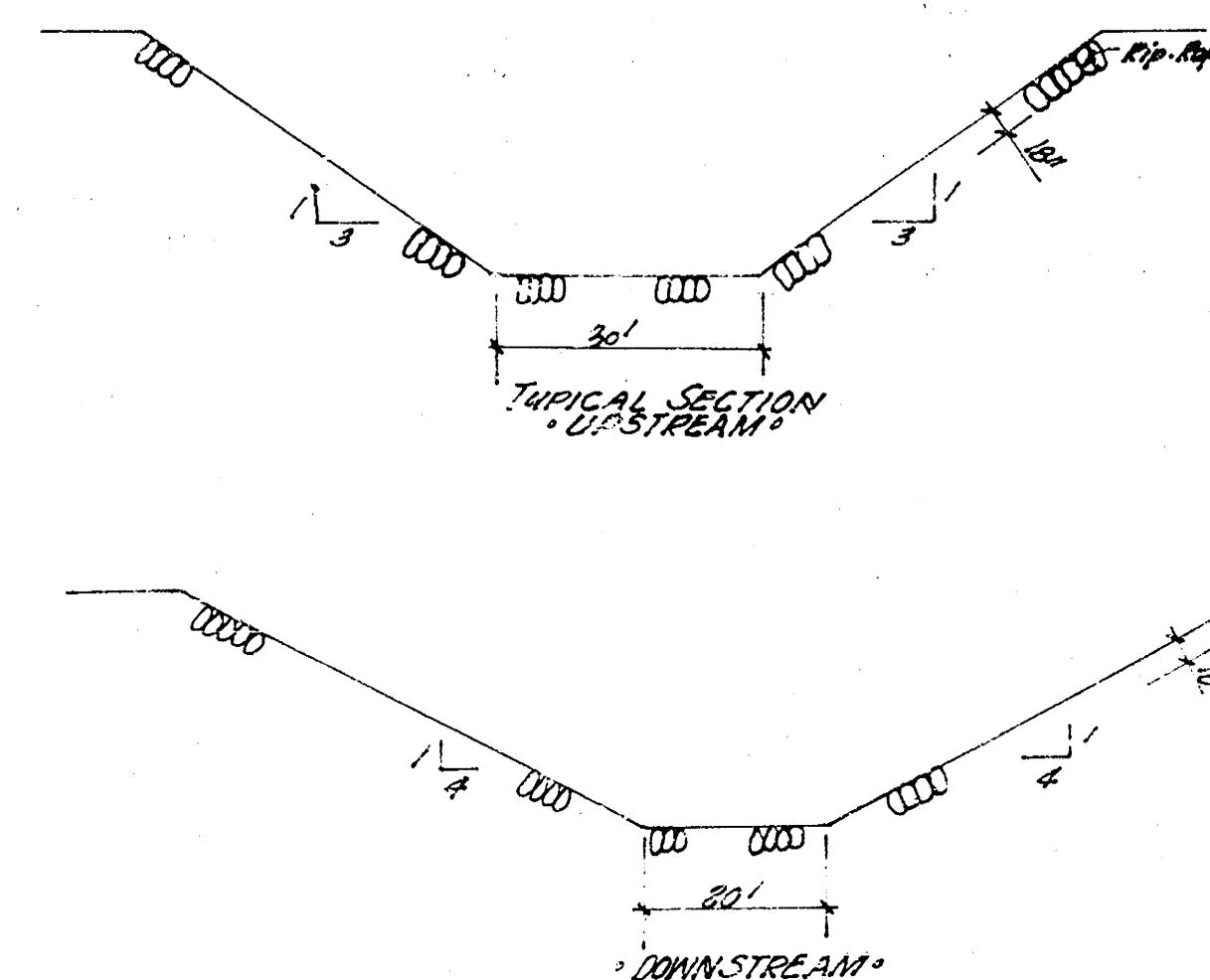
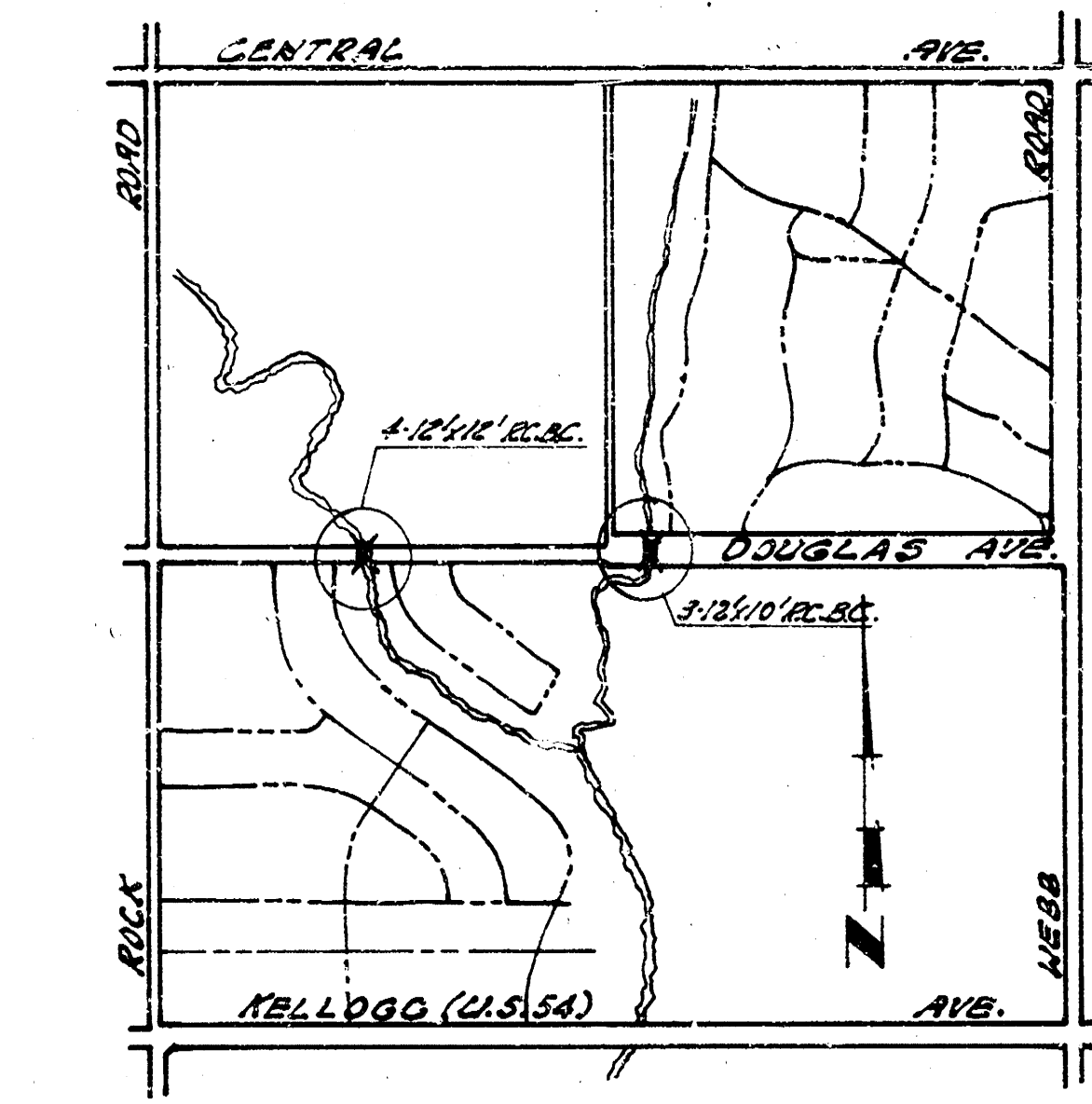
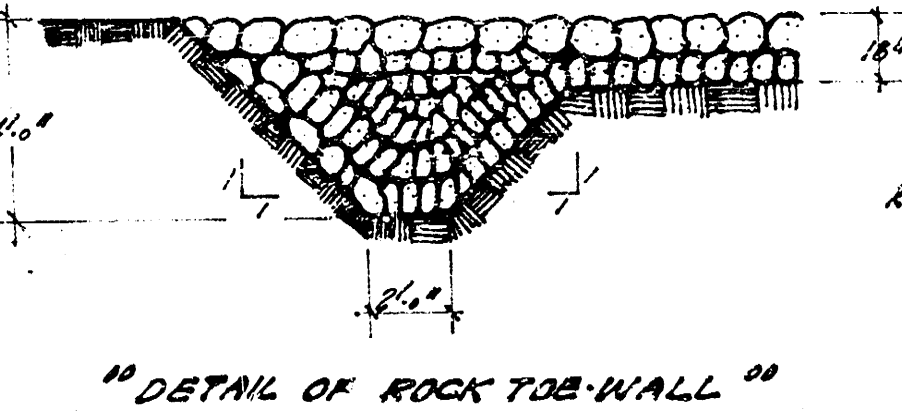


