Illinois Department of Transportation
Office of Intermodal Project Implementation

Project Management Plan (PMP)

CREATE*
75th Street Corridor Improvement Project:
P2, P3, EW2, GS19
Cook County, IL

*Chicago Region Environmental And Transportation Efficiency

As of Date: July 31, 2020

Illinois Department of Transportation

CREATE
KEEPING THE GO IN CHICAGO

RECORD OF REVISIONS

The CREATE 75th Street Corridor Improvement Project (75th Street CIP) Project Management Plan (PMP) is a dynamic, evolving document that will be regularly updated as the project development process progresses or as the need arises. The PMP will be reviewed annually by the Illinois Department of Transportation (IDOT) Office of Intermodal Project Implementation (OIPI) and updated as major changes are identified. All reviews and updates will be coordinated, as needed with the CREATE Program partners. Any updates to the PMP will need to be reviewed and concurred with by FHWA.

Revision	Date	Chapter Number	Section Number	Summary of Changes

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LIST OF ACRONYMS

AAR	Association of American Railroads
B&OCT	Baltimore and Ohio Chicago Terminal Railroad Company
BNSF	Burlington Northern and Santa Fe Railway Company
BRC	Beltway Railway Company of Chicago
CAG	Community Advisory Group
CCDoTH	Cook County Department of Transportation and Highways
CCQMP	contractor construction quality management plan
CDOT	Chicago Department of Transportation
CMAP	Chicago Metropolitan Agency for Planning (Chicago region MPO)
CMQMP	construction management quality management plan
CN	Canadian National Railway Company
CO	Change Order
CP	Canadian Pacific Railway Company
CPG	Chicago Planning Group
CREATE	Chicago Region Environmental and Transportation Efficiency
CSX	CSX Transportation, Inc.
CTCO	Chicago Transportation Coordination Office
DBE	disadvantaged business enterprise
DOB	Department of Buildings (City of Chicago)
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FE	final engineering
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
ICC	Illinois Commerce Commission
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
IFP	Initial Financial Plan
IGA	Inter Governmental Agreement
IHB	Indiana Harbor Belt

IHPA	Illinois Historic Preservation Agency
IPA	Individual Project Agreement
JSOU	Joint Statement of Understanding
MUSRA	Master Utility State Rail Agreement
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NS	Norfolk Southern Railroad
O&M	Operations and Maintenance
OUC	Office of Underground Coordination (City of Chicago)
PE	Preliminary Engineering
PESA	Preliminary Environmental Study Assessment
PLA	Project Labor Agreement
PMP	Project Management Plan
PS&E	Plans, Specifications, and Estimate
QA	Quality Assurance
QC	Quality Control
QMP	Quality Management Plan
RDG	Railroad Design Group
ROD	Record of Decision
ROW	Right-of-way
RTA	Regional Transportation Authority
SIP	Stakeholder Involvement Plan
SRA	State Rail Agreement
SWPPP	Stormwater Pollution Prevention Plan
TIP	Transportation Improvement Program
UP	Union Pacific Railroad
USDOT	United States Department of Transportation
VE	Value Engineering

1. Project Purpose, Goals, Objectives and Metrics

1.1 Background

The Chicago Region Environmental and Transportation Efficiency Program (CREATE) is an inter-modal public-private partnership of the Illinois Department of Transportation (IDOT), the Federal Highway Administration (FHWA), the City of Chicago, Cook County, and the Association of American Railroads (AAR) to restructure, modernize, and expand passenger and freight rail facilities and construct highway grade separations in the Chicago metropolitan area while reducing the environmental and social impacts on the general public.

The AAR acts on behalf of eight (8) participating railroads, including Amtrak (National Railroad Passenger Corporation), BNSF Railway Company (BNSF), Canadian National Railway Company (CN), Canadian Pacific Railway Company (CP), CSX Transportation (CSX)[1], Metra, Norfolk Southern Railway (NS), and the Union Pacific Railroad (UP). Other participating railroads are the Belt Railway Company of Chicago (BRC) and Indiana Harbor Belt Railroad Company (IHB). Leading up to the CREATE Program, the AAR established the Chicago Transportation Coordination Office (CTCO) to develop managerial solutions for railroad operating challenges in Chicago.

The CREATE Program partners have previously agreed that their participation in the Program will be governed by a Joint Statement of Understandings (JSOU), which describes the program scope, the core responsibilities of the partners, the key relationships between partners, and summarizes how changes in scope and overall budget will be managed. Under the terms of the JSOU, after completion of construction, each component project becomes the property of the party that owns or substantially controls all of the property on which the improvement is constructed or installed. Each owner then becomes responsible for maintenance, operation, management, and dispatch on its property.

The CREATE Program Final Feasibility Plan and Final Preliminary Screening documents were drafted in 2005 to establish overall "Program Level Goals and Strategies" and to define the objective of each component project within the Program. The final CREATE Feasibility Plan was released by the CREATE Partners in August 2005, and subsequently endorsed by the Chicago Metropolitan Agency for Planning (CMAP). CMAP is the federally designated regional planning agency for the Northeast Illinois region. The CREATE Program is included in CMAP's latest long-term comprehensive regional plan, "GO TO 2040" dated October 2010 and the Fiscal Year (FY) 2014-2019 Transportation Improvement Program (TIP). There are currently 70 individual projects included in the CREATE Program, all designed to improve the safe and efficient movement of

[1] Within Cook County and the City of Chicago, CSX Transportation, Inc. operates as Baltimore and Ohio Chicago Terminal Railroad Company (B&OCT). To be consistent with the CREATE programmatic documents, including the JSOU and Feasibility Plan, the PMP will use "CSX."

passengers and freight on the railway system, reduce delays and enhance safety for travelers on the roadway system, and provide air quality benefits for the Chicago region. The 75th Street Corridor Improvement Project (75th Street CIP) is a major element of the CREATE Program.

This Project Management Plan (PMP) establishes the framework for administering the 75th Street CIP from detailed design through construction and construction contract close-out. It formulates the general management methodology and organization and provides guidelines for the collaboration of the multiple parties involved in the successful completion of the project.

1.2 Purpose

The purpose of the 75th Street CIP is to improve mobility for rail passengers, freight, and roadway users. The specific needs of this project include:

- *Reduce Rail-Rail Conflicts*
  There are three major rail-rail conflicts in the study area: Forest Hill Junction, Belt Junction, and 80th Street Junction. Since only one train can pass through each of these crossings at any given time, the rail-rail intersections are choke points, causing long delays and potentially affecting train operations throughout the entire Chicago region (See Figure 1: 75th Street CIP Conflict Map).

- *Reduce Highway-Rail Crossing Problems*
  Highway-rail grade crossings create delays for roadway users – including motorists, pedestrians, and emergency responders – and increase the risk of crashes. Studies showed that the gates can be down for over four hours of a typical day at 2200 W 71st Street in Chicago, where the roadway crosses four north-south CSX rail tracks, causing significant delay to drivers every day. In addition, the number of crashes at the 71st Street crossing over the past 25 years is seven times the Cook County average.

- *Reduce Local Mobility Problems*
  The rail lines in the study area also act as a barrier to vehicular, bicycle, and pedestrian transportation. Within the approximately 14 miles of rail corridor encompassed by the 75th Street CIP, there are seven stretches of more than a half-mile where there are no crossings of the rail corridor. There are 44 underpasses in the project study area with poor visibility, poor drainage, and deteriorated physical conditions limiting local resident's mobility within the neighborhood.

- *Improve Rail Transit Passenger Service Reliability*
  Reliability of Metra SWS Line and Amtrak trains are affected by the rail crossings at Forest Hill Junction, Belt Junction, 80th Street Junction, and the conflict points on the NS rail line. Additionally, the Metra SWS Line currently operates on a single track from Ashburn Junction, southwest of Wrightwood Station, to just east of Western Avenue (2400 W). Unreliable passenger service can

result from the single track section for Metra operations because one opposing train must idle at either end of the single track section waiting for clearance.

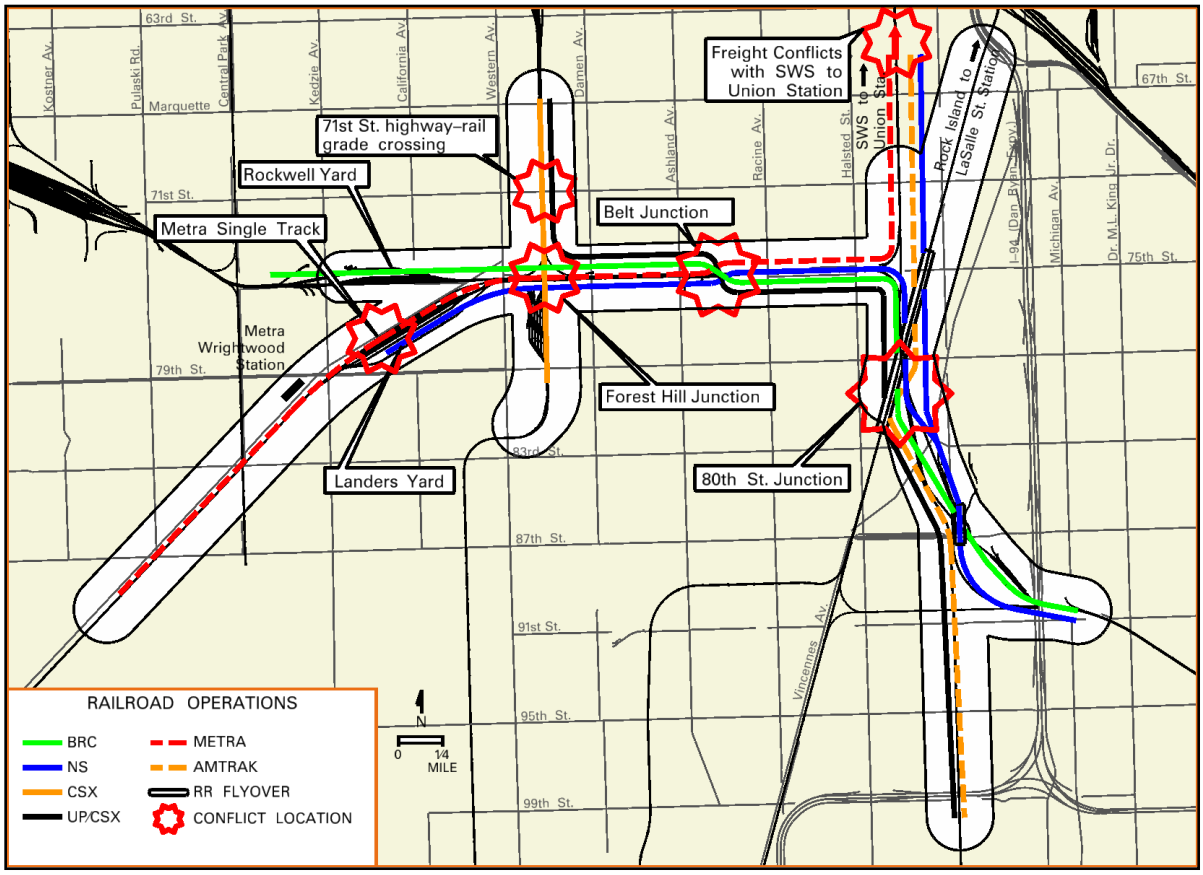


Figure 1. 75th Street CIP Conflict Map

1.3 Goals, Objectives and Metrics

The general goals of the 75th Street CIP are to expedite the movement of passenger and freight trains through chronically congested areas within the Chicago area and to increase the safety of grade crossings within the Chicago region. For the time being, the goals and metrics listed herein are general in nature and will be replaced as the designs specify the conditions being modified and how they meet the intent of the grants and funding. The specific goals (long-term vision) and objectives (short term actions) of the 75th Street CIP are listed generally below along with performance metrics. The performance metrics will be used to measure the relative progress in meeting the specified goal and/or objective.

<u>Specific Project Goals:</u>

Specific goals of the 75th Street CIP include:

A. *To improve mobility for rail passengers, freight and roadway users along with the local pedestrians. Improve movement of passenger and freight trains through identified congested areas within the 75th Street CIP study area.*

- Metric – Construct all components of the 75th Street CIP.

B. *To eliminate rail-rail conflicts and highway-rail conflicts to improve safety*.
   - Metric – Construct all components of the 75th Street CIP.

C. *Meet the purpose and need of the* 75th Street CIP *while avoiding, minimizing, or mitigating adverse impacts to the environment. This objective will be accomplished by implementation of an approved Environmental Compliance and Mitigation Plan. All environmental commitments from the FEIS/ROD, applicable permit conditions, and other applicable agreement provisions will be addressed and monitored.*

   - Metric – Implementation of all environmental commitments defined in Phase I, II, and III as well as implementation of any applicable environmental permit conditions prior to completion of construction.

<u>Specific Project Objectives:</u>

Specific objectives of the 75th Street CIP include:

A. *Through design and construction, implement the* 75th Street CIP *on time, within budget, with quality, and maintain general public's trust and support.*

   - Metric – 75th Street CIP is completed in accordance with the established schedule. The final Schedule will change based on available funding for the project.
   - Metric – 75th Street CIP is completed within the budget established.
   - Metric – All corrective actions are identified using established QA/QC procedures. Design and construction contractors must meet the quality requirements established in respective section contract documents.
   - Metric – All applicable Federal, State, and Local statutes and permit stipulations are met.
   - Metric – All Disadvantaged Business Enterprise (DBE) goals will be monitored.
   - Metric – Traffic delays are minimized to the extent possible to minimize impact on local traffic and neighborhoods. Public is informed of traffic restrictions in accordance with contract requirements. Public outreach is conducted where applicable.
   - Metric – Project is completed within the budgets established and within any additional costs approved by the CREATE Management Committee.

2. Project Description

2.1 Project Description and Scope of Work

The 75th Street CIP is centered around a rail corridor that generally follows 75th Street on the south and southwest sides of the City of Chicago (see Figure 2). The 75th Street CIP includes four major sections originally identified as separate project component of the CREATE Program. During the development of the CREATE Program Feasibility Plan and Project Screening, these component projects were determined to be environmentally linked and are all addressed in a single Environmental Impact Statement (EIS).

Figure 2. 75th Street CIP Location Map

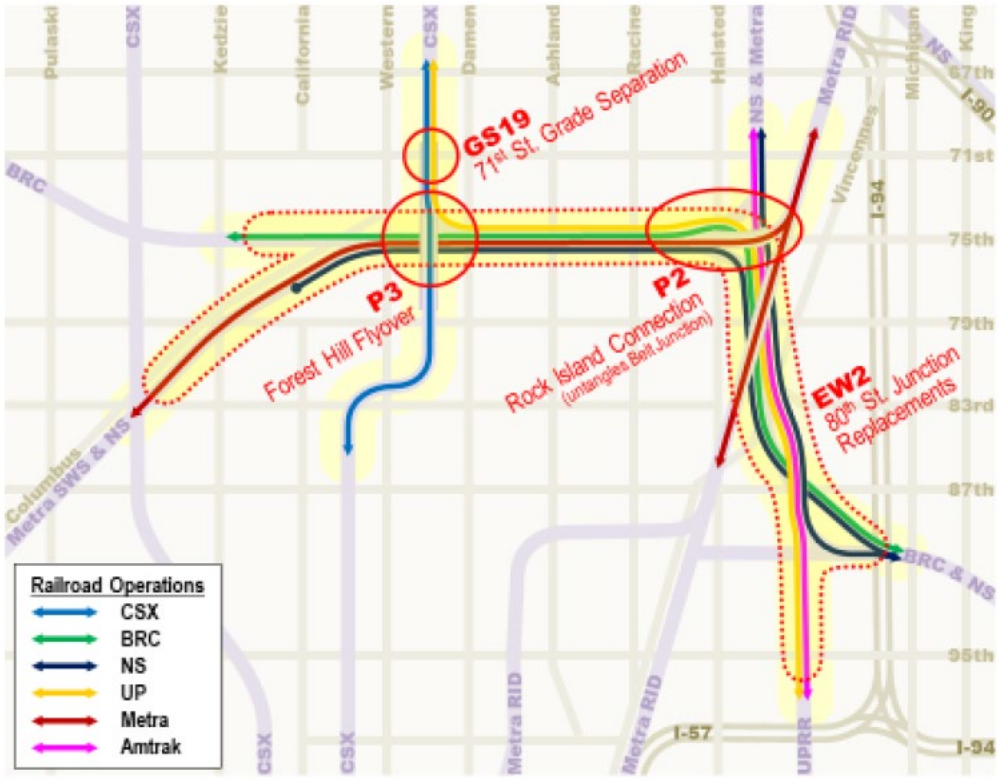


Figure 3. 75th Street CIP Study Area and Section Schematic

The four major component of the 75th Street CIP are described below and are depicted in Figure 2.

CREATE East-West Corridor Project 2 (EW2)

Improvements in this section will reduce congestion and delays in the 75th Street corridor between the Dan Ryan Expressway (I-94) southeast of 80th Street Junction, and Ashburn Junction near Columbus Avenue and 81st Street to the southwest. Street Improvements include the realignment of existing tracks and providing additional new tracks, including a new mainline track from the southeast portion of the study area to Landers Yard, to eliminate rail-rail conflicts at both 80th Street Junction and Belt Junction. A new second through-track for Metra will be provided along the west side of Landers Yard and through the Wrightwood Station. This stretch of new double-track will improve Metra flexibility and the ability to pass more Southwest Service trains between Chicago Union Station and Manhattan. Tracks in Landers Yard will need to be relocated to provide room for the new Metra track. The Rock Island track will be raised as well as the track profile at 79th Street will need to be lowered to provide the desired vertical clearance for NS and BRC beneath the Metra Rock Island District railroad bridge. This, in turn, will create the need to lower 79th Street by approximately 2.5 feet to provide the appropriate vertical clearance beneath the railroad bridge carrying the NS and BRC tracks. EW2 includes local mobility improvements to twenty-three (23) viaducts, including: Kedzie Avenue south of 79th Street, 79th Street east of Kedzie Avenue, Western Avenue at 75th Street, Damen

Avenue at 75th Street, Ashland Avenue at 75th Street, Loomis Boulevard at 75th Street, Racine Avenue at 75th Street, Aberdeen Street at 75th Street, Morgan Street at 75th Street, Peoria Street at 75th Street, Halsted Street at 75th Street, 76th Street west of Parnell Avenue, 78th Street east of Wallace Street, 79th Street east of Wallace Street, 80th Street east of Wallace Street, 81st Street east of Wallace Street, Vincennes Avenue south of 83rd Street, Vincennes Avenue north of 84th Street, Holland Road north of 87th Street, 87th Street east of Holland Road, 87th Street east of Eggleston Avenue, 88th Street west of Harvard Avenue, 74th Street west of Parnell Avenue. Additionally, five (5) noise abatement walls will be constructed to address predicted impacts on low-income and minority residents as a part of the CREATE EW2 work.

CREATE Passenger Corridor Project 2 (P2)

Improvements in this section will reduce rail-rail conflicts for Metra operations by constructing a double-track rail flyover bridge to connect the Metra South West Service (SWS) Line near 74th Street to the Rock Island District Line, which terminates at LaSalle Street Station. By rerouting the Metra SWS Line to LaSalle Street Station, additional platform capacity at Chicago Union Station will be provided. P2 includes local mobility improvements at seven (7) viaducts, including: 73rd Street pedestrian way east of Hamilton Park, 74th Street east of Normal Avenue, 72nd Street at Stewart Avenue, 75th Street at Normal Avenue, 76th Street at Normal Avenue, 78th Street west of Fielding Avenue and 80th Street west of Wallace Street.

CREATE Passenger Corridor Project 3 (P3)

Improvements in this section will eliminate conflicts at Forest Hill Junction[2] (75th Street between Damen Avenue and Western Avenue) between the Metra SWS Line and the north-south CSX tracks through the construction of a rail to rail flyover. The rail to rail flyover will be a new double-track elevated structure and will also carry the CSX mainline over the Metra SWS Line, BRC and NS rail tracks running east-west through the 75th Street corridor. Other freight carriers use this route to access the BRC Clearing Yard to the West of the project. The new elevated structure will also carry the CSX mainline over 71st Street (See GS-19 for further details). P3 includes local mobility improvements to four (4) viaducts, including: 79th Street east of Oakley Avenue, 69th Street east of Bell Avenue, 68th Street east of Bell Avenue and 67th Street (Marquette) east of Bell Avenue.

CREATE Grade Separation Project 19 (GS19)

Improvements in this section will grade-separate 71st Street and the north-south CSX tracks. The principal roadway element is the elimination of the existing at-grade crossing of the CSX tracks at 71st Street. The existing profile of 71st Street would be lowered by approximately 3 feet, which would

[2] CSX, which controls the signalization in this area, refers to this as the "75th Street Junction" in its day-to-day operations. For purposes of consistency with the Phase I documentation, the PMP will use "Forest Hill Junction."

provide a vertical clearance of 16.5 feet beneath the new rail structure. There would be no change to the horizontal alignment or cross-section and no additional right-of-way would be required. A total length of approximately 660 feet of 71st Street would be reconstructed.

The 75th Street CIP includes the following major work elements which are distributed among the four (4) projects listed herein:

- Approximately 25.0 miles of new track and 10.8 miles of relocated track;
- Two new rail flyover structures (approximately 3,800 feet and 6,400 feet in length);
- New rail bridge structures at 4 locations (not including the two new rail flyovers);
- Replacement of existing rail bridges at 3 locations;
- Raise one rail bridge;
- Rehabilitation or modification of existing rail bridges at 23 locations;
- One highway-rail grade separation; and
- Substantial structural, drainage, roadway and lighting improvements to address identified local mobility issues at 36 existing rail viaducts, including:
    - Roadway resurfacing at 8 locations;
    - Roadway reconstruction at 8 locations;
    - Reconstruction of sidewalks at 13 locations;
    - Construction of 90 ADA accessible sidewalk ramps;
    - Replacement of complete lighting systems at 36 locations;
    - Reconstruction of drainage systems at 19 locations;
    - Construct new storm water collection and retention system for some projects.
    - Waterproofing of 13 bridge decks;
    - Reconstruction of 7 bridge abutments; and
    - Reconstruction of underdrains at 4 bridge locations.
- Construction of five noise abatement walls.

The proposed improvements included as part of the 75th Street CIP are shown schematically in Figure 4.

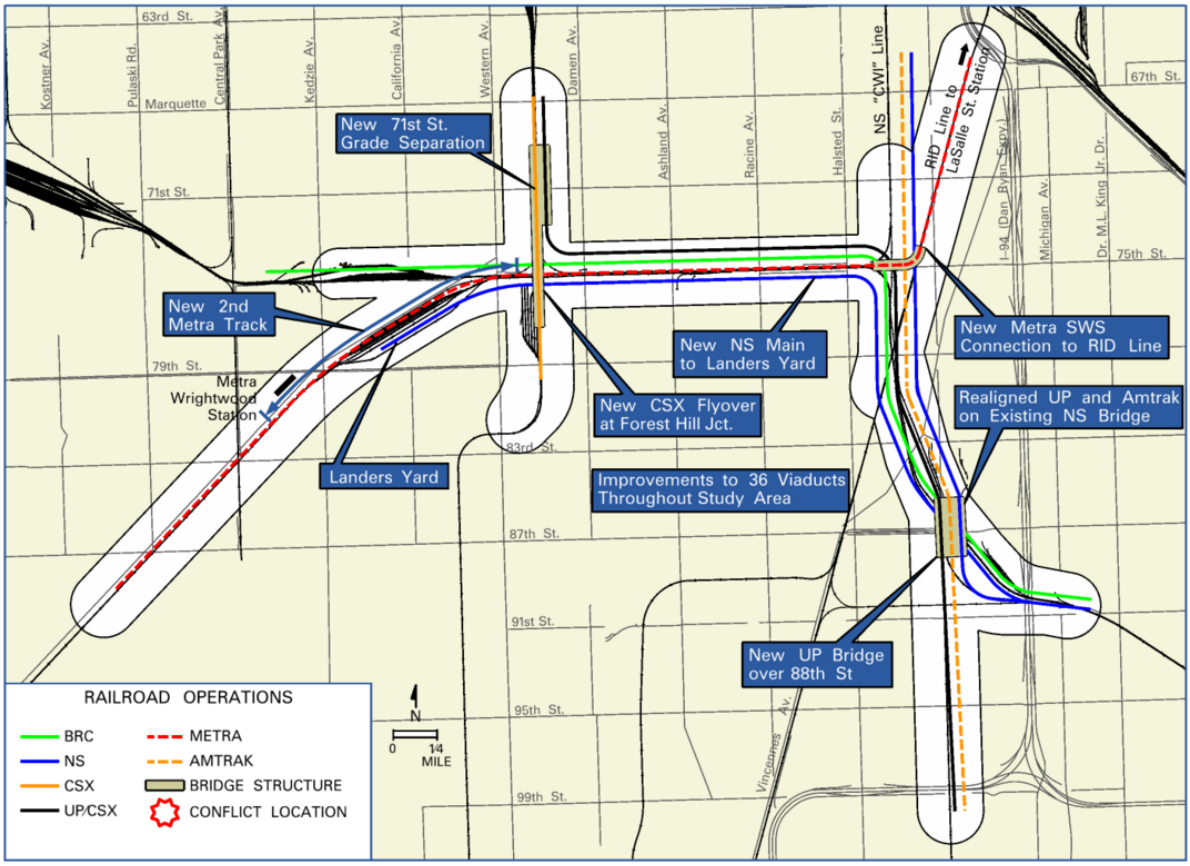


Figure 4. Schematic of 75th Street CIP Improvements

The 75th Street CIP will require the acquisition of a total of approximately 16.7 acres of right-of-way, of which 14.9 acres are currently vacant residential or industrial parcels. A total of 27 residential dwelling units (26 occupied and 1 vacant) and one church will be acquired. No businesses will be displaced. Permanent and temporary easements may also be required to construct the proposed improvements. Further details of the required land acquisition, including permanent and temporary easements can be found in the Phase I Project Report.

Specific budgets and schedules are described in the Initial Financial Plan.

2.2 Design Criteria

Track Structures and Track

The following design criteria were used in the development of the preliminary engineering design for the 75th Street CIP:

Table 1. Design Criteria

Design Element	Design Criteria
Metra Design Speed (standard)	79 MPH
Metra Design Speed (crossovers/switches)	40 MPH
Freight Design Speed (CSX, UP)	40 MPH
Freight Design Speed (BRC, NS, all wyes)	25 MPH
Freight Design Speed (yards)	10 MPH
Metra Maximum Grade	2%
Freight Maximum Grade Preferred	1%
Roadway Maximum Grade	8%
Vertical Clearance over Railroad	23’-0” (minimum)
Vertical Clearance over Roadway (new and replaced bridges)	14'-6” (minimum)
Vertical Clearance over Roadway (existing bridges)	14'-0” (minimum)
Horizontal Clearance from Track Centers to All Obstructions	15'-0” pref., 10’-0” (minimum)
Metra Clearance between Track Centers	14'-0” pref., 13'-6" (minimum)
Freight Clearance between Track Centers	15'-0” pref., 13'-6" (minimum)
Metra Double-Track New ROW	66'

Sources: CREATE Partners

2.3 Environmental Commitments

IDOT, in cooperation with FHWA, prepared and published the Draft Environmental Impact Statement (DEIS) for 75th Street CIP on March 28, 2014 and a combined Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) was approved on September 19, 2014. The 75th Street CIP final National Environmental Policy Act (NEPA) document (i.e., the combined FEIS/ROD) resulted in several commitments and mitigation measures that will require further coordination during Phase II (final) design, incorporation into the construction contract documents, and implementation and monitoring during

construction of the project. A Reevaluation of the NEPA document was completed in May 2020, which resulted in no significant changes from what was found in the original environmental determination. Below is a summary of the commitments and mitigation measures identified during the Phase I design study process. Reference Section 11 Environmental Monitoring for information on how environmental commitments will be monitored through Phase II (final) design and Phase III (construction).

Right-of-Way Acquisition

- IDOT, CDOT, and/or the lead participating railroad will complete the acquisition of private property in accordance with the federal *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* and the *IDOT Land Acquisition Manual.*

Environmental Justice

- IDOT, FHWA, and the participating railroads will provide mortgage assistance to eligible property owners.
- Based on the analysis and preliminary design, IDOT and/or the participating railroads will construct five (5) noise abatement walls to address predicted impacts on low-income and minority residents as part of the CREATE EW2 work. Initially, only four (4) noise abatement walls were to be implemented as part of the CREATE EW2 project. However, due to the proximity of an additional noise abatement wall proposed in EW3 (Barrier O) to EW2 limits and changes to the EW3 project limits, it was determined to include Barrier O in EW2. IDOT, CDOT, and the participating railroads will further explore additional job training and education opportunities during Phase II (final) design and Phase III (construction).
- IDOT, CDOT, FHWA, and/or the participating railroads will further explore the following additional mitigation measures during Phase II (final) design in coordination with the Federal Rail Administration (FRA) and the Chicago Transit Authority (CTA):
    - A quiet zone on the UP Villa Grove Subdivision;
    - Bus stop improvements;
    - Sidewalk improvements;
    - Bicycle facility improvements;
    - Remnant and vacant parcel improvements; and
    - Streetscape improvements.

Maintenance of Traffic during Construction

- IDOT, CDOT, and/or the lead participating railroad will develop a Traffic Management Plan for each major construction contract. The plan will be coordinated with the relevant public agencies and local officials and will cover maintaining access to local residences and businesses, coordination with emergency service providers, and coordination with transit agencies where necessary to ensure access for local users throughout the full period of construction. The Traffic Management Plan will include a Public Information Plan (PIP) component, if needed, to identify

appropriate strategies to inform affected road users, including the surrounding community, of the expected impact of a project, of changing conditions, and available travel options.

Air Quality

- IDOT, CDOT, and/or the lead participating railroad will submit a Dust Control Plan for approval prior to beginning construction; adhere to all federal, state and local laws pertaining to dust control; maintain the construction site to minimize dust conditions that would adversely affect construction or railroad operations, including equipment operation and worker safety; maintain the construction site to minimize spreading of dust to adjacent land and property owners including homes and businesses; ensure that the operating safety of adjacent highways and roadways is not adversely affected by spreading of dust from the construction site.

Noise and Vibration

- IDOT, CDOT, and/or the lead participating railroad will assure compliance with applicable Cook County, City of Chicago, and City of Hometown regulations.
- To reduce noise and vibration impacts during the period of construction, the use of pile-driving, if determined to be necessary, will adhere to all applicable City of Chicago ordinances for noise and vibration. IDOT, CDOT, and/or the lead participating railroad will develop contract documents that will require the contractor to coordinate with local schools, elected officials, and community organizations to schedule pile driving activities so as not to interfere with State of Illinois mandated testing periods.
- The following maintenance procedures will be accomplished by the rail industry to mitigate vibration impacts through minimizing vibration sources: regularly scheduled rail grinding, wheel truing programs, vehicle reconditioning programs, and the use of wheel-flat detectors.
- Based on the noise analysis and preliminary design, IDOT and/or the lead participating railroad are likely to implement five noise barriers: Barrier G, Barrier H, Barrier M, Barrier N, and Barrier O. If it subsequently develops during the final design of the 75th Street CIP that constraints not foreseen in the preliminary design occur, or public input substantially changes, the abatement measure may need to be modified or removed from the project plans. A final decision on the implementation of Barriers G, H, M, N, and O will be made upon completion of the 75th Street CIP's final design and corresponding public involvement process.
- The noise and vibration analysis for this project may need to be reassessed if: a) the project is revised in a manner in which impacts of the project may change due to the project revisions (e.g., a new track alignment is moved closer to a receptor), or b) the CREATE Program's train model is updated due to projects being removed from or added to the CREATE Program.
- 5 noise abatement walls will be constructed to mitigate noise impacts to neighboring communities.

- The P3 project component designer will be using the FTA Transit Noise and Vibration Impact Assessment Manual as a guideline to develop a noise and vibration construction specification. This specification will serve as a guideline for other project components.

Visual Resources and Viewscape

- Based on the Phase I (preliminary) design, there would be a total of approximately 1.39 acres of parcel remnants adjacent to the proposed Metra Rock Island District line (74th Street Connector) flyover bridge. IDOT, CDOT, and/or the lead participating railroad will landscape these parcels to screen the view of the rail flyover structure. The parcels could also be landscaped by a public or private organization using project funds, transferred to the City of Chicago, or to an adjacent property owner through the City of Chicago's Adjacent Neighbors Land Acquisition Program (ANLAP), or used for other community purposes. Details will be determined through IDOT's Context Sensitive Solution (CSS) process in Phase II (final) design.
- IDOT, CDOT, and/or the lead participating railroad will also landscape along the east side of the CSX railroad tracks to minimize visual impacts where the new rail flyover would be constructed. Trees will be planted along the eastern side of the CSX right-of-way and/or on adjacent City of Chicago property parallel to the new flyover structure.
- Many design details (e.g., color, texture, public art) could still be changed or added in the final engineering phase of the project. Because the 75th Street CIP is designated as a CSS project, IDOT will continue to seek community input at meetings through the Phase II design process. Some type of aesthetic treatment for the walls could potentially be used to minimize the visual impacts in some locations. The public will have the opportunity to provide input about various design details during the Phase II design of the project. Potentially, funding could be designated for new or replacement murals, or other public art, as a mitigating action.

Special Waste

- A new Special Waste Assessment (SWA), Preliminary Environmental Site Assessment (PESA) (if required), and Preliminary Site Investigations (PSI) (if required) will be completed prior to PS&E approval. The new SWA and PESA (if required) will identify the number and location of PSI(s) required, if any. The purpose of the PSIs are to clarify the risks presented at sites where a maximum depth of excavation stipulation may be necessary to protect worker safety or where potentially impacted soil could require special handling or disposal. Required remediation, if needed, will also be completed by the responsible agency.

Tree Replacement

- IDOT, CDOT, and/or the lead participating railroad will replace all public street trees, all landscape trees (i.e., trees planted intentionally, rather than volunteer growth), and all other trees of over six-inch diameter at breast height (i.e., 4.5 feet above ground level) on a one-for-one basis per IDOT policy. Replacement trees will be planted in appropriate street locations within the

immediate neighborhood where the tree removals take place, or on the unused portion of parcels acquired for the project. The locations of all tree replacements will be coordinated with the City of Chicago Bureau of Forestry during Phase II design. This requirement does not apply to trees on existing railroad property that are removed in order to construct the 75th Street CIP. Trees removed for construction in other areas may also be replaced in consultation with local stakeholders during final Phase II design.

Control of Nuisance Species

- For all construction contracts, the contracting entities will comply with City of Chicago municipal ordinance 13-32-325. This ordinance requires contractors to complete rodent surveys, and abatement where applicable, in order to obtain a permit for the demolition of any building or structure. Additionally, contractors will control nuisance species, such as rodents, during the initial land-clearing phase of the work and as needed through the completion of construction in order to protect adjacent residential areas.

Hamilton Park and Leland Giants Park

- The individual railroads or their consultants/contractors will obtain permits from the Chicago Park District to allow for construction of new retaining walls located adjacent to Hamilton Park and Leland Giants Park. One condition of the construction permits will be the development and implementation of a landscaping plan to restore the affected areas of the parks. Coordination will continue during Phase II (final) design with the Illinois Historic Preservation Agency (IHPA) and Chicago Park District to develop an appropriate landscaping plan in the affected area of Hamilton Park, as well as to coordinate the aesthetic treatment of the exposed face of the new retaining wall at Hamilton Park.

Damen Avenue Bridge Façade

- IDOT, CDOT, and/or the lead participating railroad will continue coordination with the IHPA during Phase II (final) design to ensure the Damen Avenue viaduct Art-Deco façade and railing that currently exists will be replaced in-kind and replicated to the extent feasible.

Consultation with Local Stakeholders

- IDOT and the CREATE Partners will work with local stakeholders during the Phase II (final) design to provide them with opportunities for input on various design features and other aspects of the work affecting the neighborhoods.

Final Bridge Plans

- During the Phase II (final) design, the lead agency or railroad will coordinate the development of all bridge plans with the IDOT Bridge Office to allow for all required reviews (including OUC) and will obtain the required permits where applicable

Permits/Certifications

- IDOT, CDOT, and/or the lead participating railroad will obtain a National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges and will prepare the required Stormwater Pollution Prevention Plan (SWPPP) prior to construction.
- Following Phase II (final) design, IDOT and/or the lead participating railroad will also be required to obtain several permits from the City of Chicago. These could include tree removal permits, pavement opening permits, public way use permits, temporary street or lane closure permits, sewer permits, and similar permits depending on the specific contractor activities.

Public Involvement

- The 75th St. CIP will design and construct community mobility improvements that will enhance the safety, accessibility, quality of life and visual appeal of the community, as well as enhance the transit-riding experience. Potential improvement projects have been identified and are being prioritized for completion with input from representatives of the project communities.
- Public meetings were held to solicit community feedback, the purpose of the public hearing was to:
    - Provide an overview of the 75th St. CIP and the Draft Environmental Impact Statement.
    - Review alternates developed to address project purpose and need.
    - Present the benefits, impacts, and mitigation measures for the project.
    - Obtain public comment on the 75th St. CIP and the Draft Environmental Impact Statement.

2.4 Overall Project Phases

The major phases of work for the 75th Street CIP are:

- Phase I – Preliminary Engineering and Environmental Review (PE/ENV) and preliminary engineering;
- Phase II – Final design which includes development of the PS&E (Plans, Specifications & Estimates), right-of-way acquisition, advanced utility relocation and construction contract procurement; and
- Phase III – Multi-stage construction, project closeout, and transfer of maintenance responsibilities.

2.4.1 CREATE 75th Street CIP Phase I (Environmental Review and Preliminary Engineering)

The purpose of the Phase I project report for 75th Street CIP is to document the coordination and decision-making process of the CREATE partners and other involved parties on the proposed improvements and how the improvements will be designed to satisfy the project's purpose and need. Phase I project development includes environmental review under NEPA and preliminary engineering. For the Phase I project report, preliminary engineering design is required to be developed to a level that can support the environmental

analysis and obtain NEPA approval to advance the project into Phase II (final) design. The Phase I work was fully funded by the CREATE partners and is complete.

Most CREATE projects are processed as a Categorical Exclusion or as an Environmental Assessment (EA). However, for 75th Street CIP, the NEPA requirement is the preparation of an EIS due to the potential impacts of the four major rail improvement actions. IDOT OIPI, in cooperation with FHWA, prepared and published the Draft EIS for 75th Street CIP on March 28, 2014. A combined Final EIS and ROD were approved by FHWA on September 19, 2014. The Phase I Project Report was completed, and design approval was issued on February 14, 2014. The Phase I Project Report documents indicating the proposed improvements have been carefully evaluated, appropriate policies and criteria have been used, the design reflects an assessment of environmental issues, and that IDOT's CSS process and meaningful public involvement has occurred. The 75th Street CIP Phase I Project Report was prepared in accordance with the requirements outlined in the C*REATE Program Rail Projects Phase I Reports and Design Approval Procedures Manual*.

2.4.2 CREATE 75th Street CIP Phase II (Plans, Specifications & Estimates (PS&E))

Phase II (final) design includes advancing preliminary design plans into construction bid documents through development of a PS&E, right-of-way acquisition, easement agreements, and utility relocations (some utility relocation work may extend into or occur during Phase III). The design scope of work must satisfy the design criteria and requirements established by FHWA, IDOT and the participating railroads for CREATE projects. See the *CREATE Program Rail Projects Phase II Reports Manual* for further information. The overall project scope will be refined in detail and will be consistent with the baseline project scope. Any substantive change from the baseline scope will require formal approval though the established CREATE Program Change Order (CO) Procedures described in the PMP. Please refer to the *CREATE Program Rail Projects Phase II Reports Manual* for policies and procedures to be followed during final design of the 75th Street CIP. The Phase II work is fully funded and underway.

2.4.3 CREATE 75th Street CIP Phase III (Procurement and Construction)

Phase III construction includes construction management and construction of all project components for 75th Street CIP, including utility work that was not completed as part of Phase II utility relocations. During construction and procurement, the overall project scope will be maintained as detailed during final design unless unforeseen conditions are encountered. Major deviations from the baseline scope may be adopted through the formal CREATE Program Change Management process outlined in Sections 3.6 Change Management of Agreements and 5.1.1 Change Order Procedures of the PMP. Currently the Phase III work for GS19 and P3 along with a small portion of EW2 (Rock Island bridge raise) construction is funded. The Partners are working on plans to fund the remaining EW2 and P2 projects.

2.4.4 Specific Contract Phasing (Operationally Independent and Non-Concurrent Construction)

The 75th Street CIP project will utilize a phased construction approach with distinct packages for bid construction or railroad force account construction, including related construction management services. Individual project components may be operationally independent and constructed non-concurrently. Each project component and individual construction package will be phased considering the requirements of each State Rail Agreement. During final design, the packaging of construction work will be decided considering operational constraints, construction market conditions, public safety and available funding. The CDOT and local agencies will review the impact on the local roadway network and the railroad Chicago Transportation and Coordination Office (CTCO) will review the railway impacts.

The 75th Street CIP will be organized around a 2 to 3-year design and a 4 to 5-year construction sequencing plan approved by the CREATE partners and used to complete the CER. The core assumption of this sequencing plan is that all related Phase II design and construction activity (i.e., the P2, P3, EW2 and GS19 project components) will be completed within the 6 to 7-year construction period. This approach will include multiple contracts to implement the project; however, all project actions will occur within the 6 to 7-year time frame. See Appendix A for the high level project development and construction schedule agreed to by the CREATE partners in 2019.

Construction of the various project components (Phase III) of the 75th Street CIP will be sequenced in consideration of maintaining existing operations and minimizing impacts to the surrounding communities. The anticipated completion date for 75th Street CIP is November 2026. Potential sources of delay were identified in the CER as part of the risk identification and modeling process (see 8.0 Risk & Response Strategies below); delay risks will be mitigated through good management of land acquisition efforts and careful coordination among project stakeholders.

2.5 Permits and Clearances

Applications for permits or approvals from regulatory agencies concerning various aspects of the CREATE 75th Street CIP will be required during the design and construction phases. Before certain construction work can commence and even before funding can be secured, IDOT or the lead entity may obtain certain permits and clearances or will delegate their procurement to contractors. These permits and clearances are required from governmental entities mandated to protect the public.

IDOT obtained the NEPA environmental clearance during the Phase I study process. Construction contractors will obtain permits that relate specifically to construction. Contract specifications will indicate for construction or procurement contracts what relevant permits and clearances will be required and what party is responsible for satisfying the controlling agency.

Listed here are types of permits or approvals, timing of applications, and parties responsible for their preparation and submission. More specific definitions of these requirements and the allocation of

responsibilities between the Project Sponsor and others will be added to the PMP as they are developed. The lists will be kept current by the Section Managers.

2.5.1 Clean Water Act Section 402 NPDES Permit and Stormwater Pollution Prevention Plan

Construction contracts involving clearing, grading, and excavation activities that disturb more than one acre of land area require a Section 402 National Pollutant Discharge Elimination System (NPDES) Permit from Illinois Environmental Protection Agency (IEPA). The permit application is in the form of a Stormwater Pollution Prevention Plan (SWPPP). The engineering consultants will prepare the SWPPP and usher it through the approval process under the supervision of Section Managers and the CREATE Implementation Team (defined in Section 4 below).

2.5.2 Permit to Work within Public Right-of-Way

Each instance of modification to a public roadway, traffic control devices, or any other work within a public right-of-way will require a permit from the agency having jurisdiction over the right-of-way (e.g., IDOT, Cook County, or the City of Chicago). The engineering consultant will prepare the preliminary submittal packages for permit agency coordination and review. The contractor will be responsible for obtaining all construction related permits.

2.5.3 City of Chicago Existing Facility Protection (EFP) Process and Geotechnical Review

If applicable, new construction, maintenance and installation work in or adjacent to the public way may require coordination with the Office of Underground Coordination (OUC). This may also include projects with deep excavations and penetrations, such as foundations (e.g., piles, caissons, etc.), earth retention systems or major piping installations. The lead agency or railroad will review the City's requirements and, if needed, coordinate with OUC, the City of Chicago Department of Buildings (DOB), and/or other city departments to facilitate the review and/or approval process. Further information on the OUC coordination and review process can be found on the City's website:

(http://www.cityofchicago.org/city/en/depts/cdot/provdrs/construction_information/svcs/office_of_undergroundcoordination.html).

3. Project Procurement

3.1 Project Procurement Plan

The 75th Street CIP involves procurement of a wide variety of services, goods and other commodities from outside parties. The primary types of procurements are described in the subsections below.

3.1.1 Professional Services Procurement & Consultant Selection

Professional services may include, but may not be limited to, the following:

- Engineering design services (including project studies, final design, geotechnical services; hydrology/hydraulic analysis, traditional surveying including tie in to 75th Street CIP benchmark system, other design professional services, Ground Penetrating Radar (GPR) subsurface investigations and sewer video inspections);
- Legal services (e.g., agreements, contract negotiations, Uniform Act reviews for property acquisition and other legal services);
- Construction management services and/or construction engineering/inspection and related quality control and quality assurance reviews;
- Environmental mitigation monitoring, if required; and
- Public involvement and/or communication services as determined by the CREATE Advocacy Committee including development of training and education materials to use with local schools.

Section 3 of the *CREATE Program Rail Projects Phase II Reports Manual* describes in detail the contracting procedures for professional services and procedure for approval of railroad solicitation procedures. All consulting projects are or to be publicly advertised and selection decisions are quality based in accordance with the Brooks Act.

Disadvantaged Business Enterprise (DBE) Policy and Special Provision and DBE Utilization and Participation is included in Attachment 8 of the *CREATE Program Rail Projects Phase II Reports Manual*.

3.1.2 Real Estate Services Procurement

For real estate services (e.g., right-of-way acquisitions, appraisals, boundary surveys, etc.), the lead agency or railroad will follow the overall process indicated in Section 4 of the *CREATE Program Rail Projects Phase II Reports Manual*. All real estate acquisitions must follow the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as Amended* and IDOT's approved procedures within the IDOT *Land Acquisition Policies and Procedures Manual*. Section 4 of the *CREATE Program Rail Projects Phase II Reports Manual* describes policies and procedures for contracting right-of-way (ROW) services.

3.1.3 Construction Procurement & Contractor Award

For construction contracts (including utility relocations, site remediation, or other specialty services), Section 11 of the *CREATE Program Rail Projects Phase II Reports Manual* contains policies and procedures in contracting for utility relocation or protection work.

During the Phase II (final) design, the selected design consultant(s) will develop a Procurement Plan—where applicable—for the 75th Street CIP and will submit to the CREATE Implementation Team for approval. The Procurement Plan shall include the following:

- Service or commodity to be purchased;
- Procurement method (formal advertised competitive bids, two-step competitive bids, competitive negotiated procurement, sole source negotiated, others);
- Responsible party and timeframe for defining the scope or product;
- Responsible party and timeframe for conducting the procurement, review of bid submittals and selection of vendors or contractors;
- Responsible party and timeframe for overseeing the product or service delivery to completion;
- Estimated cost;
- Providing Wage Determinations for the type and location of the work consistent with Davis-Bacon and Related Acts (DBRA) for all laborer and mechanics work forces;
- DBE participation goal;
- Construction schedule for delivery of project benefits;
- Any applicable federal requirements, such as debarment, Buy America, or lobbying certificates; and
- Includes most highway, roadway, grading, and structure work.

