F.H.W.A. REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	*	1976	191	304

*35W-87[-35W-1(33)46
Construction Phase 3
Sheet No. 190 Deleted
REVISED PLANS APR 26-1977

SUMMARY OF QUANTITIES

	ITEM	QUANTITY	UNIT
*	AGGREGATE FOR BITUMINOUS BASE/COURSE (BM-6)	5,167	TONS
*	ASPHALT CEMENT (AC-5)	435	TONS
	EMULSIFIED ASPHALT (SS-1H) FOR TACK	17	TONS
	AGGREGATE FOR BITUMINOUS SURFACE COURSE (BM 2 OR 3)	4,953	TONS
	WATER (EMULSION DILUTION)	1	M. GAL.
	ASPHALTIC PAVEMENT SAMPLING	24	EACH

* QUANTITIES HAVE BEEN INCREASED 10% FOR CONTINGENCIES (Shoulders)
‡ QUANTITIES HAVE BEEN INCREASED 15% FOR CONTINGENCIES (Median)

RATES OF APPLICATION

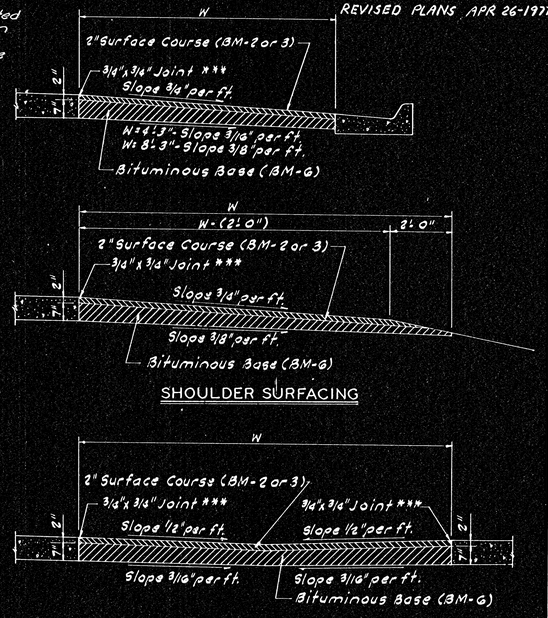
SURFACE WIDTH (LIN. FT.)	SHOULDER SURFACING: BITUMINOUS BASE: AGGR. FOR BIT. BASE (BM-6) TONS/STA. ①	SHOULDER SURFACING: BITUMINOUS BASE: ASPHALT CEMENT (AC-5) TONS/STA. ②	SHOULDER SURFACING: 2" SURFACE COURSE: AGGR. FOR SURF. COURSE (BM-2 OR 3) TONS/STA. ** ③	SHOULDER SURFACING: 2" SURFACE COURSE: ASPHALT CEMENT (AC-5) TONS/STA. ** ④	MEDIAN SURFACING: BITUMINOUS BASE: AGGR. FOR BIT. BASE (BM-6) TONS/STA. ①	MEDIAN SURFACING: BITUMINOUS BASE: ASPHALT CEMENT (AC-5) TONS/STA. ②	MEDIAN SURFACING: 2" SURFACE COURSE: AGGR. FOR SURF. COURSE (BM-2 OR 3) TONS/STA. ** ③	MEDIAN SURFACING: 2" SURFACE COURSE: ASPHALT CEMENT (AC-5) TONS/STA. ** ④	EACH TACK COAT: EMULSIFIED ASPHALT (SS-1H) GAL./SQ. YD. ⑤
4.25	13.88	0.835	5.14	0.318					0.10
8.00	24.69	1.486	8.22	0.508					0.10
8.25	25.31	1.523	9.97	0.617					0.10
12.00	32.00	1.926	13.05	0.807					0.10
14.40					47.58	2.864	17.39	1.076	0.10
18.00					56.64	3.409	21.75	1.345	0.10
20.00					61.17	3.682	24.17	1.495	0.10
24.00					62.86	3.784	29.00	1.794	0.10
25.00					70.97	4.272	30.21	1.869	0.10
30.00					78.57	4.729	36.25	2.242	0.10