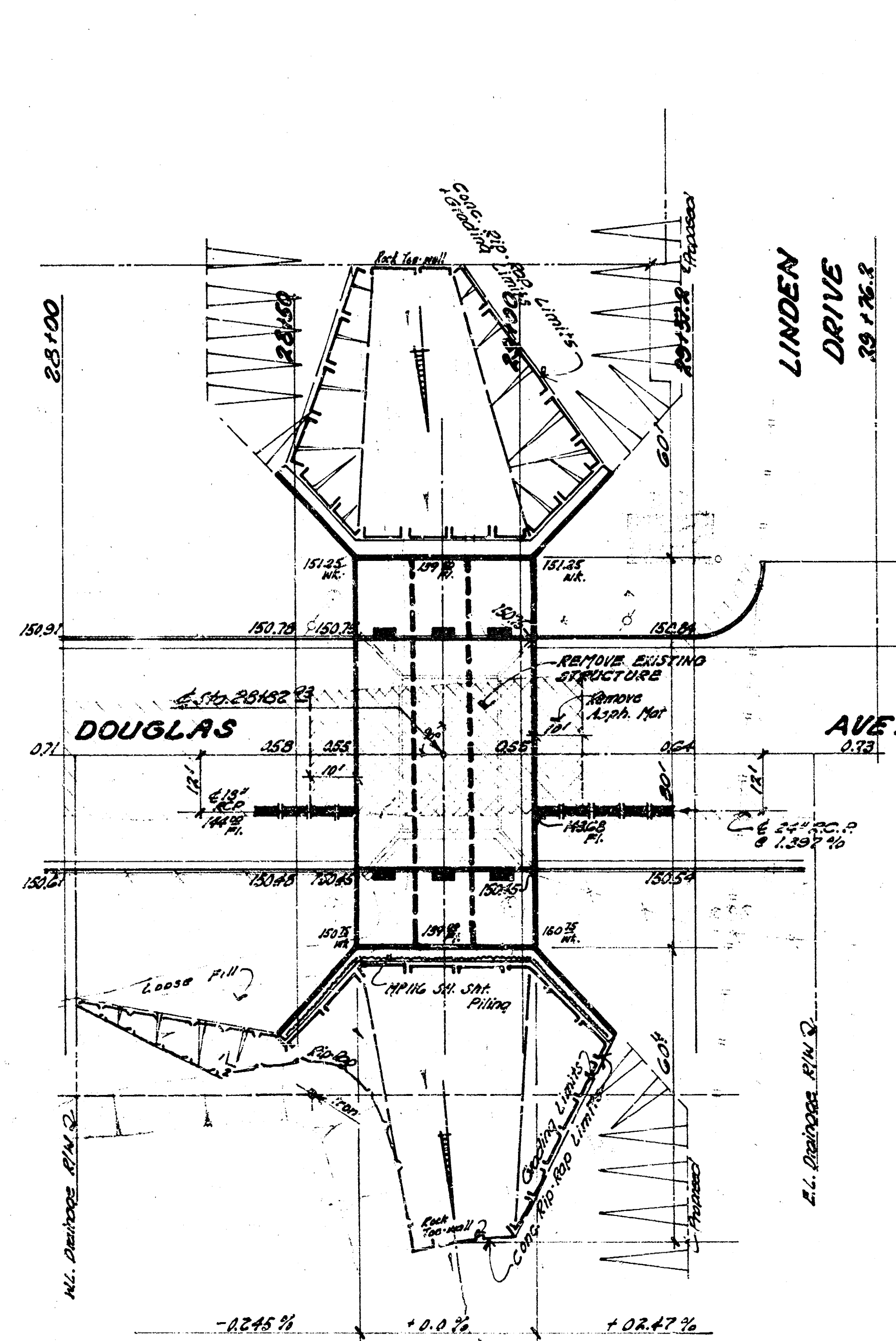
Plan - Sec
12



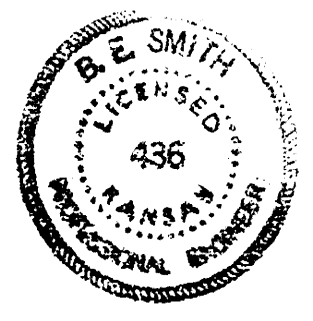
3-4' Conc. Rip-Rap in downstream area to be determined by the amount of material furnished by "OTHERS".



