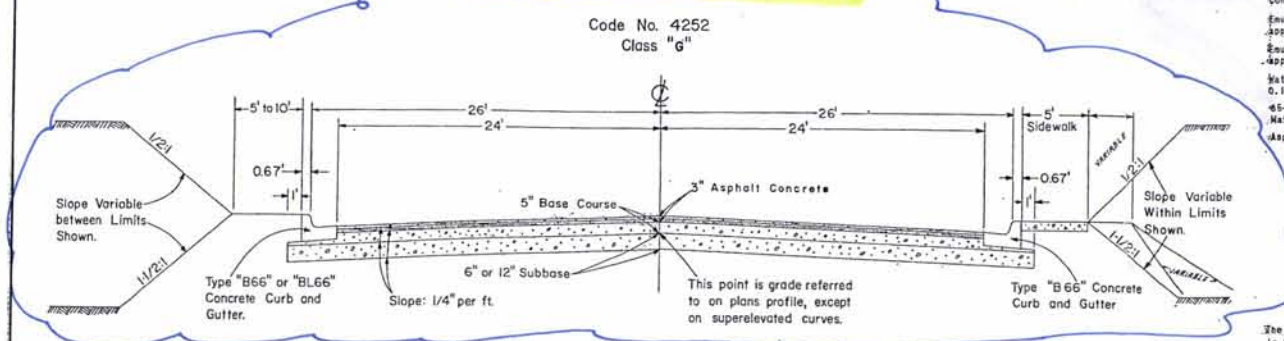
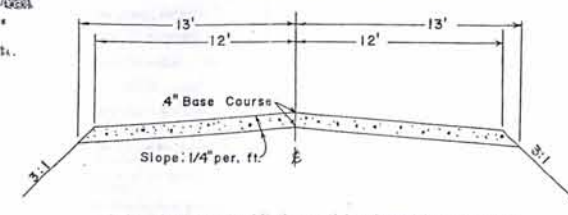


TYPICAL GRADING AND SURFACING SECTION



TYPICAL GRADING AND BASE-COURSE SECTION FOR DETOURS



NOTES PERTAINING TO SUBBASE

The tonnage of subbase as computed and shown in the Estimate of Quantities below, are based on the place volume plus 100% allowance for compaction and conversion to tons.

The Subbase Material when prepared for compaction, shall conform to the requirements of the specifications for Type "A" Subbase.

Water for compaction of the subbase material is included in the Estimate of Quantities at the rate of 20 gallons per ton of subbase.

Source of available subbase material is shown on Sheet No. 6.

Gravel for rebar or reinforcing work sections in the subbase, which may develop during the periods the subbase material is applied, is included in the estimate of quantities at the rate of 1000 tons of subbase per mile.

The subbase, as shown by the typical section above or as directed by the Engineer, is to be constructed on the following portions of the project, or on such portions as are directed by the Engineer:

STATION TO STATION	DEPTH OF SUBBASE INCHES	STATION TO STATION	DEPTH OF SUBBASE INCHES
119+55.2 to 122+40	6	8+08.33 to 10+30	12
122+40 to 124+30.3	12	10+30 to 31+73	6
1+03.1 to 2+20	12	32+28 to 33+28.5	12
2+70 to 5+70	12	33+28 to 34+28	12
6+20 to 7+51.67	12	35+29 to 62+14.74	6

NOTE REGARDING MATERIAL RATES AND THICKNESS DIMENSIONS

The material rates shown on these plans represent the estimated quantities that will be required to produce the thicknesses shown. Variation in material weights and compaction may require adjustments of the plan rates. Adjustments necessary to achieve the designed thickness, within reasonable tolerances, will be determined by the Engineer.

SPECIFICATIONS TO BE USED ARE

Standard Specifications for Roads and Bridges, 1963 Edition, approved as Standard September 21, 1964 and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

RATES OF MATERIALS FOR SOIL AGGREGATE BASE COURSE

The estimate of quantities below is based on the following quantities of materials per 100 foot station, all of which materials are to be furnished in place by the Contractor:

Soil Aggregate Base Course at the rate of 106.18 tons.

Watering at the rate of 2.84 M gallons for compacting the soil aggregate base course.

Bituminous Material MC-70 at the rate of 0.03 ton for primer application - applied 48 feet wide (Rate=0.3 gallon per square yard).

Blotting Sand for Primer at the rate of 1.33 tons - applied 24 feet wide (Rate = 10 pounds per square yard).

NOTES PERTAINING TO SOIL AGGREGATE BASE COURSE

The tonnage of "Soil Aggregate Base Course" shown in the estimate of quantities below is based on the following rates of materials per 100 foot station:

Crushed Gravel - 125.05 Tons
Sand Filler - 22.23 Tons

The Soil Aggregate Base Course, when prepared for compaction, shall conform to the requirements of the Specifications for Type 2 Soil Aggregate Base Course.

The sand for the Type 2 Soil Aggregate Base Course shall conform to the following gradation requirements by dry weight:

Passing a 3/8 inch sieve	100%
Passing a No. 10 sieve	80 - 100%
Passing a No. 40 sieve	60 - 100%
Passing a No. 200 sieve	Not more than 15%

The plasticity index of the fraction of material passing the No. 40 sieve shall not exceed a value three (3.0) and the liquid limit shall not exceed a value of twenty-five (25.0).

