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**NORTH INTERCEPTOR**  
**I-80 ASHBY INTERCHANGE REHABILITATION**

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INFORMATION ON DRAWINGS MAY NOT BE ACCURATE, CONSULTANT TO UPDATE BASED ON LATEST AS-BUILTS AND UTILITY INFORMATION (NOTE, STATIONING ON AS-BUILTS ARE DIFFERENT FROM THESE PLAN AND PROFILES, USE RELATIVE STATIONING OR REFERENCE MONUMENTS)

SLIPLINE PITS ARE ILLUSTRATIVE ONLY, CONSULTANT WILL NEED TO DESIGN PIT LOCATIONS.

CONTRACT DOCUMENTS

VOLUME III  
DRAWINGS

**MARCH 2023**  
SPECIFICATION **SD458**

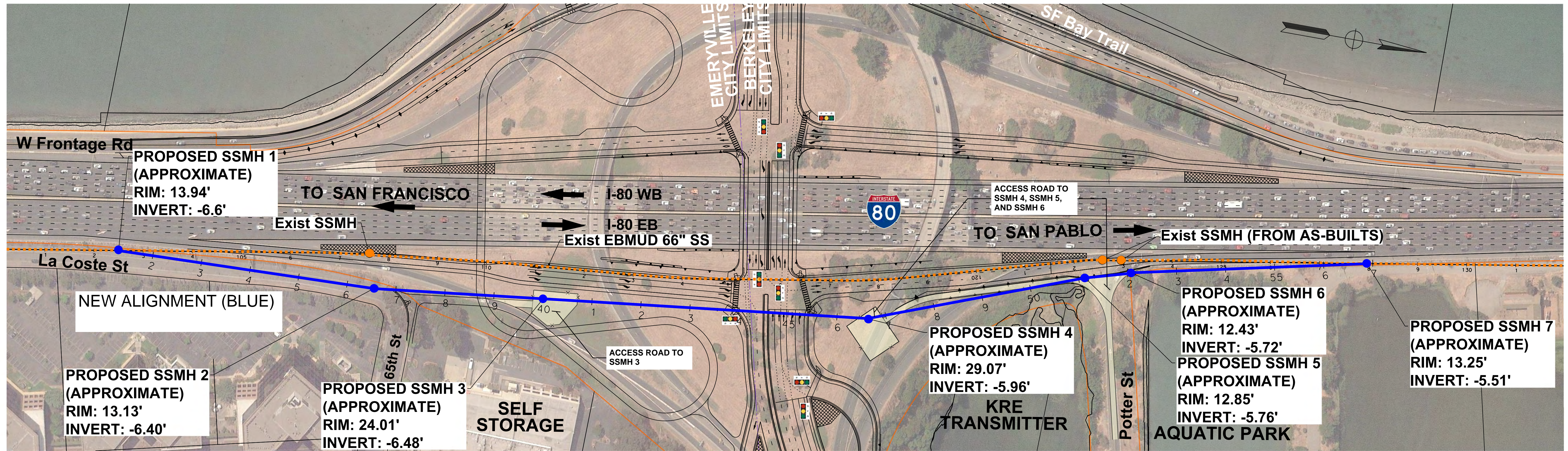


EAST BAY MUNICIPAL UTILITY DISTRICT  
SPECIAL DISTRICT NO. 1  
OAKLAND, CALIFORNIA

Recommended \_\_\_\_\_  
Garin D. Warren  
Manager of Wastewater Engineering Division  
R.P.E. No. C65259

Approved \_\_\_\_\_  
Amit Mutsuddy  
Director of Wastewater  
R.P.E. No. C68285

USER: \$USER\$  
DATE: \$DATE\$  
FILE: \$FILE\$



EXISTING INTERCEPTOR ALIGNMENT (ORANGE)

NEW ALIGNMENT (BLUE)

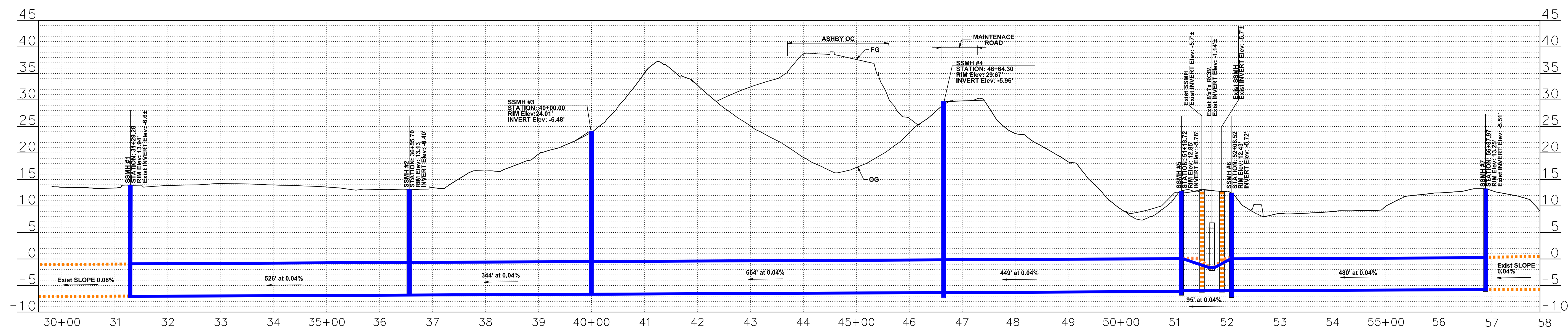
PROPOSED SSMH 2 (APPROXIMATE)  
RIM: 13.13'  
INVERT: -6.40'

PROPOSED SSMH 3 (APPROXIMATE)  
RIM: 24.01'  
INVERT: -6.48'

PROPOSED SSMH 4 (APPROXIMATE)  
RIM: 29.07'  
INVERT: -5.96'

PROPOSED SSMH 6 (APPROXIMATE)  
RIM: 12.43'  
INVERT: -5.72'  
PROPOSED SSMH 5 (APPROXIMATE)  
RIM: 12.85'  
INVERT: -5.76'

PROPOSED SSMH 7 (APPROXIMATE)  
RIM: 13.25'  
INVERT: -5.51'

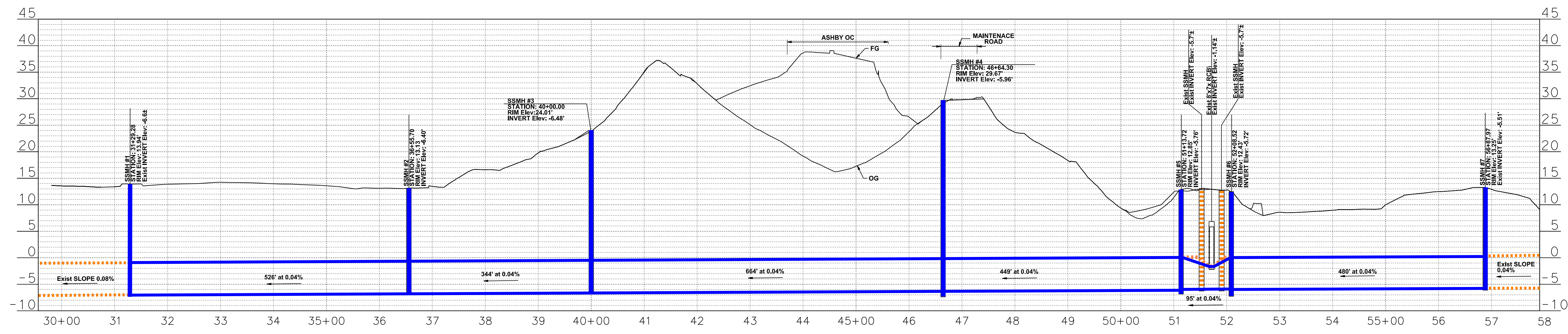
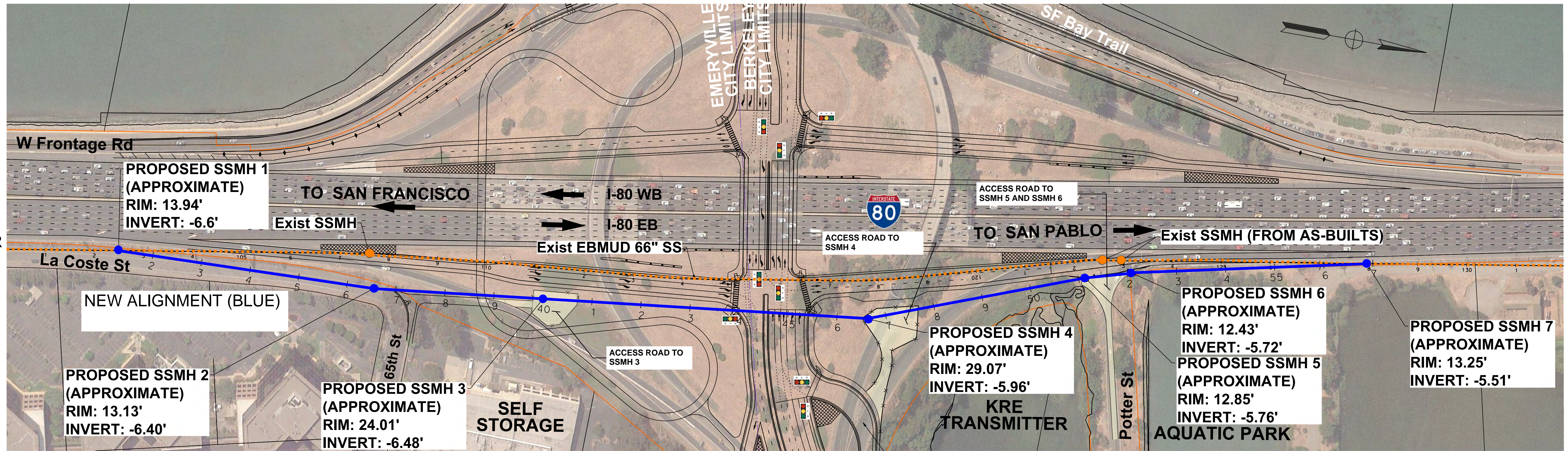


**CONCEPTUAL PLANS FOR OPTION 1 -  
EBMUD 66 INCH SEWER LINE RE-ALIGNMENT  
ACCESS FROM POTTER STREET**

0ft 50 100 ft  
**PRELIMINARY**  
FOR DISCUSSION PURPOSES ONLY

**I-80/Ashby Avenue (SR-13) Interchange Improvement Project**





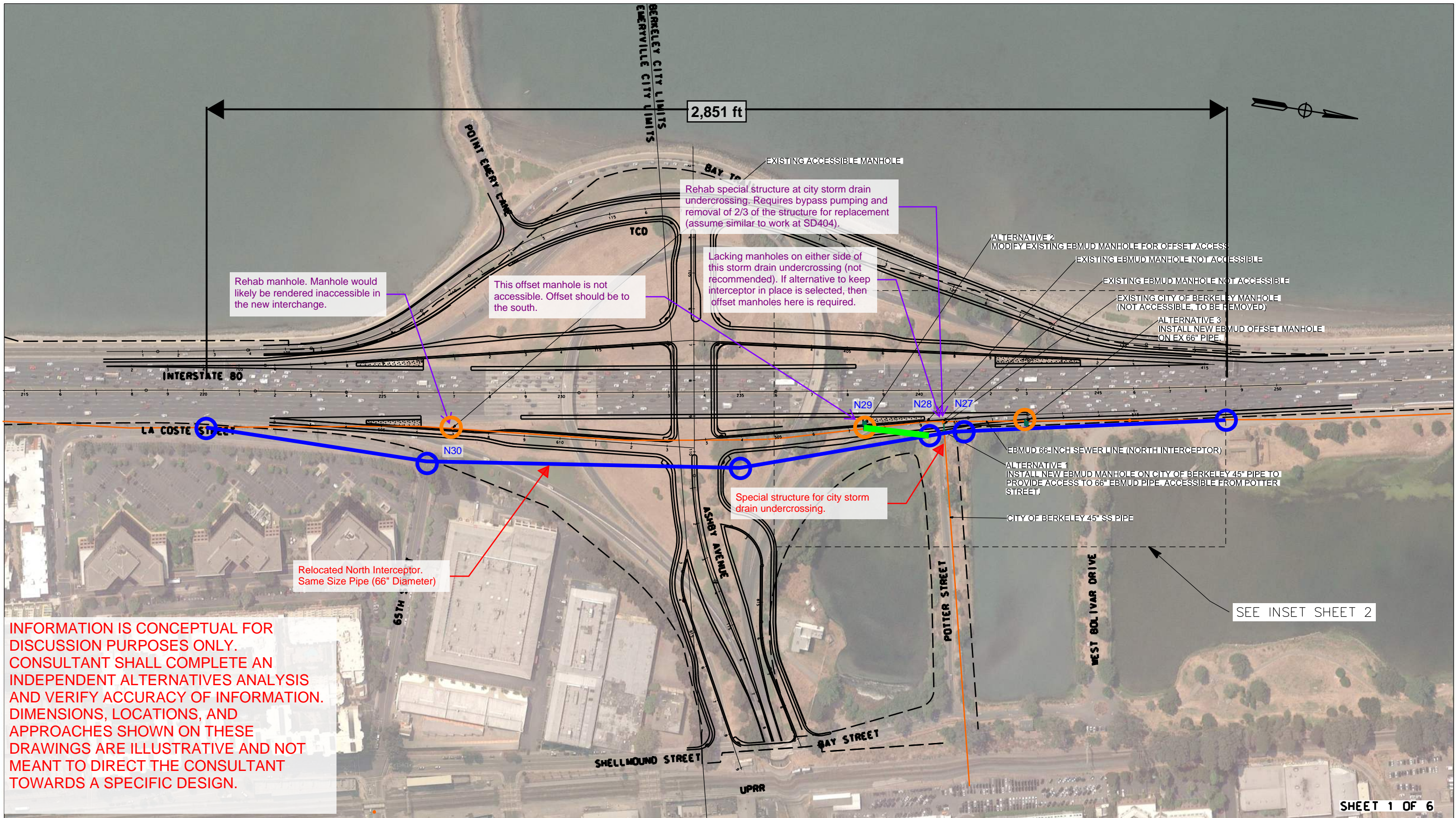
**CONCEPTUAL PLANS FOR OPTION 2 -  
EBMUD 66 INCH SEWER LINE RE-ALIGNMENT  
ACCESS FROM BAY STREET**



**PRELIMINARY**  
FOR DISCUSSION PURPOSES ONLY

**I-80/Ashby Avenue (SR-13) Interchange Improvement Project**





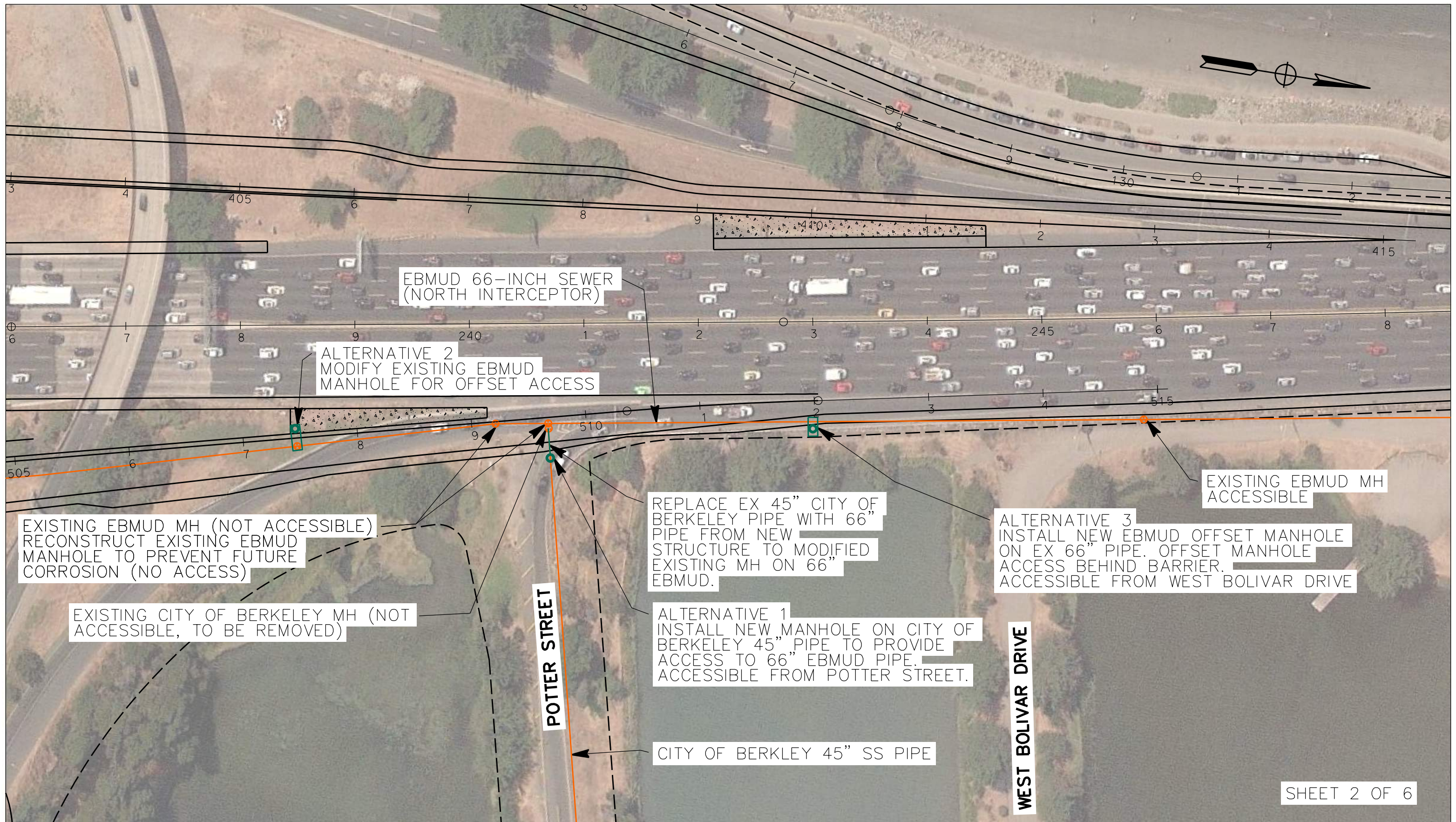
INFORMATION IS CONCEPTUAL FOR DISCUSSION PURPOSES ONLY. CONSULTANT SHALL COMPLETE AN INDEPENDENT ALTERNATIVES ANALYSIS AND VERIFY ACCURACY OF INFORMATION. DIMENSIONS, LOCATIONS, AND APPROACHES SHOWN ON THESE DRAWINGS ARE ILLUSTRATIVE AND NOT MEANT TO DIRECT THE CONSULTANT TOWARDS A SPECIFIC DESIGN.

- In Black: Ashby Interchange work.
- In Blue: Alternative 1, Relocate interceptor to get both the interceptor and access manholes off the highways and on/off ramps. Labels indicating existing manhole locations.
- In Purple: Alternative 2, Keep current alignment, but install offset manholes, slipline pipe, and rehab manholes/structures.

PROJECT LAYOUT  
TIGHT DIAMOND INTERCHANGE

1" = 250'

- EXISTING EBMUD 66-inch SEWER LINE
- - - RIGHT-OF-WAY



SHEET 2 OF 6

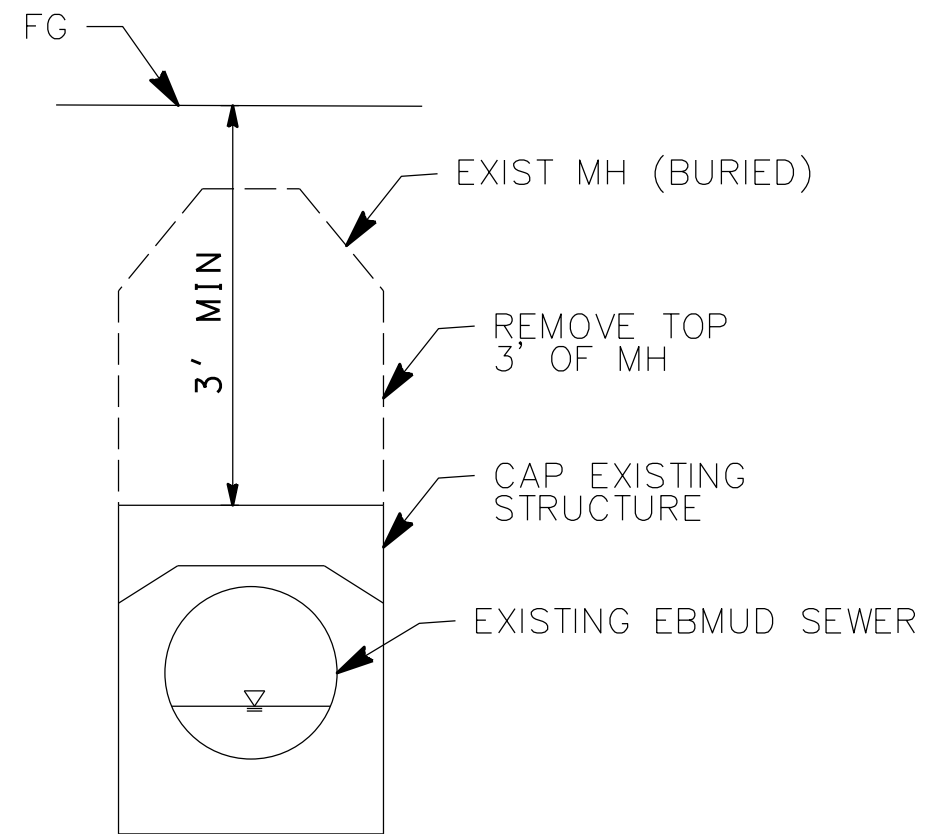
**SHEET NOT MARKED UP BY DISTRICT. THIS SHEET IS FROM ACTC/CALTRANS ONLY AND DOES NOT ADDRESS ACCESS CHALLENGES.**

EBMUD MANHOLE ALTERNATIVES

INSET

1" = 80'

- PROPOSED EBMUD 66-inch SEWER LINE
- EXISTING EBMUD 66-inch SEWER LINE
- - - RIGHT-OF-WAY



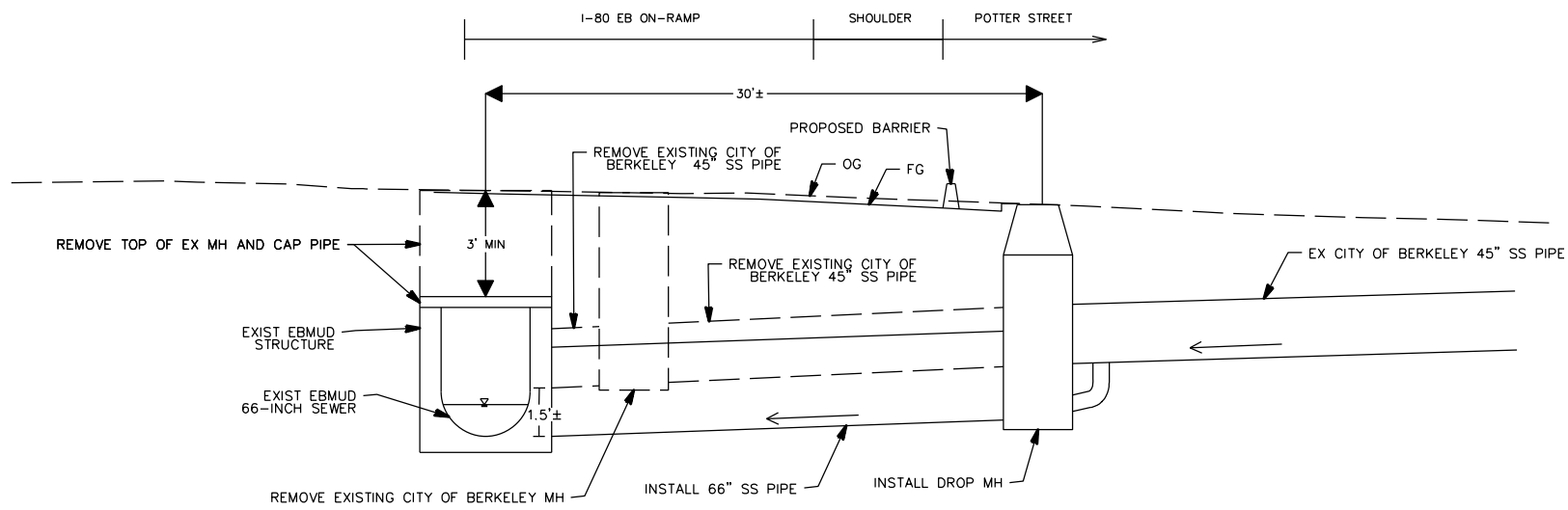
SHEET NOT MARKED UP BY DISTRICT. THIS SHEET IS FROM ACTC/CALTRANS ONLY AND DOES NOT ADDRESS ACCESS CHALLENGES.

SHEET 3 OF 6

MODIFY EXISTING BURIED MANHOLE

I-80/ASHBY AVE

NO SCALE

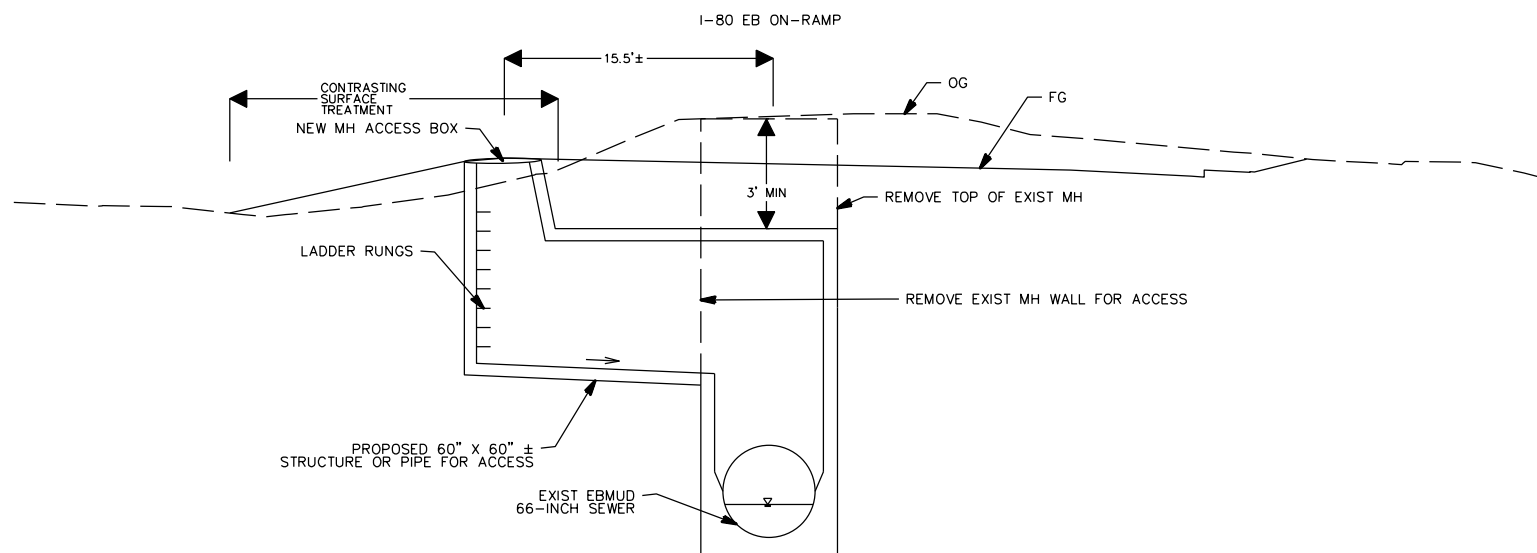


SHEET 4 OF 6

**SHEET NOT MARKED UP BY DISTRICT. THIS SHEET IS FROM ACTC/CALTRANS ONLY AND DOES NOT ADDRESS ACCESS CHALLENGES.**

ALTERNATIVE 1 SECTION  
 APPROX STA 509+66  
 I-80/ASHBY AVE

**NTS**

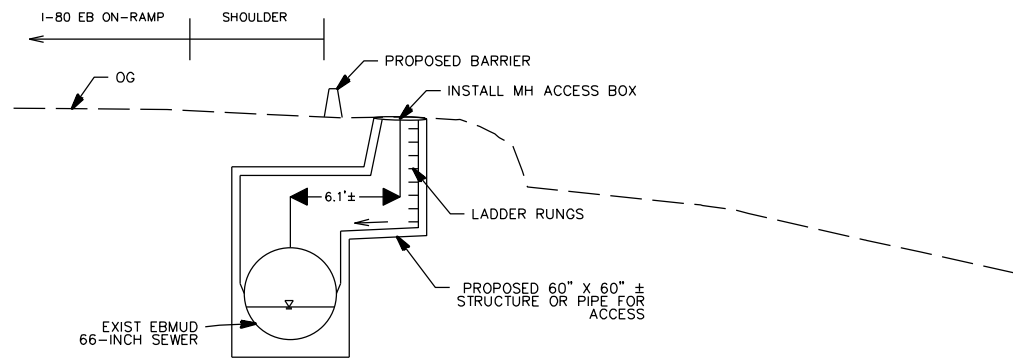


SHEET 5 OF 6

ALTERNATIVE 2 SECTION  
 APPROX STA 507+46  
 I-80/ASHBY AVE

NTS



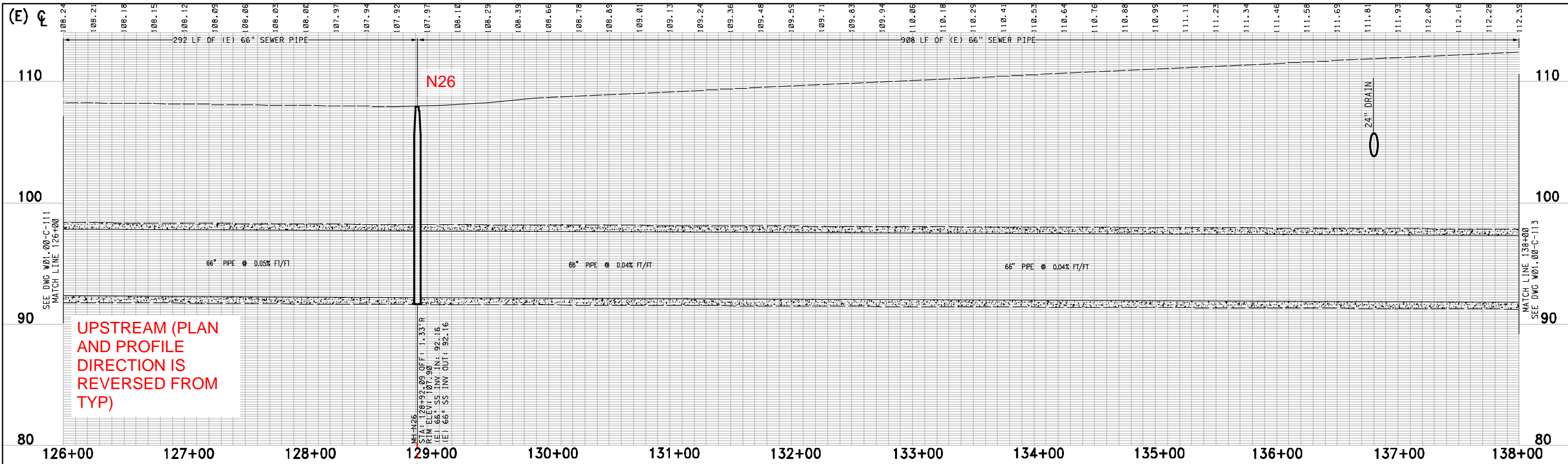


SHEET 6 OF 6

**SHEET NOT MARKED UP BY DISTRICT. THIS SHEET IS FROM ACTC/CALTRANS ONLY AND DOES NOT ADDRESS ACCESS CHALLENGES.**

ALTERNATIVE 3 SECTION  
 APPROX STA 511+99  
 I-80/ASHBY AVE

**NTS**



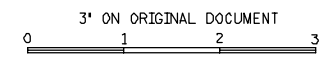
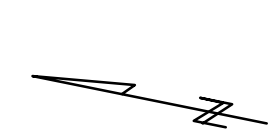
UPSTREAM (PLAN AND PROFILE DIRECTION IS REVERSED FROM TYP)

MH-N26  
 STA. 128+92.09  
 FIN. ELEV. 107.90  
 (E) 66" SS INV. IN: 92.16  
 (E) 66" SS INV. OUT: 92.16



PROJECT SCOPE UPSTREAM LIMIT (MANHOLE N26)

MH: N26  
 STA. 128+92.09  
 N: 2137979.85  
 E: 6042151.53



VERT. SCALE: 1"=4'-0"  
 HORIZ. SCALE: 1"=40'-0"

NO.	DATE	REVISION	BY	REC.	APP.