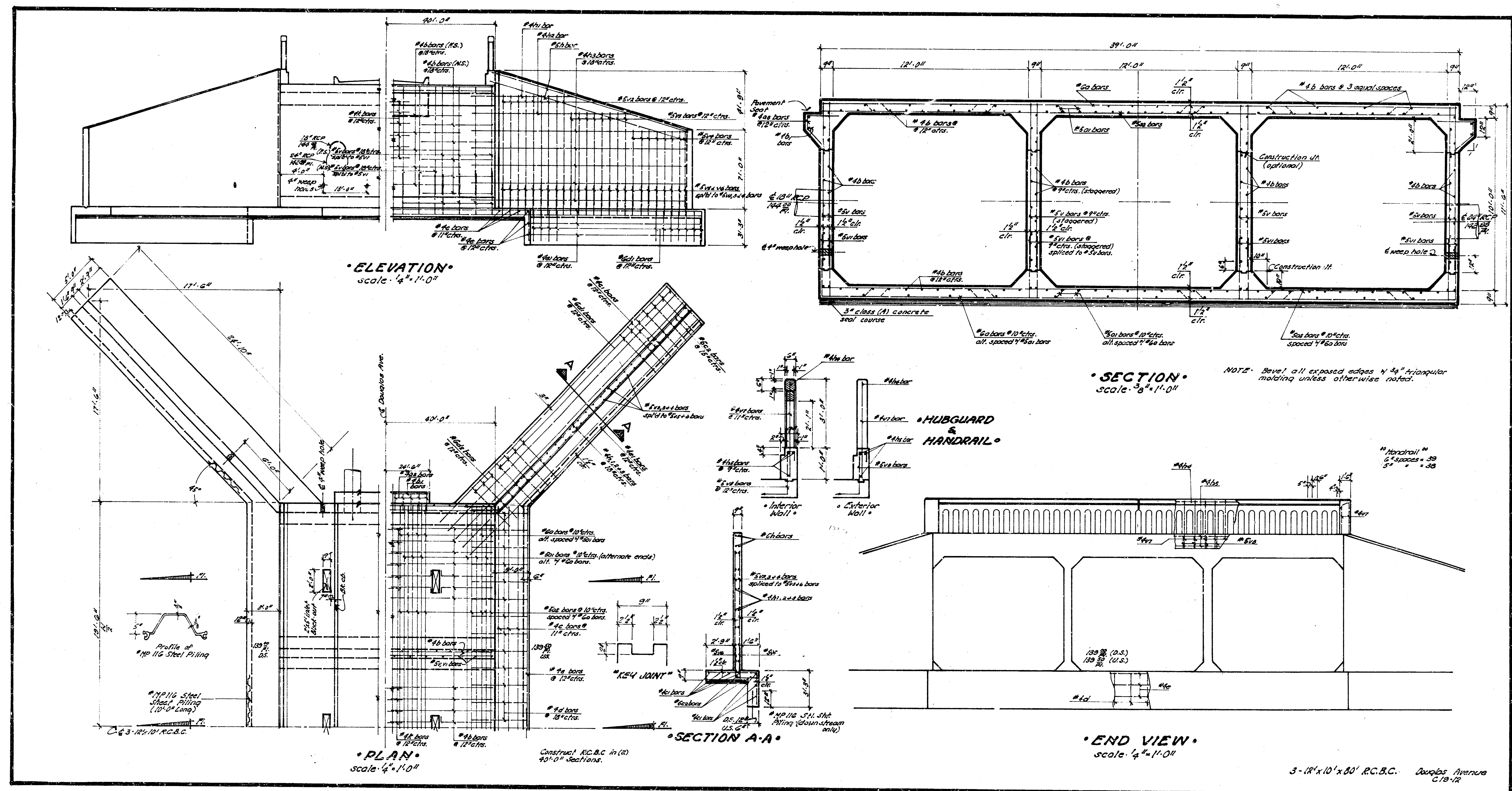
Rip-Rap - To be of broken concrete with max. size stone of 30 pounds; avg. size 30 to 50 pounds; not more than 10% of material composed of pieces which are less than 10 pounds. Neither depth nor the thickness of any piece shall be less than 1/8 its length.

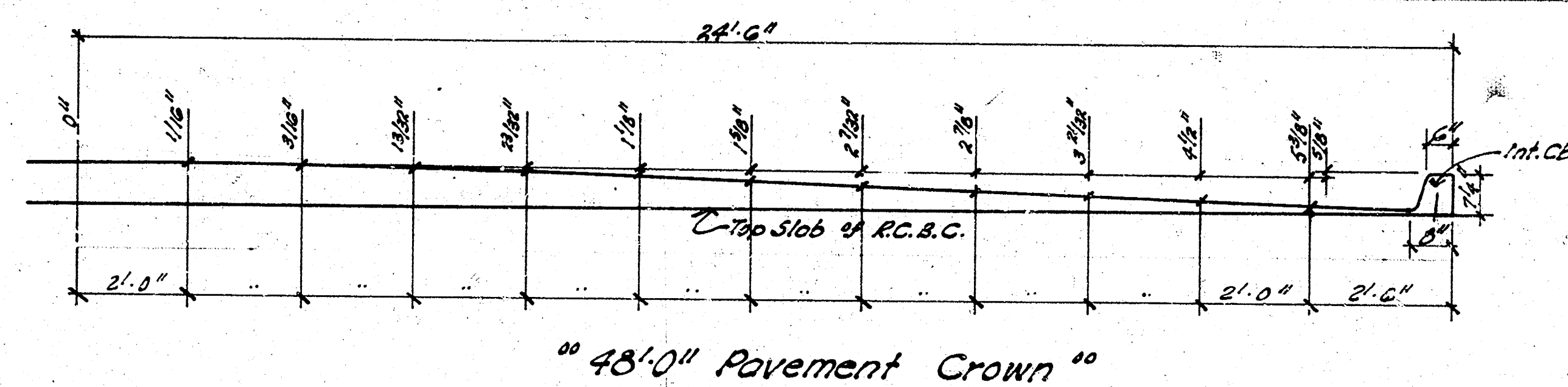


NOTE TO CONTRACTOR & ENGINEER: This Project to be cross-sectioned before and after to determine final quantities for earthwork. Retain Contractor to fill area below c.s. & subgrade across R.C.B.C.'s



3-12x10' R.C.B.C. in Connection With
Improvement On Douglas
Ave. - Rock Road - North
City of Wichita, Kansas
B.E. Smith City Engineer
Date: Sept. 1969 Project No. C19-12