The total desired amount of water for compaction of the Soil Aggregate Base Course is eight (8%) percent of the weight of the Soil Aggregate Base Course.

NOTE:

Blotting Sand for Primer shall conform to all of the requirements of the specifications except that it shall conform to the following gradation requirements by dry weight:

Passing a 3/8 inch sieve	100%
Passing a No. 10 sieve	80 - 100%
Passing a No. 200 sieve	0 - 15%

RATES OF MATERIALS FOR ASPHALT CONCRETE

Emulsified Asphalt 55-1h at the rate of 0.09 ton for first tack coat - applied 48 feet wide (Rate - 0.04 gallon per square yard).

Emulsified Asphalt 55-1h at the rate of 0.09 ton for second tack coat - applied 48 feet wide (Rate - 0.04 gallon per square yard).

Water for mixing with the emulsified asphalt 55-1h for tack coat at the rate of 0.12 M gallon (0.06 M gallon for first tack - 0.06 M gallon for second tack).

95-100 Penetration Asphalt Cement at the rate of 5.52 tons for Bituminous Asphalt Concrete (Class G) at the rate of 89.54 tons for Bituminous Asphalt Concrete (Class G).

NOTES PERTAINING TO ASPHALT CONCRETE (CLASS G)

The tonnage of Asphalt Concrete (Class G) shown in the estimate of quantities is the gross tonnage, after mixing, with no deduction for the weight of the bituminous material for use in the mixture. This tonnage is estimated as follows:

Crushed Gravel - 73.84 tons per 100 foot station
Sand - 10.08 tons per 100 foot station
95-100 Penetration Asphalt Cement - 5.52 tons per 100 foot station

The exact proportions of these materials will be determined on construction.

The Asphalt Concrete (Class G) shall be constructed in two (2) approximately equal lifts.

The sand for Asphalt Concrete (Class G) shall conform to all of the requirements of the specifications, except that it shall conform to the following gradation requirements by dry weight:

Passing a 3/8 inch sieve	100%
Passing a No. 4 sieve	90 - 100%
Passing a No. 10 sieve	80 - 100%
Passing a No. 40 sieve	10 - 40%
Passing a No. 200 sieve	0 - 10%

The crushed gravel when elutriated with water, crushed rock or crushed stone to make the uncoated sieve aggregate, shall conform to the gradation requirements for Type 1 aggregate as provided for in the supplemental specification for Class G Asphalt Concrete.

THE FOLLOWING ADDITIONAL QUANTITIES ARE INCLUDED IN THE ESTIMATE OF QUANTITIES BELOW:

	SOIL AGGREGATE BASE COURSE	WATER FOR PRIMER	BITUMINOUS PRIMER MC-70	BLOTTING SAND FOR PRIMER	55-1H FOR TACK	95-100 PENETRATION ASPHALT CEMENT	ASPHALT CONCRETE (CLASS G)
	TONS	H. GALS	TONS	TONS	TONS	TONS	TONS
Approach Road and Dark Canyon Road Rt. of Sta. 120+00 to 124+00	363	7.1	1.2	7	0.4	14.2	222
Sta. 24+70 - Intersecting Road - Rt.	88	1.7	0.3	1	0.2	9.4	54
Sta. 30+28 - Intersecting Street - Rt.	42	0.8	0.1	1	—	1.6	26
Sta. 35+28 - Intersecting Road - Lt.	31	0.6	0.1	1	—	1.2	18
Sta. 44+87 - Intersecting Road - Rt.	51	1.2	0.2	1	—	2.4	38
Sta. 61+41 - Intersecting Street - Rt.	29	0.6	0.1	1	—	1.2	18

ESTIMATE OF QUANTITIES

STATION	LENGTH IN FEET	SUPPLEMENTAL SPECIFICATION												STANDARD SPECIFICATION							
		WATER FOR COMPACTION		TYPE "A" SUBBASE		BITUMINOUS PRIMER		BLOTTING SAND		EMULSIFIED ASPHALT		ASPHALT FOR MIX		ASPHALT CONCRETE		CONCRETE		WIDE FLANGE		ANCHORS	
		M. GALS.	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS
119 + 75.0	11 + 70.38	1638.78	5848.3	2008.4	6.23	4.9	2.05	113.65	1814.3	2	1708.23	1891.57	109.60	234.76	16.00	74.00	72.21	473.74	5353.90	—	—
Totals - Proj. S 6591(3)		1638.78	5848.3	2008.4	6.23	4.9	2.05	113.65	1814.3	2	1708.23	1891.57	109.60	234.76	16.00	74.00	72.21	473.74	5353.90	—	—
2	11 + 70.38	58 + 14.83	4644.45	10925.1	8744.5	29.13	16.4	6.10	251.07	4733.9	8	6115.18	3801.70	—	—	106.00	38.30	106.83	24559.00	100	2
Totals - Proj. S U 6591(4)		4644.45	10925.1	8744.5	29.13	16.4	6.10	251.07	4733.9	8	6115.18	3801.70	—	—	106.00	38.30	106.83	24559.00	100	2	

JACKSON BOULEVARD
RIGHT-OF-WAY