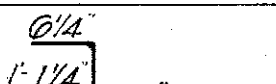
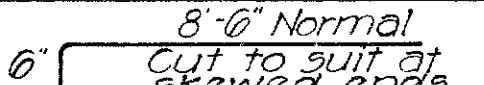
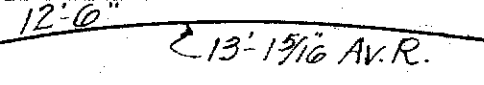
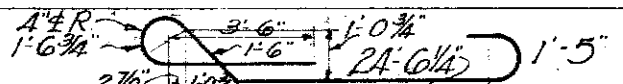
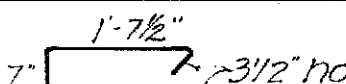
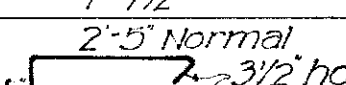
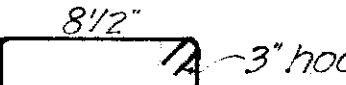
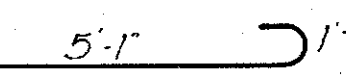
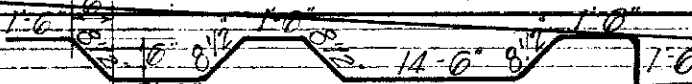
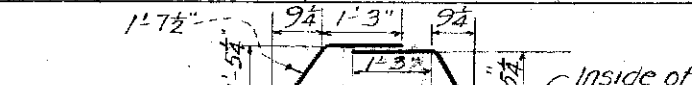
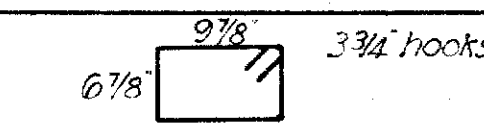
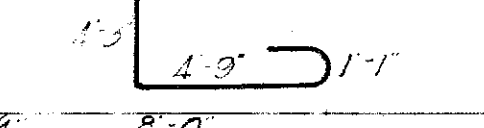
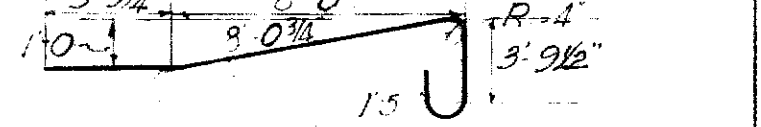
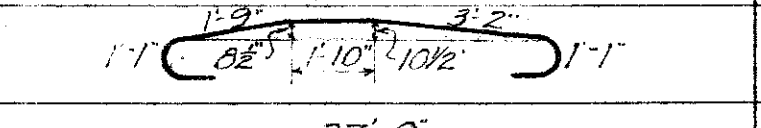
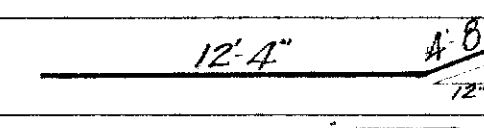
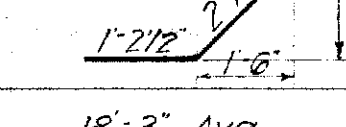
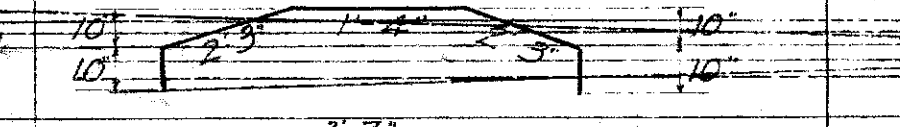
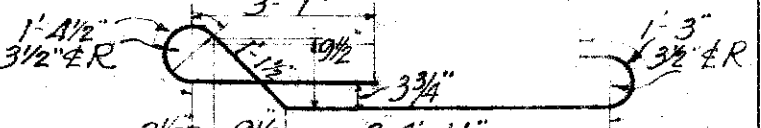
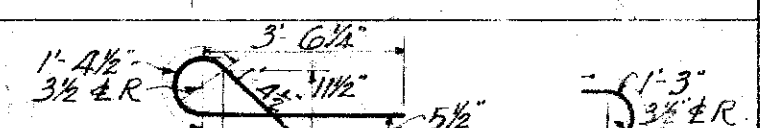
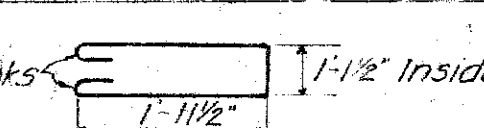
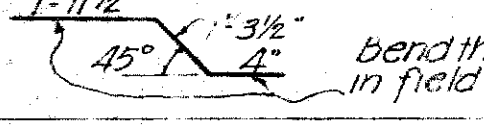