BAR SCHEDULE							
Lot	Size	Length	No.	Location	Shape	Secans	Acres
3	1/2	34'-9"	193	box	—	10"	1117.94
4	1/2	30'-0"	178	"	—	10"	796.86
5	1/2	38'-9"	176	"	—	10"	779.76
6	1/2	40'-0"	180	box	—	12"	846.36
7	1/2	35'-9"	320	"	—	9 1/2"	1017.44
8	1/2	25'-0"	8	box	—	11"	134.43
9	1/2	35'-9"	6	ocean	—	11"	155.31
10	1/2	20'-0"	16	Winnell	—	14"	315.30
11	1/2	20'-0"	5	Winnell	—	14"	324.67
12	1/2	8'-0"	56	ocean	—	17"	271.69
13	1/2	71'-0"	98	Winnell	—	18"	1070.83
14	1/2	71'-0"	12	Winnell	—	12"	85.61
15	1/2	24'-0"	12	Winnell	—	14"	179.02
16	1/2	24'-0"	16	Winnell	—	14"	353.50
17	1/2	12'-0"	8	"	—	12"	64.18
18	1/2	14'-0"	8	"	—	12"	104.36
19	1/2	24'-0"	40	"	—	10"	712.53
20	1/2	24'-0"	4	hampden	—	9"	57.44
21	1/2	24'-0"	4	hampden	—	9"	57.44
22	1/2	31'-0"	104	box	—	12"	249.50
23	1/2	9'-0"	424	"	—	9"	4021.80
24	1/2	31'-0"	72	Winnell	—	9"	1421.68
25	1/2	31'-0"	72	Winnell	—	10"	736.13
26	1/2	9'-0"	400	"	—	14"	144.14
27	1/2	6'-0"	600	"	—	12"	445.02
28	1/2	5'-0"	200	"	—	12"	554.82
29	1/2	5'-0"	300	"	—	12"	828.49
30	1/2	5'-0"	500	hampden	—	11"	226.74
31	1/2	5'-0"	700	hampden	—	12"	306.85

BILL OF MATERIALS	QTY	UNIT	
CLASS 9.45 concrete	446.8	CU.METER	6.5
reinforcing steel	11.65	T.M	6.5
concrete reinforcement	78.0	Sq.Ft	6.5
rod excavation	84.0	Sq.Ft	6.5
Mining Steel Sheet Piling	78.0	Sq.Ft	6.5
inf. pump	1.0	HR	6.5
CLASS 9.45 Concrete	1.0	CU.METER	6.5
exc. inlets	5	Sq.Ft	6.5
18" RCP	5	EA	6.5
18" "	5	Sq.Ft	6.5
Class 9.45	18.0	Sq.Ft	6.5
rough. 100' rem.	100	Sq.Ft	6.5
Excav. Structure Rem.	100	Sq.Ft	6.5
Clearing 100'	100	Sq.Ft	6.5
concrete excavation	1100	CU.METER	6.5
concrete fill	100	Sq.Ft	6.5
loose fill	87.0	CU.CYCLE	6.5

Lump Sum Bid = 2.5

1200' 30" = 6.1

"GENERAL NOTES"

"CLASS A" Concrete shall be used throughout this Project. All Reinforcing Steel shall conform to ASTM Specifications.

"EARTHWORKS": all earthwork shall be considered as "Common Excavation" except for the follow:

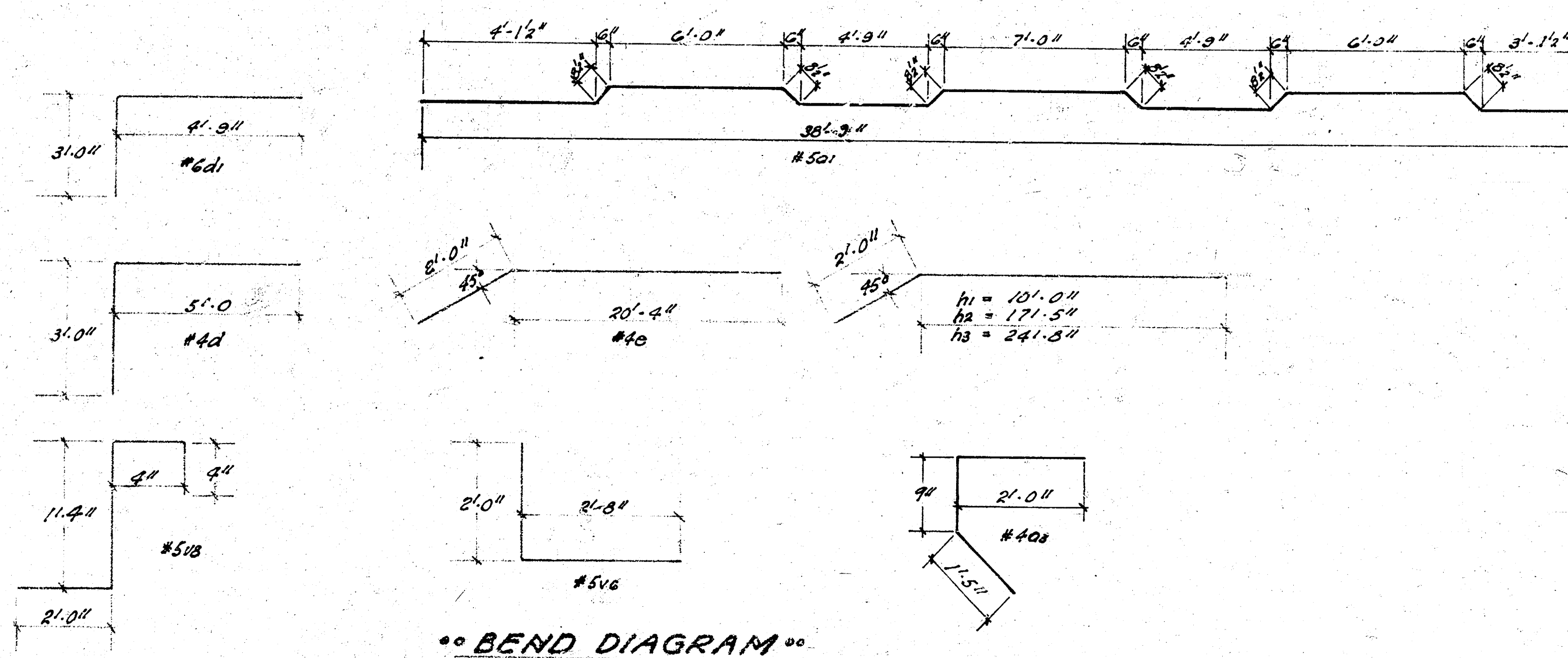
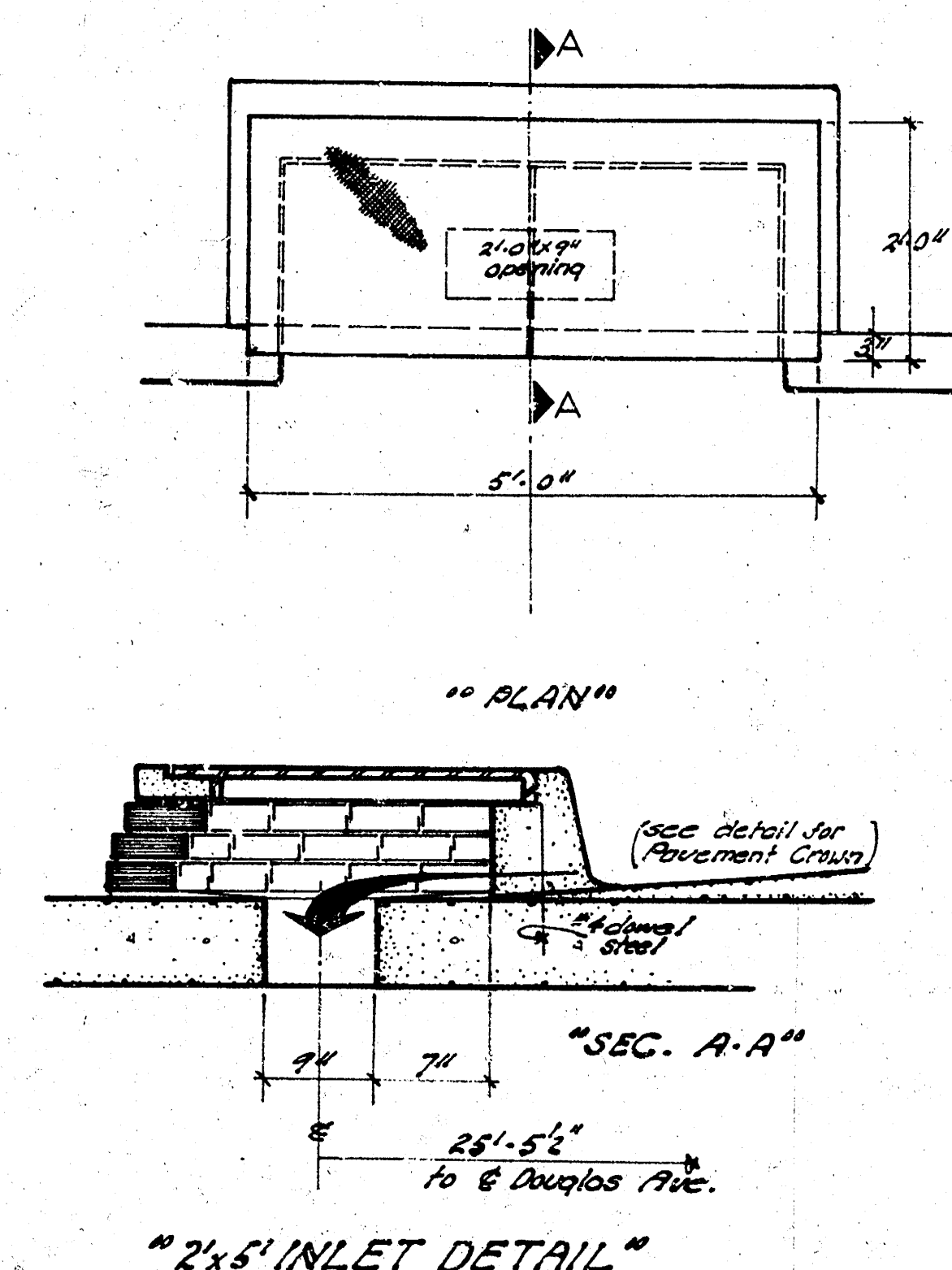
"TRENCH BACKFILLING": shall be included in "Lump Sum Bid".