Every CREATE Program project involving Federal and State funds will proceed through an open and transparent bidding process. For each construction package that will require a competitive bid solicitation, the bid notice is posted to the CREATE Program website with a pre-determined notification time before submissions are due. Additional information regarding the relevant contracting requirements and selection criteria can be found in the *CREATE Program Rail Projects Phase II Reports Manual* and the *CREATE Program Rail Projects Phase III Manual*. See Appendix C: CREATE Phase II and Phase III Flow Process.

In addition to the traditional bid notification identified in the *CREATE Program Rail Projects Phase II Reports Manual*, the CREATE Program has also established an electronic mailing list (listserv) that prospective contractors can join by signing up via the CREATE Program website. When a new IDOT bid solicitation is posted to the CREATE Program website, an email notification is sent to all contractors that have signed up to be on the listserv. When a project is awarded, the contractor and value of the contract is posted on the CREATE Program website. Lead railroads will have their own bid notifications processes.

The procurement strategy and how the construction contracts are to be administered will be developed by the section designers and approved by the CREATE Implementation Team during the Phase II (final) design.

Section 5 of the *CREATE Program Rail Projects Phase II Reports Manual* describes the contracting policies for Phase III construction related work both using open bidding process for lowest qualified bidder or the force account work performed by railroad forces.

Disadvantaged Business Enterprise (DBE) Policy and Special Provision and DBE Utilization and Participation is included in Attachment 8 of the *CREATE Program Rail Projects Phase II Reports Manual*.

3.1.4 Construction Procurement & Contractor Award

CREATE Railroad partners generally staff their own, independent teams for construction of trackwork, signals and associated facilities (known as force account work). If sufficient resources are not available, the railroad may enter into agreement with another (partner) rail operator to allow construction by the partner's force account staff.

3.2 Contract Management

Due to the different work elements contained in the 75th Street CIP, the procurement of professional services or construction contractors will be led by different CREATE Program partners. IDOT will provide oversight for all related contracts. IDOT's oversight will monitor contract compliance with applicable laws and regulations. The procurement process and contract activities are documented in the *CREATE Program Rail Projects Phase III Manual* under each lead agency or railroad's respective policies and procedures. Procurement decisions, including selection of contractors and types of contracts to be utilized, will be made with concurrence from IDOT and FHWA where Federal or State funding is involved. The size and the length of the contracts will be considered, as well as the number of bidders and other market conditions. Change order procedures and contract modification procedures are also addressed in the *CREATE Program Rail Projects Phase III Manual* under each respective lead agency or railroad. Multiple contracts will introduce additional coordination and interface issues among separate and distinct entities. To avoid and minimize potential issues, IDOT will work with the various contracting entities to facilitate the necessary communication and coordination to achieve successful implementation of the 75th Street CIP.

The CREATE 75th Street CIP will require cooperative agreements, approvals, and other arrangements of a legal or contractual nature with public agencies and private corporations in order for the project to be constructed and integrated into the day-to-day operations of the affected railroads and agencies. These arrangements must be developed in a timely fashion and must meet project needs, as well as those of the cooperating entities that will be identified prior to the start of construction.

3.3 Legal Counsel

Legal counsel may be needed throughout the development of the project. Counsel will be provided by IDOT legal staff, by contract, or a combination of the two if IDOT jurisdiction is involved. Counsels associated with other agencies or railroads will be provided by each respective party. The types of legal services required for the 75th Street CIP may include, but may not be limited to, the following:

- Phase II (final) design:
  - Consultant contract development and dispute resolution;
  - Inter-agency cooperation and funding agreements; and
  - Acquisition of fee simple property, temporary and permanent easements; and
  - State Rail Agreements (SRA) for design, utility or ROW services.
- Phase III (construction):
  - Third party construction agreements (e.g., utility relocation agreements, railroad facilities agreements, etc.);
  - Acquisition of permits, licenses, and other required approvals;
  - Construction and procurement contract development and dispute resolution; and
  - Litigation of joint real estate development contracts.
- Advisory assistance in matters of contract interpretation
- Compliance assurance with local codes, ordinances, and regulations
- Compliance assurance with federal and state regulations
- State Rail Agreements (SRA) for construction services

3.4 Agreements

State Rail Agreements (SRA), Inter-Government Agreements (IGA), Inter-government Project Agreements (IPA), and Master Utility State Rail Agreements (MUSRA) may be required to implement the project. Rail-rail agreements may also be needed for operational purposes during construction. These agreements may include, but may not be limited to, the following:

- To allow contractors to construct new facilities or upgrade existing facilities on railroad right-of-way;
- To arrange for the railroad to construct new facilities or upgrade existing facilities on railroad right-of-way using Force Account (FA) union employees or railroad staff or contractors;
- To transfer right-of-way and/or fixed facilities from the railroad to public agencies or from public agencies to the railroad with arrangements for subsequent maintenance; and
- Master Utility State Rail Agreement (MUSRA) to provide advanced funding for the design and cost for utility relocation that are impacts of CREATE projects. The Phase III construction management

team will be responsible for monitoring the utility relocation work to report possible impacts to Phase III construction schedule.

3.5 Funding Agencies Agreements

Agreements to secure funding from sponsoring agencies generally will incorporate standard terms and formats of the relevant funding agencies. IDOT will develop and submit applications for annual government grants and negotiate terms and conditions on behalf of the CREATE Program. Authority to make non-routine commitments, for example Full Funding Grant Agreements and other high-value and possibly high-risk agreements, is retained by IDOT. Funding grants to cover various aspects of capital facilities development and service operations may be sought from several sources including, but not limited to, the following:

- Federal Highway Administration, United States Department of Transportation;
- Federal Transit Administration, United States Department of Transportation;
- Federal Railroad Administration, United States Department of Transportation;
- State of Illinois;
- Regional Transportation Authority;
- City of Chicago;
- Cook County Department of Transportation and Highways; and
- Other local agencies and municipalities involved in a project.

3.6 Change Management of Agreements

Any and all changes which increase existing agreements effecting the scope, schedule or specific cost associated with the real estate procurement, environmental, design, construction management consulting or bid contractor or railroad force account work from the base and established current baseline will undergo a change management process. This Change Order process will include a detailed estimate and the basis of the requested additional work presented to the CREATE Implementation Team satisfying the needs provided by the CREATE Management Committee per the CREATE Phase II and Phase III manual and the Change Order process in the Phase II and Phase III flow chart. Major change will require review by the CREATE Stakeholder Committee. Work shall not proceed, unless in an emergency, until the request is properly approved per the above approval process.

4. Project Organizational Management

The CREATE Program is composed of multiple agencies and railroad companies collaborating as a public-private partnership to deliver critically needed transportation infrastructure. Because of the complexity of the program and the number of entities involved, a management structure was developed to guide the day-to-day operations as well as to ensure efficient and effective delivery of the CREATE Program's component projects. The overall management structure and the corresponding responsibilities of the various project teams and committees which form the program management structure are memorialized in the JSOU. This programmatic structure serves as a foundation for the 75th Street CIP and is supported with the appropriate technical and managerial staff from the CREATE partners.

An organization chart for the 75th Street CIP is shown in Figure 5. A summary of the project management structure and responsibilities are as follows:

- **CREATE Stakeholder Committee –** Comprised of four individuals: the President & Chief Executive Officer of AAR, the Commissioner of CDOT, the President, Cook County Board of Commissioners and the Secretary of IDOT. FHWA, represented by the FHWA Division Administrator, is a non-voting member of the Stakeholder Committee. The Stakeholder Committee sets policy and provides Program guidance to the CREATE Management Committee. The Stakeholder Committee is also responsible for resolving any disputes that may arise on programmatic issues and approves project additions and/or deletions to the overall Program. All decisions made by the Stakeholder Committee are based on unanimous agreement of its members.

- **US Department of Transportation –** FHWA is the lead federal agency for the CREATE Program. FHWA has designated a CREATE Program Manager Position in the Chicago Urban Satellite Office. The FHWA CREATE Program Manager serves as the on-site Federal Project Manager for the CREATE Program, including the 75th Street CIP, and is responsible for the management and oversight of all Federal interests associated with the CREATE Program. The FHWA CREATE Program Manager is also the lead point of contact for as needed coordination with other federal agencies. As the CREATE Program moves forward with more projects going into construction that the Federal Railroad Administration (FRA) is very involved, and possibly the Federal Transit Administration (FTA), may become more involved in the CREATE projects in an oversight/review and funding agency role.

- **CREATE Management Committee –** Comprised of one voting member from CTCO, Metra, BNSF, CN, CP, CSX, NS, UP, AAR, CDOT, CCDoTH and IDOT; as well as non-voting members from Amtrak, BRC, IHB, and FHWA. The Management Committee reviews and recommends program modifications to the Stakeholder Committee; provides direction to the CREATE Implementation Team consistent with Stakeholder Committee direction; addresses program management issues;

reviews and approves project designs, project cost estimates, and construction assumptions submitted by the CREATE Implementation Team before final authorization is given to solicit bids or construct a project; makes decisions regarding scope, schedule and budget for the Program and its projects based on recommendations from the CREATE Implementation Team. All decisions made by the CREATE Management Committee are based on unanimous agreement, although any member may elevate an issue to the Stakeholder Committee.

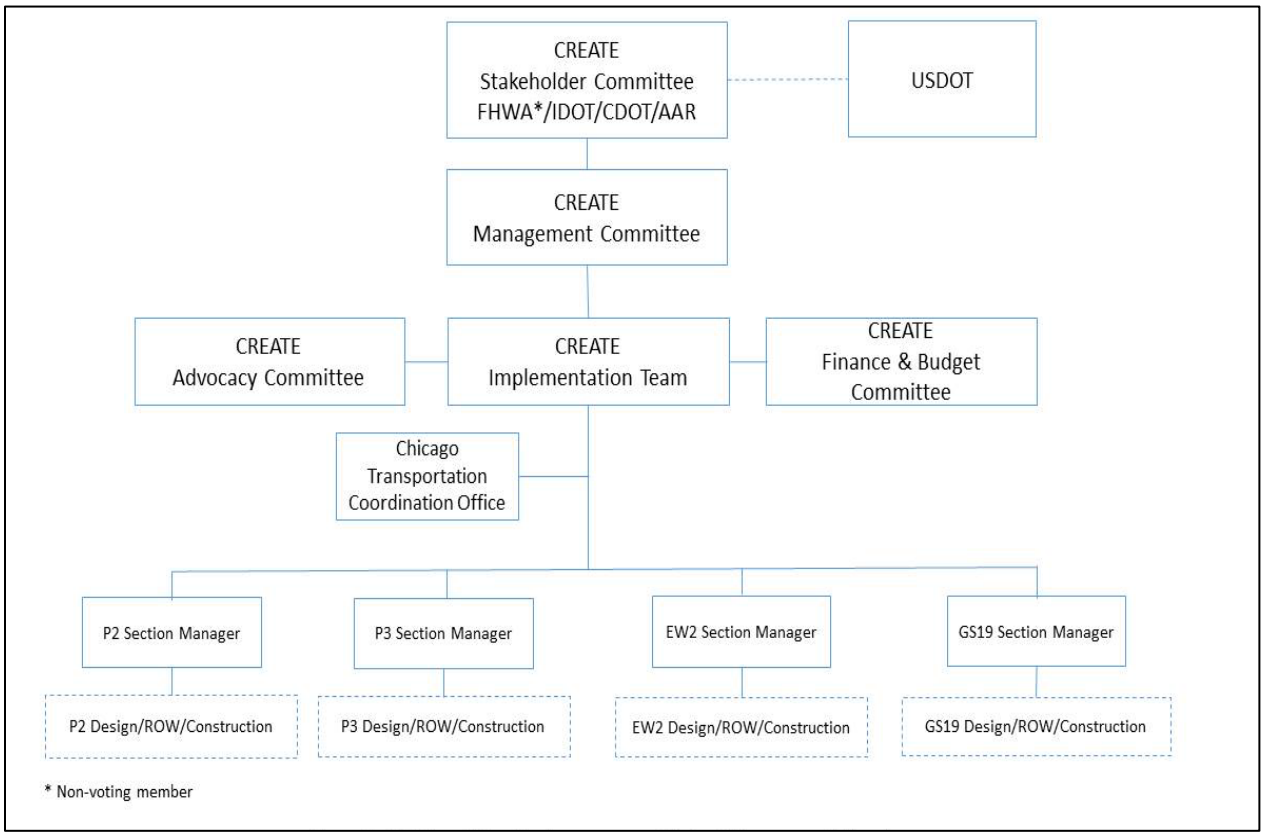


Figure 5. 75th Street CIP Organizational Chart

- **CREATE Advocacy Committee –** Comprised of one member each from CTCO, Amtrak, Metra, BNSF, CN, CP, CSX, NS, UP, AAR, CDOT, CCDoTH and IDOT. The Advocacy Committee is responsible for all joint partner CREATE communications, including web site content, newsletters, press releases, and other joint partner communications as may be required; reviews and provides advisory comments to the lead railroad on NEPA public involvement materials and activities; develops and implements on-going strategic initiatives for advocating/publicizing CREATE; identifies and addresses community concerns in coordination with the technical staff from each of the CREATE partners; works with the Finance and Budget Committee, under the direction of the Management Committee, to identify additional sources of public funds; assists the CREATE Implementation Team, the project manager and Section Managers in identifying potential and ongoing community concerns and community information needs.

- **CREATE Implementation Team –** Comprised of one member each from CTCO, Amtrak, Metra, BNSF, CN, CP, CSX, NS, UP, BRC, IHB, AAR, CDOT, IDOT, CCDoTH and FHWA. A Project Manager or Point of Contact may be appointed from the members to oversee the 75th Street CIP. The Implementation Team is responsible for managing and integrating the technical and administrative aspects of Phase II (final) design and Phase III (construction) for the 75th Street CIP. Due to the size and complexity of the 75th Street CIP, it is anticipated that the CREATE Implementation Team will provide oversight in scheduling, risk management, cost estimating, document control, quality assurance/quality control, and public information. The CREATE Implementation Team will work under the direct supervision of the CREATE Management Committee to deliver all elements of the 75th Street CIP. The CREATE Implementation Team will oversee a team of section design and construction management professionals who will prepare the construction contract documents and monitor construction activities to confirm the 75th Street CIP is built in accordance with construction contract documents. The CREATE Implementation Team will anticipate problems and will identify opportunities to solve problems and improve processes; coordinate work with CTCO to maximize train flows during construction while minimizing costs associated with schedule or work window conflicts; assist project and Section Managers with grant application, award, management processes, and achieving grant compliance; provide engineering input, giving as much additional support as may be required or requested; prepare progress reports on all components of the 75th Street CIP and report to the CREATE Management Committee on a quarterly basis, or as deemed necessary. In addition, the CREATE Implementation Team analyzes or initiates requests related to project scope and/or cost changes (change orders) affecting the overall 75th Street CIP, makes recommendations if necessary and per the Phase III manual to the Management Committee if action is proposed; establishes project standards and policies; facilitates meetings and coordination with CREATE Advocacy Committee; and assists in anticipating, addressing and mitigating community concerns.

- **CREATE Finance and Budget Committee –** Comprised of one member each from CTCO, Amtrak, Metra, BNSF, CN, CP, CSX, NS, UP, AAR, CDOT, CCDoTH and IDOT. The Finance and Budget Committee works with the Advocacy Committee, under the direction of the Management Committee, to identify additional sources of public funds; monitors project cost estimates versus actual expenditures; provides detailed reports on the CREATE Program and its individual projects, as required, to the Management Committee; provides detailed reports on funding sources and matching funds as necessary; assists the project manager and Section Managers accounting personnel with grant or cash-flow questions and identifies possible solutions for Management Committee consideration, if problems need to be elevated to that Committee.

- **Chicago Transportation Coordination Office (CTCO) –** Comprised of Amtrak, BNSF, CN, CP, CSX, NS, UP, BRC, Metra, CCDoTH and IHB. The CTCO coordinates on a day-to-day basis to address rail operational issues; develops system management solutions for improving efficiency and

effectiveness of the Chicago terminal rail network; advises the Implementation Team and the Section Managers as to whether the scope and estimate assumptions accurately portray the manner in which the project can be constructed, taking into consideration the need to maintain train performance and provide appropriate work windows; approves assumptions regarding train operation and performance incorporated into final designs, construction assumptions and, as appropriate, estimates of project costs before final authority is given to construct the proposed improvement; coordinates with the Implementation Team and the Section Managers to maximize train flows during construction while minimizing costs associated with schedule or work window conflicts; reviews operational impacts of proposed project scope changes, as requested by the Implementation Team.

- **P2/P3/EW2/GS19 Section Managers –** The lead agency or railroad associated, sometimes referred to as the Railroad Design Group (RDG), with the individual component projects of the 75th Street CIP will manage and oversee the Phase II (final) design work and Phase III (construction) work. This direct control will allow each of the participating agencies or railroads to ensure their individual design and operational requirements are incorporated into the construction contract documents. The Section Managers will coordinate with the CREATE Implementation Team and each other through established CREATE Program policies and processes to integrate the designs into a single, cohesive project.

- **P2/P3/EW2/GS19 Design/Right-of-Way (ROW)/Construction Management (CM) Consultant –** The lead agency or railroad associated with the section projects will select or utilize existing on-call consultant firms to serve as the design engineer for the Phase II (final) design, the ROW consultant if required, and the CM consultant. The selected design consultant team will be responsible for the overall design work including, but not limited to, track design, right-of-way acquisitions, and structural design. The selected design consultant(s) will be responsible for developing the PS&E package for review and approval in accordance with established CREATE policies and processes in the case of ROW compliance with the Uniform Act discussed previously. The selected CM consultant team will be responsible for construction management of the section project in accordance with *CREATE Program Rail Projects Phase III Manual* and established CREATE policies and processes. The construction manager will monitor day-to-day construction progress in an effort to maintain adherence to the construction contract schedule and budget. The construction manager will establish the processes to manage project quality, safety, and documentation such as Requests for Information (RFI), submittals, pay applications, change order requests, rail bulletin, etc. The construction manager is also responsible for coordinating with the railroads to ensure that the construction activities have been properly scheduled and are compatible with their operations.

5. Project Management Controls (Contract Administration, Scope, Cost, Schedule, Risks and Quality)

This section describes the procedures and tools that will be used to manage and control the implementation of the 75th Street CIP through Phase II (final) design and Phase III (construction). These procedures and tools will evolve over the 75th Street CIP's life cycle, and the Project Management Plan will be updated accordingly. The level of contingency and management reserve funds as a part of project cost have been established by the CREATE partners and are found in Appendix D: CREATE Estimates & Contingency Plan.

Project management controls enable the project team to manage the scope (including changes), total cost and overall schedule in order to deliver the project on time, within budget, with quality, and in a safe manner for both the project team members and the general public. Project control is the responsibility of the entire project team, which includes the contractors, design consultants all the way to the CREATE Management Committee. The project team is expected to fully utilize the CREATE website (http://www.createprogram.org/consultant.htm) for both Phase II (final) Design and Phase III (construction).

5.1 Contract Administration

The 75th Street CIP's progress will utilize specific project metrics to systematically monitored and reported the conditions of the project/program. These reports, systems and metrics may change or evolve as the needs of the project develop to optimize results. The CREATE Implementation Team will be responsible to manage and monitor the project controls utilized for the 75th Street CIP.

The CREATE web-based document management system, SharePoint, will be utilized as the primary document control depository for both the Phase II (final) design and Phase III (construction) participants. The IDOT CREATE Program Manager (OIPI) and the CREATE Implementation Team will maintain and provide technical support to SharePoint users. If the lead agency or railroad is not able to upload documents directly to SharePoint, they may provide the electronic documents to IDOT for uploading. Document control and sharing of project-related information will be managed by IDOT.

Procedures for change orders and claims are described in the subsections below.

5.1.1 Change Order Procedures

This section establishes the methodology of managing and controlling any change to a baseline item within the design or construction scope of work. Use of Contingency funds needs approval of the Implementation Committee unless work exceeds budget. Scope changes need to use Management Reserve funds only and must be reviewed and approved with the CREATE Management Committee. The award of a construction contract establishes the baseline scope of work via the contract documents. Upon

award of the construction contract, the amount of the contractor's bid constitutes the budget for the baseline scope of work. The baseline contract documents include:

- Project scope of work;
- Construction criteria and standards;
- Design drawings and specifications;
- Contract bid items;
- Schedule; and
- Budget.

Upon award of each construction contract, all contract drawings, specifications, costs, and schedule milestones for that contract are used as a baseline. Thereafter, formal approval through the Change Order process for any deviation from the baseline must be obtained. Flow charts depicting the change order process can be found in the *CREATE Program Rail Projects Phase III Manual* available on CREATE website (http://www.createprogram.org/consultant.htm).

During the course of construction for the 75th Street CIP, there may be changes which include the following and may require the use of Contingency funds:

- CREATE Management Committee directed changes;
- CREATE Implementation Team recommended changes with CREATE Management Committee approval;
- Contractor proposed changes to specifications for materials and specialized equipment;
- Value engineering change proposals from contractor to improve system performance, improve schedules and/or reduce costs;
- Changes among the bid or Force Account work prescribed within the various Agreements;
- Proposed changes by the contractor for improved constructability, cost effectiveness or schedule impact;
- Differing site conditions;
- Weather;
- Design and Design Errors;
- Utilities;
- ROW Issues;
- Contaminated Materials;
- Differing Site Conditions;
- Force Majeure; and
- Other changes.

Note: Contingency funds are not to be used for costs associated with failure to perform permitting.

During the course of construction for the 75th Street CIP, there may be changes in scope which require the use of Management Reserve funds. These changes must be reviewed and approved with the CREATE Management Committee.

Some changes can be expected to be mutually interactive among several factors, including construction operations and schedules, system testing and operations and maintenance. Changes are proposed modifications to the baseline scope that impact the following 75th Street CIP elements:

- Contract budgets (line item quantity changes);
- Schedule milestones (schedule changes);
- Stipulated contract work scope (contract modifications); as well as
- Contractual documents that:
  - Deviate from design criteria, codes, and standards;
  - Alter functional or operational characteristics of a system;
  - Affect reliability and maintainability of a system, including substitutions that affect guaranties or warranties; and
  - Affect safety, security, quality, and environmental policies.

For these changes, a change log will be maintained by the 75th Street CIP Section Managers for tracking purposes and reported monthly to the CREATE Implementation Team. Change Order procedures are described under each agency lead or railroad in the *CREATE Program Rail Projects Phase III Manual* available on CREATE website (http://www.createprogram.org/consultant.htm).

Other changes not shown above are reviewed by the CREATE Implementation Committee.

5.1.2 Claims Management Procedures

Construction contracts and Statutory requirements indicate the settlement process for all disputes and their administrative process that must be followed including the terms of continuing work during the resolution process, assignment of fees and expenses, and involvement of funding agencies. Refer to Section 5.1 of the *CREATE Program Rail Projects Phase III Manual* for additional details and relevant guidelines available on CREATE website (http://www.createprogram.org/consultant.htm)

5.2 Scope Management Plan

Scope control is the process by which a project is controlled and governed to ensure that the baseline and any changes related to deliverables is outlined and provided. FHWA, IDOT and the CREATE partners are responsible for controlling the scope for the 75th Street CIP.

Scope control elements include deliverables expected to bring about the desired intent of the 75th Street CIP. This control requires the completed construction conforms to the plans and specifications. The key elements of scope control are:

- Assigned authority and established processes for determining project objectives in physical and technical terms;
- Procedures for identifying, evaluating, and accommodating desirable changes as the project progresses and incorporating the results into the project scope, reference Section 5.1.1 for the change order and extra work order procedures;
- Assessing risk that scope elements may lead to unforeseen adjustments;
- Documentation and communication of the project scope so that all parties are working toward the established end product; and
- Documentation and communication of the deliverables illustrating to the lead agency or railroad management and sponsoring agencies that the project has met the necessary requirements.

As part of the Phase I (preliminary) design, a detailed scope, budget and schedule were developed which becomes the baseline for Phase II (final) design. Scope must be reviewed and approved by the CREATE management committee. Any deviations or changes to the scope of the project will likely change or modify the costs and/or schedule. If additional funds are required due to scope change, it will be paid for through Project Management Reserve. Given the budgetary and time constraints, it is essential to impose significant control of the scope of the 75th Street CIP to ensure successful completion.

During the Phase II (final) design, the CREATE Implementation Team will ensure that the scope of the 75th Street CIP is not modified in a way that negatively affect the budget and/or schedule. Changes to the scope of the 75th Street CIP can only occur through the change order process outlined herein. Through this process the CREATE Implementation Team will carefully review all change order requests to ensure that they are necessary to complete the 75th Street CIP and fit within the prescribed schedule. Substantial changes that impact the budget and schedule will be actively monitored and cumulatively evaluated as the 75th Street CIP progresses.

5.3 Cost Control

Project cost control encompasses those actions used to restrain actual costs to within the limits of the 75th Street CIP budget while satisfactorily accomplishing project objectives. Cost control is achieved by establishing budgets, issuing work or purchase contracts with cost limits, and monitoring committed and incurred or actual costs. Cost control measures are listed below:

5.3.1 Cost Estimating

75th Street CIP costs are estimated in all phases of the project, with increasing levels of detail as the project advances from preliminary engineering through construction. At every step, cost estimates are intended to be comprehensive in that they include costs for all identified project components in a format consistent with the level of detail and completeness of the phase. Early in project development, costs are estimated

for the project in broad terms with only first order component breakdown. As the project advances, the estimates become more detailed reflecting specific bid items or breaking down the work into labor and material categories reflecting the greater definition of project components.

During the 75th Street CIP Phase I (preliminary) design, construction and procurement cost estimates were prepared by consultant design engineers and reviewed by IDOT, FHWA, and the railroad partners. Cost estimates will be incorporated into the Financial Plan. For individual contract elements, costs will be developed and reported at design review milestones and at the conclusion of Phase II (final) design for the 75th Street CIP otherwise known at the PS&E stage. The Financial Plan will be updated on an annual basis.

5.3.2 Budgeting

Comprehensive project-specific budgeting is first conducted as part of the 75th Street CIP Financial Plan. The Financial Plan examines costs as well as financing for all stages of the 75th Street CIP. At each step, control budgets are established for subsequent steps, work progress, and new cost estimates which lead to budget reviews and possible revisions.

5.3.3 Cost Monitoring

Monitoring of 75th Street CIP section costs with reference to budget is the responsibility of the Section Managers and the CREATE Implementation Team. Throughout the project, the Section Managers will track engineering hours or the bid line items specified within the design consultant, construction management, or construction contracts against budgets and report the variances, trends and overall forecasts on a monthly basis. Input to these reports will come primarily from the various section design consultant construction manager. Force account and railroad charges will be collected through the internal invoicing process with the associated railroad company. The Section Managers will track and report design activities based on hours and construction progress at the monthly progress meetings with the CREATE Implementation Team.

5.3.4 Cost Reporting

As work progresses, cost to date and cost to complete (based on the current budgets) will be reported by every active contractor in the monthly pay requests submitted to the Section Manager or its designated construction manager overseeing its work. Cost and budget reports to FHWA, IDOT, and the Implementation Team and applicable funding entities are part of the comprehensive reporting described in Section 7 (Project Documentation and Reporting) of the PMP.

5.3.5 Contingency

Cost contingencies and Management Reserve discussed above provide reserves against the risk of cost increases during development of the 75th Street CIP. They are established as specific amounts or percentages to cover:

- Budget areas not fully defined and/or having cost and quantity uncertainties;
- Price escalation which exceeds predictions;
- Potential time and cost overruns;
- Unforeseen or changed conditions, design revisions, and estimating quantity inaccuracies or variances; and
- Scope changes.

Contingencies are included in preliminary cost estimates and are separately tracked in the project budget. Cost escalation risks and their ranges of potential cost impacts are also documented in the cost estimates. The 75th Street CIP Phase II cost estimates included 5% management reserve and 15% design and construction contingencies, and Phase III cost estimates typically have included a 10% Contingency and 5% Project Management Reserve at the PS&E stage. See Appendix D: CREATE Estimates & Contingency Plan.

5.3.6 Financial Audits

Financial audits by Federal or State agencies or the railroads are conducted as required in accordance with Federal and State regulations or railroad requirements. Project accounting procedures may be audited and approved by either agency depending on funding and applicable statute and practices. Railroads will audit per their requirements.

5.3.7 Ongoing Maintenance

The prioritization of maintaining the federally-funded assets in a state of good repair and public-private partnerships. In response, the railroads have committed to maintaining the federally-funded railroad facilities in a state of good repair at no cost to the partner public agencies, in accordance with 23 USC 116.

5.4 Scheduling Control

Schedule control is a key element of the project management process to guide the project as it progresses. Schedules shall be refined over time as the project elements become better defined. A schedule consists of a list of activities arranged in logical sequence. The Program Master Schedule for the 75th Street CIP will utilize a Work Breakdown Structure (WBS) that will allow for the filtering and grouping of each contract or project within the overall program (See Appendix F). Specific layouts will assist in focused reviews and analyses of schedule elements. Each phase will also be included in the WBS.

The schedules will be developed and maintained by the Implementation Team and the Section Managers to ensure uniformity and compatibility with the overall project master schedule. The CREATE Implementation Team will conduct schedule reviews, updates, and modify (if required) monthly during design and construction. If more work progresses or if circumstances arise, special schedule review meetings will be scheduled and coordinated.

5.4.1 Program Master Schedule

A preliminary project implementation schedule was developed during the Phase I (preliminary) design and approved by the CREATE partners. During Phase II (final) design, a detailed project master design and construction schedule, including each of the four (4) sections of the project (i.e., P2, P3, EW2, GS19) will be developed by the Section Managers and CREATE Implementation Team with assistance from the section design consultants. The Program Master Schedule will prioritize design and construction activities for each section by applying Critical Path Method (CPM) techniques and will identify critical path elements such as right-of-way acquisition, utilities coordination, and other schedule dependent activities. The Program Master Schedule will also take into account the schedule in the Initial Financial Plan. The Program Master Schedule will establish a schedule baseline at the outset of the Phase II design and will be used to determine schedule performance as well as identifying critical linkages or relationships between activities that need to be known and evaluated in planning.

During Phase III (construction), the Program Master Schedule will be updated utilizing the construction contractor's schedule information (e.g., start and finish dates of major construction activities, interface points, milestones). The Section Managers and CREATE Implementation Team will use the updated Program Master Schedule as the basis from which to monitor and track some of the progress elements. If the CREATE Implementation Team determines the 75th Street CIP is behind schedule, the lead agency or railroad will be asked to prepare a recovery plan, which will be used to illustrate how the project performance can be recovered.

5.4.2 Project Consultant/Contractor Schedules

Each consultant/contractor will be contractually required to establish a detailed schedule to provide a basis for its work plan as well as a baseline for monitoring progress during performance of the work. To the extent feasible, these schedules will be made to conform to the Program Master Schedule. Only with approval from the CREATE Implementation Team and under extraordinary circumstances will a non-conforming schedule be permitted.

The following generally outlines the key information that should be included and/or addressed as part of the consultant/contractor schedule:

- Format compatibility with Project Master Schedule software and formats;
- Cost loading;
- Approved updated submittal schedule;
- Documented progress to justify progress payments;
- Up-to-date schedule as a condition of progress payment; and
- Comparison of performance with the accepted schedule, with explanation of deviations.

5.5 Risk Management Plan

Risk management provides CREATE partners with a systematic process to identify, analyze, and respond to project risks and opportunities throughout all phases of a project. Incorporated in the latest FHWA Cost Estimate Review (CER), are the identified risks to the 75th Street CIP budget and schedule. The probability of occurrence and potential cost and schedule impacts to the 75th Street CIP has been assessed and incorporated into the risk register. This risk register is continually evolving as risks are realized or mitigated and retired.

The following general strategies have been identified to reduce risk on the 75th Street CIP:

- Design to Budget – The design consultant's contracts are written so that the project design is completed in accordance with the established budget.
- Early Design Reviews – During final design, high risk areas of construction, such as subsurface utility work, are identified by the Section Managers and/or the CREATE Implementation Team and resources will be allocated to reduce the potential impact of the risk.
- Value Engineering – An independent value engineering analysis are conducted by the CREATE Implementation Team in close coordination with the IDOT CREATE Program Manager (OIPI) and FHWA to identify cost and schedule savings or mitigate potential risks.
- Constructability Reviews – Constructability reviews of design documents are conducted by the IDOT CREATE Program Manager (OIPI) and the CREATE Implementation Team to determine the most cost-effective construction methods and practices.
- Operating Reviews – Ensure passenger and freight trains are not negatively affected by construction.

As part of the risk management process for the 75th Street CIP, the existing CREATE railroad project risk management policies and procedures are implemented and utilized as appropriate. These policies and procedures use pre-established contingencies and reserves to cover specific categories of anticipated risk. The amount of contingency and reserve can vary based on the level of design detail, the scope of the project and the input received from the participating railroad(s).

5.6 Construction Quality Assurance/Quality Control (QA/QC)

Quality management, in the context of a capital development program, consists of processes established to ensure that the program or project will satisfy the needs for which it was undertaken. It includes all activities of the overall management function that determine the quality policy, objectives, and responsibilities, and implements them by means of quality control and quality assurance. The 75th Street CIP is considered a major capital project; hence quality management is essential to the success of the project.

The quality procedures employed by the lead agency or railroad will be used to improve processes and clarify communications among the departments. This will keep all involved parties informed of the vital elements of the work and will translate their requirements to consultants, vendors and contractors. These processes will meet project requirements efficiently, making sure that the results at every step of the process have proper foundations for subsequent steps.

For the 75th Street CIP, quality management will be carried out on three levels – programmatic, project, and contract. At each level, the Quality Management Plan (QMP) will address the following:

- Quality Assurance (QA): QA is a management tool. All those planned and systematic actions necessary to provide adequate confidence that quality control functions are being performed adequately.
- Quality Control (QC): QC is a production tool. The operational techniques and activities that are used to ensure that a product or service fulfills requirements for quality. Generally, QC refers to the professional preparation and checking of design documents; inspecting, measuring and testing a process or product to determine that it meets specifications and the documentation of that activity. Products include design documents, manufactured equipment or constructed items.

5.6.1 Quality Management Plans (QMP)

The CREATE Implementation Team will develop QMP guidelines that apply to the consultants and contractors working on the 75th Street CIP. The Section Managers will utilize these plans as a minimum requirement and will further develop its own QA/QC plan using the guidelines. The QA/QC plans will be reviewed and approved by the CREATE Implementation Team and audited by IDOT/FHWA at the level and frequency deemed necessary. These QMPs will consist of the following:

A. Contractor Construction Quality Management Plan (CCQMP): This plan will apply to all Phase III construction contractors and their sub-contractors performing construction. The construction contractors and their sub-contractors will have the responsibility to implement this plan.
B. Construction Management Quality Management Plan (CMQMP): This plan will apply to the 75th Street CIP construction manager and will identify quality guidelines related to the oversight of all Phase III construction activities performed by construction management consultants and their sub-consultants.

The QMPs will assign responsibilities to all involved parties to ensure expected project quality. Each of these QMPs will address the following basic elements:

1. Construction standards;
2. Management responsibility;
3. Document quality system;
4. Document control;

5. Purchasing;
6. Product identification and traceability;
7. Procedures for coordinating with permitting agencies, utility companies, and railroad companies during construction to ensure all requirements are incorporated into the 75th Street CIP;
8. Process control;
9. Inspection and testing – level and frequency of inspection;
10. Inspection, sampling, measuring, monitoring, and test equipment;
11. Inspection and test status;
12. Nonconformance;
13. Corrective action;
14. Quality records;
15. Quality audits;
16. Reporting;
17. Training;
18. Qualification of all key personnel;
19. Level and frequency of audit and oversight of construction reviews; and
20. Level and frequency of audit and oversight of contractor payments.

5.6.2 QMP Updates

The QMP is intended to be a dynamic, but controlled document that will be expanded and updated as necessary throughout 75th Street CIP implementation. Each update will be controlled through an approval and distribution process as well as postings on program and project collaboration sites. The CREATE Implementation Team will be responsible for maintaining the QMP and for issuing revisions and administering the document's control. The Section Managers will provide the CREATE Implementation Team with the current and/or revised versions of the QMP for review as well as informational purposes.

5.6.2 QMP Distribution

The QMP will be distributed to all employees and contractors responsible for managing various elements of the 75th Street CIP.

5.6.3 Consultant/Contractor Quality Management Plans

The construction manager will provide each third-party consultant/contractor with the appropriate QMP to be followed in the execution of their contract assuring that the requirements specified in the QMP, IDOT and any other related special contract provisions will be met.

The 75th Street CIP Section Managers will be responsible for monitoring compliance with the Consultant/ Contractor Quality Management Plan. The Section Manager will provide documentation monthly to the CREATE Implementation Team on the outcome of all quality management activities.

5.6.4 Quality Audits

The CREATE Implementation Team will develop an annual audit schedule sampling 75th Street CIP QMPs. The QMPs to be audited over the course of the year will be selected randomly. Internal auditors (i.e., CREATE Program partners or their staff) will be selected by the CREATE Implementation Team. Audit findings will be documented and reviewed with the goal of strengthening procedures to ensure compliance with the 75th Street CIP QA/QC procedures. The IDOT CREATE Program Manager (OIPI) will conduct audit compliance reviews.

5.6.5 Document Control

Document control is the management and administration of project documents, including correspondence, technical and engineering design data, contract and procurement documents, project control documents, approved procedures, manuals, plans, etc. In short, document control processes apply to all documents needed for a complete record of the 75th Street CIP. Document control procedures will be documented in the QMPs and are intended to accomplish the following objectives:

- To standardize procedures for control of documents in hard copy and electronic format;
- To assure that documents are safely secured, maintained, and readily available for use by persons with access approval;
- To index documents issued or received, for systematic filing and retrieval;
- To preserve 75th Street CIP management records, including financial records, personnel records, contracts, agreements, basis of design, construction and procurement, and start-up operations and maintenance records;
- To support the processes of configuration management, change control, and interface control; and
- To assure that all 75th Street CIP participants are properly informed of the current policies, procedures and basis of design, construction and procurement, including facility and systems configurations and interfaces.

The 75th Street CIP Section Managers and their construction managers will be responsible for implementing the QMP document control procedures for the 75th Street CIP.

5.7 Design Quality Assurance/Quality Control (QA/QC)

Each lead agency or railroad assigned to its specific section of the 75th Street CIP will have direct responsibility for QA/QC during Phase II (final) design. Each design consultant will be required to submit a design QA/QC plan for review and approval by the CREATE Implementation Team. The QA/QC plan may follow the template plan provided by the CREATE team, or the consultant may use their own.

The Section Managers will manage the design quality plans associated with each section design consultant with IDOT CREATE Program Manager (OIPI) or funding agencies conducting regularly scheduled audit compliance reviews. The design QA/QC plan will also be applicable to the section designer's sub-consultants.

The design requirements and standards described herein will be incorporated specifically or by reference, as appropriate, in the terms and conditions of each design contract. The design QA/QC plan should include the following elements:

- Design standards and criteria;
- Procedures for preparing and checking PS&E, calculations, and other submittals (or highly specialized designs);
- Procedures to coordinate with multiple disciplines to avoid errors, conflicts, and omissions;
- Procedures for coordinating and obtaining necessary permits from permitting agencies, utilities, or other railroad companies;
- Level, frequency, and methods of review of the adequacy of the total design (i.e. independent adequacy review);
- Level and frequency of audit and oversight (concerning QA/QC and validity of consultant payments) to be performed by IDOT, FHWA, or other agencies as requested;
- Procedures for reviewing and checking design submittals during construction;
- Qualifications of all key personnel; and
- Documentation and monitoring procedures to ensure that the established design QA/QC plan is being followed.

5.7.1 Design Requirements and Standards

At the outset of the Phase II (final) design for the 75th Street CIP, the design consultant will establish a list of standards employed in the design effort for review and approval by the Section Manager and the CREATE Implementation Team. The guidelines will, at a minimum, incorporate the following standards:

- American Railway Engineering and Maintenance-of-Way Association (AREMA);
- Federal Railroad Administration (FRA);
- Design standards and requirements of responsible railroad(s), latest version which includes all other engineering and testing standards included by reference;

- Illinois Commerce Commission (ICC) Administrative Codes for track centers;
- IDOT Bureau of Design and Environment Manual;
- CDOT Public Way Construction Regulations;
- Other State and Local standards where applicable;
- 28 CFR Part 36, *ADA Standards for Accessible Design*, latest version; and
- Railroad Standards for Design, Construction and Maintenance as required.

All design and construction will be conducted in accordance with applicable Federal, State, and municipal codes and regulations currently in effect.

5.7.2 Design Reviews

At certain junctures during design development of each section, comprehensive reviews will be conducted on the 75th Street CIP. Design reviews will be determined according to the contract requirements between the lead agency or railroad and the design consultant and will take place at regular and accepted intervals.

In addition, the 75th Street CIP Implementation Team will evaluate the need for a Value Engineering (VE) study or session to confirm the approach being pursued by the host railroads and their design consultants in accordance with Section 5.9 below. VE reviews employ specialists from outside the design team and follow prescribed formats and procedures to yield an over-all project evaluation by disinterested and independent parties who are experienced in the project. VE studies look to optimize the value of the investment and the intended operations of the infrastructure or project being provided.

The CREATE Implementation Team, in coordination with the Section Manager will perform in-progress design reviews for individual construction packages final engineering at 30%, 60%, 90%, and 100% milestones and provide updates to the CREATE Management Committee on each review. More frequent reviews may be required. The reviews will be conducted in accordance with each section's design Quality Management Plan, as described in section 5.6. Sample responsibilities and instructions will include, but may not be limited to, the following:

- Materials to be provided for the review, including, but not limited to plans, specifications and estimates;
- Assignment of reviewers;
- Alternative methods for recording review comments and disposition;
- Incorporating comments into subsequent submittals; and
- Verification that the review comments are incorporated into subsequent submittals.

All milestone reviews will consider the following:

- Compatibility with established scope, budget, and schedule;

- Adherence to project design standards;
- Compatibility with existing or complementary systems;
- Constructability;
- Biddability (if applicable);
- Maintainability;
- Effects on reliability of operations;
- Safety and security;
- Financial risk;
- Schedule risk;
- Compliance with Phase 1 report;
- Right-of-way Constraints;
- Coordination of Utilities; and
- Environmental Compliance.

5.8 Project Metrics

Metrics by which the success of the 75th Street CIP are to be measured will be developed and reported against throughout the project's life. Some of the 75th Street CIP metrics are used to identify and proactively address and manage challenges expecting to reduce or eliminate surprises. Metrics for cost, schedule, and public opinion should be considered. For 75th Street CIP, a list of current project metrics is identified in Section 2 of the PMP and will continue to be refined as the program progresses. Tracking and monitoring of the metrics will be incorporated into the monthly reporting and tracking procedures outlined in the PMP.

5.9 Value Engineering, Value Analyses, and Constructability Reviews

Value Engineering (VE) is a systematic process of reviewing designs, products, or services of major capital projects in order to identify improvements that will optimize investments while achieving the desired program functions. By definition, consideration must be given to life-cycle costs, and any modifications resulting from the VE process must be consistent with established requirements for performance, maintainability, quality, safety, and community impacts. Throughout the planning and design process, all entities have worked closely together to identify cost saving measures, to provide the most cost-effective solution. The timing of VE, constructability and other reviews will be determined during the Phase II (final) design period of each project. At a minimum and in accordance with the FHWA VE Policy[3], the VE analysis

[3] FHWA Order 1311.1B: *FHWA Value Engineering (VE) Policy*. August 28, 2013. Retrieved December 1, 2014 from http://www.fhwa.dot.gov/legsregs/directives/orders/13111b.cfm#q5.

will be conducted at least one time for the 75th Street CIP. The VE process will include CREATE Program staff, including FHWA, IDOT, and the CREATE Implementation Team. The lead agency or railroad, as well as their design consultants will provide key technical input required to complete the VE process. Independent third-party consultants may be used to facilitate or support the VE analysis. In accordance with FHWA policy, the VE analysis may and should be conducted prior to approval of the Phase II (final) design. Consideration will be given to conducting the VE analysis as early as possible in the design process to allow adequate time to incorporate the approved VE recommendations into the plans prior to the construction phase. Once the contract procurement plan is developed, the scope of the individual section contracts will be reviewed by IDOT OIPI and the CREATE Implementation Team to determine if it would be logical and appropriate to complete additional VE analyses for individual contracts that meet FHWA's stated criteria for VE analysis.

Contractor initiated value engineering change proposals should follow the change order process outlined in Section 5.1 of the *CREATE Program Rail Projects Phase III Manual*. A discussion of how the savings will be shared should also be included in the change proposal. The contractor may submit, in writing, proposal(s) for modifying the contract document to provide innovative, alternative lower cost construction without impairing the essential functions and characteristics of the facility.

5.10 Railroad, Contractor and Consultant Invoicing

All invoicing is to be presented to the CREATE 75th St Implementation Team after the work has taken place or the costs have been incurred by the railroad, vendor, contractor or consultant. This is a reimbursement-based grant(s) and the administration process of accrued costs shall follow guidelines laid out for this type of administration. This process is detailed in *CREATE Program Administrative Procedures Manual dated and accepted* October 4, 2017. These processes specify the requirements for invoices and their application against each and all SRA and IPA or other associated agreements which obligate funds to be distributed by IDOT through the CREATE Program. Railroads will verify with the Construction Manager the actual work completed for the period being invoiced. No payments will be advanced ahead of the work being completed and invoiced.

6. Project Communications Management

This section addresses processes and procedures to ensure effective communications among project team members and with stakeholders. Stakeholders include but are not limited to:

- neighboring property owners and residents;
- rail passengers;
- the roadway traveling public;
- political officials;
- media;
- interest groups;
- local businesses; and,
- the rail companies and agencies described in the Project Organization above.

6.1 Internal Communications

The organization of the CREATE Program is composed of multiple agencies and railroad companies collaborating as a public-private partnership. The daily management of the program is accomplished by the various committees whose members constitute the partnership. Section 3 of the PMP contains a detailed description of each working group, including its membership, roles and responsibilities. These committees form the framework of the CREATE Program's management and delivery processes and they follow pre-determined communication and coordination processes. This existing organization framework will be used as part of Phase II and Phase III to help successfully implement the 75th Street CIP.

The following outlines the regularly scheduled committee meetings that are held as part of the CREATE Program:

- CREATE Management Committee – Meets quarterly;
- CREATE Implementation Team – Meets twice per month;
- CREATE Advocacy Committee Meeting – Meets once per month; and
- CREATE Budget and Finance Committee – Meets quarterly.

In addition to these regularly scheduled programmatic meetings, it is anticipated that the multi-disciplinary 75th Street CIP project team will meet monthly during active periods of Phase II (final) design work. Additionally, based on the CREATE Program policies and procedures and CTCO protocols, regularly scheduled technical review meetings will occur to coordinate and achieve concurrence on key technical concepts. These meetings may include, but may not be limited to, the following:

- CTCO – Meets weekly; and
- Railroad Design Group – Meets monthly.

- Other technical structure or signal groups will meet on demand as requested by RDG or Chicago Planning Group (CPG)

6.2 Public Outreach and Stakeholder Communications

An extensive, focused and specific public involvement program was implemented by IDOT, CDOT, and the participating railroads as part of the Phase I study process. The goal of the program was to ensure that all interested stakeholders were provided meaningful opportunities to be involved in the project. The 75th Street CIP used IDOT Context Sensitive Solutions (CSS) design principles to help develop transportation solutions that reflect the values and concerns of the neighborhoods and communities surrounding the project.

