

Memorandum

DATE: August 7, 2009

TO: Katie Walker, Southwest Transitway Project Manager

FROM: Dax Kuhfuss

RE: Freight Rail Considerations

CC: O. Gonzalez, M. Elabbady, S. Reed

INTRODUCTION

The purpose of this memo is to document the design decisions made regarding freight rail track within the proposed LRT corridor. Two specific questions regarding the existing freight rail and their design decisions are discussed below.

ACCOMMODATION OF FREIGHT RAIL IN THE KENILWORTH AREA

Is it possible to accommodate the existing freight rail, proposed LRT, and pedestrian trail within the project right-of-way in the Kenilworth area of Segment A?

The existing corridor through the Kenilworth area contains an active freight rail track and a 20 feet wide pedestrian trail. The project right-of-way through this area varies slightly, but is a minimum of 62 feet wide. This information is depicted by the Existing Condition typical section of the Kenilworth Corridor Typical Sections sheet.

Maintaining these existing services in addition to the proposed LRT at-grade was first investigated. The proposed LRT track would require approximately 30 feet of width. TC&W operates the existing freight rail has stated that they would require 25' of separation between the freight track and any proposed LRT track. Due to safety concerns it was determined undesirable to place the pedestrian trail between the freight rail and LRT tracks. Therefore, no matter the arrangement, the 25' clearance between the freight rail track and LRT track would be required. As illustrated by the Accommodate All typical section at least an additional 17' of right-of-way would be required. Acquisition of additional right-of-way along the corridor for this purpose was believed to be cost prohibitive.

Maintaining the existing services and placing the proposed LRT in a tunnel underneath the ground was also contemplated. Creating a tunnel would be both expensive and difficult to construct. The length of tunnel needed and the sheer cost of construction would make this option unviable. Construction of this tunnel would likely require as much additional right-of-way as for the at-grade concept. Complete closure of the freight rail and trail would likely be required in order to construct such a tunnel. TC&W would likely find this extended closure unacceptable. TC&W would likely have safety concerns with the long term operation of freight rail over such a tunnel. Adjacent properties would likely incur significant impacts such as vibration, noise and property damage during construction.

Creating a structure for LRT to pass over the existing services within the right-of-way was also contemplated. This concept would likely experience many of the same complications as a tunnel. The length of structure needed and sheer construction cost would be cost prohibitive. Operation of the freight rail and the pedestrian path would be greatly interrupted during construction. TC&W would likely have the same safety concerns for operation under such a structure. Long term impacts with visual quality and noise would also be a concern for adjacent properties.

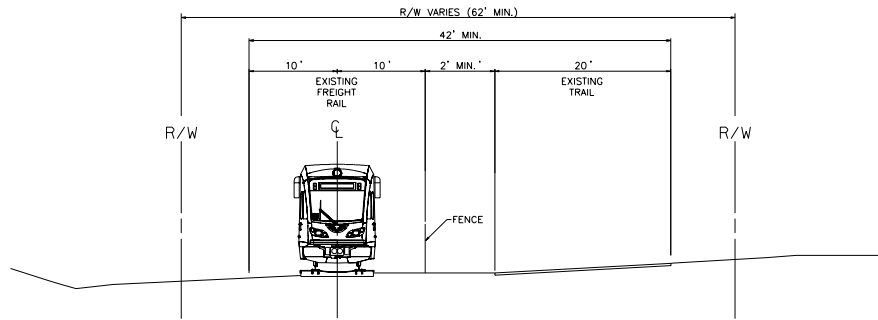
Removing freight rail operation from this corridor to allow LRT and trail operation was also considered. The Proposed Condition typical section illustrates this on the Kenilworth Corridor Typical Sections sheet. Removal of the freight rail allows the needed width to accommodate the proposed LRT and pedestrian trail within the existing right-of-way. Discontinuing freight rail through the Kenilworth area appears to provide the most viable method for construction of LRT through this area.

PROPOSED FREIGHT RAIL FLYOVER BRIDGE

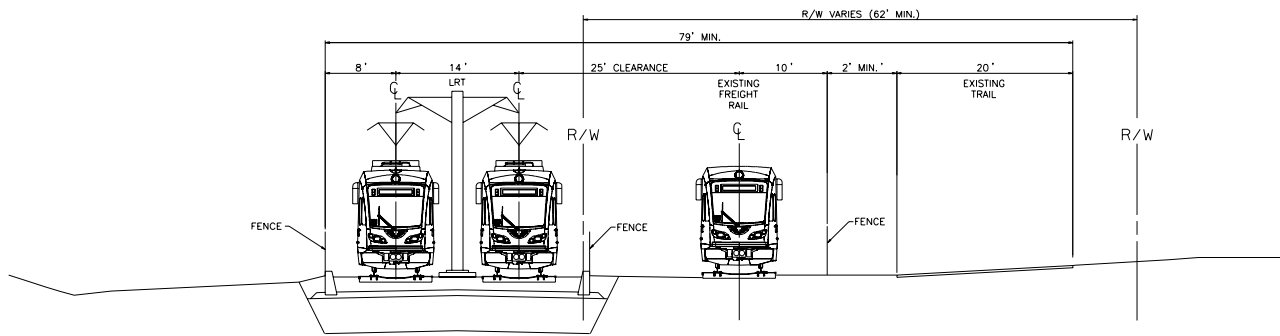
Could the proposed LRT be instead elevated over the existing freight rail between Louisiana Avenue and Wooddale Avenue?

As presently proposed, the existing freight rail is to be discontinued east of Wooddale Avenue in St. Louis Park. A freight rail flyover bridge would connect the freight track west of Wooddale Avenue to an existing freight track north of the corridor. There is a significant elevation difference between the freight tracks connected by the proposed flyover bridge. The elevation of the freight track north of the corridor is much higher in order to cross over the T.H. 7 roadway. Thus, the elevation of the freight track west of Wooddale Avenue needs to climb considerably in order to properly connect with the freight track north of the corridor. The proposed LRT would then cross under this freight rail flyover bridge.

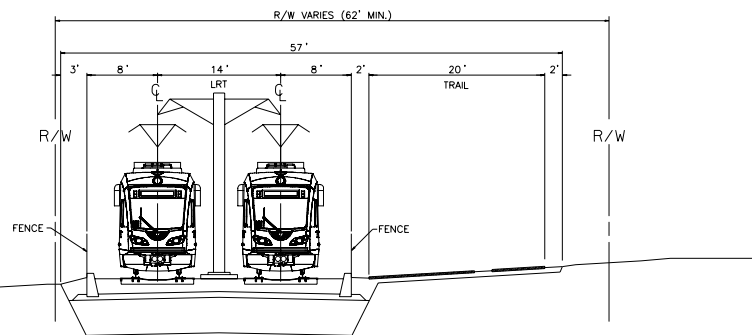
Forcing the proposed LRT to instead pass over the freight rail as the question suggests would work against this elevation difference. The LRT flyover bridge would be unnecessarily high and the freight track would be unnecessarily steep. This elevation difference is the primary reason for the proposed design.



EXISTING CONDITION (FREIGHT RAIL AND TRAIL)
TYPICAL SECTION



ACCOMMODATE ALL (LRT, FREIGHT RAIL, AND TRAIL)
TYPICAL SECTION



PROPOSED CONDITION (LRT AND TRAIL)
TYPICAL SECTION