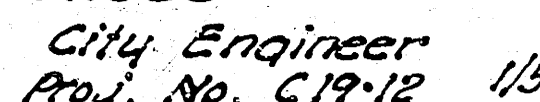
"GRAVELLE" shall be compared to the action of any permanent crops. All backfill excavation to extend A-2 beyond sides of base wingwalls ~~shall fill~~ will be included in Lump Sum Bid.

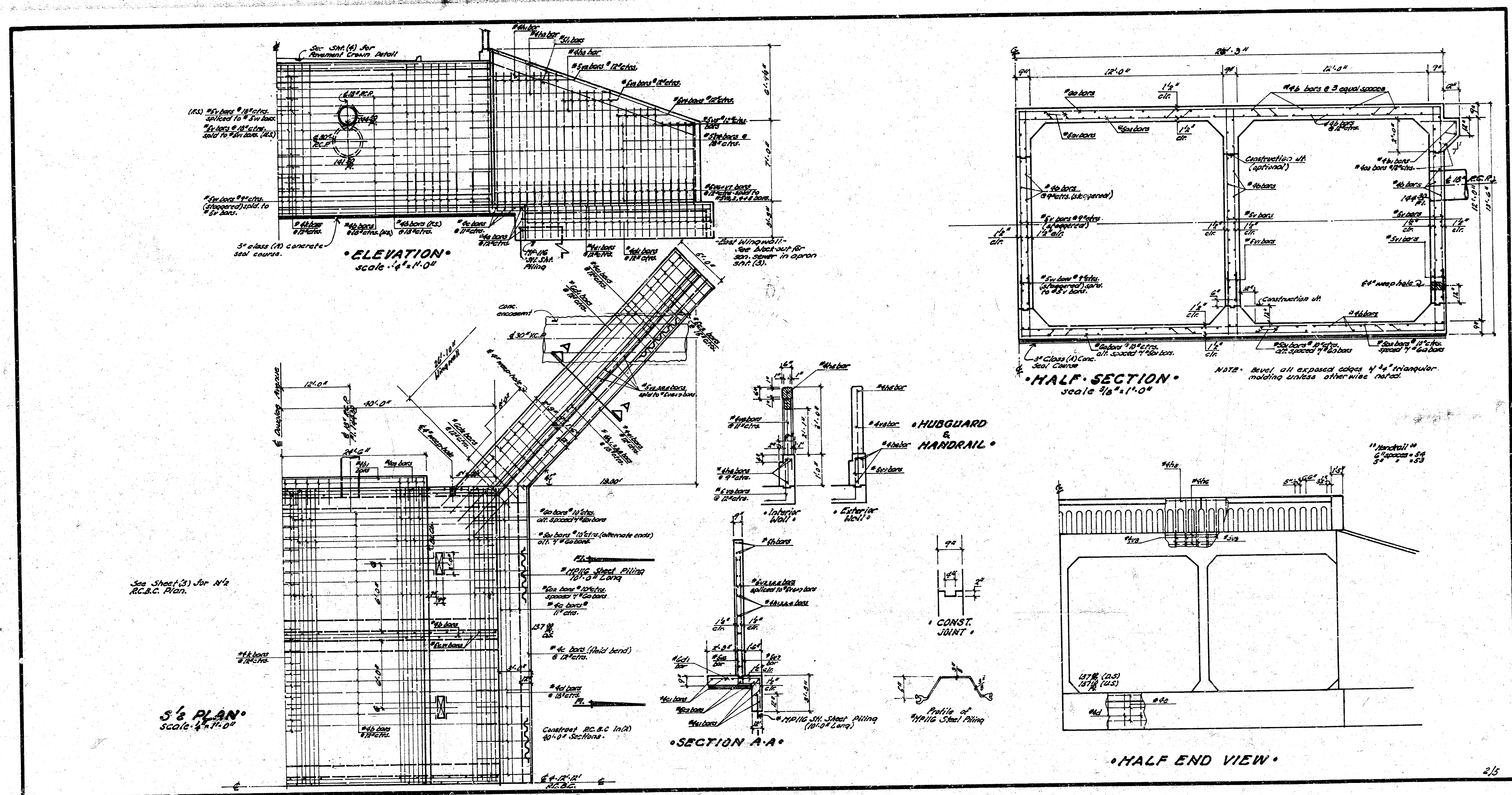
"MAINTENANCE" course aggregate will be deposited ~~into pits~~ to be included in Lump Sum Bid, existing in all directions above keep hole flowline. This work will not be paid directly, but will be covered by the contractor's bid.

