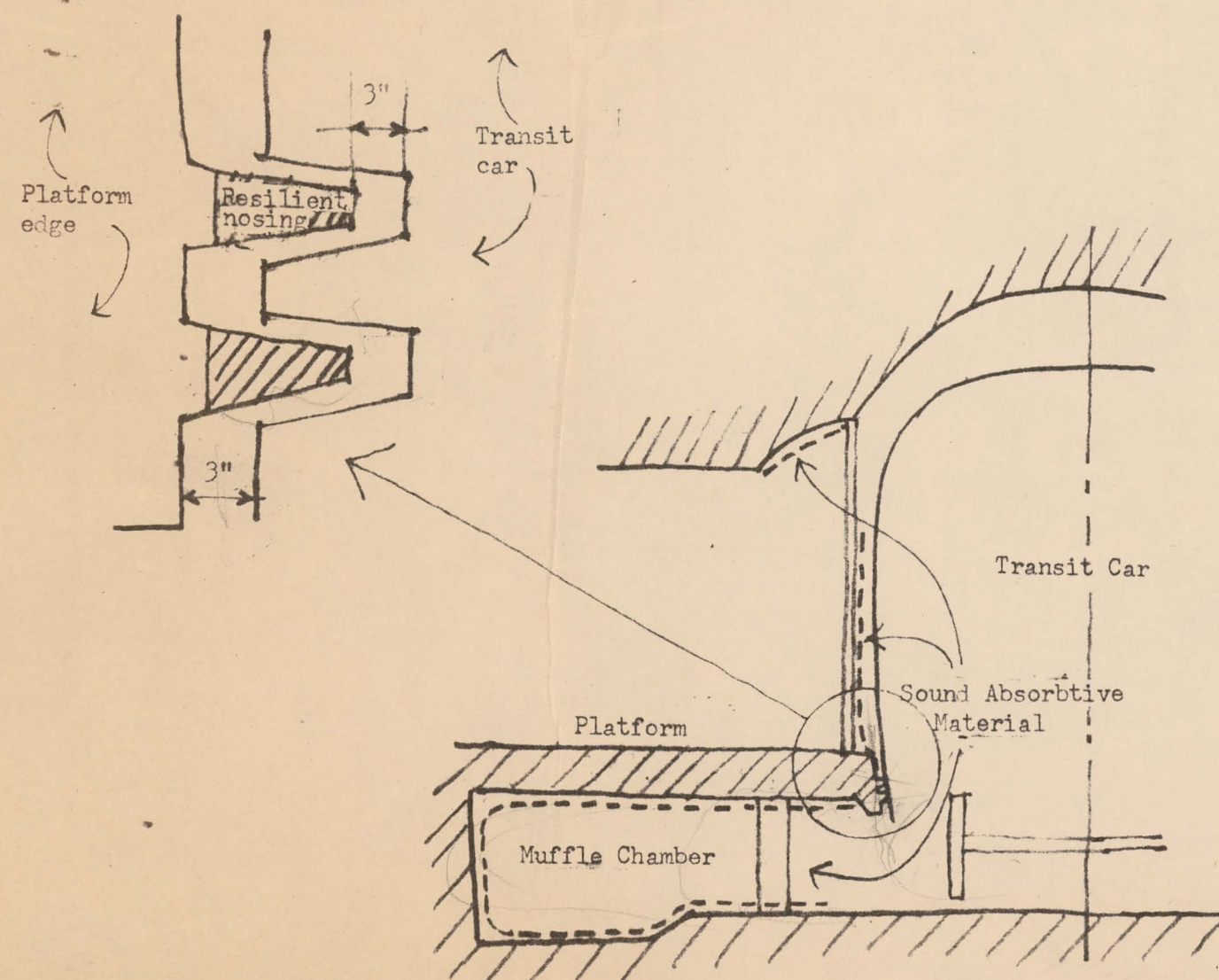


This system specifies the controls required at the platform's edge to isolate tunnel noise, air movement, and dirt and the method of alleviating the cavernous feeling that is created in enclosed subterranean spaces.

Incoming train noise must not be deafening (23) and the total number of surfaces that must be cleaned must be reduced to a minimum (192). Taken together, they imply a full height and continuous barrier with no openings over the entire length of the station.

For (23), the main problem is controlling the noise generated at the wheels of the train. This noise must be trapped and absorbed before it reaches the platform envelope. A 'muffler' needs be made of the space under the platform which will contain and absorb a large percentage of the sound generated. Additional escaping sound can be trapped by employing a baffle of resilient material extended from the platform's edge. In addition, the tunnel side of the platform barrier needs to be treated with sound absorptive material. In case upper portions of the platform barrier do not rise the entire distance to the ceiling, absorptive material needs to be placed along the ceiling as shown.



In the case of (92), the fact that the station is completely separated from the tunnel, completely transforms the cleaning problems of stations from one which traditionally has been the cleaning of track grime and grease from all surfaces throughout the station, to one of cleaning the relatively clean dirt of a heavily used building. The generally non-greasy, non-staining dirt which can now be anticipated will make it possible to clean less frequently and to use surface materials which under traditional conditions would be impossible to maintain.

Because of entirely different wind conditions, the solution to tunnel ventilation (187), (186) with the existence of a solid barrier, should be considered completely independent of the station ventilating and air conditioning system. (107), (108), the need for an airconditioning system within the sub-way stations can be justified solely on the basis of the internal loads that will be generated through stations. This matter needs to be reviewed more carefully before definite recommendations can be made.

The requirements in this system which deal with alleviating the cavernous feeling of being underground, (267) are difficult to deal with at this time. One of the most effective means for overcoming the feeling that you are in a tube 700' long is to break up this total length into numerous well articulated short lengths. Just what such articulations will correspond to in the functional layout of the platform area is dependent upon yet resolved solutions for boarding and alighting circulation on the platform. The provision of glazed walls or partially glazed walls at the platform's edge will alleviate some of the negative aspects of being in a cave (235). The full extent to which glass should be used will also have to remain unresolved until basic solutions to platform circulation have been resolved.

SYSTEM

9

## SOUND AND AIR MOVEMENT CONTROL AT THE BARRIER

PRELIMINARY

|                                                                                  |  |                     |                   |
|----------------------------------------------------------------------------------|--|---------------------|-------------------|
| <b>B A R T</b>                                                                   |  |                     |                   |
| PUBLIC STRUCTURES, INC.<br>WURSTER BERNARDI & EMMONS<br>ARCHITECTS SAN FRANCISCO |  |                     |                   |
| date:<br>6-23-64                                                                 |  | subject:<br>Barrier |                   |
| cc:                                                                              |  | system no.:<br>9    | drawing no.:<br>1 |