DESIGN BY:	-
DRAWN BY:	A. VELAZQUEZ
DESIGN CHECKED BY:	R.P.E. No.
CONSTRUCTABILITY CHECKED BY:	R.P.E. No.
ELECTRICAL CHECKED BY:	R.P.E. No.
PROJECT ENGINEER	R.P.E. No.
PROJECT MANAGER	R.P.E. No.
RECOMMENDED:	
SR. ENGINEER	
R.P.E. No.	

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**SPECIAL DISTRICT NO. 1**  
**OAKLAND, CALIFORNIA**

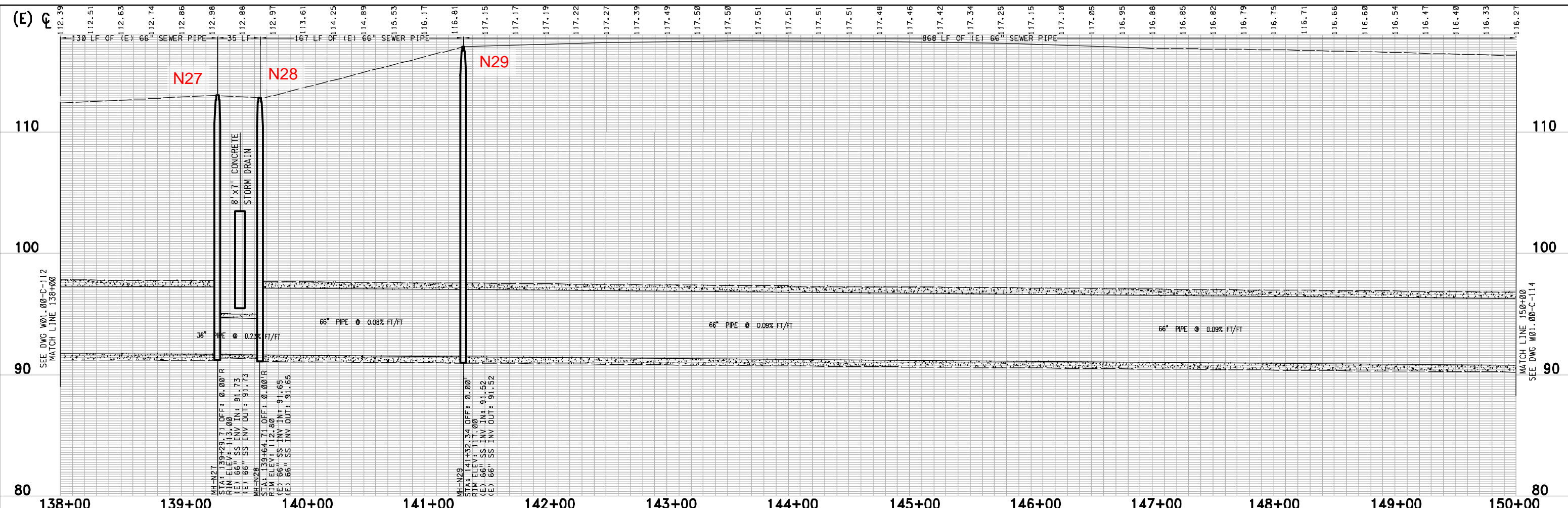
**NORTH INTERCEPTOR**

CIVIL  
 PLAN AND PROFILE  
 STA 126+00 TO STA 138+00  
 MANHOLE N26

SCALE 1"=40'-0"  
 DATE JUN 2021

W01.00-C-112  
 DRAWING NUMBER

SHEET NO. 13



VERT SCALE: 1"=4'-0"  
HORIZ SCALE: 1"=40'-0"

SEE DWG W01.00-C-112  
MATCH LINE 138+00

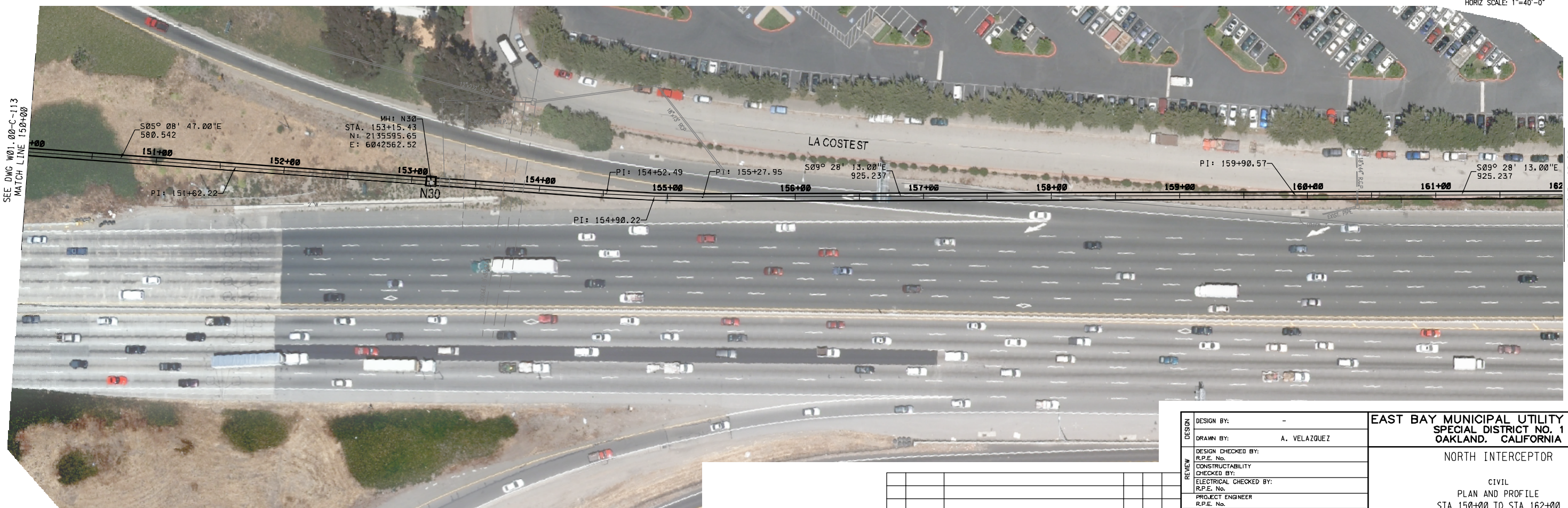
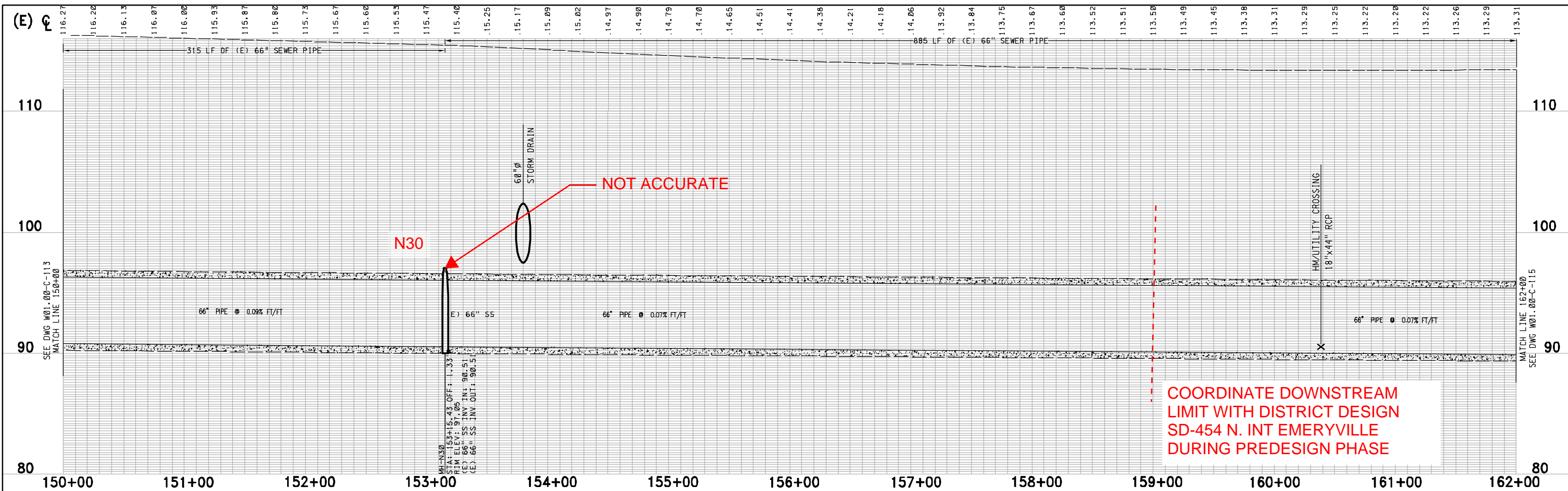
MATCH LINE 150+00  
SEE DWG W01.00-C-114

DESIGN		DESIGN BY: -	EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		
DRAWN BY: A. VELAZQUEZ					
REVIEW		DESIGN CHECKED BY: R.P.E. No.	NORTH INTERCEPTOR  CIVIL PLAN AND PROFILE STA 138+00 TO STA 150+00 MANHOLE N27, N28, N29 SHEET NO. 14		
		CONSTRUCTABILITY CHECKED BY: R.P.E. No.			
		ELECTRICAL CHECKED BY: R.P.E. No.			
		PROJECT ENGINEER R.P.E. No.			
		PROJECT MANAGER R.P.E. No.	SCALE 1"=40'-0"		
		RECOMMENDED: SR. ENGINEER R.P.E. No.	DATE JUN 2021		
			DRAWING NUMBER W01.00-C-113		

NO.	DATE	REVISION	BY	REC.	APP.

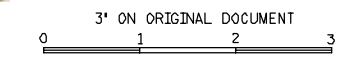
3' ON ORIGINAL DOCUMENT



SEE DWG W01-00-C-113  
MATCH LINE 150+00

MATCH LINE 162+00  
SEE DWG W01-00-C-115

VERT SCALE: 1"=4'-0"  
HORIZ SCALE: 1"=40'-0"



NO.	DATE	REVISION	BY	REC.	APP.

DESIGN BY:	-
DRAWN BY:	A. VELAZQUEZ
DESIGN CHECKED BY:	R.P.E. No.
CONSTRUCTABILITY CHECKED BY:	R.P.E. No.
ELECTRICAL CHECKED BY:	R.P.E. No.
PROJECT ENGINEER	R.P.E. No.
PROJECT MANAGER	R.P.E. No.
RECOMMENDED:	SR. ENGINEER
	R.P.E. No.

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**SPECIAL DISTRICT NO. 1**  
**OAKLAND, CALIFORNIA**

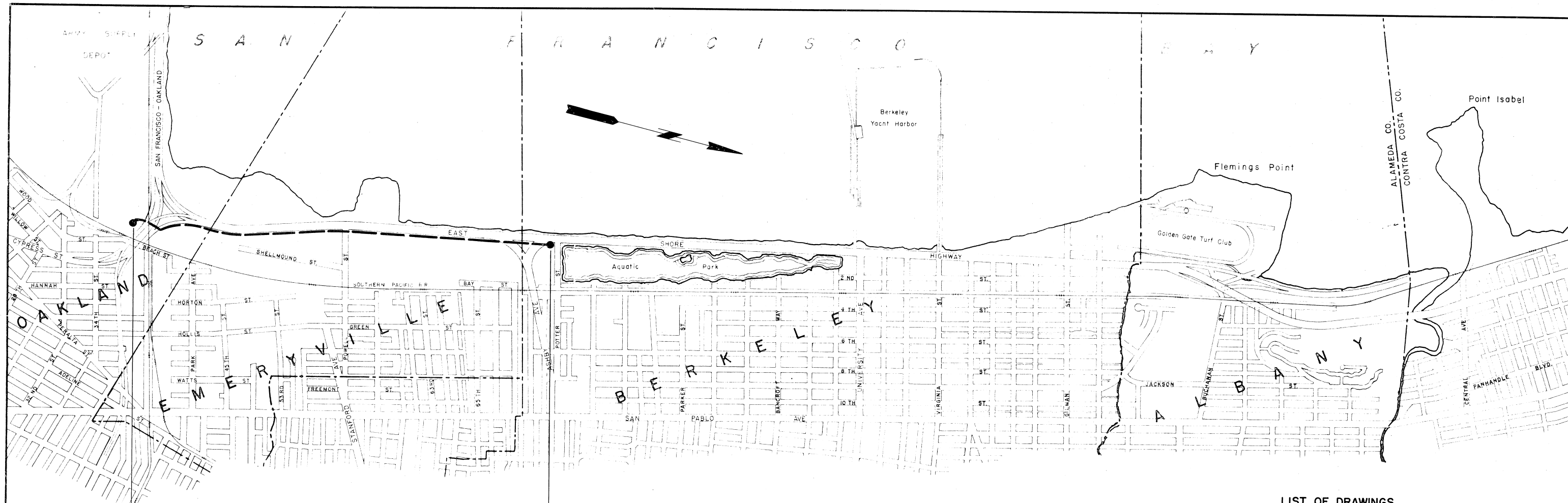
**NORTH INTERCEPTOR**

CIVIL  
 PLAN AND PROFILE  
 STA 150+00 TO STA 162+00  
 MANHOLE N30

SCALE 1"=40'-0"  
 DATE JUN 2021

W01-00-C-114  
 DRAWING NUMBER

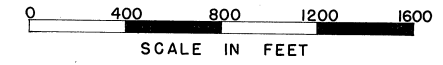
SHEET NO. 15



STA. 232 + 72.78  
LIMIT OF CONTRACT

SECTION 4

STA. 144 + 20.30  
LIMIT OF CONTRACT



**LIST OF DRAWINGS**

Dwg. No.	Sheet No.	Dwg. No.	Sheet No.
VA 66	1	VG 608	22
VG 329	2	VG 334	23
VG 332	3	VG 609	24
VG 263	4	VG 333	25
VG 275	5	VG 336	26
VG 276	6	VG 337	27
VG 269	7	VG 602	28
VG 267	8	VG 610	29
VG 277	9	VG 343	30
VG 264	10	VG 344	31
VG 600	11	VG 345	32
VG 601	12	VG 346	33
VG 328	13	VG 611	34
VG 330	14	VG 620	35
VG 604	15	VG 339	37
		VG 340	38
		VG 314	39
		VG 341	40
VG 335	19	VG 342	41
VG 338	20		
VG 607	21		

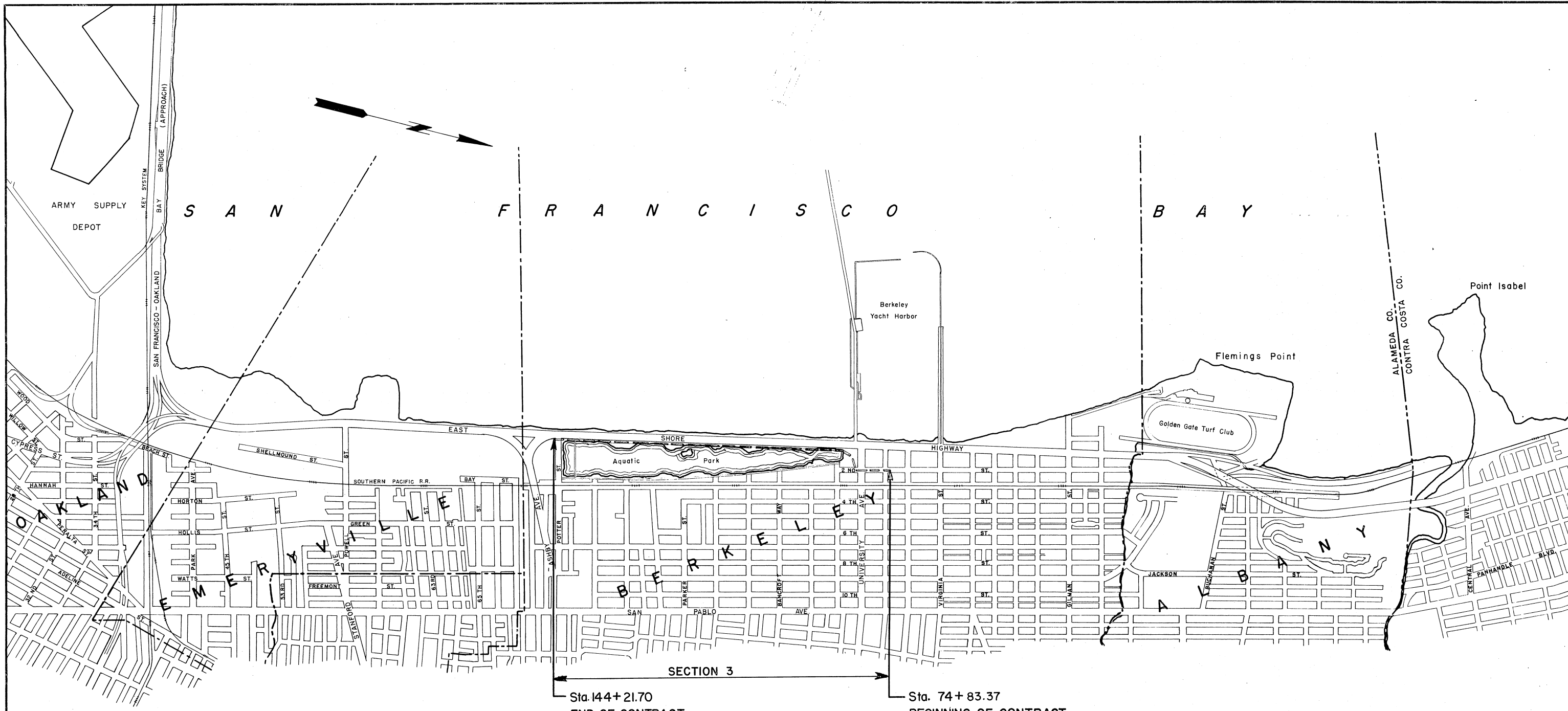
**DRAWING SYMBOLS**

- NORTH INTERCEPTOR
  - Manhole or other structure included in contract
  - Existing building
  - Railroad track (main or spur)
  - Fence
  - Property or Right of Way Line
  - Existing sewer
  - Water main
  - Gas main
  - Other feature (with note)
  - Tree or prominent shrub
  - Power pole
  - Guyed pole
  - Fire hydrant
  - Valve (gas or water)
  - Existing manhole
  - Catch basin
  - Other (with note)
- C.H.C. = State Division of Highways  
S.P.R.R. = Southern Pacific Railroad

**NOTES**

- Datum (Sewage Project Base) = U.S.G.S. Datum + 100
- Dimensions and elevations of existing structures are approximate and should be verified in the field. The Engineer designated such modifications in the work as were necessary due to existing structures differing from dimensions and elevations shown on the plans.
- All drawings except No. VG 604 apply to open cut; and apply to tunneling when modified by drawing No. VG 604.
- Drawing No. VG 604 shows tunnel details and modifications to all other drawings where tunnel is used.

AS-BUILT		NOV. 10, 1953
1	1-6-49	Drawing list added
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		
<b>NORTH INTERCEPTOR</b>		
<b>SECTION 4</b>		
<b>LOCATION MAP &amp; SYMBOLS</b>		
DESIGNED BY	KORETSKY	DATE AS SHOWN
TRACED BY	JFB	DATE AUGUST 1948
CHECKED BY	MCCOLLUM JFB	DATE
APPROVED BY		NO. VG-329

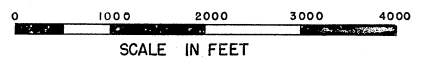


DRAWING SYMBOLS

- C. North Interceptor
  - Manhole or other structure included in contract
  - Existing building
  - Railroad track (main or spur)
  - Fence
  - Property or Right of Way line
  - Existing sewer
  - Water main
  - Gas main
  - Other feature (with note)
  - Tree or Prominent shrub
  - Power pole
  - Guyed pole
  - Fire hydrant
  - Valve (gas or water)
  - Existing manhole
  - Catch basin
  - Other (with note)
- C.H.C. = State Division of Highways      S.P.R.R. = Southern Pacific Railroad

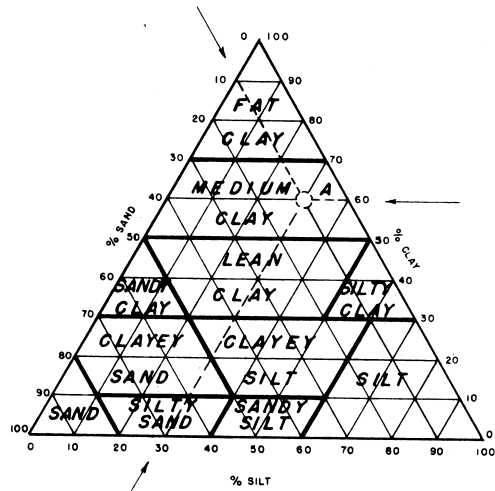
NOTES

1. Datum (Sewage Project Base) = U.S.G.S. Datum + 100
2. Dimensions and elevations of existing structures are approximate and should be verified in the field. The Engineer designated such modifications in the work as was necessary due to existing structures differing from dimensions and elevations shown on plans.



AS-BUILT		OCT. 29, 1953
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		
NORTH INTERCEPTOR SECTION 3 LOCATION MAP & SYMBOLS		
DRAWN BY	Maciel	SCALE AS SHOWN
TRACED BY	WILSON	DATE APRIL 2, 1948
CHECKED BY	KOBEYSKY	
APPROVED BY	<i>[Signature]</i>	No. VG-325

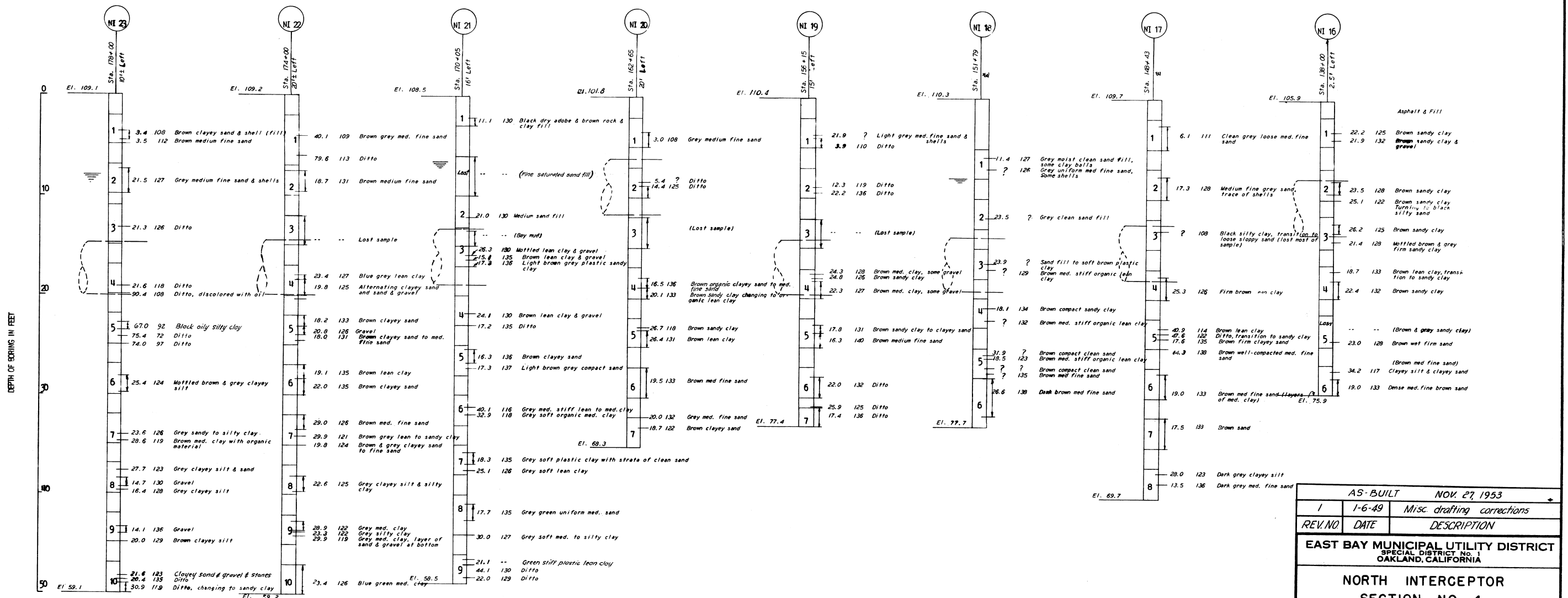
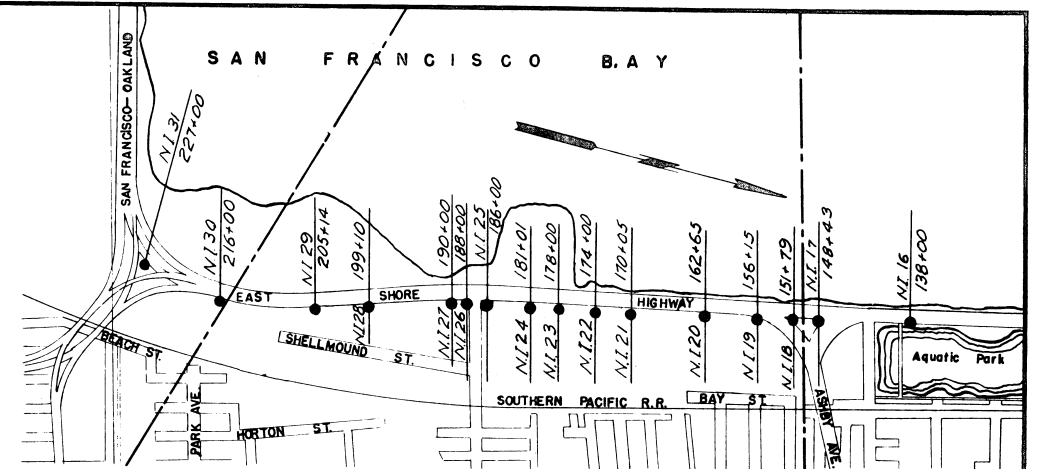
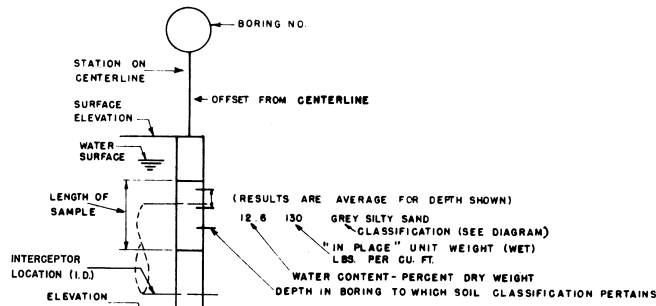
APPROVED *[Signature]*  
CHIEF ENGINEER & GENERAL MANAGER



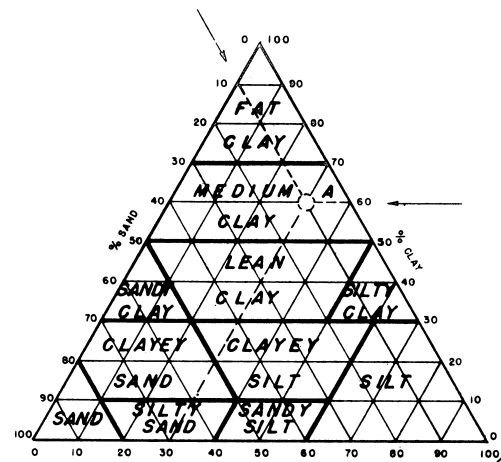
CLASSIFICATION SYSTEM

GRAVEL LARGER THAN 2.0 MM  
 SAND FINER THAN 2.0 MM  
 SILT FINER THAN 0.075 MM  
 CLAY FINER THAN 0.0075 MM  
 EXAMPLE: SAND 10%, SILT 30%, CLAY 60%.  
 ENTER AT POINTS SHOWN BY  
 ARROWS TO POINT 'A'. CLASSIFY  
 AS MEDIUM CLAY.

LEGEND



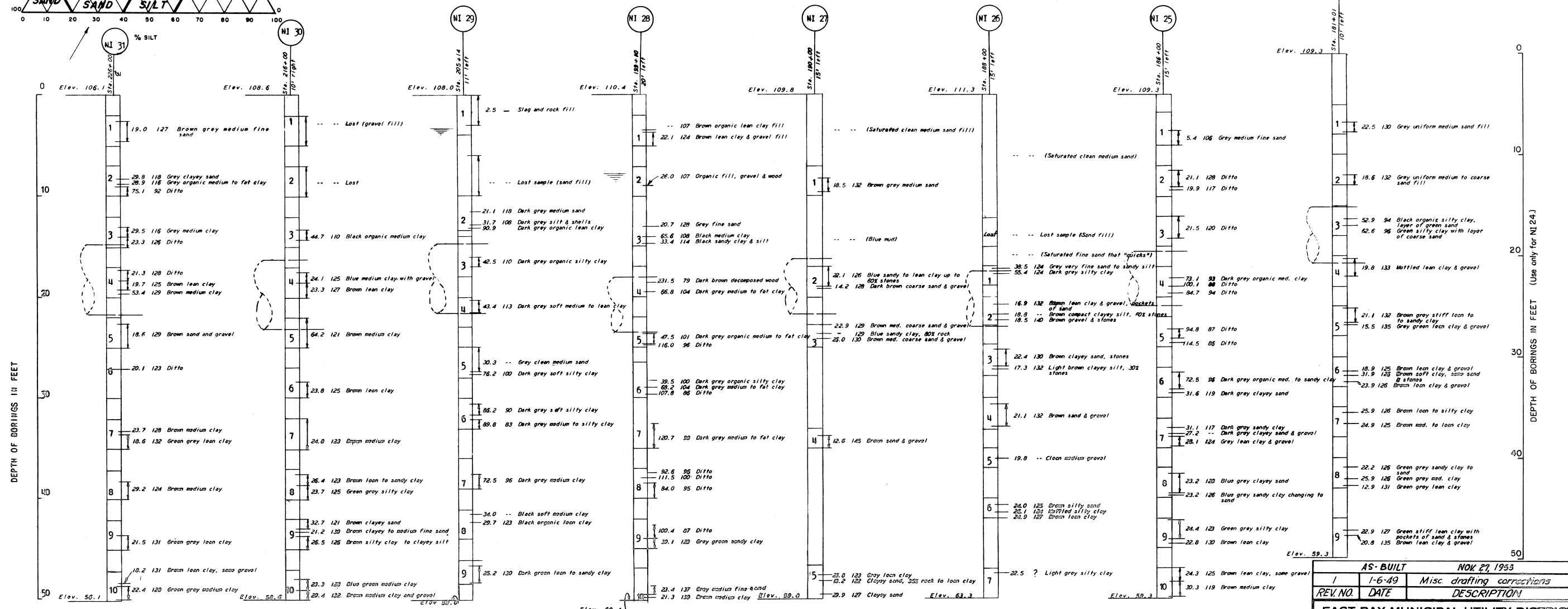
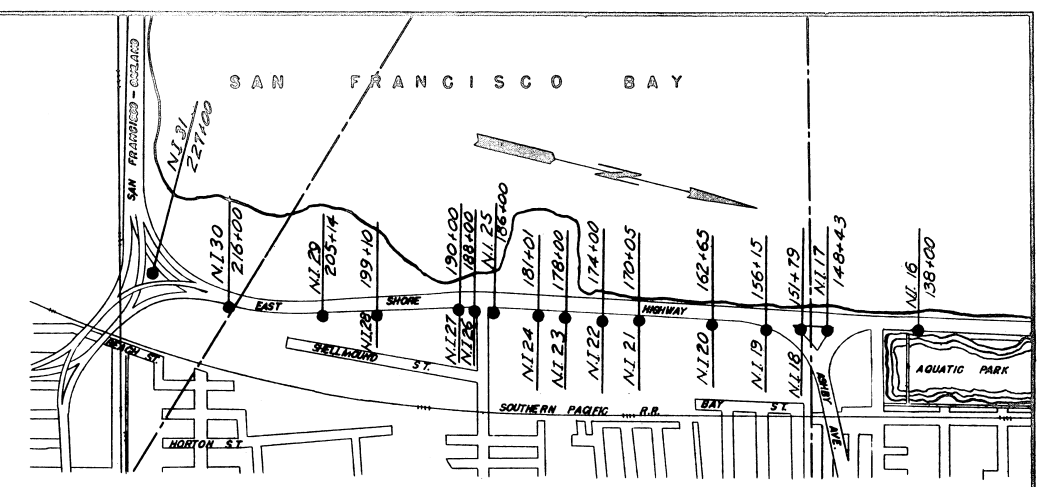
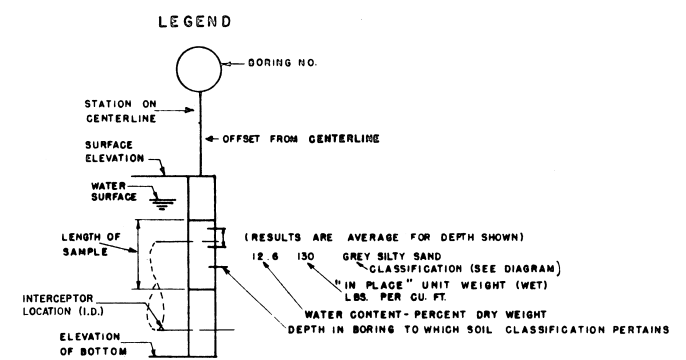
AS-BUILT		NOV. 27, 1953
1	1-6-49	Misc. drafting corrections
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		
NORTH INTERCEPTOR SECTION NO. 4 LOG OF BORINGS SHEET NO. 1		
DRAWN BY	J.F. BREWER	SCALE AS SHOWN
TRACED BY	J.F.B.	DATE AUGUST 30, 1948
CHECKED BY	B.B. GORDON	NO. VG-600
APPROVED	[Signature] CHIEF ENGINEER & GENERAL MANAGER	



**CLASSIFICATION SYSTEM**

GRAVEL LARGER THAN 2.0MM  
 SAND FINER THAN 2.0MM  
 SILT FINER THAN 0.05MM  
 CLAY FINER THAN 0.005MM

EXAMPLE: SAND 10%, SILT 30%, CLAY 60%.  
 ENTER AT POINTS SHOWN BY ARROWS TO POINT 'A'. CLASSIFY AS MEDIUM CLAY.



