Bt. Spk. in curb 2' N/O So. end N.E. Cor. Marengo Ave. & Sacramento St.

STATIONS		PROPOSALS				
T.S.	M.H.	1	2	3	4	5
———	102+50	M.H.# 2			M.H.# 3	
107+16.00 to 107+21.00	107+18.33	M.H.# 2			M.H.# 3	
———	112+50	M.H.# 2			T.S.# 1	T.S.# 2
					M.H.# 3	

Ground Line at ℄ of Storm Drain

Support Sani. Sewer house laterals (93)

Existing 8' Sani. Sewer

Support 8' Sani. Sewer

Existing 18" Sani. Sewer

102+50 Manhole No. 2 or Manhole No. 3

104+67 6" Possa Water (Abandoned)

104+73 8" So. Cal Gas

104+92 2-2¾" IP PT&T

105+60 8" Possa Water (Abandoned)

105+80 4'-6"x5'-6" RC Arch Pipe Drain (To be Abandoned)

105+90 8" So. Cal Gas

106+15 2-2¾" IP PT&T

106+40 2-1½" IP PT&T (Abd.)

106+50 3¾" RCP PT&T

106+63 2-2½" IP PT&T

106+63 8' Sani. Sewer

106+70 15" RC. Corrugator Pipe

106+80 21" RCP Drain (To be abandoned)

107+18.33 Manhole No. 2 or Manhole No. 3

108+75 8" So. Cal Gas

Cable & Stone ditch

108+87 1" Water Rubio

112+50 Manhole No. 2 or Manhole No. 3

15 Inlet W

21" Inlet Above 109+58

18" Inlet (W) 113+37

3 Inlet Above 113+93

Invert 2

5'-0.0040

Trans. Struct. No. 1 Proposal 4

Trans. Struct. No. 2 Proposal 5

PROFILE SCALE: HORIZ 1" = 40' VERT 1" = 8'

NOTE

48'-96" R.C.P. 1500D Proposals 1,2,3,4

420'-6'-9"x8'-0" R.C. Box "N" Proposals 4 & 5

464'-96" R.C.P. 1500D Proposals 1,2,3,4

196'-6'-9"x8'-0" R.C. Box "O" Proposals 4 & 5

527'-90" R.C.P. 2100D Proposals 1,2,3,4 (19)

319'-6'-8"x7'-6" R.C. Box "P" Proposal 5

210'-6'-4"x7'-6" R.C. Box "Q" Proposal 5

348'-90" R.C.P. 1650D Proposals 1,2,3,4 (21)

200'-6'-4"x7'-6" R.C. Box "R" Proposal 5

150'-6'-4"x7'-6" R.C. Box "S" Proposal 5

101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00

1140 1130 1120 1110

CROSS SECTION STA. 107+50 SCALE 1" = 8'-0"

1" Water Rubio 5' E/W
8" Sani. Sewer 32.5' E/W
21" RCP Drain 32.5' E/W
8" So. Cal. Gas 22' W/E
Cobble stone Ditch
1½" Water Rubio 5' W/E.

Manhole No. 2 or Manhole No. 3 (66) (67)
Transition Struct. No. 3
10-15" R.C.P. 2000D (38)
Exist. Catch Basin

Curve Data: Δ = 68° 39' 40" R = 60' T = 40.98' L = 71.80'

Remove interfering Portion

Pay lines for R.C. Box excavation

Manhole No. 2 (60C)
Manhole No. 3 (61)
Test Hole No. 14
Edge of Pavement
WOODBURY ROAD ℄ Storm Drain
MARENGO AVE.
SEE SHEET NO. 8

8" Sani. Sewer 16' S/W
4" So. Cal Gas 4' S/W
4'-3"x6" RC Arch Pipe 20' S/W
16 Possa Water 2' N/S
6" Possa Water (Abandoned) 8' E/W
8" So. Cal Gas 9' E/W
2 M.T.D. (Abandoned) P.T.&T.
2-2¾" I.P. PT&T 1' W/E
2-2¾" I.P. PT&T 25' S/W
8" So. Cal Gas 20' S/N
4'-3"x6" RC Arch Pipe 25' S/N
16" Possa Water 24' N/S (Abandoned)
2 M.T.D. P.T.&T. (Abandoned)
3⅜" R.C.P. PT&T

CROSS SECTION STA. 110+00 SCALE 1" = 8'-0"

Pay lines for R.C. Box excavation

PLAN SCALE - 1" = 40'

25 0 50 100 SCALE of FEET

MARENGO AVE. (Identical)

Exist. C.B.
Exist. 18" R.C.P.
Manhole No. 1 (59) (44)
22'-21" R.C.P. 2200D

16 Lab Flares Water 18' N/S
6" Rubio Cañon Water 21' N/S
18" Sani. Sewer 30' S/N.
8" So. Cal. Gas 22' S/N.
2" Rubio Cañon Water 20' S/N (Abandoned)

Existing Curb

SACRAMENTO STREET

Test Hole No. 15

Edge of Pavement

℄ Storm Drain

Curve Data: Δ = 93° 01' 40" R = 60' T = 60.03' L = 94.28'

L.A.C.F.C.D. Easement

Manhole No. 2
Manhole No. 3

C.B. N° 5 A (4 Grates) (77)
11'-18" R.C.P. 2000D (49)
15'-15" R.C.P. 2000D
L.D. N° 2 (83) (70)
C.B. N° 2A
T.C. = 0.33' below ℄ Street

Cemetery

SEE SHEET NO. 10

1958 STORM DRAIN BOND ISSUE

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C.W. Green 11/1/60
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING - STREET DEPARTMENT
DRAWN BY BEACH DESIGNED BY H. WILSON
TRACED BY BEACH
CHECKED BY [illegible]
SUBMITTED BY [illegible]
APPROVED BY [illegible]
RECOMMENDED BY [illegible]

REVISIONS		
MARK	DATE	DESCRIPTION

DRAWN BY PASADENA DESIGNED BY PASADENA
TRACED BY PASADENA
CHECKED BY
SUBMITTED BY

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

PROJECT NO. 560
WOODBURY ROAD
STA. 101+00 to STA. 116+00
PLAN, PROFILE & SECTION

APPROVED BY [illegible]
CHIEF ENGINEER

SCALE	DATE	NO. 275-560-D2.9
AS SHOWN	MAY 5	SHEET 9 OF 20

B.M. A.E. 376 Elev. 113702 Bt. Spk. in curb 4' W/O E. end C.R. S.W. cor. Santa Anita Ave. & Sacramento St.

B.M. A.E. 374 Elev. 115421 Bt. Spk. in N. curb of driveway, House #2230 E. side Santa Anita Ave. & Buena Loma Ct.

T.B.M. Elev. 116963 L&T C.C.R. S.W. Cor. Santa Anita Ave. & Alameda St.

STATIONS		PROPOSALS				
T.S.	M.H. & J.S.	1	2	3	4	5
117+62.00 to 117+67.00	117+64.67			M.H.#2		M.H.#3
	121+50			M.H.#2		T.S.#2
124+60.34 to 124+71.93	124+62.50			T.S.#3		M.H.#3
	125+57.13			M.H.#2		J.S.#1
						M.H.#3

PROFILE SCALE HORIZ. 1"=40' VERT. 1"=8'

NOTE

SANTA ANITA AVE.

SACRAMENTO STREET

SANTA ANITA AVENUE

BUENA LOMA CT.

ALAMEDA ST.

ALAMEDA STREET

CROSS SECTION STA. 128+00 SCALE 1"=8'-0"

CROSS SECTION STA. 123+00 SCALE 1"=8'-0"

PLAN SCALE-1"=40'

SCALE of FEET

1958 STORM DRAIN BOND ISSUE

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C.A. Green 11/17/60
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING-STREET DEPARTMENT
DRAWN BY BEACH DESIGNED BY H. WILSON
TRACED BY BEACH QUANTITIES BY
CHECKED BY SUBMITTED BY
APPROVED BY

REVISIONS		
MARK	DATE	DESCRIPTION

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

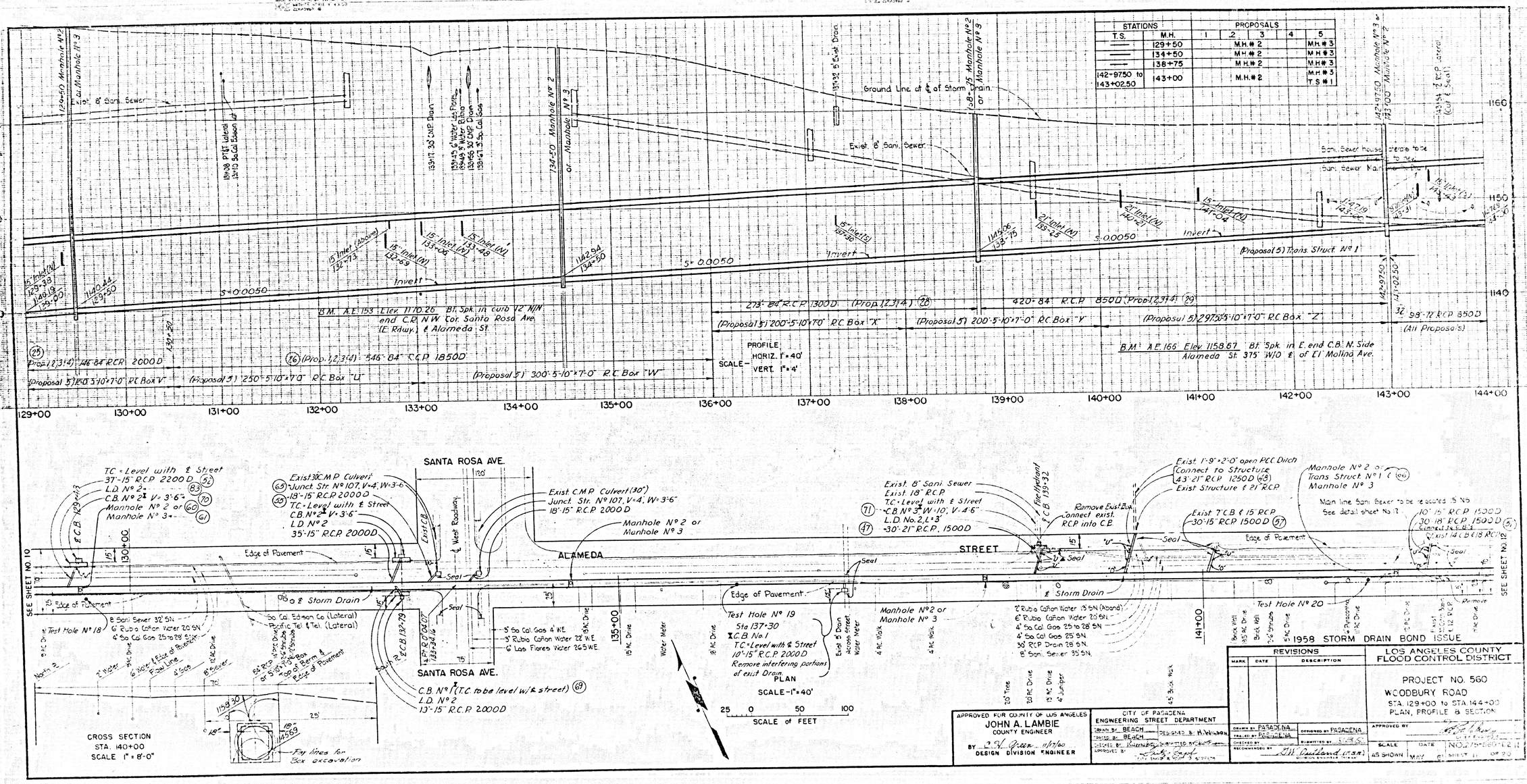
PROJECT NO. 560
WOODBURY ROAD
STA. 116+00 to STA. 129+00
PLAN, PROFILE & SECTION