During the Phase I study process, a Stakeholder Involvement Plan (SIP) was developed as a guide for the 75th Street CIP's public outreach and agency coordination efforts. Early coordination meetings with local and state elected officials outlined the project and solicited community input. The study team established two (2) Community Advisory Groups (CAGs) made-up of residents and community leaders. The dividing line for the two (2) CAGs was along Damen Avenue. Feedback about the 75th Street CIP was obtained through several working meetings with the CAGs, two (2) general public meetings (in June and October 2011), a public hearing (April 2014), as well as various meetings with elected officials and other groups. The CAGs met to discuss the purpose of and need for the project, the range and preferred alternatives. The CAGs and the project team also met to discuss the benefits, impacts, and mitigation measures prior to publication of the Draft EIS and the public hearing.

Based on the scope of the environmental commitments outlined in the final NEPA document as well as its designation as a CSS project, stakeholder outreach and public involvement will be important elements of the Phase II (final) design and Phase III (construction) processes.

At the start of the Phase II and Phase III processes, the lead agency or railroad will update the SIP that was developed during the Phase I study process. This task includes reviewing and updating the stakeholder list and documenting how and when stakeholder input is to be obtained. The input is to inform the design process and to sufficiently detail general design parameters and environmental commitments identified in the Phase I study process such that they can be incorporated into the construction contract documents. For example, one of the Phase I environmental commitments is to incorporate aesthetic treatments into the design of structural elements such as retaining walls to minimize the visual impact of the 75th Street CIP. The updated SIP will need to detail the outreach process that will be used to engage the community to identify and finalize the types, locations, and applications of the intended aesthetic treatments such that they can be incorporated into the construction contract documents and, ultimately, built as part of the 75th Street CIP.

6.3 Contractor Outreach Meetings

Contractor outreach meetings may be conducted to seek potential bidders' interest or seek a better understanding of the construction market. This information may help the IDOT CREATE Program Manager (OIPI) evaluate the best contracting practices. The CREATE Implementation Team and IDOT will determine whether contractor outreach meetings are required during Phase II (final) design.

6.4. Media and Public Information

An essential component of the project management strategy for the 75th Street CIP includes the involvement of local and state agencies, community representatives, elected officials, project stakeholders, and the general public. In general, the goal of project communications is to:

- Inform the public of the 75th Street CIP objectives and to enlist its support for the program;
- Inform CREATE partners and participants of community needs and issues; and
- Publicize 75th Street CIP activities and milestones, including:
    - 75th Street CIP status updates; and,
- Commuter and traffic information intended to facilitate project development and allow the community to accommodate short-term adverse conditions.

The CREATE Advocacy Committee is the lead for all CREATE programmatic communications, including addressing community concerns (in coordination with technical staff) and advocating for the CREATE Program. The committee monitors the federal and state legislation process and helps promote consistency in messaging. It also advocates for funding for the Program and its projects. The Advocacy Committee is composed of a government/community affairs staff member from each railroad partners, as well public involvement managers from the public agencies.

During Phase II (final) design and Phase III (construction), the railroads is the lead on advancing most of the rail improvements. As a result, the railroad government/community affairs staff members will work collaboratively with the CREATE Public Involvement Managers of IDOT, CDOT, and CCDoTH to develop an appropriate strategy for the ongoing community and media relations that will be required during Phase II and Phase III. The strategy will be documented as part of the SIP. The updated SIP will be coordinated, as needed, with the CREATE Advocacy Committee.

All public media and outreach will be reviewed by the CREATE Media Managers representing IDOT, CDOT, CCDoTH, and the AAR. IDOT program manager for 75th Street CIP will monitor and ensure compliance with these requirements.

7. Project Documentation and Reporting

7.1 Progress Monitoring and Reporting

The project reporting and tracking system is one of the key elements in monitoring the 75th Street CIP's budget and schedule and to ensure the 75th Street CIP will be completed with quality and in compliance with Federal regulations. The project reporting and tracking system should provide current information on project status, which includes progress, changes, and other relevant issues. This information should be used to identify trends and forecast project performance and to identify and proactively address future issues and effectively reduce, if not eliminate, surprises. Reporting requirements specified in federal grant awards or agreements must be adhered to unless otherwise directed by the appropriate agency.

For 75th Street CIP, the Section Managers will develop monthly progress reports for reporting and discussion with the CREATE Implementation Team. Monthly status meetings will be held with the CREATE Implementation Team and other applicable agencies, including the FHWA. The monthly status meeting will discuss project costs, schedules, quality issues if any, compliance with Federal requirements, and other status items and actions planned to mitigate potential adverse impacts. In addition, significant issues occurring between status meetings must be communicated immediately without waiting for the next regularly scheduled meeting, with any highly significant or sensitive issues elevated immediately to the CREATE Management Committee. Coordination with the CREATE Management Committee will occur as needed.

The Section Managers—in coordination with the CREATE Implementation Team—will assemble the data necessary to complete the monthly progress reports and will be responsible for formatting the information as required and distributing the reports internally and to the funding agencies in advance of the meeting. These monthly progress reports will include all of the information needed by IDOT to fulfill the FRA and/or FHWA quarterly report requirements of the funding agency, an example is described below. Monthly reporting formats should include, but not limited to the following items:

- *Executive Summary* – a clear and concise summary of the current status of the project, including any major issues that have an impact on the 75th Street CIP's scope, budget, schedule, quality or safety.
- *Project Activities and Deliverables* – highlight project activities and deliverables during the previous month (reporting period); define the activities and deliverables planned for the next two reporting periods, including change orders.
- *Action Items/Outstanding issues* – track the progress of significant or sensitive issues requiring action and direction in order to come to resolution. In addition, issues or administrative requirements that could have an adverse impact to the project should be included.

- *Project Schedule* – an updated master program schedule reflecting current status of the project activities.
- *Project Cost* – project cost status including baseline budget, approved budget, forecasted cost, expenditures or commitments to date, and variance between current forecasted cost and latest approved budget. Narratives, tables and/or graphs should accompany the updated cost data detailing current cost data, reasons for deviations, impacts of cost overruns, and efforts to mitigate cost overruns.
- *Project Quality* – summarize the QA/QC activities both in Phase II and III, during the previous month (reporting period), and highlight any items identified as being deficient in quality. Planned corrective actions should then be included as Action Items/Outstanding Issues.
- *Other Status Report* – IDOT and FHWA may require other reports, such as right-of-way acquisitions, contractor safety performance, DBE utilization versus goals, contractor's claims, and traffic management. Other reports may be required, such as a public involvement plan, value engineering reports, environmental compliance monitoring, traffic management, or other federal compliance requirements.
- *Developing Risks* – can impact project scope, schedule or budget
- *Project Milestones* – near term
- *Project Change Orders* – pending

7.2 Required Reporting per Federal Grant Agreement

7.2.1 Progress Reports

Quarterly progress reports shall be submitted for periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31. The IDOT CREATE Program Manager (OIPI) shall furnish one (1) copy of the progress report to a grant manager, depending on funding source, on or before the thirtieth (30th) calendar day of the month following the end of the quarter being reported. Each report shall set forth concise statements concerning activities relevant to the 75th Street CIP, and shall include, but not be limited to, the following:

A. Relate the state of completion of items in the Statement of Work to expenditures of the relevant budget elements;
B. An account of significant progress (findings, events, trends, etc.) made during the reporting period;
C. A description of any technical and/or cost problem(s) encountered or anticipated that will affect completion of the grant within the time and fiscal constraints as set forth in the Agreement, together with recommended solutions or corrective action plans (with dates) to such problems, or identification of a specific action that is required by the federal agency, or a statement that no problems were encountered; and
D. An outline of work and activities planned for the next reporting period.

7.2.2 INFRA Quarterly and Federal Financial Report

If federal funding is provided, the IDOT CREATE Program Manager (OIPI) shall furnish one (1) copy of a quarterly financial status report to the federal grant manager, and one (1) copy to the Administrative Officer, on or before the twentieth (20th) calendar day of the month following the end of the quarter being reported. The Grantee shall use SF-425 and INFRA Quarterly Report form in accordance with the instructions accompanying the grant, to report all transactions, including federal cash, federal expenditures and unobligated balance, recipient share, and program income.

7.2.3 Interim and/or Close Out Report(s)

If required, interim reports will be due at intervals specified in the Statement of Work. Within 90 days of the project completion date or termination by funding agency, the IDOT CREATE Program Manager (OIPI) shall furnish one (1) hard copy and one (1) reproducible master original to a Grant Manager, and one (1) hard copy to the Federal Administrative Officer of a Summary Project Report. A final version of this report, detailing the results and benefits of the Grantee's improvement efforts, shall be furnished by the expiration date of the funding or grant agreement. All CREATE Close Out reports include an CREATE partner approved final IDOT 3.1 form showing final approved expenditures and costs.

7.3 Lessons Learned

Lessons learned is the learning gained from the process of performing the project. This may occur at any phase of the project and at any level within the project hierarchy. Sharing lessons learned among project team members prevents the organization from repeating any mistakes and also allows them to take advantage of organizational best practices. Lessons learned can be used to improve future projects and future stages of current projects.

Through the duration of the project and as the need arises, lessons learned will be documented by the Project Manager, IDOT, CDOT, or CCDoTH, in accordance with the following steps:

1. Identify lessons learned as occurrences arise through the duration of the project
2. Document the findings in accordance with the procedure described in Document Control above
3. Analyze to determine if recommendations that could be valuable for future projects. This includes sharing information during organizational meetings and discussing potential future applicability of improvements.
4. Organize and store for future retrieval.
5. Retrieve lessons learned when commencing with new projects where improvements may be beneficial. This includes discussing applicability of past lessons learned at organizational project meetings.

8. Project Closeout

A Closeout Plan for each of the sections or sub-projects will be developed at the beginning of construction and documents will be filed into this overall plan as the 75th Street CIP progresses. Each section will adhere to any specific closeout requirements of each lead agency or railroad constructing the work. The Closeout Plan will document the work completed, changes incorporated, project issues and resolutions, and transition maintenance responsibilities to the appropriate party.

Closeout procedures are described in the CREATE Phase III manual. In general, a closeout plan/report may include, but may not be limited to, the following:

- Phase I and Phase II documents: Phase I Project Report, approved NEPA document, risk register, approved PS&E bid documents, construction contract award letters;
- Coordination documents: approval letters, change orders, notice to proceed letters, resolution of issues, funding letters, agreements (SRA), PMP document, DBE certifications; and
- Construction correspondence including as-builts, field related changes, approvals from IDOT on changes, progress payments, final inspection reports and construction project photos.
- Includes final IDOT 3.1 form

The CREATE Implementation Team will conduct a compliance audit review of closeout procedures for the 75th Street CIP. The closeout documents may need to be adjusted to meet the requirements of the funding source (e.g., FHWA requirements of final financial status report XF-269).

8.1 Transition to Operations and Maintenance

Prior to acceptance of contractor's work, the Closeout Plan will provide a coordinated transition from construction to operations and maintenance. The Project Sponsor will perform a final field review and inspection along with the Contractor and Construction Manager to certify readiness for operation. Any outstanding items will be documented in a punch list or other document which indicates the readiness of the items and those still requiring attention to move into operations or completing the contract and coordinated prior to approval of the Closeout Plan. Should the need arise, secondary field reviews will be performed in order to certify that punch listed items have been addressed to the Sponsor's satisfaction. The Construction Manager may conduct a final coordination meeting with all relevant parties to coordinate the final transition. Turn over to operational groups for the host railroads will also indicate a start all warrantees. Partial turnovers and beneficial use or occupancies of the constructed infrastructure should all be discussed during the certification process and managed appropriately.

8.2 Other Inspections

The CREATE partners may perform ongoing and final project inspections as decided by the CREATE Implementation Committee.

9. Project Oversight

As described in the Project Organization Chart, Roles and Responsibilities above, because of the complexity of the program and the number of entities involved, a management structure was developed to guide the day-to-day operations as well as to ensure efficient and effective delivery of the CREATE Program's component projects. The 75th St. CIP project is overseen by the CREATE Management Committee, comprised of one voting member from CTCO, Metra, BNSF, CN, CP, CSX, NS, UP, AAR, CDOT, CCDoTH, and IDOT; as well as non-voting members from Amtrak, BRC, IHB, and FHWA. The Management Committee reviews and recommends program modifications to the Stakeholder Committee; provides direction to the CREATE Implementation Team consistent with Stakeholder Committee direction; addresses program management issues; reviews and approves project designs, project cost estimates, and construction assumptions submitted by the CREATE Implementation Team before final authorization is given to solicit bids or construct a project; makes decisions regarding scope, schedule and budget for the Program and its projects based on recommendations from the CREATE Implementation Team. All decisions made by the CREATE Management Committee are based on unanimous agreement, although any member may elevate an issue to the Stakeholder Committee.

The FHWA is the lead federal agency for the CREATE Program. FHWA and IDOT signed the Stewardship and Oversight (S&O) agreement on May 27, 2015 to document the roles and responsibilities of the FHWA's Illinois Division Office and IDOT with respect to project approvals and related responsibilities, and to document the methods of oversight which will be used to efficiently and effectively deliver the project. FHWA has designated a CREATE Program Manager Position in the Chicago Urban Satellite Office. The FHWA CREATE Program Manager serves as the on-site Federal Project Manager for the CREATE Program, including the 75th Street CIP, and is responsible for the management and oversight of all Federal interests associated with the CREATE Program. The FHWA CREATE Program Manager is also the lead point of contact for as needed coordination with other federal agencies. It is anticipated as the CREATE Program moves forward with more projects going into construction that the Federal Railroad Administration (FRA), and possibly the Federal Transit Administration (FTA), may become more involved in the CREATE projects in an oversight/review and funding agency role.

10. Management of the Project Management Plan

The IDOT Office of Intermodal Project Implementation is responsible for implementation and maintenance of the Project Management Plan. The PMP will be reviewed annually by the CREATE partners and updated as major changes are identified. All reviews and updates will be coordinated, as needed with the CREATE partners. Any updates to the PMP will need to be reviewed and concurred with by FHWA.

11. Environmental Monitoring

The environmental compliance element of the 75th Street CIP is based on the environmental commitments identified in the combined FEIS/ROD. A summary of the environmental commitments identified in this document can be found in Section 2.3 of the PMP. As the 75th Street CIP progresses into final design and construction, other documents (e.g., permits, funding agreements, etc.) may be developed which may change or expand the scope of the environmental compliance effort. As needed, these documents will be incorporated into the PMP. IDOT is responsible to ensure compliance with all environmental requirements. Oversight is provided by the FHWA.

Due to its designation as a CSS project as well as the identification of potential mitigation measures that are beyond the jurisdiction of IDOT and FHWA to implement, several of the environmental commitments identified in the FEIS/ROD will require additional coordination during Phase II (final) design. The coordination will serve to further investigate the feasibility of implementing certain mitigation measures. Additionally, the coordination will be used to better define key 75th Street CIP elements (e.g., aesthetic treatments) in coordination with the community. It is anticipated that a plan to complete these coordination efforts will be included in an updated SIP. In some cases, stakeholder involvement and design coordination efforts may need to be accomplished project-wide consistency between sections.

During Phase II (final) design and Phase III (construction), the 75th Street Section Managers will be responsible for implementation of the relevant environmental commitments, including tracking and regular progress reporting. At a minimum, environmental compliance progress reports will be submitted quarterly during active project work. These reports will chronicle the 75th Street CIP environmental commitment activities and include a detailed tracking table. To assist with these procedural requirements, the CREATE Implementation Team or the Section Managers may choose to designate an environmental compliance monitor (or one per section). Responsibilities of the environmental compliance monitor could include:

- Participate in project-level and or CREATE Implementation Team meetings to keep appraised of project-related issues such as design schedule and permitting status;
- Manage and meet schedules for environmental-related submittals;
- Participate in stakeholder and public involvement meetings where environmental matters will be discussed;
- Participate in plan review meetings and comment on environmental items; and
- Serve as a primary point of contact and liaison with IDOT and FHWA for environmental matters during Phase II (final) design and Phase III (construction).

The Section Managers also have the responsibility to complete the necessary coordination and procurement of federal, state and local permits and approvals, including any required post-construction monitoring that may be required. For items requiring coordination with cultural resources agencies such as the State Historic Preservation Office (SHPO), the lead agency or railroad will work through IDOT OIPI to adhere to existing coordination agency procedures.

In accordance with federal regulations, IDOT OIPI tracks the implementation of environmental commitments and mitigation measures identified during the CREATE Program's Phase I study process through an audit compliance review process. This process—which includes Phase II and Phase III—is completed using a log as a tracking system. For each component project (i.e., the sections) of the 75th Street CIP, a list of environmental commitments and mitigation measures will be developed. Within the tracking system and where possible, environmental commitments are translated into specific actions required during Phase II and Phase III. This level of detail provides a roadmap to the involved entities by translating environmental commitments into specific actions that must be accomplished to implement each commitment. IDOT OIPI will provide oversight to confirm that environmental commitments are appropriately implemented. This will be accomplished in several ways, including regularly scheduled coordination meetings and review of design submittals.

12. Right-of-Way

IDOT, the lead agency, or the lead railroad will complete the acquisition of required parcels in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act*, the *IDOT Land Acquisition Manual*, and the CREATE Program guidelines. Based on the completion of the Phase I (preliminary) design, the 75th Street CIP is anticipated to acquire almost 17 acres of right-of-way, of which approximately 15 acres are currently vacant parcels; 27 residential dwelling units are to be displaced; and one (1) community facility is to be displaced. The right-of-way management process regarding appraisals, acquisitions, relocations, demolitions, construction and utility easements, scheduling and reporting used for each section of the 75th Street CIP will follow the IDOT Land Acquisition process and the CREATE Implementation Team will conduct oversight of the process.

12.1 Right-of-Way Management Plan

Each Section Manager will develop a Right-of-Way Management Plan for each section, with the CREATE Implementation Team providing oversight and approval as required by IDOT, FHWA, and /or any applicable funding agencies. The Right-of-Way Management Plan will include, but may not be limited to, the process regarding appraisals, acquisitions, relocations, demolitions, acquisition of utility easements, scheduling and reporting requirements for each section of the project. The Right-of-Way Management Plan will also describe the coordination completed, decisions made, and further actions required regarding remnant and vacant parcels identified for purposes of impact mitigation. The lead agency or railroad will coordinate closely with FHWA on the topic of remnant and vacant parcels to confirm that all applicable federal regulations are followed. Acquisition of property and temporary easements can begin at the start of Phase II (final) design and should be completed by the end of Phase II (final) design of the 75th Street CIP or prior to construction contract award.

This Right-of-Way Management Plan will also be provided for inclusion in the Financial Plan and for obtaining concurrences from funding agencies.

12.2 Progress and Monitoring Meetings

Updates on the progress of the 75th Street CIP right-of-way acquisition process (including fee simple acquisition and easements) will be included in the monthly project progress meeting conducted by the CREATE Implementation Team.

13. Safety and Security

The prevention of accidents during execution of a major project is a primary concern of all participants and should be the responsibility of all levels of management. Safety should not be sacrificed for the sake of production but should be considered an integral of part an efficient and quality project. Major projects could have a significant impact on regional safety and security plans.

In general, the safety and security procedures will include, but may not be limited to, the following considerations:

- Safety and health standards;
- Roles and responsibilities of the safety and security staff;
- Contractors (including sub-contractors) have safety personnel and an approved safety manual available to all employees;
- Contractors to hold periodic on-site safety meetings, safety inspections, and safety training for all employees;
- Contractors to establish daily housekeeping and clean-up procedures;
- First-aid and medical kits readily available;
- Have a security plan, including coordinated efforts with local law enforcement;
- Emergency preparedness and incident management procedures; and
- Establishment of an employee identification system.

The CREATE Implementation Team will conduct oversight of safety/security procedures and report on monthly during progress status meetings. IDOT and/or FHWA will conduct audit and compliance reviews at a level and frequency deemed necessary.

13.1 Railroad Operations

The lead agency or railroad for each project under the 75th Street CIP is responsible for ensuring all contractors working on the 75th Street CIP develop and execute safety and loss prevention procedures applicable to the execution of their work. The safety and loss prevention requirements for contractors should be included in construction contract specifications for the 75th Street CIP.

Metra currently has in place the following safety and security plans concerning the operations of its commuter rail service that meet the standards of various regulatory agencies:

- Passenger Train Emergency Preparedness Plan (FRA);
- Metra Security Plan of Action and numerous security assessments (TSA);
- Transportation Security Directives (TSA);
- Metra Safety Rules and General Procedures Manual; and

- Metra Safety and Security Management Plan (SSMP).

CSX, NS, UP, and BRC also have safety and training requirements and e-Railsafe programs to be adhered to for work done on their respective properties. The 75th Street CIP participants will be required to comply with these safety requirements throughout the project.

13.2 Design and Construction

All construction contractors working for lead agencies and railroads will be required by contract to develop, submit for review, and maintain a safety and loss prevention program specific to the work they and their sub-contractors are to conduct. The contractor is required to designate a responsible member of their organization whose duties include loss and accident prevention, and who has the responsibility and full authority to implement the program. The person in charge of safety is required to hold meetings with the representatives of the various trades employed to ensure that all employees understand and comply with the program.

The contractor will be required to cooperate fully with the lead agency and all insurance carriers and loss prevention engineers on accident prevention and claims handling. The contractor must promptly report in writing all accidents arising out of, or in connection with the performance of the work, whether on or off the site.

All IDOT OIPI CREATE Program management consultant staff who have reason and responsibility to be in the field on CREATE construction projects must read and sign the Railroad Safety Agreement. The Railroad Safety Agreement details requirements in protecting the safety of workers and the safety of others.

All contractors are obligated to comply with the requirements of all laws and regulations of all authorities having jurisdiction over the work. Contractors must meet the following federal safety requirements:

- Occupational Safety and Health Act of 1970 (OSHA), as amended;
- U.S. Department of Transportation Federal Railroad Administration Track Safety Standards, (49CFR213); and
- U.S. Department of Transportation Federal Administration Railroad Workplace Safety, (49 CFR 214, Subpart C).

In addition, contractors who will be performing work on or near track are required to complete the Contractor Safety Orientation Course (*www.contractororientation.com*) as well as any safety courses—such as e-Railsafe sessions—which may be required by the affected railroads. Furthermore, the railroads will complete background checks on individuals and/or contractors as required.

Contractors will prepare a project specific safety plan for their work on the 75th Street CIP that will address all the safety issues related to the Maintenance of Traffic (MOT) operations, freight train operations,

passenger trains and local traffic, to ensure that work sites and construction activities of the contractor's personnel and subcontractors comply with safe practices and standards of Local, State, Federal, and the lead agency's rules and regulations. The safety plan will establish detailed procedures to be followed by the contractor and their subcontractors to protect employees, the public, facilities, and property during construction. In addition, contractors will also be required to comply with the stakeholder railroads MOT procedures and flagging/track time requirements. The primary responsible entry or railroad will approve the safety plan.

The 75th Street CIP construction manager will monitor the activities of the contractor. The contractor, however, has the sole responsibility for ensuring implementation of, and compliance with, the safety program by their own employees and subcontractors. During periodic visits to the job site, the construction manager shall observe the job site for safety on an information basis only, not as an official safety representative of the official agency. All visitors to the site will be required to contact the project/construction manager. If the construction manager observes conditions considered to be unsafe, the contractor's superintendence or supervising personnel are to be advised verbally of the observed condition. If the construction manager determines that the condition represents an imminent danger to persons or property and the contractor does not immediately correct the condition, the observer is to contact the Section Manager. A verbal advisory must be supplemented by a written, signed statement. See Appendix E: Railroad Right of Entry Requirements and Insurance Summary.

The responsibilities of the construction manager will include:

- Observing the contractors and subcontractors, implementation and application of work site requirements under the terms and conditions of the contract;
- Reporting conditions considered to be unsafe to the lead agency's or railroad's Section Manager and recording such conditions in the construction manager's log report; and
- Recommending actions to correct site safety conditions.

14. Traffic Management

Minimizing impacts to the traveling public and local communities while focusing on safety, and efficiently completing construction activities are very important to the success of the 75th Street CIP. The CREATE Implementation Team will provide guidance in the traffic management planning efforts. Each Section Manager will develop a section-specific Traffic Management Plan. When multiple sections of the project will be constructed at the same time, the CREATE Implementation Team will be responsible to coordinate the traffic flow between sections and coordinate with other agencies, such as IDOT, the participating railroads, City of Chicago, Metra, and CTA.

In general, the Traffic Management Plan will include, but may not be limited to, the following information:

- MOT standards;
- Roles and responsibilities of traffic management staff;
- Review of MOT plans at various design stages and construction for conformance with approved standards;
- Coordination with local agencies regarding signage, traffic control devices, restrictions during special events, emergency services, and other scheduled City capital and maintenance projects;
- Include an incident management plan and procedures for accidents within project area;
- Procedures to coordinate with the media and public information services; and
- Strategies to inform those affected road and transit users, including the surrounding community of the expected impact of a project, of changing conditions, and available travel options (i.e., a public information plan).

The CREATE Implementation Team will also be responsible for conducting monitoring or oversight of implementation of the section-specific Traffic Management Plans. Additionally, traffic management issues and progress will be reported during the 75th Street CIPs quarterly status meetings with the CREATE Management Committee. An annual audit and oversight traffic management reviews will be performed by IDOT/FHWA, or other agencies as deemed necessary.

14.1 Rail Traffic Management

The lead agency or railroad who will serve as the Section Manager for the particular section will be responsible to develop its own rail Traffic Management Plan. The Chicago Transportation Coordination Office (CTCO) will review the Rail Traffic Management Plan for conflicts and consistency with the other section work. CTCO managers will be engaged and plans will be developed for management of design and construction activities that affect active freight or passenger rail lines. It is the responsibility of the lead agency or railroad to minimize traffic impacts to the extent feasible during construction of the 75th Street

CIP. This may require adjustment and revision during the course of the project as directed by CTCO or CPG.

14.2 Roadways Maintenance of Traffic (MOT)

During Phase II (final) design, roadway traffic management plans or MOT plans will be developed by the section design consultants. The CREATE Implementation Team will provide reviews and oversight of the various Traffic Management Plans during design milestones for conformance with approved standards and overall interface with other ongoing projects. Design consultants will coordinate with appropriate jurisdictional entities (e.g., City of Chicago, IDOT District 1), local agencies, emergency service providers, transit providers, and other stakeholders during design development. During construction, the 75th Street CIP construction manager will review MOT plans with contractors and coordinate traffic maintenance with other projects occurring at the same time. The construction manager will also coordinate and assist IDOT in providing media and public information, such as, traffic pattern changes, lane closures, or traffic delays.

15. Civil Rights Program

Because every section project in the 75th Street CIP will be led by different agencies or railroads, each contract will follow its respective DBE policy and monitoring. IDOT has established a DBE program in accordance with regulations of the U.S. Department of Transportation (USDOT), 49 Code of Federal Regulations (CFR) Part 26. The CREATE partners and program do not tolerate any forms of discrimination or abuse.

The CREATE Management Committee will manage the civil rights program for the 75th Street CIP as it pertains to FHWA/IDOT/Metra/City of Chicago's respective DBE requirements or any other funding agency requirements. IDOT will provide quarterly reports to the CREATE Implementation Committee on the effectiveness of the DBE program, and the CREATE Implementation Committee will provide these quarterly reports to the CREATE Management Committee. With respect to procurements for 75th Street CIP, the CREATE Implementation Team with support from the 75th Street CIP IDOT Program Manager:

- Ensures certified DBE firms are in accordance with USDOT rules, in part through participation with other Illinois transportation agencies in the Illinois Uniform Certification Program;
- Monitors the listing of certified DBE firms by category of services and products provided;
- Promulgates policies, rules, and procedures concerning the CREATE Program's employment of DBE firms;
- Establishes for each prospective procurement contract the percentage allocation goal for expenditures with DBE firms;
- Reviews and approves contractor plans for attaining DBE goal prior to signing of contracts;
- Monitors contractor use of DBE firms during contract performance with reference to contractor plan; and
- Interacts with contractors to effect compliance with DBE provisions in contracts.

Reference the CREATE Program Rail Projects Phase II and Phase III Manuals for DBE policies and procedures. Section 6 of the *CREATE Program Rail Projects Phase II Reports Manual* contains information and current forms required regarding DBE forms for all Freight Railroad Bid Packages. Reporting of the status of the DBE goals for each section will be part of the monthly progress reports to the CREATE Management Committee.

16. Appendices

Appendix A – 75th Street CIP Project Development and Construction Schedule

Appendix B – Initial Financial Plan

Appendix C – CREATE Phase II and Phase III Flow Process

Appendix D – CREATE Estimates & Contingency Plan

Appendix E – Railroad Right of Entry Requirements and Insurance Summary

Appendix F – Program Master Schedule and Work Breakdown Structure (WBS)

Appendix G – Project Plans Summary List

Publications and Documents cited in the PMP and incorporated by reference

CREATE Program Final Feasibility Plan – Amendment 1 (Modified January 2011)

75th Street CIP Combined Final EIS/ROD (September 19, 2014)

75th Street CIP Reevaluation

CREATE Program Rail Projects Phase I Reports and Design Approval Procedures Manual

CREATE Program Rail Projects Phase II Reports Manual

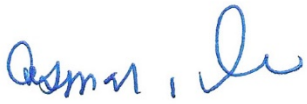
CREATE Program Rail Projects Phase III Manual

75th Street CIP Stakeholder Involvement Plan (June 2014)

17. Executive Leadership Endorsement

I, as executive leader of the Illinois Department of Transportation (IDOT) endorse this Project Management Plan and am committed to actively supporting it. I accept responsibility for fulfilling any aspect of the plan that applies, including providing resources, actively participating, and effectively communicating. My endorsement is an active and positive statement that I am committed to fulfilling the project objectives and responsibilities designated in this plan. The effectiveness of this Project Management Plan will be regularly evaluated, and revisions will be issued as the project progresses in order to generate the most effectively managed project while meeting the objectives of the 75th Street CIP.

Submitted by:

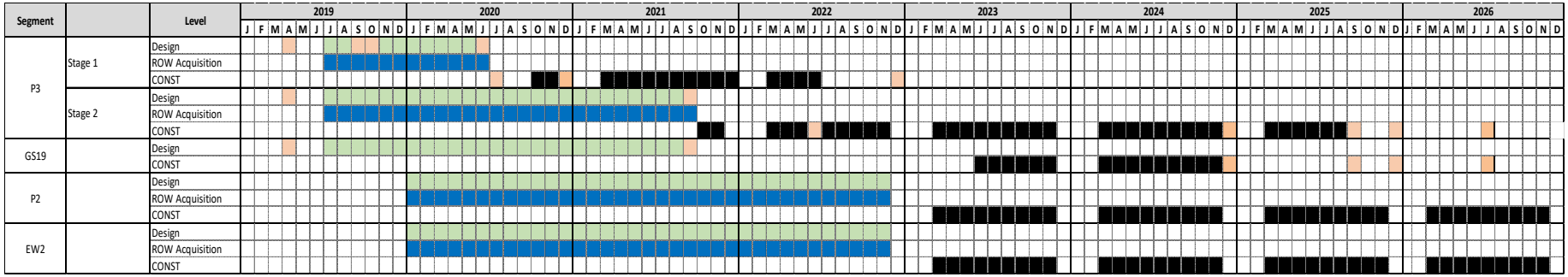


Omer Osman, P.E.

Acting Secretary of Transportation

Illinois Department of Transportation

Appendix A: 75th Street CIP Project Development and Construction Schedule



Design	Phase II Design includes, FD/ROW/MUSRA/UT Relocation
ROW Acquisition	
Const	CONST - Phase III
INFRA Milestones	INFRA Funding Milestones Dates

75th Street CIP Project Development and Construction Schedule

Funded Project Component (P3 and GS19) Milestones

Stage 1 — Shoofly construction		
	INFRA Date	Actual/Planned Date
Start Design	3/31/2019	8/5/2019
Major projects requirement complete	9/30/2019	7/31/2020
Construction obligation	10/15/2019	9/30/2020
PS&E complete	6/30/2020	6/30/2020
Begin construction	12/15/2020	12/15/2020
Operationally and substantially Complete	12/31/2022	12/31/2022

Stage 2 — Final Construction		
	INFRA Date	Actual/Planned Date
Start Design	3/31/2019	8/5/2019
PS&E Complete	9/30/2021	9/30/2021
Begin Construction	6/30/2022	6/30/2022
Operationally and substantially complete	12/31/2024	12/31/2024
Project landscaping and cleanup	9/30/2025	9/30/2025
Final Invoicing	12/31/2025	12/31/2025
Project closeout	6/30/2026	6/30/2026

Appendix B: Initial Financial Plan

Illinois Department of Transportation
Office of Intermodal Project Implementation

Initial Financial Plan (IFP)

CREATE*
75th Street Corridor Improvement Project:
P2, P3, EW2, GS19
Cook County, IL

*Chicago Region Environmental And Transportation Efficiency

As of Date: August 11, 2020

Illinois Department of Transportation

CREATE
KEEPING THE GO IN CHICAGO

LETTER OF CERTIFICATION

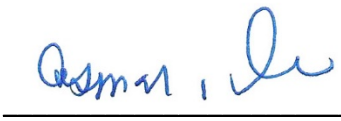
The Illinois Department of Transportation—in coordination with the Association of American Railroads (AAR) acting on behalf of the eight (8) participating railroads including Amtrak (National Railroad Passenger Corporation), BNSF Railway Company (BNSF), Canadian National Railway Company (CN), Canadian Pacific Railway Company (CP), CSX Transportation (CSX), Metra, Norfolk Southern Railway (NS), and the Union Pacific Railroad (UP), Chicago Department of Transportation (CDOT), and Cook County Department of Transportation and Highways (CCDoTH) —has developed a comprehensive Financial Plan for the CREATE Program's 75th Street Corridor Improvement Project (75th Street CIP) in accordance with the requirements of Section 106, Title 23, United States Code, and the Financial Plan guidance issued by the Federal Highway Administration (FHWA). The plan provides detailed cost estimates to complete the project and the estimates of financial resources to be utilized to fully finance the project.

The cost data in the Financial Plan provide an accurate accounting of costs incurred to date and include a realistic estimate of future costs based on engineering estimates and expected construction cost escalation factors. While the estimates of financial resources rely upon assumptions regarding future economic conditions and demographic variables, they are reasonably believed to represent realistic estimates of resources that will become available to fund the project as described.

The Illinois Department of Transportation believes the Financial Plan provides an accurate basis upon which to schedule and fund the 75th Street CIP and commits to provide annual updates according to the schedule described in the Initial Financial Plan.

To the best of our knowledge and belief, the Financial Plan, as submitted herewith, fairly and accurately presents the current financial position of the 75th Street CIP, its expected cash flows, and expected conditions for the project's life cycle. The financial forecasts in the Financial Plan are based on input from the CREATE Program partners, our judgment of the expected project conditions and our expected course of action. We believe that the assumptions underlying the Financial Plan are reasonable and appropriate. Further, we have made available all significant information that we believe is relevant to the Financial Plan and, to the best of our knowledge and belief, the documents and records supporting the assumptions are accurate.

Submitted by:



Omer Osman, P.E.
Acting Secretary of Transportation

RECORD OF REVISIONS

The CREATE 75th Street Corridor Improvement Project (75th Street CIP) Initial Financial Plan (IFP) will be regularly updated as the project development process progresses or as the need arises. The IFP will be reviewed periodically by the IDOT Office of Intermodal Project Implementation (OIPI) and updated annually. All reviews and updates will be coordinated, as needed, with the CREATE Program partners. The annual update to the Financial Plan will need to be reviewed and concurred with by FHWA.

Revision	Date	Chapter Number	Section Number	Summary of Changes

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List of Acronyms

AAR	Association of American Railroads
B&OCT	Baltimore and Ohio Chicago Terminal Railroad Company
B9	Argo Connections
BCI	Building Cost Index
BNSF	BNSF Railway Company
BRC	Belt Railway Company of Chicago
CAGR	Compound Annual Growth Rate
CCI	Construction Cost Index
CDOT	Chicago Department of Transportation
CER	Cost Estimate Review
CIP	Corridor Improvement Project
CMAP	Chicago Metropolitan Agency for Planning
CMAQ	Congestion Mitigation and Air Quality
CN	Canadian National Railway Company
CPR	Canadian Pacific Railway Company
CREATE	Chicago Region Environmental And Transportation Efficiency
CSX	CSX Transportation
CTCO	Chicago Transportation Coordination Office
DBB	Design-Bid-Build
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
ENR	Engineering News-Record
EW2	East-West Corridor Project 2
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FY	Fiscal Year
GS19	Grade Separation Project 19
IDOT	Illinois Department of Transportation
IFP	Initial Financial Plan
IHB	Indiana Harbor Belt Railroad Company
JSOU	Joint Statement of Understanding
Metra	Metra Commuter Rail
NEPA	National Environmental Policy Act
NS	Norfolk Southern Railway
OIPI	Office of Intermodal Project Implementation
P2	Passenger Corridor Project 2
P3	Passenger Corridor Project 3
PE/ENV	Preliminary Engineering and Environmental Review
PMP	Project Management Plan
PPP	Public-Private Partnership
ROD	Record of Decision
ROW	Right-of-Way
STP	Surface Transportation Program
TIP	Transportation Improvement Program
UPRR	Union Pacific Railroad
YOE	Year of Expenditure

Executive Summary

This document presents the Initial Financial Plan (IFP) for the 75th Street Corridor Improvement Project (Project). The IFP documents the CREATE Program partners' financial capacity to implement the Project.

This IFP was developed in coordination with the Illinois Division of the Federal Highway Administration (FHWA) and in accordance with FHWA's Major Project Financial Plan Guidance dated December 18, 2014, and 23 United States Code § 106(h)(3), Moving Ahead for Progress in the 21st Century (MAP-21) § 1503(a)(4)(B). Specifically, the FHWA guidance and MAP-21 require the submittal of an IFP and Annual Updates for federally funded highway projects with an estimated total cost of $500 million or more.

This IFP creates a record of planned expenditures and funding sources planned or secured for the Project and documents the schedule, implementation approach, cost, and sources of funding through Project completion. The foundation of the IFP is the Project cost of $1,077.9 million as reflected in the FHWA Cost Estimate Review (CER) dated April 2020 – this represents the pre-CER Project cost which is greater than the 70-percentile cost amount from the 2020 CER.

The information in this IFP is based on currently available information and will be updated as new information is obtained and as the project progresses. The Illinois Department of Transportation (IDOT) Office of Intermodal Project Implementation (OIPI) will update the financial plan annually. All reviews and updates will be coordinated, as needed, with the CREATE Partners. Future Annual Updates will enable local, state, and federal decision makers to track the Project's financial progress over time by highlighting deviations from the IFP. The Annual Updates will also document mitigating actions taken to adjust for cost and schedule deviations. The Financial Plan process is a subset of the overall Project Management Plan (PMP) required for every major project.

1. Narrative Description

1.1 Project History and Background

The Chicago Region Environmental and Transportation Efficiency (CREATE) Program is an inter-modal public-private partnership of IDOT, FHWA, the City of Chicago, Cook County, and the Association of American Railroads (AAR) to restructure, modernize, and expand passenger and freight rail facilities and construct highway grade separations in the Chicago metropolitan area while reducing environmental and social impacts on the general public. The CREATE Program Final Feasibility Plan and Final Preliminary Screening documents were drafted in 2005 to establish overall "Program Level Goals and Strategies" and to define the objective of each component project within the program. The final CREATE Feasibility Plan was released by the CREATE Partners in August 2005, and subsequently endorsed by the Chicago Metropolitan Agency for Planning (CMAP). CMAP is the federally-designated regional planning agency for the Northeast Illinois region. The CREATE Program is included in CMAP's latest long-term comprehensive regional plan, "ON TO 2050" dated October 2018, and the Fiscal Year (FY) 2019-2024 Transportation Improvement Program (TIP). There are currently 70 individual projects included in the CREATE Program, all designed to improve the safe and efficient movement of passengers and freight on the railway system, reduce delays and enhance safety for travelers on the roadway system, and provide air quality benefits for the Chicago region. The 75th Street Corridor Improvement Project (75th Street CIP, or Project) is a major element of the CREATE Program.

IDOT, in cooperation with FHWA, prepared and published the Draft Environmental Impact Statement (DEIS) for 75th Street CIP on March 28, 2014, and a combined Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) was approved on September 19, 2014. The 75th Street CIP final National Environmental Policy Act (NEPA) document (i.e., the combined FEIS/ROD) identified several commitments and mitigation measures that will require further coordination during Phase II (final) design, incorporation into the construction contract documents, and implementation during construction of the project. A reevaluation of the NEPA document was completed in May 2020, which resulted in no significant changes from findings of the original environmental determination.

1.2 Project Partners and Management

The CREATE Program partners have previously agreed that their participation in the Program will be governed by a Joint Statement of Understanding (JSOU), which describes the program scope, the core responsibilities of the partners, the key relationships between partners, and summarizes how changes in scope and overall budget will be managed. Under the terms of the JSOU, after completion of construction, each component project becomes the property of the party that owns or substantially controls all of the property on which the improvement is constructed or installed. Each owner then becomes responsible for maintenance, operation, management, and dispatch on its property. Please refer to Section 4 of the 75th Street CIP Project Management Plan for additional detail on project organizational structure, roles and responsibilities for the project.

This IFP creates a record of planned expenditures and funding sources planned or secured for the project and documents sources of funding through project completion. The information in this IFP is based on

currently available information and will be updated as new information is obtained and as the project progresses. IDOT OIPI will update the Financial Plan annually. All reviews and updates will be coordinated, as needed, with the CREATE Partners. The annual updates to the Financial Plan will need to be reviewed and concurred with by FHWA.

1.3 Project Description

The Project is centered around a rail corridor that generally follows 75th Street on the south and southwest sides of the City of Chicago (Figure 1). The 75th Street CIP includes four major sections (P3, GS19, P2, EW2) originally identified as separate component projects of the CREATE Program. During the development of the CREATE Program Feasibility Plan and Project Screening, these component projects were determined to be environmentally linked and are all addressed in a single Environmental Impact Statement (EIS).

The Project includes the following major work elements:

- Approximately 25 miles of new track and 11 miles of relocated track;
- Two new rail flyover structures (3,800 feet and 6,400 feet in length);
- New rail bridge structures at 4 locations (not including the two new rail flyovers);
- Replacement of existing rail bridges at 3 locations;
- Rehabilitation or modification of existing rail bridges at 23 locations;
- One highway-rail grade separation;
- Substantial structural, drainage, roadway and lighting improvements to address identified local mobility issues at 36 existing rail viaducts, including:
    - Roadway resurfacing;
    - Roadway reconstruction;
    - Reconstruction of sidewalks;
    - Construction of ADA accessible sidewalk ramps;
    - Replacement of lighting systems;
    - Reconstruction of drainage systems;
    - Waterproofing of bridge decks;
    - Reconstruction of bridge abutments; and
    - Reconstruction of underdrains at bridge locations;
- Construction of five noise abatement walls; and
- Additional community mobility improvements including but not limited to repair of bus pads, curb and gutter rehabilitation, and tree plantings.

The proposed improvements included as part of the Project are shown schematically in Figure 2.

The Project will require the acquisition of a total of approximately 16.7 acres of right-of-way, of which approximately 14.9 acres are currently vacant residential or industrial parcels. A total of 27 residential dwelling units (26 occupied and 1 vacant) and one church will be acquired. No businesses will be displaced. Permanent and temporary easements may also be required to construct the proposed improvements. Further details of the required land acquisition, including permanent and temporary easements, can be

found in the Phase I Project Report. (Right-of-way acquisition and easements will be updated as the design and project progresses.)

Figure 1: 75th Street CIP Location Map

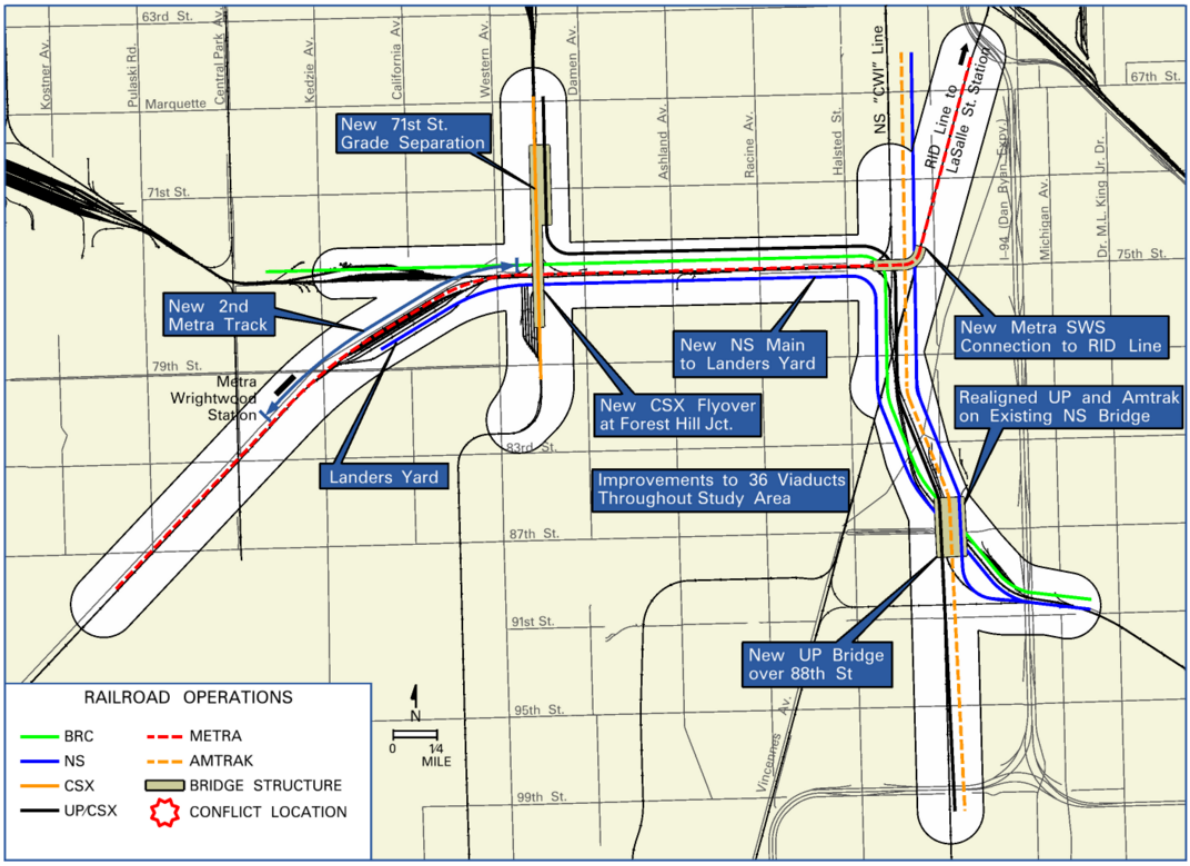


Figure 2: Schematic of 75th Street CIP Improvements

The four major components of the 75th Street CIP are described below and are depicted in Figure 3. The Project will utilize a phased construction approach with distinct packages for bid construction, railroad force account construction, and construction management services. Individual Project components may be operationally independent and constructed non-concurrently. Phasing for Project components and construction packages is specified within the State Rail Agreement for each work package. During final design, the packaging of construction work will be determined based on operational constraints, construction market conditions, public safety and available funding.