① COMPUTED AT RATE OF 135 LBS./CU. FT. TOTAL MIX (AGGR. + ASPH.)
② COMPUTED AT RATE OF 6.5% OF DRY WT. @ 125 LBS./CU. FT.
** ③ COMPUTED AT RATE OF 145 LBS./CU. FT. TOTAL MIX (AGGR. + ASPH.)
** ④ COMPUTED AT RATE OF 6.5% OF DRY WT. @ 138 LBS./CU. FT.
⑤ COMPUTED AT RATE OF 0.10 GAL. (0.0001464 TONS) PER SQ. YD. EACH APPLICATION

NOTE: ALL ASPHALTIC MATERIALS COMPUTED AT 8.328 GAL./CU. FT. AN ADDITIONAL TACK COAT OF EMULSIFIED ASPHALT (SS-1H) SHALL BE PROVIDED BETWEEN EACH LIFT OF THE BASE WHEN SO ORDERED BY THE ENGINEER AT THE RATE SPECIFIED BY HIM.

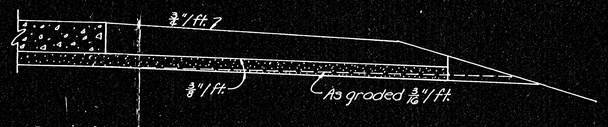
Note:
Thicknesses indicated for all construction, which is paid for on a weight or volume basis, are approximate and may vary to correct for unevenness in the foundations or for other normal unevenness encountered in placement operations.

Note:
Shoulders shall be completed at locations where installation of a guard fence is indicated prior to the completion of the balance of the shoulders, as directed by the Engineer.



SHOULDER SURFACING

MEDIAN SURFACING



Detail for trimming subgrade under stabilized shoulder

TABULATION OF SURFACING QUANTITIES (SHOULDER PAVEMENT)