DRAWN BY PASADENA DESIGNED BY PASADENA
TRACED BY PASADENA SUBMITTED BY
CHECKED BY
RECOMMENDED BY

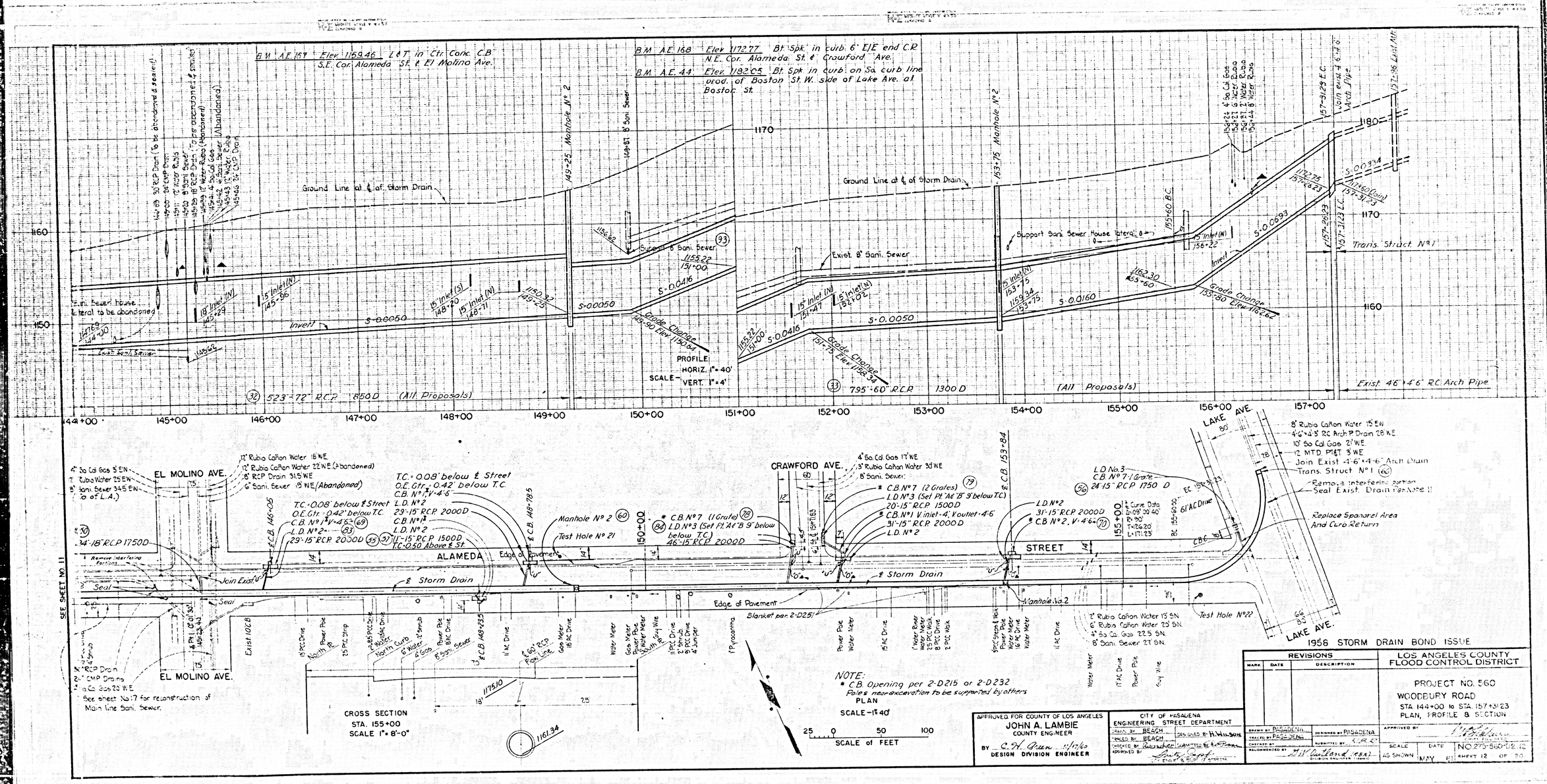
APPROVED BY

SCALE AS SHOWN DATE MAY 61

NO. 275-560-E2.10
SHEET 10 OF



STATIONS
T.S.
M.H.
PROPOSALS
129+50 M.H.#2 M.H.#3
134+50 M.H.#2 M.H.#3
138+75 M.H.#2 M.H.#3
142+97.50 to 143+02.50 143+00 M.H.#2 M.H.#3 T.S.#1
Ground Line at ℄ of Storm Drain
Exist. 8" Sani. Sewer
Sani. Sewer house laterals to be
Sani. Sewer Main
(Proposal 5) Trans. Struct. No. 1
B.M. A.E. 153 Elev. 1170.26 Bt. Spk. in curb 12' N/N end C.R. N.W. Cor. Santa Rosa Ave. (E. Rdwy.) & Alameda St.
B.M. A.E. 166 Elev. 1158.67 Bt. Spk. in E. end C.B. N. Side Alameda St. 375' W/O ℄ of El Molino Ave.
(All Proposals)
PROFILE
SCALE - HORIZ. 1"=40' VERT. 1"=4'
SANTA ROSA AVE.
ALAMEDA STREET
Edge of Pavement
Test Hole No. 18
Test Hole No. 19
Test Hole No. 20
Manhole No. 2 or Manhole No. 3
Manhole No. 2 or Trans. Struct. No. 1 & Manhole No. 3
Main line Sani. Sewer to be relocated 15' N.S. See detail sheet No. 12
Exist. 8" Sani. Sewer
Exist. 18" R.C.P.
Exist. 1'-9"×2'-0" open P.C.C. Ditch
Connect to Structure
Exist. Structure & 21" R.C.P.
Remove Exist. Box
Connect exist. R.C.P. into C.B.
Exist. 7' C.B. & 15" R.C.P.
30'-15" R.C.P. 1500 D
Exist. C.M.P. Culvert (30")
Junct. Str. No. 107, V=4', W=3'-6"
18'-15" R.C.P. 2000 D
Manhole No. 2 or Manhole No. 3
Exist. 30" C.M.P. Culvert
Junct. Str. No. 107, V=4', W=3'-6"
18'-15" R.C.P. 2000 D
T.C.=Level with ℄ Street
C.B. No. 2 V=3'-6"
L.D. No. 2
35'-15" R.C.P. 2000 D
T.C.=Level with ℄ Street
C.B. No. 3 W=10', V=4'-6"
L.D. No. 2, L=3'
30'-21" R.C.P. 1500 D
Test Hole No. 19
Sta. 137+30
C.B. No. 1
T.C.=Level with ℄ Street
10'-15" R.C.P. 2000 D
Remove interfering portions of exist. Drain.
PLAN
SCALE - 1"=40'
SCALE of FEET
CROSS SECTION
STA. 140+00
SCALE 1"=8'-0"
Pay lines for Box excavation
SEE SHEET NO. 10
SEE SHEET NO. 12
1958 STORM DRAIN BOND ISSUE
APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C. H. Green 11/17/60
DESIGN DIVISION ENGINEER
CITY OF PASADENA
ENGINEERING STREET DEPARTMENT
REVISIONS
MARK DATE DESCRIPTION
LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
PROJECT NO. 560
WOODBURY ROAD
STA. 129+00 to STA. 144+00
PLAN, PROFILE & SECTION
DRAWN BY PASADENA
TRACED BY PASADENA
DESIGNED BY PASADENA
SUBMITTED BY
RECOMMENDED BY
DIVISION ENGINEER (STAFF)
APPROVED BY
SCALE AS SHOWN
DATE MAY 61
NO. 275-560-D2 R
SHEET 11 OF 20



REVISIONS		
MARK	DATE	DESCRIPTION

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

PROJECT NO. 560
WOODBURY ROAD
STA. 144+00 to STA. 157+31.23
PLAN, PROFILE & SECTION

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C. H. Green 11/17/60
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING STREET DEPARTMENT
DRAWN BY BEACH
TRACED BY BEACH
CHECKED BY Rainwater
APPROVED BY
DESIGNED BY H. WILSON
SUBMITTED BY E. W. Pearson
CITY ENGR. & SUPT. OF STREETS

DRAWN BY PASADENA
TRACED BY PASADENA
CHECKED BY
RECOMMENDED BY G. W. Outland (1958)
DIVISION ENGINEER (1958)
DESIGNED BY PASADENA
SUBMITTED BY
APPROVED BY
SCALE AS SHOWN
DATE MAY 61
NO. 275-560-D2.12
SHEET 12 OF 20

PROFILE

HOR. SCALE: 1" = 40'
VERT. SCALE: 1" = 4'

B.M. AE 339 Elev. 1063.44
Bf. Spk. E. end curb return S.E. Cor. Montana & Casitas Ave.

B.M. AE 346 Elev. 1082.67
Bf. Spk. in curb 18' S/O ℄ prod. of Woodbury Rd. W. side Lincoln Ave.

B.M. AE 354 Elev. 1120.62
Bf. Spk. in curb, 70' N/N end C.R. N.E. Cor. Fair Oaks Ave. & Woodbury Rd.

