

CONSTRUCTION OPTIONS CONSIDERED



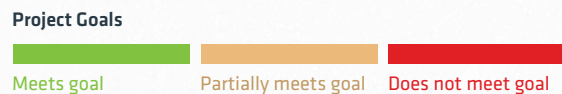
Needs of the Project:

- 1) Modernize infrastructure,
- 2) Create efficiencies and reduce operating costs, and
- 3) Improve the customer experience along the UP North Line

The **Purpose of the Project** is to replace 11 bridges and retaining walls, refurbish one (1) bridge, and complete other track improvements between Fullerton Avenue and Addison Street.

Metra considered a No Build option and five (5) other options to reconstruct the existing bridges. The East Track Shift option has been added for Metra’s consideration after community feedback. These options were evaluated based on how they meet the goals of the Project and help minimize potential impacts. All options include the replacement of the 11 bridges and retaining walls as they have exceeded their design life. Note: The height of retaining walls needed may vary based on the construction option.

Construction Option	PROJECT GOALS					ANTICIPATED IMPACTS					
	Need and Purpose	Maintain Train Operations	Minimize Costs	Engineering and Construction Feasibility	Construction Duration	Views from Adjacent Residences	Property Acquisition	Traffic	Vegetation Removal	Noise and Vibration	Parks and Public Lands
No Build	Does not meet goal	Does not meet goal	N/A	Does not meet goal	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Track Shift West - "Preferred"	Meets goal	Meets goal	Partially meets goal	Meets goal	Meets goal	Impacts vary based on context	Temporary or minimized impacts	Temporary or minimized impacts	Temporary or minimized impacts	Temporary or minimized impacts	Meets goal
Track Shift East	Does not meet goal	Meets goal	Does not meet goal	Does not meet goal	Does not meet goal	Does not meet goal	Does not meet goal	Does not meet goal	Does not meet goal	Does not meet goal	Does not meet goal
Single-Track Operations	Meets goal	Does not meet goal	Does not meet goal	Partially meets goal	Does not meet goal	Temporary or minimized impacts	Meets goal	Temporary or minimized impacts	Temporary or minimized impacts	Meets goal	Temporary or minimized impacts
Temporary "Shoofly" Track	Meets goal	Does not meet goal	Does not meet goal	Does not meet goal	Does not meet goal	Temporary or minimized impacts	Temporary or minimized impacts	Temporary or minimized impacts	Temporary or minimized impacts	Meets goal	Temporary or minimized impacts
Bridge Roll-In	Meets goal	Does not meet goal	Does not meet goal	Does not meet goal	Does not meet goal	Temporary or minimized impacts	Temporary or minimized impacts	Temporary or minimized impacts	Temporary or minimized impacts	Meets goal	Temporary or minimized impacts



CONSTRUCTION OPTIONS DESCRIPTIONS



No Build

This option would not complete any improvements and serves as a baseline to evaluate other options. It is considered not feasible or practicable as it does not address any of the needs identified and could create long-term impacts to Metra operations and the surrounding community.

Track Shift West - "Preferred"

This option would include staged construction activities that would permanently shift the tracks approximately 20 feet to the west from their current location. This would allow Metra to maintain two-track operations during the planned five-year construction period. The option is preferred as it minimizes impacts, would not require permanent acquisition of properties, minimizes costs, and is the most feasible in terms of engineering, construction, and duration of work.

Track Shift East

This option had been added for consideration based on community feedback. It would follow the same approach as the preferred option, but instead shifts the tracks eastward. The option would include staged construction activities that permanently shift the tracks approximately 20 feet to the east from their current location. This would allow Metra to maintain two-track operations during the construction period. This option assumes retaining walls would be required along UP's east and west limits of the right-of-way. Additionally, due to limited existing railroad property east of the current tracks, this option would require expanding UP's right-of-way by acquisition of multiple residential buildings, impacts to two parks, and the permanent closure of North Ravenswood east of the railroad as well as private alleys. This option would have the most significant impacts.

Single Track Operations

This option would maintain a single track of service during construction and would require a shift in tracks to the west by approximately 12 feet. This would include installation of new railroad crossovers and turnouts along the corridor in an attempt to maintain existing levels of rail service during construction. Metra's operations team analyzed this option but found that these conditions would still lead to train service delays beyond acceptable levels. In addition, this option would lead to further construction costs due to the need to install railroad crossovers and turnouts.

Temporary "Shoofly" Track

This option would construct tracks along the unused third bridge bays and trackbed west of the current tracks to act as a temporary "shoofly" track. Shoofly tracks are temporary tracks used to avoid obstacles and help facilitate construction activities. This option would still require new taller retaining walls along the western property line to support the shoofly track. In addition, temporary structure changes to the unused third bridge bay would be needed. This option would require temporary single-track operations that would result in commuter rail service delays and increase the duration of construction. The option would significantly increase the cost of the Project due to added stages of construction, reconstruction, and demolition that would be required. Finally, this option would include using jacks to push the new bridges to final locations that are near their existing locations, which would require full outages of the UP North train service. This shift could introduce impacts to properties and buildings to the east, including the need for additional retaining walls on the eastside.

Bridge Roll-In

This option would consist of constructing each of the 11 bridges next to existing bridges and rolling them into place during multi-day track outages. The proposed tracks and bridges would be placed near their current location. To accommodate this work, short temporary bridges called jump spans and temporary earth retention would be required at existing bridges. This option was eliminated as it would require multi-day train service outages and delays at each bridge location and would require more construction work on adjacent properties. This option is less feasible than others from an engineering and constructability perspective. In addition, this option would increase construction costs, traffic impacts, and duration of the Project due to the additional stages of construction that would be required.