STEEL SCHEDULE

MK.	DESCRIPTION	LOCATION	SIZE	LGT. EA.	NO. BARS PER UNIT	NO. OF UNITS	TOT. NO. OF BARS	TOTAL LENGTH	WT. PER FT.	TOTAL WEIGHT
902	24'-0"	Top Reinforcement New Deck Slab	1 1/8"	24'-0"	41	2	82	1968	4.35	856.1
901	1'-7"  1'-7"	Bottom Reinforcement New Deck Slab	1 1/8"	28'-11"	11	4	44	1272.3	4.35	553.5
900	1'-7"  1'-7"	Bottom Reinforcement New Deck Slab	1 1/8"	28'-11"	25	2	50	1445.9	1.35	629.0
600	50'-8"	Longitudinal Reinf. Top & Bottom New Deck Slab	3/4"	50'-8"	23	2	46	2330.7	1.52	354.3
200	 1'-11 1/4"	Stirrups - New Deck Slab	1/4"	2'-1 3/4"	354	2	706	1514.9	0.17	25.8
404	6'  20'-2" Normal	Principal Reinf. Sidewalk - New	1 1/2"	9'-0" (normal)	24	2	48	692	0.69	11.51
302	20'-2" Normal Cut to suit at Makai Ewa & Mauka Waikiki ends	Longitudinal Reinf. New Sidewalk	3/8"	26'-4" (normal)	6	2	12	596	0.38	22.6
607	27'-0"	Top bars Sidewalk Beams	3/4"	27'-0"	2	8	16	432	1.52	657
620	12'-0"  13'-1 1/2" Av. R.	Ewa Makai Corner End Rail of Wing Wall	3/4"	12'-6"	4	1	4	50	1.52	7.6
806	 1'-5"	Bottom Reinforcement Inside Sidewalk Beams Outside	1"	32'-6"	7	4	28	910	3.44	313.0
301	1'-7 1/2"  3/2" hooks	Stirrups Inside Sidewalk Beams	3/8"	4'-5"	28	4	112	494.7	0.38	18.8
304	11'  2-5" Normal	Stirrups Outside Sidewalk Beams	3/8"	6'-4" (11' 9" 1/8)	2	1	58	457.3	0.38	17.4
400	4'-0"	Vertical Railing Bars	1/2"	4'-0"	29	1	90	360	0.68	24.5
401	Variable	Horizontal Railing Bars	1/2"	27'-0" 28'-0" 30'-0"	4 4 4	1 1 1	4 4 4	408	0.68	227
201	3 1/2"  8-1/2" 3 hooks	Stirrups - Top Rail	1/4"	2'-6"	16 19 29 26	1 1 1 1	90	225	0.17	3.8
014	30'-0"	Longitudinal reinf. at Bearings on either end of New Slab	3/4"	36'-0"	8	2	16	576	1.52	87.6
808	NOTE: Bend this end in field horizontally to curve with Avg. R. of 19'-6"  1'-5"	Auxiliary Sidewalk Beams - Inside	1"	22'-0"	3	2	6	132	3.44	45.4