Manhole N°4 0+33.61 Sta Pt
Manhole N°2 1+30
Ground Line at ℄ Storm Drain
0+41.5 4" Sa. Cal Gas
18" Sani. Sewer (34) Support
24" Inlet (E & W) 1+30
24" Inlet (W) 0+87 J.S. N°2
24" Inlet (E) 1+00 J.S. N°2
1044.60 P.C.C. 0+45.11
E.C. 0+83 1045.73
1047.14 1+30
1047.33 1+36
1044.25 Sta Pt. 43+35 0+33.61
1044.58 0+44.69
(33) 83'-36" R.C.P. 1800 D
4'-36" R.C.P. 1800 D

Ground line at ℄ Storm Drain
Manhole N°1 2+28
B.C. 62+69.20 0+29.80
E.C. 0+32.73
E.C. 0+45.72
Twist & Sani. Sewer
1074.72 2+28
1074.90 2+34
21" Inlet (W) 2+28
21" Inlet (E) 2+28
Invert
5.0.0300
21" Inlet (E) 1+75 J.S. N°2
5.0.0400
Grade Break 0+45.72 Elev. 1069.25
1063.69 0+32.73
1063.76 Sta Pt. 62+99 - 0+00
1064.67 0+07.58
Invert
1061.16 Sta Pt. 62+99 - 0+00
(38) 219'-30" R.C.P. 1750 D
4'-30" R.C.P. 1750 D

Manhole N°1 1+05
B.C. 0+07.00
E.C. 0+29.05 E.C.
℄ Sani. Sewer (East & West)
18" Inlet (W)
21" Inlet (E)
5.0.0260
1107.17 1+11
1107.01 1+05
1102.70 Sta Pt. 90+92.73 - 0+00
1099.84 Sta Pt. 90+92.73 - 0+00
1102.72 Grade Break 0+29.05 E.C.
1103.25 0+06.58
96"-27" R.C.P. 2000 D (39)
4'-27" R.C.P. 2000 D

Curve Data
Δ = 9°14'30"
R = 45'
T = 3.015'
L = 7.789'

Manhole N°4 (See Sht. 5)
20" Tree (W) (97)
L.C. 0+83
24" Pole (E) C. Fence
℄ C.B. 0+39 Guy Wire
P. Pole
℄ C.B. 1+44
20" Tree (P) (97)
15" Tree
12" Posa Water 2.5' W
2 MID PIPE 4.1' W
4" Sa. Cal Gas 14.1' W
8" Sani. Sewer 25' W.
24" Pine Water 13.5' W.
Seal per Note 11
CASITAS AVENUE
Support
Tel. Pole
(91) 18" Tree (E)
15" Tree
℄ C.B. 1+15
18" Tree
℄ C.B. 1+55
18" Tree
Manhole N°2 (L+55)
MONTANA STREET
Junc Structure N°2
C.B. N° 3, W=21'
L.D. N° 2
18'-24" R.C.P. 2000 D
C.B. N° 3, W=21'
L.D. N° 2
23'-24" R.C.P. 2000 D
26'-24" R.C.P. 2000 D (42)
L.D. N° 2 (93)
C.B. N° 3, W=21'
26'-24" R.C.P. 2000 D
L.D. N° 2
C.B. N° 3, W=21'
(97)
(73)
(94)
(62)
(64)
(60)

Junc Struct N°2 (W) Sta 0+87
A = 82°42'
B = 24"
C = 2'-6"
D = 36"
E = 1'-8"
F = 0'-9"
G = 1'-5"
L = 3'-5"
Elev. R = 1047.70
Elev. S = 1046.11

Junc Struct N°2 (E) Sta. 1+00
A = 53°45
B = 24"
C = 4'-0"
D = 36"
E = 3'-2"
F = 0'-6"
G = 1'-6"
L = 4'-2"
Elev. R = 1049.88
Elev. S = 1046.02

Junc Struct N°2 (E) Sta 1+75
A = 66°03'
B = 21"
C = 2'-9"
D = 30"
E = 2'-2"
F = 4"
G = 1'-0"
L = 3'-4"
El. R = 1074.68
El. S = 1073.82

Junc Struct N°2 (W) Sta 0+61
A = 58°42'
B = 15"
C = 2'-6"
D = 27"
E = 1'-11"
F = 4"
G = 1'-1"
L = 2'-10"
El. R = 1107.62
El. S = 1106.48

Curve Data
Δ = 16°32'30"
R = 45'
T = 6.54'
L = 12.99'

WOODBURY ROAD
60'
℄ C.B. 2+50.3
℄ C.B. 2+94.8
Power Pole
Water Meter
LINCOLN AVENUE
Insp. Dr.
Insp. Dr.
J.S. No. 2 or J.S. No. 3 (See Sht. 6)
Seal per Note 11
8" Sani. Sewer 21' E.W.
20" So. Cal. Gas 30' E.W.
8" Posa Water 25' W.E.
6" So. Cal. Gas 20' W.E.
Power Pole
Guy Wire
Power Pole
(40) 23'-21" R.C.P. 2000 D
*C.B. N°7 (4 Grates) V=4'-0"
(81)
L.D. N°3
(84)
Manhole N°1 (L+5.8)
(59)
*L.D. N°3
C.B. N°7 (4 Grates) V=4'-0"
22'-21" R.C.P. 2000 D
WOODBURY ROAD
Fire Hydrant
24" AC Drive
Water Meter
Power Pole
Water Meter ℄ C.B. 1+69.3
Water Meter ℄ C.B. 2+48
Set T.C. Level w. west gtr. Lincoln
34'-27" R.C.P. 2000 D (99)
C.B. N°4 (4 Grates) (76)
Inlet V=4'-6", Outlet V=5'-0"
29'-21" R.C.P. 1500 D (47)
*C.B. N°7 (5 Grates) V=4'-6" (82)
L.D. N°3, L=12'

Notes:
*Catch basin opening per 2-D215 or 2-D232

Curve Data
Δ = 28°04'50"
R = 45'
T = 11.25'
L = 22.05'

FAIR OAKS AVENUE
Seal per Note 11
J.S. No. 2 or J.S. No. 5 (See sht. 6)
8" Posa Water 45' E.W.
8" Sani. Sewer 175' E.W.
8" Sani. Sewer 14' W.E.
10" So. Cal. Gas 8' W.E.
L.D. N°2
*C.B. N°3, V=4'-0" (Per G-1420) (72)
51'-21" R.C.P. 1500 D
L.D. N°2
C.B. N°3, V Inlet 4'-0" V Outlet 6'-6" (Per G-1420)
42'-21" R.C.P. 2000 D (45)
WOODBURY ROAD
47' P.C.C. Drive
W. Meter
12' P.C.C. Drive
℄ C.B. 1+21.5
Water Meter
24' P.C.C. Drive
W. Meter
℄ C.B. 1+90
22'-15" R.C.P. 2100 D (53)
L.D. N° 3
C.B. N°7 (2 Grates, T.C. -0.17 Above ℄) (79)
17'-18" R.C.P. 2000 D (49)
C.B. N°7 (3 Grates, T.C. -0.17 Above ℄) (80)
L.D. N°3
Manhole N°1

1958 STORM DRAIN BOND ISSUE

REVISIONS			LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MARK	DATE	DESCRIPTION	PROJECT NO. 560 WOODBURY ROAD CASITAS LATERAL LINCOLN LATERAL FAIR OAKS LATERAL
DRAWN BY PASADENA	DESIGNED BY PASADENA		APPROVED BY: JOHN A. LAMBIE COUNTY ENGINEER
TRACED BY Callens	CHECKED BY Lacey	SUBMITTED BY C.A.C.	BY: E. F. Green DEPUTY
CHECKED BY	RECOMMENDED BY		SCALE AS SHOWN DATE MAY 61 SHEET 13 OF 20

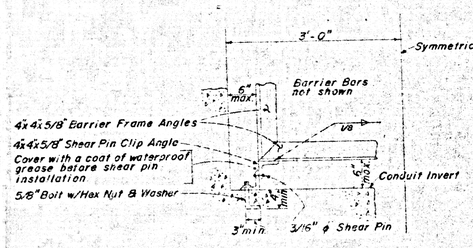
APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C. H. Green 11/12/60
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING-STREET DEPARTMENT
DRAWN BY CALLENS DESIGNED BY W. H. Nelson
TRACED BY Callens
CHECKED BY Lacey SUBMITTED BY C.A.C.
APPROVED BY [illegible]
CITY ENG. & SUPT. OF STREETS

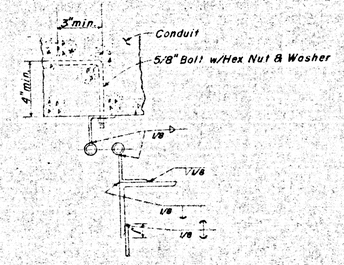
NO 275-50-12.13

Notes:

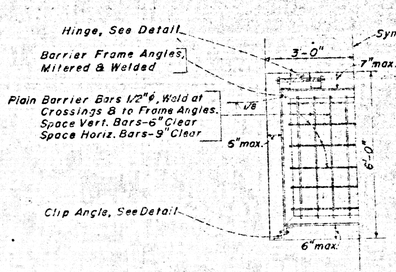
1. Clip angles shall overlap a minimum of 1". All shear pin angles shall fit snugly and truly face to face.
2. Galvanize all ferrous parts after fabrication.
3. The shear pin holes in the angles shall be drilled for a tight fit of the shear pins.
4. The aluminum shear pin material will be furnished by the District to the Contractor.
5. Shear pins to be peened both ends after installation.
6. All welds to be 1/8".



CLIP ANGLE DETAIL
SCALE 1" = 1'-0"

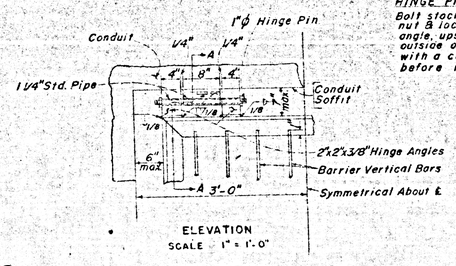


SECTION A-A
SCALE 1" = 3"



ELEVATION
SCALE 1/2" = 1'-0"

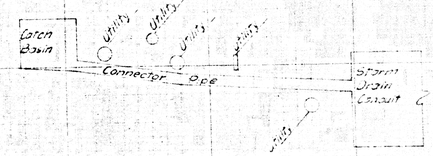
OUTLET PROTECTION BARRIER



ELEVATION
SCALE 1" = 1'-0"

HINGE DETAIL

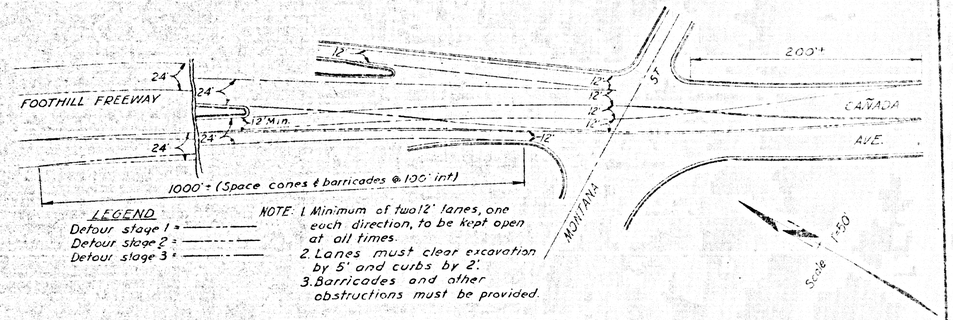
HINGE PIN
Bolt stock, thread both ends to have nut & lock washer flush with lower angle, upset ends or damage threads outside of the nut. Cover the pin with a coat of waterproof grease before installation.