For the purpose of estimating costs, the viaduct improvement work to address local mobility issues has been distributed among each of the four major Project components. During later stages of the Project, the viaduct improvements may remain part of their respective components or they may be separated into a separate contract.

FUNDED PROJECT COMPONENTS (P3 and GS19)

Final Design, right-of-way acquisition, utility work, and construction are fully funded.

CREATE Passenger Corridor Project 3 (P3)

Improvements in this Project component will eliminate rail-rail conflicts at Forest Hill Junction (also known as CSX 75th Street Junction, located at 75th Street between Damen Avenue and Western Avenue) between the Metra South West Service (SWS) Line and the north-south CSX tracks through the construction of a rail-to-rail flyover. The rail-to-rail flyover will be a new double-track elevated structure and will carry the CSX mainline over the Metra SWS Line, as well as BRC and NS rail tracks running east-west through the 75th Street corridor. The new elevated structure will also carry the CSX mainline over 71st Street (see GS19 below for further details). P3 includes local mobility improvements to four (4) viaducts, including 79th Street east of Oakley Avenue, 69th Street east of Bell Avenue, 68th Street east of Bell Avenue and 67th Street (Marquette) east of Bell Avenue.

CREATE Grade Separation Project 19 (GS19)

Improvements in this Project component will grade-separate 71st Street and the north-south CSX tracks. The principal roadway element is the elimination of the existing at-grade crossing of the CSX tracks at 71st Street. The existing profile of 71st Street will be lowered by approximately 3 feet to provide a vertical clearance of 16.5 feet beneath the new rail structure. There will be no change to the horizontal alignment or cross-section and no additional right-of-way will be required. A total length of approximately 660 feet of 71st Street will be reconstructed.

PARTIALLY FUNDED PROJECT COMPONENTS (EW2 and P2)

Final Design, right-of-way acquisition, and utility work is fully funded but funding for construction is still pending.

CREATE East-West Corridor Project 2 (EW2)

Improvements in this Project component will reduce congestion and delays along the 75th Street corridor between the Dan Ryan Expressway (I-94) southeast of 80th Street Junction, and Ashburn Junction near Columbus Avenue and 81st Street to the southwest. Street improvements include the realignment of existing tracks and providing additional new tracks, including a new mainline track from the southeast portion of the study area to Landers Yard, to eliminate rail-rail conflicts at both 80th Street Junction and Belt Junction. A new second through-track for Metra will be provided along the west side of Landers Yard and through Wrightwood Station. Tracks in Landers Yard will need to be relocated to provide room for the new Metra track. The track profile at 79th Street will need to be lowered to provide the desired vertical clearance for NS and BRC beneath the Metra Rock Island District railroad bridge. This, in turn, will create the need to lower 79th Street between Lowe Avenue and Parnell Avenue by approximately 2.5 feet to provide the appropriate vertical clearance beneath the railroad bridge carrying the NS and BRC tracks. EW2 includes local mobility improvements to twenty-three (23) viaducts, including Kedzie Avenue south of 79th Street, 79th Street east of Kedzie Avenue, Western Avenue at 75th Street, Damen Avenue at 75th Street, Ashland Avenue at 75th Street, Loomis Boulevard at 75th Street, Racine Avenue at 75th Street, Aberdeen Street at 75th Street, Morgan

Street at 75th Street, Peoria Street at 75th Street, Halsted Street at 75th Street, 76th Street west of Parnell Avenue, 78th Street east of Wallace Street, 79th Street east of Wallace Street, 80th Street east of Wallace Street, 81st Street east of Wallace Street, Vincennes Avenue south of 83rd Street, Vincennes Avenue north of 84th Street, Holland Road north of 87th Street, 87th Street east of Holland Road, 87th Street east of Eggleston Avenue, 88th Street west of Harvard Avenue, 74th Street west of Parnell Avenue. Additionally, five (5) noise abatement walls will be constructed to address predicted impacts on low-income and minority residents as a part of the CREATE EW2 work: Barrier G, Barrier H, Barrier M, Barrier N, and Barrier O.

CREATE Passenger Corridor Project 2 (P2)

Improvements in this Project component will reduce rail-rail conflicts for Metra operations by constructing a double-track rail flyover bridge to connect the Metra SWS Line near 74th Street to the Rock Island District Line, which terminates at LaSalle Street Station in the Chicago Loop. Rerouting the Metra SWS Line to LaSalle Street Station will reduce congestion at Chicago Union Station. P2 includes local mobility improvements at seven (7) viaducts, including the 73rd Street pedestrian way east of Hamilton Park, 74th Street east of Normal Avenue, 72nd Street at Stewart Avenue, 75th Street at Normal Avenue, 76th Street at Normal Avenue, 78th Street west of Fielding Avenue and 80th Street west of Wallace Street.

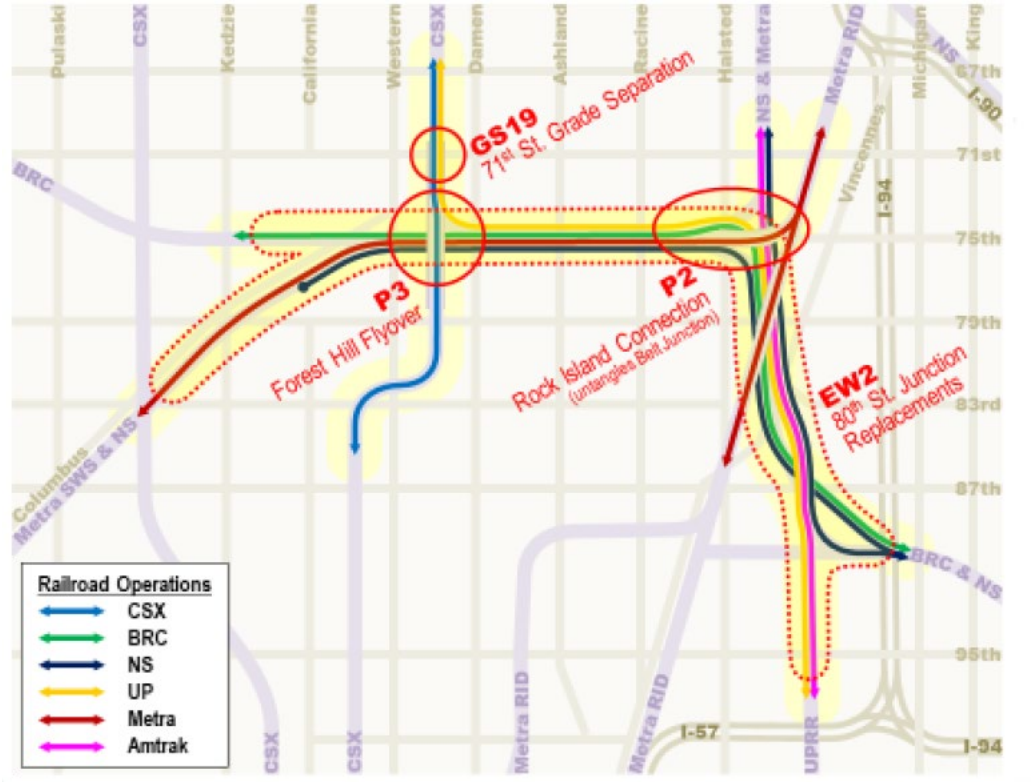


Figure 3: 75th Street CIP Study Area and Project Component Schematic

2. Schedule

2.1 Overview

Preliminary engineering and environmental review (Phase I) activities began in January 2011 and were completed in December 2014 with a Record of Decision dated September 2014, and are not reflected in the discussion below.

The 75th Street CIP will be organized around a 2 to 3-year design and a 4 to 5-year construction sequencing plan approved by the CREATE partners and used to complete the CER. The core assumption of this sequencing plan is that all related Phase II design and Phase III construction activity (i.e., the P2, P3, EW2 and GS19 Project components) will be completed within the 6 to 7-year construction period. This approach will include multiple contracts to implement the Project; however, all Project actions will occur within the 6 to 7-year time frame. See Appendix A for the high-level Project development and construction schedule as agreed to by the CREATE partners in 2019.

Construction of the various Project components (Phase III) of the 75th Street CIP will be sequenced in consideration of maintaining existing operations and minimizing impacts to the surrounding communities. The anticipated completion date for the Project is November 2026. Potential sources of delay were identified in the Cost Estimate Review (CER) as part of the risk identification and modeling process (see 8.0 Risk & Response Strategies below); delay risks will be mitigated through good management of land acquisition efforts and careful coordination among Project stakeholders.

The preliminary construction sequence and key date milestones table have been developed assuming funding will be secured in a timely manner for P2 and EW2 construction. Consequently, the implementation and construction schedule may change and will be re-evaluated as needed depending on future funding availability and design detail progress.

2.2 Project Component Key Dates

The baseline key dates are based on the 75th Street CIP Project Development and Construction Schedule referenced in Appendix A.

Schedule Key Activity	Key Dates Baseline Plan (Ref. Appendix A)	Key Dates As of July 1, 2020 Project Schedule
P3 Project Component - Forest Hill Junction		
Stage I - Shoofly Construction		
Start Design	March 31, 2019	August 5, 2019
Major projects requirement complete	September 30, 2019	August 14, 2020
Construction obligation	October 15, 2019	September 30, 2020
PS&E complete	June 30, 2020	August 31, 2020
Begin construction	December 15, 2020	December 15, 2020
Operationally and substantially Complete	December 31, 2022	December 31, 2022
Stage II - Final Construction		
Start Design	March 31, 2019	August 5, 2019
PS&E Complete	September 30, 2021	September 30, 2021
Begin Construction	June 30, 2022	June 30, 2022
Operationally and substantially complete	December 31, 2024	December 31, 2024
Project landscaping and cleanup	September 30, 2025	September 30, 2025
Final Invoicing (Project Completion)	December 31, 2025	December 31, 2025
Project closeout	June 30, 2026	June 30, 2026
GS19 Project Component - Level Crossing		
Start Design	March 31, 2019	August 5, 2019
PS&E Complete	September 30, 2021	September 30, 2021
Begin Construction	June 30, 2022	June 30, 2022
Operationally and substantially complete	December 31, 2024	December 31, 2024
Project landscaping and cleanup	September 30, 2025	September 30, 2025
Final Invoicing (Project Completion)	December 31, 2025	December 31, 2025
Project closeout	June 30, 2026	June 30, 2026
P2 Project Component - Rock Island District Flyover		
Start Design	January 31, 2020	August 1, 2020
PS&E Complete	November 30, 2022	November 30, 2022
Begin Construction	March 1, 2023	March 1, 2023
Operationally and substantially complete	October 1, 2025	October 1, 2025
Project landscaping and cleanup	January 2, 2026	January 2, 2026
Final Invoicing (Project Complete)	April 1, 2026	April 1, 2026
Project closeout	November 2, 2026	November 2, 2026

Schedule Key Activity	Key Dates Baseline Plan (Ref. Appendix A)	Key Dates As of July 1, 2020 Project Schedule
EW2 Project Component		
Start Design	January 31, 2020	September 1, 2020
PS&E Complete	November 30, 2022	November 30, 2022
Begin Construction	March 1, 2023	March 1, 2023
Operationally and substantially complete	October 1, 2025	October 1, 2025
Project landscaping and cleanup	January 2, 2026	January 2, 2026
Final Invoicing (Project Complete)	April 1, 2026	April 1, 2026
Project closeout	November 2, 2026	November 2, 2026

2.3 Funded Project Components (P3 and GS19)

The P3 and GS19 project components have been fully funded for both Phase II and Phase III implementation. Final design and right-of-way acquisition (Phase II) activities for projects P3 and GS19 began in July 2019 and will extend through September 2021. Utility relocations and construction contract procurement (Phase III) for P3 and GS19 will begin following Phase II and extend through August 2025.

The P3 and GS19 Project components close-out is anticipated in June 2026. Additional milestones for the funded project components P3 and G19 are presented in Appendix A.

2.4 Partially Funded Project Components (P2 and EW2)

P2 and EW2 final design and right-of-way acquisition (Phase II) are fully funded and will begin in 2020 and extend through the end of 2022. Utility relocations are also fully funded and will begin in 2020 and extend through 2026. Dependent on the availability of funding, construction contract procurement (Phase III) for P2 and EW2 will begin following Phase II and extend into 2026. The schedule for P2 and EW2 project components is based on the assumption that P2 and EW2 will be fully funded at the same time; however, full funding has not yet been secured. Consequently, the implementation and construction schedule may change and will be re-evaluated as needed and depending on funding availability.

3. Project Cost Estimate

3.1 Cost Estimate Overview

The Moving Ahead for Progress in the 21st Century (MAP-21) Act (P.L. 112-141) requires the financial plan for all Federal-aid projects with an estimated total cost of $500M or more be approved by the Secretary of Transportation (i.e., FHWA) based on reasonable cost assumptions. The $500M threshold includes all project costs (i.e. engineering, construction, right-of-way, utilities, construction engineering, inflation, etc.). The FHWA policy has established reasonable cost variability assumptions to be utilized for a risk-based analysis. A Cost Estimate Review (CER) is required to provide a risk-based analysis of the estimate for a project over $500M.

An initial CER was conducted in 2014, including a CER workshop held June 23 through June 26, 2014. The initial CER identified a likely project cost of $951.9 million (Pre-CER Estimate: $984.4 million) with construction completed 10/29/2022 (Pre-CER schedule 10/31/2021).

In accordance with FHWA's Major Project requirements, a second CER workshop was held April 21 through April 23, 2020 to update the cost and schedule findings based on current conditions. The workshop was conducted by FHWA, and participants included IDOT, CDOT, Cook County, AAR, and railroad partners. This unbiased, risk-based review was completed to verify the accuracy and reasonableness of the current cost estimate and Project schedule.

Project activities since the 2014 CER have advanced design and performed other risk assessment and mitigation work (including work package development, identification and enforcement of project control measures, performance of regular financial review, implementation of a design-to-cost clause, compilation of a risk register, and development and enforcement of change order management procedures), resulting in reduced uncertainty and risk for the Project even though costs have increased for EW2 and the projected completion date has moved to 11/15/2027 (Pre-CER schedule 11/30/2026).

The 2020 CER identified an estimated cost of $936,796,144 in 2019 dollars and $1,077,986,547 in year-of-expenditure (YOE) dollars for the 7-year implementation plan with an assumed 3.5% inflation rate per year (Table 1). This Project cost is greater than the 70-percentile cost amount ($1,068,375,745) from the most recent CER. Table 1 includes a summary of the major cost elements for each of the four major project components identified as part of the 75th Street CIP. Table 2 includes a summary of the major cost elements by activity for each of the four major Project components. Project components P3 and GS19 are completely funded with estimated costs of $372,493,755 in YOE dollars. Project components P2 and EW2 are not yet fully funded and are estimated to cost $705,492,792 in YOE dollars.

Table 1: 75th Street CIP Phase II Project Cost Estimate Breakdown by Project Component (Data Source: CER 2020)

Project Component	2019 Dollars			YOE Dollars		
	Base	Contingency	Total	Base	Contingency	Total
P3	$275,975,823	$46,631,294	**$322,607,117**	$308,873,249	$54,270,842	**$363,144,090**
GS19	$7,072,227	$1,159,258	**$8,231,484**	$8,000,487	$1,349,177	**$9,349,665**
Subtotal: Funded Project Components	**$283,048,050**	**$47,790,552**	**$330,838,601**	**$316,873,736**	**$55,620,019**	**$372,493,755**
P2	$215,126,236	$37,651,176	**$252,777,412**	$249,552,286	$43,819,522	**$293,371,808**
EW2	$300,237,430	$52,942,701	**$353,180,131**	$350,504,746	$61,616,238	**$412,120,984**
Subtotal: Partially Funded Project Components	**$515,363,666**	**$90,593,877**	**$605,957,543**	**$600,057,032**	**$105,435,760**	**$705,492,792**
Total	**$798,411,716**	**$138,384,429**	**$936,796,144**	**$916,930,768**	**$161,055,779**	**$1,077,986,547**

Table 2: 75th Street CIP Phase II Project Cost Estimate Breakdown by Project Component and Activity (Data Source: CER 2020)

Project Component	Activities					Total
	PE/ENV	Final Design	ROW / Utility	Construction	Construction Related Prof Svcs	
P3	$3,867,046	$18,245,743	$12,820,850	$303,810,820	$24,399,631	$363,144,090
GS19	$229,313	$1,255,931	$0	$7,301,702	$562,720	$9,349,665
Subtotal: Funded Project Components	$4,096,359	$19,501,674	$12,820,850	$311,112,521	$24,962,350	$372,493,755
P2	$2,710,059	$14,201,765	$14,961,094	$242,114,883	$19,384,007	$293,371,808
EW2	$3,616,887	$18,440,866	$11,313,097	$351,129,370	$27,620,764	$412,120,984
Subtotal: Partially Funded Project Components	$6,326,946	$32,642,631	$26,274,191	$593,244,253	$47,004,771	$705,492,792
Total	**$10,423,305**	**$52,144,305**	**$39,095,041**	**$904,356,774**	**$71,967,122**	**$1,077,986,547**

IDOT OIPI, in coordination with the CREATE Program partners, will continue to monitor and adjust the cost estimate based on underlying economic conditions and to reflect any changes in annual updates to the Financial Plan. Any significant changes to the overall budget will be discussed immediately between FHWA IDOT, CDOT, Cook County and the CREATE Program rail partners.

3.2 Cost Estimating Methodologies and Key Assumption History

The capital cost estimate developed costs for each of the four Project components (P3, GS19, P2, and EW2) separately. These were then combined to provide totals for all capital cost construction items with their respective quantities, unit costs, direct cost, applied contingencies, inflation, and total construction cost.

Several of the CREATE railroad partners have rail infrastructure within the same CREATE Project components. The CREATE railroad partners each have pre-existing contract rates for purchase of trackwork and signal items negotiated with manufacturers. These unit costs are proprietary in nature and can differ by railroad. Therefore, unit costs for railroad-specific items were provided by each participating CREATE railroad partner, and trackwork and signals construction items are sometimes listed multiple times within the capital cost estimate spreadsheets to correlate the appropriate railroad's unit cost with

the appropriate quantity of trackwork and signal work required by the Project component scope. All roadway and supporting infrastructure capital costs were calculated by the preliminary engineering design team based on the P3/GS19 conceptual engineering drawings and environmental analysis results.

The extent of repair, rehabilitation and/or replacement of existing infrastructure will continue to be refined throughout the Final Design process. Accordingly, several recommended mitigation measures have been identified and costed using lump sum allowances based on the magnitude of cost assigned to construction activities that would require said mitigation (e.g., contaminated waste disposal was calculated based on the cost of topsoil and earth excavation required for track placement). In instances where design has not advanced enough to identify the potential magnitude and scope of environmental impacts of the Project, a lump sum allowance was allocated toward mitigation. Lump sums are generally percentages of the total direct cost for construction activities that may cause the specific environmental impact. Appendix D contains a more detailed description of methodology and assumptions used by the Final Design consultant team to develop the project cost estimate. The capital cost estimate does not account for ongoing maintenance of track, signals, infrastructure, or supporting facilities. All future maintenance for CREATE projects is excluded from the scope of this Project and will be managed by the appropriate agency or responsible railroad. All CREATE improvement projects will be accessible and available to all CREATE Partners.

3.3 Construction Cost Elements

The Project cost estimate was organized into eight (8) primary construction categories. Costs were also developed for utilities allowances, right-of-way acquisition, professional services, inflation, as well as management reserve and allocated contingencies. Within the construction categories, construction line items are used to identify general construction-related activities or specific construction locations. Construction line items are inclusive of the specific construction bid (pay) items and components involved in the construction activity.

3.3.1 Capital Cost Estimate Construction Categories

1. Removals / Demolition
2. Civil / Earthwork
3. Track work
4. Signals and Systems
5. Structures
6. Viaducts
7. Environmental Mitigation
8. Miscellaneous and Temporary Facilities
9. Utilities – Utilities relocation allowance includes design and construction with corridor utility holders during Phase II. Once detailed utility surveys have been conducted, the project team will identify all potential conflicts and develop more detailed itemization of cost for utility relocations or impacts.
10. Right-of-Way – Right-of-way related activities include temporary (construction) easements, relocations, mortgage assistance, land acquisition, and ROW consultant services. All property

acquisitions, relocations and easements will be undertaken in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970.

3.3.2 Professional Services

Professional Services include design consultants, construction management services, surveys, testing, site investigation, inspections, insurance, permit consultants, and public information notification by respective agencies.

3.3.3 Management Reserve and Allocated Contingencies

Management reserve represents construction items that may not yet have been identified in the Project scope or mitigation of unforeseen issues occurring during construction. Allocated Contingency represents potential increase to construction item quantities during Phase I and Phase II engineering design and analysis.

Multiple approaches to risk management were used in the development of the capital cost estimate. These vary by Project phase to reflect the fact that, as design and construction progress, some sources of risk can be better controlled or eliminated. The approaches used are:

- Approach #1 – CREATE Phase I Project Contingency

An individual allocated contingency percentage was applied separately to each construction line item. Percentages are based on the level of confidence in the quantities and unit costs developed for this conceptual engineering estimate. Allocated Contingency will be gradually phased out of capital cost during the Preliminary Engineering and Final Design phases as uncertainties in design decrease.

  - Management Reserve Contingency – 5% of construction line item Direct Cost.
  - Allocated Contingency (design and construction) – 15% of construction line item Direct Cost.

- Approach #2 – CREATE Phase II Project Contingency

CREATE 75th ST CIP partners came to a consensus on the level of contingency to apply to the estimated project cost calculated at the conclusion of Final Design (Phase II). The total contingency applied is not to exceed 15% of the Direct Construction Cost.

  - Management Reserve Contingency – 5% of construction categories 1.0 – 10.0 total Direct Construction Cost.
  - Allocated Contingency (design and construction) – 15% of construction categories 1.0 – 10.0 total Direct Construction Cost.

- Approach #3 – Risk Registry Assessment

This approach utilizes a Risk Registry that identifies potential factors in design and construction that may affect project cost or schedule (both threats and opportunities). A magnitude of impact is identified for each threat/opportunity and monetized as a percentage of the construction line item Direct Cost.

- Approach #4 – Design to Cost Requirement

This approach utilizes a "Design to Cost" clause requirement in the design phase to ensure the design meets the construction budget for each Project component. This requirement reduces the risk of cost increases during the construction phase.

- Approach #5 CREATE Phase III (Construction) Project Contingency

Phase III will maintain a maximum total Project Management Reserve of 5% and Contingency of 10%. Contingency rates may be reduced on a construction line item basis based on coordination with the awarded contractor and subsequent negotiations.

3.3.4 Inflation & Escalation

The historical Engineering News-Record (ENR) Building Cost Index (BCI) and Construction Cost Index (CCI) data for Chicago was used to compute the 5-year and 10-year Compound Annual Growth Rates (CAGR). Based on the historic inflation analysis, it was decided that a 3.5% escalation assumption would be used for the Project. As per the FHWA CER guidance, the inflation rate was applied to the calendar midpoint of each phase of Project development (i.e., Phases I, II & III).

Appendix D contains a more detailed description of methodology and assumptions used by the Phase II consultant team to develop the Project cost estimate.

Project costs not specifically considered are:

> The capital cost estimate used in this Initial Financial Plan does not contain any costs for continued maintenance of tracks, signals, infrastructure, or supporting facilities throughout the construction duration. Design modifications resulting in additional construction cost items are not included. Identified in the approved environmental documents, additional mitigation measures or offsetting benefits to be further developed in Phase II and Phase III are not included in the Project costs presented in this Initial Financial Plan.

3.4 Cost Management Responsibility

The Initial Financial Plan examines costs and funding for all stages of the Project. At each stage, control budgets are established for subsequent steps, work progress, and new cost estimates which lead to budget reviews and possible revisions. Monitoring of Project costs with reference to Project budget is the responsibility of the Railroad Section Manager, under the supervision of the CREATE Implementation Team. The Railroad Section Manager is the lead agency or railroad associated with the individual

component Projects of the 75th Street CIP. The CREATE Implementation Team is comprised of one member each from CTCO, Amtrak, Metra, BNSF, CN, CPR, CSX, NS, UPRR, BRC, IHB, AAR, CDOT, IDOT, CCDoTH and FHWA. A Project Manager or Point of Contact may be appointed from the members to oversee the 75th Street CIP. The Implementation Team is responsible for managing and integrating the technical and administrative aspects of Phase II and Phase III for the Project. Railroad Section Managers will manage and oversee the Phase II and Phase III work, and the Implementation Team is responsible for managing and integrating the technical and administrative aspects of both Project phases. Due to the size and complexity of the Project, it is anticipated that the Implementation Team will provide oversight in scheduling, risk management, cost estimating, document control, quality assurance, and public information. The Implementation Team will work under the direct supervision of IDOT OIPI to deliver all components of the Project. (Refer to Section 4 of the 75th Street CIP Project Management Plan for more details on the roles and responsibilities of the Project management team.)

The Railroad Section Manager will track comprehensive Project costs against budgets and report these findings on a quarterly basis. Input to these reports will come from the various section design consultants and/or the construction manager. Force account and railroad charges are collected through the internal invoicing process by the associated railroad company and passed to the Railroad Section Manager. The Railroad Section Manager will track and report design activities and construction progress at twice-monthly progress meetings with the CREATE Implementation Team.

As work progresses, cost to date and cost to complete will be reported by every active contractor in their monthly pay requests submitted to the Railroad Section Manager or its designated construction manager overseeing its work. Cost and budget reports to FHWA, IDOT, the Implementation Team, and applicable funding entities are part of the comprehensive reporting described in Section 7 of the 75th Street CIP Project Management Plan.

Cost contingencies provide reserves against the risk of cost increases during development of the Project. They may be established as specific amounts or percentages to cover:

- Budget areas not fully defined and/or having cost and quantity uncertainties;
- Price escalation which exceeds predictions;
- Potential time and cost overruns; and
- Unforeseen or changed conditions, design revisions, and estimating inaccuracies.

These cost contingencies are included in preliminary cost estimates and are separately tracked in the Project budget. Cost escalation risks and their ranges of potential cost impacts are also documented in the cost estimate.

4. Project Funding

This chapter discusses the committed and planned funding for completion of the four Project components under the 75th Street CIP.

4.1 Overview

The overall CREATE Program consists of 70 projects at an estimated cost of $4.6 billion. An estimated $3.2 billion is needed to complete the remaining program of projects. The 75th Street CIP is the largest and most complex project of the CREATE Program, and is specifically identified (TIP ID 01-06-0058) in the Fiscal Year (FY) 2019-2024 Transportation Improvement Program under "GO TO 2040 Major Capital Projects" and "ON TO 2050 Regionally Significant Projects". The funding secured to date for the 75th Street CIP is presented in Table 3.

Table 3: 75th Street CIP Funding Sources (in Year-of-Expenditure Dollars) (Data Source: INFRA Term Sheet and Application, 2018)

Sources	Sub-Total	%	Sub-Total	%	Total	%
	INFRA Funding		Non-INFRA Funding		Project Funding	
Federal	**$120,685,037**	**27%**	**$4,000,000**	**1%**	**$124,685,037**	**28%**
INFRA Grant	$119,785,037	27%	$0	0%	$119,785,037	27%
CDOT Surface Transportation Program (STP)	$0	0%	$4,000,000	1%	$4,000,000	1%
CDOT Congestion Mitigation and Air Quality (CMAQ)	$900,000	0%	$0	0%	$900,000	0%
State	**$103,000,615**	**23%**	**$7,999,385**	**10%**	**$111,000,000**	**25%**
IDOT	$103,000,615	23%	$7,999,385	2%	$111,000,000	25%
Regional/Local	**$84,023,340**	**19%**	**$20,951,659**	**5%**	**$104,975,000**	**23%**
Metra	$5,000,000	1%	$18,000,000	4%	$23,000,000	5%
Cook County	$77,750,000	17%	$0	0%	$77,750,000	17%
City of Chicago	$1,273,340	0%	$2,951,659	1%	$4,224,999	1%
Private	**$72,821,289**	**16%**	**$37,915,643**	**8%**	**$110,736,932**	**25%**
Amtrak	$0	0%	$5,000,000	1%	$5,000,000	1%
Class I Railroads	$72,821,289	16%	$22,492,338	5%	$95,313,627	21%
Phase I Funding (Class I & IDOT)	$0	0%	$10,423,305	2%	$10,423,305	2%
						Anticipated
To be determined	**$0**	0%	**$0**	0%	**$0**	0%
Total	**$380,530,281**	**84%**	**$70,866,687**	**24%**	**$451,396,968**	**100%**

Currently, final design, ROW acquisition, utility work, and construction of the P3 and GS19 Project components are completely funded. Additionally, final design, ROW acquisition, and utility work related to the EW2 and P2 Project components are funded, but funding for construction of EW2 and P2 is still pending. The allocation of funding from each source to each of the four Project components was determined by the CREATE partners.

4.2 Funded Project Components (P3 and GS19)

The partners have already invested more than $4 million in these Project components to advance them through environmental review and preliminary design. P3 and GS19 will leverage federal funding sources

comprising an INFRA grant and CDOT Congestion Mitigation and Air Quality (CMAQ) funds, and non-federal funding sources comprising of State, local and private funds for final design, ROW acquisition, utilities, and construction.

Federal Funding

In June 2018, IDOT was awarded a $132.0 million INFRA grant for the final design and construction of Forest Hill Flyover (P3), final design and construction of 71st Street Grade Separation (GS19), and the construction of Argo Connections (B9).

The 75th Street CIP scope does not include the construction of Argo Connections (B9). Accordingly, the INFRA grant amount available for P3 and GS19 is $119.8 million.

In addition to the INFRA grant, $900,000 in CMAQ funds will be used for GS19, and $4 million in CDOT Surface Transportation Program (STP) funds will be used for P2 ROW funding.

Non-Federal Funding Commitment

The State of Illinois has dedicated $103.0 million in State funding for these Project components. The local funds include a total of $84.0 million from Metra, Cook County and the City of Chicago (Table 4). In addition**,** a significant portion of project support consists of funding commitments from the Class I railroad project partners. The total funding from the Class I railroads amounts to $76.9 million. This agreement with the private railroads has been successfully negotiated amongst all parties and comes not only in the form of immediately available private capital funding for the proposed improvement, but also in the commitment to long-term maintenance and operations. A Memorandum of Understanding (MOU) was developed with all partners ensuring partner funding is committed through project completion.

Table 4 identifies the funding sources for P3 and GS19, and Figure 4 shows the funding sources for P3 and GS19 as a share of the total.

Table 4: Funded Project Components (P3 and GS19) Dedicated Sources (in Year-of-Expenditure Dollars) (Data Source: INFRA Term Sheet and Application, 2018)

Sources	P3	GS19	Total
Federal	**$119,785,037**	**$900,000**	**$120,685,037**
INFRA Grant	$119,785,037	$0	$119,785,037
Other Federal Funds (CMAQ)	$0	$900,000	$900,000
State	**$101,545,865**	**$1,454,750**	**$103,000,615**
IDOT	$101,545,865	$1,454,750	$103,000,615
Regional/Local	**$77,520,937**	**$6,502,403**	**$84,023,340**
Metra	$5,000,000	$0	$5,000,000
Cook County	$71,247,597	$6,502,403	$77,750,000
City of Chicago	$1,273,340	$0	$1,273,340
Private	**$75,629,527**	**$1,288,121**	**$76,917,648**
Railroad Funds (Class I)	$71,762,481	$1,058,808	$72,821,289
Phase I Funding (Class I & IDOT)	$3,867,046	$229,313	$4,096,359
Amtrak	$0	$0	$0
Total	**$374,481,366**	**$10,145,274**	**$384,626,640**

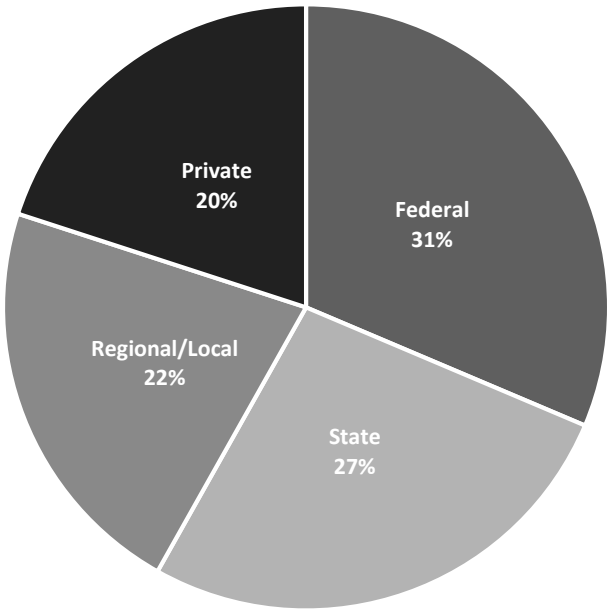


Figure 4: Funded Project Components (P3 and GS19) Dedicated Sources as Share of Total

4.3 Partially Funded Project Components (P2 and EW2)

To date, the CREATE partners have committed more than $66 million to these Project components to advance them through environmental review and final design. Since the INFRA grant did not award any funds for final design for P2 and EW2, the CREATE partners contributed additional funds to cover the final design, ROW acquisition, and utility work to demonstrate their commitment to advancing these Project components. The partners are currently seeking funding for P2 and EW2 construction. As

discussed in Section 2, the November 2026 completion date for the P2 and EW2 project components is based upon P2 and EW2 being fully funded. Consequently, the implementation and construction schedule may change and will be re-evaluated as needed depending on funding availability. Table 5 identifies the funding sources for P2 and EW2, and Figure 5 identifies the funding sources for P2 and EW2 as a share of the total.

Table 5: Partially Funded Project Components (P2 and EW2) Dedicated Funding Sources (in Year-of-Expenditure Dollars) (Data Source: INFRA Term Sheet and Application, 2018)

Sources	P2	EW2	Total
Dedicated			
Federal	**$4,000,000**	**$0**	**$4,000,000**
CDOT Surface Transportation Program (STP)	$4,000,000	$0	$4,000,000
State	**$1,175,000**	**$6,824,385**	**$7,999,385**
IDOT	$1,175,000	$6,824,385	$7,999,385
Regional/Local	**$18,635,070**	**$2,316,589**	**$20,951,659**
Metra	$18,000,000	$0	$18,000,000
Cook County	$0	$0	$0
City of Chicago	$635,070	$2,316,589	$2,951,659
Private	**$7,710,059**	**$26,109,225**	**$33,819,284**
Amtrak	$5,000,000	$0	$5,000,000
Phase I Funding (Class I & IDOT)	$2,710,059	$3,616,887	$6,326,946
Class I Railroads	$0	$22,492,338	$22,492,338
Anticipated			
To be determined	$0	$0	$0
Total	**$31,520,129**	**$35,250,199**	**$66,770,328**

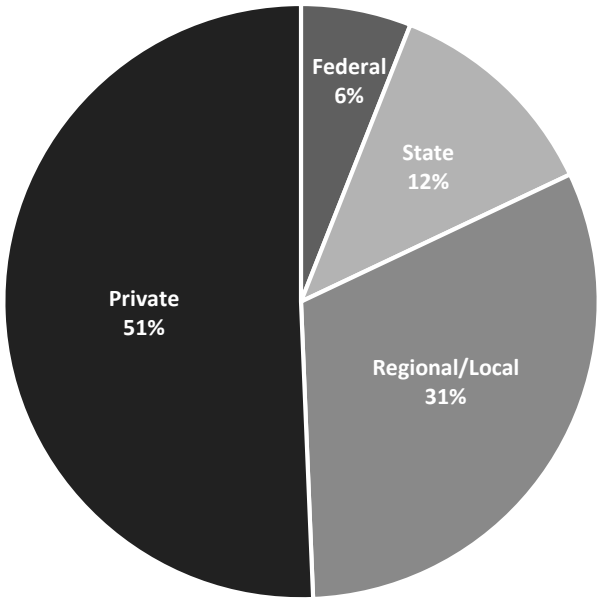


Figure 5: Partially Funded Project Components (P2 and EW2) Dedicated Funding Sources as Share of Total

5. Financing

It was determined by the CREATE partners not to pursue financing through the Transportation Infrastructure Finance and Innovation Act (TIFIA) or Railroad Rehabilitation & Improvement Financing (RRIF). Since its inception in 2003, the CREATE partners have made considerable progress in securing funding and implementing the Program through collaboration and shared prioritization of resources. Over time, the partners have shifted from the traditional 80 percent Federal and 20 percent local share to a diverse range of regional funding sources and railroads matching funds for the program.

6. Project Cash Flow

This chapter provides an estimated annual cash flow schedule showing funding sources versus expenditures for the Project. The cash flow schedule is separated between fully funded Project components (P3 and GS19) and partially funded Project components (P2 and EW2). The CREATE partners determined the allocation of funding to cost items within each Project component. The schedule provides the calendar year for Project activities, which determines the Project cash flow estimate.

6.1 Overview

Table 6 below depicts the estimated yearly cash flow required to implement the 75th Street CIP beginning in 2019. Funding for the construction of P2 and EW2 is still pending and is not reflected in the table below. Preliminary engineering and environmental review (Phase I) activities began in January 2011 and were completed in December 2014 with a Record of Decision dated September 2014.

Table 6: 75th Street CIP Estimated Cash Flow by Year (in Year-of-Expenditure Dollars, Millions) (as of Jan, 2020)

Calendar Year	Prior to 2020	2020	2021	2022	2023	2024	2025	2026	Total
SOURCES									
INFRA Grant	$0.0	$5.7	$13.2	$44.3	$37.9	$18.7	$0.0	$0.0	$119.8
CDOT Surface Transportation Program (STP)	$0.0	$0.0	$1.3	$1.3	$1.4	$0.0	$0.0	$0.0	$4.0
CDOT Congestion Mitigation and Air Quality (CMAQ)	$0.0	$0.2	$0.6	$0.1	$0.0	$0.0	$0.0	$0.0	$0.9
IDOT	$0.0	$1.6	$9.5	$36.0	$30.2	$26.0	$7.7	$0.0	$111.0
Metra	$0.0	$0.0	$5.8	$5.9	$8.7	$2.6	$0.0	$0.0	$23.0
Cook County	$0.1	$1.0	$4.8	$32.8	$22.4	$8.1	$8.5	$0.0	$77.8
City of Chicago	$0.0	$0.0	$2.2	$1.0	$1.0	$0.0	$0.0	$0.0	$4.2
Amtrak	$0.0	$0.0	$1.6	$1.7	$1.7	$0.0	$0.0	$0.0	$5.0
Class I Railroads	$0.0	$0.7	$12.7	$18.4	$33.2	$ 26.1	$4.3	$0.0	$95.3
Phase I Funding (Class I & IDOT)	$10.4	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$10.4
To be determined	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total Sources	**$10.5**	**$9.2**	**$51.8**	**$141.4**	**$136.5**	**$81.5**	**$20.4**	**$0.0**	**$ 451.4**
EXPENDITURES									
P3	$3.9	$7.8	$55.0	$98.8	$79.1	$79.1	$39.4	$0.0	**$363.1**
GS19	$0.2	$0.9	$0.4	$0.0	$3.6	$4.2	$0.0	$0.0	**$9.3**
P2	$2.7	$0.3	$5.6	$19.2	$66.4	$66.4	$66.4	$66.4	**$293.4**
EW2	$3.6	$0.2	$5.8	$19.7	$95.7	$95.7	$95.7	$95.7	**$412.1**
Total Expenditures	**$10.4**	**$9.2**	**$66.8**	**$137.7**	**$244.8**	**$245.4**	**$201.5**	**$162.1**	**$1,077.9**

The estimate of yearly cash flow in this Initial Financial Plan will be updated as required depending on funding, construction phasing updates, and Project cost estimate updates.

6.2 Funded Project Components (P3 and GS19)

Table 7 provides the detailed cash flow including sources of funds and expenditures per year for the funded Project components P3 and GS19. The table shows the anticipated availability of funds to cover expenditures by calendar year.

Table 7: P3 and GS19 Estimated Cash Flow by Year (in Year-of-Expenditure Dollars, Millions) (as of Jan, 2020)

Calendar Year	Prior to 2020	2020	2021	2022	2023	2024	2025	2026	Total
SOURCES									
INFRA Grant	$0.0	$5.7	$13.2	$44.3	$37.9	$18.7	$0.0	$0.0	$119.8
CDOT Surface Transportation Program (STP)	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
CDOT Congestion Mitigation and Air Quality (CMAQ)	$0.0	$0.2	$0.6	$0.0	$0.0	$0.0	$0.0	$0.0	$0.9
IDOT	$0.0	$1.6	$6.9	$33.3	$27.3	$26.0	$7.7	$0.0	$103
Cook County	$0.1	$1.0	$4.8	$32.8	$22.4	$8.1	$8.5	$0.0	$77.7
City of Chicago	$0.0	$0.0	$1.3	$0.0	$0.0	$0.0	$0.0	$0.0	$1.3
Metra	$0.0	$0.0	$0.0	$0.0	$2.0	3.0	$0.0	$0.0	$5.0
Class I Railroads	$0.0	$0.7	$5.5	$11.0	$25.3	$26.1	$4.3	$0.0	$72.8
Phase I Funding (Class I & IDOT)	$4.1	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$4.1
Total Sources	**$4.2**	**$9.2**	**$32.4**	**$121.4**	**$113.0**	**$78.9**	**$20.5**	**$0.0**	**$384.6**
EXPENDITURES									
P3	**$3.9**	**$7.8**	**$26.2**	**$117.6**	**$109.1**	**$79.1**	**$19.4**	**$0.0**	**$363.1**
PE/ENV	$3.9	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$3.9
Final Design	$0.0	$3.4	$10.0	$4.6	$0.0	$0.0	$0.0	$0.0	$18.0
ROW / Utility	$0.0	$0.6	$9.0	$3.2	$0.0	$0.0	$0.0	$0.0	$12.8
Construction	$0.0	$2.2	$1.8	$103.9	$104.7	$74.7	$16.5	$0.0	$303.8
Construction Related Prof Services	$0.0	$1.6	$5.4	$5.9	$4.4	$4.4	$2.9	$0.0	$24.6
GS19	**$0.2**	**$0.9**	**$0.4**	**$0.0**	**$3.6**	**$4.2**	**$0.0**	**$0.0**	**$9.3**
PE/ENV	$0.2	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.2
Final Design	$0.0	$0.9	$0.4	$0.0	$0.0	$0.0	$0.0	$0.0	$1.3
ROW / Utility	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Construction	$0.0	$0.0	$0.0	$0.0	$3.4	$3.9	$0.0	$0.0	$7.3
Construction Related Prof Services	$0.0	$0.0	$0.0	$0.0	$0.2	$0.3	$0.0	$0.0	$0.5
Total Expenditures	**$4.1**	**$8.7**	**$26.6**	**$117.6**	**$112.7**	**$83.3**	**$19.4**	**$0.0**	**$372.4**

6.3 Partially Funded Project Components (P2 and EW2)

Table 8 provides the detailed cash flow including sources of funds and expenditures per year for the partially funded Project components P2 and EW2. The table shows the anticipated availability of funds to cover expenditures by calendar year. Design, ROW acquisition, and utility work for the EW2 and P2 Project components are funded, but funding for construction of these two components is still pending. The December 2026 completion date for P2 and EW2 is contingent upon P2 and EW2 being fully funded. Consequently, the implementation and construction schedule may change and will be re-evaluated as needed and depending on funding availability.

Table 8: P2 and EW2 Estimated Cash Flow by Year (in Year-of-Expenditure Dollars, Millions) (as of Jan, 2020)

Calendar Year	Prior to 2020	2020	2021	2022	2023	2024	2025	2026	Total
SOURCES									
CDOT Surface Transportation Program (STP)	$0.0	$0.0	$1.3	$1.4	$1.3	$0.0	$0.0	$0.0	$4.0
IDOT	$0.0	$0.0	$5.9	$1.3	$0.0	$0.8	$0.0	$0.0	$8.0
Metra	$0.0	$0.0	$5.9	$6.3	$5.8	$0.0	$0.0	$0.0	$18.0
Cook County	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
City of Chicago	$0.0	$0.9	$1.0	$1.0	$1.0	$0.0	$0.0	$0.0	$3.0
Amtrak	$0.0	$0.0	$1.6	$1.8	$1.6	$0.0	$0.0	$0.0	$5.0
Class I Railroads	$0.0	$0.0	$3.8	$8.2	$4.8	$5.8	$0.0	$0.0	$22.5
Phase I Funding (Class I & IDOT)	$6.3	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$6.3
To be determined	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total Sources	**$6.3**	**$0.0**	**$19.4**	**$20.0**	**$14.5**	**$6.7**	**$0.0**	**$0.0**	**$66.8**
EXPENDITURES									
P2	**$2.7**	**$0.0**	**$8.2**	**$15.2**	**$71.0**	**$65.4**	**$65.4**	**$65.4**	**$293.3**
PE/ENV	$2.7	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$2.7
Final Design	$0.0	$0.0	$2.5	$9.0	$2.5	$0.0	$0.0	$0.0	$14.0
ROW / Utility	$0.0	$0.0	$5.7	$6.2	$2.0	$0.0	$0.0	$0.0	$13.9
Construction	$0.0	$0.0	$0.0	$0.0	$61.7	$60.6	$60.6	$60.6	$243.5
Construction Related Prof. Services	$0.0	$0.0	$0.0	$0.0	$4.8	$4.8	$4.8	$4.8	$19.2
EW2	**$3.6**	**$0.0**	**$7.0**	**$11.0**	**$105.8**	**$95.3**	**$94.7**	**$94.7**	**$412.1**
PE/ENV	$3.6	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$3.6
Final Design	$0.0	$0.0	$1.3	$6.4	$9.7	$0.0	$0.0	$0.0	$17.4
ROW / Utility	$0.0	$0.0	$5.7	$4.6	$0.4	$0.0	$0.0	$0.0	$10.7
Construction	$0.0	$0.0	$0.0	$0.0	$88.8	$88.4	$87.8	$87.8	$352.8
Construction Related Prof Services	$0.0	$0.0	$0.0	$0.0	$6.9	$6.9	$6.9	$6.9	$27.6
Total Expenditures	**$6.3**	**$0.0**	**$15.2**	**$26.2**	**$176.8**	**$160.7**	**$160.1**	**$160.1**	**$705.4**

7. Public-Private Partnership Assessment

The CREATE Program is composed of multiple agencies and railroad companies collaborating as a public-private partnership (PPP) to deliver critically needed transportation infrastructure. Five (5) private railroad operators have been instrumental in assessing their own operational and infrastructure needs within the 75th Street CIP Project area. These CREATE railroad partners are:

- BRC – Belt Railway Company of Chicago
- B&OCT – Baltimore & Ohio Chicago Terminal Railroad (a division of CSX Transportation)
- Metra – Metra Commuter Rail
- NS – Norfolk Southern Railway
- UPRR – Union Pacific Railroad

Because of the complexity of the program and the number of entities involved, careful consideration was given to the method of project delivery.

In terms of the use of PPP as a project delivery approach, the Illinois Public-Private Partnership Act (Ill. Rev. Stat. ch. 630 §§ 15/5) provides broad authority for the development of new PPP projects by IDOT and the Tollway Authority. Eligible projects include roads, bridges, intermodal facilities, intercity or high-speed passenger rail or other transportation facilities. Airports and toll roads are not eligible unless authorized by law. The Act can be applied toward reconstruction or expansion of existing assets. The Act describes project identification processes and the need for legislative authorization by joint resolution of the Illinois House and Senate. The Act describes three types of procurement processes: sealed bidding, sealed proposals, and design-build. A preferred proponent's proposal will be reviewed by the State's Commission on Government Forecasting and Accountability. The Governor makes the final award decision.