LOCATION STATION TO STATION		LENGTH LIN. FT.	AVERAGE WIDTH LIN. FT.	AREA SQ. YDS.	BITUMINOUS BASE: AGGR. FOR BIT. BASE (BM-6) TONS	BITUMINOUS BASE: ASPHALT CEMENT (AC-5) TONS	BITUMINOUS BASE: EMULSION FOR TACK (SS-1H) TONS	2" SURFACE COURSE: AGGR. FOR SURF. COURSE (BM-2 OR 3) TONS **	2" SURFACE COURSE: ASPHALT CEMENT (AC-5) TONS **	2" SURFACE COURSE: EMUL. ASPH. FOR TACK (SS-1H) TONS	REMARKS
~~24+93.87~~	~~25+76.80~~	~~125.82~~	~~0-4.25~~	~~93.04~~	~~12.56~~	~~0.756~~	~~0.017~~	~~4.93~~	~~0.250~~	~~0.017~~	~~LT. WB TEMPORARY CONN.~~
~~24+89.58~~	~~25+75.00~~	~~95.67~~	~~0-4.25~~	~~15.81~~	~~4.73~~	~~0.299~~	~~0.006~~	~~1.65~~	~~0.100~~	~~0.006~~	~~RT. EB TEMPORARY CONN.~~
25+75.00	35+60.81	988.80	4.24	466.93	137.21	8.259	0.194	50.79	3.142	0.194	RT. EB
25+75.00	33+00.00	722.01	4.25	340.95	100.18	6.030	0.142	37.09	2.294	0.142	LT. WB
49+27.33	50+67.30	139.97	4.25	66.10	19.42	1.169	0.028	7.19	0.445	0.028	RT. RAMP NSW
50+67.30	51+93.63	125.98	4.25	59.49	17.48	1.052	0.025	6.47	0.400	0.025	RT. RAMP NSW
34+60.67	36+01.47	140.80	VARIABLE	277.71	80.69	4.995	0.095	24.77	1.532	0.095	BETWEEN WB & RAMP NSW
37+90.35	39+30.35	140.23	8.00	124.65	34.63	2.084	0.052	11.52	0.713	0.049	RT. EB
39+30.95	40+00.35	70.00	8.00-12.00	77.78	19.84	1.194	0.028	7.44	0.461	0.031	RT. EB
40+00.35	41+88.81	188.46	12.00	251.28	60.31	3.630	0.081	24.60	1.522	0.101	RT. EB
37+93.42	41+92.01	398.59	12.00	531.45	127.58	7.678	0.172	52.03	3.219	0.297	LT. WB
52+96.99	61+63.05	866.06	12.00	1154.75	277.17	16.683	0.374	113.05	6.993	0.465	RT. EB
53+00.19	59+50.86	650.67	12.00	867.56	208.24	12.534	0.281	84.93	5.254	0.349	LT. WB
59+50.86	60+20.86	70.00	12.00-8.00	77.78	19.84	1.194	0.028	7.44	0.461	0.031	LT. WB
60+20.86	61+60.86	140.23	8.00	124.65	34.63	2.084	0.052	11.52	0.713	0.049	LT. WB
13+25.22	13+38.28	12.04	8.00	10.70	2.97	0.179	0.004	0.99	0.061	0.004	RT. RAMP ENS
63+64.44	64+74.28	109.84	VARIABLE	179.36	63.56	3.826	0.075	19.51	1.207	0.075	BETWEEN EB & RAMP NSE
51+27.18	53+77.68	249.94	4.25	118.03	34.69	2.088	0.049	12.84	0.794	0.049	RT. RAMP NSE
66+50.00	68+00.00	159.15	4.25	70.43	20.70	1.246	0.029	7.66	0.474	0.029	RT. EB
68+00.00	69+66.67	165.78	4.25	78.29	23.01	1.385	0.033	8.52	0.527	0.033	RT. EB
69+66.67	70+50.00	82.92	4.25-8.25	57.58	16.25	0.978	0.024	6.26	0.387	0.024	RT. EB
70+50.00	71+98.35	147.74	8.25	135.43	37.39	2.251	0.056	14.73	0.911	0.056	RT. EB
21+30.30	22+21.43	90.13	0-4.25	28.34	8.99	0.541	0.012	3.10	0.192	0.012	RT. RAMP B
73+85.91	74+00	14.09	4.25	6.65	1.96	0.118	0.003	0.72	0.045	0.003	RT. EB
10+00.00	10+87.55	87.47	4.25	41.31	12.14	0.731	0.017	4.49	0.278	0.017	RT. RAMP ENS
65+00.00	66+51.28	151.28	4.25	71.47	21.00	1.866	0.030	7.77	0.481	0.030	LT. WB
66+51.28	67+66.67	115.99	4.25	54.77	16.10	0.969	0.023	5.96	0.369	0.023	LT. WB
67+66.67	68+50.00	83.74	4.25-8.25	58.15	16.40	0.987	0.024	6.33	0.392	0.024	LT. WB
68+50.00	69+15.26	65.57	8.25	60.11	16.59	0.999	0.025	6.54	0.405	0.025	LT. WB
69+15.26	69+93.33	78.53	8.25-4.25	54.79	15.37	0.925	0.023	5.96	0.369	0.023	LT. WB
69+93.33	71+12.77	120.26	4.25	56.79	16.69	1.005	0.024	6.18	0.382	0.024	LT. WB
20+04.49	21+14.86	110.37	0-4.25	34.72	10.94	0.658	0.014	3.78	0.234	0.014	LT. RAMP A
73+02.77	74+00.00	7.23	4.25	3.41	1.00	0.060	0.001	0.37	0.023	0.001	LT. WB
21+25	25+75	450.00	4.25	212.50	62.40	3.756	0.088	23.11	1.430	0.088	RT. EB
23+75	25+75	200.00	4.25	94.44	27.73	1.669	0.039	10.27	0.635	0.039	LT. WB
TOTALS					1490.32	90.443	2.041	566.53	35.050	2.345	

** QUANTITIES COMPUTED FOR AGGREGATE (BM-2)

TABULATION OF SURFACING QUANTITIES (MEDIAN PAVEMENT)