TYPICAL CONNECTOR PIPE PROFILE
NO SCALE

CONNECTOR PIPE NOTES

1. The change in grade of the connector pipe may occur either over or under an existing utility.
2. The particular utility at which the change in grade occurs is noted on the project drawings. At locations where utility crossings are marked "O", the connector pipe grade will break over the utility. At locations where utility crossings are marked "U", the connector pipe grade will break under the utility.
3. On those connector pipe where change in grade is not indicated, it is assumed that the connector pipe can be laid on a straight grade from the catch basin to the storm drain without interference with utilities.
4. The contractor shall make exploratory excavations to determine the exact location and depth of all utilities which are marked "O" or "U". After the exact location of a utility has been determined, the Engineer will adjust the grade in the field, if necessary, so as to clear the utility by a minimum of 3 inches.



LEGEND
Detour stage 1 = ———
Detour stage 2 = ———
Detour stage 3 = ———

NOTE: 1. Minimum of two 12' lanes, one each direction, to be kept open at all times.
2. Lanes must clear excavation by 5' and curbs by 2'.
3. Barricades and other obstructions must be provided.

FREEWAY DETOUR PLAN

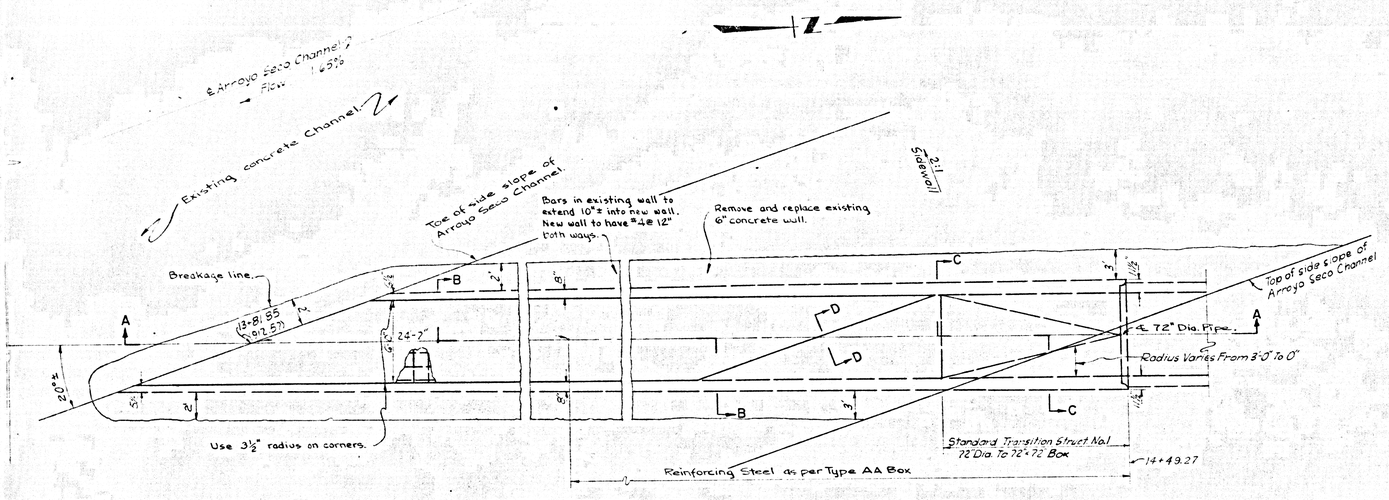
1958 STORM DRAIN BOND ISSUE

REVISIONS			LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MARK	DATE	DESCRIPTION	PROJECT NO. 560 WOODBURY ROAD [illegible] OUTLET PROTECTION BARRIER, TYPICAL CONNECTOR PIPE PROFILE, AND FREEWAY DETOUR PLAN

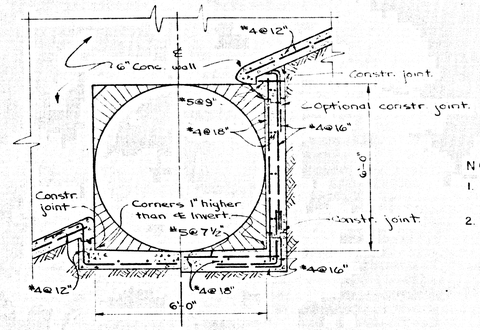
APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C. H. Green 11/2/62
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING-STREET DEPARTMENT
DRAWN BY RAMAKER
TRACED BY SKINNER
CHECKED BY Rawang
APPROVED BY [illegible]
DESIGNED BY [illegible]
SUBMITTED BY [illegible]
CITY ENGINEER-DIRECTOR OF STREETS

DRAWN BY PASADENA
TRACED BY PASADENA
CHECKED BY
RECOMMENDED BY [illegible]
DESIGNED BY PASADENA
SUBMITTED BY [illegible]
APPROVED BY [illegible]
SCALE AS SHOWN
DATE MAY 61
NO. 275-560-0214



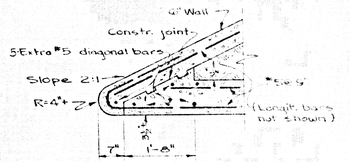
PLAN OF SPECIAL OUTLET STRUCTURE (85)
SCALE: 1/4" = 1'-0"



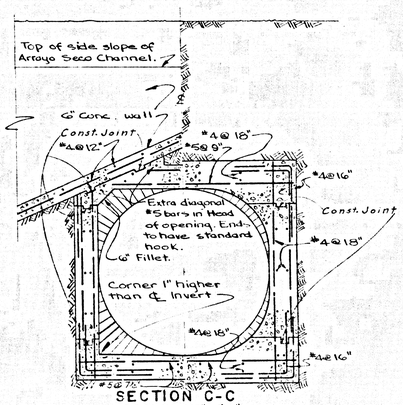
SECTION B-B
SCALE: 1/2" = 1'-0"

NOTES:
1. Weep holes that are removed in existing wall apron shall be replaced where feasible.
2. For Structural Notes see Sheet No. 16

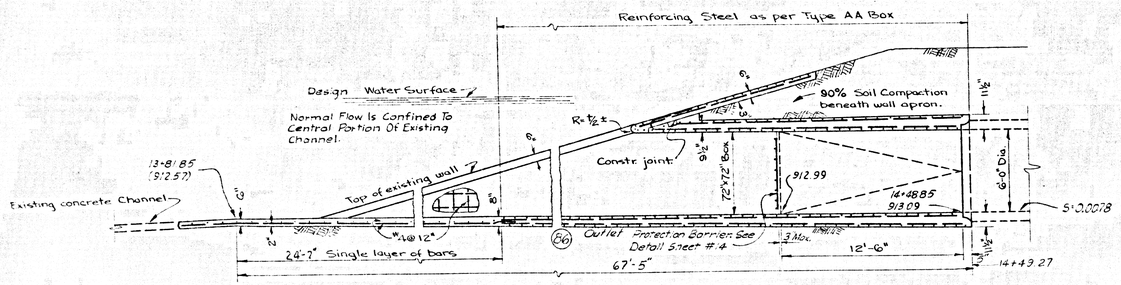
NOTE:
Outlet structure is to be constructed flush with existing channel bank.
Dimensions & stations shown are to be verified in the field.



SECTION D-D
SCALE: 3/4" = 1'-0"



SECTION C-C
SCALE: 1/2" = 1'-0"



SECTION A-A
SCALE: 1/4" = 1'-0"

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A LAMBIE
COUNTY ENGINEER
BY C. H. Green 11/17/60
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING-STREET DEPARTMENT
DRAWN BY BROWN
TRACED BY BROWN
CHECKED BY Zamiro
APPROVED BY
DESIGNED BY H. WILSON
SUBMITTED BY
CITY ENGR. & CHIEF OF STREETS

1958 STORM DRAIN BOND ISSUE

REVISIONS			LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MARK	DATE	DESCRIPTION	PROJECT NO. 580 WOODBURY ROAD OUTLET STRUCTURE

DRAWN BY PASADENA
TRACED BY PASADENA
CHECKED BY
RECOMMENDED BY
DESIGNED BY PASADENA
SUBMITTED BY
APPROVED BY
SCALE AS SHOWN
DATE MAY 61
NO. 273-580-02-15
SHEET 15 OF 20

STRUCTURAL NOTES

1. Design loads
   Highway - H-20 - S16
   Concrete weight - 150 PCF
   Earth weight - 90 PCF
2. Design stresses (unless otherwise shown)
   Concrete - f'_c = 3,000 psi, f_c = 1,000 psi, n = 10, Reinforcing Steel - f_s = 20,000 psi (intermediate grade steel)
3. For Box Sections, Transition Structures, and Junction Structures not detailed on standard drawings, the following steel clearances shall be used, unless otherwise shown:
   Top and bottom of top slabs - 2"
   Inside and outside of walls - 2"
   Top of bottom slab - 3"; Bottom of bottom slab - 2½"
4. Dimensions from face of concrete to steel are to center of bar unless otherwise shown.
5. Longitudinal steel shall be continuous and extend through all construction joints and shall be lapped 20 diameters at splices. Transverse steel shall be lapped 30 diameters at splices.
6. All bar bends and hooks shall conform to the American Concrete Institute "Manual of Standard Practice".
7. Unless otherwise shown on the drawings, transverse joint keyways (in both slabs and walls) as detailed for longitudinal keyways, shall be placed at the end of each pour; but the spacing thereof shall not exceed 50 feet or be less than 10 feet. All construction joints in bottom slab, top slab and sidewalls shall be in the same plane. No staggering of joints will be permitted.
8. The walls and top slab may be poured monolithic, but after walls have been poured, a delay of two hours shall be made before pouring of the slab is started.
9. Transverse construction joints shall not be placed within 30 inches of manhole or junction structure openings.
10. Unless otherwise shown on the details, transverse bars in curved section shall be placed radially. Straight transverse bars in top and bottom slabs shall be spaced as shown on the typical sections; spacing shall be on the centerline of construction. Straight bars and L-bars in walls shall be spaced as shown on the typical sections, with the spacing measured between vertical legs of bars.
11. All exposed edges of concrete shall be beveled or rounded.
12. At the beginning and ending of all pours, a layer of reinforcement comprised of B, C_1, C_2, D, F bars shall be placed within 3 inches of transverse construction joints.
13. All longitudinal bars shall be No. 4. Spacing shall be 18 inches ± C. to C. unless otherwise specified. Bars shall be spaced symmetrically about midheight of walls and about centerline of top and bottom slabs.
14. The vertical dimensions of C_1 & C_2 have been calculated for a 4-inch starter wall. If the height of the starter wall is varied, the vertical dimensions of the C_1 & C_2 bars may be varied correspondingly so as to maintain a 30 diameter lap between the two bars.
15. Concrete dimensions shall be measured horizontally or vertically and parallel to or at right angles (or radially) to centerline of conduit, except as otherwise shown.
16. No splices in transverse steel reinforcement will be permitted, other than shown on the drawing, without approval of the Engineer. No more than two splices will be permitted in any longitudinal bar between transverse joints. Splices shall be staggered.
17. D bars may be lapped 30 diameters at the lower const. joint.
18. *Design of the pipe sections III, VIII & IX shown hereon is based on Standard Drawing 2-D214 (Case III Bedding-Projection Condition). "W" values shall be as specified on Standard Drawing 2-D177 for Case III Bedding [Notes 3(a) and 3(c)].*
19. *Design of other pipe sections shown hereon is based on Standard Drawing 2-D214.2 (Case III Bedding-Ditch Condition) "W" values shall be as specified on Standard Drawing 2-D177 for Case III Bedding [Notes 3(a) and 3(c)]. If "W" value of top of pipe is exceeded, pipe shall be redesigned per Standard Drawing 2-D214.3, 2-D214.4 or as otherwise approved by the District.*