The CREATE partners have evaluated the project delivery methods permitted under current Illinois law to determine the most suitable method based on overall project scope, implementation, and management. The delivery methods considered include Design-Bid-Build (DBB) and PPP structures, with the principal considerations being opportunities for accelerated project delivery, construction cost certainty, funding source certainty, and risk (i.e., construction risk, and/or long-term operating and maintenance risks). The CREATE partners also utilized the Public-Private Partnership Screen tool (Appendix F) to support their assessment. While the program as a whole is a public-private partnership, the CREATE partners have determined that delivering the project as a PPP yields no potential benefits to efficiency, risk management, innovation, or quality.

8. Risk and Response Strategies

Risk management provides the CREATE partners with a systematic process to identify, analyze, and respond to risks and opportunities throughout all Project phases. Incorporated in the updated 2020 FHWA Cost Estimate Review, preliminary risks to the 75th Street CIP budget and schedule have been identified and recorded in a programmatic risk register (Appendix E). The probability of occurrence and potential cost and schedule impacts to the Project have been assessed and incorporated into the risk register. This risk register is only a preliminary and general list of potential risks. Project component-specific risks will be identified and added to the risk register on a regular basis during Phase II and Phase III. The most significant of these cost and schedule risks that could impact the Project are explained in the next sections.

8.1 Threats to Increase Project Costs

Construction Change Orders

Likelihood of occurrence 100%; Most likely total impact if occurring $39 million
P3 - $13.4 M, GS19 - $0.3 M, P2 - $10.3 M, and EW2 - $14.9 M

Change orders are likely during construction due to elements such as unforeseen conditions or unanticipated changes to the design. A potential range of impact was agreed to and modeled based on a range from a low of 2% to a high of 10%, with a most likely value of 6% of project costs for all Project components: P3, GS19, P2 and EW2. This threat will be mitigated through strong change management controls.

Private Grade Crossing Access to NS Landers Yard

Likelihood of occurrence 80%; Most likely total impact if occurring $2.5 million (EW2)

Currently, NS personnel access Landers Yard via a private grade crossing. This at-grade access currently crosses Metra tracks and has operational and safety implications that the CREATE Project team had not captured previously. A solution to the crossing will likely be addressed in component EW2. Mitigation is continued coordination among the CREATE partners and timely decision on implementation.

Right-of-Way Acquisition

Likelihood of occurrence (varies)%; Most likely total impact if occurring $2.15 million
P3 - 50%/$0.5 M, P2 - 90%/$0.9 M, and EW2 - 75%/$0.75 M

Additional right-of-way is likely to be needed for three of the Project components as final designs are completed and the full scope becomes known. Additional right-of-way required would likely be in the form of construction easements and strip takes. Mitigation is continued coordination among the CREATE partners and timely decision on design finalization and impacts to the right-of-way procurement processes.

Additional Utility Relocations

Likelihood of occurrence 80%; Most likely total impact if occurring $7.9 million
P3 - $1.8 M, GS19 - $2.25 M, P2 - $1.6 M, and EW2 - $2.3 M

Additional utility relocation costs are likely due to the combination of overlooked utilities in design and the expense of third-party delivery of utility relocation construction services. Mitigation is continued coordination among the CREATE partners and utility providers impacted and timely decision on design

finalization. During procurement, coordination of construction schedules, bidding and third-party delivery of utility relocation construction services will mitigate this risk.

Structure Rehabilitation Scope Changes

Likelihood of occurrence (varies)%; Most likely total impact $30.5 million

Changes in Structure Rehabilitation Scope:

P3 – 80%/$3.7 M and P2 – 80%/$3.7 M

Changes in Structural Steel Scope:

P3 – 80%/$7.6 M and EW2 – 80%/$7.6 M

Changes in Geotechnical Scope:

P3 – 80%/$7.3 M and EW2 – 80%/$7.3 M

Increases in Special Waste at Abutments:

P3 – 5%/$0.1 M, P2 – 5%/$0.1 M, and E2 – 5%/$0.1 M

Additional costs are likely for the items listed above, due to bridge conditions having changed since the scoping of the rehabilitation in 2014. Additionally, as detailed design progresses it is likely that additional structure scope will be added as details are finalized and site information is gathered. Other threats modeled that were low in probability and potential impacts include the potential for additional railroad track replacement should there be design changes to the geometry of the track layout, additional temporary track and signal work for extended duration or if portion P3 is not first in the project sequence, potential additional work on the viaducts, and miscellaneous potential quantity variances.

8.2 Opportunities to Reduce Project Costs

There were no opportunities modeled related to the potential reduction of Project costs. Successfully mitigating the largest cost threats (structures increase and construction change orders) will in effect reduce the costs of the Project. The management of these threats is the opportunity to reduce Project costs.

8.3 Threats to Delay Project Schedule

These possible delays are concentrated on the front end of the delivery of each Project component and can be mitigated by the Project team monitoring these risks and completing tasks in a timely manner.

Buy America

Likelihood - 10%; Most likely impact if occurring 1.9 months total

P3 - 0.4 months, GS19 - 0.4 months, P2 - 0.7 months, and EW2 - 0.4 months

This threat accounts for possible delays in obtaining materials while ensuring compliance with Buy America requirements. Mitigation of this threat will require the Project team to procure specialty products with sufficient lead time to obtain domestic steel and iron for material that will be permanently incorporated into the Project. Additionally, the contractor or railroad procurement of specialty materials will need to account for delivery times as well.

Permitting

Likelihood – 15% to 30% (varies by stage of design completed); Most likely impact if occurring 5.4 months P3 - 15%/0.4 months, GS19 - 15%/0.4 months, P2 - 30%/1.8 months, and EW2 - 30%/1.8 months

This threat is due to possible delays in obtaining necessary construction roadway, street, and sidewalk permits. In addition, a City Council approval for the new GS19 structure over the public way is required. Mitigation of these threats will require close coordination between the designers and permitting authorities.

Railroad Operations & Weather Windows

Likelihood – 15% to 50%; Most likely impact if occurring 7.6 months (varies by project component and stage of design completed

P3 - 15%/0.9 months, GS19 - 15%/0.7 months, and P2 - 50%/6.0 months

This threat is identified as possible delays due to the continuation of rail operations during construction. Mitigation of this threat will require close coordination between the railroads and the contractor related to peak time needs and potential conflicts. Additionally, the current construction schedule assumes 4 months per year of slowed or inactive construction due to the impact of inclement weather. This schedule could be improved should the winter weather be better than typical and/or the contractor is able to schedule specific construction during the winter months.

Right-of-Way

Likelihood – 80%; Most likely impact 14.4 months

P3 - 4.8 months, P2 - 4.8 months, and EW2 - 4.8 months

Mitigation of this threat will require good management of land acquisition efforts.

Utilities

Likelihood – 30% -50%; Most likely impact 4.1 months

P3 - 30%/0.6 months, P2 - 30%/1.3 months, and EW2 - 50%/2.2months

The threat identifies the possible delays due to the relocation of utilities either missed or unaccounted for during the design process. Additionally, the inability of third-party contractors to accommodate required work on a timely basis will cause construction delay during delivery of each Project component. Mitigation of this threat will require close coordination between designers, contractors, railroads and affected utilities during the life of the Project.

8.4 Opportunities to Advance Project Schedule

There were no opportunities modeled related to the potential to advance the Project schedule. Successful mitigation of the largest schedule threats (right-of-way acquisition, utilities and railroad operations and weather windows) will in effect reduce the duration of the Project. The management of these threats is the opportunity to advance Project schedule.

8.5 Strategies to Reduce Risk

The following general strategies have been identified to reduce risk on the 75th Street CIP:

- "Design to Budget" – The design consultant's contract will be written such that the Project design must be completed such that it can be built in accordance with the established construction budget.
- Early Design Reviews – During final design, high risk areas of construction, such as subsurface utility work, will be identified by the Railroad Section Managers and/or the CREATE Implementation Team and resources will be allocated to reduce the potential impact of the risk.
- Value Engineering – An independent value engineering analysis will be conducted by the CREATE Implementation Team in close coordination with IDOT CREATE Program Manager (OIPI) and FHWA to identify cost and schedule savings or mitigate potential risks.
- Constructability Reviews – Constructability reviews of design documents will be conducted by the IDOT CREATE Program Manager (OIPI) and the CREATE Implementation Team to determine the most cost-effective construction methods and practices.

The risk and response strategies in this Initial Financial Plan will be discussed by the CREATE partners on a quarterly basis. Risks will be updated (added, modified, or retired) as necessary in each Annual Update as the Project progresses.

9. Annual Update Cycle

IDOT OIPI recommends the annual reporting period to coincide with the close of the calendar year. The annual Financial Plan updates will be provided to FHWA within 90 days of the close of the reporting period, by March 31 of each year. The first Annual Update will be presented to FHWA by March 31, 2022 and will cover updates through the end of calendar year 2021 (December 31, 2021). Examples of items that will be expanded upon in the annual updates, based on the anticipated progress of the Project, are as follows:

- Updates to the Project schedule detailing those components of the Project that will be advanced as funding becomes available, or delayed due to lack of funding.
- Updates to the cost estimates based on the completion of more detailed design work and re-estimation of unit costs, as well as continued monitoring of market and inflationary forces.
- Detailed cash flow forecasting (i.e. of anticipated encumbrances/obligations as distinct from anticipated cash needs).
- Tracking of actual expenditures against projected cash flow needs.
- Tracking of actual costs against projected funding and updated Project costs as well as strategies to address any funding shortfalls, as necessary. Incorporation of any additional funding sources and/or financing approaches to address any funding gaps that may have developed since this IFP.

Given the importance of managing overall costs, IDOT OIPI—in coordination with the CREATE Program partners—will continue to make efforts to incorporate alternative funding and finance approaches to help manage the impact of inflation on overall Project costs.

10. Summary of Cost Changes Since Previous FP

Since this is the Initial Financial Plan, this chapter will be completed in the subsequent Annual Updates.

11. Cost and Funding Trends Since IFP

Since this is the Initial Financial Plan, this chapter will be completed in the subsequent Annual Updates.

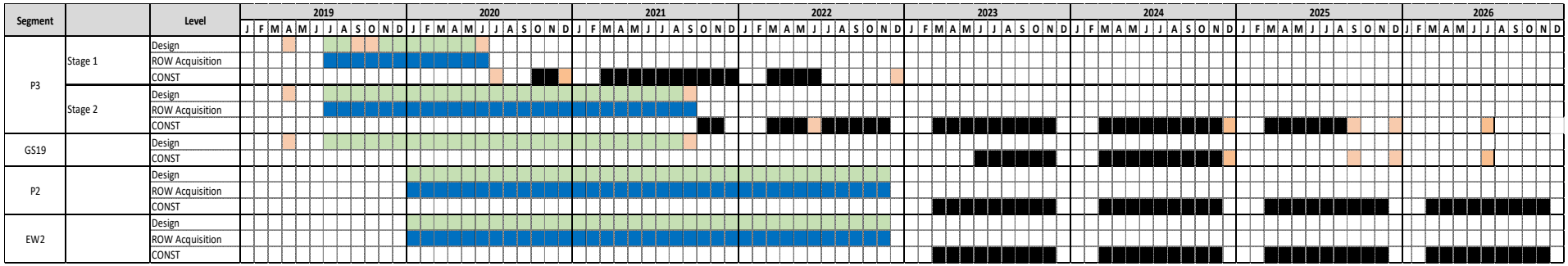
12. Schedule Changes Since Previous FP

Since this is the Initial Financial Plan, this chapter will be completed in the subsequent Annual Updates.

13. Schedule Trends Since IFP

Since this is the Initial Financial Plan, this chapter will be completed in the subsequent Annual Updates.

Appendix A: 75th Street CIP Project Development and Construction Schedule



Design	Phase II Design includes, FD/ROW/MUSRA/UT Relocation
ROW Acquisition	
Const	CONST - Phase III
INFRA Milestones	INFRA Funding Milestones Dates

Figure 6: 75th Street CIP Project Development and Construction Schedule

Table 9: Project Component Key Dates

The baseline key dates are based on the above 75th Street CIP Project Development and Construction Schedule.

Schedule Key Activity	Key Dates Baseline Plan (Ref. Appendix A)	Key Dates As of July 1, 2020 Project Schedule
P3 Project Component - Forest Hill Junction		
Stage I - Shoofly Construction		
Start Design	March 31, 2019	August 5, 2019
Major projects requirement complete	September 30, 2019	August 14, 2020
Construction obligation	October 15, 2019	September 30, 2020
PS&E complete	June 30, 2020	August 31, 2020
Begin construction	December 15, 2020	December 15, 2020
Operationally and substantially Complete	December 31, 2022	December 31, 2022
Stage II - Final Construction		
Start Design	March 31, 2019	August 5, 2019
PS&E Complete	September 30, 2021	September 30, 2021
Begin Construction	June 30, 2022	June 30, 2022
Operationally and substantially complete	December 31, 2024	December 31, 2024
Project landscaping and cleanup	September 30, 2025	September 30, 2025
Final Invoicing (Project Completion)	December 31, 2025	December 31, 2025
Project closeout	June 30, 2026	June 30, 2026
GS19 Project Component - Level Crossing		
Start Design	March 31, 2019	August 5, 2019
PS&E Complete	September 30, 2021	September 30, 2021
Begin Construction	June 30, 2022	June 30, 2022
Operationally and substantially complete	December 31, 2024	December 31, 2024
Project landscaping and cleanup	September 30, 2025	September 30, 2025
Final Invoicing (Project Completion)	December 31, 2025	December 31, 2025
Project closeout	June 30, 2026	June 30, 2026
P2 Project Component - Rock Island District Flyover		
Start Design	January 31, 2020	August 1, 2020
PS&E Complete	November 30, 2022	November 30, 2022
Begin Construction	March 1, 2023	March 1, 2023
Operationally and substantially complete	October 1, 2025	October 1, 2025
Project landscaping and cleanup	January 2, 2026	January 2, 2026
Final Invoicing (Project Complete)	April 1, 2026	April 1, 2026
Project closeout	November 2, 2026	November 2, 2026

Schedule Key Activity	Key Dates Baseline Plan (Ref. Appendix A)	Key Dates As of July 1, 2020 Project Schedule
EW2 Project Component		
Start Design	January 31, 2020	September 1, 2020
PS&E Complete	November 30, 2022	November 30, 2022
Begin Construction	March 1, 2023	March 1, 2023
Operationally and substantially complete	October 1, 2025	October 1, 2025
Project landscaping and cleanup	January 2, 2026	January 2, 2026
Final Invoicing (Project Complete)	April 1, 2026	April 1, 2026
Project closeout	November 2, 2026	November 2, 2026

Appendix B: 75th Street CIP Cost Estimate Developed in 2019

Table 10: 75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
1.0	Removals / Demolition						**$31,503,299**	20%	**$6,300,660**	**$37,803,959**
a	Track Removal	(*)	(*)	(*)			**$10,398,299**	20%	**$2,079,660**	**$12,477,959**
b	Remove Existing Interlocking or Control Point (CP)		2	6		LS	**$20,770,000**	20%	**$4,154,000**	**$24,924,000**
c	Remove Signal Bridge					EA	**$0**	-	**$0**	**$0**
d	Remove Signal Cantilever					TF	**$0**	-	**$0**	**$0**
e	Remove Ground Signal					LS	**$0**	-	**$0**	**$0**
f	ROW Demolition	15		2		EA	**$335,000**	20%	**$67,000**	**$402,000**
i	*Multi-unit (Tenant)*	*7*		*1*		*EA*	***$200,000***	*20%*	***$40,000***	***$240,000***
ii	*Single-family (Owner)*	*8*		*1*		*EA*	***$135,000***	*20%*	***$27,000***	***$162,000***
g							**$0**	-	**$0**	**$0**
h							**$0**	-	**$0**	**$0**
i							**$0**	-	**$0**	**$0**
2.0	Civil - Earthwork						**$26,676,331**	20%	**$5,327,301**	**$32,003,633**
a	Earth Excavation	9402	19556	151425		CY	**$7,230,868**	20%	**$1,446,174**	**$8,677,042**
b	Furnished Fill	6222	10611	60725		CY	**$2,845,744**	20%	**$569,149**	**$3,414,892**
c	Subballast	10960	5158	51171		CY	**$3,701,723**	20%	**$740,345**	**$4,442,067**
d	Topsoil Excavation		17778	39507		SY	**$586,163**	20%	**$117,233**	**$703,395**
e	Access Road		2733	57112		SY	**$934,732**	20%	**$186,946**	**$1,121,679**
i	*Access Road (METRA)*					*SY*	***$0***	*-*	***$0***	***$0***
ii	*Access Road (UP)*			*6389*		*SY*	***$127,780***	*20%*	***$25,556***	***$153,336***
iii	*Access Road (NS)*			*42084*		*SY*	***$631,260***	*20%*	***$126,252***	***$757,512***
iv	*Access Road (BRC)*			*8639*		*SY*	***$121,032***	*20%*	***$24,206***	***$145,239***
v	*Access Road (CSX)*		*2733*			*SY*	***$54,660***	*20%*	***$10,932***	***$65,592***
f	Clear and Grub Tress for Access Roads		4.82	2.07		Acre	**$178,701**	20%	**$35,740**	**$214,441**

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
g	Wrightwood Station Platform	1				LS	**$53,100**	5%	**$2,655**	**$55,755**
h	Drainage (non viaduct improvements)	(*)	(*)	(*)	(*)	(*)	**$5,502,182**	20%	**$1,100,436**	**$6,602,619**
i	*Catch Basin*	*2*	*3*	*16*		*EA*	***$72,180***	*20%*	***$14,436***	***$86,616***
ii	*Catch Basin with Vortex Restrictor*	*3*	*2*	*12*	*4*	*EA*	***$94,815***	*20%*	***$18,963***	***$113,778***
iii	*Deep Catch Basin with Vortex Restrictor*			*7*		*EA*	***$42,000***	*20%*	***$8,400***	***$50,400***
iv	*4" diameter Manholes*	*9*		*23*		*EA*	***$74,221***	*20%*	***$14,844***	***$89,065***
v	*4' Diameter Manhole with Vortex Restrictor*			*2*		*EA*	***$5,600***	*20%*	***$1,120***	***$6,720***
vi	*4" Perforated Pipe Underdrain*	*1680*	*8600*	*43315*	*7300*	*LF*	***$2,888,560***	*20%*	***$577,712***	***$3,466,271***
vii	*6" Storm Sewer*	*500*				*LF*	***$17,510***	*20%*	***$3,502***	***$21,012***
viii	*8" Perforated Storm Sewer*			*670*		*LF*	***$42,880***	*20%*	***$8,576***	***$51,456***
ix	*8" Storm Sewer*		*85*	*325*		*LF*	***$16,475***	*20%*	***$3,295***	***$19,770***
x	*8" RCP Storm Sewer (Jacked)*			*170*		*LF*	***$27,200***	*20%*	***$5,440***	***$32,640***
xi	*12" Storm Sewer*	*655*		*3660*	*145*	*LF*	***$182,811***	*20%*	***$36,562***	***$219,373***
xii	*12" RCP Storm Sewer (Jacked)*			*165*		*LF*	***$39,600***	*20%*	***$7,920***	***$47,520***
xiii	*18" RCP Storm Sewer*			*380*	*40*	*LF*	***$22,000***	*20%*	***$4,400***	***$26,400***
xiv	*18" RCP End Section*			*9*	*2*	*EA*	***$10,100***	*20%*	***$2,020***	***$12,120***
xv	*24" RCP Storm Sewer*	*290*		*465*		*LF*	***$45,822***	*20%*	***$9,164***	***$54,986***
xvi	*24" RCP End Section*			*1*		*EA*	***$1,200***	*20%*	***$240***	***$1,440***
xvii	*36" RCP Storm Sewer*	*350*	*1020*	*175*	*40*	*LF*	***$171,063***	*20%*	***$34,213***	***$205,275***
xviii	*36" RCP End Section*		*2*		*1*	*EA*	***$5,250***	*20%*	***$1,050***	***$6,300***
xix	*Drainage Ditch Grading*		*3980*	*4960*	*2100*	*LF*	***$152,740***	*20%*	***$30,548***	***$183,288***
xx	*2" Storm Sewer*			*700*		*LF*	***$14,000***	*20%*	***$2,800***	***$16,800***
xxi	*Riprap*			*70*		*SY*	***$4,200***	*20%*	***$840***	***$5,040***
xxii	*Check Dam*	*8*	*8*	*14*		*EA*	***$72,480***	*20%*	***$14,496***	***$86,976***
xxiii	*Clean and Televise Existing Sewer*			*2070*		*LF*	***$72,450***	*20%*	***$14,490***	***$86,940***
xxiv	*Detention Structure (80' x 80' x 5')*			*1*		*EA*	***$320,000***	*20%*	***$64,000***	***$384,000***
xxv	*Detention Structure (100' x 100' x 5')*			*1*		*EA*	***$485,000***	*20%*	***$97,000***	***$582,000***
xxvi	*Fertilizer and Seeding (Permanent + Temp)*	*0.97*	*2.33*	*15.11*	*1.59*	*Acre*	***$121,276***	*20%*	***$24,255***	***$145,532***

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
xxvii	*Erosion Control (SW3P)*	*0.05*	*0.12*	*0.75*	*0.08*	*LS*	***$500,750***	*20%*	***$100,150***	***$600,900***
i	71st Street grade separation				1	(*)	**$581,120**	20%	**$116,224**	**$697,343**
j	Union Avenue			1		(*)	**$397,799**	20%	**$79,560**	**$477,358**
i	*Full Depth Pavement Removal*			*1516.66667*		*SY*	***$44,954***	*20%*	***$8,991***	***$53,945***
ii	*Sidewalk Removal*			*3660*		*SF*	***$5,819***	*20%*	***$1,164***	***$6,983***
iii	*Tree Removal*			*3*		*EA*	***$2,700***	*20%*	***$540***	***$3,240***
iv	*Curb & Gutter Removal*			*610*		*LF*	***$4,069***	*20%*	***$814***	***$4,882***
v	*5" PC Sidewalk*			*2878.5*		*SF*	***$17,386***	*20%*	***$3,477***	***$20,863***
vi	*Curb & Gutter*			*605*		*LF*	***$14,750***	*20%*	***$2,950***	***$17,700***
vii	*Pavement Reconstruction*			*1436*		*SY*	***$162,900***	*20%*	***$32,580***	***$195,480***
viii	*Sodding*			*501.111111*		*SY*	***$3,723***	*20%*	***$745***	***$4,468***
ix	*Water Main Removal*			*200*		*LF*	***$6,600***	*20%*	***$1,320***	***$7,920***
x	*Encased Water Main*			*200*		*LF*	***$43,170***	*20%*	***$8,634***	***$51,804***
xi	*Water Main*			*200*		*LF*	***$44,000***	*20%*	***$8,800***	***$52,800***
xii	*Sewer Removal*			*200*		*LF*	***$5,080***	*20%*	***$1,016***	***$6,096***
xiii	*4' Diam Manhole*			*2*		*Each*	***$4,600***	*20%*	***$920***	***$5,520***
xiv	*Catch Basin*			*4*		*Each*	***$12,000***	*20%*	***$2,400***	***$14,400***
xv	*18" Sewer*			*200*		*LF*	***$16,380***	*20%*	***$3,276***	***$19,655***
xvi	*8" sewer*			*72*		*LF*	***$9,668***	*20%*	***$1,934***	***$11,601***
k	6'-High Chain Link Fence (NS)			7415		LF	**$593,200**	20%	**$118,640**	**$711,840**
l	71st Street (GS19)_(D)_(GS 19)				1	LS	**$4,071,000**	20%	**$814,200**	**$4,885,200**
m							**$0**	-	**$0**	**$0**
3.0	Track work						**$102,472,403**	20%	**$20,494,481**	**$122,966,883**
a	New Track Construction	32439	46785	76242		TF	**$51,398,273**	20%	**$10,279,655**	**$61,677,927**
b	Turnouts	6	15	60		EA	**$15,246,600**	20%	**$3,049,320**	**$18,295,920**
c	Crossovers	9	21	25		EA	**$26,546,050**	20%	**$5,309,210**	**$31,855,260**
d	Diamonds		10			EA	**$2,400,000**	20%	**$480,000**	**$2,880,000**
e	Track Modifications	17066	6762	33021		TF	**$6,476,893**	20%	**$1,295,379**	**$7,772,271**
f	Road Crossings (Permanent or Temporary)			465		TF	**$404,588**	20%	**$80,918**	**$485,505**
h							**$0**	-	**$0**	**$0**
i							**$0**	-	**$0**	**$0**

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
j							**$0**	-	**$0**	**$0**
4.0	Signals & Systems						**$117,295,000**	20%	**$23,459,000**	**$140,754,000**
a	New Control Point	4	1	11		LS	**$88,295,000**	20%	**$17,659,000**	**$105,954,000**
b	Interim Signal work to support cutovers and construction phasing.		3	3		LS	**$22,500,000**	20%	**$4,500,000**	**$27,000,000**
c	Signal work to add Turnout to existing CP					LS	**$0**	-	**$0**	**$0**
d	Signal work to add Crossover to existing CP					LS	**$0**	-	**$0**	**$0**
e	Electric Lock for Industry Turnout					EA	**$0**	-	**$0**	**$0**
f	Automatic Block Signals	5				LS	**$3,250,000**	20%	**$650,000**	**$3,900,000**
g	Automatic Highway Crossing Warning Sys.- Interface with existing signal system	3				LS	**$1,750,000**	20%	**$350,000**	**$2,100,000**
h	Pedestrian Crossings	1				LS	**$500,000**	20%	**$100,000**	**$600,000**
i	*Wrightwood Station*	*1*				*LS*	***$500,000***	*20%*	***$100,000***	***$600,000***
i	Metra Canal Street Control Office	1				LS	**$1,000,000**	20%	**$200,000**	**$1,200,000**
j							**$0**	-	**$0**	**$0**
k							**$0**	-	**$0**	**$0**
5.0	Structures						**$292,950,735**	20%	**$58,590,147**	**$351,540,882**
a	Bridge Repair Locations	12	13	56		LS	**$292,950,735**	20%	**$58,590,147**	**$351,540,882**
b							**$0**	-	**$0**	**$0**

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
c							**$0**	-	**$0**	**$0**
6.0	Viaducts	7	4	26			**$5,517,692**	20%	**$1,103,538**	**$6,621,230**
a	Kedzie Ave - South of 79th St			1		LS	**$46,650**	20%	**$9,330**	**$55,980**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*9*		*EA*	***$31,050***	*20%*	***$6,210***	***$37,260***
iv	*Lighting*			*8*		*EA*	***$15,600***	*20%*	***$3,120***	***$18,720***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
b	79th St - East of Kedzie Ave			1		LS	**$81,000**	20%	**$16,200**	**$97,200**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*			*1*		*LS*	***$42,000***	*20%*	***$8,400***	***$50,400***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*			*20*		*EA*	***$39,000***	*20%*	***$7,800***	***$46,800***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
c	Western Ave - at 75th St			1		LS	**$65,400**	20%	**$13,080**	**$78,480**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*2*		*EA*	***$6,900***	*20%*	***$1,380***	***$8,280***
iv	*Lighting*			*30*		*EA*	***$58,500***	*20%*	***$11,700***	***$70,200***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
d	Damen Ave - at 75th St			1		LS	**$44,600**	20%	**$8,920**	**$53,520**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*			*20*		*EA*	***$39,000***	*20%*	***$7,800***	***$46,800***
v	*Inlet & Sewer*			*1*		*LS*	***$5,600***	*20%*	***$1,120***	***$6,720***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
e	Ashland Ave - at 75th St			1		LS	**$38,100**	20%	**$7,620**	**$45,720**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*2*		*EA*	***$6,900***	*20%*	***$1,380***	***$8,280***
iv	*Lighting*			*16*		*EA*	***$31,200***	*20%*	***$6,240***	***$37,440***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
f	Loomis Blvd - at 75th St			1		LS	**$73,900**	20%	**$14,780**	**$88,680**
i	*Pavement*			*1*		*LS*	***$40,000***	*20%*	***$8,000***	***$48,000***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
iv	*Lighting*			*16*		*EA*	***$31,200***	*20%*	***$6,240***	***$37,440***
v	*Inlet & Sewer*			*1*		*LS*	***$1,700***	*20%*	***$340***	***$2,040***
vi	*Bridge Drainage*			*1*		*LS*	***$1,000***	*20%*	***$200***	***$1,200***
g	Racine Ave - at 75th St			1		LS	**$89,500**	20%	**$17,900**	**$107,400**
i	*Pavement*			*1*		*LS*	***$40,000***	*20%*	***$8,000***	***$48,000***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*			*22*		*EA*	***$42,900***	*20%*	***$8,580***	***$51,480***
v	*Inlet & Sewer*			*1*		*LS*	***$5,600***	*20%*	***$1,120***	***$6,720***
vi	*Bridge Drainage*			*1*		*LS*	***$1,000***	*20%*	***$200***	***$1,200***
h	Aberdeen St - at 75th St			1		LS	**$32,200**	20%	**$6,440**	**$38,640**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*			*16*		*EA*	***$31,200***	*20%*	***$6,240***	***$37,440***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*			*1*		*LS*	***$1,000***	*20%*	***$200***	***$1,200***
i	Morgan St - at 75th St			1		LS	**$38,100**	20%	**$7,620**	**$45,720**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*2*		*EA*	***$6,900***	*20%*	***$1,380***	***$8,280***
iv	*Lighting*			*16*		*EA*	***$31,200***	*20%*	***$6,240***	***$37,440***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
j	Peoria St - at 75th St			1		LS	**$277,250**	20%	**$55,450**	**$332,700**
i	*Pavement*			*1*		*LS*	***$198,000***	*20%*	***$39,600***	***$237,600***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*3*		*EA*	***$10,350***	*20%*	***$2,070***	***$12,420***
iv	*Lighting*			*16*		*EA*	***$31,200***	*20%*	***$6,240***	***$37,440***
v	*Inlet & Sewer*			*1*		*LS*	***$37,700***	*20%*	***$7,540***	***$45,240***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
k	Halsted St - at 75th St			1		LS	**$299,550**	20%	**$59,910**	**$359,460**
i	*Pavement*			*1*		*LS*	***$203,000***	*20%*	***$40,600***	***$243,600***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*3*		*EA*	***$10,350***	*20%*	***$2,070***	***$12,420***
iv	*Lighting*			*14*		*EA*	***$27,300***	*20%*	***$5,460***	***$32,760***
v	*Inlet & Sewer*			*1*		*LS*	***$57,900***	*20%*	***$11,580***	***$69,480***
vi	*Bridge Drainage*			*1*		*LS*	***$1,000***	*20%*	***$200***	***$1,200***
l	Union Ave - at 75th St			1		LS	**$0**	20%	**$0**	**$0**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*24*		*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*					*EA*	***$0***	-	***$0***	***$0***

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
m	73rd St Pedway - East of Hamilton Park	1				LS	**$34,243**	20%	**$6,849**	**$41,092**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*	*1*				*LS*	***$3,388***	*20%*	***$678***	***$4,066***
iii	*ADA Ramps*	*4*				*EA*	***$16,698***	*20%*	***$3,340***	***$20,038***
iv	*Lighting*	*6*				*EA*	***$14,157***	*20%*	***$2,831***	***$16,988***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
n	74th St - East of Normal Ave	1				LS	**$142,720**	20%	**$28,544**	**$171,263**
i	*Pavement*	*1*				*LS*	***$30,250***	*20%*	***$6,050***	***$36,300***
ii	*Sidewalk*	*1*				*LS*	***$41,140***	*20%*	***$8,228***	***$49,368***
iii	*ADA Ramps*	*3*				*EA*	***$12,524***	*20%*	***$2,505***	***$15,028***
iv	*Lighting*	*14*				*EA*	***$33,033***	*20%*	***$6,607***	***$39,640***
v	*Inlet & Sewer*	*1*				*LS*	***$25,773***	*20%*	***$5,155***	***$30,928***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
o	76th St - West of Parnell Ave			1		LS	**$159,841**	20%	**$31,968**	**$191,809**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*			*1*		*LS*	***$50,820***	*20%*	***$10,164***	***$60,984***
iii	*ADA Ramps*			*10*		*EA*	***$41,745***	*20%*	***$8,349***	***$50,094***
iv	*Lighting*			*28*		*EA*	***$66,066***	*20%*	***$13,213***	***$79,279***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*			*1*		*LS*	***$1,210***	*20%*	***$242***	***$1,452***
p	78th St - East of Wallace St			1		LS	**$289,795**	20%	**$57,959**	**$347,754**
i	*Pavement*			*1*		*LS*	***$183,920***	*20%*	***$36,784***	***$220,704***
ii	*Sidewalk*			*1*		*LS*	***$37,510***	*20%*	***$7,502***	***$45,012***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*			*24*		*EA*	***$56,628***	*20%*	***$11,326***	***$67,954***
v	*Inlet & Sewer*			*1*		*LS*	***$10,527***	*20%*	***$2,105***	***$12,632***
vi	*Bridge Drainage*			*1*		*LS*	***$1,210***	*20%*	***$242***	***$1,452***
q	79th St - East of Wallace St			1		LS	**$86,818**	20%	**$17,364**	**$104,181**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*2*		*EA*	***$8,349***	*20%*	***$1,670***	***$10,019***
iv	*Lighting*			*23*		*EA*	***$54,269***	*20%*	***$10,854***	***$65,122***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*			*1*		*LS*	***$24,200***	*20%*	***$4,840***	***$29,040***
r	80th St - East of Wallace St			1		LS	**$337,288**	20%	**$67,458**	**$404,745**
i	*Pavement*			*1*		*LS*	***$211,750***	*20%*	***$42,350***	***$254,100***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*2*		*EA*	***$8,349***	*20%*	***$1,670***	***$10,019***

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
iv	*Lighting*			*23*		*EA*	***$54,269***	*20%*	***$10,854***	***$65,122***
v	*Inlet & Sewer*			*1*		*LS*	***$37,510***	*20%*	***$7,502***	***$45,012***
vi	*Bridge Drainage*			*1*		*LS*	***$25,410***	*20%*	***$5,082***	***$30,492***
s	81st St - East of Wallace St			1		LS	**$256,702**	20%	**$51,340**	**$308,042**
i	*Pavement*			*1*		*LS*	***$62,920***	*20%*	***$12,584***	***$75,504***
ii	*Sidewalk*			*1*		*LS*	***$50,820***	*20%*	***$10,164***	***$60,984***
iii	*ADA Ramps*			*2*		*EA*	***$8,349***	*20%*	***$1,670***	***$10,019***
iv	*Lighting*			*27*		*EA*	***$63,707***	*20%*	***$12,741***	***$76,448***
v	*Inlet & Sewer*			*1*		*LS*	***$69,696***	*20%*	***$13,939***	***$83,635***
vi	*Bridge Drainage*			*1*		*LS*	***$1,210***	*20%*	***$242***	***$1,452***
t	Vincennes Ave - South of 83rd St			1		LS	**$159,902**	20%	**$31,980**	**$191,882**
i	*Pavement*			*1*		*LS*	***$48,400***	*20%*	***$9,680***	***$58,080***
ii	*Sidewalk*			*1*		*LS*	***$59,290***	*20%*	***$11,858***	***$71,148***
iii	*ADA Ramps*			*4*		*EA*	***$16,698***	*20%*	***$3,340***	***$20,038***
iv	*Lighting*			*13*		*EA*	***$30,674***	*20%*	***$6,135***	***$36,808***
v	*Inlet & Sewer*			*1*		*LS*	***$3,630***	*20%*	***$726***	***$4,356***
vi	*Bridge Drainage*			*1*		*LS*	***$1,210***	*20%*	***$242***	***$1,452***
u	Vincennes Ave - North of 84th St			1		LS	**$394,460**	20%	**$78,892**	**$473,352**
i	*Pavement*			*1*		*LS*	***$48,400***	*20%*	***$9,680***	***$58,080***
ii	*Sidewalk*			*1*		*LS*	***$64,130***	*20%*	***$12,826***	***$76,956***
iii	*ADA Ramps*			*2*		*EA*	***$8,349***	*20%*	***$1,670***	***$10,019***
iv	*Lighting*			*76*		*EA*	***$179,322***	*20%*	***$35,864***	***$215,186***
v	*Inlet & Sewer*			*1*		*LS*	***$60,379***	*20%*	***$12,076***	***$72,455***
vi	*Bridge Drainage*			*1*		*LS*	***$33,880***	*20%*	***$6,776***	***$40,656***
v	Holland Rd - North of 87th St			1		LS	**$47,190**	20%	**$9,438**	**$56,628**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*			*20*		*EA*	***$47,190***	*20%*	***$9,438***	***$56,628***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
w	87th St - East of Holland Rd			1		LS	**$33,033**	20%	**$6,607**	**$39,640**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*			*14*		*EA*	***$33,033***	*20%*	***$6,607***	***$39,640***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
x	87th St - East of Eggleston Ave			1		LS	**$20,086**	20%	**$4,017**	**$24,103**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*			*8*		*EA*	***$18,876***	*20%*	***$3,775***	***$22,651***

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*			*1*		*LS*	***$1,210***	*20%*	***$242***	***$1,452***
y	88th St - West of Harvard Ave			1		LS	**$56,991**	20%	**$11,398**	**$68,389**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*8*		*EA*	***$33,396***	*20%*	***$6,679***	***$40,075***
iv	*Lighting*			*10*		*EA*	***$23,595***	*20%*	***$4,719***	***$28,314***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
z	72nd St - at Stewart Ave	1				LS	**$45,012**	20%	**$9,002**	**$54,014**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*	*4*				*EA*	***$16,698***	*20%*	***$3,340***	***$20,038***
iv	*Lighting*	*12*				*EA*	***$28,314***	*20%*	***$5,663***	***$33,977***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
aa	75th St - at Normal Ave	1				LS	**$148,830**	20%	**$29,766**	**$178,596**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*	*1*				*LS*	***$13,310***	*20%*	***$2,662***	***$15,972***
iii	*ADA Ramps*	*2*				*EA*	***$8,349***	*20%*	***$1,670***	***$10,019***
iv	*Lighting*	*16*				*EA*	***$37,752***	*20%*	***$7,550***	***$45,302***
v	*Inlet & Sewer*	*1*				*LS*	***$60,379***	*20%*	***$12,076***	***$72,455***
vi	*Bridge Drainage*	*1*				*LS*	***$29,040***	*20%*	***$5,808***	***$34,848***
ab	76th St - at Normal Ave	1				LS	**$85,547**	20%	**$17,109**	**$102,656**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*	*1*				*LS*	***$13,310***	*20%*	***$2,662***	***$15,972***
iii	*ADA Ramps*	*6*				*EA*	***$25,047***	*20%*	***$5,009***	***$30,056***
iv	*Lighting*	*20*				*EA*	***$47,190***	*20%*	***$9,438***	***$56,628***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
ac	78th St - West of Fielding Ave	1				LS	**$346,968**	20%	**$69,394**	**$416,361**
i	*Pavement*	*1*				*LS*	***$182,710***	*20%*	***$36,542***	***$219,252***
ii	*Sidewalk*	*1*				*LS*	***$21,780***	*20%*	***$4,356***	***$26,136***
iii	*ADA Ramps*	*4*				*EA*	***$16,698***	*20%*	***$3,340***	***$20,038***
iv	*Lighting*	*19*				*EA*	***$44,831***	*20%*	***$8,966***	***$53,797***
v	*Inlet & Sewer*	*1*				*LS*	***$79,739***	*20%*	***$15,948***	***$95,687***
vi	*Bridge Drainage*	*1*				*LS*	***$1,210***	*20%*	***$242***	***$1,452***
ad	80th St - West of Wallace St	1				LS	**$252,465**	20%	**$50,493**	**$302,957**
i	*Pavement*	*1*				*LS*	***$187,550***	*20%*	***$37,510***	***$225,060***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*	*4*				*EA*	***$16,696***	*20%*	***$3,339***	***$20,035***
iv	*Lighting*	*15*				*EA*	***$35,393***	*20%*	***$7,079***	***$42,471***
v	*Inlet & Sewer*	*1*				*LS*	***$12,826***	*20%*	***$2,565***	***$15,391***

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
ae	74th St - West of Parnell Ave			1		LS	**$135,520**	20%	**$27,104**	**$162,624**
i	*Pavement*			*1*		*LS*	***$30,250***	*20%*	***$6,050***	***$36,300***
ii	*Sidewalk*			*1*		*LS*	***$39,930***	*20%*	***$7,986***	***$47,916***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*			*22*		*EA*	***$51,909***	*20%*	***$10,382***	***$62,291***
v	*Inlet & Sewer*			*1*		*LS*	***$13,431***	*20%*	***$2,686***	***$16,117***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
af	73rd St Pedway - West of Hamilton Park			1		LS	**$22,506**	20%	**$4,501**	**$27,007**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*			*2*		*EA*	***$8,349***	*20%*	***$1,670***	***$10,019***
iv	*Lighting*			*6*		*EA*	***$14,157***	*20%*	***$2,831***	***$16,988***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
ag	72nd St - West of Parnell Ave			1		LS	**$328,031**	20%	**$65,606**	**$393,637**
i	*Pavement*			*1*		*LS*	***$225,060***	*20%*	***$45,012***	***$270,072***
ii	*Sidewalk*			*1*		*LS*	***$49,610***	*20%*	***$9,922***	***$59,532***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*			*22*		*EA*	***$51,909***	*20%*	***$10,382***	***$62,291***
v	*Inlet & Sewer*			*1*		*LS*	***$1,452***	*20%*	***$290***	***$1,742***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
ah	79th St - East of Oakley Ave		1			LS	**$102,003**	20%	**$20,401**	**$122,404**
i	*Pavement*		*1*			*LS*	***$52,030***	*20%*	***$10,406***	***$62,436***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*					*EA*	***$0***	-	***$0***	***$0***
iv	*Lighting*		*14*			*EA*	***$33,033***	*20%*	***$6,607***	***$39,640***
v	*Inlet & Sewer*					*LS*	***$0***	-	***$0***	***$0***
vi	*Bridge Drainage*		*1*			*LS*	***$16,940***	*20%*	***$3,388***	***$20,328***
ai	69th St - East of Bell Ave		1			LS	**$213,263**	20%	**$42,653**	**$255,915**
i	*Pavement*					*LS*	***$0***	-	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*		*4*			*EA*	***$16,698***	*20%*	***$3,340***	***$20,038***
iv	*Lighting*		*83*			*EA*	***$195,839***	*20%*	***$39,168***	***$235,006***
v	*Inlet & Sewer*		*1*			*LS*	***$726***	*20%*	***$145***	***$871***
vi	*Bridge Drainage*					*LS*	***$0***	-	***$0***	***$0***
aj	68th St - East of Bell Ave		1			LS	**$647,169**	20%	**$129,434**	**$776,602**
i	*Pavement*		*1*			*LS*	***$424,710***	*20%*	***$84,942***	***$509,652***
ii	*Sidewalk*					*LS*	***$0***	-	***$0***	***$0***
iii	*ADA Ramps*		*6*			*EA*	***$25,047***	*20%*	***$5,009***	***$30,056***
iv	*Lighting*		*83*			*EA*	***$195,839***	*20%*	***$39,168***	***$235,006***

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
v	*Inlet & Sewer*		*1*			*LS*	***$1,573***	*20%*	***$315***	***$1,888***
vi	*Bridge Drainage*					*LS*	***$0***	*-*	***$0***	***$0***
ak	67th St (Marquette) - East of Bell Ave		1			LS	**$85,063**	20%	**$17,013**	**$102,076**
i	*Pavement*					*LS*	***$0***	*-*	***$0***	***$0***
ii	*Sidewalk*					*LS*	***$0***	*-*	***$0***	***$0***
iii	*ADA Ramps*					*EA*	***$0***	*-*	***$0***	***$0***
iv	*Lighting*		*30*			*EA*	***$70,785***	*20%*	***$14,157***	***$84,942***
v	*Inlet & Sewer*		*1*			*LS*	***$14,278***	*20%*	***$2,856***	***$17,134***
vi	*Bridge Drainage*					*LS*	***$0***	*-*	***$0***	***$0***
7.0	Environmental Mitigation						**$34,811,696**		**$6,962,339**	**$41,774,036**
a	Noise Walls (Barrier G, Barrier H, Barrier M, Barrier N, and Barrier O)			136812		SF	**$14,444,155**	20%	**$2,888,831**	**$17,332,986**
b	Hazardous Materials (risk assessment count by parcel)	(*)	(*)	(*)	(*)	LS	**$12,112,942**	20%	**$2,422,588**	**$14,535,530**
i	***GENERAL MITIGATION ACTIVITIES***	*15*	*14*	*95*	*2*		***$6,860,116***	*20%*	***$1,372,023***	***$8,232,140***
ii	***SITE SPECIFIC MITIGATION RECOMMENDATIONS***	*4*	*4*	*34*			***$5,252,825***	*20%*	***$1,050,565***	***$6,303,390***
c	Contaminated Soil Disposal	5%	5%	5%	5%	LS	**$390,852**	20%	**$78,170**	**$469,022**
d	Visual Impact Minimization Measures	(*)	(*)	(*)	(*)		**$1,835,237**	20%	**$367,047**	**$2,202,284**
e	Quiet Zone Implementation (UP Villa Grove)			3		EA	**$648,000**	20%	**$129,600**	**$777,600**
f	Additional Community Mobility Improvements	(*)	(*)	(*)	(*)		**$1,810,511**	20%	**$362,102**	**$2,172,614**
i	*Bus Stop Improvements - New Shelters*	*3*	*1*	*6*		*EA*	***$200,000***	*20%*	***$40,000***	***$240,000***
ii	*Bus Stop Improvements - Real Time Arrival Displays*	*4*	*2*	*14*		*EA*	***$200,000***	*20%*	***$40,000***	***$240,000***
iii	*Sidewalk Improvements*			*8*		*Block*	***$600,000***	*20%*	***$120,000***	***$720,000***

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
iv	*76th Street "Crosstown Bike Route"*			*6.2*		*Mile*	***$775,000***	*20%*	***$155,000***	***$930,000***
v	*Major Taylor Trail Bicycle Connection*			*0.14*		*Mile*	***$35,511***	*20%*	***$7,102***	***$42,614***
g	Remnant & Vacant Parcel Improvement			1		LS	**$1,500,000**	20%	**$300,000**	**$1,800,000**
h	Streetscape Improvements			3		Mile	**$1,320,000**	20%	**$264,000**	**$1,584,000**
i	Employment & Job Training	15%	15%	65%	5%	LS	**$750,000**	20%	**$150,000**	**$900,000**
j							**$0**	-	**$0**	**$0**
8.0	Miscellaneous & Temporary Facilities						**$37,696,192**	16%	**$5,992,934**	**$43,689,126**
a	Engineer's Field Office, staging area, fencing, security, etc.	1%	1%	1%	1%	LS	**$4,009,408**	14%	**$560,623**	**$4,570,031**
b	Maintenance of Traffic (MOT)	5%		5%	5%	LS	**$8,548,046**	20%	**$1,709,609**	**$10,257,656**
c	Mobilization	4%	4%	4%	4%	LS	**$11,938,737**	14%	**$1,622,702**	**$13,561,439**
d	Flagging (RR Maintenance of Way)	3600	3600	6000		Days	**$13,200,000**	16%	**$2,100,000**	**$15,300,000**
f							**$0**	-	**$0**	**$0**
g							**$0**	-	**$0**	**$0**
Construction SubTotal							**$648,923,348**	**20%**	**$128,230,400**	**$777,153,748**
	check against IDOT form 3.1 (4/2012)									
9.0	Utility						**$19,770,197**	20%	**$3,954,039**	**$23,724,236**
a	Relocation Allowance					LS	**$19,770,197**	20%	**$3,954,039**	**$23,724,236**
i	*Relocations (RR ROW)*					*LS*	***$0***	-	***$0***	***$0***
ii	*Relocations (Roadway/Infrastructure)*	*1*	*1*	*1*		*LS*	***$19,770,197***	*20%*	***$3,954,039***	***$23,724,236***
b							**$0**	-	**$0**	**$0**

75th Street CIP Cost Estimate (Source: 75th Street CIP Pre-Cost Estimate Review, 2019) (continued)

75th Street CIP - Phase II Cost Estimate		Quantity				Direct Cost		Mgmt Res & Contgcy	Management Reserve & Contingency Cost	Total Cost
Item #	Item Description	P2	P3	EW2	GS19	Unit	Project Total	%	Project Total	Project Total
i							***$0***	-	***$0***	***$0***
ii							***$0***	-	***$0***	***$0***
10.0	ROW						**$11,190,713**	17%	**$1,872,489**	**$13,063,202**
a	Temporary Easements	0.5%	0.5%	0.5%		LS	**$1,666,208**	0%	**$0**	**$1,666,208**
b	Relocations			4			**$75,000**	0%	**$0**	**$75,000**
i	*Tenant Occupied*			*3*		*EA*	***$45,000***	*0%*	***$0***	***$45,000***
ii	*Owner Occupied*			*1*		*EA*	***$30,000***	*0%*	***$0***	***$30,000***
c	Mortgage Assistance						**$0**	-	**$0**	**$0**
d	Acquisition	1	1	1		LS	**$9,362,445**	20%	**$1,872,489**	**$11,234,934**
e	ROW Consultant	5%	5%	5%			**$87,060**	0%	**$0**	**$87,060**
11.0	Professional Services						**$118,527,458**	4%	**$4,327,500**	**$112,431,653**
a	PE / ENV	26.0%	37.1%	34.7%	2.2%	LS	**$10,423,305**	0%	**$0**	**$0**
b	Final Design	1	1	1	1	LS	**$46,250,000**	9%	**$4,327,500**	**$50,577,500**
c	Project Management through Construction	1.0%	1.0%	1.0%	1.0%	LS	**$6,686,935**	0%	**$0**	**$6,686,935**
d	Construction Management (RR Force Acct) - Survey, Testing, Site Investigation, Inspection	7.0%	7.0%	7.0%	7.0%	LS	**$19,456,292**	0%	**$0**	**$19,456,292**
d	Construction Management (Consultant) - Survey, Testing, Site Investigation, Inspection	7.0%	7.0%	7.0%	7.0%	LS	**$27,352,256**	0%	**$0**	**$27,352,256**
e	Legal; Permits, Review Fees by others	0.3%	0.3%	0.3%	0.3%	LS	**$1,671,734**	0%	**$0**	**$1,671,734**
h	Public Information / Advocacy/CMC Contract	1.0%	1.0%	1.0%	1.0%	LS	**$6,686,935**	0%	**$0**	**$6,686,935**
CREATE Phase 2 Project Total							**$798,411,716**		**$138,384,429**	**$926,372,839**

Appendix C: 75th Street CIP Cost Estimate Review Final Report Date (Draft)

75th St. Corridor Improvement Project

COST ESTIMATE REVIEW

DRAFT Final Report

May 2020

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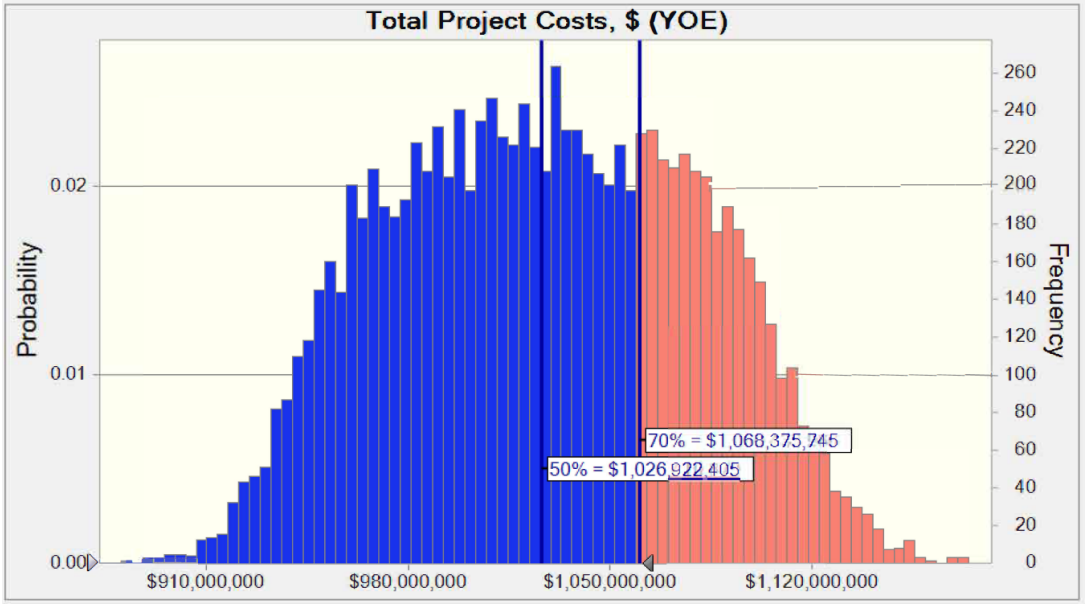
EXECUTIVE SUMMARY

The Cost Estimate Review team (Team) included representatives of the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Federal Railroad Administration (FRA), the Illinois Department of Transportation (IDOT), the Cook County Department of Transportation and Highways (DoTH), the City of Chicago Department of Transportation (CDOT), the Association of American Railroads (AAR), railroad companies, and project consultants. The Team conducted a Cost Estimate Review (CER) to evaluate the cost and schedule estimates for the proposed 75th Street Corridor Improvement Project (75th Street CIP). The 75th Street CIP is part of the Chicago Region Environmental and Transportation Efficiency (CREATE) Program and is comprised of the CREATE segments that are designated as P3, GS19, P2, and EW2.