801	14'-0"	New Deck Reinf. Top and Bottom at Makai Ewa & Mauka Waikiki corners	1"	14'-0"	26	2	52	728	3.44	250.4
615	8'-0" Avg. Varies	Cross reinf. at Makai Ewa & Mauka Waikiki corners of new slab	3/4"	8'-0"	27	2	54	432	1.52	657
402	8'-0" Avg.	Sidewalk reinf. at Makai Ewa and Mauka Waikiki corners	1/2"	8'-0" Avg.	5	2	10	80	0.68	5.4
616	17'-0" Avg. Rad. 13'-5 1/2"	End Rail (Auxiliary Beam) at Makai Ewa corner	3/4"	17'-0"	6	1	6	102	1.52	15.5
617	19'-6" Avg. Rad. 20'-9 1/2"	End Rail at Makai Waikiki corner	3/4"	19'-6"	4	1	4	78	1.52	11.9
618	7'-9"	End Rail at Mauka Ewa corner	3/4"	7'-9"	4	1	4	31	1.52	4.7
619	14'-6" Avg. Rad. 5'-9 3/4"	End Rail (Auxiliary Beam) at Mauka Waikiki cor.	3/4"	14'-6"	6	1	6	87	1.52	13.2
406	5'-0"	Vertical reinf. Rail End Posts	1/2"	5'-0"	10	4	40	200	0.68	13.6
407	Varies Avg. 3'-3"	Vertical reinf. All End Rails	1/2"	3'-3" Avg.	30 36 36	1 1 1	114	370.5	0.68	25.2
804	1'-5"  5'-1" 1'-5"	Long Footing bars for New Column Footings under existing Abutment	1"	7'-11"	2	8	16	126.7	2.70	34.2
805	 14'-6" 1'-6"	Long bars - Tie beam bet. piers & new columns under exist. Abut.	1"	36'-10"	8	2	16	589	2.70	159.1
605	2'-6"	Trans. Footing bars for new column footings under existing Abut.	3/4"	2'-6"	6	8	48	120	1.52	18.2
300	 1 1/2" 2 1/2"	Stirrups for new footings under existing abutments & piers	3/8"	8'-8"	44 46	2 2	180	1567.8	0.38	59.6
608	9'-8"  1'-6"	Vertical bars - column footings into columns	3/4"	12'-3 1/2"	6	8	48	589.9	1.52	89.7
609	9'-8"	Vertical bars - column footings into columns	3/4"	9'-8"	2	8	16	154.7	1.52	23.7
606	11'-0"	Vertical bars New columns under existing Abut.	3/4"	11'-0"	8	8	64	704	1.52	107.0
610	1'-6"	Dowels - new columns to existing abut. girder	3/4"	1'-6"	4	8	32	48	1.52	7.3