REV. NO.	DATE	DESCRIPTION
1	1-6-49	Misc drafting corrections

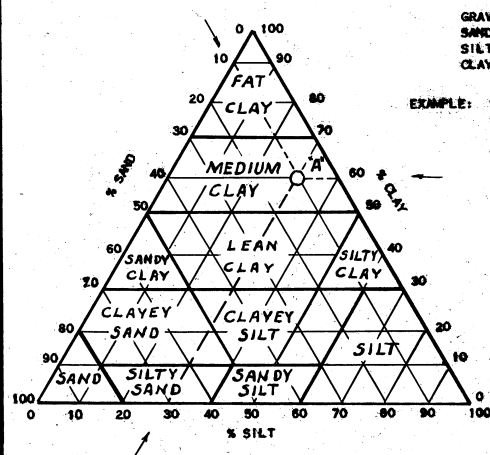
**EAST BAY MUNICIPAL UTILITY DISTRICT**  
 SPECIAL DISTRICT No. 1  
 OAKLAND, CALIFORNIA

**NORTH INTERCEPTOR**  
 SECTION NO. 4  
 LOG OF BORINGS  
 SHEET NO. 2

DRAWN BY	J.F. FOREWER	SCALE	AS SHOWN
TRACED BY	J.F.D.	DATE	SEPT. 10, 1948
CHECKED BY	B.B. GORDON		
APPROVED BY	<i>[Signature]</i>		NO. VG-601

APPROVED *[Signature]*  
 ENGINEER & GENERAL MANAGER

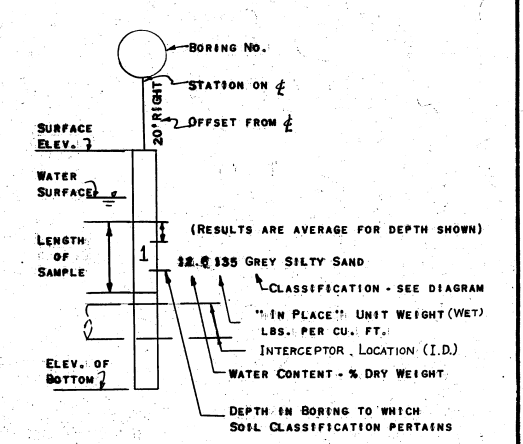
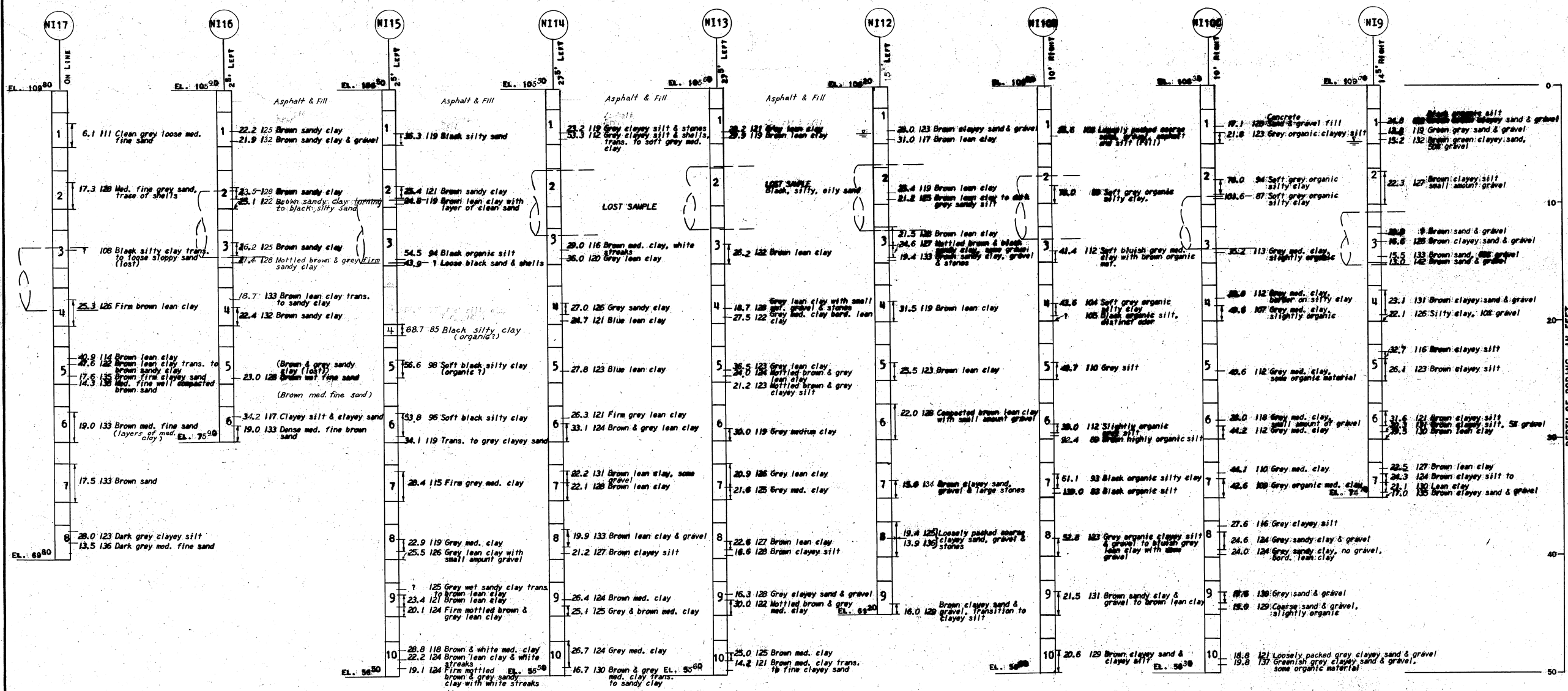
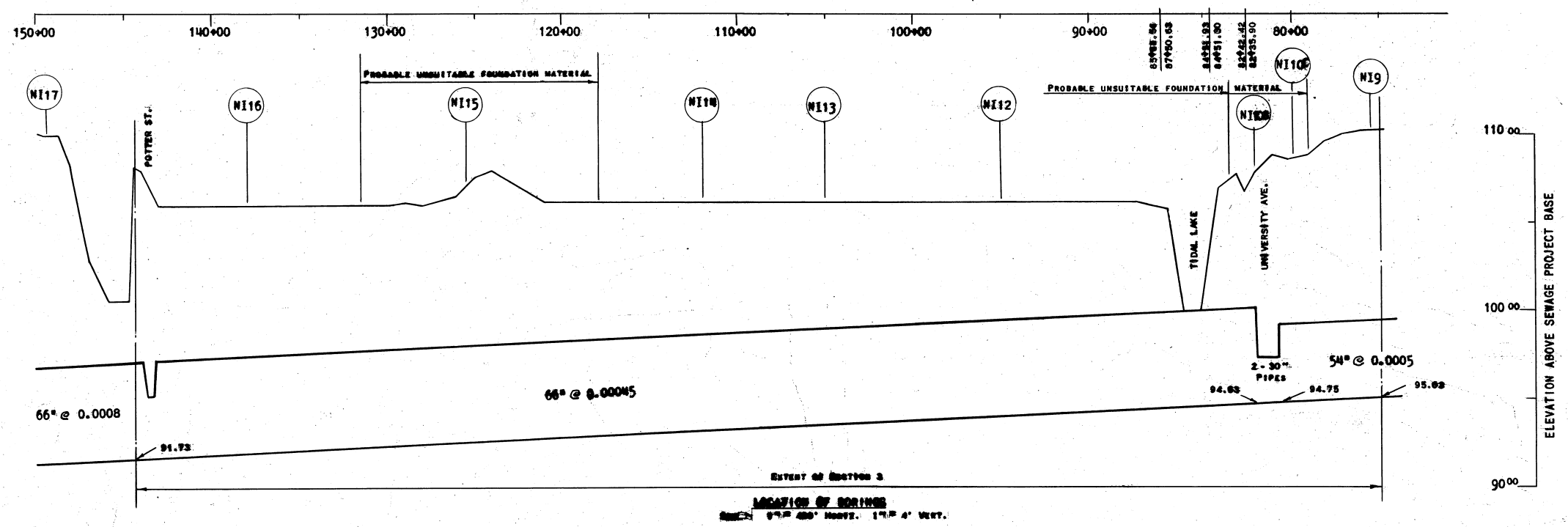




GRAVEL LARGER THAN 2.0 MM.  
 SAND FINER THAN 2.0 MM.  
 SILT FINER THAN 0.05 MM.  
 CLAY FINER THAN 0.005 MM.

EXAMPLE: SAND 10%, SILT 30%, CLAY 60%.  
 ENTER AT POINTS SHOWN BY  
 ARROWS TO POINT "A".  
 CLASSIFY AS "MEDIUM CLAY".

CLASSIFICATION SYSTEM

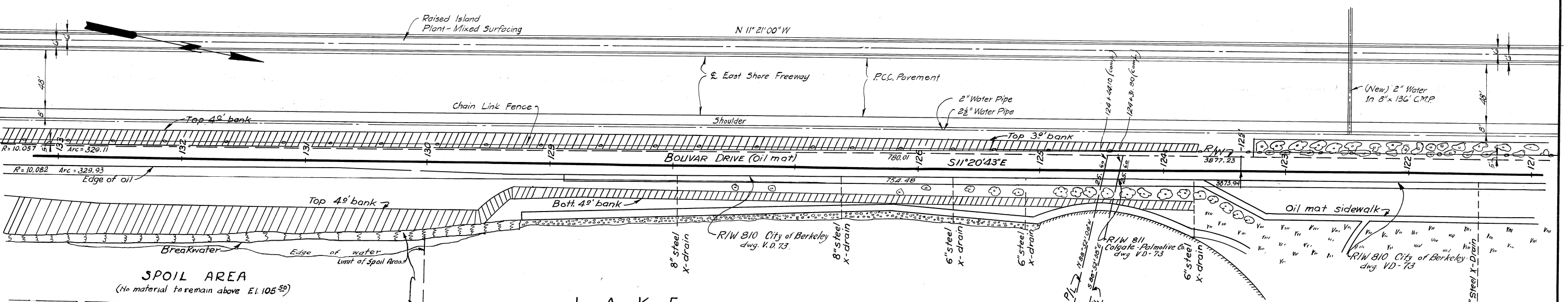
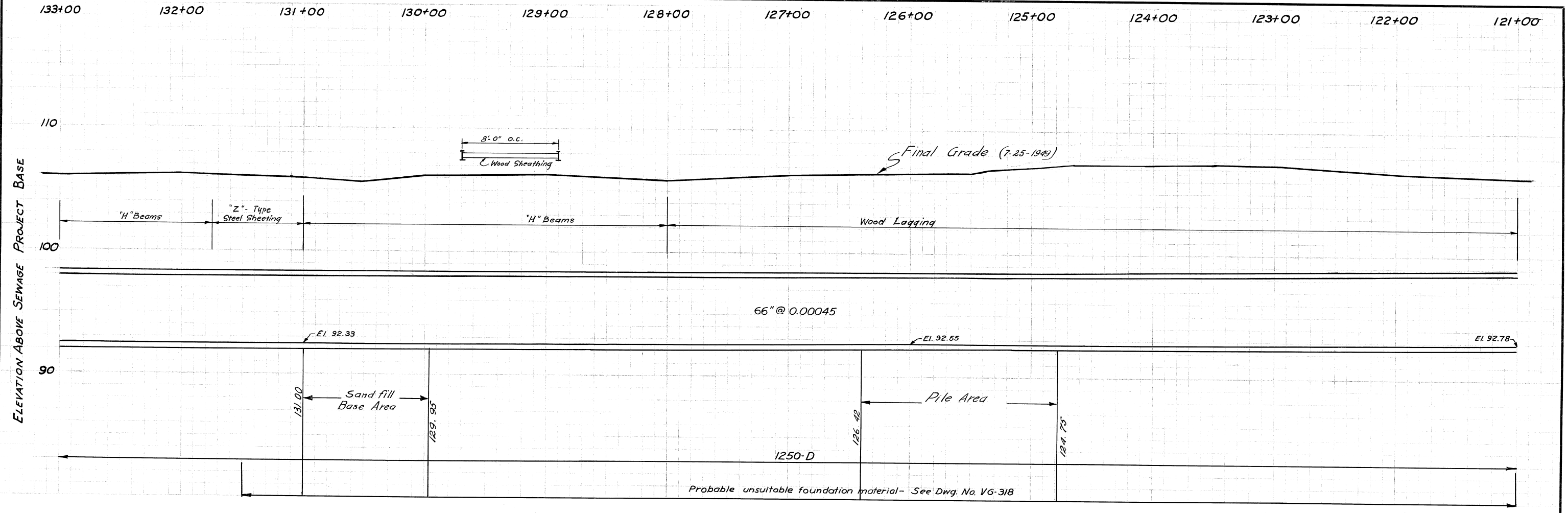


LEGEND

NOTES  
 SOIL SAMPLES WERE TAKEN WITH A 2" DIAMETER PORTER TYPE SAMPLER

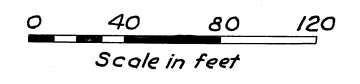
AS-BUILT		NOV. 9, 1953	
REV. NO.	DATE	DESCRIPTION	
<b>EAST BAY MUNICIPAL UTILITY DISTRICT</b> SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA			
<b>NORTH INTERCEPTOR</b> SECTION 3 <b>LOG OF BORINGS</b>			
DRAWN BY	Koretzky	SCALE	As Shown
TRACED BY	Koretzky	DATE	April 8, 1948
CHECKED BY	Gordon		
APPROVED BY	<i>[Signature]</i>	NO.	VG - 326

APPROVED *[Signature]* CHIEF ENGINEER & GENERAL MANAGER



REFERENCES	
Subject	Source
Final Align.	F.B. 1204 pg. 33
Original Profile	F.B. 1193 pg. 17-25
Final Profile	
Pipe Profile	F.B. 1337 pg. 1-75, F.B. 1442 pg. 3-65
Pile Driving	F.B. 1605 pg. 1-45, Dwg. 83
Prop. Tie	F.B. 1206

Note:  
Select Backfill - Ref. Form M-79 Computations



REV. NO.	DATE	DESCRIPTION
2	12-20-55	East Shore Freeway Alterations AS-BUILT
1	7-6-48	Added Spoil Area

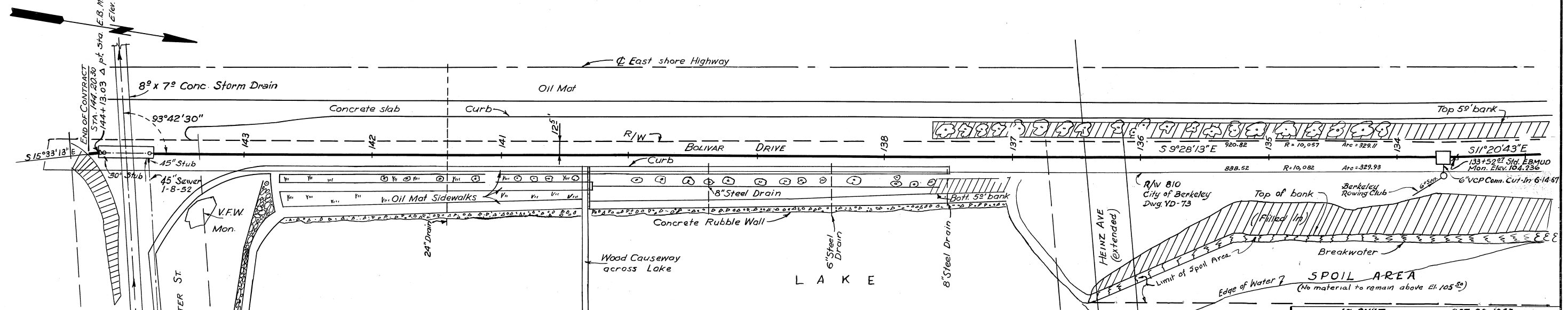
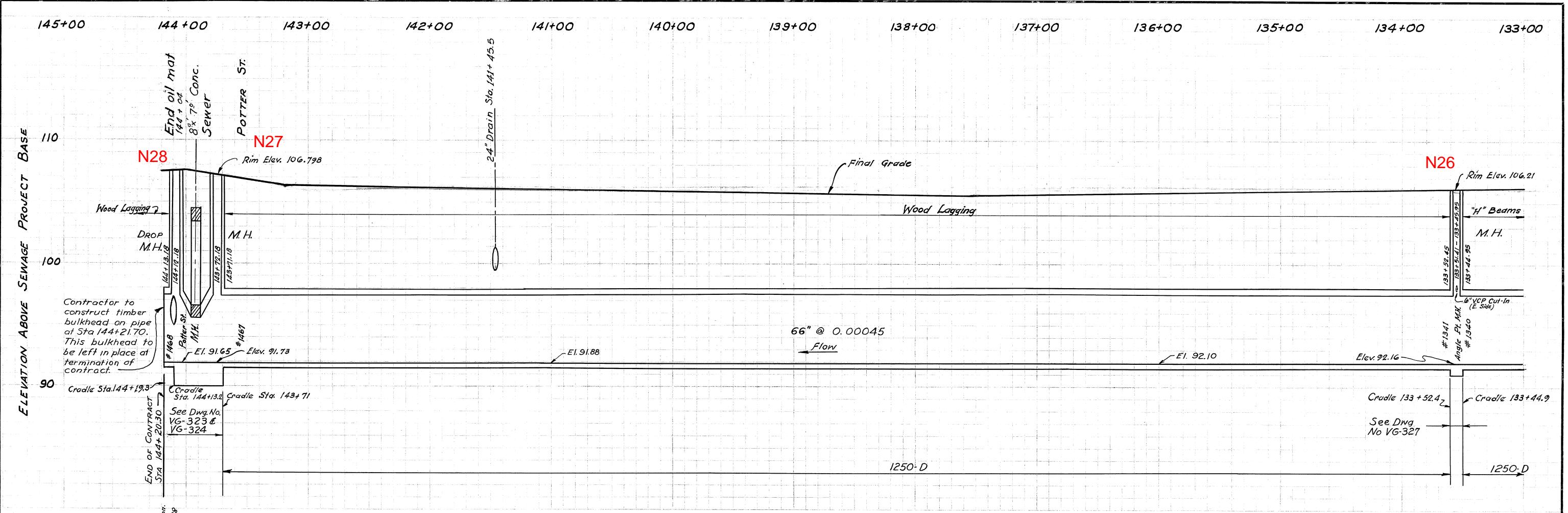
EAST BAY MUNICIPAL UTILITY DISTRICT  
SPECIAL DISTRICT NO. 1  
OAKLAND, CALIFORNIA

**NORTH INTERCEPTOR  
PLAN & PROFILE  
STA. 121+00 TO 133+00**

DRAWN BY	KORETSKY	SCALE	AS SHOWN
TRACED BY	WILSON	DATE	JULY 23, 1947
CHECKED BY	CACACE		
APPROVED BY	<i>C. C. ...</i>	No.	VG-279

North Interceptor  
Section 3 (SD17)

APPROVED *Haywell*  
CHIEF ENGINEER & GENERAL MANAGER

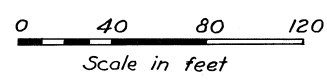


North Interceptor  
Section 3 (SD17)

~REFERENCES~

SUBJECT	SOURCE
Final Alignment	F.B. 1204 - Pg. 33, F.B. 1218 - Pg. 57
Monument Alignment	F.B. 1802 - Pg. 15 & 16
Orig. Profile	F.B. 1193 - Pg. 25 - 29
Final Profile	F.B. 1337 - Pg. 1-75, F.B. 1442 - Pg. 3-65,
Pipe Profile	F.B. 1802 - Pg. 15 & 16.

- Note:
1. Select Backfill - Ref. Form M-79, Computations.
  2. For East Shore Freeway Changes, See Dwg. VG-1239
  3. For Overflow Conn. See Berkeley Plan 5339, File 502-178.



REV. No.	DATE	DESCRIPTION
1	7-6-48	Changed location of Spoil Area.

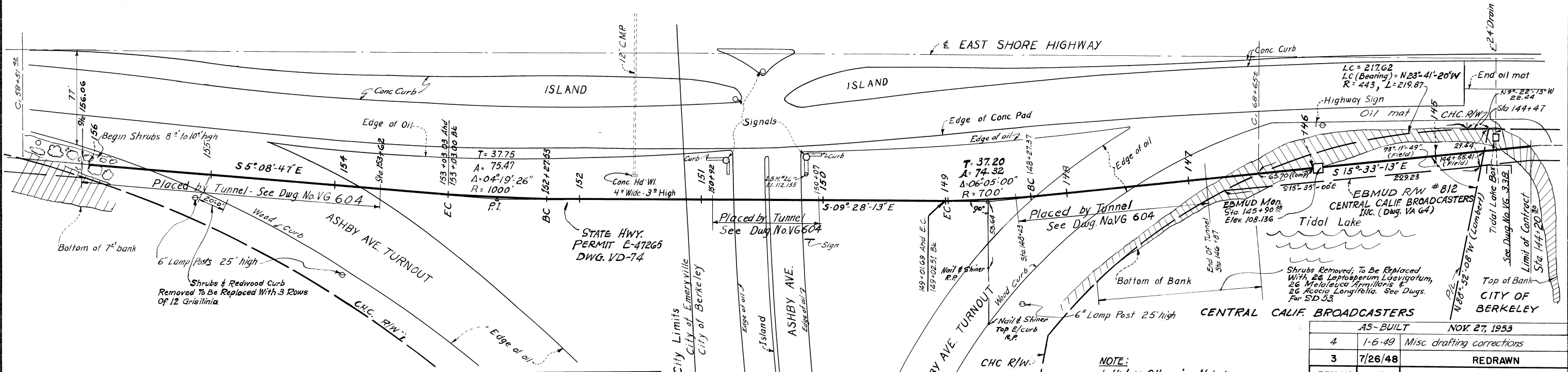
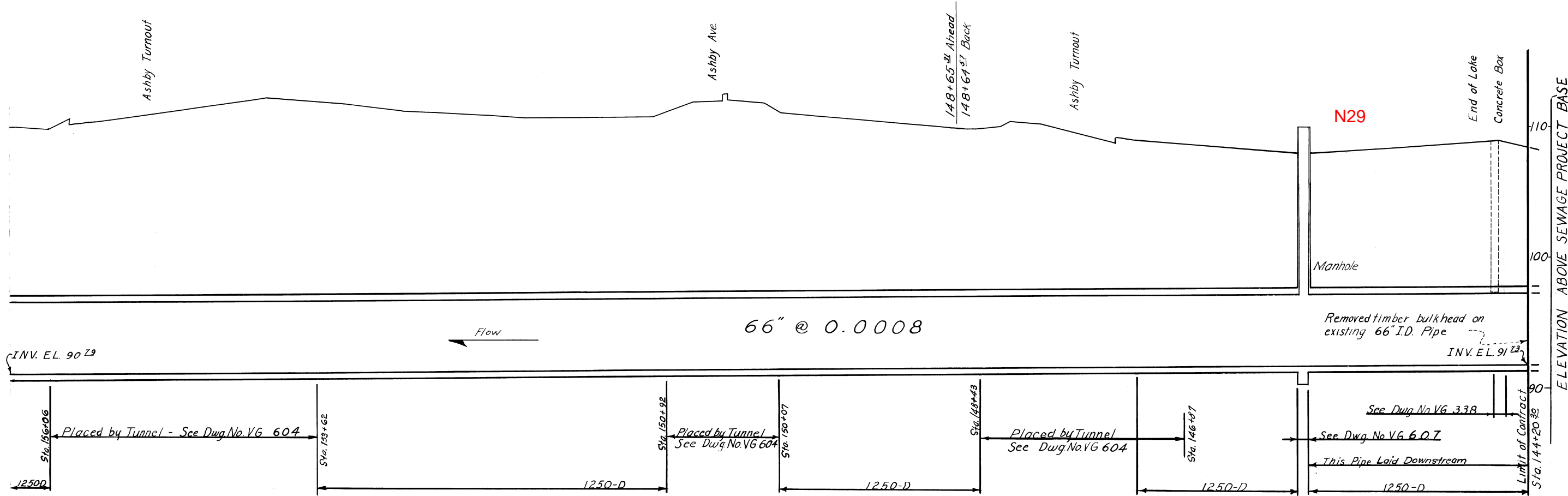
AS-BUILT OCT. 30, 1953

EAST BAY MUNICIPAL UTILITY DISTRICT  
SPECIAL DISTRICT No. 1  
OAKLAND, CALIFORNIA

**NORTH INTERCEPTOR  
PLAN & PROFILE  
STA. 133+00 TO 144+21.70**

DRAWN BY	KORETSKY	SCALE	AS SHOWN
TRACED BY	WILSON	DATE	JULY 23, 1947
CHECKED BY	CACAGE	NO.	VG-278
APPROVED BY	<i>Redmond</i>		

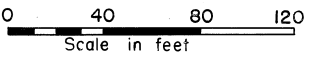
APPROVED: *Redmond*  
CHIEF ENGINEER & GENERAL MANAGER



STATION	RECORD DIST.	CHAINED DIST.	RECORD ANGLE	TURNED ANGLE
MON. 144+13 <sup>03</sup>			6°-05'-00" LEFT	6°-05'-26"
	177.35	177.35		
MON. 145+90 <sup>38</sup>				
	274.19	274.10		
P. I.			6°-05'-00" RIGHT	6°-05'-15"
	399.97	400.00		
P. I.			4°-19'-26" RIGHT	4°-20'-19"
MON. 157+46 <sup>21</sup>	481.23	481.18		

-REFERENCES-	
SUBJECT	SOURCE
Final Alignment	F.B. #1370 Pg. 1 & 2
Man. Alignment	F.B. #1802 Pg. 16 & 17
Original Profile	F.B. #1193 Pg. 1-36, F.B. #1218-Pg. 58 & 59
Final Profile	None   Dwg. N-82
Pipe Profile	F.B. #1371 Pg. 1-80, F.B. #1432-Pg. 3-11 F.B. #1506-Pg. 1-18, F.B. #1600-Pg. 1-45

**NOTE:**  
 1. Unless Otherwise Noted, Pipe Is Laid In Concrete Cradle.  
 2. For East Shore Freeway Changes, See Dwg. VG-1238



AS-BUILT	NOV. 27, 1953	
4	1-6-49 Misc. drafting corrections	
3	7/26/48 REDRAWN	
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		
NORTH INTERCEPTOR PLAN & PROFILE STA. 144+21 TO 156+00		
DRAWN BY	S. Koratsky	SCALE AS SHOWN
TRACED BY	C. E. Miles	DATE July 26, 1948
CHECKED BY	J. B. P.M.C.	
APPROVED BY	<i>[Signature]</i>	No. VG-264

167+00 166+00 165+00 164+00 163+00 162+00 161+00 160+00 159+00 158+00 157+00 156+00

INV. EL. 89<sup>24</sup> 66" @ 0.0008 INV. EL. 90<sup>29</sup>

Flow ←

N30

Manhole

See Dwg No. VG 3.34

See Dwg No. VG 6.08

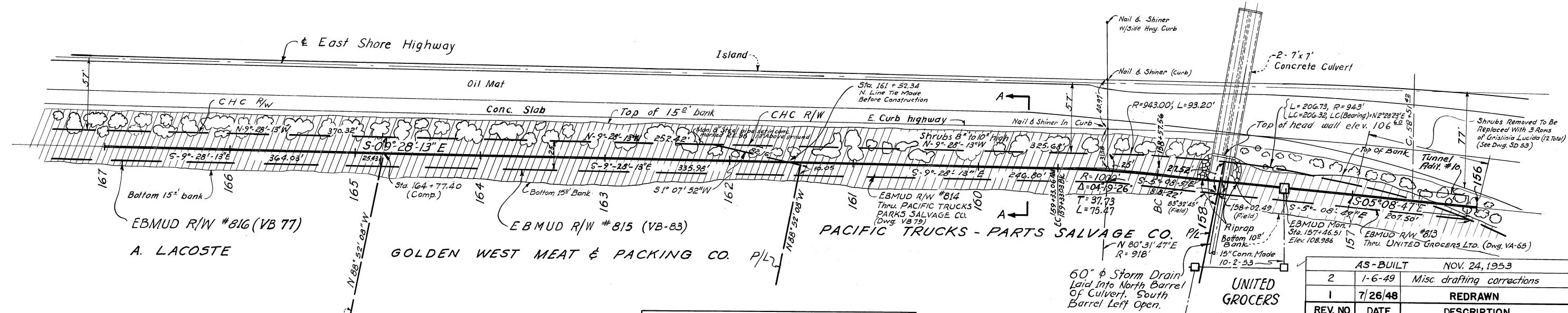
1250-D

1250-D

See Dwg No. VG 3.30, VG 6.04

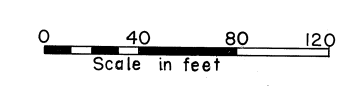
ELEVATION ABOVE SEWAGE PROJECT BASE

Tunnel



STATION	RECORD DIST	CHAINED DIST	RECORD ANGLE	TURNUED ANGLE
Mon. 157+46 <sup>24</sup>	—	—	—	—
P.I.	148.80	148.79	4°-19'-26" LEFT	4°-19'-45"
Mon. 168+39 <sup>23</sup>	942.32	942.27	—	—

~ REFERENCES ~	
SUBJECT	SOURCE
Final Alignment	F.B. #1218 - Pg. 25, F.B. #1219 - Pg. 24
Mon. Alignment	F.B. #1802 - Pg. 17 & 18, F.B. #1370 - Pg. 2 & 3
Original Profile	F.B. #1198 - Pg. 1-36, F.B. #1205 - Pg. 21
Final Profile	F.B. #1625 - Pg. 23
Pipe Profile	F.B. #1371 - Pg. 1-80, F.B. #1306 - Pg. 1-18 F.B. #1605 - Pg. 1-45



Note:  
 1. Pipe Laid In Concrete Cradle Unless Otherwise Noted.  
 2. For East Shore Freeway Changes, See Dwg VG-1237