The CER was held virtually April 21 through April 23, 2020, with the final report out on April 30, 2020. The objectives of the review were to:

- Verify the accuracy and reasonableness of the current project estimate (including all engineering, ROW, construction and other costs) and schedule.
- Develop a probabilistic range for the cost estimate that represents the project's current stage of development (i.e., Phase I engineering).
- Determine potential schedule impacts on the cost.

Range of Project Cost



70% = $1,068.4 million

Figure 1 Year of Expenditure Cost Probability Curve

The CER cost probability curve in Figure 1 represent the potential range of project cost in Year of Expenditure (YOE) dollars. The policy of FHWA is for financial plans to demonstrate reasonable funding strategy through construction with at least 70% confidence for the probable costs. At a 70% confidence level the CER YOE total project cost is $1,068.4 million, which is 0.9% below the pre-CER Project YOE cost estimate of $1,077.9 million provided by the project team (see also Table 1).

The CER results are based on the Team's input related to base estimate variability, market conditions, inflation and risk factors for the project. During the review, Team consensus was obtained on these items and specific adjustments to the base cost were not identified.

	Base Project YOE Pre- CER Estimate (with Contingency)	70% Level of Confidence from CER YOE Probability Curve Results (with risks)	Delta / Pct. Delta
Total Project Cost with Inflation and previous / fixed costs	$1,077.9 Million	$1,068.4 Million	-$9.5 Million / -0.9%
Project Segment P3	$363.1 Million	$350.1 Million	-$13.0 Million / -3.7%
Project Segment GS19	$9.3 Million	$8.6 Million	-$0.7 Million / -8.1%
Project Segment P2	$293.4 Million	$291.2 Million	-$2.2 Million / -0.8%
Project Segment EW2	$412.1 Million	$418.5 Million	+$6.4 Million / +1.5%

Table 1 CER Results vs. Pre-CER Cost Estimate

While it is FHWA policy for financial plans to demonstrate reasonable funding strategy through construction with at least 70% confidence for the probable costs demonstrating a higher level of funding is allowed. For example, based on what was considered in this CER, there would be a 90% likelihood that Segment P3 will be delivered at or below the pre-CER estimate of $363.1 million, so continuing to use the larger pre-CER estimate is more conservative and allowable.

When a Major Project is phased, the funded phase(s) must demonstrate the funding commitment through construction using the 70% probable costs or higher; phases that don't

have construction commitments should cover implementation strategies for their work and must forecast the completion status of what are considered unfunded phases in FHWA's financial plan guidance. If the funded phase (the segments with funding commitments through construction) of the project is to include project segments P3 and GS19, then a financial plan would need to demonstrate a reasonable funding for at least $358.7 Million for implementing segments P3 and GS19 of the 75th Street CIP.

Risk Threats and Opportunities

The CER process began with removing contingencies from the pre-CER estimate, and then adding the impact of base variability, market conditions, inflation and identified risks to arrive at the CER results noted. The major **cost threats** identified that could potentially increase project costs were:

Construction Change Orders
Time Delays (Buy America, Permitting, Railroad Operations and weather windows)
Private Grade Crossing accommodation – Project EW2 – NS access to Lander's Yard
Right of Way and Utility Impacts
Utility Relocations overlooked or missed in final design
Structure Rehabilitation Scope

The major **Schedule threats** that could potentially delay the project's originally estimated schedule and increase inflation costs are the following:

Right of Way and Utility Impacts
Utility Relocations overlooked or missed in final design
Structure Rehabilitation Scope

The review Team did not identify any quantifiable **costs opportunities** or **schedule opportunities** based on the information available at this time. Some items, that may present as opportunities, are captured in the review findings.

The results of modeling the above schedule risks (threats and opportunities) are:

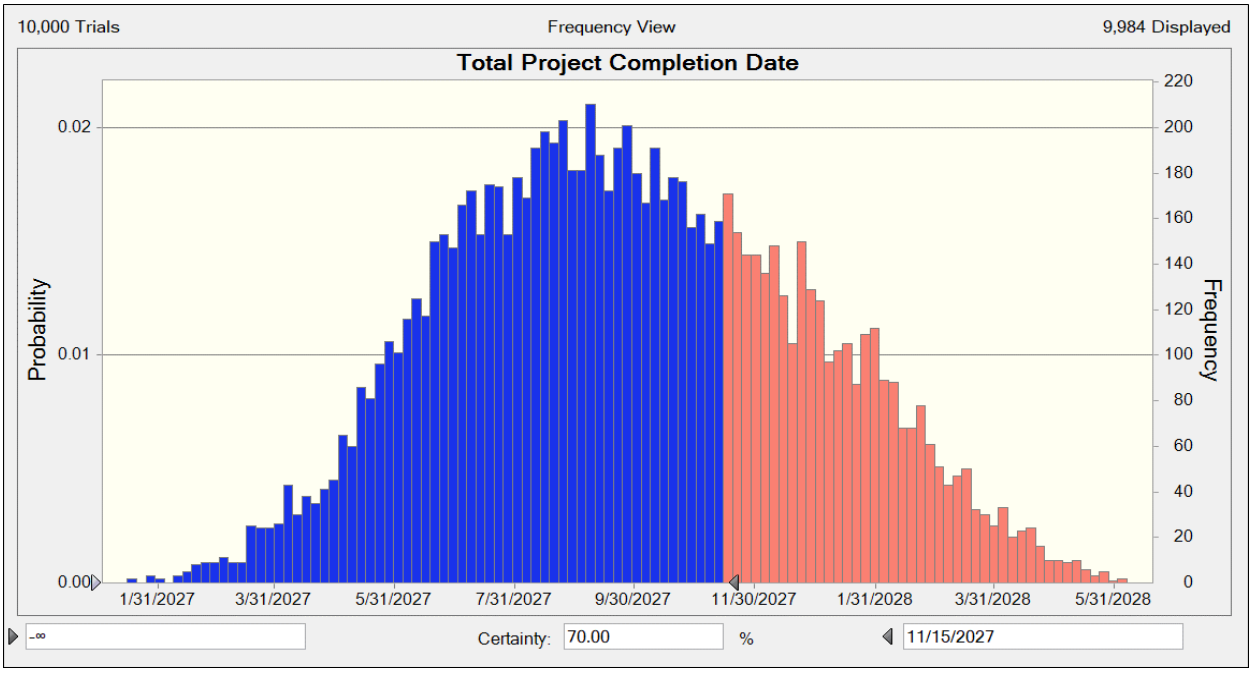


Figure 2 Probability Based Project Completion Date

Figure 2 demonstrates that the current schedule has some risk of delay. The model shows the range of predicted project completion dates with a 70% confidence level at mid-November 2027, which is an approximate 12 month delay beyond the pre-CER scheduled completion of the end of November 2026. This potential delay is the result of the impact of the previously mentioned schedule threats.

Findings and Recommendations

The **findings** during the CER included the following:

- This Cost Estimate Review is for the entire project
- Project is planned to be delivered in four separate projects: P3, GS19, P2, and EW2
- The Cost Estimate was very detailed, provided distinguishing costs for the four projects, and included inflation for upcoming project costs.
- Estimated Schedule at a High Level was provided
- A quantified register of significant risks was provided for the project

The **recommendations** resulting from the review were the following:

- Construction Change Orders – Continue strong change management controls
- Avoid Delays
  - Buy America

- Permitting
- Railroad Operations and weather windows

- Address how to minimize impact of EW2's Private Grade Crossing accommodation at the south end of Columbus Ave. The NS Lander's Yard Access over Metra Tracks
- Right of Way and Utility Impacts
  - Avoid Delays
    - Uniform Act Compliance
    - Difficult Title or ownership Determinations
  - Avoid Additional Costs
    - Difficult Property Negotiations
- Utility Relocations overlooked or missed in final design
- Structure rehabilitation scope

CHAPTER 1 – REVIEW PROCESS

The Cost Estimate Review team (Team) included representatives of the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Federal Railroad Administration (FRA), the Illinois Department of Transportation (IDOT), the Cook County Department of Transportation and Highways (DoTH), the City of Chicago Department of Transportation (CDOT), the Association of American Railroads (AAR), railroad companies, and project consultants. The Team conducted a Cost Estimate Review (CER) to evaluate the cost and schedule estimates for the proposed 75th Street Corridor Improvement Project (75th Street CIP). The 75th Street CIP is part of the Chicago Region Environmental and Transportation Efficiency (CREATE) Program and is comprised of the CREATE segments that are designated as P3, GS19, P2, and EW2.

This document summarizes and reports the results of this review. Appendix D of this report includes the Team's close-out presentation provided on April 30.

The purpose of this chapter is to provide a general overview of the CER process, including a discussion of the review objectives, team members, documentation provided and methodology.

REVIEW OBJECTIVE

The objective of the CER was to conduct an unbiased risk-based review to:

- Verify the accuracy and reasonableness of the current total cost estimate to complete the project
- Develop a probabilistic range for the cost estimate that represents the current stage of project design.
- Determine potential schedule impacts to the project cost.

This review is a snapshot in time and it is recognized that the estimate will change as additional information becomes available.

BASIS OF REVIEW

Title 23 US Code Section 106(h) requires the financial plan for all Federal-aid projects with an estimated total cost of $500M or more to be approved by the Secretary of Transportation (i.e. FHWA). The $500M threshold includes all project costs (i.e. Engineering, Construction, Right-of-Way (ROW), Utilities, Construction Engineering, Inflation, etc.). The FHWA policy has established reasonable cost variability assumptions to be utilize as a risk based analysis. A CER is required to provide the risk based analysis of the estimate for a project over $500M and is used in the development of the financial plan.

The base estimate for the 75th Street CIP were well above the $500M, qualifying the project to require the CER. The Team presented the scope of the project, the basis for the current cost estimate, and input on the risks, market conditions and other variables used in the CER analysis.

REVIEW TEAM

The Team brought together individuals with a strong knowledge of the project, including expertise in specific disciplines represented in the project design. Throughout the CER individuals with specific project expertise briefed the Team on technical issues and the estimate development process, including the development of quantities, unit prices, assumptions, opportunities and threats.

The Review Team was comprised of members of the following organizations:

Federal Highway Administration (FHWA)

- Illinois Division Field Engineering Staff
- Headquarters Major Projects Team
- Headquarters Mission Support Staff

Federal Transit Administration (FTA)

Federal Railroad Administration (FRA)

CREATE partner Railroads/Association of American Railroads

- CSX
- Belt Railway Company (BRC)
- Norfolk Southern (NS)
- Union Pacific (UP)
- Metra

Illinois Department of Transportation (IDOT)

The Cook County Department of Transportation and Highways (DoTH)

Chicago Department of Transportation (CDOT)

Project Consultants

- HNTB

- Knight
- WSP
- Jacobs
- Parsons

The list of CER attendees / participants is included in Appendix E.

DOCUMENTS REVIEWED

Documents provided to the Review Team prior to and during the workshop included:

- Project Overview Presentation
- Project Cost Estimate - Description of Capital Cost Estimate
- Project Schedule
- Draft Project Management Plan
- Draft Initial Financial Plan
- 2014 Cost Estimate Review
- INFRA Term Sheet
- Log of Significant Potential Risks

Other documentation available to the review team included:

- CREATE/ Project Web Site

REVIEW METHODOLOGY

The methodology for this cost estimate review is outlined as follows:

- Verify Accuracy of Estimate
    - Review major cost elements, descriptions, cost components and assumptions
    - Review allowances and contingencies
    - Adjust estimate as necessary
- Discuss / Model
    - Base Variability
    - Market Conditions & Inflation
    - Key Schedule & Cost Risks
    - Perform Monte Carlo simulation to generate a forecast range of estimated project costs

- Communicate Results to the Project Team

VERIFY ACCURACY OF COST ESTIMATE

The Team was provided a project overview, including the scope of the project, stage of design and the cost estimating process utilized. A review of project documents including the physical layout (e.g. maps, drawings) was also provided. The Team also interviewed the subject matter experts (SMEs) and developed an understanding of the estimate for both quantity and unit cost development for the major cost categories through the review process.

MODEL PROJECT UNCERTAINTIES AND PERFORM MONTE CARLO SIMULATION

In general, uncertainties in the project estimate can be described as those relating to base variability, market risks, inflation, cost and schedule risk events. Each of these were discussed and modeled to reflect the total uncertainty associated with the estimate.

Base variability is a measure of uncertainty applied to the base estimate that represents the inherent randomness associated with the estimating process. For example, if a different estimator were to develop the estimate using the same data source and following the same general guidance his/her estimate would be different from that of the first estimator. Base variability is also a function of the project's current level of design and the process used to develop the estimate. Additionally, the lack of details about the project and assumptions that should be used to develop the estimate would cause more variability in the estimate. This base variation is a function of the system (i.e., assumptions and data sources used to define the estimate). Base variability has been applied to the base estimate exclusive of risks. Contingencies that include risks are removed from the estimate to avoid double counting risks identified in the risk register. Allowances, such as items included as percentages of other items in early estimates, and change orders typically remain in the base estimate.

Base variability is defined using a symmetrical distribution and often stated as a percentage variation from the underlying base estimate. The team considered the variability to be +/- 10% as shown in Table 2. This assumes the project is relatively well defined and has advanced engineering and identification of issues, such that reasonable estimators would fall within +/- 10% of the current estimate at this point in the project. This base variability was developed with the input that the non-railroad (civil infrastructure) elements of the project were defined to a point where a base variability of 10% was deemed appropriate. The railroad portion of the project is very well defined (when compared with the civil infrastructure improvements) and

the unit prices are likely to be more stable into the near future because of long term labor and other contracts, thus minimizing the potential for variance within a range of 10%.

Portion	Final Design	Right of Way Acquisition	Utility Relocation	Construction
Base Variability	+/- 10%	+/- 10%	+/- 10%	+/- 10%

Table 2 Base Variability

Market Conditions - The Team discussed the uncertainties associated with Market Conditions at the time of the construction procurement, when contractors or suppliers are pricing the project. There is typically a strong relationship between the number of bidders and the construction cost of a project at the time of pricing. Market conditions are a measure of uncertainty that reflects the overall competitive environment at the time of pricing. The market conditions are applied to the base estimate using a probability for "better than planned", "as planned", or "worse than planned" bidding environments (totaling 100%).

The Team had discussion regarding the major projects competing for local resources during the years 2019-2026, which is the planned schedule for 75th Street CIP construction. The major competing element was a substantial Infrastructure Program initiated by the State of Illinois. There was also discussion that the railroad force account work for the project would follow national trends due to the purchasing power of the railroad companies. With the uncertain economic conditions in 2020, however, the market conditions were kept as modest impact of +/-10%. The variability for the projects with committed construction funding was considered more likely to be in the as-planned condition, and the other segments were given equal chance of experiencing better, worse, or as-planned. Consequently, the Team forecasted market risk increases using the following probability distribution in the model:

Project Element	**Market Conditions** Probability of experiencing cost increase/decrease		
	Better Than Planned	As-Planned	Worse Than Planned
Construction (P3 and GS19)	10%	80%	10%
Construction (P2 and EW2)	33%	34%	33%

Table 3 Market Condition - Probability of experiencing cost increase/decrease

Table 3 notes the CER team's expectations for future cost proposals on this project. When the market condition variations shown in Table 3 occur, the Team expected the variance from the current estimate (As-Planned) as shown in Table 4.

Project Element	Market Condition Cost Impact (Variance from As-Planned)	
	Better Than Planned	Worse Than Planned
Construction (projects P3 and GS19)	10%	10%
Construction (project P2 & EW2)	10%	10%

Table 4 Market Conditions Variance from "As-Planned"

Following the market conditions review, the CER Team discussed the project cost estimate (See Appendix A), and addressed the pre-CER team supplied risk register for both the cost and the schedule threat/opportunity risks (See Appendix B). The project team provided a Pre-CER risk register that was utilized to initially populate the CER risk register. (Where appropriate, cost elements with multiple risks or groups of like risk elements were consolidated to reduce the number of total risks entries. Each of these risks was then analyzed by the Team based on current project conditions, and additional risks were also developed during the CER.

The risk register includes the event risk name, a description of the event, a probability measure of the likelihood the event will occur, and a probability distribution of costs if the event were to occur. The register also identifies if the risk event is a threat or opportunity for cost/schedule. Risk threats increase costs/schedule length and opportunities decrease cost/schedule length. A very important feature of the risk register is to establish the relationship of risk events. For example, some risks are mutually inclusive/exclusive. Mutually inclusive means the risk event can only occur if the prior risk event occurs. Conversely, for a risk event to be mutually exclusive means that it can only occur if the prior risk event does not occur. Risk events can also be independent in which case the probability of occurrence is not dependent on any other risk event. Correlation determines how one risk event will sample relative to another risk event. Correlation was established when there was reason to suspect that a relationship exists and should be accounted for in the simulation.

After model inputs were developed for market conditions, base variability, and risk events, the Team utilized the Monte Carlo simulation to generate a probability based estimate in Year of Expenditure Total Project Costs. The simulation provides "what-if" sensitivity analysis using

randomly selected values from the Team's models. The simulation performs random sampling to model thousands of project cost/schedule scenarios built from the Team's input. The simulation is run until the number of iterations creates a relatively smooth distribution curve. It is important that the simulation outcomes be reviewed to ensure accuracy. The simulation results from distribution curves covering all possible outcomes as shown in Figures 1 and 2 in the Executive Summary. The key benefit of this process is that estimated cost and schedule outcomes are associated with their probability of occurrence (See Appendix C).

Inflation usually has a significant impact on Year of Expenditure (YOE) Total Project Costs, and its affects were modeled in this review. Costs were inflated using the current project schedule and inflating to the midpoint of the planned expenditure for each project element (P2, P3, EW2, GS19), including any delays where appropriate. The inflation applied to the base estimate utilized annual inflation rates per year (See Table 5). These inflation rates are based on a discussion held by the project team where rates from 3% to 3.5% per year were expected. After input from the 75th Street CIP cost estimating team, 3.5% for construction activity costs and 3.5 % for pre-construction professional services and relocations was agreed to. Coincidentally, an inflation rate of 3.5% was independently utilized for the pre-CER cost estimate.

Year's Applied	Final Design (of EW2), ROW, Utilities	Construction
November 2019 to midpoint of phase/project	3.5% / year	3.5% / year

Table 5 Project Inflation Rates

The base dates for each project element are based on the preliminary 5-year construction sequencing plan developed and agreed upon by the CREATE Program partners immediately prior to the CER review.

COMMUNICATE RESULTS

The last part of the review is to communicate the results. This is accomplished by providing the closeout presentation and final report to the Project Team and agency leaders. At the end of the review, the CER Team provided a closeout presentation that summarized the review findings. The presentation identified the review objectives and agenda, discussed the methodology, available resources, estimate adjustments and highlighted the results of the review. The closeout presentation also identified any significant cost and schedule risks, and

provided a brief overview of recommendations by the Review Team. This presentation is included as Appendix D to this report.

It is important to understand that the estimate review is a snapshot in time of the estimate. As additional information becomes available it is expected that the estimate will change and be updated.

This final report communicates all findings of the review to the State DOT and the FHWA Division office and serves as the official document for the CER. As noted earlier, the review results are used in published reports and eventually in the approval of the financial plan. CER reports are maintained by the FHWA Major Projects Team in the Office of Stewardship, Oversight and Management.

CHAPTER 2 – REVIEW SUMMARY

PROJECT BACKGROUND, PURPOSE AND NEED

The Chicago Region Environmental and Transportation Efficiency (CREATE) Program was initiated in 2003 as a public-private partnership to improve the rail and roadway transportation network within the Chicago area. The CREATE 75th Street Corridor Improvement Project (CIP) consists of four (4) supporting projects of independent utility, linked by the NEPA environmental clearance process.

A substantial portion of freight and passenger rail traffic in the Chicago region suffers from congestion, low operating speeds, and service delays due to traffic demands that exceed the capacity of the regional rail system. The CREATE Program Final Feasibility Plan established overall Program Level Goals and Strategies and the CREATE Program Final Preliminary Screening (both published in August 2005) presented the purpose or objective of each component project within the program. These documents have since been amended and modified. Based on the needs to improve the regional rail system, the goals of the CREATE Program are as follows:

- Reduce rail and motorist congestion;
- Improve the efficiency and reliability of freight and passenger rail service;
- Enhance public safety through the reduction of rail-highway conflict points;
- Promote economic development and job creation;
- Improve air quality; and
- Reduce noise from idling or slow moving trains throughout the Chicago metropolitan area.

As part of meeting the CREATE goals, the purpose of the 75th Street Corridor Improvement Project (CIP) is to improve mobility for rail passengers, freight, and motorists. The specific needs of this project include:

- Reducing conflicts that affect rail;
- Reducing highway-rail crossing problems;
- Reducing local mobility problems; and
- Improving rail transit passenger service.

Five (5) private railroad operators (RR) have been instrumental in assessing their own operational and infrastructure needs within the 75th Street CIP project area. In coordination with CREATE partners and consultant staff, independent capital costs estimates were developed for each railroad operators' rail infrastructure improvements as well as signal systems required for efficient operations. CREATE RR partners participating in the 75th Street CIP include:

BRC – Belt Railway Company of Chicago
BNSF - Burlington Northern Santa Fe Railway
B&OCT- Baltimore & Ohio Chicago Terminal Railroad (CSX)
also known as CSX Transportation
CP - Canadian Pacific Railway
IHB - Indiana Harbor Belt Railroad
Metra – Metra Commuter Rail
NS – Norfolk Southern Railway
UP – Union Pacific Railroad

The 75th Street CIP capital cost estimate was prepared to allow for the independent quantification and calculation of construction and professional service costs of the four (4) CREATE Program component projects (P2, P3, EW2, and GS19) that make up the 75th Street CIP. Not all the railroads or all the partners are necessarily involved in every segment of the CREATE Program. A description of the major construction components associated with each Segment of the 75th Street CIP is shown below:

P2 – Metra South West Service (SWS) Connection to Rock Island District (RID) Line
New rail flyover structure for a passenger rail connector through residential area
Metra flyover bridge on 40 MPH reverse curve, connecting to the RID Line at 74th St

ROW acquisition from the neighborhood south of Hamilton Park = 1.39 acres (No ROW required from Hamilton Park)

P3 - B&OCT Yard Flyover of 75th Street Junction also known as Forest Hill Junction

Raise the two compass north/south CSX tracks over the east/west tracks at 75th Street Junction and over 71st Street (GS19)

Two (2) temporary tracks constructed east of existing B&OCT tracks (property owned primarily by City of Chicago) during construction

EW2 – 80th Street Junction x Two (2) additional track through 80th Street Junction

Relocates Amtrak, B&OCT and UP operations from the west side of corridor to east side of corridor

New bridge constructed for the UP over 88th Street

New NS track constructed from I-94 (Dan Ryan) north and west to Landers Yard x ROW acquisition of vacant land between two sets of RR tracks north of Vincennes Ave and south of 80th Street Junction

Add second mainline track southeast of existing Metra track along Columbus Avenue, through existing NS Landers Yard

Reconfigure tracks in Landers Yard

GS19 – 71st Street Grade Separation

Depress 71st Street profile by approximately 3 feet to provide vertical clearance of 16'-6" beneath the new rail structure. Total length of reconstruction ≈ 660 feet.

The CREATE Railroad partners generally staff their own, independent teams for construction of track work, signals and associated facilities (known as force account work). Under certain circumstance, Railroads may use the services of outside contractors specifically for grading activities, environmental mitigation, structures, roadway improvements, and track construction.

In general, all CREATE Program project grade separations are contracted by the State or by Local Public Agencies. For the CER, the assumption was the 75th Street CIP would be delivered as four complete projects, with all funding available prior to bidding, and a three to five construction season for each phase. Total construction schedule for the four projects runs from 2019-2025 with phases overlapping for delivery. The project team also wanted to document that MAP-21 (the federal transportation funding bill) allows projects to include a phasing plan that identifies fundable incremental improvements or phases that will address the purpose and the need of the project in the short term in the event there are insufficient financial resources

to complete the entire project. This project will be using the funded phase approach. Each of the phases can be built and would function as a viable transportation facility with substantial transportation benefits even if the other phases were never constructed. Each of these phases is therefore considered to have operational independence and meets some element(s) of the project purpose and need. In order to meet all elements of the project purpose and need though, completion of all of the separate phases is necessary. The five major segments (phases) of the overall project are: P3 Stage 1 Design through Construction (temporary track relocation), P3 Stage 2 Design through Construction (railroad grade separation structure, approaches and temporary track removal), Design through Construction of GS19, Design through Construction of P2. and Design through Construction of EW2.

An earlier team conducted a CER from June 23 through June 26, 2014. The results of that CER were project cost would likely be $951.9 million (Pre-CER Estimate: $984.4 million) with delivery of construction completed 10/29/2022 (Pre-CER schedule 10/31/2021). Major activities since the 2014 CER have allowed the project team to advance design and other work to reduce uncertainty and risk in the project even though the costs have increased as the projected completion date moved to 11/15/2027 (Pre-CER schedule 11/30/2026). Those activities include:

- Continuation of the Public Involvement Plan
- Development and Contracting for the delivery of
    - P3 Stage 1 (Forrest Hills Flyover – temporary track)
    - P3 Stage 2 (Forrest Hills Flyover – structure, track and Stage 1 removal)
- Development of GS 19 (71st Street Grade Separation) for procurement of Design
- Further Plan Development of
    - P2 (Rock Island Connection)
    - EW2 (80th Street Junction Replacement)

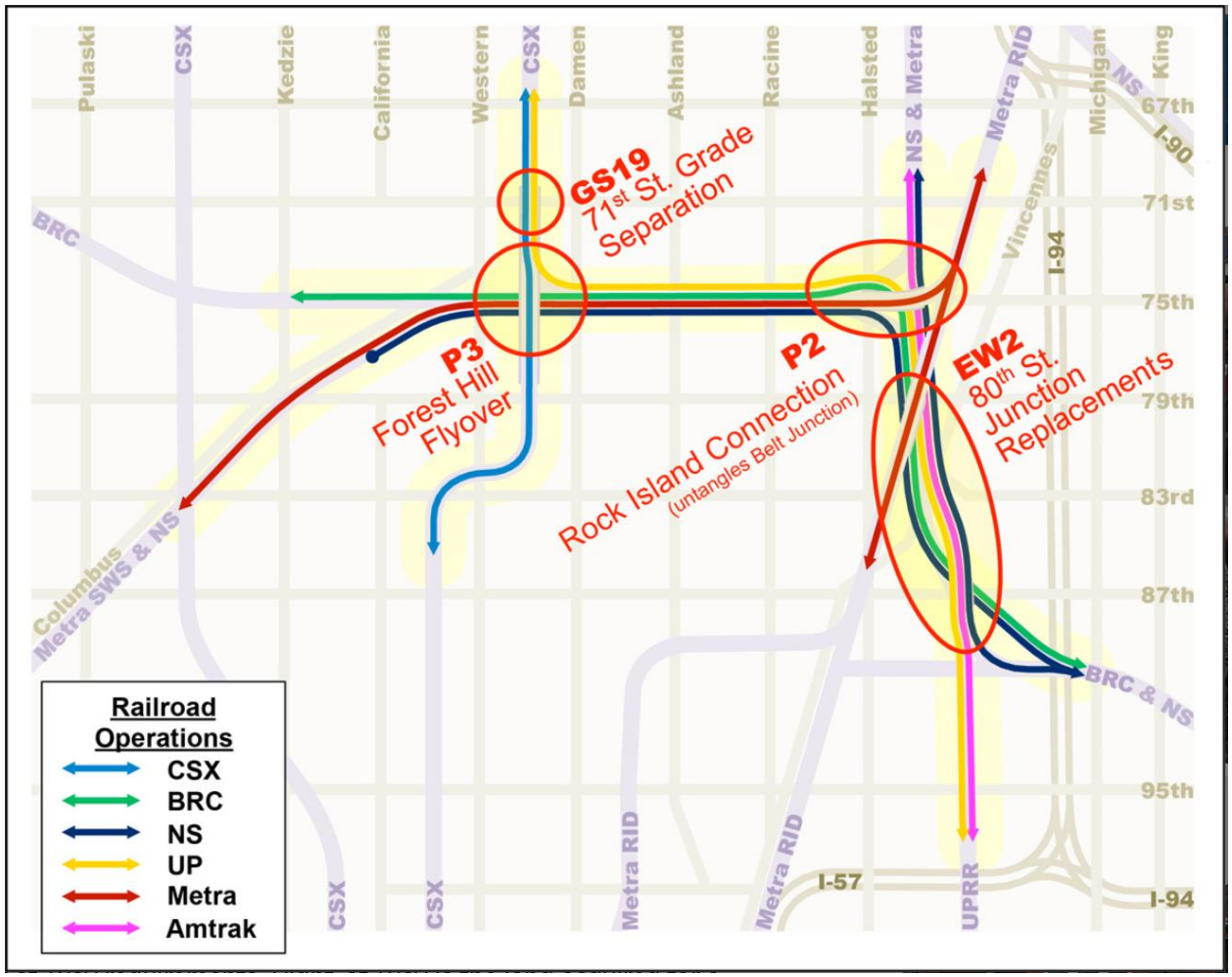


Figure 3: 75th Street CIP Project Study Area

BASE ESTIMATE

The project team provided a cost estimate prior to the workshop. This pre-review estimate of project cost was $937 million in 2019 dollars, and $1,078 million escalated to year of expenditure (YOE) costs. The summary for this base estimate is shown in Appendix A of this report.

BASE ESTIMATE ADJUSTMENTS

During the review of the project, the Team discussed estimate details. Certain items were considered for adjustments to the base estimate, as opposed to being risks for potential cost

changes. Ultimately, no adjustments were made to the base estimate., which is a testament to the quality and thoroughness the Team brought to the CER in the Team's base estimate.

Individual Pre CER Estimate Items	Change to Base Estimate ($ in millions)
No items identified for adjustment	$0.00
Total Estimate Adjustments	$0.00

Table 6 Base Estimate Adjustments

SCHEDULE

Table 7 outlines some of the project milestone schedule dates.

Segment / Phase	Sub-Segment of Sub-Phase	Activity	Schedule Start Date	Scheduled Completion Date
P3	Stage 1	Design / ROW / Utilities	7/1/2019	5/30/2021
		CONST	10/1/2020	8/31/2025
	Stage 2	Design / ROW / Utilities	7/1/2019	5/30/2021
		CONST	10/1/2020	8/31/2025
GS19		Design	7/1/2019	5/30/2021
		CONST	7/1/2023	9/30/2024
P2		Design / ROW / Utilities	1/1/2020	11/30/2022
		CONST	3/1/2023	11/30/2026
EW2		Design / ROW / Utilities	1/1/2020	11/30/2022
		CONST	3/1/2023	11/30/2026

Table 7 Project Summary Schedule Dates

The schedule date table is the current concept for the project that will be refined over time. These dates were utilized primarily to develop the proper inflation calculations for the year of expenditure estimates for the project.

REVIEW FINDINGS

Several findings were noted during the CER, including the following:

- This Cost Estimate Review is for the entire project
- Project is planned to be delivered in four separate projects: P3, GS19, P2, and EW2
- The Cost Estimate was very detailed, provided distinguishing costs for the four projects, and included inflation for upcoming project costs.
- Estimated Schedule at a High Level was provided
- A quantified register of significant risks was provided for the project

REVIEW RECOMMENDATIONS

The following recommendations resulted from this review:

- Update risk management plan as needed.
- Monitor commitment of funding.
- Reconsider TIFIA/RIF Funding with very low rates currently
- Complete Major Project requirements: IFP and PMP
- In addition to the schedule forecast, consider FHWA's supplemental guidance on Estimating Schedule for FHWA Major Projects: https://www.fhwa.dot.gov/majorprojects/schedule_estimating/

CHAPTER 3 – RISK ANALYSIS

Cost estimates, especially those for Major Projects, usually contain a degree of uncertainty due to unknowns and risks associated with the level of detailed design completion. For this reason, it is logical to use a probabilistic approach and express the estimate as a range rather than a single discrete value. During the cost estimate review, uncertainties in the Project estimate were modeled by the Team to reflect the opinions of the Subject Matter Experts (SMEs) interviewed. The Team used the Monte-Carlo simulation to incorporate the uncertainties into forecast curves representing the expected range of cost and schedule for the Project.

These probability based estimates provide essential components to the decision making process. Probability accounts for the uncertainty and reflects the collective "best guess" of

SMEs. A probability distribution can be used to represent the estimate's Total YOE Project Costs. Since the dollars represent YOE, the curve is often referred to as a forecast curve. The forecast curve of YOE Total Project Cost for this Project is discussed below.

COST FORECAST

The forecast distribution curve for the project (shown in Figure 4 below and also as Figure 1 in the Executive Summary) reflects all the underlying variation and risks associated with the project. The variation and risks include base variability, market conditions at time of letting (i.e. competition, supply and demand), inflation and project risks.

Based on project conditions, the Team focused on the different project segments, and concluded the review by summing the results of the four segments. The graphic results from Figure 1 and 4 are the result of the simulations. The numbers in Table 1, Figure 1, and Figure 4 are the sum of the four segments (P3, GS19, P2, and EW2).

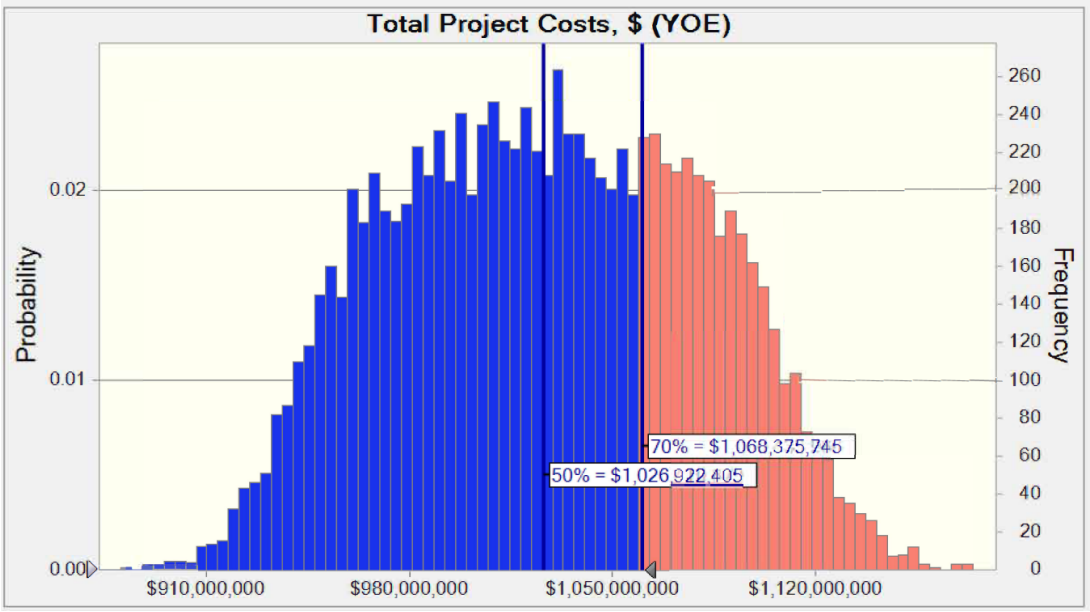


Figure 4 Distribution of Total Project Costs in YOE Dollars

Figure 4 demonstrates the results of the simulation and the proximity of the project pre-CER YOE estimate ($1,078 Million) to the 70% probability guidance of $1,068 million, including to-date and fixed costs. These costs include construction, design/engineering, administration/overhead, right-of-way, inflation and contingencies (expressed in YOE dollars), and depict the following:

The blue shaded (darker shade on left) area, represents a 70% probability that the total cost for the cost will be less than $1,068 million dollars.

The red shaded area (lighter shade on right) of the graph represents a 30% probability that total project costs will exceed $1,068 million based on the underlying variation within the estimate.

The 70% result of $1,068 million is lower than the pre-CER estimate of $1,078 million by $10 million dollars, or approximately a 0.93% difference. This variance is strictly due to the assignment of risk after the removal of contingencies and allowances, using the CER methodology, as the inflation factors used for both were the same and there were no adjustments made to the base estimate during the review.

Through deliberations and discussions during the CER, it was determined and agreed to that the best way to model the project, based on the assumptions, was to model each of the project segments as separate projects. The individual segment results then aggregated into a cost curve representing the entire 75th Street CIP. Those individual cost curves are depicted in Appendix F and the total cost curve above:

Table 8 displays the probability range of forecast YOE costs from results in Figure 4:

Percentile	Total (YOE)
0%	$829,992,769
10%	$934,395,939
20%	$962,466,948
30%	$985,083,818
40%	$1,006,285,918
50%	$1,026,922,405
60%	$1,047,044,405
70%	$1,068,375,745
80%	$1,091,239,719
90%	$1,118,828,440
100%	$1,260,346,546

Table 8 Percentile Rankings of Total Project Costs in YOE Dollars

Table 8 demonstrates that the range for the cost estimate is approximately $830 to $1,260 million; a variance of approximately 35% between these values. The ranges below 0% and above 100% are wide and demonstrate the uncertainty of costs for this project should extreme opportunities and/or risks be realized.

PROJECT RISKS (THREATS AND OPPORTUNITIES)

The purpose of the Risk Register is to identify significant cost and schedule risks for the project so they can be modeled instead of assuming general contingency values. In the traditional cost estimate, risks are often accounted for using estimates of contingency. During this review, the pre-CER estimate contingency was removed, and the team developed the potential threats and/or opportunities in lieu of contingency items. The Review Team worked together with the SMEs to develop the threats and opportunities shown in the Risk Register in Appendix B to this report. The most significant of these cost risks that could impact the project included the following:

THREATS TO INCREASE PROJECT COSTS

Construction Change Orders – Continue strong change management controls:

Likelihood of occurrence 100%; Most likely total impact if occurring $39 million
P3 - $13.4 M, GS19 - $0.3 M, P2 - $10.3 M, and EW2 - $14.9 M

The team agreed that there would likely be change orders during construction due to elements such as unforeseen conditions or unanticipated changes to the design. A potential range of impact was agreed to and modeled as from a low of 2% to a high of 10%, with a most likely of 6% of project costs for all segments: P3, GS19, P2 and EW2.

NS's Private Grade Crossing accommodation:

Likelihood of occurrence 80%; Most likely total impact if occurring $2.5 million (EW2)

During the review, it came to the attention of the review team that the NS at grade access to the Lander's Yard will likely be addressed in Segment EW2. This access at grade access currently crosses the Metra rails and has operational and safety implications that the CREATE project team that had not been captured previously. Mitigation is continued coordination among the CREATE partners and timely decision on implementation.

Right of Way:

Likelihood of occurrence (varies)%; Most likely total impact if occurring $2.15 million
P3 – 50%/$0.5 M, P2 - 90%/$0.9 M, and EW2 - 75%/$0.75 M

The team agreed that there would likely be additional Right of Way need for three of the Segments as final designs are completed and the full scope of the Segments becomes know. Additional Right of Way would likely be in the form of construction easements and strip takes. Mitigation is continued coordination among the CREATE partners and timely decision on design finalization and impacts or the Right of Way procurement processes.

Utility Relocations overlooked or missed in final design and third party contracting:

Likelihood of occurrence 80%; Most likely total impact if occurring $7.9 million
P3 - $1.8 M, GS19 - $2.25 M, P2 - $1.6 M, and EW2 - $2.3 M

Because of the existing urban nature of the project areas, the team agreed that there would likely be additional Utility Relocation Costs associated with a combination of overlooked utilities in design and the expense of third party delivery of utility relocation construction services. Mitigation is continued coordination among the CREATE partners and utility providers impacted and timely decision on design finalization during design. During procurement, coordination of construction schedules, bidding and delivery of third party delivery of utility relocation construction services will mitigate this risk.

Structure Rehabilitation Scope Changes:

Likelihood of occurrence (varies)%; Most likely total impact $30.5 million

Changes in Structure Rehabilitation Scope:
P3 – 80%/$3.7 M and P2 – 80%/$3.7 M

Changes in Structural Steel Scope:
P3 – 80%/$7.6 M and EW2 – 80%/$7.6 M

Changes in Geotechnical Scope:
P3 – 80%/$7.3 M and EW2 – 80%/$7.3 M

Increases in Special Waste at Abutments:
P3 – 5%/$0.1 M, P2 – 5%/$0.1 M, and E2 – 5%/$0.1 M

The team agreed that there would likely be additional costs either in construction or through final design for the items listed above. Because of the time between the scoping of the rehabilitation and when the segments will go to construction bridge conditions will have changed and adjustments will need to be made. Additional as

detail design progresses it is likely that additional structure scope work will be added as additional details are finalized and information site information is gathered. Mitigation

Other threats modeled that were low in probability and potential impacts include the potential for additional railroad track replacement should there be design changes to the geometry of the track layout, additional temporary track and signal work for extended duration or if portion P3 is not first in the project sequence, potential additional work on the viaducts, and miscellaneous potential quantity variances.

OPPORTUNITIES TO REDUCE PROJECT COSTS

There were no opportunities modeled related to the potential reduction of project costs. It was part of the discussion that being able to mitigate the largest cost threats (structures increase and construction change orders) will in effect reduce the costs of the project. The management of these threats in effect is the opportunity to reduce project costs.

