

A RAPID TRANSIT SYSTEM

Rapid transit is the answer to movement of people in a dozen or more U.S. and Canadian cities, freeing the railroads from the yoke of unprofitable commuter operations. Rapid transit modeling opens a wide new field.

by the layout doctor

AFTER READING the past year's issues of *Railway Age* (the prototype railroad industry's "trade magazine"), I'm led to the conclusion that five things will save the railroads of the country from oblivion. One: freedom to compete price-wise, coupled with equivalent regulations of airlines, pipelines, barges, etc.; two: mergers on a grand scale; three: special purpose and large freight cars moving in faster trains; four: elimination of passenger deficits; five: promotion of Rapid Transit. The latter is my subject here.

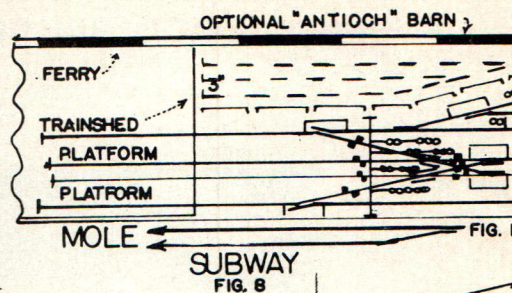
There have been descriptions of real (and proposed) rapid transit projects all over the country, from Philadelphia's popular PSIC lines with their Budd-built MUs, through a description of the *Skokie Swift* (formerly the south end of the North Shore), to details on the Bay Area Rapid Transit Authority lines which are even now being mocked up experimentally, to check controls—with the weird gauge of 5'6"! Overseas developments (especially in Japan) have not been neglected and often the advertising pages are full of what look like subway cars but are actual rapid transit cars.

Read the papers, read of the above three and all the other cities which could use rapid transit rather than highway building increases and vehicular stagnation of the streets. Many cities, Los Angeles and San Francisco

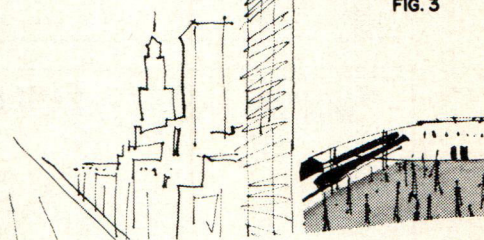
in particular come to mind, have defunct interurban lines which could have been a basis for rapid transit—faster and with fewer stops, less grade crossings than an interurban, completely modern and built with public funds, operated by an "authority."

So far as I know, no one has built and operated a model rapid transportation layout which I have called (for reference purposes), the Metropolitan Transit Authority, there being lines of that name on both east and west coasts. This is HO, and has generous curves of 24" and 22" radius. The main part is 8'x10' (hollow), with an extension less than two feet wide for a terminal.

The MTA starts at ferry slips at the end of a long pier or mole, thus avoiding much big-city modeling; double track proceeds straight east from there, crossing a double-tracked standard railroad at Tower XX, making a stop at Shafter; down the center mall of an expressway, with a large station at Moraga where a street runs beneath, and another at Expressway. The expressway has been planned to use HO scale "road-racing" trackage. Next stop, back along the wall is Antioch, where some runs can terminate, later to return to the Mole. Single track continues beyond Antioch, down under the main layout at —3" elevation, underground, to emerge not far from Freeway station, continuing as single track to the end of the line,



METROPOLITAN
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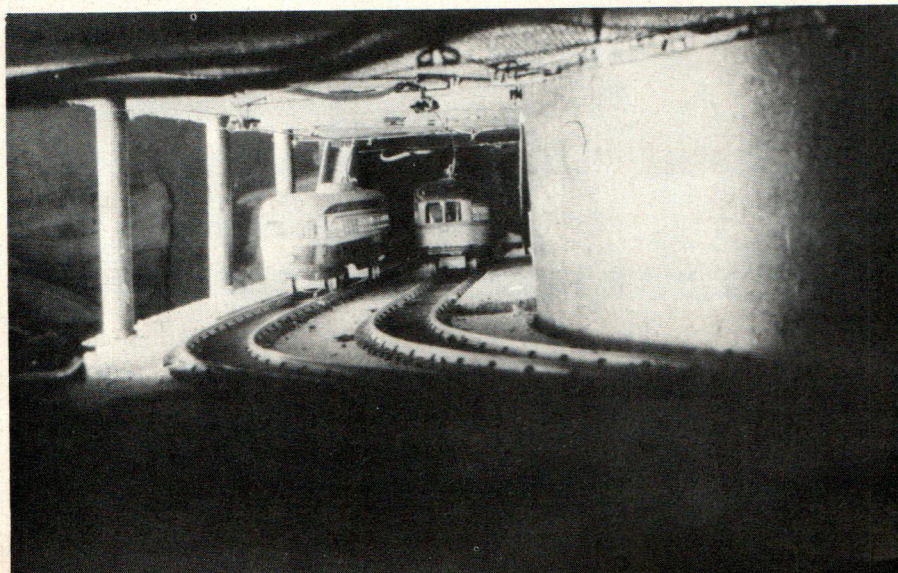
Vacaville. At this point there are switches over to the main line at Shafter, which, together with the left-hand crossover along the left expressway stretch, will permit continuous running when desired.