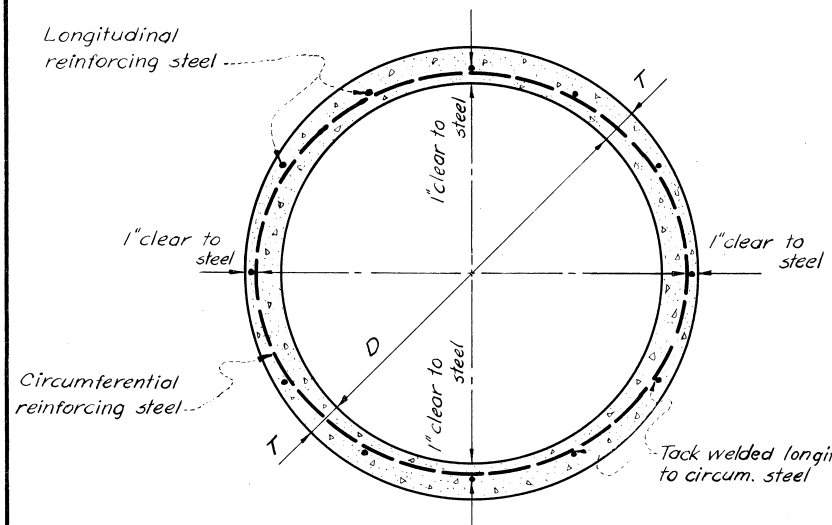
REV. NO.	DATE	DESCRIPTION
AS-BUILT	NOV. 24, 1953	
2	1-6-49	Misc. drafting corrections
1	7/26/48	REDRAWN

EAST BAY MUNICIPAL UTILITY DISTRICT  
 SPECIAL DISTRICT NO. 1  
 OAKLAND, CALIFORNIA

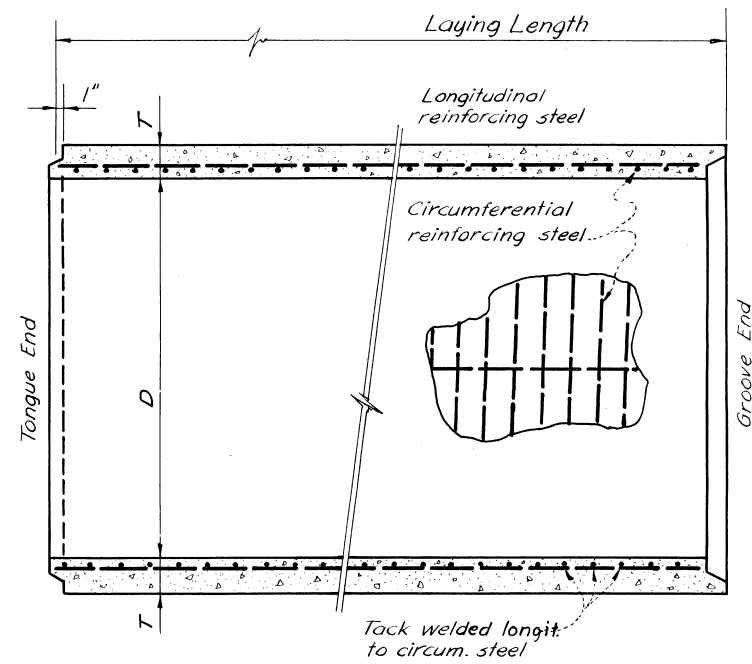
**NORTH INTERCEPTOR  
 PLAN & PROFILE  
 STA. 156+00 to 167+00**

DRAWN BY S. Koretsky	SCALE As shown
TRACED BY C. E. Miles	DATE July 26, 1948
CHECKED BY J. B. P. Mc.	
APPROVED BY [Signature]	No. V G -277

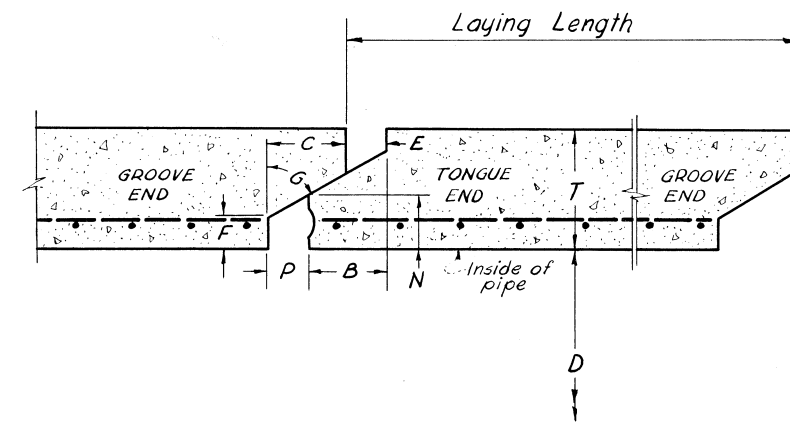
Section 3 (N26N29)



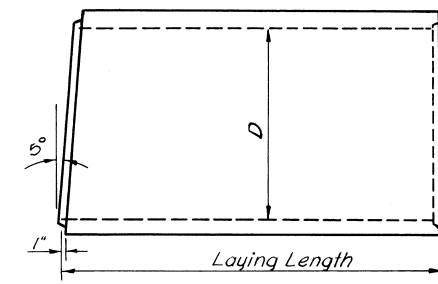
TRANSVERSE PIPE SECTION



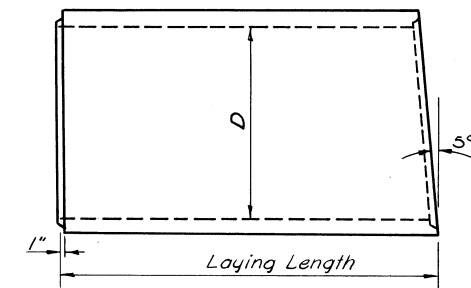
LONGITUDINAL PIPE SECTION



DETAILS OF TONGUE AND GROOVE ENDS



PLAN  
BEVELED TONGUE END PIPE



PLAN  
BEVELED GROOVE END PIPE

DETAILS OF BEVELED PIPE

DETAILS NOT SHOWN ARE THE SAME AS FOR STANDARD PIPE

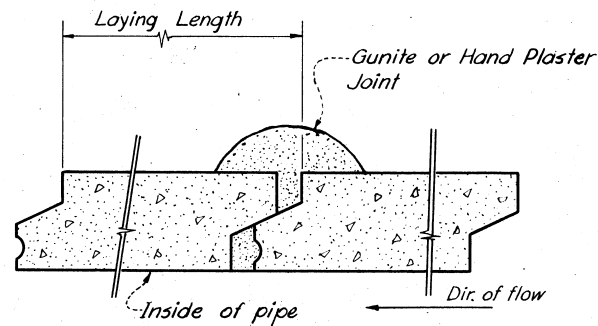
INSIDE DIAMETER OF PIPE D	MINIMUM WALL THICKNESS T	D-LOAD <sup>®</sup>	MINIMUM REINFORCING STEEL		TONGUE AND GROOVE ENDS							
			CIRCUMFERENTIAL <i>Elliptical Area in sq. ins. per foot (longit.) of pipe wall.</i>	LONGITUDINAL <i>Number of Bars</i>	B	C	E	F	G	N	P	
												<i>Diameter of Bars</i>
30"	2 3/4"	1500-D	0.24	8	3/8"	1 7/8"	1 3/4"	1"	5/8"	60°	1 1/8"	7/8"
54"	4 1/2"	1250-D	0.42	15	3/8"	2"	2"	1"	1 3/8"	60°	1 15/16"	1"
54"	6 1/4"	2000-D	0.39	13	1/2"	2"	2"	1"	3"	60°	3 9/16"	1"
66"	5 1/2"	1250-D	0.54	13	1/2"	2"	2"	1"	1 7/8"	60°	2 7/16"	1"

<sup>®</sup> D-Load is load in pounds per foot of diameter per foot of pipe to which pipe must be subjected in 3-edge bearing test before appearance of 0.01" wide x 12" long cracks.

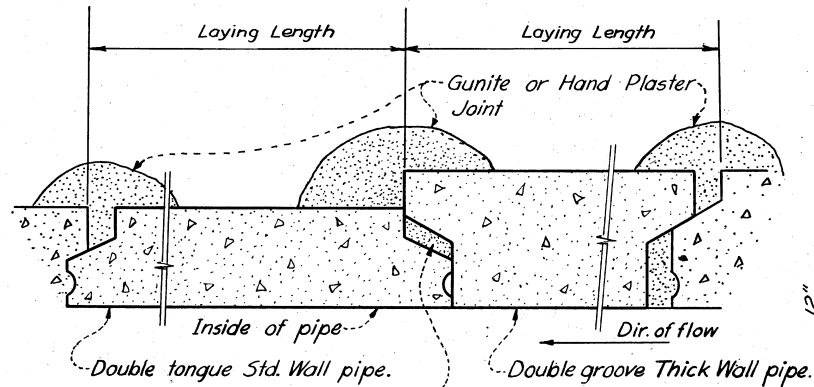
AS-BUILT		OCT. 29, 1953
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		
NORTH INTERCEPTOR SECTION 3 REINFORCED CONCRETE PIPE DETAILS		
DRAWN BY KORETSKY	SCALE NONE	
TRACED BY MACIEL-WILSON	DATE March 9, 1948	
CHECKED BY	NO. VG-317	
APPROVED	CHIEF ENGINEER & GENERAL MANAGER	

APPROVED \_\_\_\_\_ CHIEF ENGINEER & GENERAL MANAGER

Section 3 (N26N29)



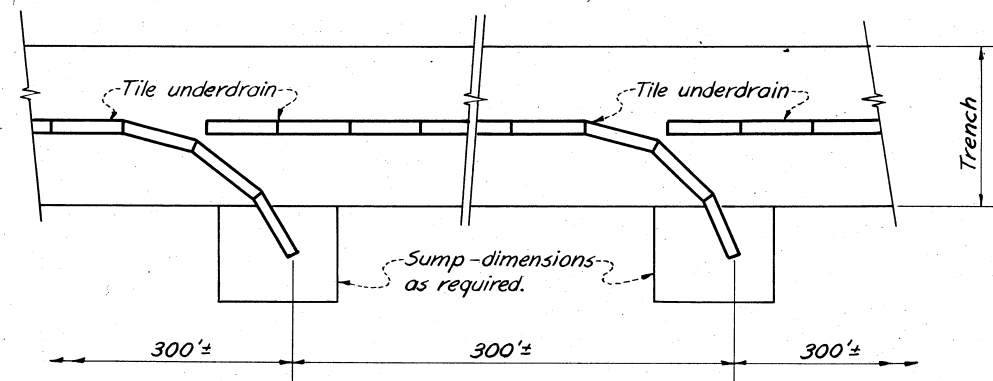
LAYING LENGTH & TYPICAL JOINT



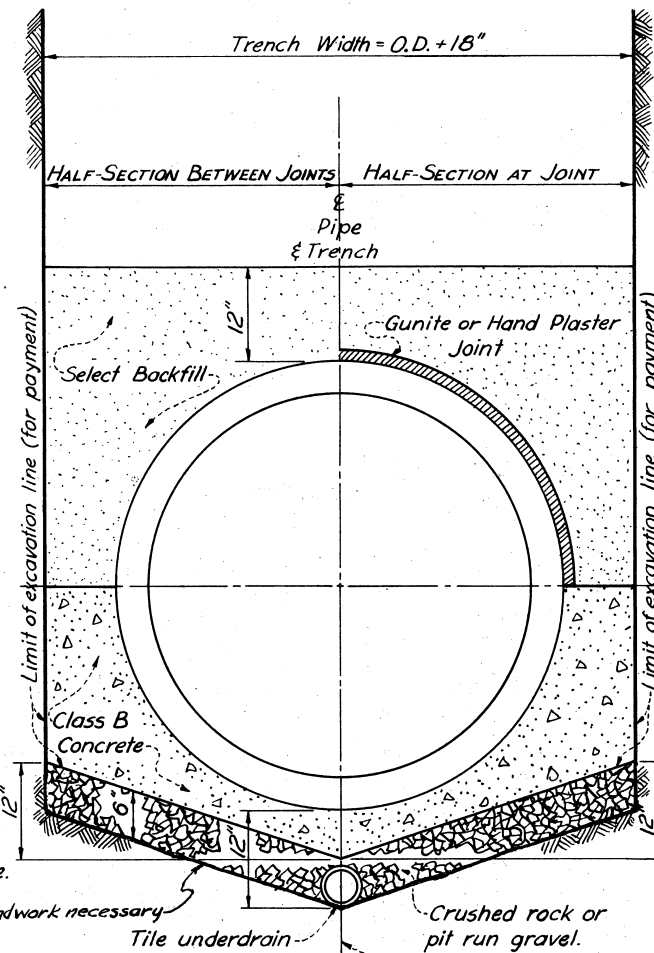
TRANSITION FROM THICK WALL TO STD. WALL PIPE

INSIDE DIAM.	D LOAD	APPROX. OUTSIDE DIA.
54"	1250-D	63"
54"	2000-D	66½"
66"	1250-D	77"

PIPE DIMENSIONS



PLAN SHOWING METHOD OF LAYING TILE UNDERDRAIN

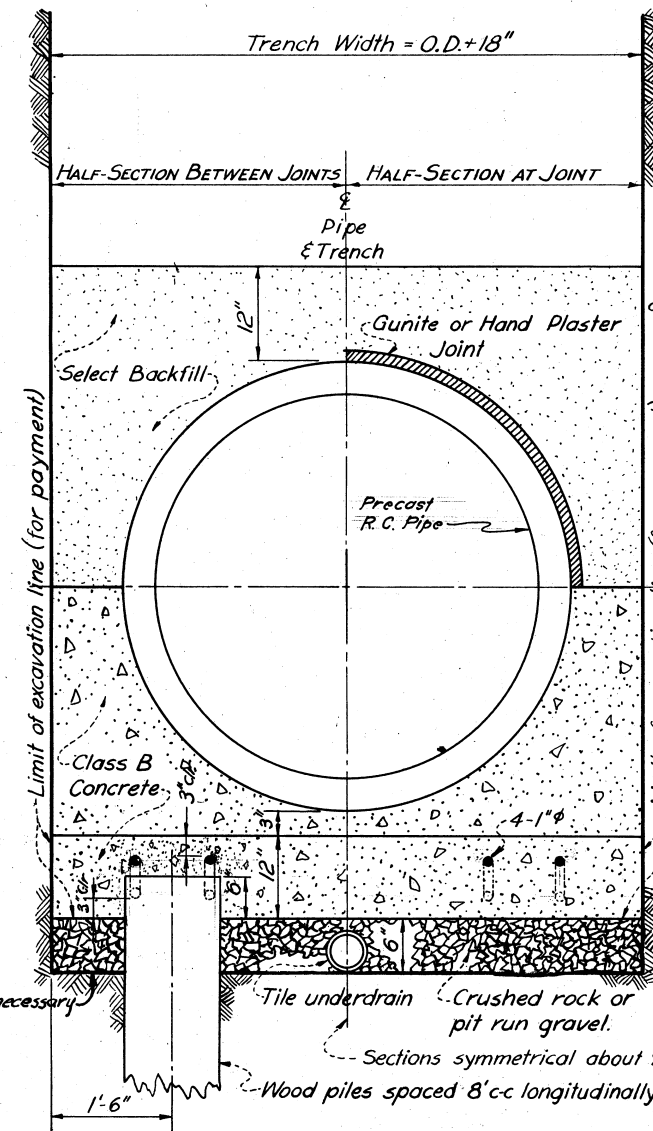


Sections symmetrical about  $\epsilon$ .

Underdrain & crushed rock or gravel only when called for by THE ENGINEER.

CONCRETE CRADLE BEDDING

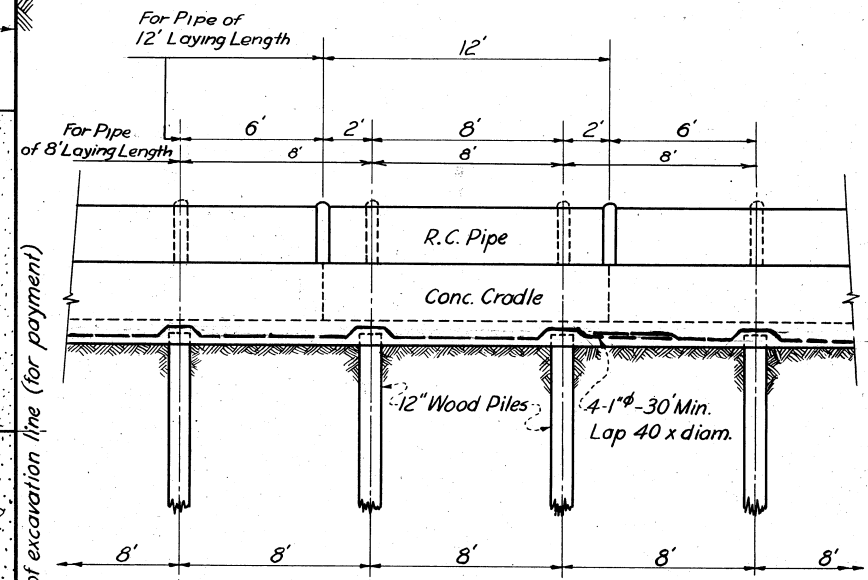
For bedding details of 30" I.D. Pipe at University Ave see Drawing No VG 319



Underdrain & crushed rock or gravel only when called for by THE ENGINEER.

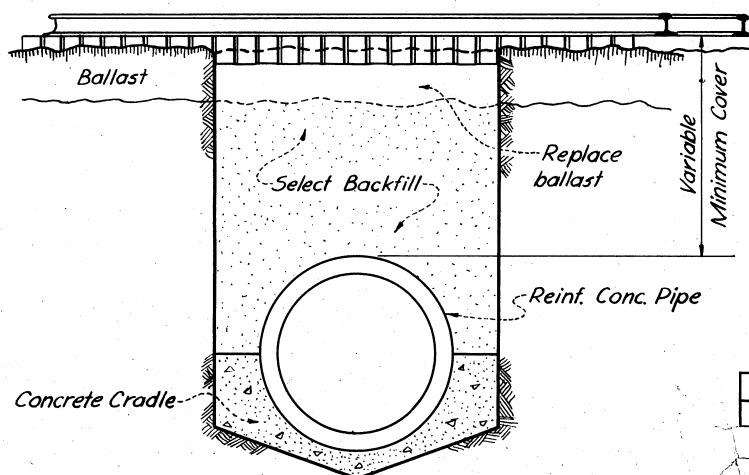
PILE FOUNDATION BEDDING

To be used only when directed by THE ENGINEER.



Extent of piling to be as directed by THE ENGINEER.

PILE & PIPE JOINT SPACING



TYPICAL SPUR CROSSING

UNSUITABLE FOUNDATION MATERIAL

If, in the opinion of THE ENGINEER, unsuitable foundation material is encountered at the bottom of the trench, at the direction of the ENGINEER excavate an additional 24" min. and replace with select or imported backfill. Where use of crushed rock and tile underdrain is directed by THE ENGINEER, it will be placed as the lower 6" of the select or imported backfill material described above. The above does not apply where THE ENGINEER directs the use of PILE FOUNDATION BEDDING. The approximate extent of unsuitable foundation material is indicated on the PLAN AND PROFILE sheets and is given for bidding purposes only.

STATION	PIPE SIZE	INVERT ELEV.	SURFACE ELEV.	MINIMUM COVER
75+85±	54"	94.94	110.4 ±	10.0'

R.R. SPUR CROSSING DATA

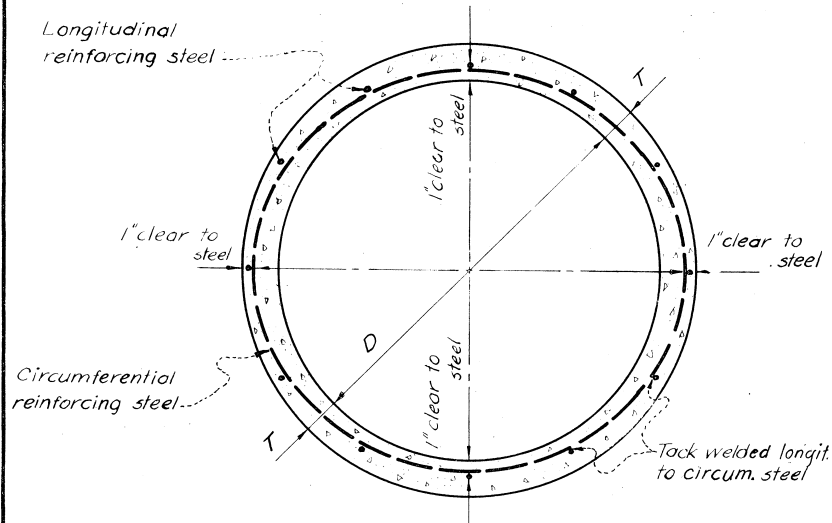
REV. NO.	DATE	DESCRIPTION
AS-BUILT	NOV. 2, 1953	

EAST BAY MUNICIPAL UTILITY DISTRICT  
SPECIAL DISTRICT NO. 1  
OAKLAND, CALIFORNIA  
NORTH INTERCEPTOR  
TYPICAL  
TRENCH & JOINT DETAILS

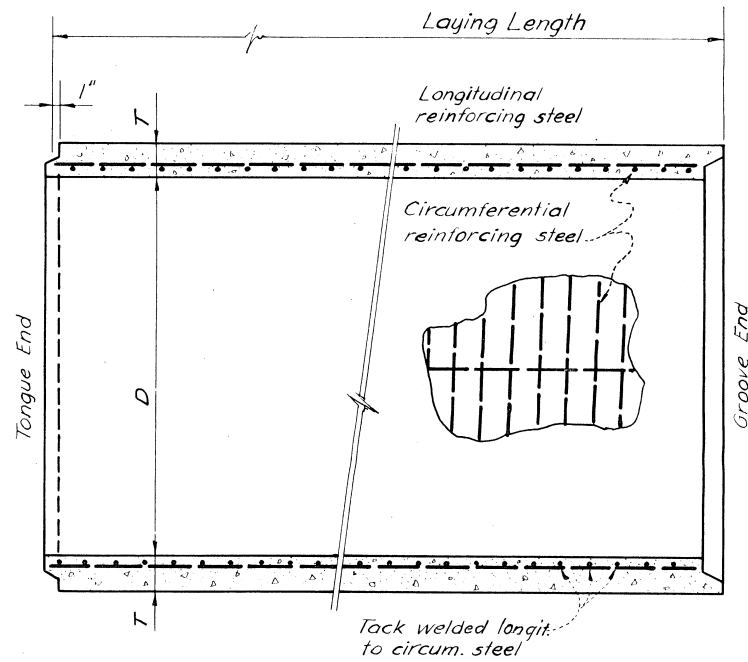
DRAWN BY KORETSKY-MACIEL	SCALE NONE
TRACED BY MACIEL-WILSON	DATE MARCH 16, 1948
CHECKED BY CACACE	
APPROVED BY [Signature]	NO. VG 318

APPROVED: [Signature] CHIEF ENGINEER & GENERAL MANAGER

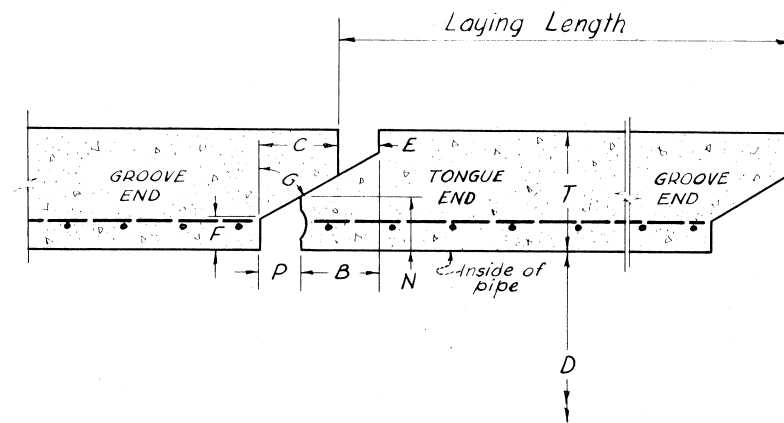
Section 4 (N29N30)



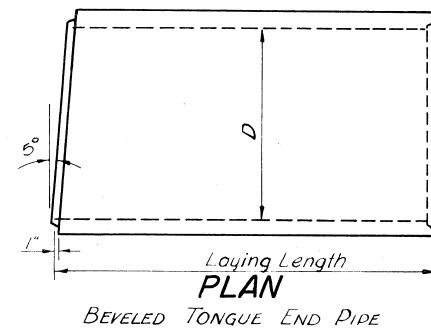
TRANSVERSE PIPE SECTION



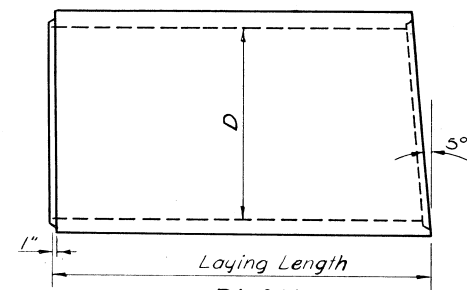
LONGITUDINAL PIPE SECTION



DETAILS OF TONGUE AND GROOVE ENDS



BEVELED TONGUE END PIPE



BEVELED GROOVE END PIPE

DETAILS OF BEVELED PIPE

DETAILS NOT SHOWN ARE THE SAME AS FOR STANDARD PIPE

INSIDE DIAMETER OF PIPE D	MINIMUM WALL THICKNESS T	D-LOAD <sup>®</sup>	MINIMUM REINFORCING STEEL		TONGUE AND GROOVE ENDS						
			CIRCUMFERENTIAL Elliptical Area in sq.ins. per foot (longit) of pipe wall.	LONGITUDINAL Number of Bars Diameter of Bars	B	C	E	F	G	N	P
66"	5 1/2"	1250-D	0.54	16 1/2"	2"	2"	1"	1 7/8"	60°	2 7/8"	1"
66"	5 1/2"	1500-D	0.66	16 1/2"	2"	2"	1"	1 7/8"	60°	2 7/8"	1"
84"	7"	1500-D	0.90	24 1/2"	2 5/8"	2 5/8"	1"	2 7/8"	60°	3"	1"

<sup>®</sup> D-Load is load in pounds per foot of diameter per foot of pipe to which pipe must be subjected in 3-edge bearing test before appearance of 0.01" wide x 12" long cracks.

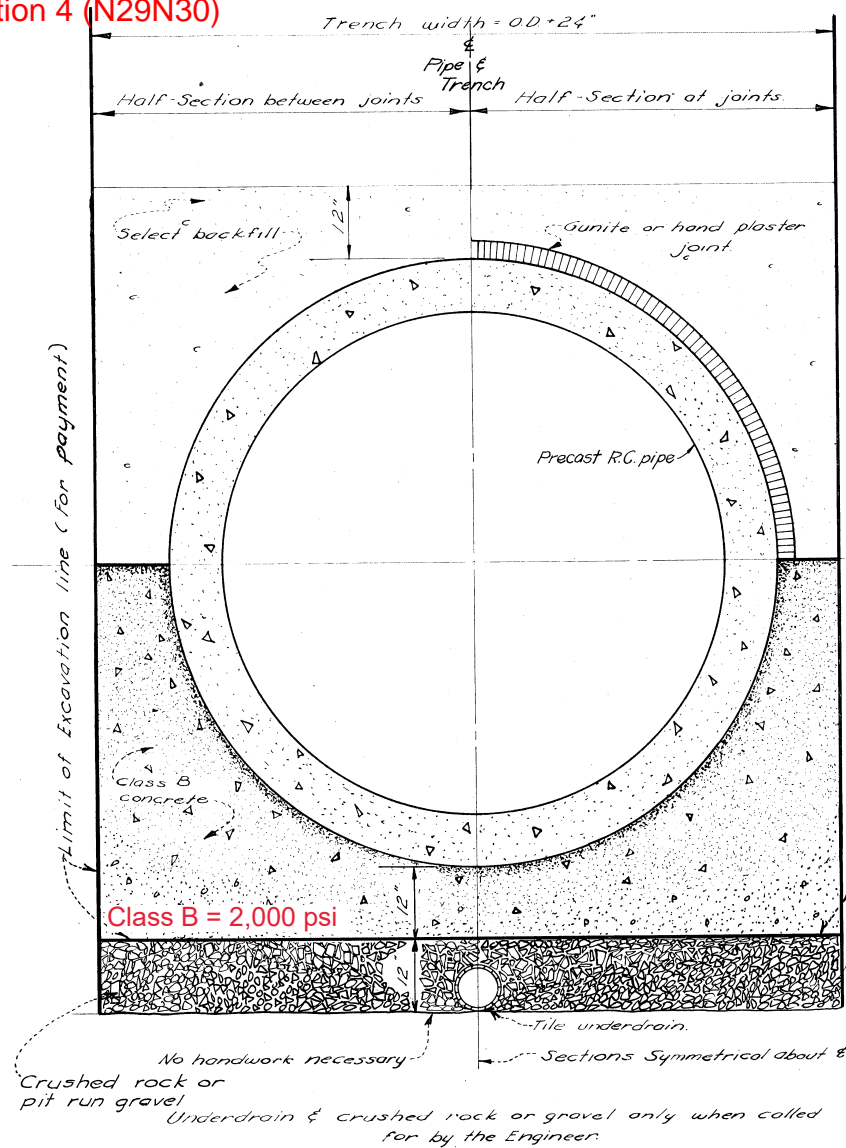
NOTES  
Laying length is 8'-0" minimum unless otherwise directed by the Engineer.

APPROVED: [Signature] CHIEF ENGINEER & GENERAL MANAGER

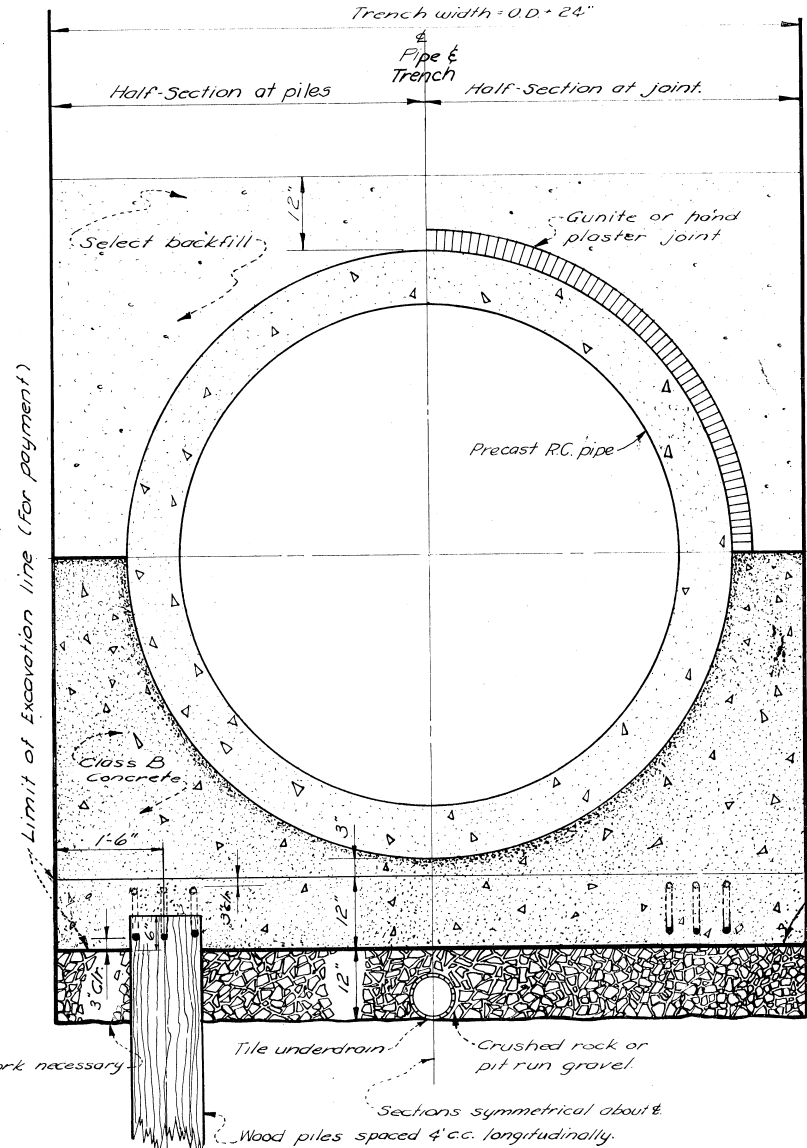
AS-BUILT		NOV. 27, 1953
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		
NORTH INTERCEPTOR SECTION 4 REINFORCED CONCRETE PIPE DETAILS		
DRAWN BY	KORETSKY	SCALE NONE
TRACED BY	MACIEL	DATE June 28, 1948
CHECKED BY	Chan	
APPROVED BY	[Signature]	NO. VG 328



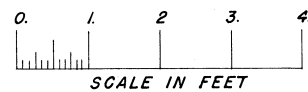
Section 4 (N29N30)



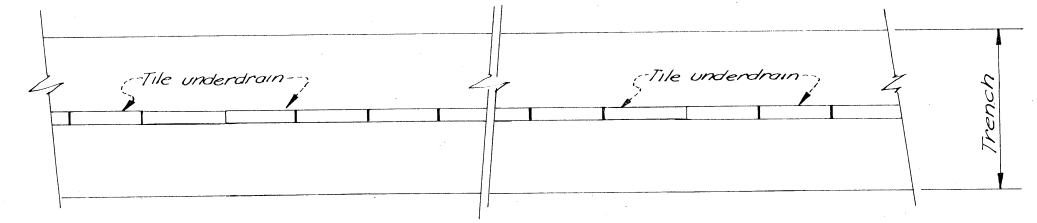
CONCRETE CRADLE BEDDING



PILE FOUNDATION BEDDING



To be used in areas of unsuitable foundation material only as directed by the Engineer.