SCHEDULE FORECAST

Figure 5 (same as Figure 2 from the Executive Summary) displays results showing a low probability for the project to end at the current scheduled completion date. The 70% probability level results in a date of November 15, 2027, approximately 12 months after the current planned date of November 30, 2026. This variance can be attributed to the significant schedule risks that have been identified and need to be managed. These threats are described in the following section.

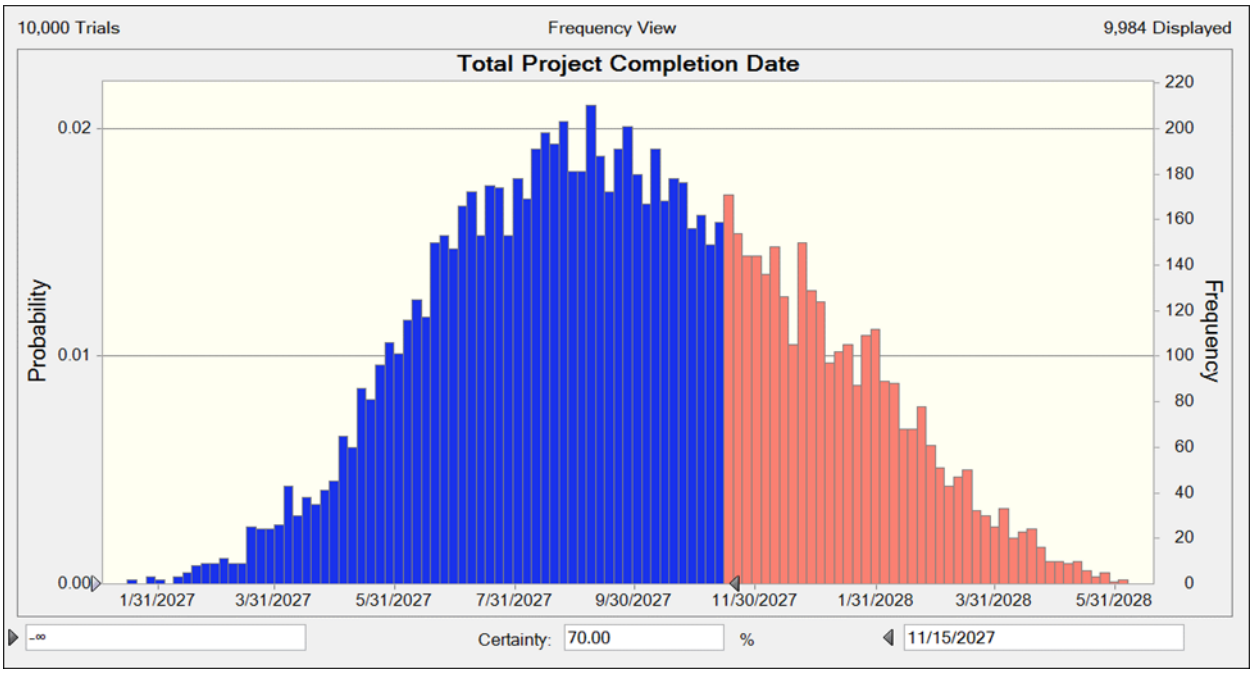


Figure 5 Project Potential Schedule

THREATS TO DELAY PROJECT SCHEDULE

Avoid Delays:

The Team identified several threats pulled into one broad category of threats – Avoid Delays. These possible delays are concentrated on the front end of the delivery of each segment and can be mitigated by the project team monitoring these risks and completing tasks in a timely manner.

Buy America: Likelihood - 10%; Most likely impact if occurring 1.9 months total
P3 – 0.4 months, GS19 - 0.4 months, P2 - 0.7 months, and EW2 - 0.4 months

The Team identified the threat as ensuring compliance with the Buy America federal aid requirements. Mitigation of this threat will require the project team to procure specialty products with sufficient lead time to obtain domestic steel and iron for material that will be permanently incorporated into the project. Additionally, the contractor or railroad procurement of specialty materials will need to factor in delivery times as well.

Permitting: Likelihood – 15% to 30% (varies by stage of design completed); Most likely impact if occurring 5.4 months
P3 – 15%/0.4 months, GS19 - 15%/0.4 months, P2 - 30%/1.8 months, and EW2 - 30%/1.8 months

The review team identified the threat, ensuring necessary construction environmental permits are obtained in a timely basis. Mitigation of this threat will require close coordination between the designers and permitting authorities.

Railroad Operations & Weather Windows: Likelihood -15% to 50%; Most likely impact if occurring 7.6 months (varies by Segment and stage of design completed
P3 – 15%/0.9 months, GS19 - 15%/0.7 months, and P2 - 50%/6.0 months

The review team identified the threat, ensuring rail operations continue unimpeded by construction during peak times, could extend the duration of project for each Segment. Mitigation of this threat will require close coordination between the railroads and the contractor related to peak time needs and potential conflicts. Additionally, the current construction schedule assumes 4 months per year of slowed or inactive construction due to the impact of inclement weather. The team considers that there is an opportunity that this schedule could be improved should the winter weather be better than typical and/or the contractor is able to schedule specific construction during the winter months.

Right of Way: Likelihood - 80%; Most likely impact 14.4 months
P3 – 4.8 months, P2 - 4.8 months, and EW2 - 4.8 months

The review team identified the threat. Mitigation of this threat will require good management of land acquisition efforts.

Utilities: Likelihood – 30% -50%; Most likely impact 4.1 months
P3 – 30%/0.6 months, P2 – 30%/1.3 months, and EW2 – 50%/2.2months

The review team identified the threat, utilities either missed or unaccounted for in design need relocation, or the inability of third party contractors to accommodate required work on a timely basis will cause construction delay during delivery of each Segment. Mitigation of this threat will require close

coordination between designers, contractors, railroads and affected utilities during the life of the project.

OPPORTUNITIES TO ADVANCE PROJECT SCHEDULE

There were no opportunities modeled related to the potential to advance the project schedule. It was part of the discussion that being able to mitigate the largest schedule threats (right of way, utilities and railroad operations and weather windows) will in effect reduce the costs of the project. The management of these threats, in effect, is the opportunity to reduce project schedule.

REVIEW CONCLUSION

The results of the review demonstrate that the contingency amount in the pre-CER estimate was sufficient to cover the risks identified during the CER, with the 70% result of $1,068.4 million (YOE) being approximately 0.9% less than the per-CER estimate of $ 1,077.9 million. There are significant threats for the team to manage, including the initial schedule threats to right-of-way acquisition and utility relocation. There are also non-specific opportunities during the design stage to avoid some of the significant cost threats, and during the construction stage by aggressively managing scope changes to potentially reduce the overall project costs.

Appendix D: Description of 75th Street CIP Phase II Capital Cost Estimate

Appendix D outlines the methodologies applied to the calculation of construction quantities and unit costs identified within the CREATE capital cost estimate CER document. Preliminary engineering design for track work and roadway infrastructure (including bridge and viaduct rehabilitation) was performed by the Consultant Team to identify construction elements, removals, impacts to existing facilities and appropriate quantities for incorporation into the CER cost estimate.

The CREATE project CER capital cost estimate was organized into primary construction categories which encompass similar or related construction activities. Within the construction categories, construction line items are used to identify general construction related activities or specific locations of occurrence. Construction line items are inclusive of the specific construction bid (pay) items and components involved in the construction activity.

CREATE Capital Cost Estimate Construction Categories

1.0 Removals / Demolition
2.0 Civil / Earthwork
3.0 Trackwork
4.0 Signals & Systems
5.0 Structures
6.0 Viaducts
7.0 Environmental Mitigation
8.0 Miscellaneous and Temporary Facilities
9.0 Utilities
10.0 Right of Way
11.0 Professional Services
12.0 Management Reserve and Allocated Contingencies

Except for a few items, most CREATE railroad specific unit costs have been based upon actual catalog prices and vendor quotes, plus a reasonable labor factor for installation. A few major items, such as relay houses, follow the same rationale, but also include significant costs necessary for application engineering, testing and cut-over, which have not been included elsewhere. The underground cable unit price is based upon a composite of the various types of cables typically required for this type of signal system, including excavation and backfill, broken down on a per-linear-foot basis.

Several CREATE partners have existing production manufacturing contracts with rail infrastructure and technology vendors. Depending on previously negotiated vendor rates and fees, each RR operator may have different costs associated with similar construction activities. As such, CREATE partners were responsible for development of unit costs for rail infrastructure and systems improvements within their ROW, track, or at Control Points (CP) that they operate. For the 2019 update, unit costs and quantities for capital cost categories 1.0 through 5.0 were provided by each individual railroad. For the 2019, unit costs

and quantities for capital cost categories 6.0 through 11.0 developed by the Consultant Team in 2014 were verified and escalated by the CMC and reviewed by the PMC teams for the 2019 update.

CER Construction Categories and Line Items

For the purposes of conducting the FHWA Cost Estimate Review (CER) process, the CREATE 75th Street CIP capital cost estimate was developed and organized such that similar or related construction activities were tabulated into related Construction Categories for simplified evaluation. Railroad and roadway infrastructure construction related activities were grouped within Construction Categories 1.0 thru 8.0.

1.0 Removals / Demolition

Track Removal - Quantities have been identified by track number and owner to assign removal costs to the appropriate RR operator and project component (P2, P3, EW2, GS19). Unit costs of removal were provided by each RR operator.

Remove Existing Interlocking or Control Point (CP) - CP railroad operators conducted independent assessment of infrastructure needs at each CP location and developed a lump sum (LS) cost of removal relative to each. A LS unit cost was developed by the CP railroad operator, per removal location, based on the needs assessment.

ROW Demolition Costs associated with ROW demolition were accounted for as part of Item 10.0 Right-of-Way.

2.0 Civil / Earthwork

Earthwork quantities developed related to excavation necessary for removal of existing rail, ties and ballast and sub-ballast in locations with significant horizontal or vertical modifications to existing track alignment.

Earth Excavation – Excavation volumes were calculated by Corridor Modeler (GeoPak) software. For the 2019 update, CREATE RR partners provided their unit costs for excavation.

Furnished Fill – Quantities were developed based on placement of retaining walls through track segments and calculated by Corridor Modeler (GeoPak) software. For the 2019 update, each railroad provided their unit costs for fill.

Sub-ballast – Quantities were developed using Corridor Modeler (GeoPak) software. For the 2019 update, CREATE RR partners provided their unit costs for sub-ballast.

Topsoil Excavation – Quantities were developed using Corridor Modeler (GeoPak) software. For the 2019 update, CREATE RR partners provided their unit costs for topsoil.

Access Road – Access road surface areas were calculated based on preliminary CADD engineering plans within each CREATE project component. For the 2019 update, CREATE RR partners provided their unit costs for access roads.

Clear and Grub Trees for Access Roads – Quantity of clearing and grubbing is based on the surface area of the access roads. For the 2019 update, CREATE RR partners provided their unit costs for clearing and grubbing.

Wrightwood Station Platform – construction of a 6” thick concrete platform (≈6350 SF) with tactical warning strip and signage.

Drainage (non-viaducts improvement areas) – Values for the 2019 CER update were obtained directly from CREATE RR partners based on their data.

71st Street at-grade Crossing – For the 2019 update, CREATE RR partners provided their unit costs for at-grade crossing construction activities.

Union Avenue – Demolition and removal of Union Avenue viaduct. Restoration of roadway and pedestrian facilities beneath viaduct. For the 2019 update, CREATE RR partners provided their unit costs for Union Avenue construction activities.

6'-high Chain Link Fence – The assumed quantity for 6'-high chain link fence was provided by NS. For the 2019 update, CREATE RR partners provided their unit costs for fencing.

71st Street Grade Separation – depression of the existing 71st Street roadway profile to allow vertical clearance for P3 flyover. For the 2019 update, CREATE RR , a lump sum unit cost was assumed.

3.0 Trackwork

CREATE partners have reviewed the proposed track configurations to verify proposed layouts for operational functionality and jurisdiction, as well as ownership for assignment of costs. Unit costs of track equipment per LF were provided by each CREATE RR partner based on their respective, existing manufacturing agreements and labor rates.

As a cost saving measure, it was assumed that existing track is to be realigned instead of removed if within an established horizontal distance of approximately eight (8) to ten (10) feet from the proposed track location, whenever possible. All realigned track includes 50% tie replacement.

4.0 Signals & Systems

For all signal items included within this category, the CREATE RR partners were provided structure type (e.g., bridge, cantilever, ground) and number of signals based on proposed rail alignment conflicts with existing facilities and new signalization needs of final track layout. CREATE Railroad partners responsible for controlling Control Points (CP) provided lump sum costs per each CP based on independently assessed needs of the CP. Each CP is distinct, and the LS unit cost must be developed separately to the proposed improvement for each location. The unit cost for modifications to the METRA CCF Control Office is provided by METRA.

5.0 Structures

For the 2014 CER, quantities for structures were calculated using the latest Bridge Index. As part of the 2019 CER update, the CREATE RR partners provided updated estimates.

Bridge Repair Locations - Capital costs for these improvements were developed based on number of tracks to accommodate, square footage of bridge deck, and square footage of any retaining walls or support structures affected. In total, 106 different structural sections were analyzed and costed.

6.0 Viaducts

Improvements are proposed to thirty-seven (37) viaducts within the project area. The existing conditions of pavement, sidewalk, ADA ramps, roadway lighting, drainage, inlet and sewer infrastructure related to each viaduct were evaluated and appropriate improvement measures were identified and costed in 2014. For the 2019 CER Update, the 2014 numbers were escalated. Quantities of each related improvement element were development for all viaduct locations.

Pavement – LS costs were determined based on existing pavement type and condition at each viaduct location. Based on existing conditions a recommendation of Pavement Resurfacing or Pavement Reconstruction was made for the roadway surface area surrounding the viaduct. Pavement Resurfacing only includes costs for resurfacing the roadway, while Pavement Reconstruction also includes replacement of existing curb & gutter within the reconstruction area. A unit cost was developed for Pavement Resurfacing based on CDOT June 2019 B-5-162 Arterial Street Resurfacing South Contract. A unit cost was developed for curb and gutter based on January 2019 CDOT awarded bid prices for Broadway Streetscape Project.

Sidewalk – Recommended quantities for replacement of sidewalk at one or both sides of the street were made based on the existing conditions around affected viaducts. Unit Prices are from an Average of Recent Bids for Viaduct Improvement Elements, dated Aug-2011; for 2019 updates, the costs were escalated using program inflation factors.

Bridge Drainage – Drainage swales costs were calculated using a unit cost of swale per foot of adjacent sidewalk and unit cost per connection to the existing drainage system. Underdrain costs were calculated using a unit cost per foot of pipe and per connection to the existing drainage system. Unit Prices are based on IDOT awarded bid prices, years 2017-2019.

7.0 Environmental Mitigation

Mitigation line items included in the cost estimate were based on the CREATE 75th St CIP Environmental Justice Mitigation Measures, Offsetting Benefits and Enhancement Options Draft Technical Memorandum (9/24/13).

Noise walls – Standard unit cost of $28 per SF for noise walls less than 15' in height and $40 for those between 15' and 30' based on IDOT 2017 awarded bid prices.

Hazardous Materials – General Mitigation Activities – A LS percentage of the sum of each CREATE project components' construction category 1.0 – 6.0 costs was assumed as follows:

No Risk – 0% of construction categories 1.0 – 6.0 per site

N/A – 0.025% of construction categories 1.0 – 6.0 per site

Low – 0.01% of construction categories 1.0 – 6.0 per site

Moderate – 0.05% of construction categories 1.0 – 6.0 per site

High – 0.1% of construction categories 1.0 – 6.0 per site

A separate (% or LS) of the construction cost of parcels recommended for mitigation based on description of mitigation. Parcels identified as *Moderate* risk were allocated lump sum mitigation costs equal to 0.5% of the capital cost of the associated construction improvements in the area. Parcels identified as *Medium to High* or *High* risk were allocated lump sum mitigation costs equal to 1.0% of the capital cost of the associated construction improvements in the area.

Contaminated Soil Disposal – A LS unit cost of 5% of construction category 2.0 (a: earth excavation, d: topsoil excavation) costs was assumed.

8.0 Miscellaneous / Temporary Facilities

Construction Staging / Temporary Vehicles & Facilities – The unit cost assumed a LS allowance of (1%) construction category 3.0, 5.0, 6.0 total costs.

Maintenance of Traffic (MOT) – The unit cost assumed a LS allowance of (5%) of construction category 5.0 + 6.0 total costs in project components P2, EW2 and GS 19. There are currently no assumed roadway closures & minimal maintenance of traffic needs in CREATE project component P3 (as per AAR comments). A (0%) LS allowance was assumed for project component P3.

Mobilization – The unit cost assumed a LS allowance of (4%) of construction category 5.0 + 6.0 total costs.

Flagging (RR Maintenance of Way) – A unit cost of $1000 per day per flagman was assumed (as per AAR recommendation).

9.0 Utilities

Coordination with corridor utility holders will take place during the final design phase. Once detailed utility surveys have been conducted, the project team will identify all potential conflicts and develop more detailed itemization of cost for utility relocations or impacts. For relocations within RR ROW, the cost of electricity drops and Gas service to new rail construction is included within unit costs of line items in Categories 2.0, 3.0 (provided by RR partners). It was assumed that all other utility conflicts within RR ROW will be relocated at owners' expense.

10.0 Right-of-Way

Note: All property acquisitions, relocations and easements will be undertaken in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (as amended and agreed to by FHWA and the CREATE Partners).

Temporary (Construction) Easements – Temporary construction easements for accessibility to job sites and payments to affected stakeholders.

Relocations – relocation of single family (Owner) and multi-unit (Tenant) residents where building demolition is required. Tenant Occupied – a lump sum allowance of $15 K per tenant occupied relocation was assumed. A total of 3 locations were identified.

Owner Occupied - a lump sum allowance of $30 K per owner occupied relocation was assumed. A total of 1 locations were identified.

Mortgage Assistance – A maximum of $800 K would be allotted as part of the acquisition costs in case it is required. No mortgage assistance have been identified.

Acquisition – Values are estimated market value (the amount a property could be sold for on the open market according to the assessor's office.

ROW Consultant – professional services for legal representation during coordination with affected parcel owners.

11.0 Professional Services

All force account work incurred by the CREATE railroad partners has been removed from the cost estimate, as these expenditures will not be reimbursable through Federal grant opportunities.

PE / ENV –The unit cost identified is the value of the consultant team contract through preliminary engineering and receipt of an FHWA approved Record of Decision, signifying completion of NEPA environmental clearance procedures.

PE/ENV costs are not added since were spend and contract has been closed out

Construction Management – CREATE partners will determine CM needs individually, and per project component, at a later date. CM costs were divided into two categories to represent costs incurred for RR related construction versus roadway infrastructure construction.

RR Force Acct – Unit cost assumes a LS allowance of (7%) of RR specific costs (categories 1.0 thru 4.0) in all project components. Allowances may be revised as per CREATE RR partner directive.

Roadway/Infrastructure - Unit cost assumes a LS allowance of (7%) of non-RR provided costs (categories 5.0 - 9.0) for all project components.

Legal; Permits, Review Fees by Others – Unit cost assumes a LS allowance (0.3%) of non-RR specific costs (categories 1.0 - 9.0).

Survey, Testing, Site Investigation, Inspection – Unit cost assumes a LS allowance (.25%) of total cost of construction categories 1.0 - 9.0.

Insurance - No costs are assumed to be incurred.

Startup – Unit cost assumes a LS allowance (1%) of non-RR specific costs (categories 5.0 - 9.0).

12.0 Management Reserve and Allocated Contingency

Multiple approaches to the application of contingency were considered in the development of the capital cost estimate:

Approach #1 –CREATE Phase I Project Contingency

Management Reserve Contingency – 5% of construction line item Direct Cost.

Allocated Contingency (design and construction) – 15% of construction line item Direct Cost.

Approach #2 – CREATE Phase II Project Contingency

Management Reserve Contingency – 5% of construction categories 1.0 – 10.0 total Direct Construction Cost.

Allocated Contingency (design and construction) – 10% of construction categories 1.0 – 10.0 total Direct Construction Cost.

Approach #3 – Risk Registry assessment

This approach utilizes the CREATE "Risk Registry" tab of the ***CREATE_75th ST CIP CER file*** to identify potential factors in design and construction that may affect project cost or project schedule (threats or opportunities). A magnitude of impact is identified for each threat/opportunity and monetized as a percentage of the construction line item Direct Cost.

Approach #4 – Design to Cost Requirement

This approach utilizes a "Design to Cost" clause requirement in the design phase to ensure the design meets the construction budget for each project. This requirement reduces the risk of costs increases during the construction phase.

Approach #5 CREATE Phase III (Construction) Project Contingency

Similar to Phase II Project Contingency, Phase III will maintain a maximum total project Management Reserve of 5% and Contingency of 10%. Contingency rates may be reduced on a construction line item basis based on coordination with the awarded contractor and subsequent negotiations.

13.0 Inflation & Escalation

The CMC team analyzed the historical ENR BCI/CCI data for Chicago and computed their 5-year and 10-year CAGRs. Based on the historic inflation analysis, it was concluded that the 3.5% escalation assumption is a good for this project.

Appendix E: 75th Street CIP Risk Register

The Risk Registry assessment identifies potential factors in design and construction that may affect project cost or project schedule (threats or opportunities). A magnitude of impact is identified for each threat/opportunity and monetized as a percentage of the construction line item Direct Cost. Risks with an identified Probable Cost Impact to the project are shown in Table 11. Risks with an identified probable schedule impact are listed in Table 12.

Table 11: Risks Identified with Impact to Cost (Source: Cost Estimate Review, 2019)

Risk Reg #	Phase/ Component Assignment	Event Risk Name	Detailed Description of the Risk Event (SMART: Specific, Measurable, Attributable, Relevant, Timebound)	Proba-bility	Optimistic Cost	Most Likely Cost	Pessimistic Cost	Probable Cost Impact
1	CN & Prof Services-Project-wide	Additional "Asks" from the local community for mitigations and considerations on Community Mobility Improvement items	Additional request from advocates related to community improvement	25%	$100,000	$560,000	$800,000	$121,667
3	CN & Prof Services-Project-wide	Quantity Variance with Civil/Earthwork items	Potential additional quantities for Civil/Earthwork items as required - (beyond design contingencies)	10%	$600,000	$1,200,000	$1,800,000	$120,000
4	CN & Prof Services-Projec-twide	Interim Track and Signal work for extended duration	Additional temporary track and signal work for extended duration where the P2 and EW2 projects. P3 is first in the project sequence.	50%	$1,000,000	$2,000,000	$3,000,000	$1,000,000
9	ROW/Utility-P2	Utilities relocation	Executing relocation agreement will be significantly higher than 3rd party estimates	80%	$375,000	$2,250,000	$3,375,000	$1,600,000

Risks Identified with Impact to Cost (Source: Cost Estimate Review, 2019) (continued)

Risk Reg #	Phase/ Component Assignment	Event Risk Name	Detailed Description of the Risk Event (SMART: Specific, Measurable, Attributable, Relevant, Timebound)	Proba -bility	Optimistic Cost	Most Likely Cost	Pessimistic Cost	Probable Cost Impact
10	CN & Prof Services-P2	Structures - waste site near abutment exc.	Special waste site near abutment excavation; Geotech will occur in the future, cost is based on additional excavation and hauling of material	5%	$889,000	$1,778,000	$2,667,000	$88,900
11	CN & Prof Services-P2	Substructure Rehabilitation (Structures)	Basic Rehabilitation will change as Geotech information is realized	80%	$2,334,000	$4,667,000	$7,000,000	$3,733,600
13	CN & Prof Services-P2	P2 unforeseen conditions at time of bid	Unforeseen changes during construction.	10%	$1,500,000	$9,000,000	$13,500,000	$800,000
14	ROW/Utility-P2	ROW Acquisition of additional residential parcel	Purchasing of additional residential parcel due to design and/or community improvement. Acquisition of alternative ROW parcels	75%	$500,000	$1,000,000	$1,500,000	$750,000
15	CN & Prof Services-P2	Increased Construction (Bid) Costs	Unable to secure a pre-selected/qualified Bidding Pool expected to tender 3 or more bids.	5%	$6,667,000	$13,334,000	$20,000,000	$666,683
19	CN & Prof Services-P2	Change Orders and design finalization	2%/ 6%/ 10% of Construction Cost	100%	$3,427,928	$10,283,783	$17,139,638	$10,283,783
21	ROW/Utility-EW2	Utilities relocation	Executing relocation agreement will be significantly higher than 3rd party estimates	80%	$1,000,000	$3,000,000	$4,500,000	$2,266,667
22	CN & Prof Services-EW2	Structures - waste site near abutment exc.	Special waste site near abutment excavation; Geotech will occur in the future, cost is based on additional excavation and hauling of material	5%	$889,000	$1,778,000	$2,667,000	$88,900
23	CN & Prof Services-EW2	Substructure Rehabilitation (Structures)	Basic Rehabilitation will change as Geotech information is realized	80%	$2,334,000	$4,667,000	$7,000,000	$3,733,600
24	CN & Prof Services-EW2	Superstructure Rehabilitation / Widening (Structures)	Substantial Structural Reinforcement; Beam or Deck Replacement; Widening	80%	$4,778,000	$9,556,000	$14,333,333	$7,644,622
26	CN & Prof Services-EW2	EW2 unforeseen conditions at time of bid	Unforeseen changes during construction.	10%	$1,875,000	$11,250,000	$16,875,000	$1,000,000

Risks Identified with Impact to Cost (Source: Cost Estimate Review, 2019) (continued)

Risk Reg #	Phase/ Component Assignment	Event Risk Name	Detailed Description of the Risk Event (SMART: Specific, Measurable, Attributable, Relevant, Timebound)	Proba -bility	Optimistic Cost	Most Likely Cost	Pessimistic Cost	Probable Cost Impact
27	ROW/Utility-EW2	ROW Acquisition of additional land	Additional land maybe required due to the track alignment. Project ROW requirement vs. remaining land.	90%	$500,000	$1,000,000	$1,500,000	$900,000
28	CN & Prof Services-EW2	Increased Construction (Bid) Costs	Unable to secure a pre-selected/qualified Bidding Pool expected to tender 3 or more bids.	5%	$9,667,000	$19,334,000	$29,000,000	$966,683
32	CN & Prof Services-EW2	Change Orders and design finalization	2%/ 6%/ 10% of Construction Cost	100%	$4,971,194	$14,913,581	$24,855,968	$14,913,581
33	CN & Prof Services-EW2	Private Grade Crossing accommodation	South End of Columbus Ave.: NS Lander's Yard Access addressing Metra Tracks	80%	$1,000,000	$2,500,000	$4,000,000	$2,000,000
34	CN & Prof Services-Project-wide	Environmental Mitigation	Additional environmental mitigation on existing or acquired right-of-way for handling Special Waste	30%	$250,000	$500,000	$750,000	$150,000
36	ROW/Utility-P3 Stages 1 and 2	Utilities relocation	Executing relocation agreement will be significantly higher than 3rd party estimates	80%	$500,000	$3,000,000	$4,500,000	$2,133,333
37	CN & Prof Services-P3 Stages 1 and 2	Structures - waste site near abutment exc.	Special waste site near abutment excavation; Geotech will occur in the future, cost is based on additional excavation and hauling of material	5%	$889,000	$1,778,000	$2,667,000	$88,900
38	CN & Prof Services-P3 Stages 1 and 2	Substructure Rehabilitation (Structures)	Basic Rehabilitation will change as Geotech information is realized	80%	$2,334,000	$4,667,000	$7,000,000	$3,733,600
39	CN & Prof Services-P3 Stages 1 and 2	Superstructure Rehabilitation / Widening (Structures)	Substantial Structural Reinforcement; Beam or Deck Replacement; Widening	80%	$4,778,000	$9,556,000	$14,333,333	$7,644,622
41	CN & Prof Services-P3 Stages 1 and 2	P3 unforeseen conditions at time of bid	Unforeseen changes during construction.	10%	$1,875,000	$11,250,000	$16,875,000	$1,000,000
42	ROW/Utility-P3 Stages 1 and 2	ROW Acquisition of additional land	Additional land maybe required due to the track alignment. Project ROW requirement vs. remaining land.	90%	$500,000	$1,000,000	$1,500,000	$900,000

Risks Identified with Impact to Cost (Source: Cost Estimate Review, 2019) (continued)

Risk Reg #	Phase/ Component Assignment	Event Risk Name	Detailed Description of the Risk Event (SMART: Specific, Measurable, Attributable, Relevant, Timebound)	Probability	Optimistic Cost	Most Likely Cost	Pessimistic Cost	Probable Cost Impact
43	CN & Prof Services-P3 Stages 1 and 2	Increased Construction (Bid) Costs	Unable to secure a pre-selected/qualified Bidding Pool expected to tender 3 or more bids.	20%	$7,334,000	$14,667,000	$22,000,000	$2,933,400
48	CN & Prof Services-P3 Stages 1 and 2	Change Orders and design finalization	2%/ 6%/ 10% of Construction Cost	100%	$4,474,670	$13,424,010	$22,373,349	$13,424,010
50	CN & Prof Services-GS19	Utilities relocation	Executing relocation agreement will be significantly higher than 3rd party estimates	80%	$250,000	$1,500,000	$2,250,000	$1,066,667
52	CN & Prof Services-GS19	GS19 unforeseen conditions at time of bid	Unforeseen changes during construction.	10%	$100,000	$150,000	$200,000	$15,000
53	CN & Prof Services-GS19	Increased Construction (Bid) Costs	Unable to secure a pre-selected/qualified Bidding Pool expected to tender 3 or more bids.	20%	$34,000	$67,000	$100,000	$13,400
57	CN & Prof Services-GS19	Change Orders and design finalization	2%/ 6%/ 10% of Construction Cost	100%	$104,676	$314,027	$523,379	$314,027
							Total	**$86,095,645**

Table 12: Risks Identified with Impact to Schedule (Source: Cost Estimate Review, 2019)

Risk Reg #	Phase/Component Assignment	Event Risk Name	Detailed Description of the Risk Event (SMART: Specific, Measurable, Attributable, Relevant, Timebound)	Probability	Optimistic Schedule (mo)	Most Likely Schedule (mo)	Pessimistic Schedule (mo)	Probable Schedule Impact (mo)
2	CN & Prof Services-Project-wide	Extended Force Majeure	Increased compression on Engineering and Construction Schedule may affect delivery by grant conclusion	50%	1	3	6	1.7
3	CN & Prof Services-Project-wide	Quantity Variance with Civil/Earthwork items	Potential additional quantities for Civil/Earthwork items as required - (beyond design contingencies)	10%	3	6	9	0.6
5	CN & Prof Services-Project-wide	Structures - delivery delays	Delay in delivery of materials	50%	3	6	9	3.0
6	CN & Prof Services-Project-wide	Structures - delayed improvements	Consecutive (or close by) bridge improvements may be delayed to minimize traffic impacts due to road closures	50%	0	0	0	0.0
7	CN & Prof Services-Project-wide	Opportunity to avoid weather impacts	4 months per year are included for the impact of Weather events requiring construction to slow or stop; the team considers that there is an opportunity that this schedule could be improved	60%	2	4	6	-2.4
	CN & Prof Services-Project-wide	Buy America Requirement	Buy America requirements may require more time to let the project in order to avoid a waiver.	10%	3	6	12	0.0
8	ROW/Utility-P2	Utility relocation delays	Potential for delay to the relocation of utilities delaying the start of construction on the project.	30%	3	4	6	1.3
	CN & Prof Services-P2	Structures - waste site near abutment exc.	Special waste site near abutment excavation; Geotech will occur in the future, cost is based on additional excavation and hauling of material	5%	0	0	0	0.0
11	CN & Prof Services-P2	Substructure Rehabilitation (Structures)	Basic Rehabilitation will change as Geotech information is realized	80%	3	6	9	4.8
13	CN & Prof Services-P2	P2 unforeseen conditions at time of bid	Unforeseen changes during construction.	10%	3	6	9	0.6
12	ROW/Utility-P2	P2 ROW Acquisition Delay	Potential delay to the acquisition of ROW on project P2.	80%	3	6	9	4.8
16	CN & Prof Services-P2	P2 Operations impact delays	Potential for operations delays during peak RR seasons	50%	9	12	15	6.0
17	CN & Prof Services-P2	Environmental limit (ESR)	Environmental permits and approval may cause a delay to project start.	30%	3	6	9	1.8

Risks Identified with Impact to Schedule (Source: Cost Estimate Review, 2019) (continued)

Risk Reg #	Phase/Component Assignment	Event Risk Name	Detailed Description of the Risk Event (SMART: Specific, Measurable, Attributable, Relevant, Timebound)	Probability	Optimistic Schedule (mo)	Most Likely Schedule (mo)	Pessimistic Schedule (mo)	Probable Schedule Impact (mo)
18	CN & Prof Services-P2	Buy America Requirement	Buy America requirements may require more time to let the project in order to avoid a waiver.	10%	3	6	12	-0.7
20	ROW/Utility-EW2	Utility relocation delays	Potential for delay to the relocation of utilities delaying the start of construction on the project.	50%	3	4	6	2.2
23	CN & Prof Services-EW2	Substructure Rehabilitation (Structures)	Basic Rehabilitation will change as Geotech information is realized	80%	3	6	9	4.8
24	CN & Prof Services-EW2	Superstructure Rehabilitation / Widening (Structures)	Substantial Structural Reinforcement; Beam or Deck Replacement; Widening	80%	3	6	9	4.8
25	ROW/Utility-EW2	EW2 ROW Acquisition Delay	Potential delay to the acquisition of ROW on project EW2.	80%	3	6	9	4.8
26	CN & Prof Services-EW2	EW2 unforeseen conditions at time of bid	Unforeseen changes during construction.	10%	3	6	9	0.6
29	CN & Prof Services-EW2	EW2 Operations impact delays	Potential for operations delays during peak RR seasons	50%				0.0
30	CN & Prof Services-EW2	Environmental limit (ESR)	Environmental permits and approval may cause a delay to project start.	30%	3	6	9	1.8
31	CN & Prof Services-EW2	Buy America Requirement	Buy America requirements may require more time to let the project in order to avoid a waiver.	10%	3	4	6	0.4
35	ROW/Utility-P3 Stages 1 and 2	Utility relocation delays	Potential for delay to the relocation of utilities delaying the start of construction on the project.	30%	1	2	3	0.6
38	CN & Prof Services-P3 Stages 1 and 2	Substructure Rehabilitation (Structures)	Basic Rehabilitation will change as Geotech information is realized	80%	3	6	9	4.8
39	CN & Prof Services-P3 Stages 1 and 2	Superstructure Rehabilitation / Widening (Structures)	Substantial Structural Reinforcement; Beam or Deck Replacement; Widening	80%	3	6	9	4.8

Risks Identified with Impact to Schedule (Source: Cost Estimate Review, 2019) (continued)

Risk Reg #	Phase/Component Assignment	Event Risk Name	Detailed Description of the Risk Event (SMART: Specific, Measurable, Attributable, Relevant, Timebound)	Probability	Optimistic Schedule (mo)	Most Likely Schedule (mo)	Pessimistic Schedule (mo)	Probable Schedule Impact (mo)
40	CN & Prof Services-P3 Stages 1 and 2	Environmental commitment changes prior to construction start	Final design reviews may require changes to Environmental commitment from the originally approved due to unforeseen design challenges	30%	0	1	3	0.4
41	CN & Prof Services-P3 Stages 1 and 2	P3 unforeseen conditions at time of bid	Unforeseen changes during construction.	10%	3	6	9	0.6
44	CN & Prof Services-P3 Stages 1 and 2	P3 Operations impact delays	Potential for operations delays during peak RR seasons beyond SRA end date.	50%	0	4	14	3.0
45	CN & Prof Services-P3 Stages 1 and 2	Environmental limit (ESR)	Environmental permits and approval may cause a delay to project start.	30%	3	6	9	1.8
46	CN & Prof Services-P3 Stages 1 and 2	Contractor Access	Access for constructions staging causing a conflict (TCEs, etc.) Contractor vs Railroad provided.	50%	3	6	9	3.0
47	CN & Prof Services-P3 Stages 1 and 2	Buy America Requirement	Buy America requirements may require more time to let the project in order to avoid a waiver.	10%	3	4	6	0.4
49	CN & Prof Services-GS19	Utility relocation delays	Potential for delay to the relocation of utilities delaying the start of construction on the project.	10%	1	2	3	0.2
51	CN & Prof Services-GS19	Environmental commitment changes prior to construction start	Final design reviews may require changes to Environmental commitment from the originally approved due to unforeseen design challenges	30%	0	1	3	0.4
52	CN & Prof Services-GS19	GS19 unforeseen conditions at time of bid	Unforeseen changes during construction.	10%	3	6	9	0.6
54	CN & Prof Services-GS19	GS19 Operations impact delays	Potential for operations delays during peak RR seasons	50%				0.0
55	CN & Prof Services-GS19	Environmental limit (ESR)	Environmental permits and approval may cause a delay to project start.	30%	3	6	9	1.8
56	CN & Prof Services-GS19	Buy America Requirement	Buy America requirements may require more time to let the project in order to avoid a waiver.	10%	3	4	6	0.4
							Total	**63.7**

Appendix F: FHWA P3 Screen Tool

P3-SCREEN

Public-Private Partnerships (P3) Delivery Options Screening Checklist

U.S. Department of Transportation
Federal Highway Administration

Project Name CREATE 75th Street Corridor Improvement Project Date 06/12/20

Name of Assessor_____ Title of Assessor_____

Criteria	Evaluation Question	Response (drop-down menu)	Comment/Mitigation
Legal			
Sponsor Authority	Does the project sponsor have legal authority to pursue delivery of the project as a P3?	Yes	P3 delivery is permitted by Illinois Law (Ill. Rev. Stat. ch. 630 §§ 15/5).
Planning and Environmental			
Long Range Planning	Is the project consistent with the project sponsor's and regional long-term transportation goals?	Yes	The project is programmed in the TIP, STIP, MPO Long Range Transportation Plan, State Long Range Transportation Plan, and State Freight Plan.
Environmental Review	Will the required NEPA decision document be completed within 2 - 3 years?	Yes	NEPA decision document received
Public Support			
Local Support	Is there consensus among local and regional stakeholders to pursue the project?	Yes	The CREATE Partners have indicated their support for moving the 75th Street CIP Project forward.
Political Support	Is there political support for delivering the project?	Yes	Letters of support were provided by the offices of the Mayor of Chicago, the President of the Cook County Board of Commissioners, and the Governor of Illinois.
Organizational Capacity			
Technical Capacity	Does the sponsor have access to sufficient internal and external technical resources to successfully manage all phases of the P3 delivery option (development, procurement, negotiation and long-term contract oversight) in the public interest?	Yes	The Chief Procurement Office of the State of Illinois provides technical resources for the management of P3 delivery.
Policy Guidelines	Has the project sponsor established guidelines and regulations for procuring and managing P3 projects?	Yes	The Chief Procurement Office of the State of Illinois provides guidelines and regulations for the procurement and management of P3 projects.
Project Scope & Complexity			
Size	Is the project size and scope suitable for delivery via P3 (generally costing more than $100 million) ?	Yes	Project cost exceeds $100 million
Risk	Have project risks been identified?	Yes	Risks identified in Cost Estimate Review phase
Risk Allocation	Is there potential to allocate risks to the party more capable of managing those risks by delivering the project as a P3?	No	The CREATE Partners have determined that there is no potential benefit to risk management by delivering the project as a P3.
Innovation	Is there potential to derive benefits from technological or other types of innovation through private sector delivery of the project?	No	The CREATE Partners have determined that there is no potential to derive benefits from innovation through private sector delivery.
Efficiency	Is there potential to achieve cost/schedule savings by delivering the project as a P3?	No	The CREATE Partners have determined that there is no potential to achieve cost/schedule savings by delivering the project as a P3.
Quality	Is there potential for higher quality product/service delivery with a P3?	No	The CREATE Partners have determined that there is no potential for higher quality product/service delivery with a P3.
Life-Cycle Costs	Have the life-cycle costs of the proposed project been determined?	Yes	Railroad partners have committed to maintain infrastructure investments for their full lifecycle.
Affordability			
Near and Long Term Financial Capacity	Does the project sponsor have the financial capacity to meet the project's lifecycle costs using conventional public funding and financing sources?	Yes	The CREATE Partners have the financial capacity to meet lifecycle costs using convertional sources.
Revenue Potential	Does the project have the revenue generation potential to repay any or all of the project costs?	Yes	Indirect revenue generation is expected due to increased productivity resulting from reduced delays and expanded capacity.
Industry Interest			
Industry Capacity	Do three or more private sector firms have the capability to deliver the project as a P3?	No	The CREATE Partners have not identified private sector firms with the capability to deliver the project as a P3.
Industry Interest	Have three or more private entities demonstrated interest in the project to suggest the opportunity exists for a competitive process?	No	The CREATE Partners have not identified private entities interested in the project.
Other			
Summary Analysis:	**Although there exists the necessary legal authority and technical resources to pursure P3 delivery, the CREATE partners have determined that delivering the project as a P3 yields no potential benefits to efficiency, risk management, innovation, or quality.**		

Conclusion	**Based on the responses and comments in the above assessment, it appears at this time that a P3 delivery may not be appropriate for the project.**

Appendix G: Project Links

http://www.75thcip.org/about/funding.aspx

http://www.idot.illinois.gov/Assets/uploads/images/Transportation-Systems/planning/Final%2019-24%20Multi-ModalMYP_October.pdf

Appendix H: CREATE Partners Memorandum of Understanding

CREATE Partners Memorandum of Understanding

474-Project (75th Street CIP and B9)

This Memorandum of Understanding ("MOU") is effective as of January 25, 2019 by and between the CREATE partners. The term "CREATE partners" or "partners" means (i) the Association of American Railroads (AAR), acting for and on behalf of The Burlington Northern and Santa Fe Railway Company (BNSF), Canadian National Railway Company (CN), Canadian Pacific Railway Company (CP), CSX Transportation, Inc. (CSX), National Railroad Passenger Corporation (Amtrak), Norfolk Southern Railway Company (NS), Union Pacific Railroad Company (UP), and Commuter Rail Division of the Regional Transportation Authority (Metra), (ii) Cook County, Illinois, acting through the Cook County Department of Transportation and Highways (DoTH); (iii) the Illinois Department of Transportation (IDOT), and (iv) the City of Chicago, acting by and through its Department of Transportation (CDOT) all of whom are parties to a certain Joint Statement of Understanding Regarding the CREATE Program dated June 13, 2003 ("JSOU") as recently amended by a Fourth Amendment dated October 16, 2018 which added Cook County as a partner*. The purpose of this MOU is to set forth the parties' understanding with respect to the terms and conditions under which they will participate in the portion of the CREATE Program known as the 474-Project as defined and described in Section 3 below.

IT IS AGREED among the CREATE partners as follows:

1. FHWA Term Sheet Requirements

   The CREATE partners will adhere to all of the requirements of the approved **FHWA Term Sheet dated December 6, 2018 (the "Term Sheet") as attached hereto as Exhibit A** and, by this reference, made a part hereof

2. CREATE Partnership Agreements

   1. The CREATE partners will comply with the terms of the JSOU and with the terms of the CREATE partner Confidentiality Agreement effective June 13, 2003.
   2. The CREATE partners will comply with the policies of the CREATE Program including without limitation the CREATE Phase II Manual effective December 2017 and the CREATE Phase III Manual effective January 2015, as updated from time to time.
   3. The CREATE partners agree that as long as work is remaining as shown in Exhibit B, Work Package Funding Sources, all funding shown in Table 1 below shall remain available to complete the entire applicable scope of the 474-Project described in Exhibit B.
   4. The CREATE partners agree to implement environmental commitments applicable to the portions of 75th Street Corridor Improvement Project (75th St. CIP) under construction per the Final Environmental Impact Statement and Record of Decision for that Project.
   5. The CREATE partners will direct any available 75th St. CIP funds (excluding any

INFRA funds), due to underruns or other reasons, toward construction of other portions of the 75th St. CIP projects including P2 and EW2, subject to the approval of the Finance Committee. No INFRA 2018 funds will be used in the construction of P2 and EW2.

6. The CREATE partners agree to support adding to or deleting scope from the 474-Project if requested by a partner, if agreed to by all the partners and sufficient other funding, not shown in Table 1, is available for design and construction of the scope change.
7. The CREATE partners agree that changes in scope of the previously planned 75th St. CIP construction, not included in the INFRA application but necessary due to safety or service concerns, can be added at any time if funded and agreed to by the partners.
8. In accordance with section 9 of the Term Sheet ("Project-Specific Performance or Accountability Provisions"), if subject to the Force Majeure provision of the State Rail Agreement, one of the Railroads, listed above does not meet the "Begin Construction" and "Operationally and Substantially Complete" milestone dates described in Schedule B of the Term Sheet, then the Railroad will be responsible for the 5 percent reduction of the INFRA Grant amount of the pertinent project components.

3. 474-Project.

The CREATE Program 474-Project, part of the overall 75th St. CIP projects and B9, consists of the following mutually agreed to and approved project Scope of Work components:

1. P3 – Design and construction of the Forest Hill new north-south flyover.
2. GS19 – Design and construction of the 71st Street new grade separation.
3. B9 – Construction of the Argo Belt Railway of Chicago (BRC) double track connection; construction of a main line siding, various improvements near Argo and the CP Canal.
4. EW2 – Design of Belt Junction, 80th Street Junction replacements and Metra South West Service double track around Landers yard.
5. P2 – Design of the new Metra Rock Island Connection between Belt Junction and the Rock Island district.

Project scope implementation includes the following:

a) Final design, plans and documents for construction related activities.
b) Program management and construction management activities.
c) ROW and easements including appraisals and acquisitions.
d) Utility relocations, including coordination and design not covered by easements with any of the partners.
e) Construction of B9 which includes but is not limited to, civil, structures, track,

switches, signals, testing and commissioning or cutover.

f) Construction of P3/GS19, which includes but is not limited to, civil, structures, track, switches, signals, testing and commissioning or cutover.
g) Viaduct improvements and community mobility activities which include, but are not limited to, final design, plans and documents related to construction associated with streetscaping.
h) Design and implementation of maintenance of traffic (MOT) detour routes which include streets, viaducts, track and signal changes to support movement of public traffic while the project is under construction.
i) Preliminary Environmental Site Assessments (PESA)/Preliminary Site Investigations (PSIs),
j) Design and implementation of environmental mitigation based on the 75th St. CIP Final Environmental Impact Statement (FEIS)/Record of Decision (ROD), and reevaluation as directed by IDOT.
k) Program/construction management, public advocacy, safety and security activities.
l) IDOT, with timely input from other CREATE partners, will track and report on project expenditures to the CREATE Finance Committee.
m) IDOT, with timely input from other CREATE partners, will complete the final project reports including final project cost for approval by the CREATE partners.

4. Funding

The CREATE partners agree to the following funding commitments to fund the 474-Project including a recently awarded INFRA grant from the FHWA of $132,034,680.