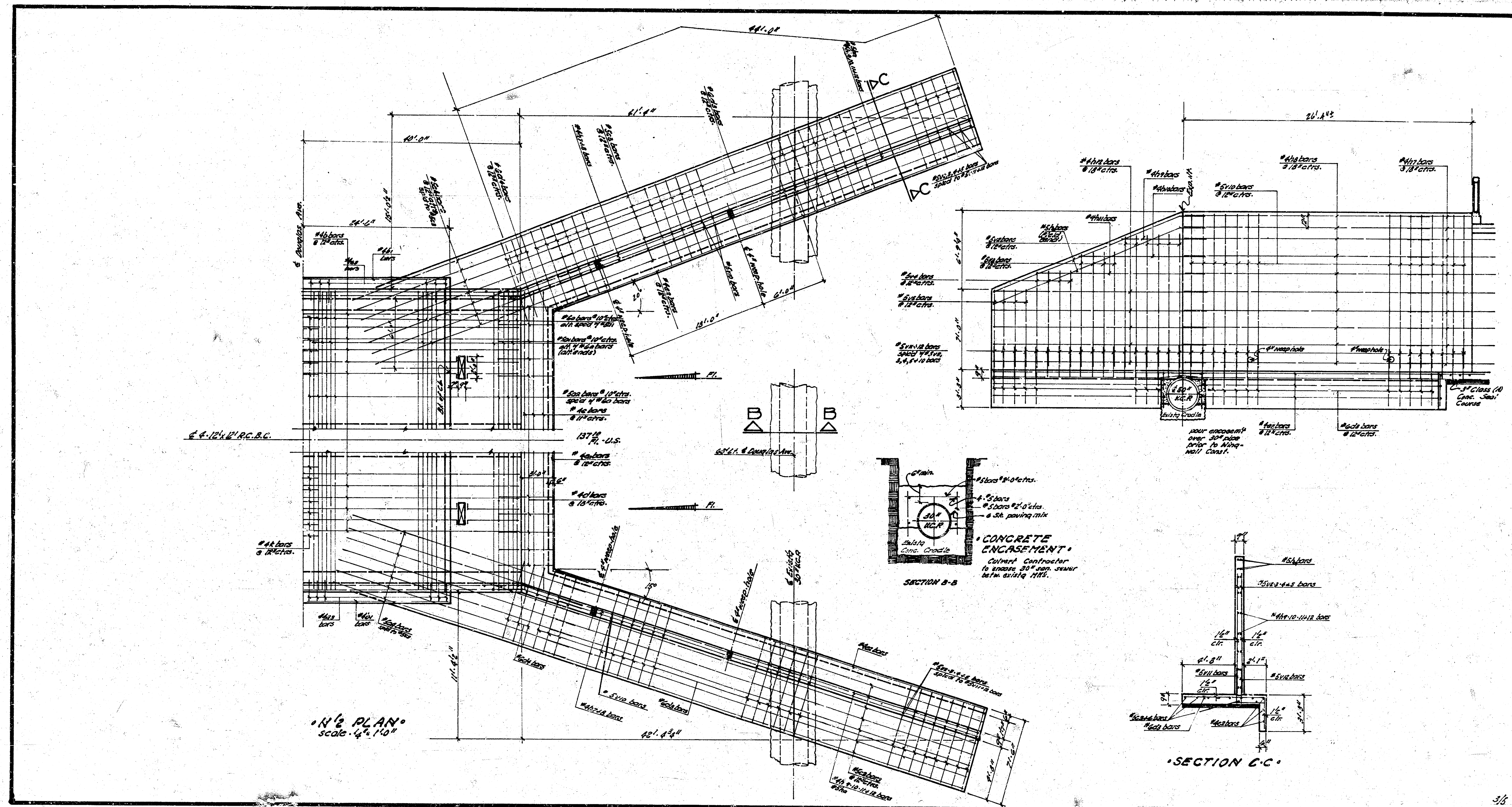
"SEAL COURSE": a seal course consisting of 60% class II concrete shall be constructed only where specified in the Plans or by the Engineer. No reinforcing steel is placed until the seal course has gained sufficient strength to permit working upon it without injury.