PLAN SHOWING METHOD OF LAYING TILE UNDERDRAIN

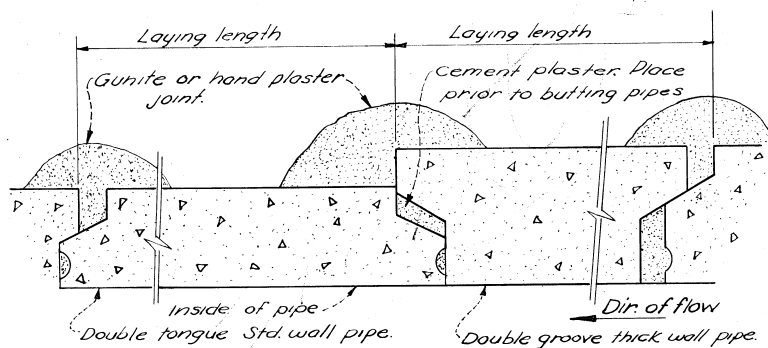
NO SCALE

Inside Diam.	D Load	Approx. Outside Diam.
66"	Under 2000 - D	77"
66"	2000-D & over	80 1/2"
84"	Under 2000 - D	98"
84"	2000-D & over	101 1/2"

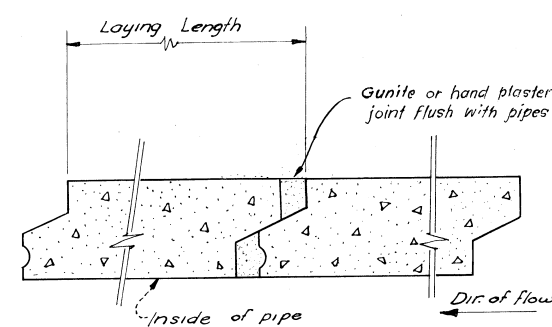
PIPE DIMENSIONS

UNSUITABLE FOUNDATION MATERIAL

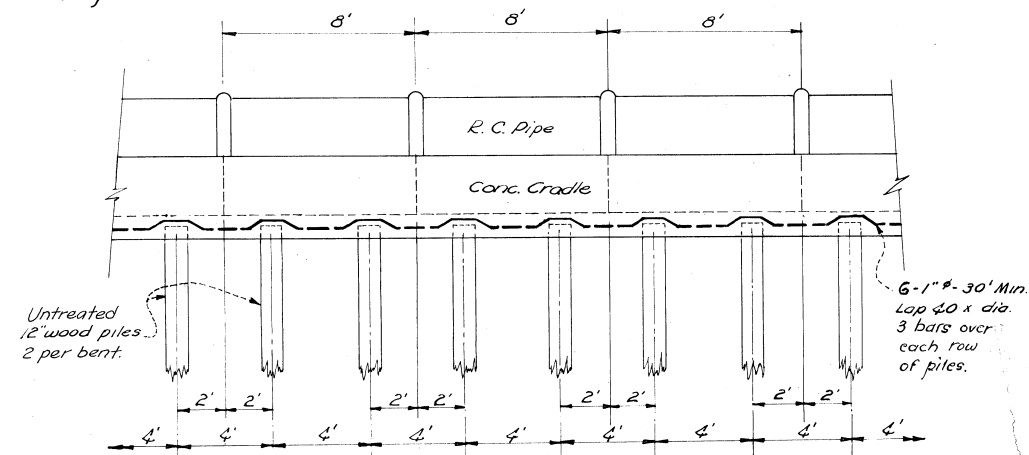
If, in the opinion of the Engineer, unsuitable foundation material is encountered at the bottom of the trench, at the direction of the Engineer excavate an additional 24" min and replace with select or imported backfill. Where use of crushed rock and tile underdrain is directed by the Engineer, it will be placed as the lower 12" of the select or imported backfill material described above. The above does not apply where the Engineer directs the use of Pile foundation Bedding. The approximate extent of unsuitable foundation material is indicated on the plan and profile sheets and is given for bidding purposes only.



TRANSITION FROM THICK WALL TO STD. WALL PIPE  
NO SCALE



LAYING LENGTH AND TYPICAL JOINT  
NO SCALE

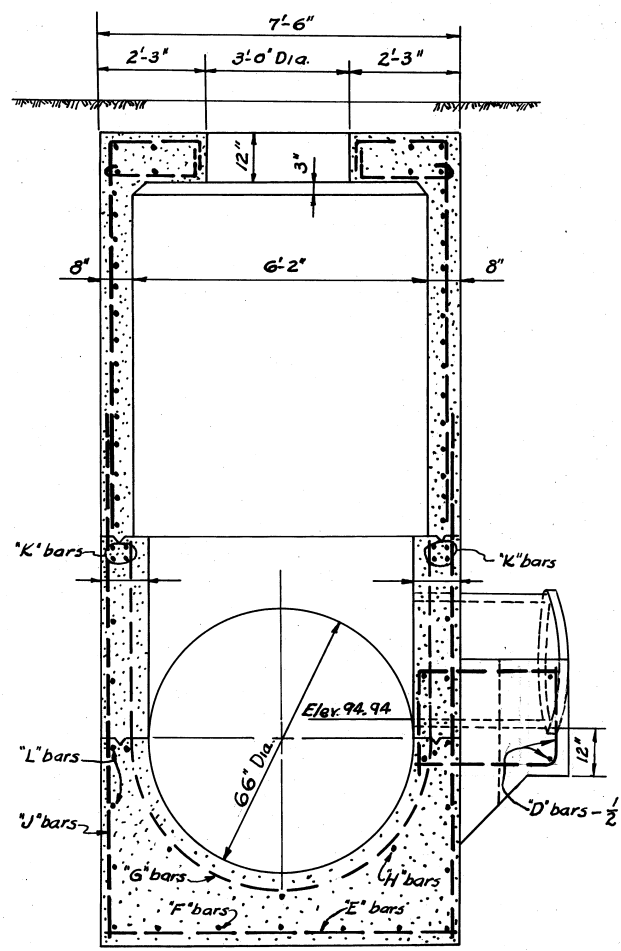
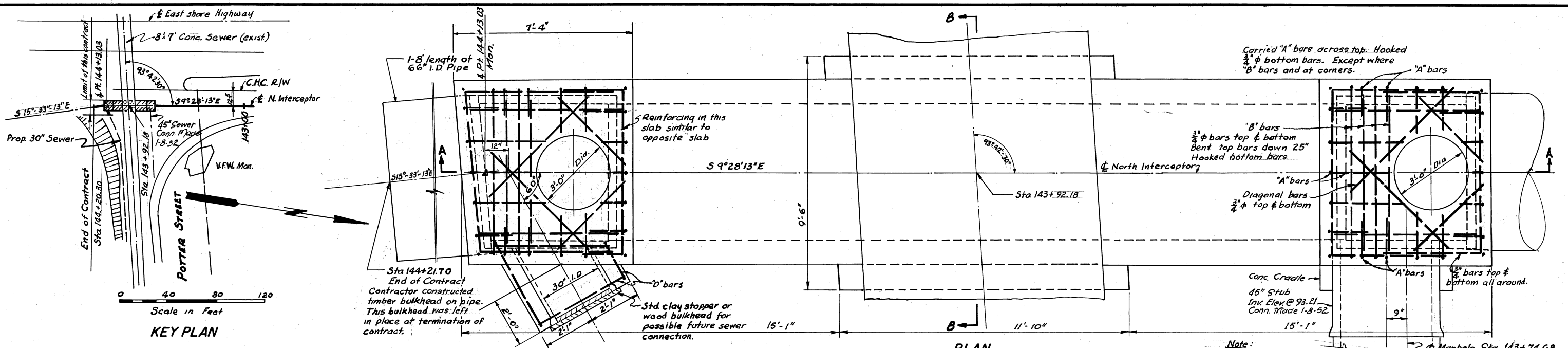


PILE AND PIPE JOINT SPACING  
NO SCALE

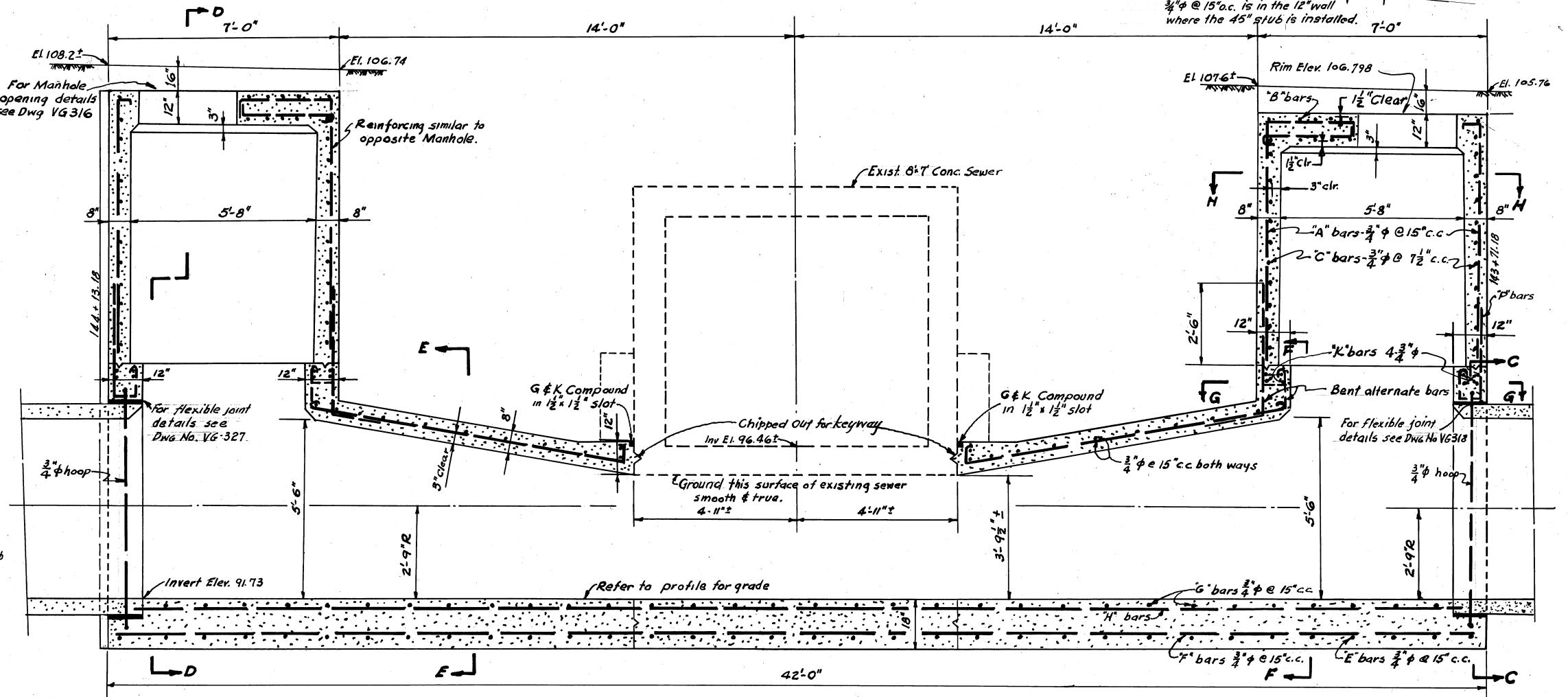
See Steel Sheet for Spacing Of Piles As-Driven.

AS-BUILT		NOV. 27, 1953
1	1-6-49	Misc drafting corrections
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT No. 1. OAKLAND, CALIFORNIA		
NORTH INTERCEPTOR SECTION 4 TYPICAL TRENCH DETAILS OPEN CUT		
DRAWN BY	KORETSKY	SCALE AS SHOWN
TRACED BY	J.A.N.	DATE 8 SEPTEMBER 1948
CHECKED BY	J.F.B.	
APPROVED BY	[Signature]	NO. VG 330

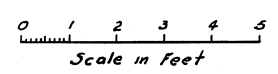
APPROVED [Signature] C.E. ENGINEER & GENERAL MANAGER



SECTION D-D



SECTION A-A



- NOTES**
- All exterior edges were chamfered 1"
  - For further details & notes see VG 324
  - WORK THIS SHEET WITH DNG. No VG 324

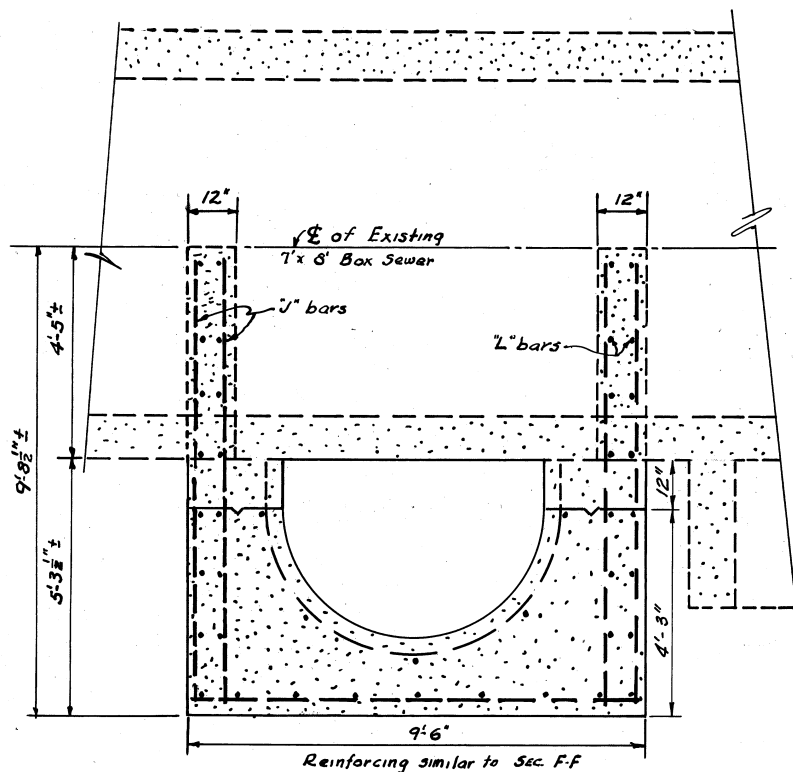
REV. NO.	DATE	DESCRIPTION
AS-BUILT	Nov. 5, 1953	

APPROVED: *[Signature]*  
CHIEF ENGINEER & GENERAL MANAGER

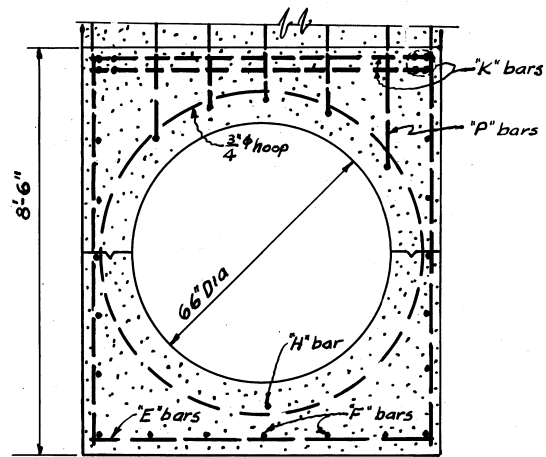
EAST BAY MUNICIPAL UTILITY DISTRICT  
SPECIAL DISTRICT NO. 1  
OAKLAND, CALIFORNIA

NORTH INTERCEPTOR  
MANHOLE STRUCTURE  
STA. 143+93.05 POTTER ST.

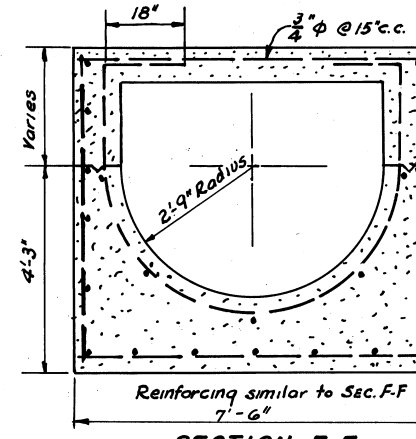
DRAWN BY	Wilson	SCALE	AS SHOWN
TRACED BY	KORETSKY	DATE	MARCH 29, 1948
CHECKED BY	CAGACE		
APPROVED BY	<i>[Signature]</i>		No. VG 323



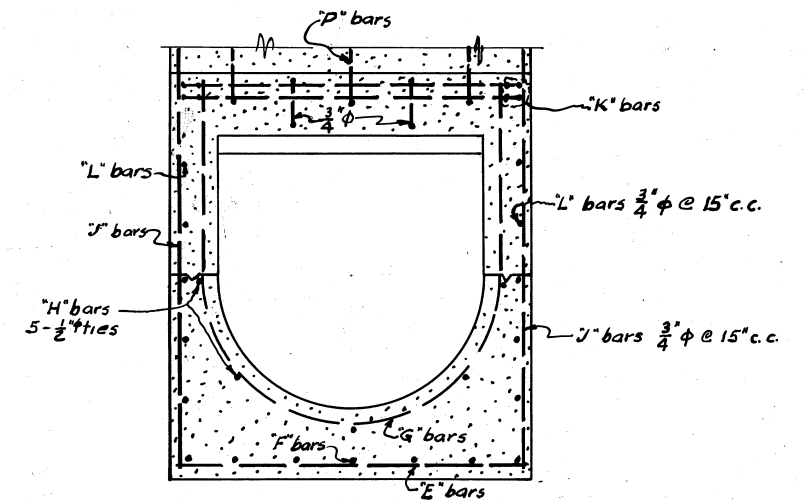
SECTION B-B



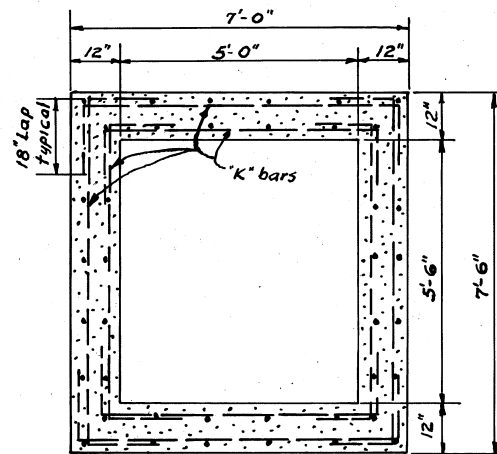
SECTION C-C



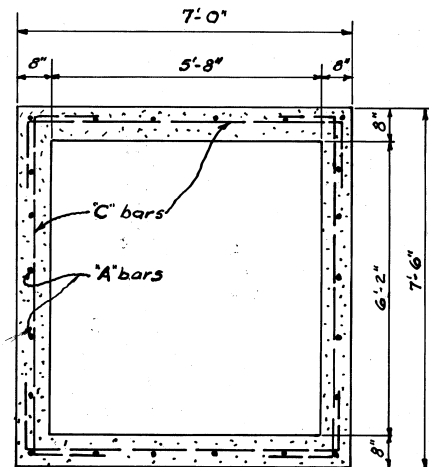
SECTION E-E



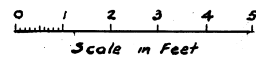
SECTION F-F



SECTION G-G



SECTION H-H



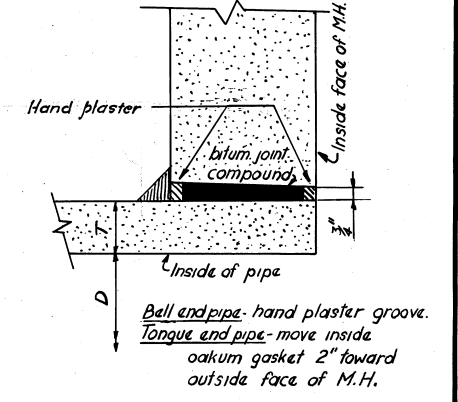
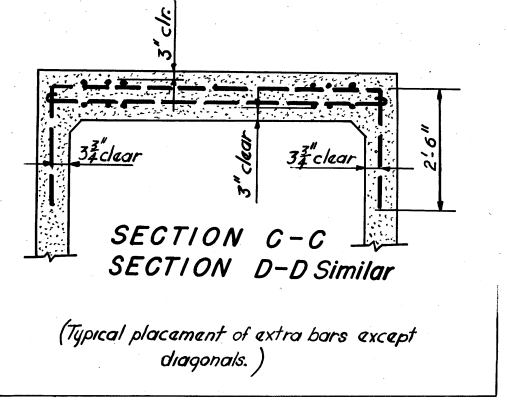
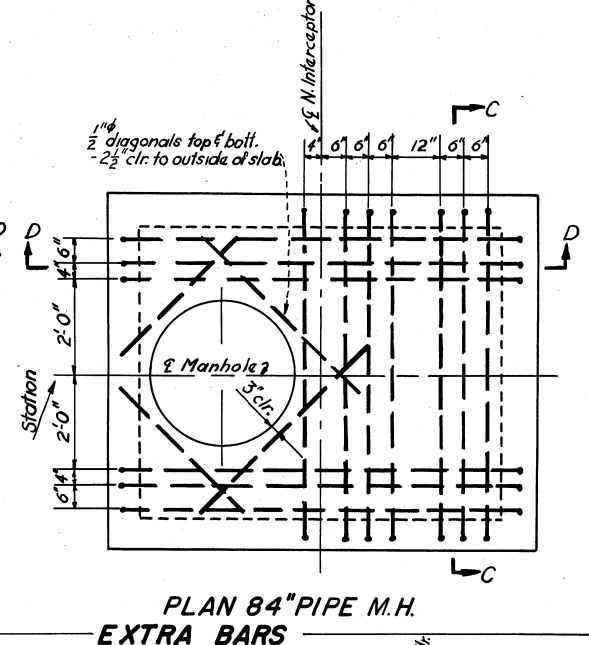
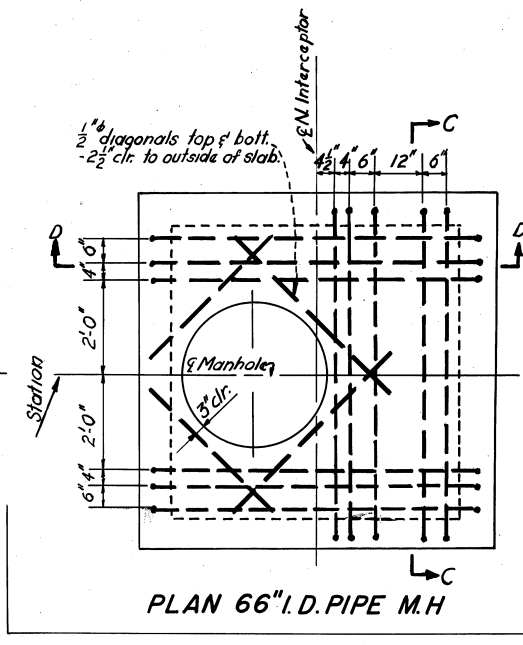
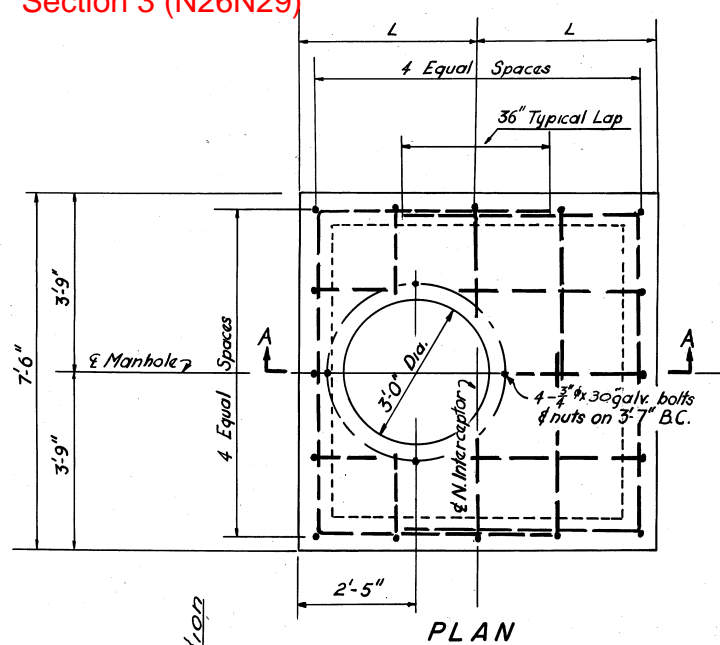
NOTES

Work this sheet with Dwg. No. VG 323  
All exterior edges were chamfered 1/4"

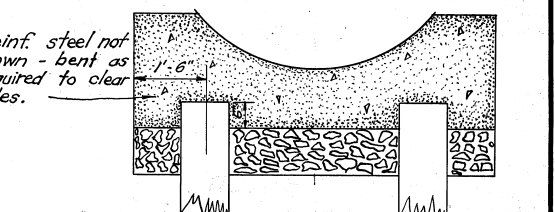
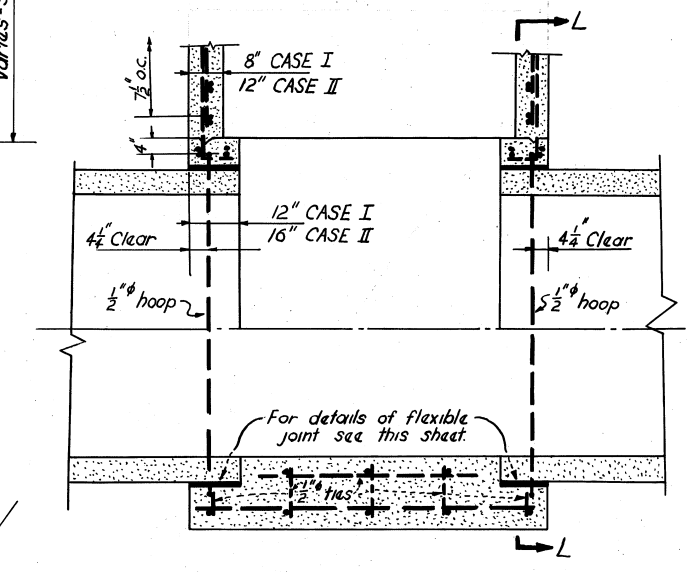
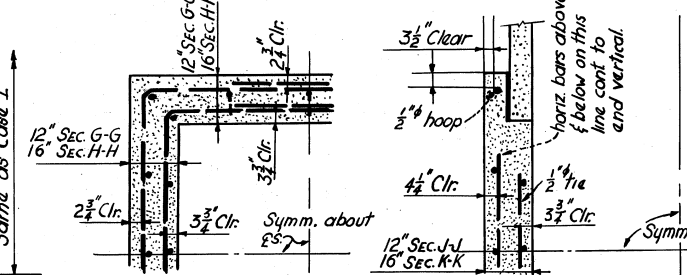
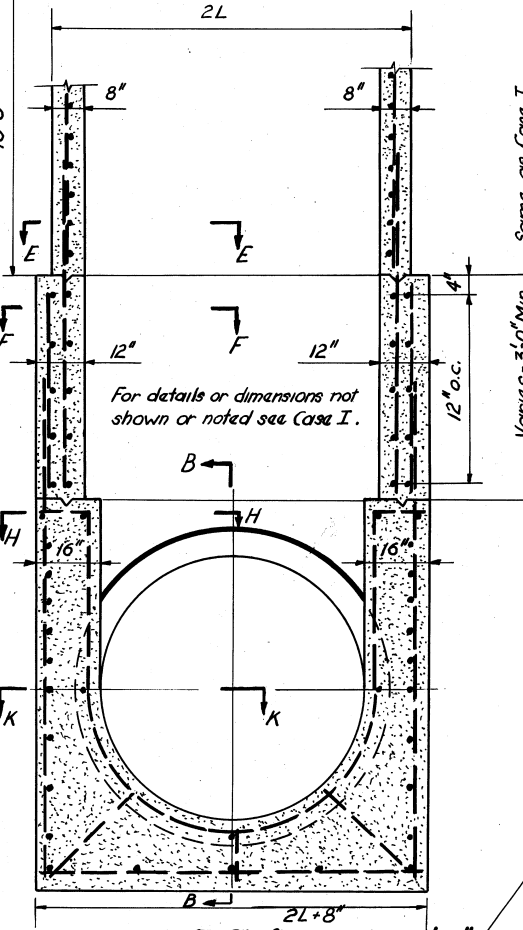
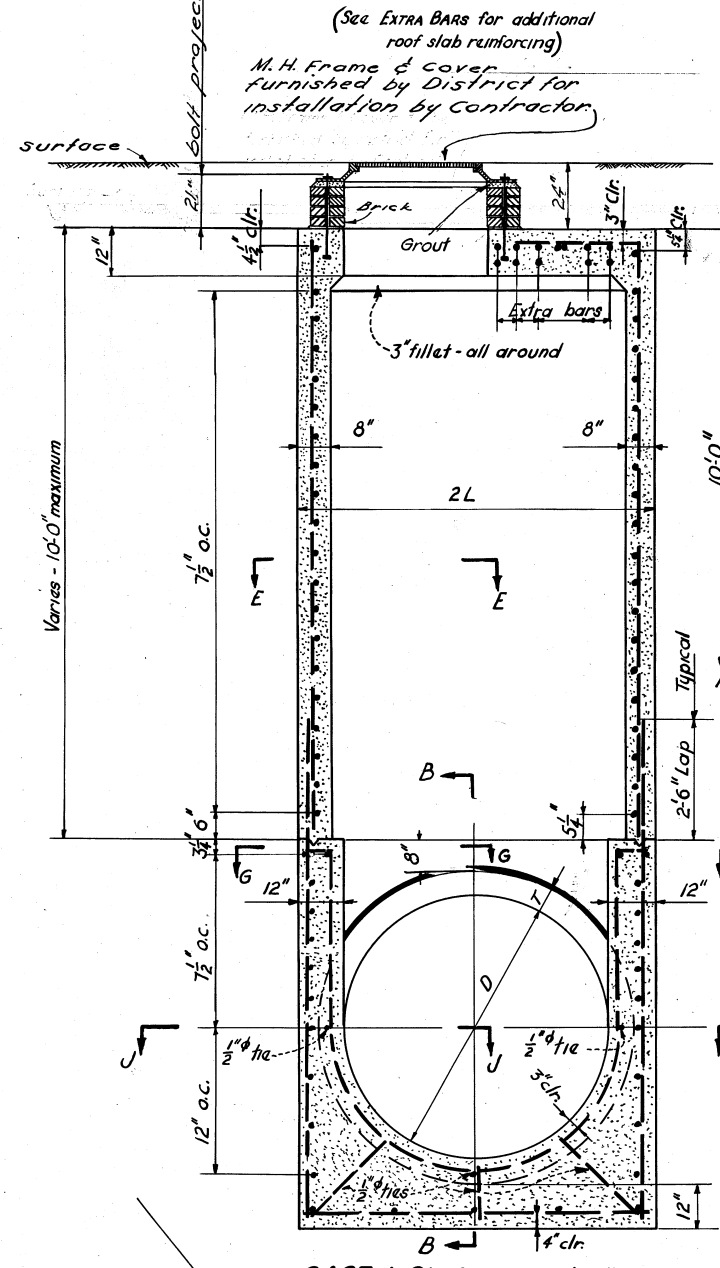
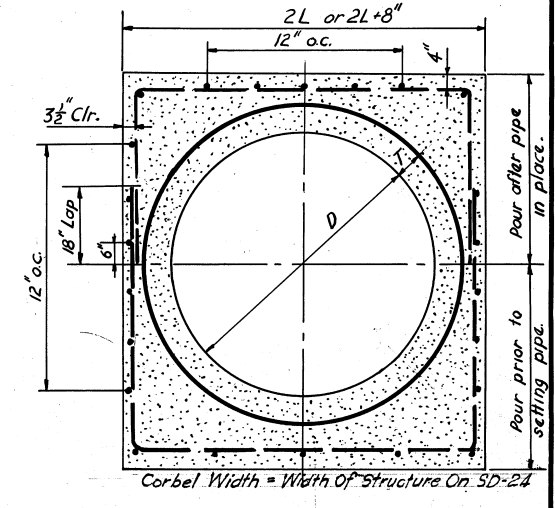
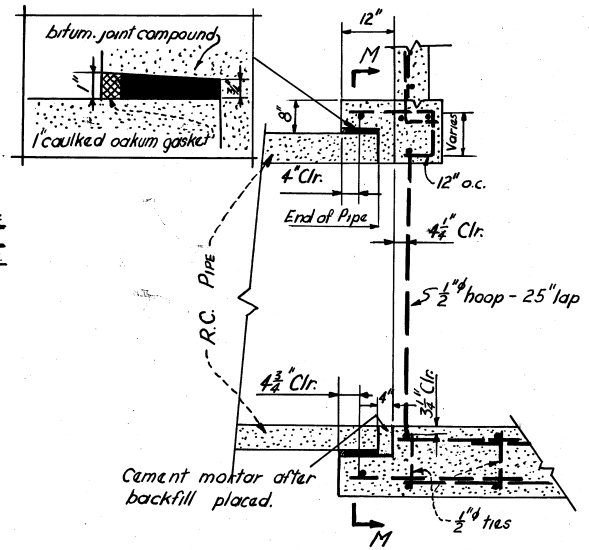
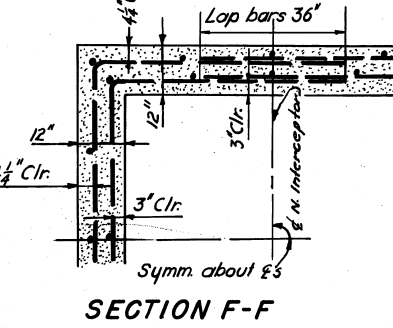
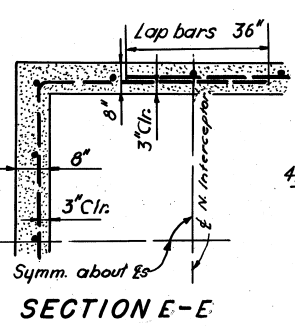
AS-BUILT		NOV. 5, 1953
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		
NORTH INTERCEPTOR MANHOLE STRUCTURE DETAILS STA. 143+93 <sup>03</sup> POTTER STREET		
DRAWN BY	WILSON	SCALE AS SHOWN
TRACED BY	KORETSKY	DATE APRIL 1, 1948
CHECKED BY	CRACE	
APPROVED BY	Retting	NO. VG 324

APPROVED *W. J. Retting*  
CHIEF ENGINEER & GENERAL MANAGER

Section 3 (N26N29)



D	D-LOAD	T	L
66"	Up to 2000-D	5 1/2"	3'-9"
	2000-D and over	7 1/4"	
84"	Up to 2000-D	7"	4'-6"
	2000-D and over	8 3/4"	



PILE FOUNDATION BEDDING

- Pile Foundation Bedding was used as directed by the Engineer.
- The Engineer directed the spacing, length & no. of piles required.
- Underdrain & crushed rock called for by Engineer.