LOCATION SCHEDULE
PROPOSALS 2, 3, 4 or 5

PROP.	AA	4+27	To	14+88.85
ALL	*	14+88.85	To	21+90.50
5	A	21+98	To	23+98
5	P	23+98	To	25+98
2,3,4,5	B	25+08	To	32+17.50
3,4,5	C	32+22.50	To	38+00
3,4,5	D	38+00	To	41+00
3,4,5	BB	41+00	To	43+39
3,4,5	CC	43+39	To	48+00
3,4,5	E	48+00	To	54+50
3,4,5	F	54+50	To	57+21.16
3,4,5	G	57+26.6	To	59+25
3,4,5	H	59+25	To	67+17.50
4,5	I	67+17.50	To	76+89.18
5	J	76+94.18	To	80+62
ALL	*	80+62	To	85+00
5	K	85+03	To	88+97.50
4,5	L	89+02.5	To	95+00
4,5	M	95+00	To	97+00
4,5	N	97+00	To	105+20
4,5	O	105+20	To	107+16
5	P	107+21	To	110+40
5	Q	110+40	To	112+50
5	R	112+50	To	114+50
5	S	114+50	To	117+62
5	T	117+67	To	121+50
5	U	121+50	To	123+50
5	V	123+50	To	130+50
5	U	130+50	To	133+00
5	W	133+00	To	136+00
5	X	136+00	To	138+00
5	Y	138+00	To	140+00
5	Z	140+00	To	142+97.50
ALL	*	142+97.50		Etc.

* Note: R.C.P. used for all proposals

BOX DETAIL SCHEDULE
PROPOSAL 2

	BOX																													
	AA*	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	BB	CC
DESIGN COVER, FT.	5	16	26	25	21	10	7	10	12	11	10	11	9	12	14	17	24	22	20	18	16	21	25	18	14	9	5	11	11
WIDTH, W	6'-0"	6'-0"	8'-0"	7'-6"	7'-6"	7'-6"	7'-6"	7'-1"	7'-1"	6'-9"	6'-4"	6'-4"	6'-9"	6'-9"	6'-9"	6'-9"	6'-4"	6'-4"	6'-4"	6'-4"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"	6	11
HEIGHT, H	6'-0"	7'-6"	9'-6"	9'-0"	9'-0"	9'-0"	9'-0"	9'-0"	8'-6"	8'-6"	8'-6"	7'-6"	7'-6"	8'-0"	8'-0"	8'-0"	8'-0"	7'-6"	7'-6"	7'-6"	7'-6"	7'-0"	7'-0"	7'-0"	7'-0"	7'-0"	7'-0"	6	11
TOP SLAB, t	8 to 11½	8½	11¾	11"	10½"	8¾"	8¼"	8¼"	8⅜"	8⅛"	7½"	7½"	7¾"	8½"	8¼"	9¼"	9¾"	9½"	9¼"	9"	8"	8¾"	9"	6¼"	7¼"	4¾"	6"	12	12
SIDE WALL, t_2	8 to 11½	8"	11"	10½"	9¾"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8¼"	8½"	8¼"	8"	8"	8¼"	8½"	8"	8"	6	12
BOTTOM SLAB, t_3	8" to 11½	10¾"	14"	13¼"	12¾"	10¾"	10¼"	10½"	11"	10¼"	9¼"	9¼"	9¾"	10½"	10¾"	11¼"	11½"	11¼"	11"	10½"	10"	10½"	11"	10¼"	9¾"	9¼"	6"	12	12

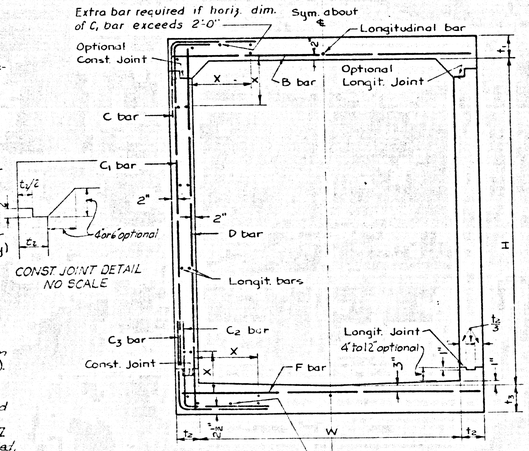
TRANSVERSE REINFORCEMENT

B BARS	BAR NO. & SPACING	#5@9"	#6@8¾	#6@7½	#6@8	#6@8½	#6@7¾	#6@8¼	#5@5¾	#5@5½	#6@6"	#5@7	#6@6¾	#6@6½	#6@6	#6@7½	#6@7¼	#6@8¾	#6@8	#6@7½	#6@8¼	#6@8¾	#6@8	#6@7½	#6@8¼	#6@8¾	#6@8	#6@7½	#6@8¼	#6@8¾
	LENGTH	7'-5½	7'-5"	9'-7½	9'-0"	9'-10½	8'-7"	8'-7"	8'-2"	8'-2"	7'-10"	7'-5"	7'-5"	7'-10"	7'-10"	7'-10"	7'-10"	7'-6½	7'-6"	7'-5½	7'-5"	6'-11"	6'-11½	7'-0"	6'-11"	6'-11"	6'-11"	6'-11"	6'-11"	6'-11"
C BARS	BAR NO. & SPACING	#4@16"	#4@13½	#4@11"	#4@11"	#4@12"	#4@15"	#4@15½	#4@16"	#4@15"	#4@15½	#4@16"	#4@16"	#4@15"	#4@16"	#4@15"	#4@14¼	#4@13½	#4@11½	#4@11½	#4@12½	#4@13"	#4@13½	#4@14"	#4@14½	#4@15"	#4@15½	#4@16"	#4@16"	#4@16"	#4@16"
	HORIZ. LENGTH	2'-6"	2'-0"	2'-4"	2'-5"	2'-3"	2'-3"	2'-4"	2'-3"	2'-2"	2'-2"	2'-1"	2'-1"	2'-2"	2'-2"	2'-1"	2'-2"	2'-2"	2'-1"	2'-1"	2'-1"	2'-0"	2'-0"	2'-1"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
	VERT. LENGTH	2'-8"	2'-0"	2'-6"	2'-5"	2'-4"	2'-2"	2'-2"	2'-2"	2'-1"	2'-1"	1'-11"	1'-11"	2'-0"	2'-1"	2'-2"	2'-2"	2'-1"	2'-1"	2'-1"	2'-1"	2'-0"	2'-0"	2'-1"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
C_1 BARS	BAR NO. & SPACING	#4@16"	#4@13½	#4@11"	#4@11"	#4@12"	#4@15"	#4@15½	#4@16"	#4@15"	#4@15½	#4@16"	#4@15½	#4@16"	#4@15"	#4@14¼	#4@13½	#4@11½	#4@11½	#4@12½	#4@13"	#4@13½	#4@14"	#4@14½	#4@15"	#4@15½	#4@16"	#4@16"	#4@16"	#4@16"	#4@16"
	HORIZ. LENGTH	2'-6"	2'-0"	2'-4"	2'-3"	2'-3"	2'-3"	2'-4"	2'-3"	2'-2"	2'-2"	2'-1"	2'-1"	2'-2"	2'-2"	2'-1"	2'-0"	1'-11½	1'-11"	1'-11"	1'-11"	1'-11"	1'-11"	1'-11"	1'-11"	1'-11"	1'-11"	2'-0"	2'-0"	2'-0"	2'-0"
	VERT. LENGTH	6'-4"	7'-7¾"	9'-10¾"	9'-4"	9'-3½"	9'-2"	9'-1½"	8'-7½"	8'-6"	8'-1½"	7'-6¾"	7'-6¾"	8'-1"	8'-1¾"	8'-2"	8'-2½"	7'-8¾"	7'-8½"	7'-8½"	7'-8¼"	7'-11¾"	7'-11¾"	7'-2"	7'-1½"	7'-1"	7'-0"	6'-11¾"	6'-11"	6'-11"	6'-11"
C_2 BARS	BAR NO. & SPACING	#4@18"	#4@13½	#4@11"	#4@11"	#4@12"	#4@16"	#4@17"	#4@16"	#4@15"	#4@15½	#4@16"	#4@15"	#4@16"	#4@15"	#4@14¼	#4@13½	#4@11½	#4@11½	#4@12½	#4@13"	#4@13½	#4@14"	#4@14½	#4@15"	#4@15½	#4@16"	#4@16"	#4@16"	#4@16"	#4@16"
	HORIZ. LENGTH	2'-4"	1'-10"	2'-2"	2'-1"	2'-1"	2'-1"	2'-2"	2'-1"	2'-0"	2'-0"	1'-11"	1'-11"	2'-0"	2'-0"	1'-11"	1'-11"	1'-10"	1'-10"	1'-10"	1'-10"	1'-9"	1'-10"	1'-10"	1'-9"	1'-10"	1'-10"	1'-9"	1'-10"	1'-10"	1'-10"
	VERT. LENGTH	2'-4"	2'-3"	2'-7½	2'-6½	2'-6"	2'-4"	2'-4"	2'-3"	2'-3"	2'-4"	2'-3"	2'-2"	2'-2"	2'-3"	2'-5"	2'-4"	2'-4"	2'-5"	2'-4¾	2'-4"	2'-4"	2'-3"	2'-4"	2'-5"	2'-3"	2'-3"	2'-2"	2'-3"	2'-2"	2'-2"
C_3 BARS	BAR NO. & SPACING	#4@18"	#4@13½	#4@11"	#4@11"	#4@12"	#4@16"	#4@17"	#4@16"	#4@15"	#4@15½	#4@16"	#4@15"	#4@16"	#4@15"	#4@14¼	#4@13½	#4@11½	#4@11½	#4@12½	#4@13"	#4@13½	#4@12"	#4@13½	#4@14"	#4@14½	#4@15"	#4@16"	#4@16"	#4@16"	#4@16"
	HORIZ. LENGTH	2'-4"	1'-10"	2'-2"	2'-1"	2'-1"	2'-1"	2'-2"	2'-1"	2'-0"	2'-0"	1'-11"	1'-11"	2'-0"	2'-0"	1'-11"	1'-11"	1'-10"	1'-10"	1'-10"	1'-10"	1'-9"	1'-10"	1'-10"	1'-9"	1'-10"	1'-10"	1'-9"	1'-10"	1'-10"	1'-10"
	VERT. LENGTH	2'-4"	2'-1"	2'-7⅜	2'-6¾	2'-6"	2'-4"	2'-4"	2'-2"	2'-3"	2'-1"	2'-0"	2'-0"	2'-1"	2'-2"	2'-2"	2'-3"	2'-5"	2'-4¾	2'-1"	2'-1"	2'-0"	2'-4"	2'-5"	2'-0"	2'-0"	1'-11"	1'-10"	2'-6"	2'-6"	2'-6"
D BARS	BAR NO. & SPACING	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"	#4@18"
	LENGTH	7'-5½	8'-8¾	11'-5"	10'-9¼	10'-8½	10'-3½	10'-2½	9'-8¾	9'-9¾	9'-2½	8'-6¾	8'-6¾	9'-1½	9'-3"	9'-3½	9'-4½	9'-0"	8'-11¾	8'-10¼	8'-9½	8'-8"	8'-6¼	8'-5"	8'-2½	8'-1½	7'-11½	7'-10½	12'-6	12'-6
F BARS	BAR NO. & SPACING	#6@7½	#6@7½	#6@6½	#6@7	#6@7½	#6@6½	#6@7¼	#6@4½	#6@4½	#6@5¼	#6@5¼	#6@5½	#6@5½	#6@6	#6@6¼	#6@6½	#6@6½	#6@6¾	#6@7	#6@7	#6@6½	#6@7¼	#6@6½	#6@7	#6@7½	#6@7¼	#6@6½	#6@7½	#6@7½	#6@7½
	LENGTH	7'-5½	7'-5"	9'-7½	9'-0"	8'-10½	8'-7"	8'-7"	8'-2"	8'-2"	7'-10"	7'-5"	7'-5"	7'-10"	7'-10"	7'-10"	7'-10"	7'-6½	7'-6"	7'-5½	7'-5"	6'-11"	6'-11½	7'-0"	6'-11"	6'-11"	6'-11"	6'-11"	6'-11"	6'-11"