LOCATION STATION TO STATION		LENGTH LIN. FT.	AVERAGE WIDTH LIN. FT.	AREA SQ. YDS.	BITUMINOUS BASE: AGGR. FOR BIT. BASE (BM-6) TONS	BITUMINOUS BASE: ASPHALT CEMENT (AC-5) TONS	BITUMINOUS BASE: EMUL. ASPH. FOR TACK (SS-1H) TONS	2" SURFACE COURSE: AGGR. FOR SURF. COURSE (BM-2 OR 3) TONS **	2" SURFACE COURSE: ASPHALT CEMENT (AC-5) TONS **	2" SURFACE COURSE: EMUL. ASPH. FOR TACK (SS-1H) TONS	REMARKS
KELLOGG ST.											
~~40+41.32~~	~~41+91.99~~	~~150.67~~	~~14.40-18.00~~	~~283.81~~	~~83.15~~	~~5.126~~	~~0.118~~	~~30.87~~	~~1.903~~	~~0.118~~	~~LT. TEMPORARY CONN.~~
~~41+91.99~~	~~42+59.66~~	~~167.67~~	~~18.00-20.00~~	~~332.06~~	~~93.87~~	~~5.585~~	~~0.130~~	~~36.21~~	~~2.240~~	~~0.130~~	~~LT. TEMPORARY CONN.~~
~~22+59.66~~	~~24+17.33~~	~~157.67~~	~~20.00-25.00~~	~~395.18~~	~~104.13~~	~~6.241~~	~~0.142~~	~~42.00~~	~~2.592~~	~~0.154~~	~~LT. TEMPORARY CONN.~~
~~24+17.33~~	~~25+75~~	~~157.67~~	~~25.00-30.00~~	~~487.77~~	~~118.24~~	~~7.105~~	~~0.178~~	~~52.40~~	~~3.242~~	~~0.201~~	~~LT. TEMPORARY CONN.~~
25+75.00	35+60.81	985.81	30.00	3286.03	774.59	46.623	1.022	357.36	22.106	1.368	
35+60.81	35+64.91	4.10	24.00	10.93	2.58	0.155	0.003	1.19	0.074	0.005	
35+64.91	35+97.60	32.69	18.00	65.38	18.51	1.114	0.027	7.11	0.440	0.027	
37+57.10	37+90.35	33.25	18.00	66.50	18.83	1.133	0.028	7.23	0.447	0.028	
37+90.35	37+93.42	3.07	24.00	8.19	1.93	0.116	0.003	0.89	0.055	0.003	
37+93.42	41+88.81	395.39	30.00	1317.97	310.67	18.700	0.410	143.36	8.868	0.549	
41+88.81	41+92.01	3.20	24.00	8.53	2.01	0.121	0.003	0.93	0.056	0.004	
41+92.01	42+24.75	32.74	18.00	65.48	18.54	1.116	0.027	7.12	0.441	0.027	
52+64.25	52+96.99	32.74	18.00	65.48	18.54	1.116	0.027	7.12	0.441	0.027	
52+96.99	53+00.19	3.20	24.00	8.53	2.01	0.121	0.003	0.93	0.056	0.004	
53+00.19	61+63.05	862.86	30.00	2876.20	677.99	40.808	0.894	312.79	19.349	1.198	
61+63.05	61+70.88	7.83	24.00	20.88	4.92	0.296	0.006	2.27	0.140	0.009	
61+70.88	62+03.01	32.13	18.00	64.26	18.20	1.095	0.027	6.99	0.432	0.027	
63+71.53	64+03.66	32.13	18.00	64.26	18.20	1.095	0.027	6.99	0.432	0.027	
64+03.66	64+11.98	8.32	24.00	22.19	5.22	0.314	0.007	2.41	0.149	0.009	
64+11.98	74+00	988.02	30.00	3293.40	776.33	46.727	1.024	358.16	22.156	1.371	
24+60	25+75	115.00	30.00	383.33	90.24	5.431	0.160	41.69	2.579	0.160	
TOTALS					3066.32	184.738	4.127	1358.21	85.685	5.305	

*** NOTE: A JOINT IS TO BE ROLLED OR ACCOMPLISHED BY OTHER APPROVED MEANS AT THE COMMON EDGE OF PAVEMENT AND SHOULDERS AT ALL LOCATIONS, INCLUDING RAMPS. THE JOINT SHALL BE A DEPTH OF 3/4" AND A WIDTH OF 3/4" AND FILLED WITH HOT POURED JOINT SEALING COMPOUND.

IMMEDIATELY PRIOR TO APPLICATION OF THE HOT POURED JOINT SEALING COMPOUND, THE JOINT SHALL BE SANDBLASTED AND AIR CLEANED TO REMOVE ALL FOREIGN MATERIAL.

THIS WORK AND MATERIAL ARE SUBSIDIARY ITEMS.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

STATE HIGHWAY COMMISSION OF KANSAS
PROJECT
SHOULDER & MEDIAN SURFACING
(BITUMINOUS)

WILSON & COMPANY
ENGINEERS & ARCHITECTS
SALINA, KANSAS

DESIGNED | TRACED | CHECKED

191
64-100J