NOTES

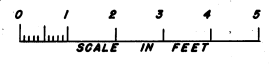
- Refer to PLAN & PROFILE for M.H. location & elevations.
- All bars 3/4" φ unless otherwise noted.
- Exterior corners were chamfered 1"
- Flexible joint details are typical for joining R.C. pipe to all structures.

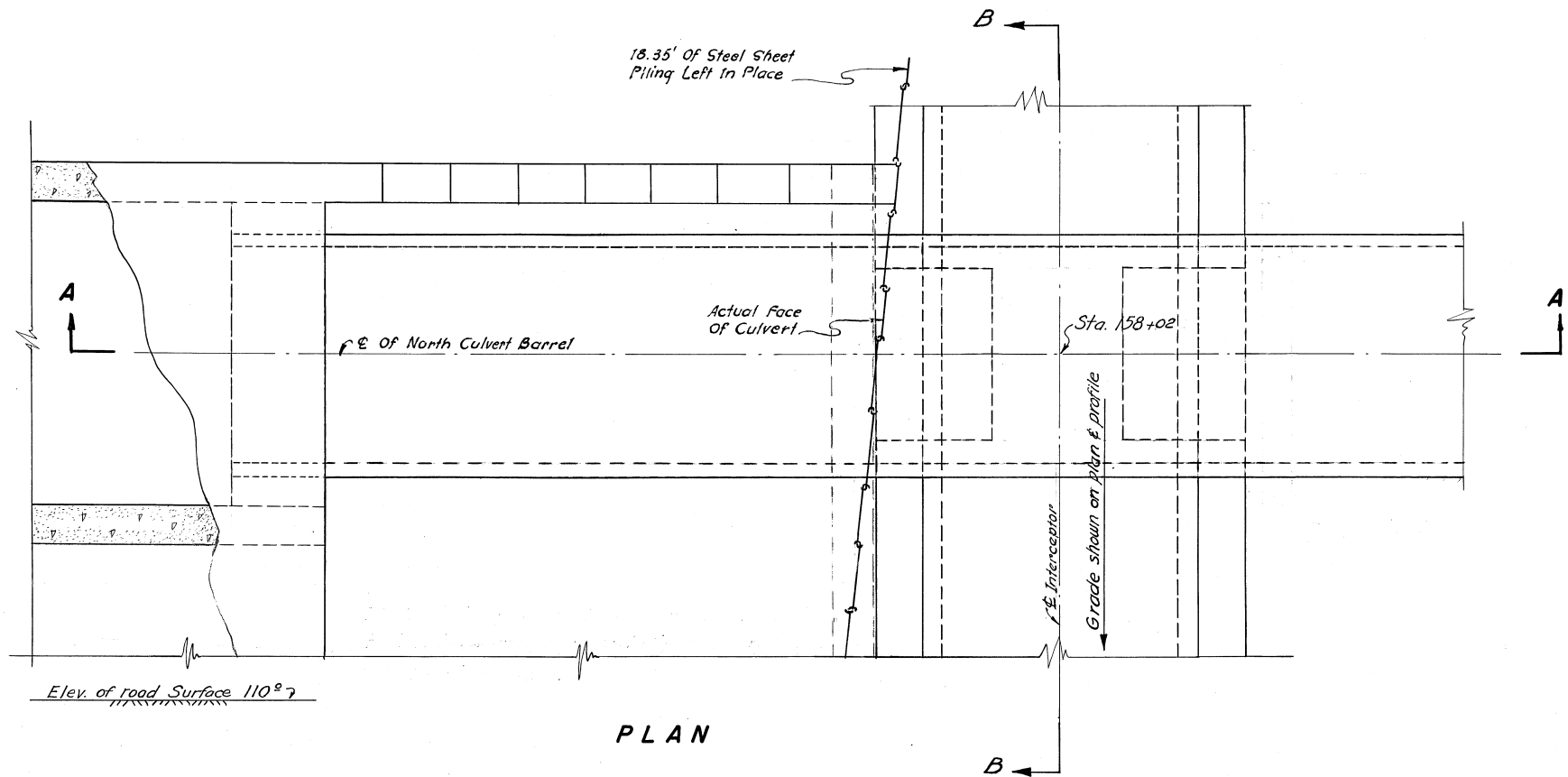
Rev. No.	Date	Description
AS-BUILT	NOV. 5, 1963	
3	12-15-48	Inserted additional brick courses. Rev. reinf. steel Sec. G-G & H-H.
2	9-30-48	Pile Foundation Bedding Added.
1	8-10-48	Inserted four courses of brick between M.H. frame & M.H. Sect. A-A.

EAST BAY MUNICIPAL UTILITY DISTRICT  
SPECIAL DISTRICT NO. 1  
OAKLAND, CALIFORNIA

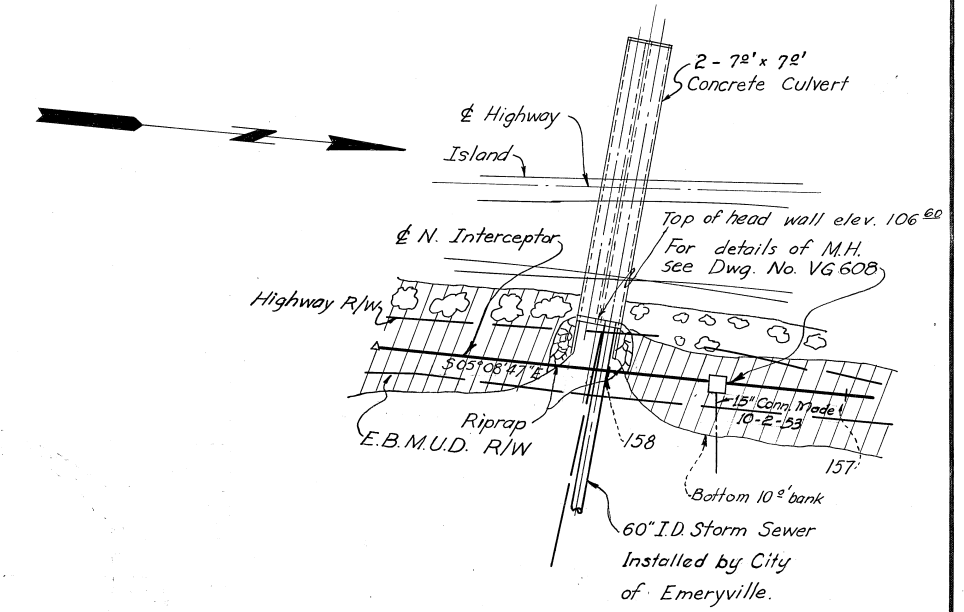
NORTH INTERCEPTOR  
STANDARD MANHOLES  
FOR 66" & 84" PIPE

DRAWN BY KORETSKY  
TRACED BY GIULIANO  
CHECKED BY HARRISON  
APPROVED BY [Signature]  
SCALE AS SHOWN  
DATE JUNE 11, 1948  
NO. VG 327





PLAN



KEY PLAN  
0 40 80 120  
SCALE IN FEET

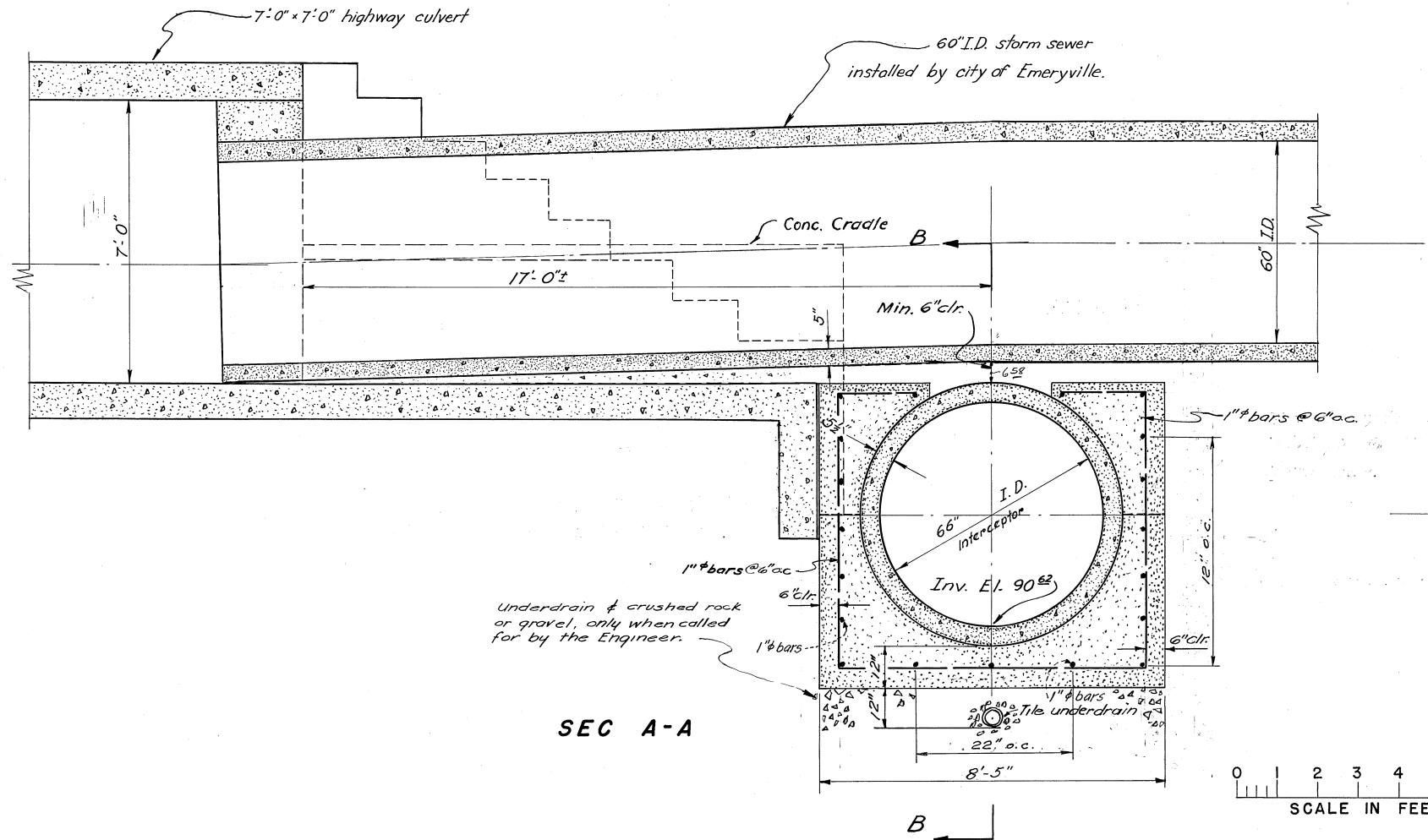
QUANTITIES  
PARTIAL LISTING

The below listed quantities are approximate and for estimating purposes only. Minor items have not been listed.

- 1. Concrete . . . . . 2.5 cu. yds.
- 2. Steel . . . . . 800 lbs.

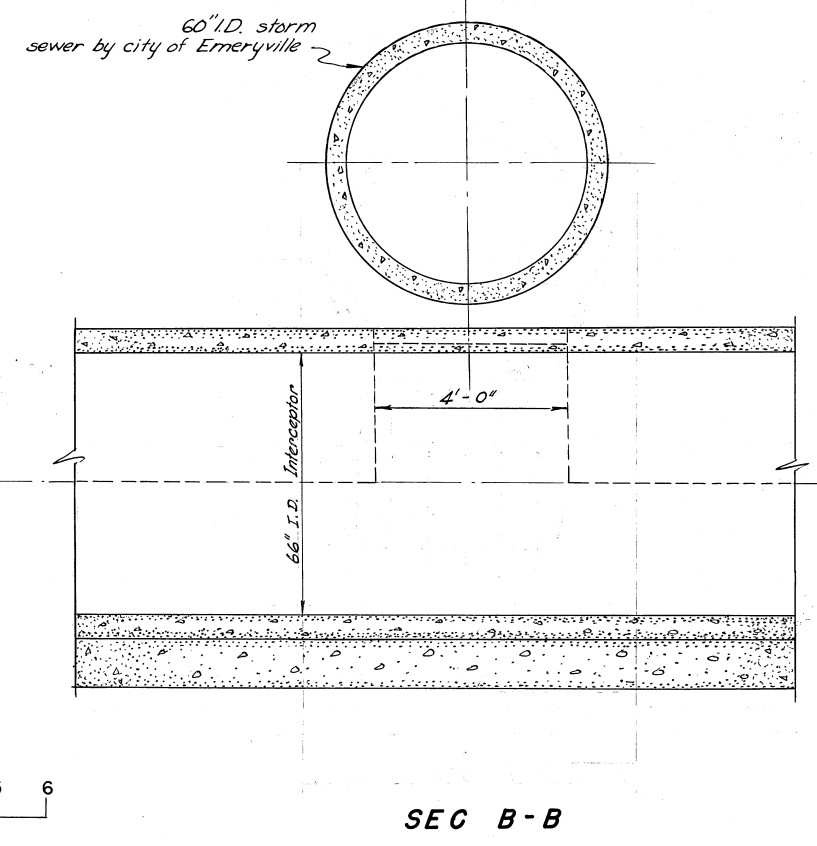
NOTES:

- For fill this area, see Dwg. No. VG-277
- 66" Pipe of North Interceptor was installed prior to 60" Storm Sewer



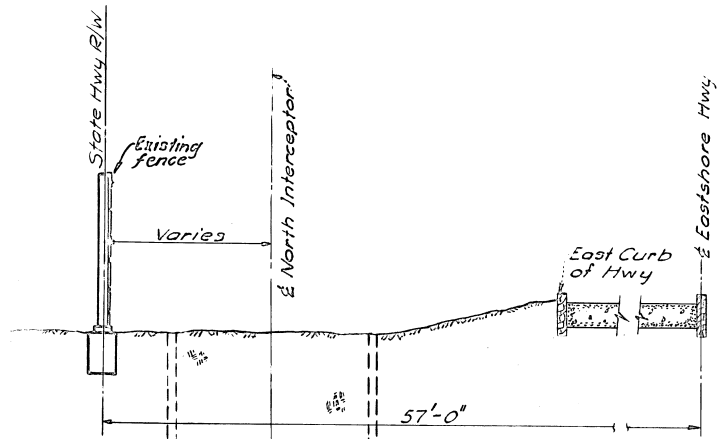
SEC A-A

0 1 2 3 4 5 6  
SCALE IN FEET



SEC B-B

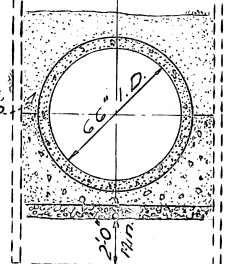
AS-BUILT		DEC. 7, 1953
1	1-6-49	Misc. drafting corrections
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT No. 1 OAKLAND, CALIFORNIA		
<b>NORTH INTERCEPTOR</b>		
<b>66th STREET STORM DRAIN</b>		
<b>CROSSING - STA. 158+02</b>		
DRAWN BY BREWER	TRACED BY LEE	
CHECKED BY McCOLLUM J.F.B.	DATE 10-7-48	SCALE As Shown
RECOMMENDED BY J.A. Best		
APPROVED BY [Signature]		No. VG 334



For additional details See Dwg. No. VG 267 & VG 269

Backfill placed & compacted in compliance with the Std. Specifications of the Calif. Division of Highways, Sec. 12, Art. L, dated 1945

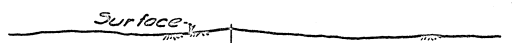
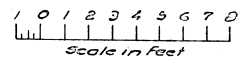
Steel Sheet Piling Used; Pulled After Backfilling



This Section does not apply where pipe is placed by tunnel (Sta. 100+48 to Sta. 176+60)

**NORTH INTERCEPTOR  
TYPICAL CROSS SECTION**

Sta. 171+56 to Sta. 184+04  
(CHC Sta. 45+00 to CHC Sta. 31+00)



Tight sheet piling to be left in place when backfill is approx. completed, cut off 2' below final surface grade.

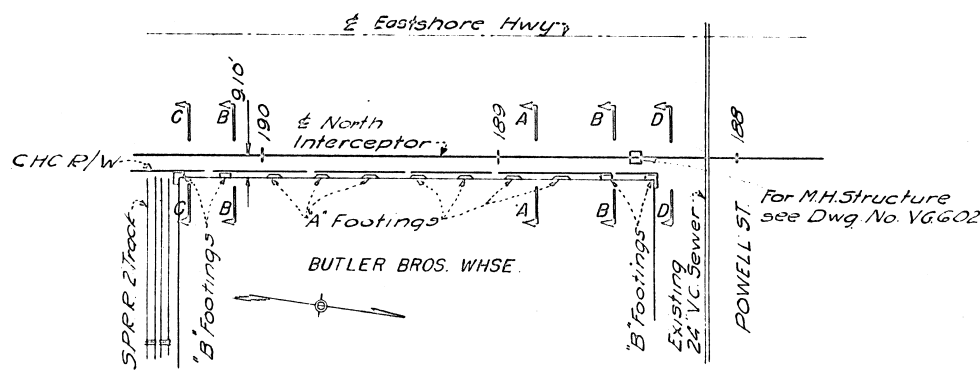
Sheet piling to be removed as directed by the Engineer. See Dwg. No. VG 275

For bedding details see Dwg. No. VG 330

For additional details see Dwg. No. VG 275

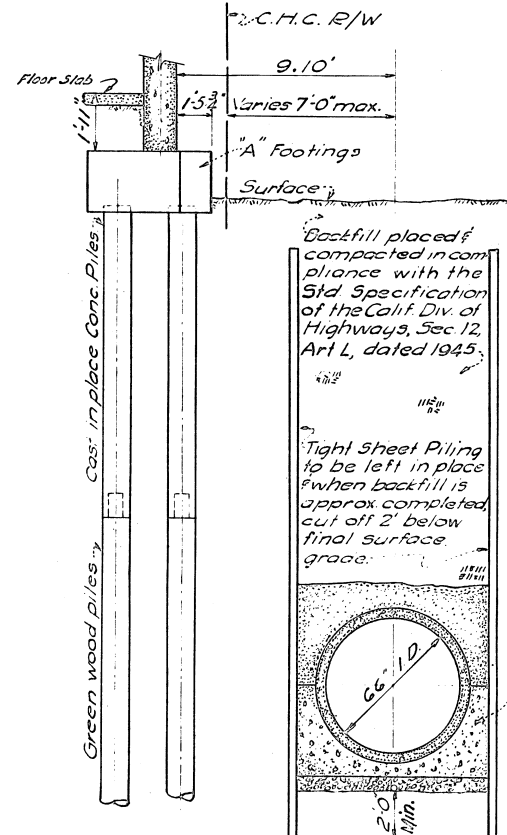
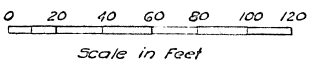
**NORTH INTERCEPTOR**

STA. 200+00 TO STA. 208+00  
(Except at Structure)

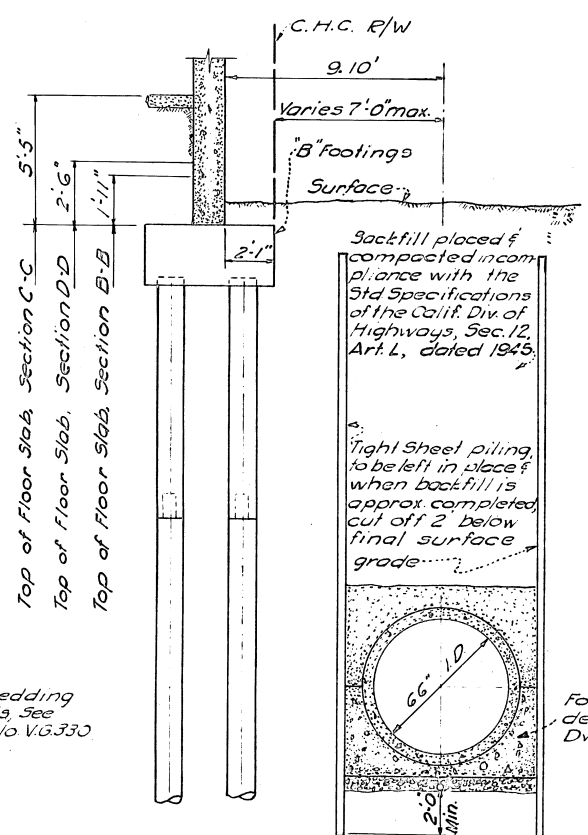


**PLAN**

For details not shown, see Dwg. No. VG 269 & VG 276



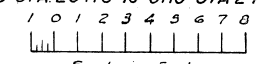
**SECTION A-A**



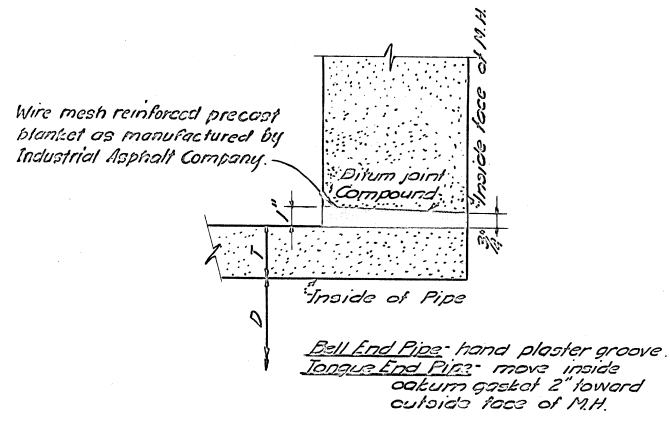
**SECTION B-B  
SECTION C-C  
SECTION D-D**

**NORTH INTERCEPTOR DETAILS**

STA. 188+26 to STA. 192+50  
(CHC STA. 26+78 to CHC STA. 24+00)

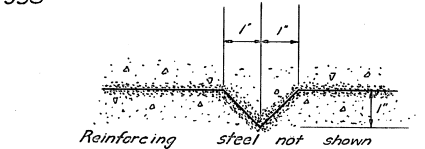


This Section does not apply where pipe is placed by tunnel (Sta. 188+26 to Sta. 192+50)



**FLEXIBLE JOINT DETAIL**

Reinforcing Steel not shown  
No Scale

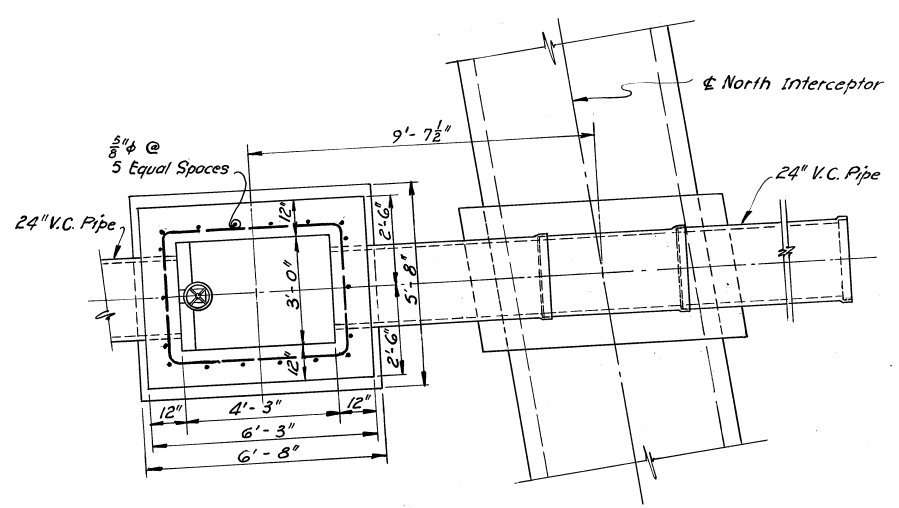


**CONSTRUCTION JOINT DETAIL**

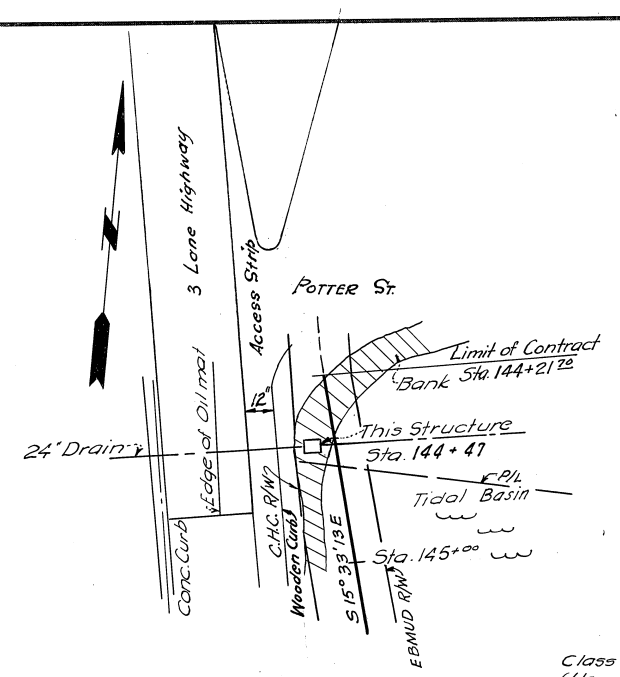
No Scale

AS-BUILT		DEC. 1, 1953
1	1-6-49	Misc. drafting corrections
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT No. 1 OAKLAND, CALIFORNIA		
<b>NORTH INTERCEPTOR MISCELLANEOUS DETAILS SHEET NO. 1</b>		
DESIGNED BY M. E. Clarke	TRACED BY M. E. Clarke	NO. VG 335
CHECKED BY T. G. J. F. B.	DATE 10-7-49	SCALE As shown
RECOMMENDED BY D. A. Reddy	APPROVED BY [Signature]	

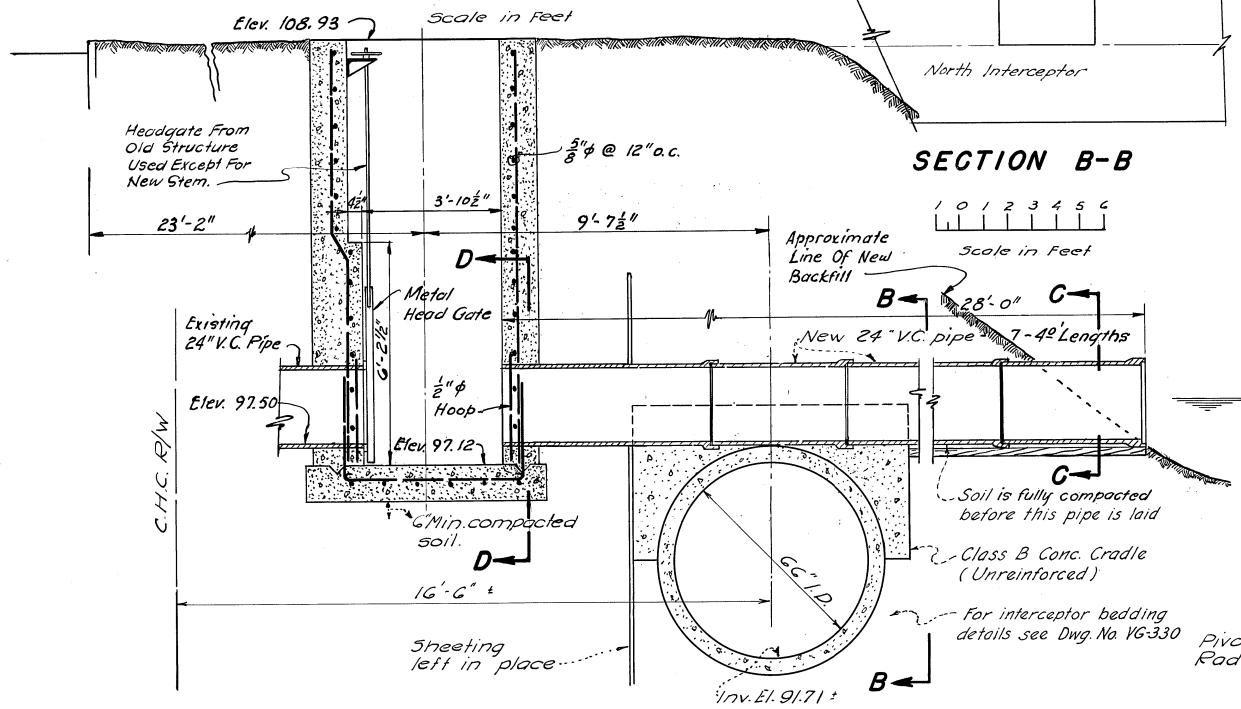
APPROVED [Signature] CHIEF ENGINEER & GENERAL MANAGER