LONGITUDINAL REINFORCEMENT

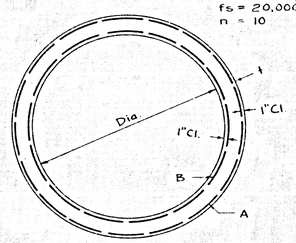
NO. 4 BARS	NO. IN TOP SLAB	11	9	13	12	12	12	12	12	12	11	11	12	12	12	12	12	9	9	9	9	9	9	9	9	11	11	11	11	11
	NO. IN BOTTOM SLAB	11	9	13	12	12	12	12	12	10	10	9	9	10	10	10	10	9	9	9	9	9	9	9	9	9	9	10	10	10
	TOTAL NUMBER	38	34	50	44	44	44	44	42	42	36	36	42	42	42	42	34	34	34	34	34	34	34	34	34	36	36	42	42	42
	CONCRETE = CY/L.F.	0.36	0.84	1.48	1.31	1.23	1.00	0.97	0.93	0.95	0.89	0.80	0.80	0.86	0.90	0.91	0.94	0.94	0.93	0.89	0.86	0.78	0.80	0.88	0.79	0.76	0.72	0.96	1.14	1.10
	STEEL = LBS/L.F.	76	90	151	136	128	107	104	100	102	95	82	83	92	97	101	105	103	104	96	93	85	92	95	87	82	77	75	114	111

* See "Outlet Structure" Drawing

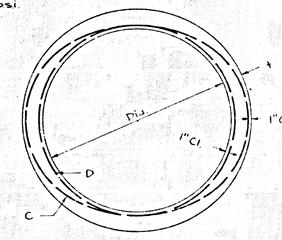


TYPICAL SECTION
NO SCALE

DESIGN DATA (PIPE)
f'_c = 4,500 psi.
f_c = 1,500 psi.
f_s = 20,000 psi.
n = 10



ALTERNATE NO. 1
DOUBLE CAGE REINFORCEMENT
NO SCALE



ALTERNATE NO. 2
ELLIPTICAL CAGE REINFORCEMENT
NO SCALE

102" THRU 114" R.C. PIPE

STEEL AREA IN SQ. IN./FT. FOR REINFORCED CONCRETE PIPE
PROPOSAL 1

SECTION	STATIONS			DIA	t	MAX COVER	AREA STEEL IN SQ. IN./L.F. ALT. NO. 1 A	ALT. NO. 1 B	ALT. NO. 2 MIN.	ALT. NO. 2 MIN.
I	(Eliminated)									
II	26+08	To	32+20	114"	10½	28	1.30	1.84	Omitted	
III	32+20	To	38+00	108"	10"	25	1.17	1.72	Omitted	
IV	38+00	To	41+00	108"	10"	21	1.05	1.54	1.05	0.64
V	41+00	To	43+39	108"	10"	17	0.89	1.30	0.89	0.57
VI	43+39	To	48+00	108"	10"	13	0.77	1.16	0.77	0.51
VII	48+00	To	54+50	108"	10"	10	0.71	1.07	0.71	0.48
VIII	54+50	To	57+23.49	108"	10"	7	0.58	0.87	0.58	0.44
IX	57+23.49	To	59+25	102"	9½"	10	0.66	0.99	0.66	0.44
X	59+25	To	67+20	102"	9½"	12	0.69	1.04	0.69	0.48

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY _____
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING STREET DEPARTMENT.
DRAWN BY M.C. HILL CHECKED BY A.W. LOSON
TRACED BY G.H.B. SUBMITTED BY
CHECKED BY SUBMITTED BY
APPROVED BY
CITY ENGR. & SUPT. OF STREETS

REVISIONS		
MARK	DATE	DESCRIPTION

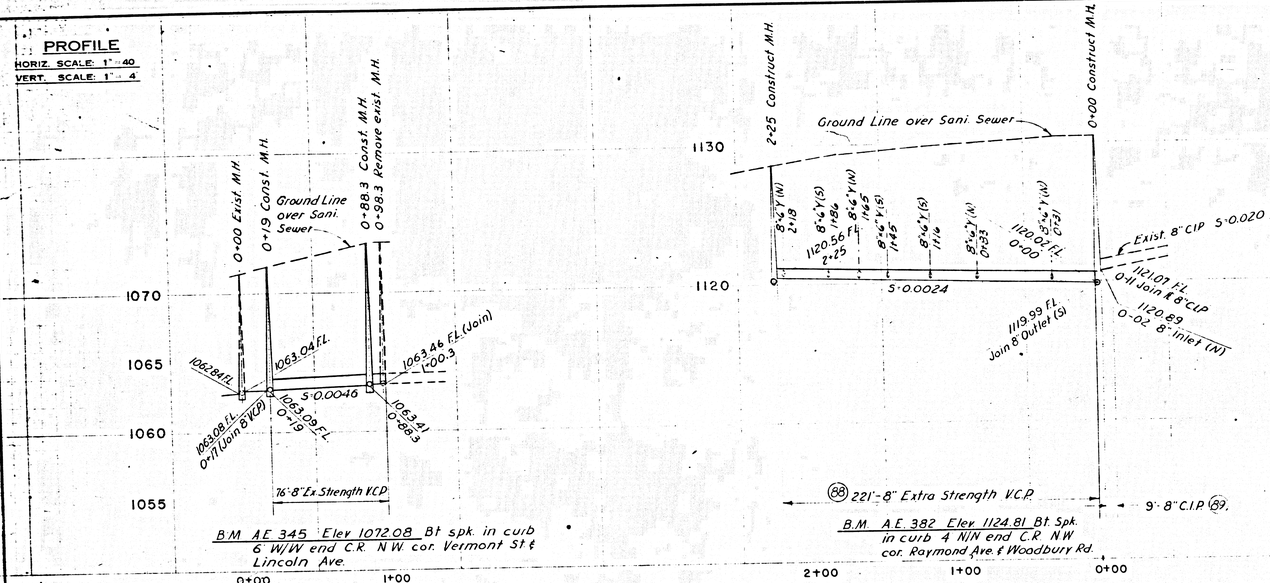
DRAWN BY PASADENA APPROVED PASADENA
TRACED BY PASADENA
CHECKED BY SUBMITTED
RECOMMENDED

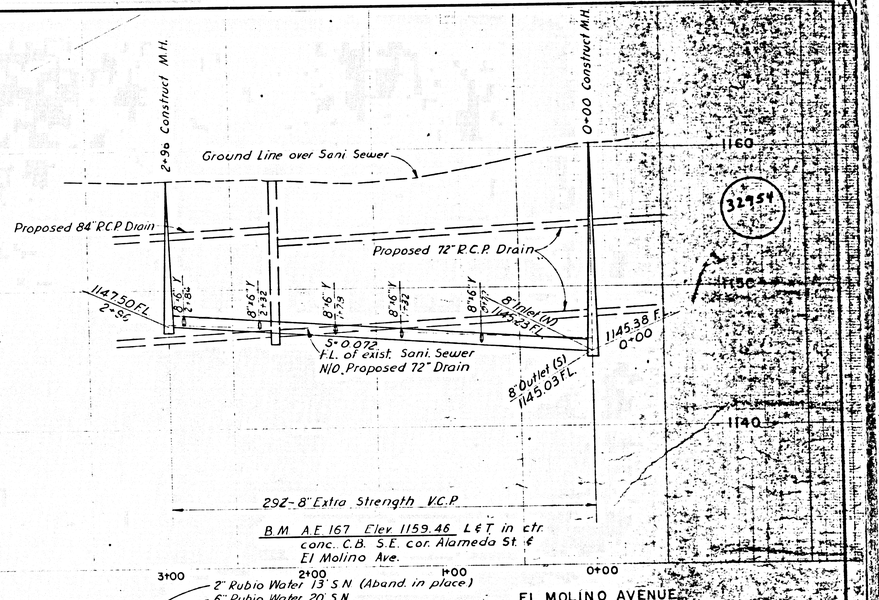
1958 STORM DRAIN BOND ISSUE

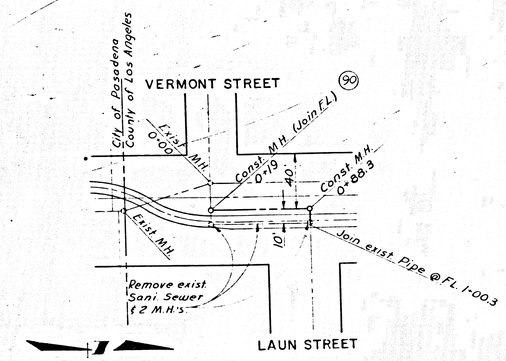
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
PROJECT NO. 560
WOODBURY ROAD
STRUCTURAL NOTES, DETAILS & SCHEDULE, R.C. BOX & PIPE
APPROVED BY
SCALE DATE 1" = 10' 1958

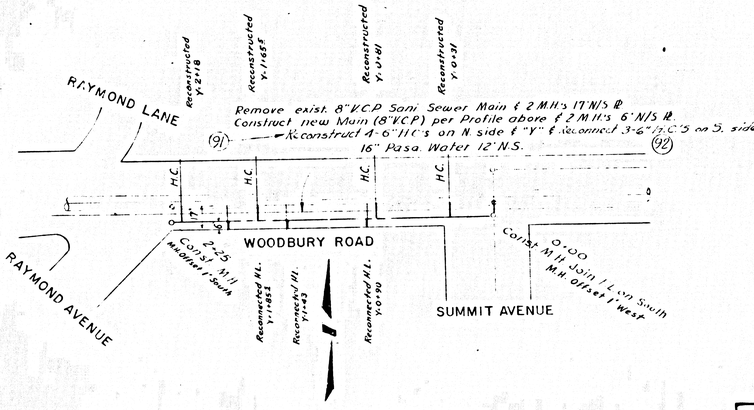
PROFILE

HORIZ. SCALE: 1" = 40'
VERT. SCALE: 1" = 4'









(92) Reconnected (3) existing Sani. Sewer I.C.'s from South into new 8" Sani. Sewer to be constructed 15' N/S @. Aband & seal or remove remaining portion of these laterals.

