

design provides for a 20-ft. roadway, bordered on the outside by cantilevered sidewalks 10 $\frac{3}{4}$ ft. wide. The height of the roadway above the Rosedale Valley drive will be

of excavation for the east and west approaches and for the piers. There will be about 16,900 cubic yards of concrete work in piers, approaches, retaining wall, floor slabs, etc. Reinforcing steel to the extent of about 486,000 pounds will be required, and the structural steel will have a weight of about 3,063,000 pounds. Provision for the lower deck of the Rosedale section (identical in cross-section to that proposed for the Don section) will require about 352,000 pounds of structural steel and 320 cubic yards of concrete. The engineer's estimate of quantities, in brief detail, is as follows:—

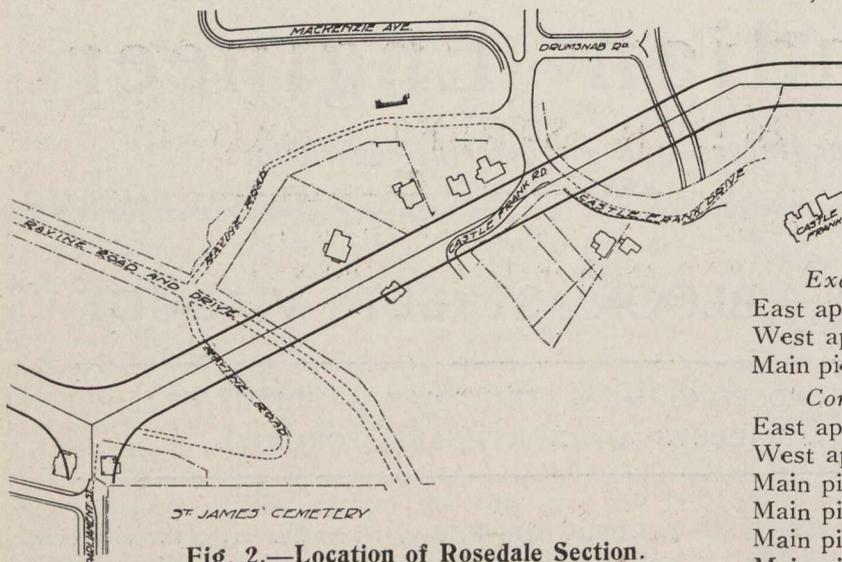


Fig. 2.—Location of Rosedale Section.

94 ft. In many respects the general design of the Rosedale section corresponds to the design for the Don section. The specifications also are practically the same for the former as those for the latter. The loading diagrams as well as the clearance diagram for the lower deck, are the same in both cases, and are as illustrated in Figs. 3 and 4, respectively. In Fig. 3, A gives the loading on the upper deck for a 50-ton electric car; the loading diagram, C, is for a 20-ton motor truck, while B denotes the loading for a train of cars on the lower deck. It is to be noted that provision is made here for the future development of a lower deck, as in the case of the other section.

The retaining wall is of interesting design, calling for a wall of counterfort type for 69 ft., with a maximum height of 24 ft., the buttresses being spaced 15 ft. c. to c. The remaining portion of the wall will be of cantilever type.

The work and materials required in the construction of the Rosedale section involve about 31,100 cubic yards

Excavation:

East approach, cu. yds.	21,207
West approach, cu. yds.	1,819
Main piers, cu. yds.	8,082

Concrete:

East approach, cu. yds.	12,252
West approach, cu. yds.	2,267
Main pier H, foundations, cu. yds.	1,847
Main pier H, body, cu. yds.	3,038
Main pier I, footing, cu. yds.	829
Main pier I, body, cu. yds.	2,610
Main pier I, top, cu. yds.	305
Main pier J, footing, cu. yds.	610
Main pier J, body, cu. yds.	1,540
Main pier J, body, cu. yds.	1,540
In floor, cu. yds.	1,450
Concrete parapet and railing, lin. ft.	1,089

Reinforcing Steel:

East approach, lbs.	38,100
West approach, lbs.	35,060
Retaining walls, lbs.	19,430
Floor, lbs.	193,260
Pier H, lbs.	46,090
Pier I, lbs.	64,890
Pier J, lbs.	39,970
80-ft. span, lbs.	16,310

Steel Work:

West approach, lbs.	306,600
80-ft. span, lbs.	451,770
190-ft. span, lbs.	1,501,040
Upper parts piers H and I, lbs.	143,300
Metal in expansion joints, lbs.	7,300
Cast iron pedestals, lbs.	7,600
Cast iron gullies and catch-basins, lbs.	32,300

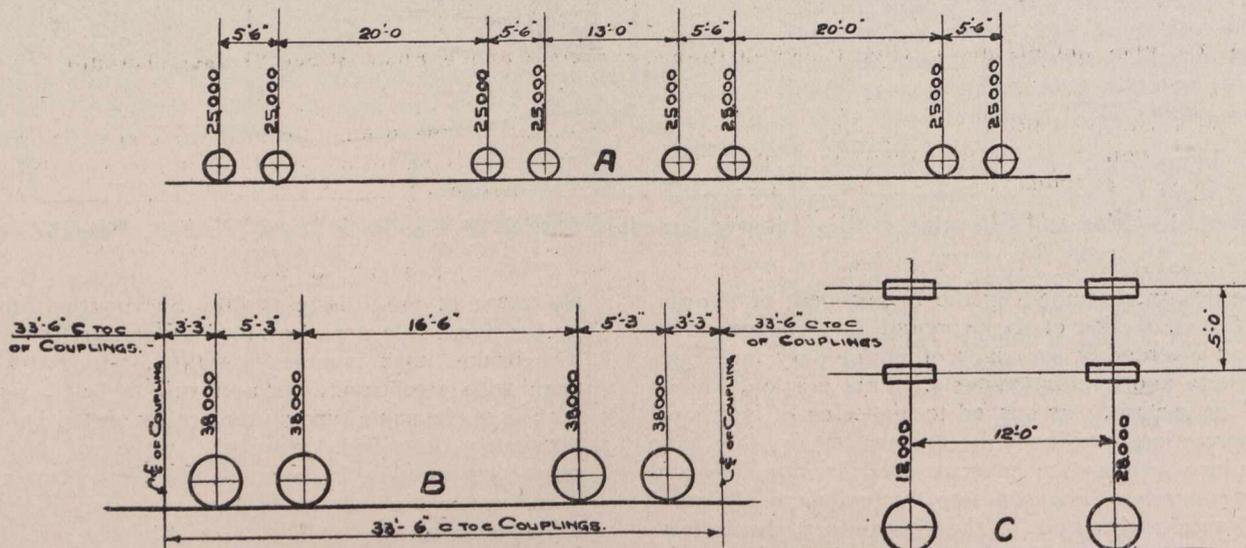


Fig. 3.—Loading Diagrams for Cars and Motor Trucks.