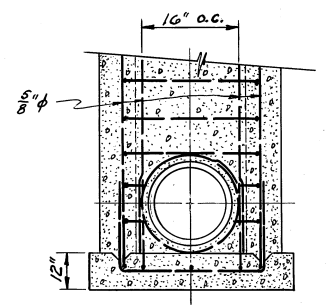
PLAN



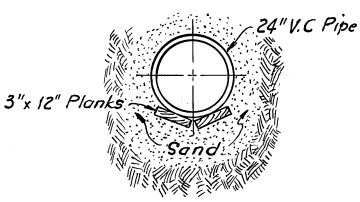
KEY PLAN



SECTION A-A

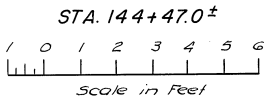


SECTION D-D

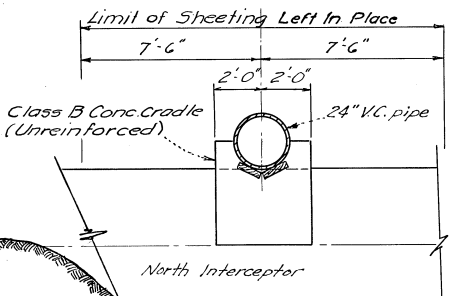


SECTION C-C

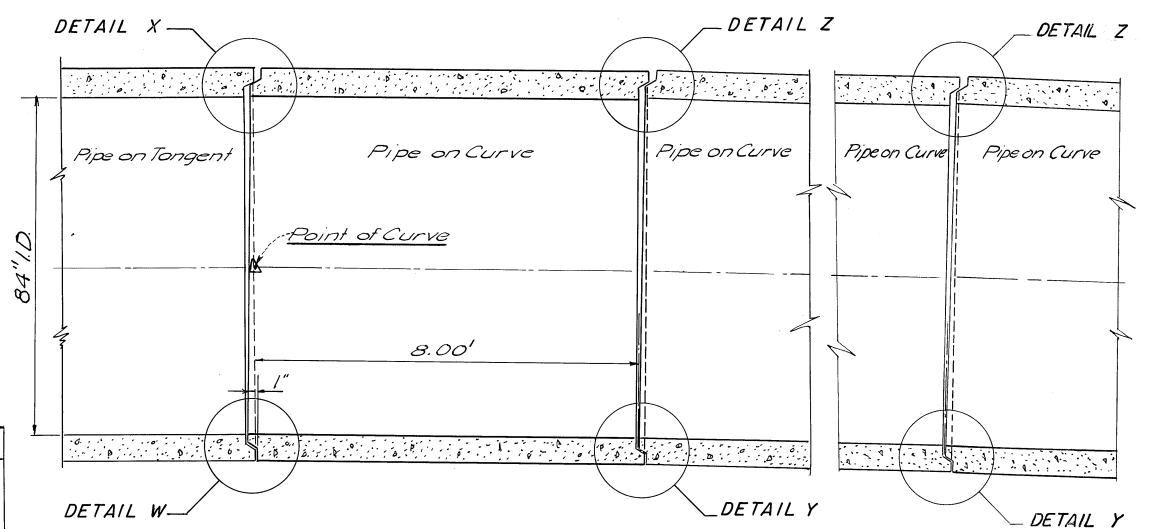
**REBUILT TIDAL LAKE STRUCTURE**



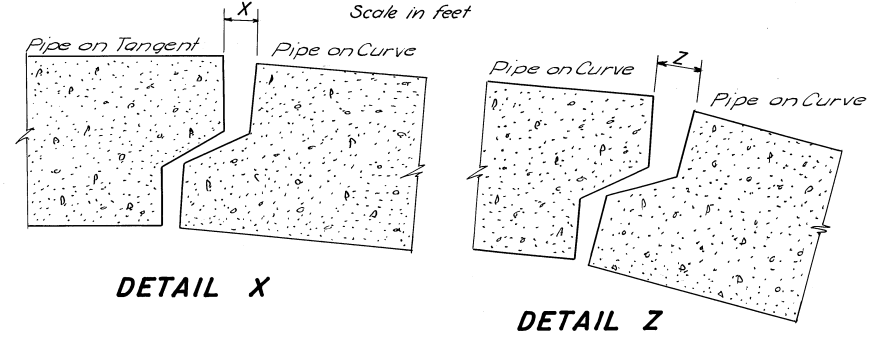
- NOTES
1. Approximate weight of Structure - 20 Tons.
  2. Bottom slab thickness of Structure 12"
  3. Inside bottom dimension of Structure - 3' x 3'-10 1/2"



SECTION B-B

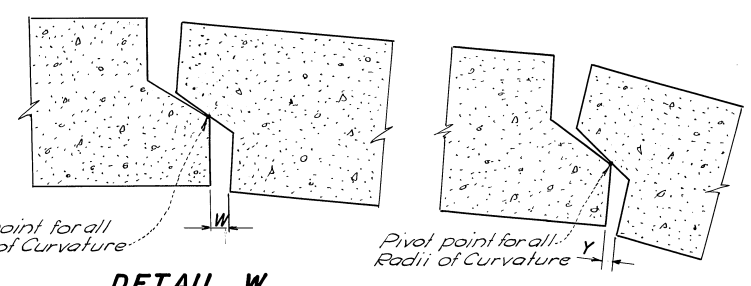


PLAN AT HORIZONTAL DIAMETER



DETAIL X

DETAIL Z



DETAIL W

DETAIL Y

Radius of Curvature	Deflection Angle	W	X	Y	Z
950.14	48° 15' 35"	1"	1 1/8"	1"	1 3/4"
2896.63	15° 04' 00"	1"	1 1/8"	1"	1 1/4"

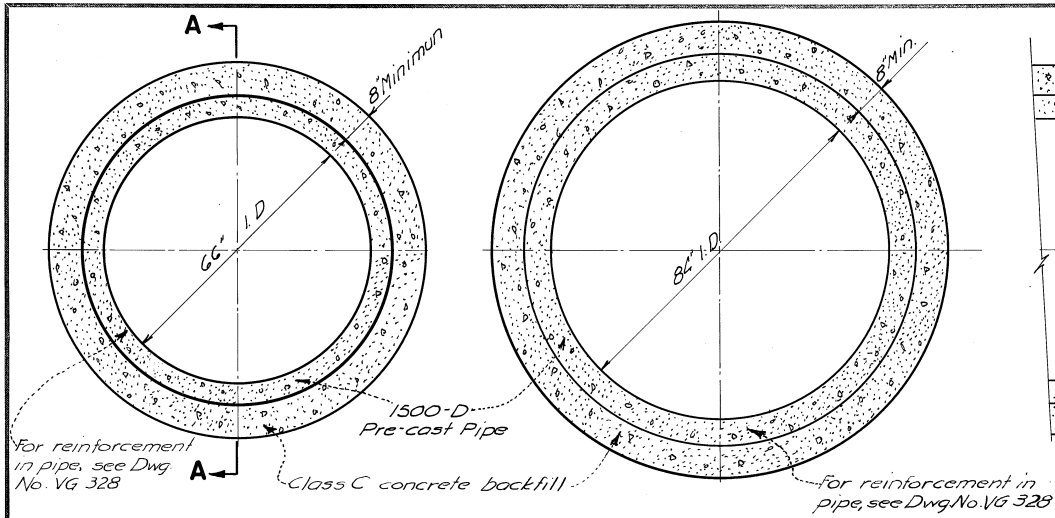
JOINT DIMENSIONS FOR CURVE SECTIONS OF 84" NON-BEVELED R.C. PIPE

**PLACING DETAILS**  
NON-BEVELED R.C. PIPE ON CURVES

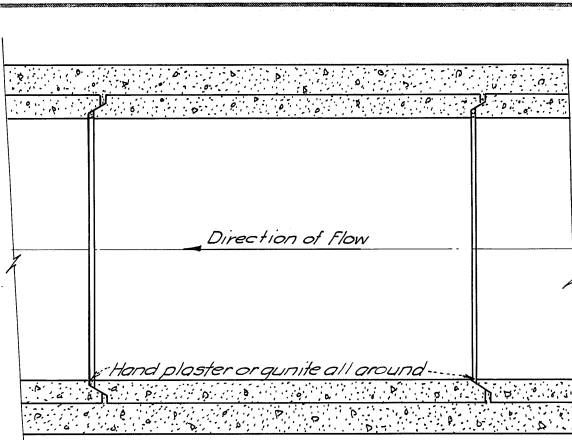
- NOTES
- To form curves the following details must be observed:
1. Gaps at Spring line as indicated in the Table.
  2. Two sections must be in contact at Pivot Point at position shown.
  3. Invert elevations of the two Sections at the joint must be the same.
  4. 8'-0" Sections must be used.
  5. Gaps of details W & X must be used at ends of curve only.
- Details W, X, Y & Z are shown at horizontal diameter.

AS-BUILT		DEC. 4, 1953
1	1-6-49	Misc. drafting corrections
REV. NO.	DATE	DESCRIPTION
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		
<b>NORTH INTERCEPTOR MISCELLANEOUS DETAILS SHEET NO. 2</b>		
DRAWN BY M. E. Clarke	TRACED BY M. E. Clarke	
CHECKED BY J. F. B. E. G.	DATE 10-8-48	SCALE As shown
RECOMMENDED BY D. A. Root	APPROVED BY [Signature]	NO. VG 338

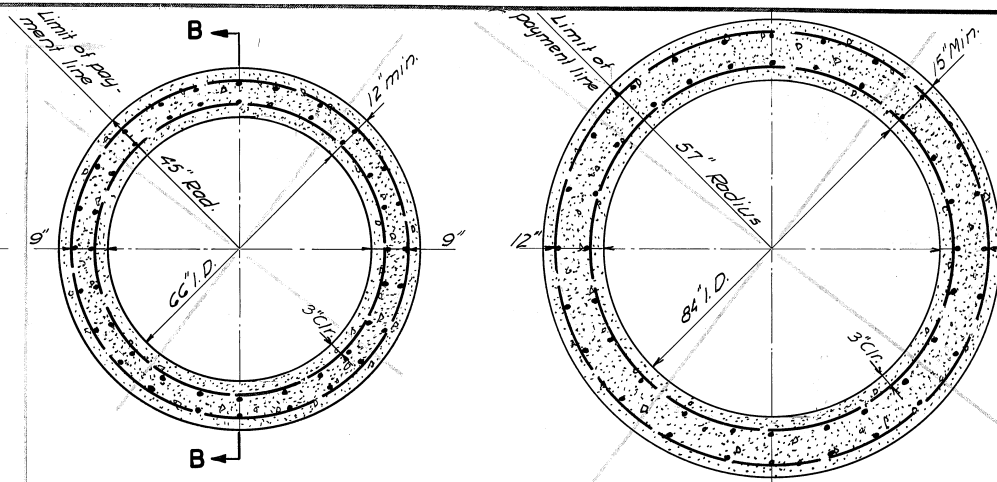
APPROVED [Signature] CHIEF ENGINEER & GENERAL MANAGER



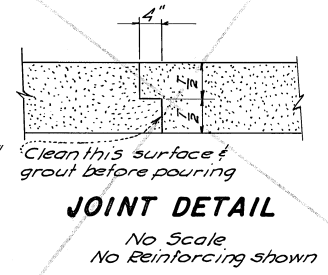
**TYPICAL TUNNEL SECTIONS  
PRECAST PIPE**



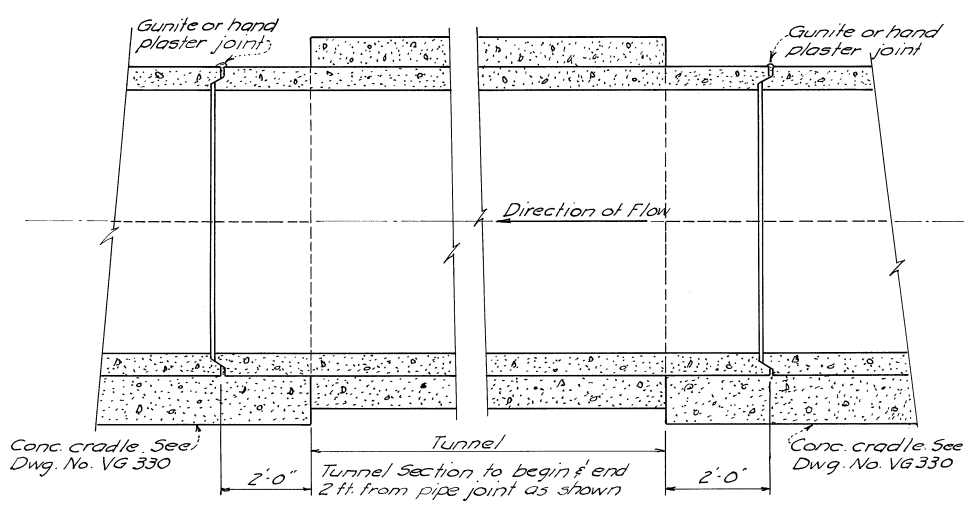
**SECTION A-A  
PRECAST PIPE  
84" I.D. Pipe Similar**



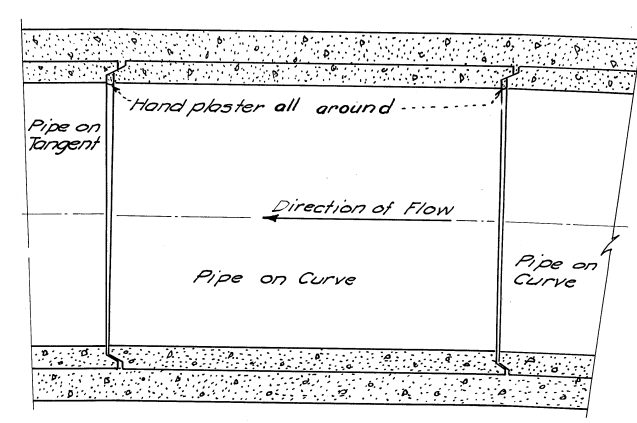
**TYPICAL TUNNEL SECTIONS  
MONOLITHIC PIPE**



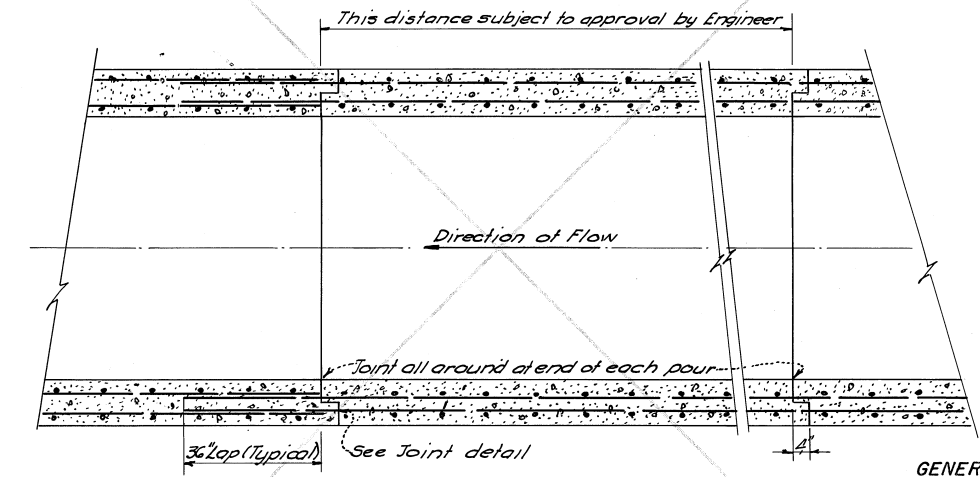
**JOINT DETAIL**  
No Scale  
No Reinforcing shown



**CONNECTION OF STANDARD PIPE TO TUNNEL SECTION  
PRECAST PIPE**  
Above view taken through Vertical Dia.  
84" I.D. Pipe Similar



**TUNNEL SECTION  
ON HORIZONTAL CURVE  
PRECAST PIPE**  
Above view taken through Horizontal Dia.  
See Dwg. No. VG 338 for curve details  
84" I.D. Pipe Similar



**SECTION B-B  
MONOLITHIC PIPE  
84" I.D. Pipe Similar**

**GENERAL NOTES**

Contractor to submit detail drawings showing method & extent of tunneling, dewatering, reinf. steel, location & details of adits, bracing, shoring, etc., for approval of the Engineer prior to commencing tunnel operations.

Tunnel is to be backfilled with Class C or better concrete from sections shown to limits of actual excavation.

**PROBABLE UNSUITABLE FOUNDATION MATERIAL - TUNNEL.** Where "Probable Unsuitable Foundation Material" is indicated on the Plan & Profile sheets & Tunneling is used, it is anticipated that soil conditions will necessitate careful investigation by the Contractor as to suitable Tunnel method. Unusual care will be required for Tunnel construction.

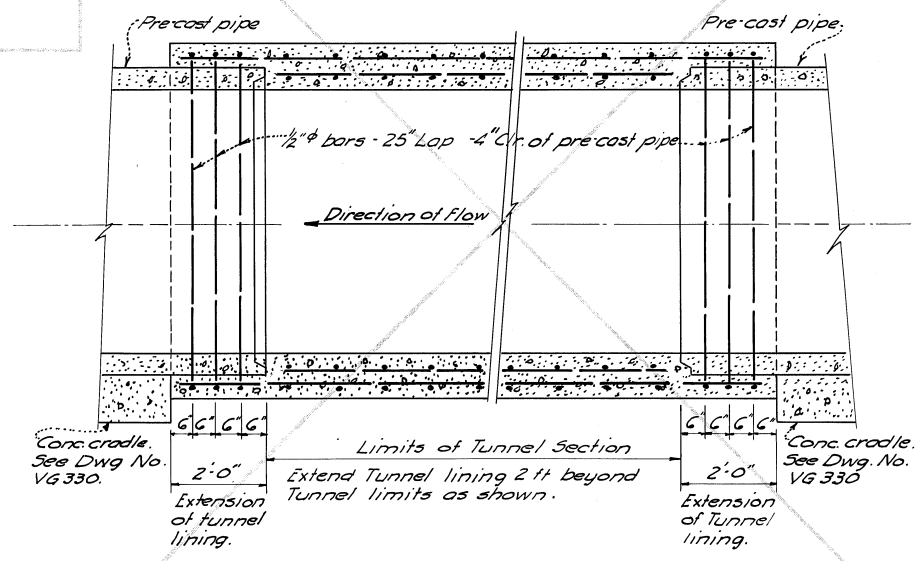
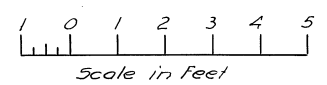
Tunnel sections did not come up close to MH structures. Sections immediately adjoining structures were laid as in open trench.

**NOT USED**

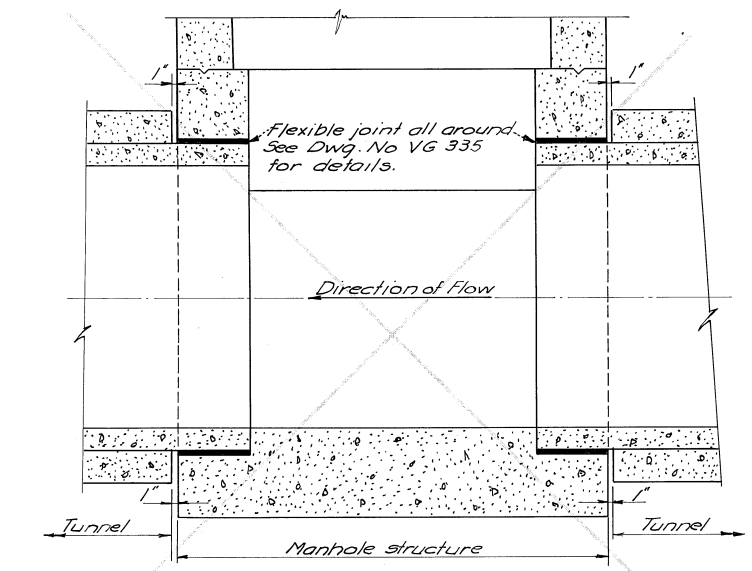
INSIDE DIA. OF TUNNEL	MIN. WALL THICKNESS "T"	MINIMUM REINFORCING STEEL		
		CIRCUMFERENTIAL AREA (EACH CAGE) IN SQ. IN./FT. (LONG) OF TUNNEL SECTION	NO BARS EACH CAGE	DIA.
66"	12"	.75	24	3/8" φ
84"	15"	1.00	24	3/4" φ

For connection at M.H. structure to monolithic tunnel see Dwg. VG 605, VG 606 & VG 612

**MONOLITHIC PIPE**



**CONNECTION OF STANDARD PIPE TO TUNNEL SECTION  
MONOLITHIC PIPE**  
Above view taken through Vertical Dia.  
84" I.D. Pipe Similar

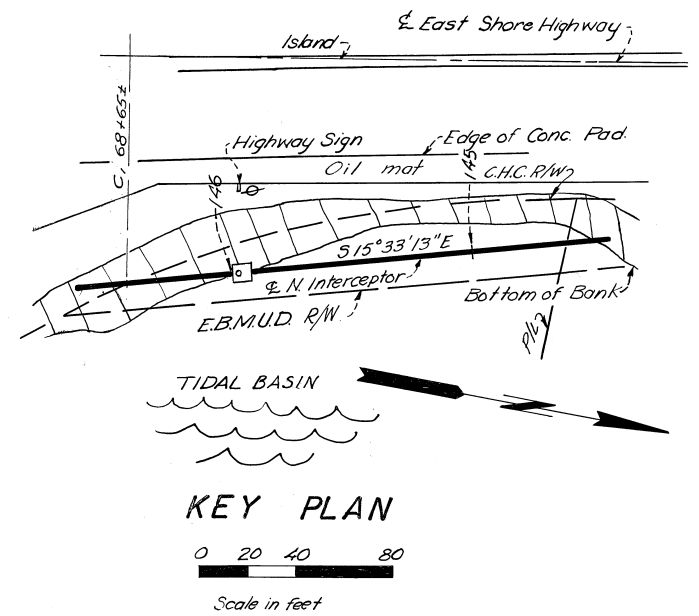
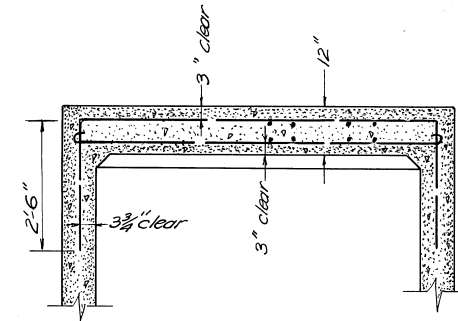
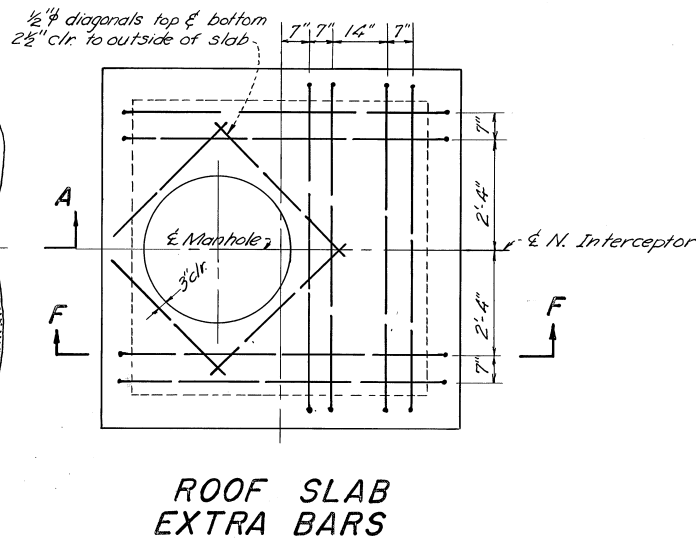
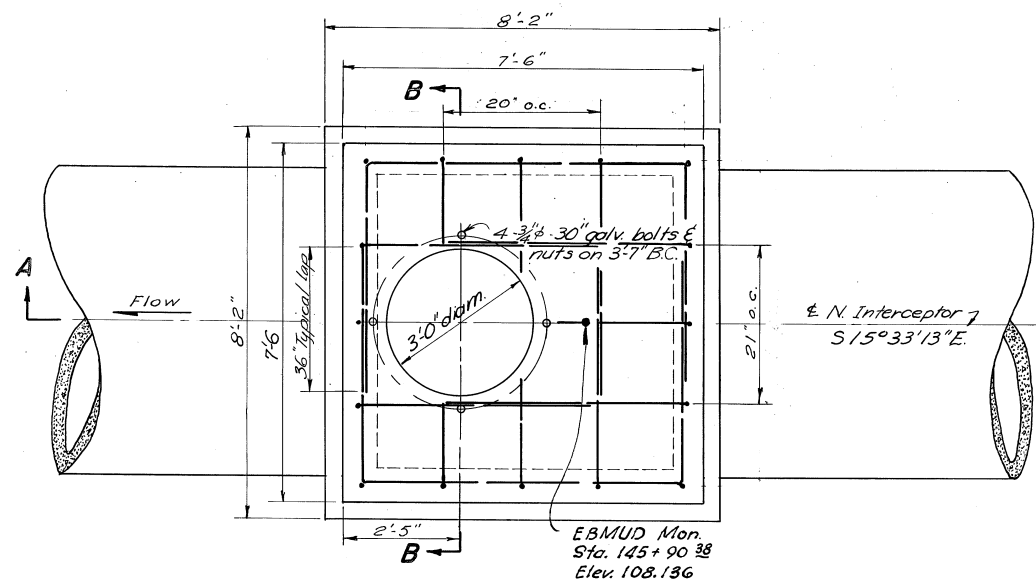


**CONNECTION OF M.H. STRUCTURE TO TUNNEL SECTION  
PRECAST PIPE**  
No M.H. Reinforcing Steel shown  
Above view taken through vertical Dia.  
84" I.D. Pipe Similar

AS-BUILT		DEC. 1, 1953	
1	1-6-49	Misc. drafting corrections	
REV. NO.	DATE	DESCRIPTION	
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT No. 1 OAKLAND, CALIFORNIA			
<b>NORTH INTERCEPTOR MODIFICATIONS &amp; DETAILS FOR TUNNELING</b>			
SHEET NO1 - MONOLITHIC & PRECAST R.C. PIPE TUNNEL DETAILS			
DRAWN BY	F. Giuliano	TRACED BY	M. Clarke
CHECKED BY	J. F. B. AKJ	DATE	10-26-48
RECOMMENDED BY	J. A. Root	SCALE	As shown
APPROVED BY	J. A. Root	NO.	VG 604

APPROVED: *[Signature]* CHIEF ENGINEER & GENERAL MANAGER

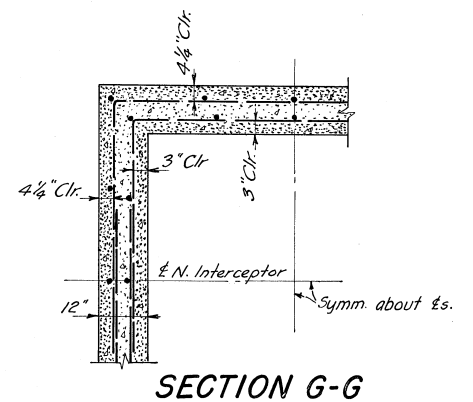
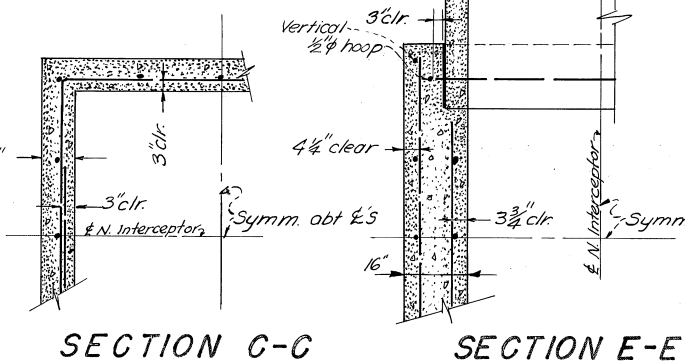
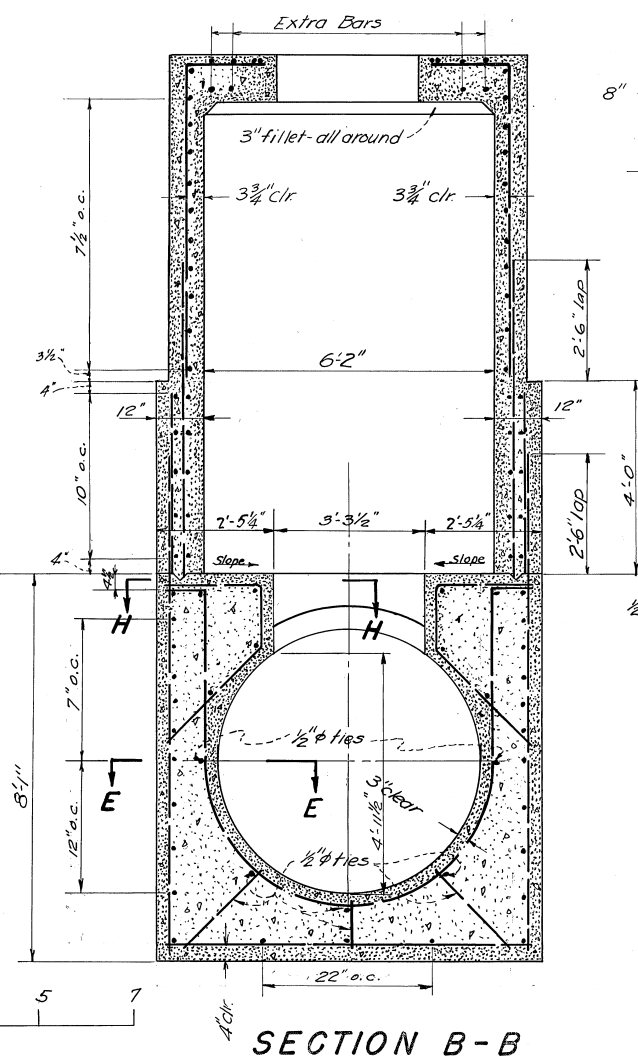
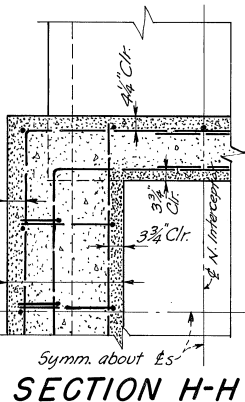
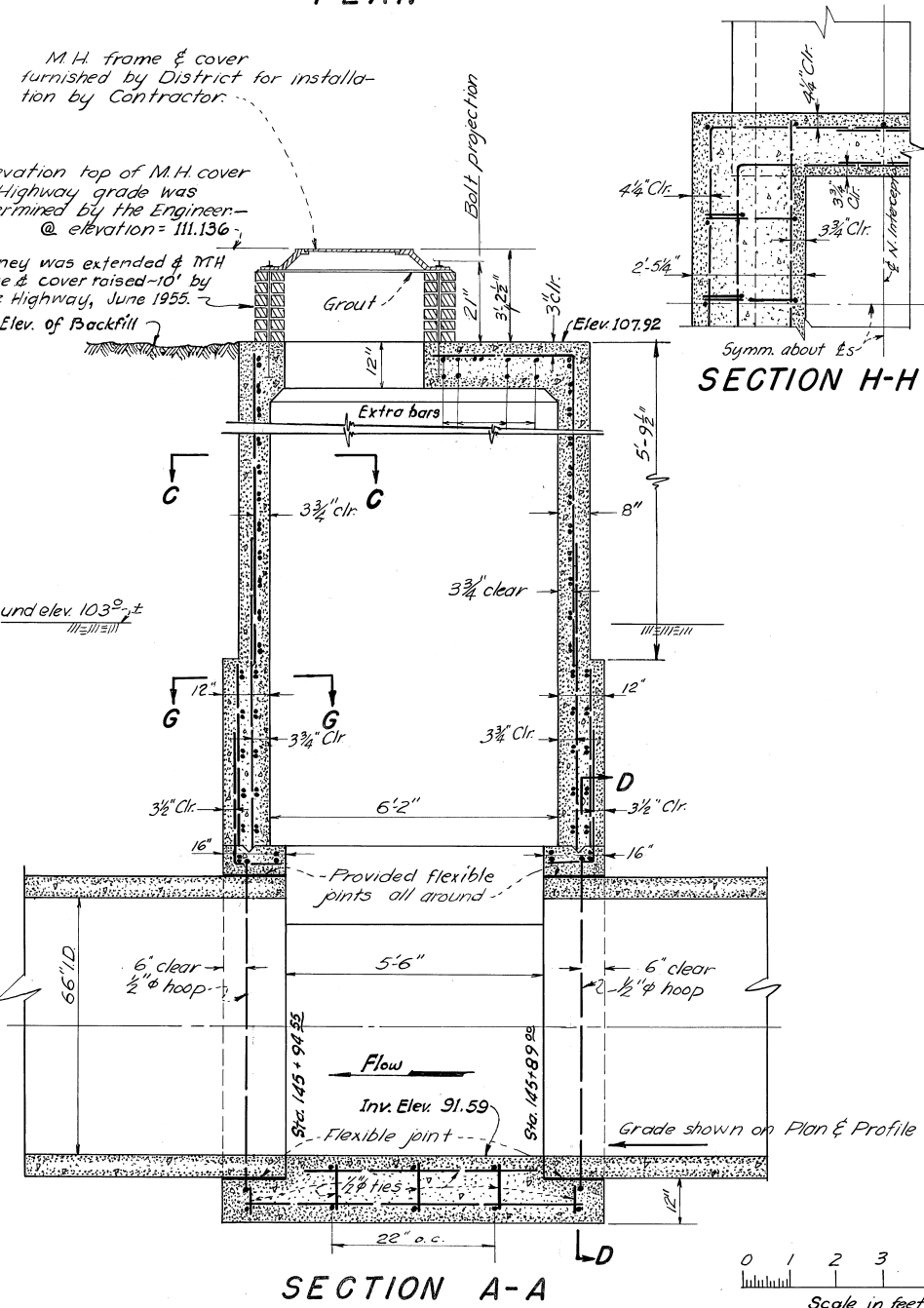




M.H. frame & cover furnished by District for installation by Contractor.