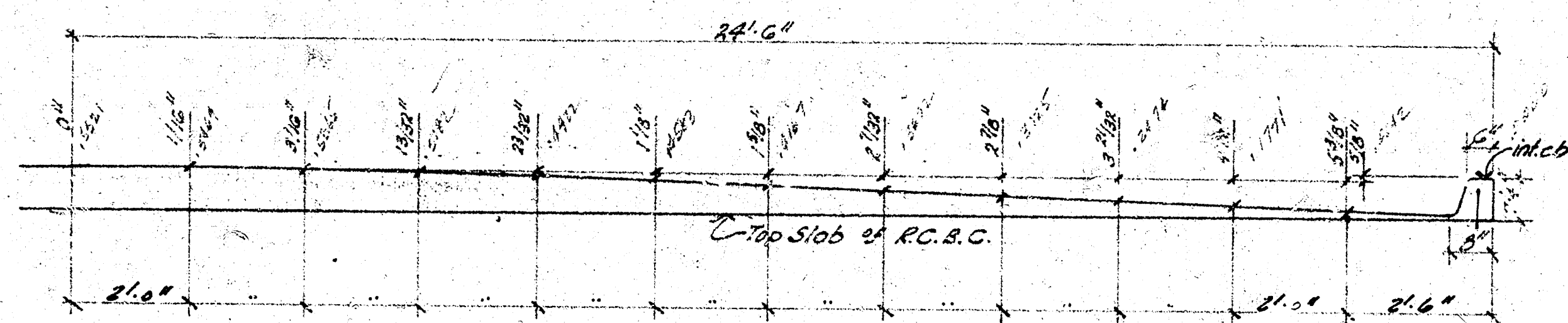
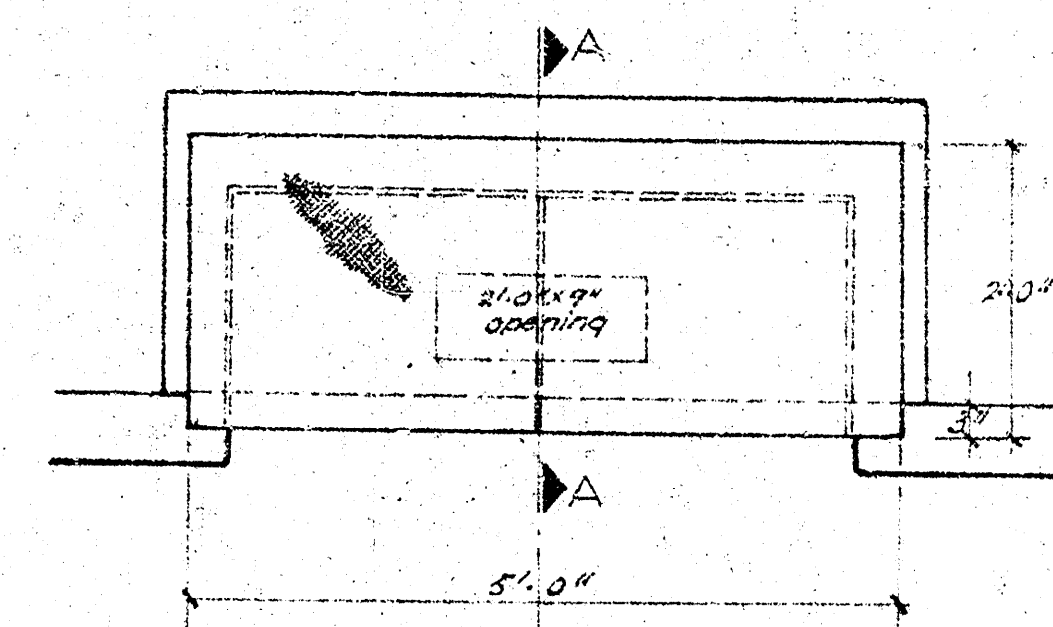
"Paved Driveways": The Culvert shall be below a "Lump Sum Bid" except for the following items: ~~Class A Conc., Backfilling, Class C Conc., Rip-Rap, Maintenance Course, Sealing Structure Run, Gravel Sh. Rilling~~ Class A Conc., Common Excavation, Compacted Fill, Quantities shown in the Bill of Materials or Items which are included in the "Lump Sum Bid" of the Culvert are for information only. The Contractor shall verify the quantities and the Engineer assumes no responsibility for their accuracy. The Contractor will have full responsibility for providing all materials shown in the detailed plans necessary to complete this project.



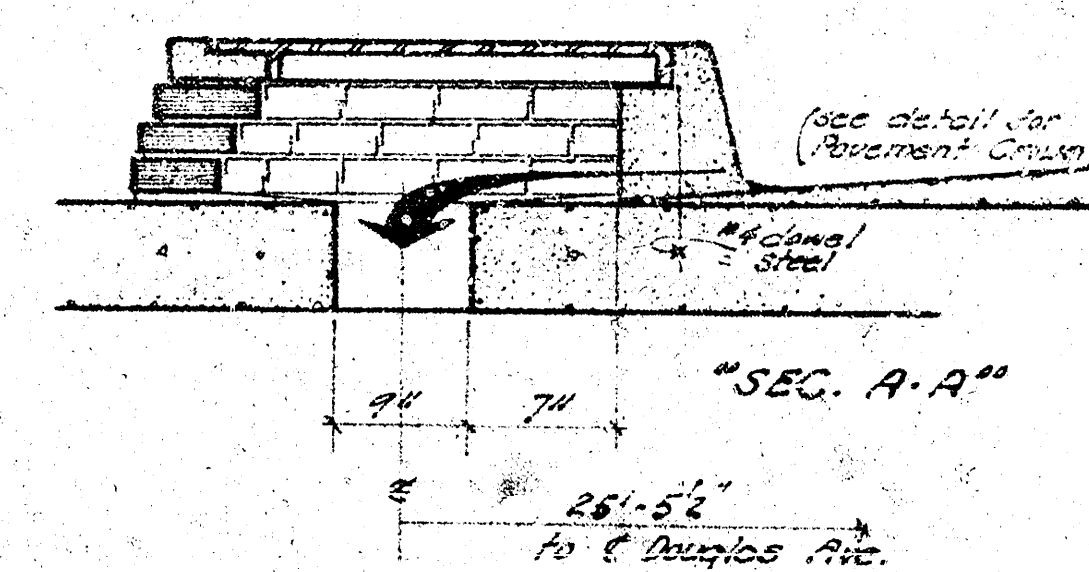






⁰⁰ 48'-0" Pavement Crown ⁰⁰

00 PLAN 00



2' x 5' INLET DETAIL

Bar	Size	Length	No.	Location	Shape	Spacing	Weight
A	#5	26'-0"	306	box	—	10"	1676.91
B	#5	26'-10"	310	"	~	10"	1676.11
C	#5	26'-0"	306	"	—	10"	1673.31
D	#5	30'-0"	320	box	~	10"	228.34
E	#5	30'-0"	316	"	~	10"	1644.39
F	#5	28'-0"	6	box	—	9"	154.49
G	#5	28'-0"	12	2nd fl.	—	11"	167.09
H	#5	31'-5"	4	wing wall	—	18"	180.15
I	#5	31'-5"	4	"	—	18"	344.77
J	#5	3'-0"	72	"	—	18"	502.03
K	#5	7'-3"	50	wing wall	—	18"	62.41
L	#5	4'-3"	6	"	—	18"	218.28
M	#5	14'-8"	84	"	—	18"	65.38
N	#5	17'-0"	6	"	—	18"	153.87
O	#5	38'-0"	6	garage	—	18"	160.30
P	#5	40'-0"	6	"	—	18"	155.58
Q	#5	38'-0"	4	"	—	—	37.59
R	#5	41'-0"	4	"	—	—	65.48
S	#5	63'-5"	7	"	—	—	66.12
T	#5	29'-0"	20	"	—	18"	264.61
U	#5	12'-10"	3	handrail	—	18"	60.59
V	#5	12'-10"	24	handguard	—	9"	305.78
W	#5	3'-0"	40	wing wall	—	18"	619.76
X	#5	3'-0"	40	"	—	18"	586.52
Y	#5	7'-0"	4	"	—	—	15.03
Z	#5	11'-0"	4	"	—	—	30.75
AA	#5	14'-0"	4	"	—	—	60.97
AB	#5	19'-0"	20	"	—	18"	559.89
AC	#5	3'-0"	104	bar	—	12"	368.74
AD	#5	11'-0"	64	"	—	9"	770.47
AE	#5	27'-0"	20	"	—	18"	668.30
AF	#5	3'-0"	30	wing wall	—	18"	335.76
AG	#5	3'-0"	30	"	—	18"	335.76
AH	#5	27'-0"	30	"	—	18"	668.30
AI	#5	3'-0"	116	handrail	—	18"	617.55
AJ	#5	18'-0"	108	handguard	—	12"	1109.25
AK	#5	18'-0"	108	wing wall	—	12"	1109.25