PLAN

SCALE: 1" = 40'

25 0 50 100

REFERENCE P.C. 8085

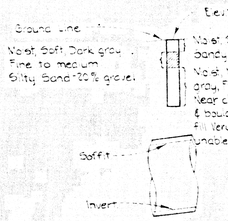
APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C.H. Gibson
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING-STREET DEPARTMENT
DRAWN BY C. CALA | DESIGNED BY H.W.L. SOM
TRACED BY S. V.S. | DESIGNED BY
CHECKED BY Jamaica | SUBMITTED BY
APPROVED BY
CITY ENGINEER

1958 STORM DRAIN BOND ISSUE

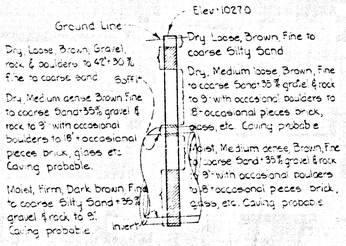
REVISIONS			LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MARK	DATE	DESCRIPTION	
			PROJECT NO. 360 WOODBURY ROAD SANITARY SEWER RECONSTRUCTION
DRAWN BY PASADENA	DESIGNED BY PASADENA		APPROVED BY
TRACED BY PASADENA			CHIEF ENGINEER
CHECKED BY	SUBMITTED BY R.B.R.		SCALE AS SHOWN
RECOMMENDED BY J.W. Cuttand (RBR)			DATE MAY 1958

DRAWING NO. 275-560-D2.17
SHEET 2 OF 20



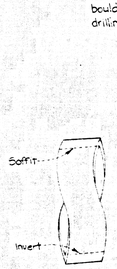
TEST HOLE NO. 1.

STA. 18+20



TEST HOLE NO. 2.

STA. 23+70

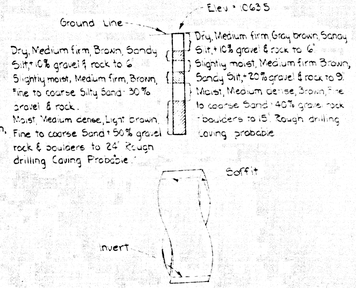


TEST HOLE NO. 3.

STA. 30+30

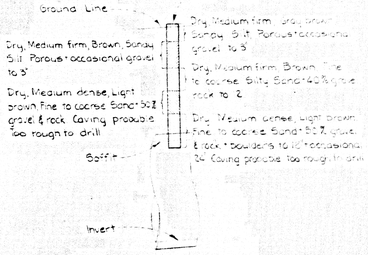
TEST HOLE NO. 4.

STA. 37+25



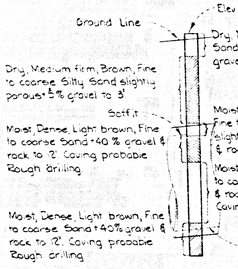
TEST HOLE NO. 5.

STA. 43+73



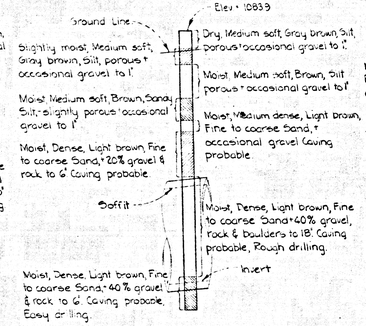
TEST HOLE NO. 6.

STA. 49+95



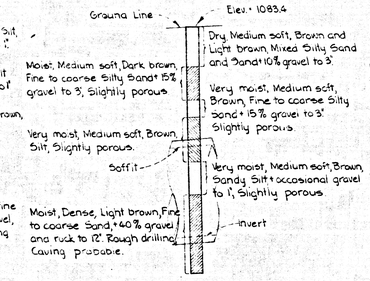
TEST HOLE NO. 7.

STA. 58+36



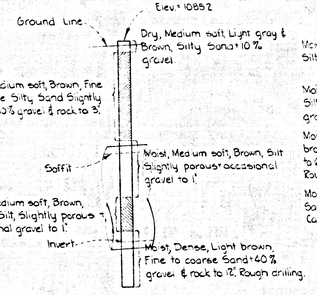
TEST HOLE NO.8.

STA. 63+50



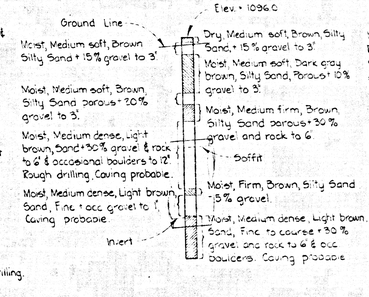
TEST HOLE NO. 9.

STA. 70+15



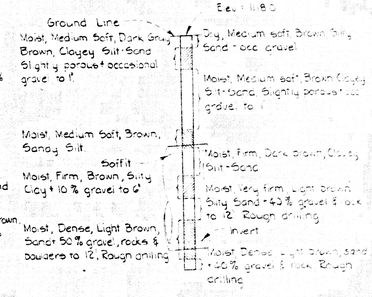
TEST HOLE NO. 10.

STA. 76+45



TEST HOLE NO. 11.

STA. 82+69



TEST HOLE NO. 12.

STA. 90+26

NOTE:
No ground water was encountered in any of the borings.

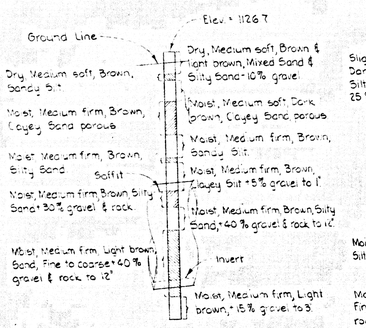
APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY _____ 7/16
DEPUTY DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING STREET DEPARTMENT
DRAWN BY BEACH DESIGNED BY H. WILSON
TRACED BY BEACH
CHECKED BY Komak QUANTITIES BY
APPROVED BY

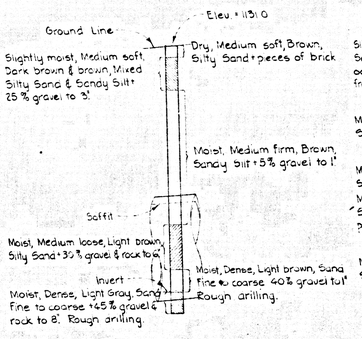
1958 STORM DRAIN BOND ISSUE

REVISIONS			LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MARK	DATE	DESCRIPTION	
			PROJECT NO. 560
			WOODBURY ROAD
			TEST HOLE LOGS

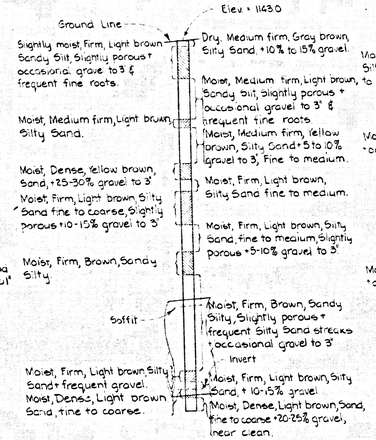
DRAWN BY PASADENA	DESIGNED BY PASADENA	APPROVED BY	
TRACED BY PASADENA	SUBMITTED BY		
CHECKED BY		SCALE	DATE
RECOMMENDED BY		1"=5' VERT.	NO. 275-5



