

SECTION 85- SAND-CLAY ROADS

1918. Sand-clay roads have only about half the load carrying capacity of a gravel road, but are very useful where there is a shortage of stone.

1920. Properly mixed and compacted sand-clay, not less than 9 ins thick, will carry normal military traffic, provided that constant maintenance is carried out to retain correct shape. Sand-clay also forms a satisfactory base under more durable surfacing.

1921. The proportions should be approximately 25 percent clay and 75 percent sand. Grading should preferably be within the following limits:-

Passing No. 7 BS sieve.	60-100 percent
„ No. 25 „ „	60-60 „
„ No. 200 „ „	8-25 „

1922. A typical diction of sand-clay road is shown in Figure 19.4

1923. Construction procedure and plant requirements are summarized in Table 19.2.

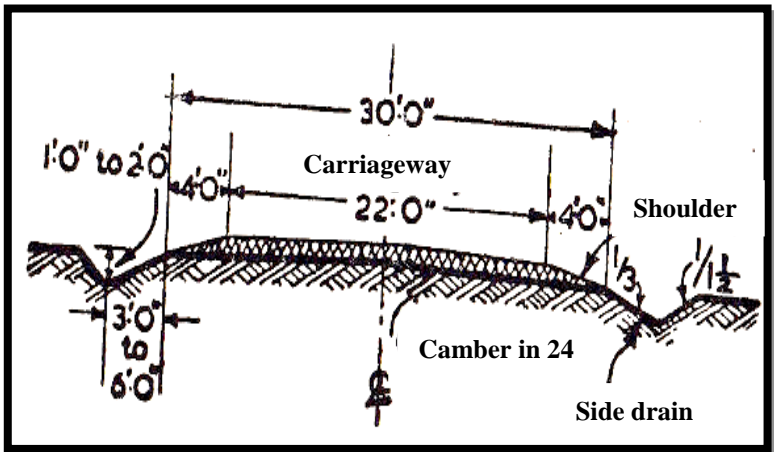


Figure 19-4: Typical Cross Section of a Sand Clay and Gravel Road

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TABLE 19.2-SAND-CLAY ROAD CONSTRUCTION

Serial No.	Procedure	Plant	Remarks
(a)	(b)	(c)	(d)
1.	Form sub grade to correct cross section, free of bumps, depressions and ruts. construct shoulders and side drains compact	Grader pneumatic tired or smooth wheel roller	If cut and fill are necessary an angle dozer and scrapers will also be valuable.
2.	Mix material if not naturally available. Pulverize clay so that all will pass 1 in sieve and 85 per cent will pass $\frac{3}{4}$ in sieve. Mix sand and clay in correct proportions while dry either in a paddle or pan type mixer or by mix in place.	Harrows or rotary hoes for pulverizing. 2 small excavators at sand pit and clay pit. 2 sets screening and loading plant. Paddle or pan mixer (if plant mixing). Transport as required Grader	if time permits the correct proportions should be determined after sieve analysis. Fornix in lace form separate windrows of pulverized clay and of sand on sub grade and bring clay over it. Mix materials by balding (5 terns) and put mixture in a windrow on one side of road way.
3.	Determine correct moisture content by laboratory test or by trial mixes	-	About 8 to 12 percent of water must usually be added to the dry material
4.	Moisten Sub grade and roll. Spread dry sand – clay mix over sub grade and sprinkle	Pneumatic-tired roller or controlled truck traffic Grader4 water truck and sprinkler	Approx 1 gal water per sq yd. Sprinkling should adjust water content to slightly less than total requirement (see serial No.5)
5.	When water is evenly	Pneumatic-tired of	Roller should weigh

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	distributed, spread and compact the material. Sprinkle balance of water required on surface	smooth wheel roller of carefully regulated truck traffic	50 cwt or more Weight of roller affects thickness that can be compacted in one layer
6.	Maintain surface by balding or by using a road drag.	Grader and/or road drag	Ruts and depressions must be made good constantly