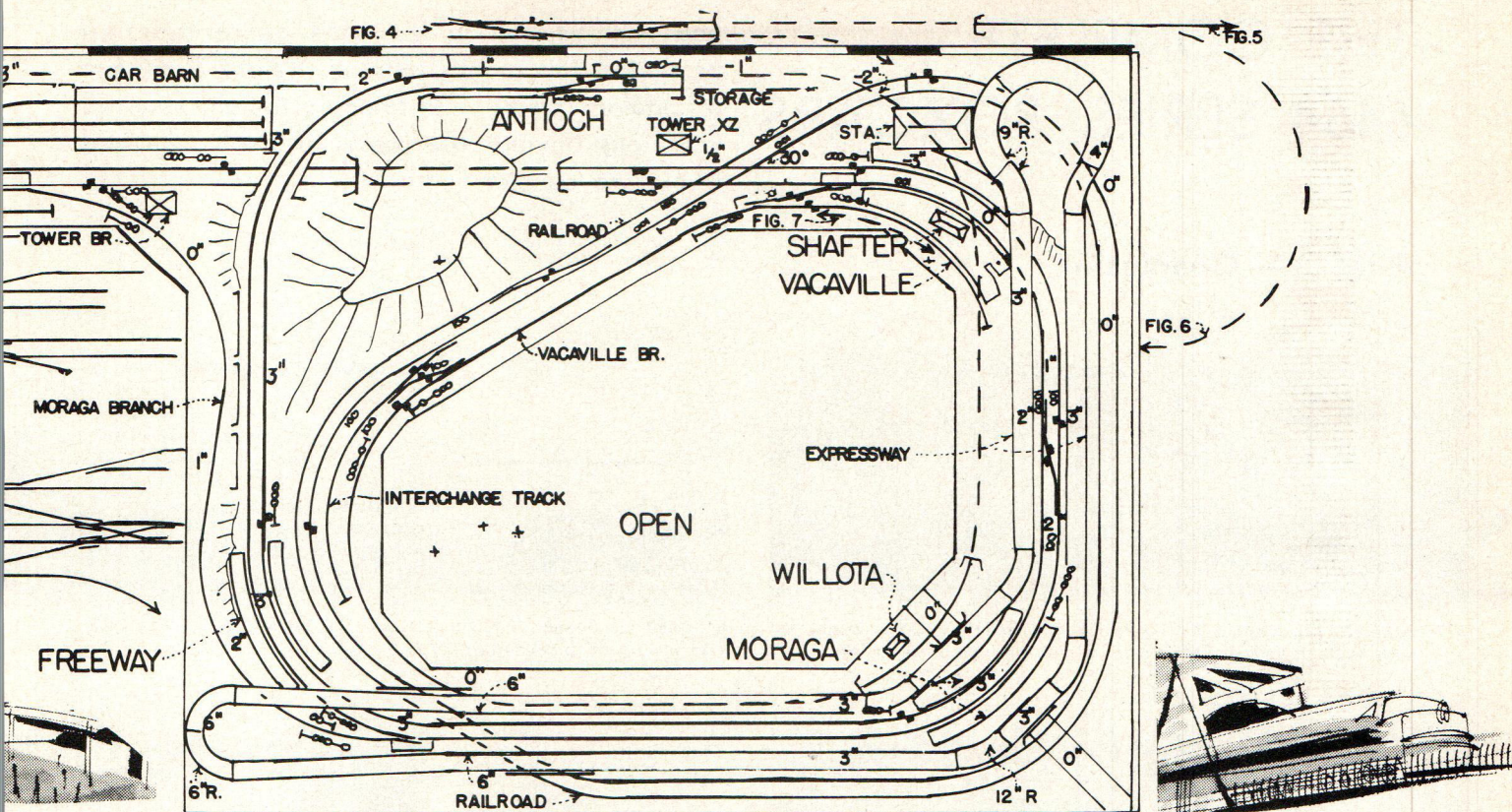
There is also a "Moraga Branch" cutting off at lower left sloping steeply downhill to the Mole terminal. Some cars can use this for "out and back" running but another function would be as a branch line from Mole directly to Moraga and return.

The Mole terminal is obviously meant for rapid transit cars since there are no run-around provisions. The double or scissors crossover is assembled from Snap-Track and/or Fleischmann components, which would doubtless spread the tracks an inch farther apart in that area only; I call the arrangement on the plan, fig. 1. Fig. 2 shows a little more compact arrangement using three double-slips, the added one to bring in the Moraga branch. As you see this brings the double-crossover about 9" to the right, this either shortening the Mole platform or letting you have longer tracks there. Fig. 3 shows an arrangement which will let you bring the double crossover even farther to the right with additional shortening of the Mole platform, though all branch cars must then arrive and leave from the front track.