STEEL SCHEDULE

MK.	DESCRIPTION	LOCATION	SIZE	LGT. EA.	NO. BARS PER UNIT	NO. OF UNITS	TOT. NO. OF BARS	TOTAL LENGTH	WT. PER FT.	TOTAL WEIGHT
202	 6 7/8" 3 1/2" hooks	Stirrups - Hoops for column steel	1/4"	3'-5"	17	8	136	464.7	0.17	7.9
611	 1'-6" 8-6"	Long bars - Tie beam for piers under exist. piers	3/4"	37'-3"	8	2	16	596	1.52	90.6
602	 4'-9" 1'-1"	Footing into Abut. wall New Abutments	3/4"	10'-1"	70	2	140	1411.7	1.52	214.6
803	 1'-10" 1'-5"	Footing into back face Abut. Wall - New Abuts.	1"	16'-10 1/2"	72	2	144	1430	3.44	491.9
603	 1'-7" 1'-10"	Top Transverse Footing bars - New Abutments	3/4"	8'-11"	72	2	144	1284.5	1.52	195.2
604	37'-0"	Long. Ftg. bars - Top & bottom - New Abutments	3/4"	37'-0"	20	2	40	1480	1.52	224.9
500	Varies Min. 18'-0" Max. 18'-6"	Vertical Reinf. - Front face - New Abut. Walls	5/8"	18'-3" Avg.	70	2	140	2555	1.06	270.8
612	9'-0"	Front face - Abut. Walls (new) Vertical reinf.	3/4"	9'-0"	69	2	138	1242	1.52	188.8
601	12'-4"  4'-8" 1'-12"	Vert. reinf. back face New Abut. Walls	3/4"	17'-0"	94	2	188	3196	1.52	485.8
405	 1'-7 1/2" 1'-6"	Backwall at new Abuts.	1/2"	3'-4"	72	2	144	480	0.68	32.6
403	18'-3" Avg.	Long. reinf. - New Abut. wall & backwall	1/2"	18'-3" Avg.	29	2	58	1058.5	0.68	72.0
613	2'-0"	Dowels - Abut. into slab	3/4"	2'-0"	36	2	72	142	1.52	21.6
408	9'-6"	Backwall of Abut. at Sidewalks	1/2"	9'-6"	1	4	4	38	0.68	2.6
305	Furnish straight, but bend in field to suit thus: - 	Curtain Walls to new Columns.	3/8"	10'-0"	6	8	48	480	0.38	18.2
410	 1'-10" 1'-10"	Column Footings	1 1/2"	2'-6"	4	8	32	240	0.68	16.3
701	 1'-4" 3 1/2"	Bottom Reinforcement New Deck Slab	1"	32'-3"	15	4	60	1935	2.07	400.5
700	 1'-4" 3 1/2"	Bottom Reinforcement New Deck Slab	1"	32'-3"	14	4	56	1805	2.07	373.8
411	4' Hooks  1'-11 1/2" 1'-11 1/2"	Outside Sidewalk Beam over old end Piers.	1 1/2"	5'-8 1/2"	3	4	12	68.5	0.68	4.7
306	 1'-11 1/2" 1'-11 1/2"	Stirrups at ends of Slab over old End Piers	3/8"	3'-7"	61	2	162	580.5	1.52	88.2
809	Straight	Dowels in new footing under exist. abut. & pier thru 3/4" dia. file	1"	3'-0"	10 14	2 2	48	144	3.44	49.5
810	Straight	Main steel in new footings under existing abutments.	1"	6'-1 1/2"	8	2	16	97.9	3.44	33.7
811	Straight	" " " " " "	1"	6'-10"	12	2	24	163.9	3.44	56.4
501	Straight	" " " " " "	5/8"	6'-1 1/2"	18	2	36	220.3	1.06	23.4
502	Straight	" " " " " "	5/8"	14'-0"	32	2	64	896	1.06	95.0
503	Straight	" " " " " "	5/8"	13'-0"	32	2	64	832	1.06	88.2
504	Straight	" " " " " "	5/8"	6'-10"	24	2	48	327.8	1.06	34.8
812	Straight	Main Steel in new footings under exist. intermediate piers.	1"	5'-4"	28	2	56	298.5	3.44	102.7
505	Straight	" " " " " "	5/8"	5'-4"	56	2	112	597	1.06	63.3
506	Straight	" " " " " "	5/8"	9'-6"	96	2	192	1824	1.06	193.3

Total Wt. = 77,426 Lbs
or 38.71 tons

Note: -
These quantities & dimensions are given for the Contractor's convenience and shall be verified by the Contractor.

These bars shall be ordered in long lengths and cut in field after excavation of Piers to provide for probable difference in actual pile spacing.

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
BUREAU OF PLANS
JOB NO. 44-37 UNIT-1
KAPALAMA DRAINAGE
VINEYARD STREET BRIDGE
STEEL SCHEDULE
ENGINEER: C. L. Loo DATE: Nov. 17, 1957
CHECKED BY: S. Podo
SCALE: as noted
APPROVED: B. F. Rusk R. S. Mowry
CITY & COUNTY ENGINEER