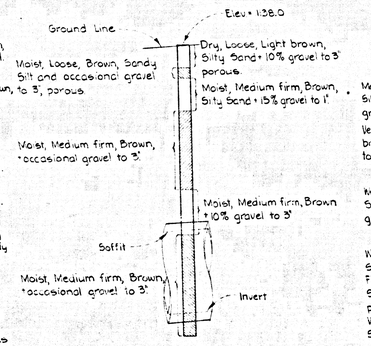
TEST HOLE NO. 13.
STA. 96+45



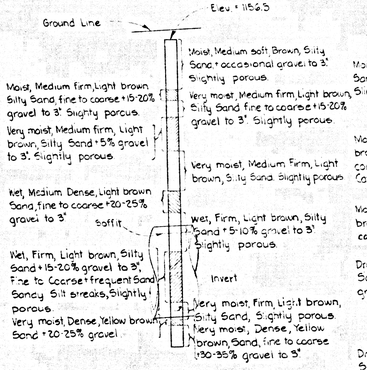
TEST HOLE NO. 14.
STA. 103+00



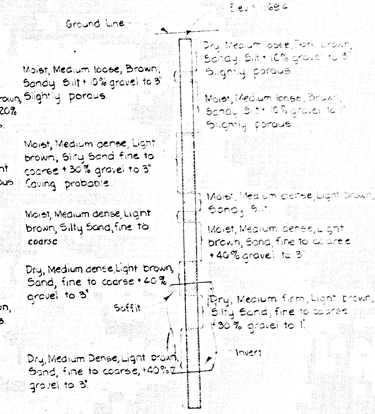
TEST HOLE NO. 15.
STA. 109+60



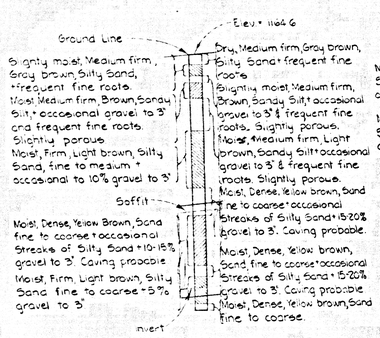
TEST HOLE NO. 16.
STA. 116+07



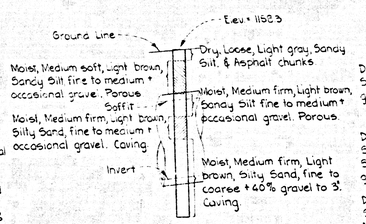
TEST HOLE NO. 17.
STA. 122+85



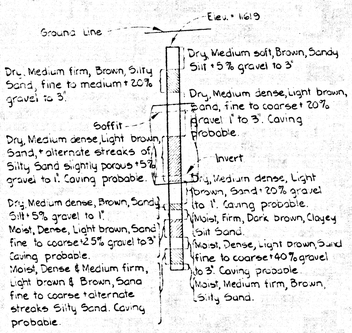
TEST HOLE NO. 18.
STA. 129+55



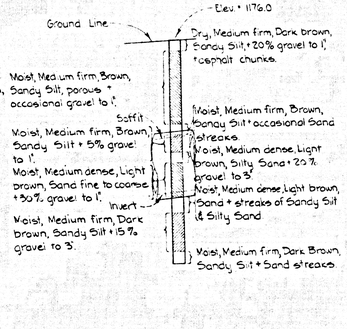
TEST HOLE NO. 19.
STA. 136+20



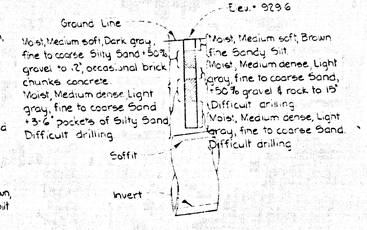
TEST HOLE NO. 20.
STA. 142+70



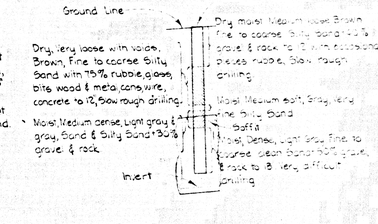
TEST HOLE NO. 21.
STA. 149+12



TEST HOLE NO. 22.
STA. 155+75



TEST HOLE NO. 23.
STA. 161+90



TEST HOLE NO. 24.
STA. 15+65

NOTE:
No ground water was encountered in any of the borings.

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY C.A. Braun 11/2/59
DESIGN DIVISION ENGINEER

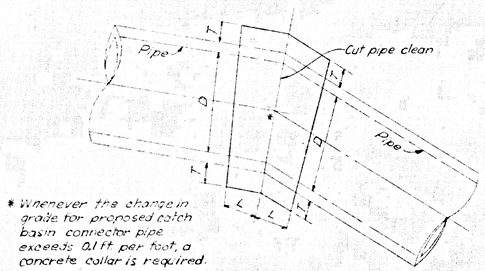
CITY OF PASADENA
ENGINEERING STREET DEPARTMENT
DRAWN BY BEACH
TRACED BY BEACH
DESIGNED BY H. WILSON
REVISED BY Ramaker
APPROVED BY [illegible]
SUBMITTED BY [illegible]

1958 STORM DRAIN BOND ISSUE

REVISIONS			LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MARK	DATE	DESCRIPTION	
			PROJECT NO. 560 WOODBURY ROAD TEST HOLE LOGS

DRAWN BY PASALENA	DESIGNED BY PASALENA	APPROVED BY [illegible]	
TRACED BY PASALENA			
CHECKED BY	SUBMITTED BY [illegible]	SCALE	DATE
RECOMMENDED BY C.W. Juliano		HOR. VERT.	MAY 61

LOS ANGELES COUNTY SURVEY NO. 2675-560-2213
SHEET 19 OF 20

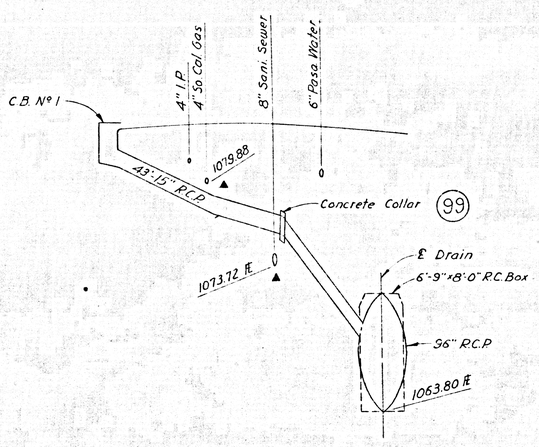


* Whenever the change in grade for proposed catch basin connector pipe exceeds 0.1 ft per foot, a concrete collar is required.

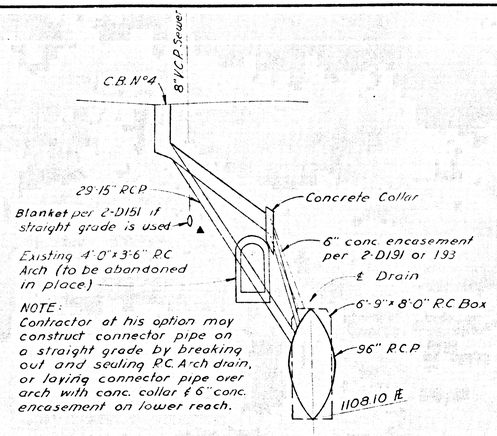
ELEVATION OF
TYPICAL CONCRETE COLLAR
NO SCALE

D"	L'	T"
12	1.0	4
15	1.0	4
18	1.0	5
21	1.0	5
24	1.0	6
27	1.0	7
30	1.0	7
33	1.5	8

CONCRETE COLLAR DIMENSIONS

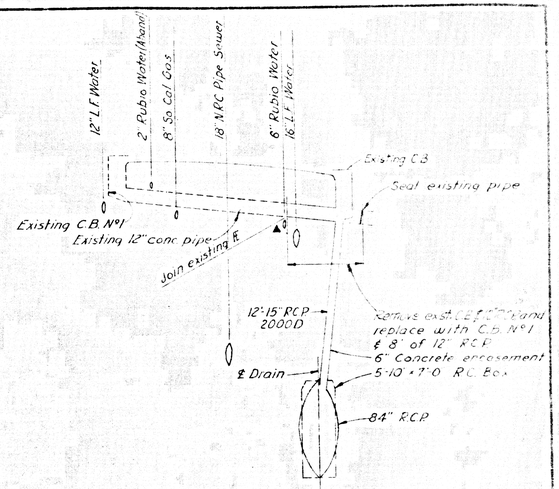


WOODBURY RD. EAST OF
LINCOLN AVE.
STA. 68+10
SCALE HORIZ. 1"=10'
VERT. 1"=4'

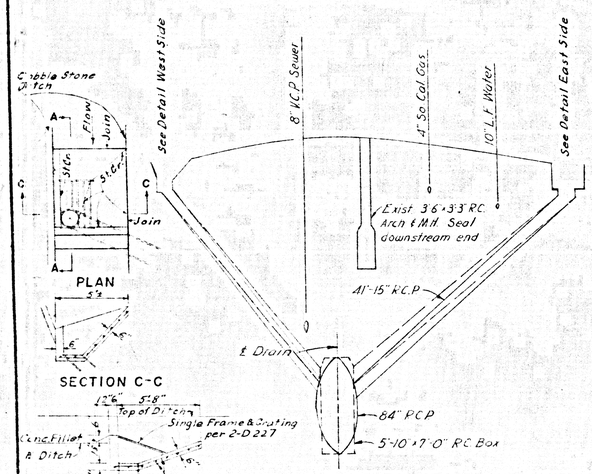


NOTE:
Contractor at his option may construct connector pipe on a straight grade by breaking out and sealing R.C. Arch drain, or laying connector pipe over arch with conc. collar & 6" conc. encasement on lower reach.

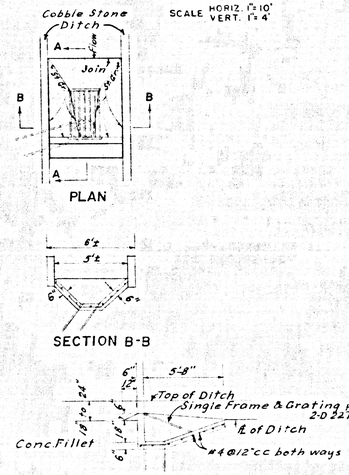
WOODBURY RD. & SUMMIT AVE.
N.E. SIDE
STA. 100+55
SCALE HORIZ. 1"=10'
VERT. 1"=4'

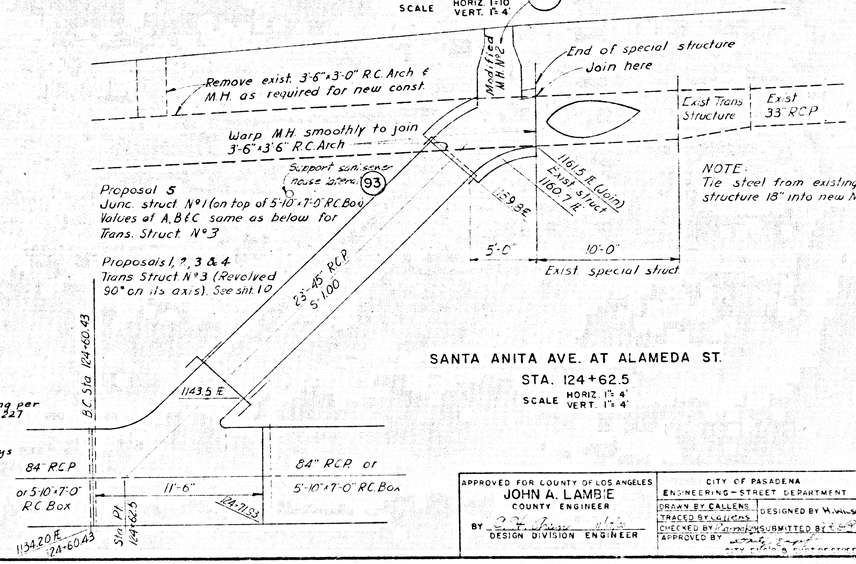


SACRAMENTO ST. & SANTA ANITA AVE.
WEST OF INTERSECTION
STA. 117+90
SCALE HORIZ. 1"=10'
VERT. 1"=4'



SACRAMENTO ST. & SANTA ANITA AVE.
N.E. & N.W. CORNER
STA. 118+57 & 118+64
SCALE HORIZ. 1"=10'
VERT. 1"=4'





SANTA ANITA AVE. AT ALAMEDA ST.
STA. 124+62.5
SCALE HORIZ. 1"=4'
VERT. 1"=4'

1958 STORM DRAIN BOND ISSUE

REVISIONS			LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MARK	DATE	DESCRIPTION	
			PROJECT NO. 580
			WOODBURY ROAD
			CONNECTOR PIPE PROFILE

DRAWN BY PASADENA	DESIGNED BY PASADENA	APPROVED BY	
TRACED BY PASADENA	DESIGNED BY		
CHECKED BY	SUBMITTED BY		
RECOMMENDED BY	APPROVED BY	SCALE AS SHOWN	DATE JUNE 1958

APPROVED FOR COUNTY OF LOS ANGELES
JOHN A. LAMBIE
COUNTY ENGINEER
BY
DESIGN DIVISION ENGINEER

CITY OF PASADENA
ENGINEERING-STREET DEPARTMENT