Fig. 4, at the top, shows a variation possible at Antioch. By adding a right-hand crossover to the left-hand one already there, you can convert the

Bill Schopp built this subway system over 15 years ago as a manufacturer's display, using PCC cars following Philadelphia and Newark practice. Who has an operating subway system?
NOVEMBER, 1965



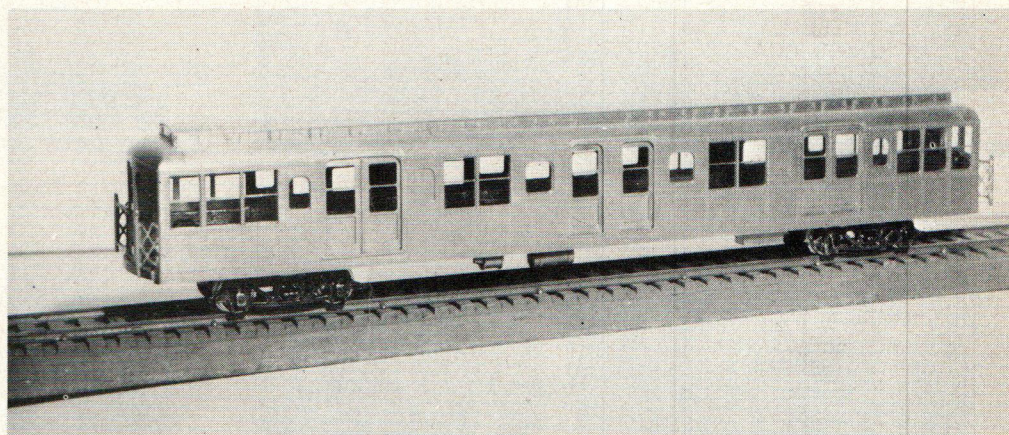


Heavy standard type subway cars have been offered in several types although production has been limited. Rapid transit can be built in subway, ground level, or el right-of-way.

inner, or storage, track to the subway line or Vacaville branch. The outer track would then continue down and off to the right (fig. 5), where there could be another stub terminal similar to Mole. Alternately it could loop around, fig. 6, subwaying under the inner edge of the top table to emerge as Subway, either directly under Mole trainshed or below it but out in the open air as drawn, fig. 7. The line would pass under Shafter, fig. 7 sketched in, at —6" (unless you didn't mind an underground crossing) and end at that elevation at Subway.

I have drawn the various branches and described the various alternate routes because a rapid transit line is most interesting when it goes more than one place. During rush hours, trains will be arriving from and leaving for all the terminals. During non-rush hours, trains will be broken at junction points, some cars continuing on, the remaining either waiting to couple to the next in-bound train or branching off to the secondary terminal. Besides this, trains can cut back at intermediate stations rather than going all the way: here on the MTA this would be at Antioch as well as Moraga.

Black blocks beside the track indicate suggested locations for insulated rail joiners and the division of the line into control blocks. The feeder locations are not shown, since with the custom-line switches as drawn, their exact location within each con-



trol block would not be important. If the line were run with overhead wire, then instead of insulated rail joiners, you might wish to put section insulators in the overhead at corresponding points—or into the third rail if you want to use that.

Modern rapid transit equipment could be used on such a line if it represented the present or near-future. Such as the Kidder subway cars, or the various IRT or BMT cars available or promised, could be painted in some splashy color scheme, as could the promised Electroliner model. Since, at least on this MTA, there are no grade crossings with highways (except one), cowcatchers could be eliminated. I've seen Japanese-made HO models of their rapid transit cars with photoengraved "Budd" fluting nicely nickel plated, interior and exterior lights, and a superb drive unit, but the price here worked out a little on the high side. You could go back a few years and use the various Suydam "wood" or "steel" interurban cars, al-

tered as you wished. If the line were third-rail (or dummy third-rail, actually 2-rail), the poles could be removed, or left for use in the barn area only. For catenary, the poles could be replaced with pantographs—regular Faiveley or the bows as used on the "Skokie Swift."

If you want to go back quite a few more years, you could even use steam, mainly the little Diamond Models 2-4-4T locos pulling open end coaches. These, to be sure, would require some run-around (but not turn-around) facilities at each terminal or intermediate cut-back point. For use in subways, the steamers would have to be replaced with steeple cab electrics, an interesting exercise in itself.

Freight service would be confined to the steam railroad oval drawn. There could, however, be package freight hauled in box motors from station to station, and maybe cars of coal to the rapid transit power house. There would be work cars, too, snowplows, wire-cars and so on.