Elevation top of M.H. cover at Highway grade was determined by the Engineer @ elevation = 111.136.

Chimney was extended & M.H. frame & cover raised 10' by State Highway, June 1955.



NOTES

- Refer to plan & profile for additional information.
- All bars 3/4" unless noted.
- All exterior corners were chamfered 1".
- Flexible joint details are shown on dwg. VG.335.
- Final M.H. station was determined by the Engineer.
- For details of construction joint - See dwg. No. VG.335.

QUANTITIES PARTIAL LISTING

The below listed quantities are approximate and for estimating purposes only. Minor items have not been listed.

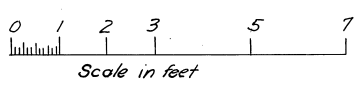
Concrete ----- 17 Cu. Yds.  
Steel ----- 2000 lbs

REV. NO.	DATE	DESCRIPTION
AS-BUILT	DEC. 4, 1953	
1	1-6-49	Misc. drafting corrections

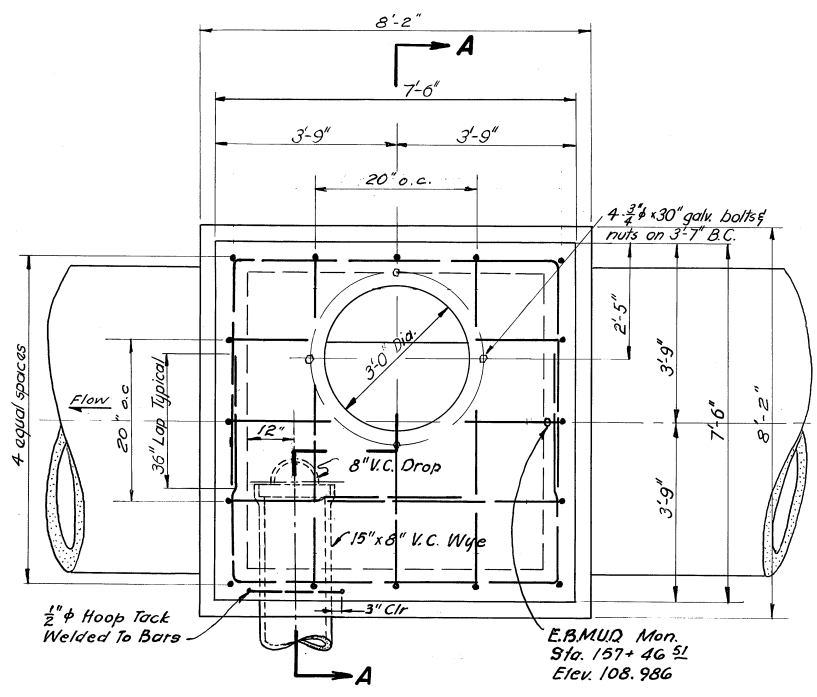
EAST BAY MUNICIPAL UTILITY DISTRICT  
SPECIAL DISTRICT No. 1  
OAKLAND, CALIFORNIA

**NORTH INTERCEPTOR  
MANHOLE STRUCTURES  
STA. 145+92 ±**

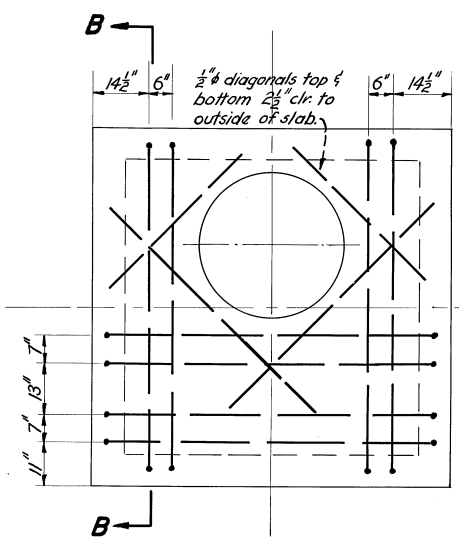
DRAWN BY J.F. Brewer	TRACED BY JFB
CHECKED BY P.E.M. Callum	DATE Oct. 27, 1948
RECOMMENDED BY C.A. Root	SCALE As Shown
APPROVED BY [Signature]	NO. VG-607



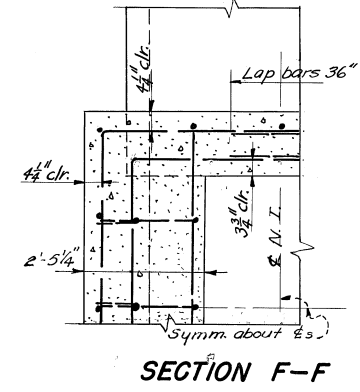
APPROVED [Signature] CHIEF ENGINEER & GENERAL MANAGER



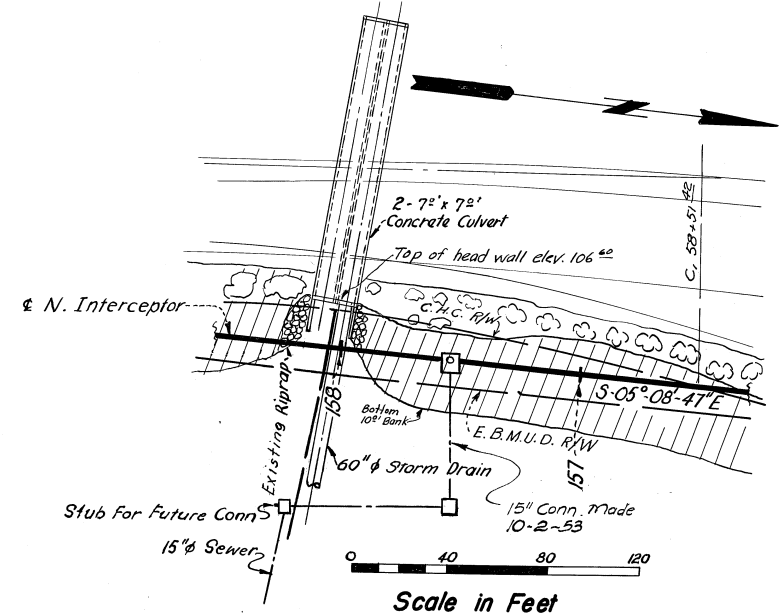
PLAN



SECTION B-B  
(Placement of extra bars  
except diagonals)

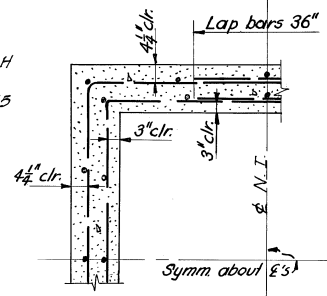


SECTION F-F

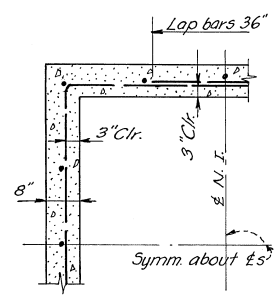


KEY PLAN

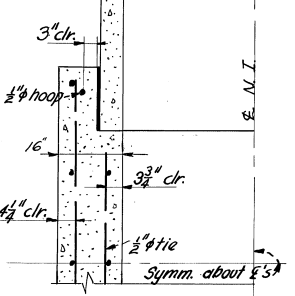
ROOF SLAB EXTRA BARS



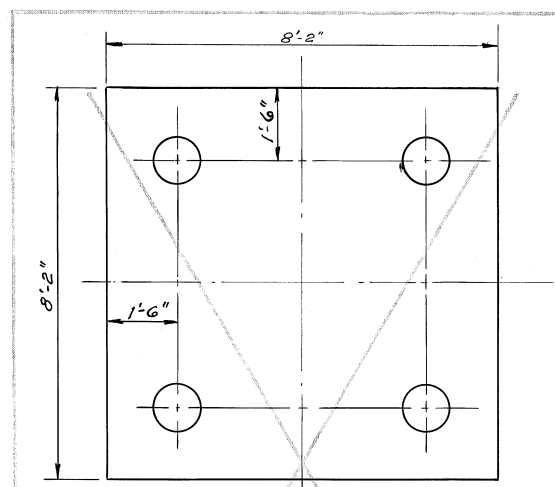
SECTION E-E



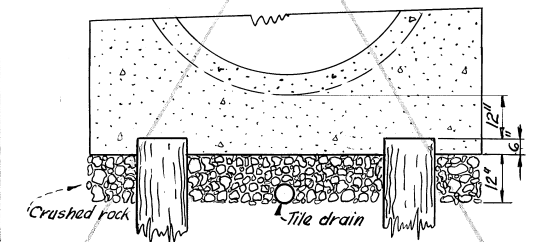
SECTION H-H



SECTION G-G

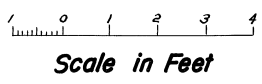


PLAN of PILING

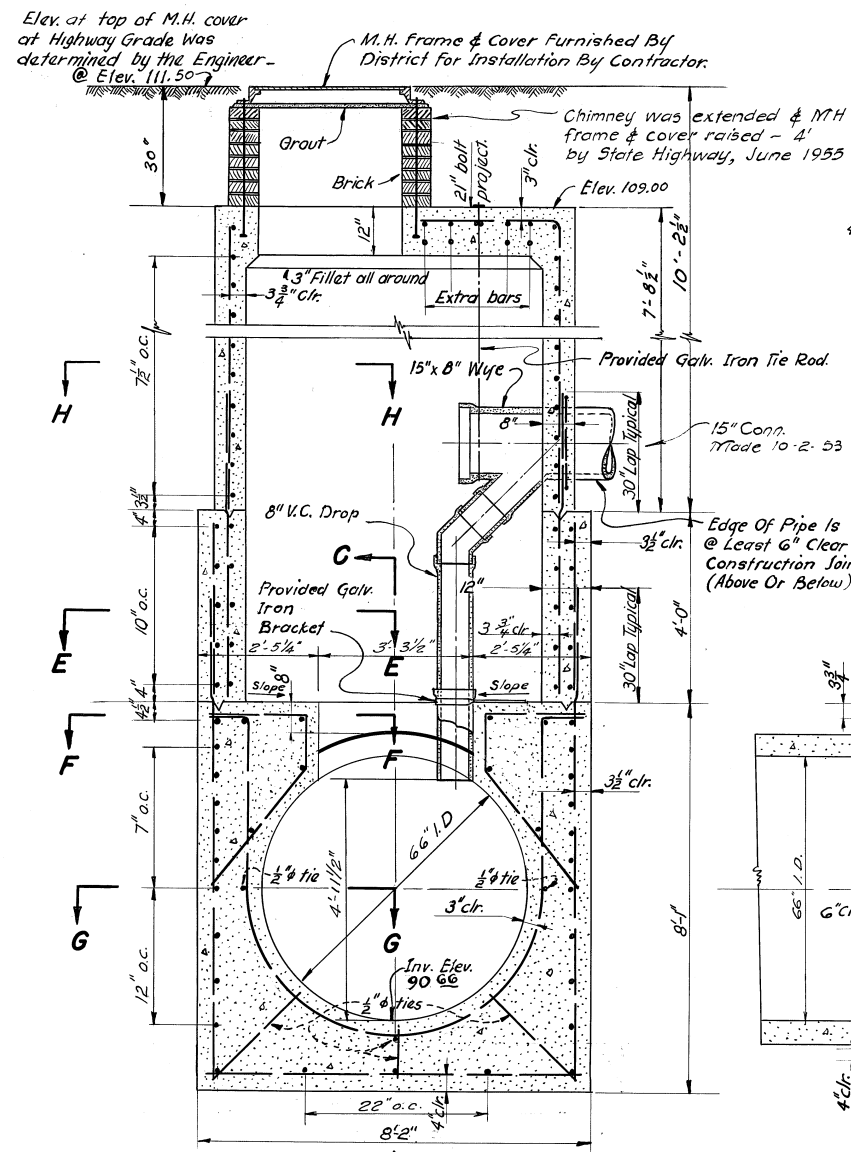


PILE FOUNDATION BEDDING  
(No reinforcing steel shown)

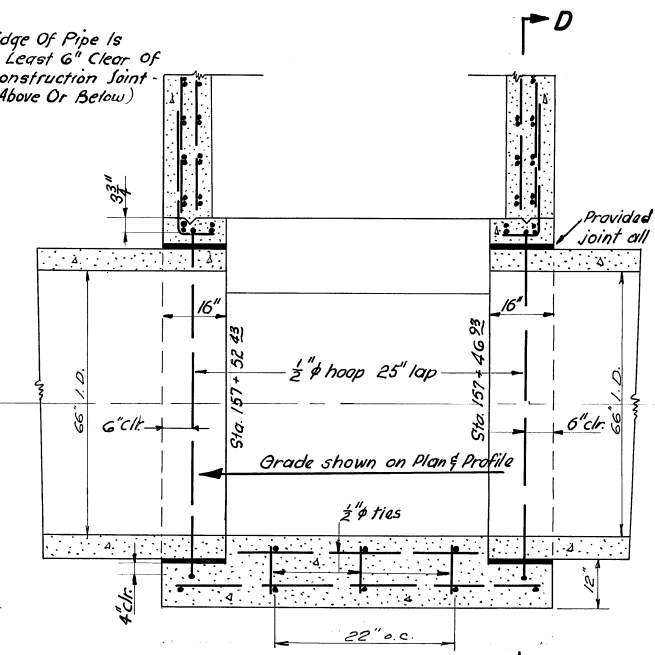
-NOT USED-



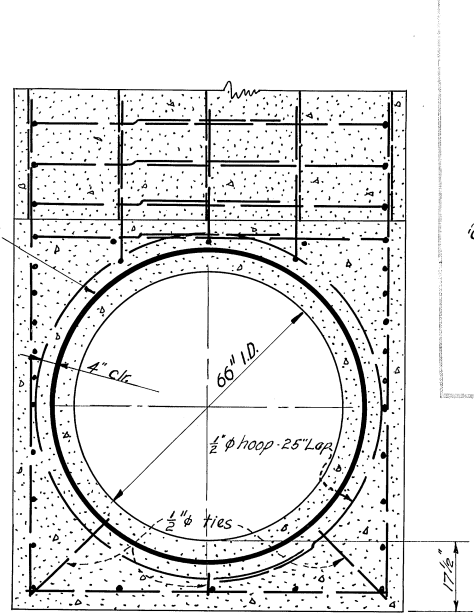
Scale in Feet



SECTION A-A



SECTION C-C



SECTION D-D

NOTES

- All bars  $\frac{3}{4}$ "  $\phi$  unless otherwise noted.
- Exterior corners chamfered 1"
- Pile foundation bedding to be used if called for by the Engineer.
- The Engineer specified length of piles req'd.
- Underdrain & crushed rock or gravel only when called for by the Engineer.
- Flexible joint details shown on Dwg. No. VG-335.
- Final M.H. station was determined by the Engineer.
- For details of construction joint- See Dwg. No. 335.
- All Galv. Metal to be coated with bitumastic or hot tar coating.

QUANTITIES

PARTIAL LISTING

The below listed quantities are approximate and for estimating purposes only. Minor items have not been listed.

Concrete	21 cu. yds.
Steel	2500 lbs.

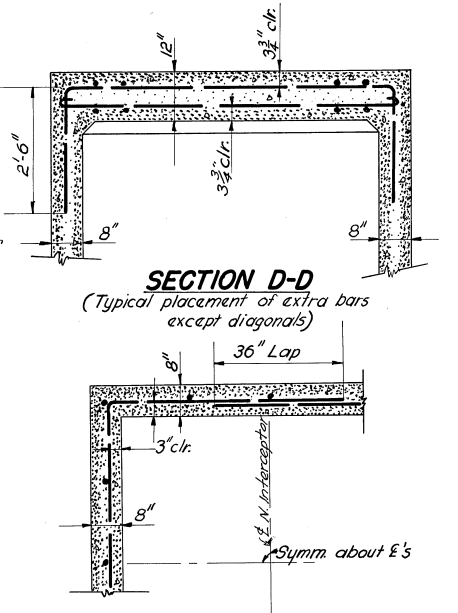
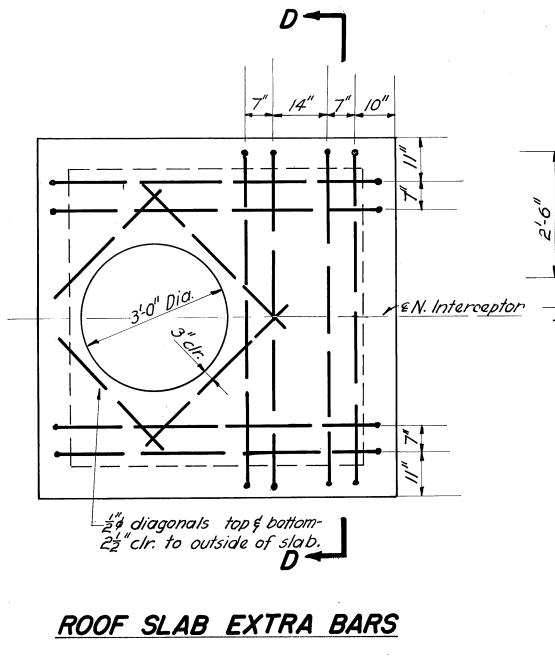
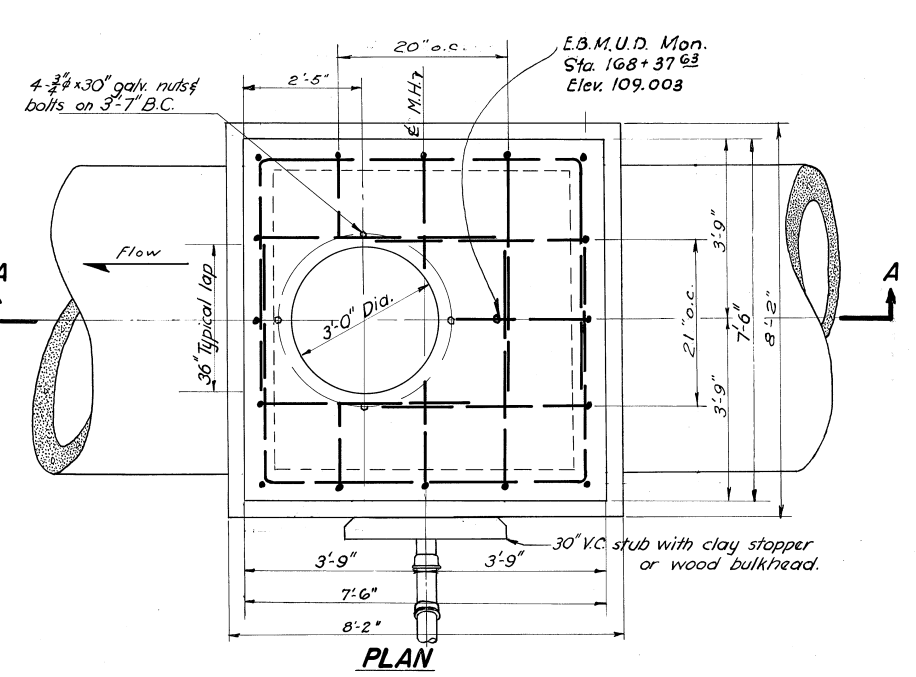
REV. NO.	DATE	DESCRIPTION
1	1-6-49	Misc. drafting corrections

EAST BAY MUNICIPAL UTILITY DISTRICT  
SPECIAL DISTRICT No. 1  
OAKLAND, CALIFORNIA

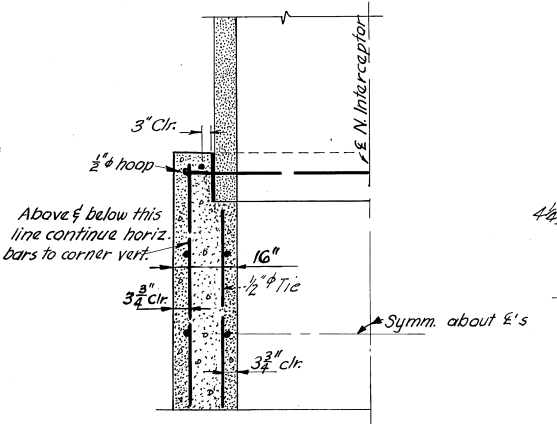
**NORTH INTERCEPTOR  
MANHOLE STRUCTURE  
STATION 157+50±**

DRAWN BY	MILES	TRACED BY	GIULIANO
CHECKED BY	M <sup>c</sup> COLLUM L.C.	DATE	10-26-48
RECOMMENDED BY	Ed. R. Roney	SCALE	A5 SHOWN
APPROVED BY	Ed. R. Roney	NO.	VG 608

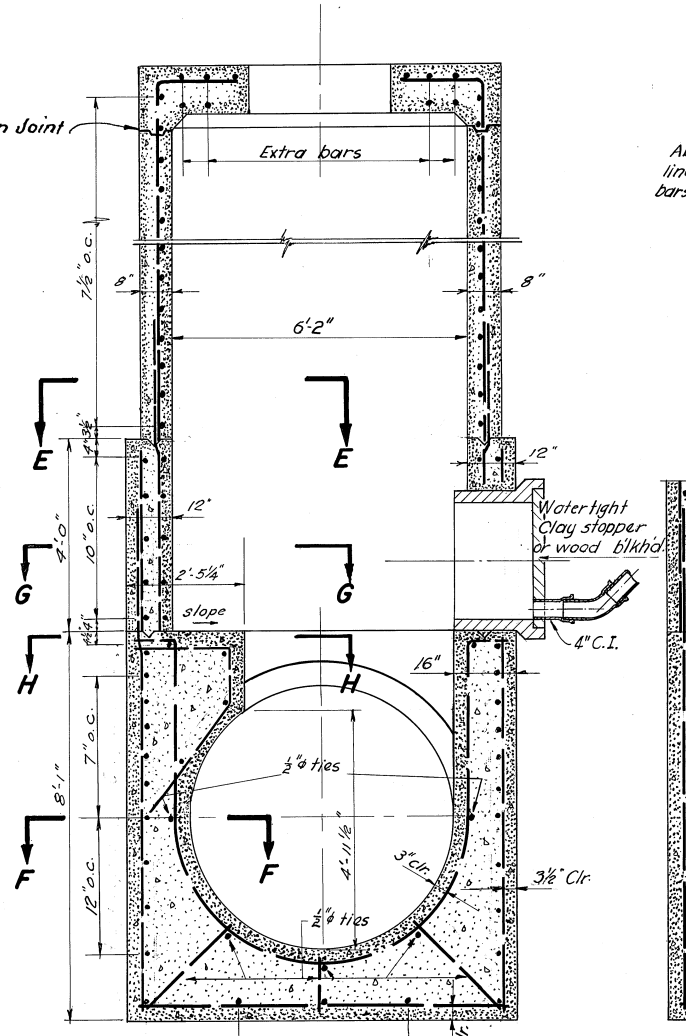
APPROVED: [Signature] CHIEF ENGINEER & GENERAL MANAGER



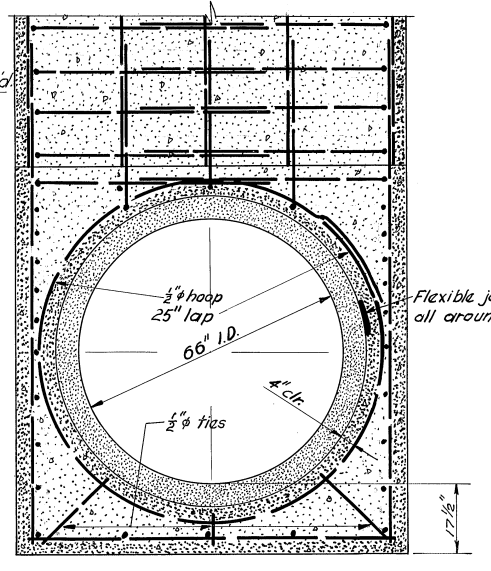
SECTION E-E



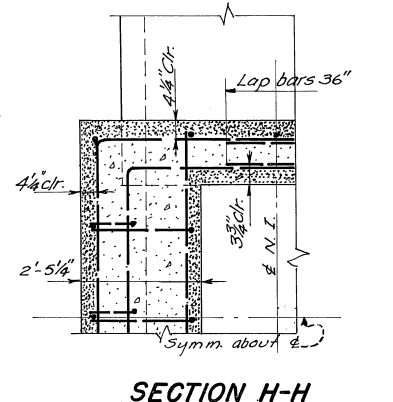
SECTION F-F



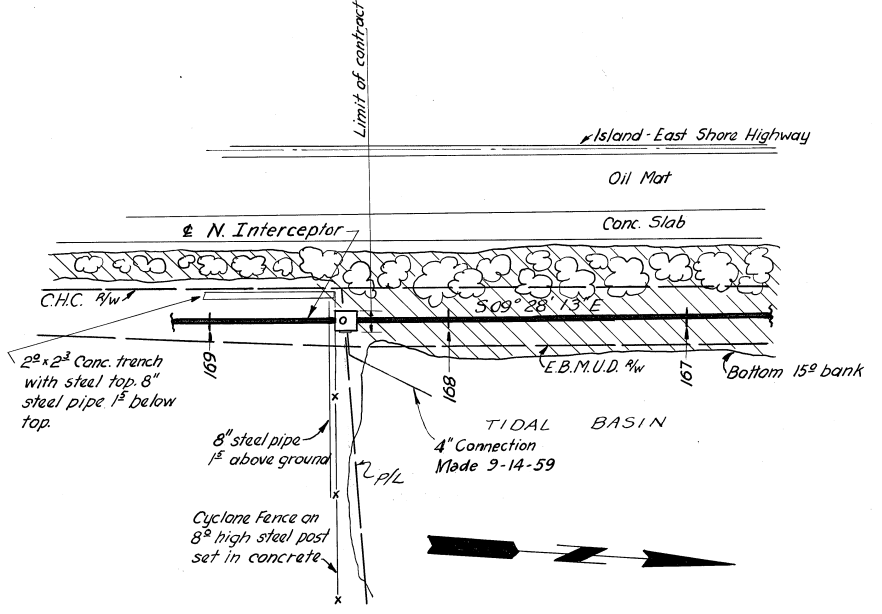
SECTION G-G



SECTION H-H



Scale in Feet



**NOTES**

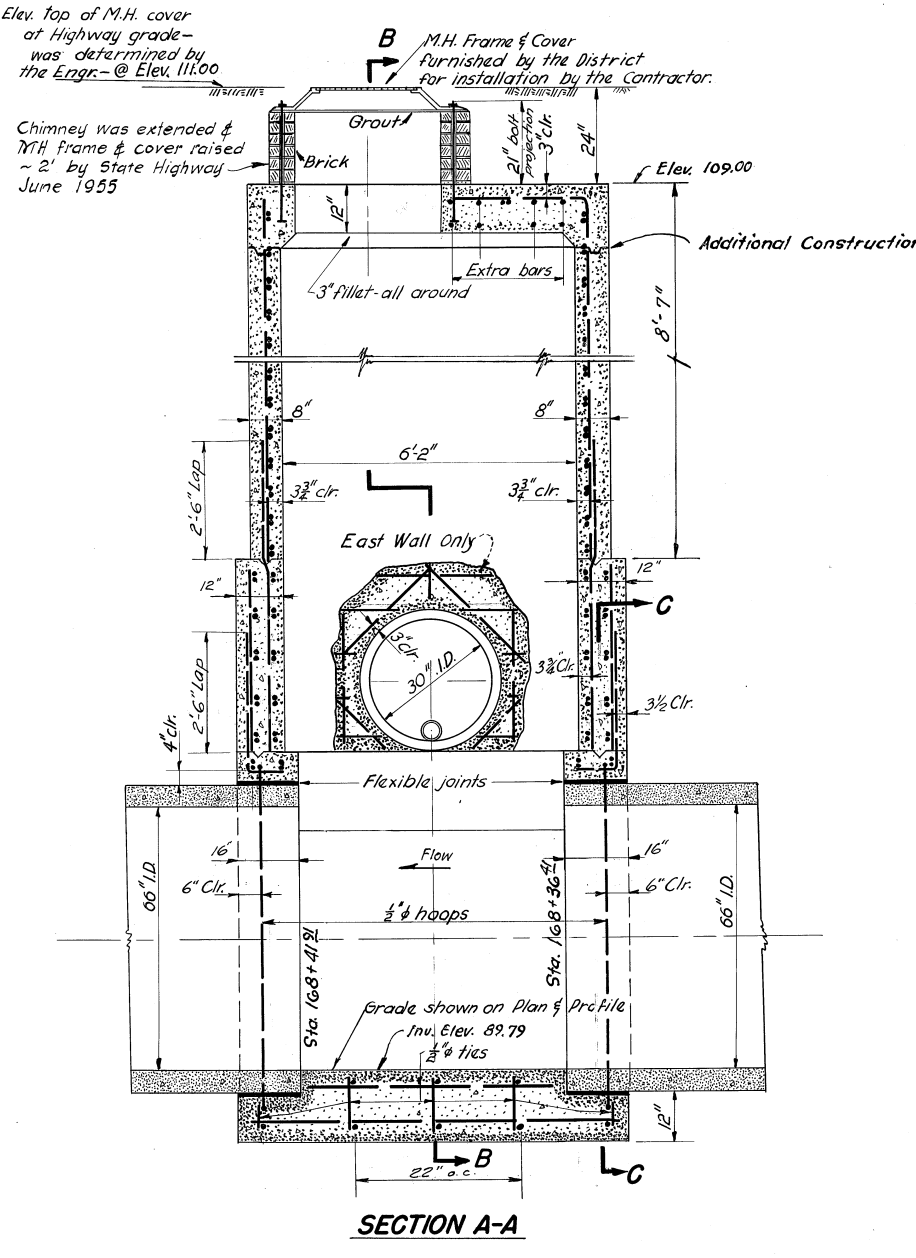
- Refer to Plan & Profile for additional information.
- All bars 3/4" unless noted.
- All exterior corners were chamfered 1".
- Flexible joint details are shown on Dwg. No. VG-335.
- Final M.H. Station was determined by the Engineer.
- For details of construction joint - see dwg. No. VG. 335.

**QUANTITIES PARTIAL LISTING**

The below listed quantities are approximate and for estimating purposes only. Mirror items have not been listed.

Concrete ..... 17 cu. yds.  
Steel ..... 2100 lbs.

REV. NO.	DATE	DESCRIPTION
AS-BUILT	DEC. 9, 1953	
1	1-6-49	Misc. drafting corrections
EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		
<b>NORTH INTERCEPTOR</b> <b>MANHOLE STRUCTURE</b> <b>STATION 168+40±</b>		
DRAWN BY	BREWER	TRACED BY GIULIANO
CHECKED BY	MC COLLUM-GIULIANO	DATE OCT. 28 '48
RECOMMENDED BY	A. H. ROSE	SCALE AS SHOWN
APPROVED BY	REARDON	NO. VG 609



APPROVED: [Signature] CHIEF ENGINEER & GENERAL MANAGER