BILL OF MATERIALS

	ITEM	QUANTITY	UNIT
	class A/A-2 concrete	539.0	CU YDS.
	reinforcing steel	72,259.68	LBS.
	concrete handrail	105.0	L.F.
	hard excavation	1,620	CU YDS.
	MP 116 S/S Sheet Piling	1002.0	S.F.
	compacted fill	2345.0	CU YDS.
	common excavation	19,940	CU YDS.
	class A concrete	4,128	CU YDS.
	24" inlets	3	EA.
	18" R.C.P.	5	L.F.
	30" "	5	L.F.
	250th. mat rem.	279.44	S.Y.
	grate structure rem.	1	EA.
	clearing of R/W	45.0	linear feet
	class A concrete (San. sewer encasing)	75.0	CU YDS.
	conc. rd. trap	576.0	CU YDS.
	int. curb	106.0	L.F.
	grass fill	465.0	CU Y.
	Manhole Adjustments	3	ADJ.

00 GENERAL NOTES 00

*CLASS A-AE Concrete shall be used throughout this Project. All Reinforcing Steel shall conform to A.S.T.M. Specifications.

*"EARTHWORK" all earthwork shall be considered as "Common Excavation" except for the trench.
*Trench excavation shall be included in "Cump Sum Bid"

excavation to extend to (2) beyond sides of base manholes. Loose fill of banks to be in Lump Sum Bid.

extending (5') in all directions above weep hole flow-line. This work shall not be paid for directly but shall be considered a part of the excavation work.

SEAL COURSE - a seal course consisting of (3") clear PVC membrane with

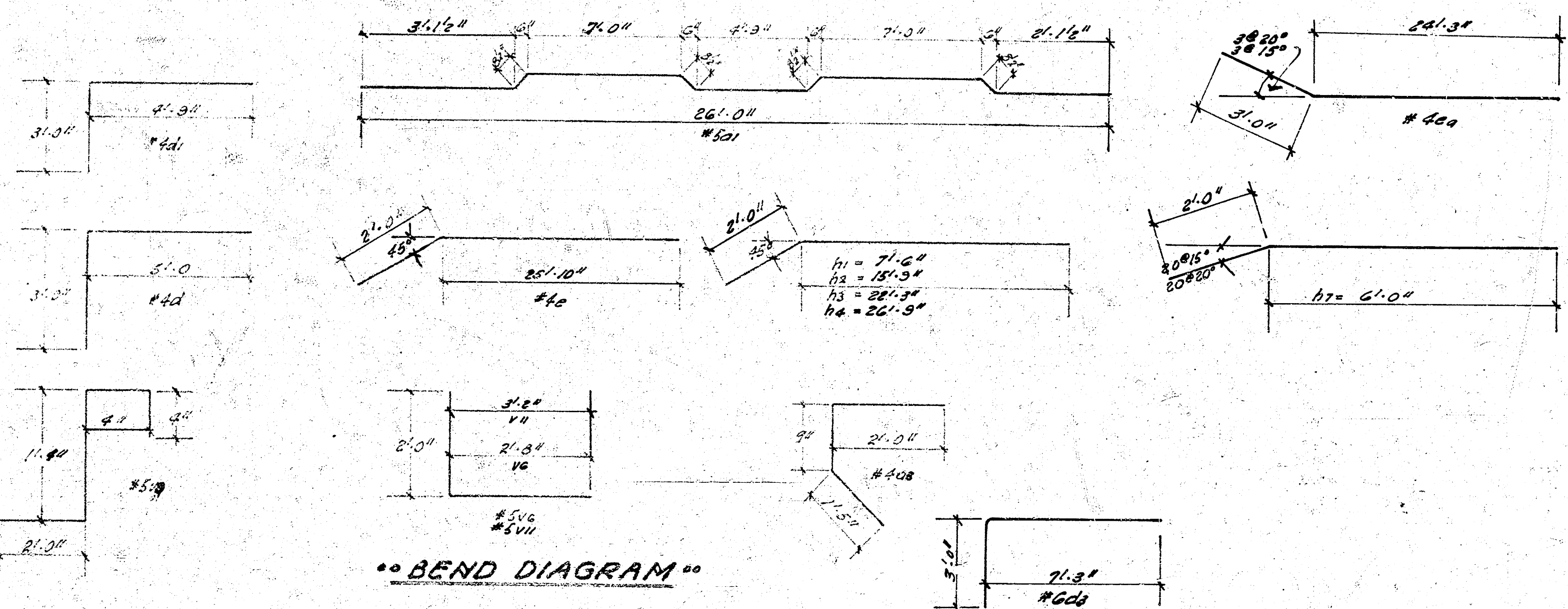
specified on the Plans or by the Engineer. No reinforcing shall be constructed only where gained sufficient strength to permit working upon it without injury.

intest, Camp Pili, Common Ekor, Class 1 conc, ~~Shilohs~~, ~~194-31-01-01~~, and ~~normal~~ ~~rem~~, ~~erect~~ ~~Structure~~ ~~rem~~, ~~Clearing~~ ~~Pile~~, but conc that piling conc. No pop. ~~194-31-01-01~~, Manhole Adjustments. Quantities shown in the "Bill of Materials" or items which are included in the "Lump Sum Bid".

In the "ump-sum" type of contract, the Contractor must satisfy himself to the quantities and the Engineer assumes no responsibility for their accuracy. The Contractor will have full responsibility for providing all materials shown on the detailed plans necessary to complete this project.

W/R	25'	21' 7"	88	Wingswall	12"	237.11
C3	25'	40'-0"	18	"	12"	750.96
C4	25'	22'-3"	18	"	12"	417.72
Subtotal						786.82

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100									
Steel for San. Sewer Encasement																																																																																																			



•• BEND DIAGRAM ••