
Attachment G

Souder Century Yard Train Operations

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Yard-to-Shop Train Movement for Maintenance

Sounder trains are stored at the Century Yard in Lakewood overnight for cleaning and light maintenance and redeployment the following morning; or they are staged for movement into the shop for preventive or unscheduled maintenance. Performing maintenance at the shop would require the equipment (passenger cars and locomotives, referred to as units here) to move from the storage tracks to the shop and, once having completed maintenance, to move from the shop back to the storage tracks in the yard. With newly maintained equipment, the trains would be put on the storage tracks for the next day's service.

Figure 1 depicts the movements required for the units from one train. Moving from the storage tracks in the yard to the shop, the train would head south on the mainline track and onto the island circuit, causing the signal and gates at 100th Street SW to activate. The train would cross 100th Street SW and travel beyond the island circuit to deactivate the signal and gates, then pause to allow any traffic queued on 100th Street SW to clear. Once the queue is clear, the train would head north reactivating the island circuit causing the gates to descend. The train would re-cross 100th Street SW and enter the shop on the shop lead track. This operation would be reversed to move the train from the shop to the storage tracks in the yard. Each maintenance train movement would require four crossings of 100th Street SW, stopping traffic for approximately 3 minutes each time.

Maintenance Types and Frequency

The Sounder shop would handle two types of maintenance: preventive maintenance and unscheduled maintenance. Preventive maintenance is maintenance regularly scheduled in accordance with the Federal Railroad Administration mandates. Sound Transit anticipates six units would require preventive maintenance each week, with three units taken out of service on one day of the week and three more taken out of service on a second day of the week.

Unscheduled maintenance consists of unanticipated repairs to cars or locomotives. The scope and number of units requiring unscheduled maintenance would vary. Historical data indicates an average of two units per week would require movement into the shop for unanticipated repairs. The worst case to date has been four units in one week.

Number of Maintenance Train Crossings at 100th Street SW

Preventive maintenance of the six units per week would occur in groupings of three units that have been assembled into one train in the south Seattle yard prior to reaching Century Yard. Moving each preventive maintenance train would require four crossings of 100th Street SW. Two preventive maintenance trains each week would require eight crossings of 100th Street SW each week.

Units needing unscheduled maintenance would generally not be within the same train. Therefore, the units would be moved between the storage tracks in the yard and the shop in separate movements, which equates to four crossings of 100th Street SW for each unit needing repair. With a maximum of four units needing repair per week, that equates to 16 crossings per week. The maximum number of crossings of 100th Street SW in one week would therefore be 24, as shown in Table 1.

Figure 1: Site Plan of Crossings at 100th Street SW

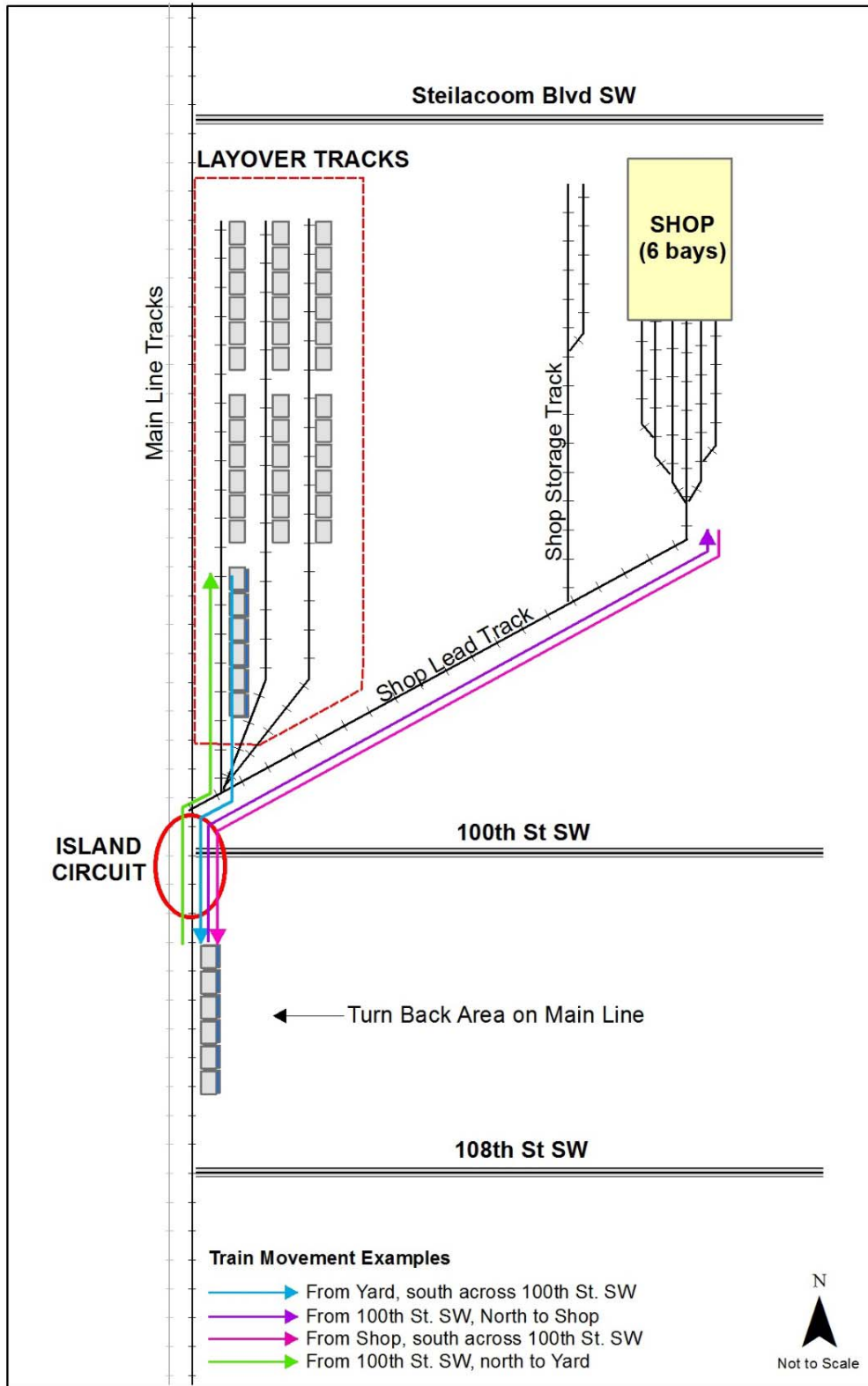


Table 1: Number of Maintenance Train Crossings at 100th Street SW

Per Week		Per Night	
No. of Units	Total Crossings (4 per train)	No. of Units	Total Crossings (4 per train)
2 (PM) ¹	8	1 (PM)	4
4 (UM)	16	2 (UM) ²	8
Total: 6	Total: 24 max.	Total: 3	Total: 12 max.
KEY			
PM= Preventative Maintenance			
UM= Unscheduled Maintenance for repairs			
Notes:			
¹⁾ 3 units requiring PM on one train			
²⁾ Assumed the average of 2 UM per week occur on 1 night.			

Because potential traffic and noise impacts require assessment on a daily rather than weekly basis, Sound Transit estimated the maximum number of crossings of 100th Street SW per night assuming that train movements included one preventive maintenance train and the week's average unscheduled maintenance. This assumption provides a conservative worst-case scenario for impact analysis of up to 12 crossings of 100th Street SW per night as depicted in Table 1. In actual operations, PM and UM would most likely occur on different nights, resulting in a lower number of crossings per night on average.

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