TABLE 1 - Sources of Funding

Source	Total	%
INFRA		
INFRA	$ 132,034,680	27.9%
Other Federal		
CDOT STP	$ 4,000,000	0.8%
CDOT CMAQ	$ 900,000	0.2%
Non-Federal		
State		
IDOT	$ 111,000,000	23.4%
Regional/Local		
Metra	$ 23,000,000	4.8%
Cook County	$ 77,750,000	16.4%
CDOT	$ 4,225,000	0.9%
Private		
Amtrak	$ 5,000,000	1.1%
Class I Railroads	$ 116,005,000	24.5%
TOTAL	**$ 473,914,680**	**100.0%**

Since the announcement of the INFRA grant on June 6, 2018 and now awarded to IDOT as finalized in the Term Sheet, the CREATE partners have developed and agreed to funding splits for each of the 7 major components within the 474-Project. Design of P3, GS19, EW2 and P2 and construction of B9, P3 and GS19. The INFRA grant funds only pertain to 5 of the 7 major components, the design and construction of P3, GS19, and the construction of B9. The CREATE partners will fund, in their entirety, the remaining 2 major components, which are the design of EW2 and P2.

The CREATE partners understand that the 7 major project components further break down to 30 +/- Work Packages that may be led by various partners; IDOT, CDOT, Cook County, Metra, CSX, NS, UP or AAR, as shown in attachment **Exhibit B (Work Packages Funding by Sources dated December 12, 2018).** The Work Packages will describe the basic information about each project sub-components ranging from summary of scope of work, schedule, budgeted costs, funding splits, and other relevant information regarding the work to be completed.

As the 474-Project progresses, the CREATE partners understand that:

a. The total number of Work Packages may change;
b. Funds allocated to each Work Package may change;
c. Funding splits allocated or spent on each Work Package may change;
d. Schedule of the implementation of the Work Packages may change;
e. Scope of each Work Package is subject to change as directed by the CREATE partners
f. With respect to CREATE components not currently funded by federal grants, design and advance construction work funded or performed by a CREATE partner will be counted toward that party's non-federal contribution or match on future federal grants to the extent permitted by the future federal grant. The CREATE partners and IDOT shall work to obtain necessary FHWA approval in accordance with 2 CFR 200.458.

5. The Implementation Committee, as defined in the JSOU, will bring forward any of these changes to the Financial Committee for review and approval. If additional funds are required to complete the 474-Project, the Implementation Committee will bring forward a recommendation for the Financial Committee's review and approval. All partners' contributions to the 474-Project remain within the 474-Project until all invoices have been paid and all 474-Project Work Packages are closed out. IDOT will make every effort to efficiently close out projects. If there are remaining funds from the partners' contributions after all invoices have been paid and the 474-Project Work Packages are closed out, the funds will be available for future 75TH St. CIP construction as determined by the Management Committee.

The following anticipated 474-Project schedule is based upon FHWA's releasing INFRA grant funds by late December 2018.

TABLE 2 - Schedule

Task Name	Description	Start	Finish
474		Fall 2018	Fall 2025
INFRA Grant award		Summer 2018	Fall 2018
Major Project Requirements	CER, FP, and PMP	Spring 2019	Fall 2019
P2	Design, ROW & Utilities	Spring 2019	Spring 2022
EW2		Spring 2019	Spring 2022
B9	Construction and CM	Spring 2019	Fall 2021
P3	Design, ROW, Utilities, Construction and CM	Spring 2020	Fall 2024
Viaducts		Spring 2020	Fall 2022
GS19		Spring 2023	Fall 2024

6. Definitive Written Agreements. This MOU, though not binding on the parties hereto, represents the current understanding of the parties and will serve as the basis for facilitating the negotiation of one or more definitive written agreements among the CREATE partners. It is understood that none of the CREATE partners shall have any obligation with respect to the 474-Project or any other matters set forth in this MOU unless and until (i) all CREATE partners have obtained all necessary internal approvals and (ii) one or more definitive written agreements mutually acceptable to all CREATE partners have been negotiated and fully executed and delivered.

The CREATE partners hereto have signed this Acknowledgement as of the date first written above.

IDOT Office of Intermodal Project Implementation:

Acting Secretary

Date: 3/5/19

City of Chicago Department of Transportation

Commissioner

Date: 3/29/19

Cook County Department of Transportation

Superintendent

Date: 3/25/19

Association of American Railroads

President and CEO

Date: 3/21/19

Exhibit A

UNITED STATES OF AMERICA
U.S. DEPARTMENT OF TRANSPORTATION

TERM SHEET UNDER THE
NATIONALLY SIGNIFICANT FREIGHT AND HIGHWAY PROJECTS
DISCRETIONARY GRANT PROGRAM

This term sheet is between the United States Department of Transportation (the "**USDOT**") and the Illinois Department of Transportation (the "**Project Sponsor**").

The USDOT published a "Notice of Funding Opportunity for the Department of Transportation's Nationally Significant Freight and Highway Projects (INFRA Grants) for Fiscal Years 2017 and 2018," 82 Fed. Reg. 31,135 (July 5, 2017) (the "**NOFO**"). The NOFO solicited applications for Federal financial assistance to highway and freight projects of national or regional significance under the Nationally Significant Freight and Highway Projects program, 23 U.S.C. 117. That program is also referred to as the INFRA program.

This term sheet reflects the conditional selection of the Project Sponsor to receive an award for the Design and construction of a portion of the 75th Street Corridor Improvements and Argo Connections (P3, GS19, B9). In this term sheet, "**INFRA Grant**" means an award of funds that were made available under the NOFO.

The purpose of this term sheet is to set out the parties' mutual understanding regarding material terms and conditions to be included in subsequent agreements that the parties intend to execute to implement an INFRA Grant.

The parties therefore agree to the following:

1. The INFRA Application.

(a) The Project Sponsor's application for funding was dated November 1, 2017, and titled "75th Street Corridor Improvement Project and Argo Connections." In this term sheet, the "**Project**" means the project proposed in the application, as modified by schedules A and B.

(b) The Project Sponsor states that:

(1) all material statements of fact in the application were accurate when that application was submitted; and

(2) Schedule A and schedule B document all material changes in the information contained in that application.

2. Division of USDOT Responsibilities.

(a) The Office of the Secretary of Transportation is responsible for the USDOT's overall administration of the INFRA program and the approval of section 9 and schedule B of this term sheet.

(b) The Federal Highway Administration (the "**FHWA**") will develop and administer all Fund-Obligating Agreements, administer the reimbursement process, collect and review progress reports submitted under section 12 from the Project Sponsor, coordinate oversight activities, and administer close-out activities. In this term sheet, the "**Administering Operating Administration**" means the FHWA.

3. **Fund-Obligating Agreements.**

(a) This term sheet does not commit the USDOT to provide funding for the Project or any component of the Project.

(b) The USDOT will not commit to provide funding to the Project or any component of the Project except by executing, through the Administering Operating Administration, one or more agreements (collectively, the "**Fund-Obligating Agreements**").

(c) The Project Sponsor acknowledges that the Fund-Obligating Agreements will require it to administer all INFRA Grant funds under the terms and conditions of those agreements, including requirements to comply with applicable Federal statutes, regulations, and policies, including the Federal statutes, regulations, and policies listed in schedule C.

(d) The USDOT will not reimburse the Project Sponsor for expenditures, except under the terms and conditions of the Fund-Obligating Agreements.

4. **Project Terms in this Term Sheet.** Schedule B specifically memorializes the agreement of the parties on the following terms for each component of the Project:

(1) the component's scope of work;

(2) the component's budget, including identification of all funds necessary to complete the proposed component's scope of work;

(3) the component's milestone completion schedule, which sets dates for the completion of all major milestones relating to that component, including:

(A) completion and receipt of all required environmental approvals (including NEPA approvals);

(B) application for and anticipated receipt of all necessary Federal, State, and local permits and approvals;

(C) any necessary approval by a local transportation planning organization, and inclusion in the required Transportation Improvement Program (TIP) or State Transportation Improvement Program (STIP); and

(D) start and completion of construction.

5. **Costs Incurred Before a Fund-Obligating Agreement.** The Project Sponsor acknowledges that this term sheet is not USDOT approval of any pre-award costs and that, unless the USDOT provides written approval of pre-award costs under 2 CFR 200.458, the USDOT will not reimburse expenditures made before the parties have executed a Fund-Obligating Agreement.

6. **Cost Sharing and Changes in Total Project Costs.**

(a) The Project Sponsor hereby certifies that the "State Funds," "Local Funds," "Private Funds," and "Other Funds" listed in schedule B are committed to fund the Project.

(b) If the actual eligible project costs are less than the "Total Future Eligible Project Cost" that is listed in schedule B, then the Project Sponsor may propose to the USDOT, in writing consistent with the Administering Operating Administration's requirements, specific additional activities that are within the scope of the Project, as defined in section 1 and schedule B, and that the Project Sponsor could complete with the difference between the "Total Future Eligible Project Cost" that is listed in schedule B and the actual eligible project costs.

(c) If the actual eligible project costs are less than the "Total Future Eligible Project Cost" that is listed in schedule B and either the Project Sponsor does not make a proposal under section 6(b) or the USDOT does not accept the Project Sponsor's proposal under section 6(b), then:

(1) the Project Sponsor shall submit a request under section 14 to reduce the Total Federal Assistance by the difference between the "Total Future Eligible Project Cost" that is listed in schedule B and the actual eligible project costs; and

(2) if that modification reduces the "INFRA Grant Amount" listed in schedule B and the USDOT had reimbursed costs exceeding the revised amount, the Project Sponsor shall refund to the USDOT the difference between the reimbursed costs and the revised award.

In this term sheet, "**Total Federal Assistance**" means the sum of the "INFRA Grant Amount" and the "Other Federal Funds" amounts that are listed in schedule B.

(d) The Project Sponsor acknowledges that amounts that are required to be refunded under section 6(c) constitute a debt to the Federal Government that the USDOT may collect under 2 C.F.R. 200.345 and the Federal Claims Collection Standards (31 C.F.R. parts 900–999).

7. **Use of Limited Non-Highway Funds.** The Project Sponsor acknowledges that the Government selected the Project for award with the expectation that no more than the "INFRA Grant Amount Subject to 23 U.S.C. 117(d)(2)" that is listed in schedule B would be subject to the limitation at 23 U.S.C. 117(d)(2). The Project Sponsor shall not request reimbursements that are subject to the limitation at 23 U.S.C. 117(d)(2) and, in aggregate, exceed the "INFRA Grant Amount Subject to 23 U.S.C. 117(d)(2)" that is listed in schedule B.

8. **Safety Requirements.**

(a) The Project Sponsor shall work with the Administering Operating Administration to identify, and the Project Sponsor shall carry out, safety-related activities for the Project that:

(1) are consistent with the priority areas in the strategic highway safety plan for the State in which the Project is located and are likely to yield safety benefits;

(2) implement baseline safety improvements that are consistent with the list of "Proven Safety Countermeasures" at https://safety.fhwa.dot.gov/provencountermeasures/; and

(3) use appropriate safety-related tools, technologies, and practices from the "Everyday Counts Initiative" at https://www.fhwa.dot.gov/innovation/everydaycounts/.

(b) The Project Sponsor shall describe, in the reports required under section 12, the specific safety-related activities carried out under this section 8.

9. **Project-Specific Performance or Accountability Provisions.**

The Project Sponsor shall carry out the following project-specific performance provisions by first establishing a current baseline for each the three project components identified in section 2(b) of schedule B. The Project Sponsor will report on each project component's performance on the first quarter following the quarter of each project component's operational and substantial completion and continuing for three years (12 quarters):

(a) For Argo Connections (B9), the Project Sponsor will measure and report on a quarterly basis:
  (1) The total number of freight trains that traverse the study area;
  (2) The transit (elapsed) time of all freight trains operating through the study area; and
  (3) The speed of all freight trains operating through study area.

(b) For 75th Street CIP (P3), the Project Sponsor will measure and report on a quarterly basis:
  (1) The total number of freight and passenger trains that traverse the study area;
  (2) The transit (elapsed) time of all freight and passenger trains operating through the study area; and
  (3) The speed of all freight and passenger trains operating through study area.

(c) For 75th Street CIP (GS19 at 71st Street), the Project Sponsor will measure and report on a quarterly basis:
  (1) Average gate down time (minutes);
  (2) Average daily total vehicle (all vehicles) delay (minutes); and
  (3) Vehicle crash rates (Measured by Type and severity).

These performance provisions will provide measurable outcomes related to freight and passenger rail capacity, delay, and speed for Argo Connections (B9) and 75th Street CIP

(P3), as well as roadway delay and safety for 75th Street CIP (GS19). The performance data will be measured against baseline conditions for each performance provision collected prior to construction.

If the Project Sponsor does not meet the "Begin Construction" milestone described in Schedule B in accordance with section 14(c)2, then the USDOT may reduce the INFRA Grant amount of the pertinent project component by 5 percent or take other action under section 13.

If the Project Sponsor does not meet the "Operationally and Substantially Complete" milestone described in Schedule B in accordance with section 14(c)2, then the USDOT may reduce the INFRA Grant amount of the pertinent project component by 5 percent or take other action under section 13.

10. **Environmental Review.** The Project Sponsor acknowledges that this term sheet does not commit the USDOT to any determination required under the National Environmental Policy Act (NEPA). The USDOT's determinations on the Project will be issued in full compliance with its NEPA regulations, 23 CFR Part 771, those of the Council on Environmental Quality, 40 CFR Parts 1500–1508, and all other applicable Federal environmental laws and regulations and, State and local laws and regulations, to the extent applicable.

11. **Buy America Requirements.** The Project Sponsor acknowledges that the execution of a Fund-Obligating Agreement will subject the Project to 23 U.S.C. 313 and this Term Sheet is neither a waiver of 23 U.S.C. 313(a) nor a finding under 23 U.S.C. 313(b).

12. **Quarterly Project Progress Reports.**

(a) On or before the 20th day of January, April, July, and October of each year and until the Project is complete and all Fund-Obligating Agreements under this term sheet have been closed out, the Project Sponsor shall submit a Quarterly Project Progress Report for each component of the Project. But if the date of this term sheet is in March, June, September, or December, instead of submitting a Quarterly Project Progress Report covering less than one month, the Project Sponsor shall submit the first Quarterly Project Progress Report in the fourth calendar month that begins after the date of this term sheet.

(b) The Project Sponsor shall submit a Federal Financial Report (SF-425) as part of each Quarterly Project Progress Report.

(c) The Administering Operating Administration will provide the Project Sponsor with the form and content for these Quarterly Project Progress Reports.

13. **Noncompliance, Remedies, and Termination.**

(a) The Project Sponsor acknowledges that the USDOT considers all INFRA Grant funds under this term sheet to constitute a single grant under 23 U.S.C. 117, that all Fund-

Obligating Agreements entered under this term sheet are inter-related, and that all INFRA Grant funds provided through a Fund-Obligating Agreement are subject to the Project Sponsor's compliance with this term sheet and all other Fund-Obligating Agreements.

(b) If the Project Sponsor fails to comply with this term sheet or a Fund-Obligating Agreement under this term sheet, then the USDOT may take actions under 2 CFR 200.338 without limiting those actions to the agreement under which the Project Sponsor was noncompliant.

(c) If the Project Sponsor fails to timely complete a component of the Project, the USDOT may take action under section 13(b), including termination of all Fund-Obligating Agreements and disallowance of costs incurred under those agreements.

(d) If the USDOT determines that the Project Sponsor's use of INFRA Grant funds under this term sheet would not advance the purposes of the INFRA program, the USDOT may terminate one or more Fund-Obligating Agreements and disallow costs incurred under those agreements.

14. Term Sheet Modifications.

(a) The parties may amend, modify, or supplement this term sheet by mutual agreement in writing signed by the USDOT and the Project Sponsor. Either party may request to amend, modify, or supplement this term sheet by written notice to the other party.

(b) The parties shall not amend, modify, or supplement this term sheet except as permitted under section 14(a). If an amendment, modification, or supplement is not permitted under section 14(a), it is void.

(c) The Project Sponsor shall request a modification of this term sheet to update schedule B if:

(1) the Project's activities differ from the statement of work that is described in schedule B;

(2) the begin construction and operationally and substantially complete dates for the Project or any component of the Project changes to a date that is more than six months after the begin construction and operationally and substantially complete dates listed in schedule B;

(3) the Project's "Other Federal Funds" increases from the amount listed in schedule B;

(4) the Project's "State Funds," "Local Funds," "Private Funds," or "Other Funds" decrease from the amounts listed in schedule B; or

(5) the "INFRA Grant Amount Subject to 23 U.S.C. 117(d)(2)" changes from the amount listed in schedule B.

(d) The USDOT may accept or reject proposals from the Project Sponsor under section 6 and this section 14 and in doing so may elect to consider only the interests of the USDOT. The Project Sponsor acknowledges that making a proposal under section 6 or this section 14 does not amend, modify, or supplement this term sheet unless the parties execute a modification under section 14(a).

15. **Effective Date.** The terms and conditions in this term sheet are effective on the Project Sponsor upon execution of this term sheet by both the Project Sponsor and the USDOT.

EXECUTION BY THE USDOT

Executed this 6th day of December, 2018.

Signature of USDOT's Authorized Representative

Glenn D. Fulkerson

Name of USDOT's Authorized Representative

Acting Division Administrator

Title

EXECUTION BY THE PROJECT SPONSOR

By signature below, the Project Sponsor acknowledges that it accepts and agrees to be bound by this term sheet.

Executed this 3rd day of December, 2018.

Signature of Project Sponsor's Authorized Representative

Randall S. Blankenhorn
Name of Project Sponsor's Authorized Representative

Secretary - Illinois Department of Transportation
Title

SCHEDULE A
MATERIAL CHANGES FROM APPLICATION

The Project Sponsor is committed to delivering its INFRA application for the 75th Street Corridor Improvement Program at a reduced scope and new total project cost of $413,466,297, including federal INFRA participation of $132,034,680. Project elements P3, GS19, and B9 will advance, EW2 and P2 design will be removed from our overall federal project scope for this award and will be funded and advanced by the CREATE partners.

The project schedule summarized in Table VI-1 of the INFRA application is superseded by the list of major milestones outlined in Schedule B in this Term Sheet. The Project Sponsor's INFRA submission schedule was based upon an INFRA award in the Spring of 2018 and currently, the anticipated INFRA funds will be available on December 1, 2018 which resulted in project construction start in Spring of 2019.

SCHEDULE B
PROJECT TERMS

1. Project Budget.

INFRA Grant Amount:	$ 132,034,680
INFRA Grant Amount Subject to 23 U.S.C. 117(d)(2):	$ 12,249,643
Total Project Cost:	$ 427,586,477
Previously Incurred Project Costs:	$ 14,120,180

Sources of funds for Future Eligible Project Costs:

INFRA Grant Amount:	$ 132,034,680
Other Federal Funds:	$ 900,000
State Funds:	$ 103,000,615
Local Funds (Cook County):	$ 77,750,000
Local Funds (City of Chicago):	$ 1,273,340
Railroad Funds (Class I):	$ 93,507,662
Railroad Funds (Amtrak):	$ 5,000,000
Total Future Eligible Project Cost:	$ 413,466,297

PROJECT: 75th Street Corridor Improvements and the Argo Connections (P3, GS19, B9)

2. Scope of Work.

(a) General Project Description.

75th Street Corridor Improvements and Argo Connection (P3, GS19, B9) Project consists of three major components: (1) the Forest Hill flyover is a new north-south flyover structure eliminating conflicts between north-south and east-west train movements at Forest Hill Junction; (2) the 71st Street Grade Separation will grade separate the Western Avenue rail corridor from 71st Street; and (3) the Argo Connection will improve connections at the Argo and Canal junction, address the 87th Street chokepoint and increase capacity at Argo yard.

b) Project Components.

This project consists of the following components:

1. P3 – The Forest Hill flyover; new north-south flyover structure eliminating conflicts between north-south and east-west train movements at Forest Hill Junction.

2. GS19 – The 71st Street Grade Separation; will grade separate the Western Avenue rail corridor from 71st Street.
3. B9 – Argo Connection; Improve Argo and Canal Junction

Project scope implementation includes:

a) Construction of B9 which includes but is not limited to, civil, structures, track, switches, signals, testing and commissioning.
b) P3/GS19
    a. Final design, plans and documents for construction related activities.
    b. Utility relocations including coordination and design.
    c. Right-of way/easements including appraisal and acquisition.
    d. Construction of P3/GS19, which includes but not limited to, civil, structures, track, switches, signals, testing and commissioning
    e. Viaduct improvements and community mobility activities which includes but not limited to final design, plans and documents related to construction associated with streetscaping,
    f. Design and implementation of maintenance of traffic (MOT) detour routes which includes, streets, viaducts, track and signal changes to support movement of public traffic while the project is under construction.
c) Design and implementation of environmental mitigation based on the 75th Street Capital Improvement Project Final Environmental Impact Statement (FEIS)/Record of Decision (ROD), and reevaluation.
d) Program/construction management, public advocacy, safety and security activities.

3. **Project Schedule.**

The following milestone and completion schedule is approximate and is contingent upon a fully executed Fund-Obligating Agreement by December 1, 2018.

a. Construction of B9.

NEPA Complete	10/24/17
Right of way – previous activity	11/15/18
PS&E complete – previous activity	11/30/18
Construction obligation	12/15/18
Begin construction	06/30/19
Operationally and substantially complete	12/31/21
Final invoicing	06/30/22
Project closeout	12/31/22

b. Design and Construction of P3/GS19.

NEPA complete	09/19/14
Obligation for design	12/15/18
Stage 1 – Shoofly construction*	
Start design	03/31/19
Major projects requirement complete	09/30/19
Construction obligation	10/15/19
PS&E complete	06/30/20
Begin construction	12/15/20
Operationally and substantially Complete	12/31/22
Stage 2 – Final Construction	
Start Design	03/31/19
PS&E Complete	09/30/21
Begin Construction	06/30/22
Operationally and substantially complete	12/31/24
Project landscaping and cleanup	09/30/25
Final Invoicing	12/31/25
Project closeout	06/30/26

* Construction of temporary tracks or a shoofly is essential to maintain railroad operations during the construction of the final tracks and flyover bridge

c. Environmental Mitigation.

Begin Date – planning and scoping	01/01/19
Completion Date	09/30/25

d. Program and Construction and Management

Begin Date	12/15/18
Final invoicing	12/31/25
End date of the grant	03/30/26
INFRA closeout report	06/30/26

SCHEDULE C
SELECTED APPLICABLE FEDERAL STATUTES, REGULATIONS, AND POLICIES

When acting under this term sheet, the Project Sponsor shall comply with all applicable Federal statutes, regulations, and policies, including the following non-exhaustive list.

Federal Statues

- Letting of Contracts, 23 U.S.C. 112
- Buy America, 23 U.S.C. 313

Federal Regulations

- Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 C.F.R. parts 200 and 1201

Federal Policies

- Buy American and Hire American, Executive Order 13788 (Apr. 18, 2017)

Exhibit B

Work Package Funding Sources

WP	Project	Description		Category	TYPE		INFRA	NON-INFRA	Lead	Amount	%	Sources	INFRA	IDOT	CDOT	DeIH	Railroads	Amtrak	Metra	STP	CMAQ	WP	Components
1	All	Pre-construction		CMC	PTB		INFRA	NON	IDOT	$ 2,815,813	0.6%	2		$ 97,235		$ 2,718,578						1	All
2	All	Pre-construction		Public Advocacy	PTB		INFRA	NON	IDOT	$ 2,815,813	0.6%	2										2	All
3	P3/GS19	Final Engineering		PESA/PSI	PTB		INFRA		IDOT	$ 351,000	0.1%	1		$ 351,000								3	P3/GS19
	P2/EW2	Final Engineering		PESA/PSI	PTB			NON	IDOT	$ 351,000	0.1%	1		$ 351,000									P2/EW2
4	B9	Construction		Civil/CM	SRA	BD	INFRA-NH		CSX	$ 10,058,965	2.1%	2	$ 3,429,900				$ 6,629,065					4	B9
5	B9	Construction		Track/Signal/CM	SRA	FA	INFRA-NH		CSX	$ 28,205,812	5.5%	2	$ 8,819,743				$ 17,386,069					5	B9
6	P3	Stage 1		CM	SRA	CM	INFRA		CSX	$ 2,600,784	0.5%	1					$ 2,600,784					6	P3
		Stage 2								$ 14,737,324	3.1%	3	$ 7,000,000	$ 2,500,000			$ 5,237,324						P3
7	P3	Stage 1	Shoofly	Civil/Track/Signal	SRA	FE	INFRA		CSX	$ 3,310,354	0.7%	1					$ 3,310,354					7	P3
8	P3	Stage 1		Civil	SRA	BD	INFRA		CSX	$ 3,446,669	0.7%	1					$ 3,446,669					8	P3
9	P3	Stage 1		Track	SRA	FA	INFRA		CSX	$ 16,716,087	3.5%	3	$ 8,000,000	$ 3,000,000			$ 5,716,087					9	P3
10	P3	Stage 1		Signals	SRA	FA	INFRA		CSX	$ 28,582,600	6.0%	3	$ 12,000,000	$ 11,000,000			$ 5,582,600					10	P3
11	P3	Final Engineering		Track/Signal	SRA	FE	INFRA		CSX	$ 3,248,531	0.7%	2		$ 1,863,274			$ 1,385,256					11	P3
12	P3	Final Engineering		Bridge	SRA	FE	INFRA		CSX	$ 15,032,918	3.2%	3	$ 7,000,000	$ 7,032,918			$ 1,000,000					12	P3
13	P3	Stage 2		Bridge	SRA	BD	INFRA		CSX	$ 205,785,909	43.3%	4	$ 65,785,037	$ 62,319,694		$ 58,146,651	$ 13,034,527		$ 5,000,000			13	P3
14	P3	Stage 2		Track	SRA	FA	INFRA		CSX	$ 21,162,221	4.5%	3	$ 10,000,000	$ 4,000,000			$ 7,162,221					14	P3
15	P3	Stage 2		Signals	SRA	FA	INFRA		CSX	$ 22,151,515	4.7%	3	$ 10,000,000	$ 4,000,000			$ 8,151,515					15	P3
16.1	All	Pre-construction		Viaducts and Community Mobility	IPA		INFRA	NON	CDOT	$ 4,303,682	1.0%	3		$ 2,441,294	$ 462,371	$ 1,400,017						16.1	All
16.2	GS19	Final Engineering		Road	SRA	FE	INFRA		CSX	$ 1,314,382	0.3%	2				$ 414,382					$ 900,000	16.2	GS19
17.1	All	Pre-construction		Job Training	PTB		INFRA	NON	IDOT	$ 857,538	0.2%	2		$ 611,690		$ 245,848						17.1	All
17.2	All	Pre-construction		Miscellaneous	SRA			NON	CSX	$ 386,538	0.1%	1		$ 386,153								17.2	All
18	All	Pre-construction		Survey	SRA	FE	INFRA	NON	CSX	$ 1,200,000	0.3%	2		$ 800,000			$ 400,000					18	All
19	GS19	Construction		CM	SRA	CM	INFRA		CSX	$ 1,058,808	0.2%	1					$ 1,058,808					19	GS19
20	GS19	Construction		BD	SRA	BD	INFRA		CSX	$ 17,469,635	3.7%	2		$ 6,058,071			$ 11,411,564					20	GS19
21.1	P3/P2/EW2	Pre-construction	P3	ROW, MUSRA, VIADUCTS	PTB		INFRA			$ 400,000	0.1%	2		$ 150,000		$ 250,000							P3
			P2					NON	IDOT	$ 325,000	0.1%	2		$ 157,950					$ 167,050			21.1	P2
			EW2					NON		$ 275,000	0.1%	2		$ 100,000			$ 175,000						EW2
21.2	P3/P2/EW2	Pre-construction	P3	ROW - Demolition	IPA		INFRA			$ 20,000	0.0%	1			$ 20,000								P3
			P2					NON	CDOT	$ 560,000	0.1%	1			$ 560,000							21.2	P2
			EW2					NON		$ 385,006	0.1%	1			$ 385,000								EW2
21.3	P3/P2/EW2	Pre-construction	P3				INFRA			$ 1,002,492	0.2%	1			$ 1,002,492								P3
			P2	ROW	IPA			NON	IDOT	$ 5,602,594	1.2%	3		$ -	$ 242,120				$ 1,360,474	$ 4,000,000		21.3	P2
			EW2					NON		$ 4,472,829	0.9%	2			$ 1,353,018		$ 3,119,811						EW2
22	P3/P2/EW2	Pre-construction	P3							$ 10,850,946	2.3%	1				$ 10,850,946							P3
			P2	MUSRA	IPA		INFRA	NON	CDOT	$ 7,452,786	1.6%	2						$ 5,000,000	$ 2,452,786			22	P2
			EW2							$ 5,420,504	1.1%	2		$ 3,682,486			$ 1,738,018						EW2
23.1	P3	Final Engineering		Track and Bridge	SRA	FE		NON	Metra	$ 12,463,843	2.6%	1							$ 12,463,843			23.1	P3
23.2	P2	Final Engineering		Signal	SRA	FE		NON	Metra	$ 1,555,808	0.3%	1							$ 1,555,808			23.2	P2
24.1	EW2	Final Engineering		Lead Engineer	SRA	FE		NON	NS	$ 1,396,761	0.3%	1					$ 1,745,951					24.1	EW2
24.2	EW2	Final Engineering		Track/Sig/Bridge	SRA	FE		NON	NS	$ 12,570,845	2.7%	1					$ 12,221,656					24.2	EW2
25	EW2	Final Engineering		Track/Sig/Bridge	SRA	FE		NON	UP	$ 3,491,902	0.7%	1					$ 3,491,902					25	EW2
										$ 473,341,368	100%		$ 132,034,680	$ 110,000,000	$ 4,225,000	$ 77,750,000	$ 116,905,000	$ 5,000,000	$ 23,000,000	$ 4,000,000	$ 900,000		

1. B9 3.1 form used to populate the amount column

2. B9 INFRA funds fixed as per the grant

		Term Sheet Schedule B		
Sources		INFRA	Non-INFRA	474
INFRA	32.02%	$ 132,034,680	$ -	$ 132,034,680
INFRA-MATCH	67.98%	$ 103,000,615	$ 7,999,383	$ 110,999,998
		$ 1,273,340	$ 2,951,660	$ 4,225,000
		$ 77,750,000	$ -	$ 77,750,000
CMAQ	80.00%	$ 93,512,662	$ 22,492,338	$ 116,005,000
CMAQ-MATCH	20.00%	$ -	$ 5,000,000	$ 5,000,000
		$ 5,000,000	$ 18,000,000	$ 23,000,000
		$ -	$ 4,000,000	$ 4,000,000
		$ 900,000	$ -	$ 900,000
		$ 413,471,297	$ 60,443,382	$ 473,914,679

* $5,000 added by the railroads after the term sheet was signed by IDOT and FHWA

** $5,000,000 was removed by Amtrak, but added by Metra on P3 after the term sheet was signed by IDOT and FHWA

Report: TBD | Q1,2019 | Date of report : January 10, 2019

Appendix C: CREATE Phase II and Phase II Flow Process

CREATE Phase II and Phase III Flow Process

Beginning of Phase II Activities

RR needs consultant for final design

NO

RR submits Phase I PR to IDOT for signature

IDOT reviews Phase I PR and requests draft Phase II SRA from BDE if design funds are needed

IDOT approves Phase I PR

YES

FHWA approves Phase I PR

YES

YES
Official End Phase I
Final Phase I Project Report Approved

NO

BDE submits draft SRA back to DPIT

NO

NO

Phase I Activities (Continued)

YES

No SRA is compiled, process stops RR pays for design

NO

CTCO concurs with Request

YES

RR revises PR

YES

RR requests SRA for Phase II Final Engineering by formal Letter to IDOT
NOTE 1

YES

RR Submitts Selection Process to IDOT for approval

Not Approved

IDOT reviews Selection Process

Approved

RR Submits draft RFP to IDOT for approval

IDOT Issues DBE % based on RFP

RR revises and resubmits RFP

IDOT approves RFP

NO

YES

RR receives Notice To Advertise
NOTE 2

RR supplies final ITB to IDOT for WEB posting

IDOT posts ITB on createprogram.org

RR advertises RFP publicly
NOTE 3

Consultant submits proposal and qualifications

RR performs Approved Selection Process On proposals
NOTE 4

Minimum 3-weeks Process
23 CFR Part 172

RR supplies "Certification of Publication" of ITB to IDOT for all 3 newspapers

RR confirms DBE status within Illinois Unified Certification Program and best-faith efforts

RR selects qualified consultant and submits all proposals including debarment and lobbying certs to IDOT for review

Not Approved

IDOT analyzes and concurs with selection

Approved

IDOT requests FHWA concurrence
NOTE 6

Not Approved

FHWA concurs with selection

Approved

RR awards and executes Professional Services contract

RR Final Engineering Services RFP Process Mapping for CREATE Program for Freight Railroads

Phase II Services

Phase II SRA

IDOT approves Phase II SRA

YES

Is this a ROW Phase II SRA?

YES

RR modifies geometry and ROW needed

YES

CREATE pays for Revised Engineering if required

No

RR requires ROW

Yes

RR secures and acquires ROW or easements - must follow the Uniform Act
NOTE 11

No

NO

Is this a MUSRA?

YES

IDOT issues "Notice to Design" and sends MUSRA to RR for signatures
NOTE 12

NO

IDOT submits SRA to RR for signature

YES

RR signs and returns SRA to IDOT for Signatures

IDOT signs SRA

IDOT issues NTP

RR Begins Design

UCs perform work as needed prior to the various Phase III segments of the CREATE Project

Phase II Final Design

Design changes from PR

NO

RR submits Bill to IDOT for work performed

Yes

RR compiles plan + documentation outlining changes

CTCO approves request?

NO

Design Changes are dropped

NO

YES

IC Approves

NO

Management Committee Approves

NO

Stakeholder Approval

YES

YES

YES

Budget and/or Scope Change

YES

YES

NO

Environmental issues

YES

IDOT compiles Tech Memo

NO

NO

YES

FHWA accepts Tech Memo

RR performs requested design change

CREATE Phase I & II Plan Numbering System
(July 10, 2008)

CREATE Project Number — Such as WA3 or B3 (this can only be one project)

Lead Railroad — Use RR initials such as UP or NS

X X X — Replace X with T if Track is included in this Plan; Replace X with B if Bridge is included in this Plan; Replace X with S if Signal is included in this Plan

Sequential numbering by CREATE Project — Begin with 001

Segment Letter — This will be used if a Project is broken up into segments and will have muliple Plans assigned to the segment which may be out of sequence (for example, a signal Plan for an earlier segment may show up much later). Begin with the first segment as A, the second segment as B, third C, etc.

HOWEVER
if the entire project is to be only one segment the designation will be Z

Contract Type

PE – Preliminary engineering for Phase I part B work

FE – Final engineering for Phase II PS&E work

FA – Force account work done by railroad forces

BD – Biddable work done by the low qualified bidder

NB – Non-bid work done by a pre-existing contractor

ROW – Right -of-Way purchase

Example; B3-UP-TXB-006-C-BD

This is the sixth Plan for UPRR CREATE project B3 and includes track and bridge (no signal work) and is part of the third segment which was bid out to the low qualified contractor.

Phase II Design Report (PS&E)

IDOT receives invoice for review

Contract Compliance approval

NO

Redline ineligible charges and inform RR

Scope of work Approval

NO

YES

YES

Process Bill for Payment (or approval in the case of ACSRA)

Design and Billing continues

RR Completes PS&E

RR needs CM consultant?

NO

Is this a Bid PS&E?

NO

YES

RR approves Pre-final Construction Cost Estimate & Geometrics

NO

IDOT approves Pre-final Construction Cost Estimate & Geometrics

NO

FHWA approves Pre-final Construction Cost Estimate & Geometrics

NO

YES

RR submits cost estimate

YES

CTCO Determines Correct Estimate

NO

Form 3.1 Matches Pre-final Estimate

YES

IDOT reviews PS&E

IDOT determines bid DBE goal for PS&E and submits to RR

RR requests SRA for Phase III construction by formal letter to IDOT

CTCO concurs with Request

YES

RR submits PS&E to IDOT for signature
NOTE 1

No

RR revises request

No

No SRA is compiled, process stops

Yes

IDOT requests draft Phase III SRA from BDE

IDOT signs PS&E

YES

NO

RR revises PS&E

NO

IDOT submits PS&E for signature

FHWA signs PS&E
NOTE 10

Official End Phase II
PS&E Approved

Phase III Bid/SRA

Phase III CM

Beginning of Phase III CM activities

RR Submitts Selection Process to IDOT for one time approval

YES

Not Approved

IDOT reviews Selection Process

Approved

RR submits draft RFP to IDOT for approval

IDOT Issues DBE % based on RFP

RR revises and resubmits RFP

IDOT approves RFP

NO

YES

RR receives Notice To Advertise
NOTE 2

RR supplies final ITB to IDOT for WEB posting

IDOT requests to webmaster to post ITB on createprogram.org

RR advertises RFP publicly
NOTE 3

Consultant submit proposal and qualifications

RR opens proposals publicly

Minimum 3-weeks Process
23 CFR Part 172

RR supplies "Certification of Publication" of ITB to IDOT for all 3 newspapers

RR confirms DBE status within Illinois Unified Certification Program and best-faith efforts including debarment and lobbying certs

RR selects qualified consultant and submits all proposals to IDOT for review

Not Approved

IDOT analyzes and concurs with selection

Approved

IDOT requests FHWA concurrence
NOTE 6

Not Approved

FHWA concurs with selection

Approved

RR awards and executes Professional Services contract

RR Construction Management Services RFP Process Mapping for CREATE Program for Freight Railroads

RR performs Approved Selection Process On proposals
NOTE 4

If appropriate, RR requests advanced Design or Construction authorization. Advanced Design/ Construction allows RR to proceed and be reimbursed if IDOT or Federal funds are obtained.
NOTE 1

RR confirms the response to the advertisement contains valid and completed Lobbying Certification, Debarment Form, completed response to the DBE Goal set forth in the advertisement and for compliance with FHWA 1273.
NOTE 4

In emergency situations, a verbal or e-mail request and approval is adequate to allow the work to begin but must immediately be followed by written authorization.
NOTE 7

PS&E approval allows procurement process to begin.
NOTE 10

NTA allows procurement process to begin.
NOTE 2

Optional. Can be made a condition for a responsive bidder and must be reflected in advertisement.
NOTE 5

Federal-Aid Policy requires prior approval for projects.
NOTE 8

Phase II Manual Figure 1 has additional detail for ROW.
NOTE 11

Must advertise in IDOT approved publications and CREATE website. RR's prequalification requirements must be stated in the public advertisement. The advertisement must also detail method of obtaining the Proposal Package.
NOTE 3

Federal-aid policy requires prior approval for major changes or when the net positive value of a work effort (contract), including additions and deductions to the various pay item quantities involved, is greater than $100,000.
NOTE 6

Date and location must be in a public notice and must either have a dial-in number or web cast for outside attendance within bid-package.
NOTE 9

Phase II Manual Figure 2 has additional MUSRA detail.
NOTE 12

Phase III Bid/SRA (Continued)

IDOT approves advertisement to RR + issues DBE goal

NO

YES

RR submits bid advertisement to IDOT

IDOT issues NTA to RR

IDOT submits Phase III SRA to RR for signature

RR reviews bids and forwards all proposals and recommendation to IDOT for concurrence
NOTE 4

RR confirms DBE status within Illinois Unified Certification Program and best-faith efforts including debarment and lobbying certs

Phase III SRA has sufficient funds for BD work

YES

IDOT concurs

YES

IDOT submits to FHWA for concurrence
NOTE 8

FHWA concurs
NOTE 8

NO (with reason)

NO (with reason)

YES

IDOT issues NTP for BD work

IDOT issues NTP for FA work

FA

IDOT signs Phase III SRA

NO

RR signs and returns SRA to IDOT for Signatures

NO

YES

CTCO revises budget

YES

BDE revises draft Phase III SRA back to IDOT

CTCO revises scope

NO

Is this a Bid SRA?

YES

NO

RR Begins Construction

RR awards contract

IDOT posts Award on createprogram.org

IDOT oversight begins

Change to Project Scope, schedule or quantity is required and budget

NO

YES

Is this an emergency?
NOTE 7

YES

NO

RR notifies IDOT via phone or email

RR compiles Cost/ Schedule Estimate using contingency funds and/or PMR

CTCO initial review / approval

YES

IDOT provides approval pending review of formal change order process

RR compiles proper documentation for Implementation Committee

CTCO approves request?

NO

Change to Scope, schedule or quantity is dropped or paid for outside of CREATE

YES

IC approves request?

YES

NO

Environmental issues

YES

IDOT compiles Tech Memo

NO

NO

YES

FHWA accepts Tech Memo

NO

NO

FHWA Approves
Note 6

YES

Is Change Order Greater than $100,000?

YES

NO

NO

Management Committee Approved?

YES

Is request using PMR?

NO

YES

Does Request exceed SRA amount?

YES

Management Committee approves Scope and Budget

YES

IDOT Processes SRA MPA or SRA Amendment

NO

Signed Request is returned to the RR

FHWA, State and RR authorizes additional funding

RR performs requested work

Signed Request is returned to the RR

Phase III Construction And Change Orders

RR submits Bill to IDOT for work performed

IDOT begins review process

Scope and Billing approval

NO

RR addresses billing issues

YES

Process Bill for Payment (or approval in the case of ACSRA)

Construction and Billing process continues

RR addresses segment or project completion issues

No

RR Determines Project or Segment is completed

IDOT performs final inspection

RR requests final inspection

IDOT determines segment or project is complete

Yes

RR submits bill marked "Final"

IDOT approves scope and billing as final

NO

Yes

Charges are verified once all checks are received

NO

YES

IDOT prepares final Segment Report including pictures, final costs, SRA, PS&E and sent to RR for concurrence

RR reviews report and concurs in writing

NO

IDOT forwards entire Report for concurrence to FHWA

FHWA concurs

YES

Is this an ACSRA?

YES

NO

RR submits ACSRA conversion & payment request to IDOT

YES

Are funds available

YES

NO

IDOT deobligates any unused funds for other CREATE project

IDOT amends SRA and forwards funds authorization breakdown to FHWA

NO

FHWA authorizes funds for SRA

YES

IDOT processes payment & updates Final Report

CREATE Project or Segment is officially deemed complete

Closeout

Symbol Legend:

DATA — PROCESS — DECISION

DOCUMENT — START / END — NOTE

IDOT Action

RR Action

FHWA Action

BDE Action

Utility Company Action

Implementation Committee Action

CTCO Action

Management Committee Action

End of Phase

Acronym Glossary

ACSRA	Advance Construction State Rail Agreement
BDE	IDOT's Bureau of Design & Environment
CREATE	Chicago Region Environmental & Transportation Efficiency
CTCO	Chicago Transportation Coordination Office
DBE	Disadvantage Business Enterprise
FHWA	Federal Highway Administration
IC	Implementation Committee
IDOT	Illinois Department of Transportation
ITB	Invitation to Bid
MPA	Modified Project Authorization
MUSRA	Master Utility State Rail Agreement
NTP	Notice to Proceed
NTA	Notice to Advertise
PMR	Project Management Reserve
PR	Project Report
PS&E	Plans, Specifications & Estimates
RFP	Request for Proposal
ROW	Right of Way
RR	Railroad (Lead Entity)
SRA	State Rail Agreement
UC	Utility Company
WEB	Internet

Created by Michael R. Garcia, P.E. February 2, 2010
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02/10/2010 (IDOT input)
06/02/2010 (RR input)
06/03/2010 (FHWA input)
06/29/2010 (final 2010 version)
08/05/2014 (IDOT input)
12/09/2014 (RR input)
03/10/2015 (FHWA input)
04/22/2015 (RR input)

Revised on 05/13/2016

Appendix D: CREATE Estimates & Contingency Plan

CREATE Estimates & Contingency Plan

- Concept Level: Engineering 8% (as determined by railroad), Construction Management 7% (as determined by railroad), Contingency 20%, Management Reserve 5%
- Phase I or Preliminary Engineering: Construction Management 7%-10% (as determined by railroad), Contingency 15%, Management Reserve 5%
- Phase II or Final Design: Construction Management 7%-10% (as determined by railroad), Contingency 10%, Management Reserve 5%
- Phase III or Construction: Construction Management 7%-10% (as determined by railroad), Contingency 10%, Management Reserve 5%

Developed by RDG 12/13/05, reviewed CTCO 1/3/06, revised RDG 4/30/07, revised RDG 5/20/08, updated Implementation Team 5/22/08, RDG revised 8/19/08 and reviewed with CTCO, approved Implementation Team 8/20/08

Appendix E: Railroad Right of Entry Requirements and Insurance Summary

CREATE Program - Engineering and Construction
Railroad Right of Entry Requirements and Insurance Summary
Subject to change - always verify with railroad

Railroad	Address	Required Right-of-Entry Contact	Minimum Advance Notification to Obtain Right of Entry permit	Flagging Contact	Minimum Required Training	Minimum Advance Notification to Arrange for Flagman	Minimum Distance to Centerline w/o Flagman	Insurance and Limits	Transmittal of Certificates and RRPL Policy Info.	RDG Contact & updated	Date information was last updated
BNSF	Jones Lang LaSalle 4300 Amon Carter Suite 100 Fort Worth, TX 76155	Vicki Norman Jones Lang LaSalle Americas, Inc. at (817) 230-2628 vicki.norman@am.jll.com Associate Contract Specialist 4300 Amon Carter Blvd., Suite 100 Fort Worth, TX 76155 or Shane Krueger (817) 230-2625 shane.krueger@am.jll.com	6 to 8 weeks	Ben Klein 773-579-5156	OnTrackSafety using bnsfcontractor.com	10 days - Please note that this is subject to the availability and may take more advanced notice.	25 ft.	General Liability $2M per occurrence, $4M aggregate (Pipeline work $5M per occurrence, $10M aggregate). Auto Liability $1M per occurrence. Workers' Compensation Statutory, Employers' Liability $500,000. Professional Liability $2M. RR Protective $2M per occurrence and $6M aggregate (Pipeline work, bridge inspections or repair, IDOT projects $5M per occurrence, $10M aggregate). Pipeline work may require Pollution Legal Liability coverage of $5M per occurrence, $10M aggregate.	All policies (General Liability, Workers Comp and Business Automotive) must be emailed to BNSF insurance compliance company (BNSF@certfocus.com). If they join in the blanket coverage for Railroad protective liability insurance they will send the check to Vicki Norman but all checks must be made payable to BNSF Railway. If they are using their own RPLI policy then they must send the entire policy for RPLI to the email address listed above for approval from BNSF.	Ajibade Fashola	6/12/2017
BRC	Belt Railway Company of Chicago, 6900 South Central Ave., Bedford Park, IL 60638	Chris Steinway, (708) 496-4110, csteinway@beltrailway.com	2 weeks	Scott Schiemann, Chief Engineer, (708) 496-2271, scott.scheimann@beltrailway.com	www.eRailsafe.com	3 days	25 ft.	General Liability minimum combined single limit $2M per occurrence and $6M aggregate. Statutory Worker's Compensation. RR Protective Liability Insurance $2M per occurrence and $6M aggregate. Umbrella Liability over primary insurance min. $5M. Auto Liability $1M per incident.		Scott Schiemann	1/27/2020
CN	CN, 17641 S. Ashland Ave., Homewood, IL 60430	Tom Brasseur, Manager Public Works (248) 452-4854, thomas.brasseur@cn.ca 700 Pershing Rd, Pontiac, MI 48340	4 weeks	CN Flagging Desk, (682) 316-5097 (o) (248) 914-9695 © US_Flagging@cn.ca	OnTrackSafety using e-Railsafe & CN OTS training contact is Anna Rivera, rrsafetytraining@yahoo.com or 920-517-1677	5 days	25 ft. w/o equipment on property w/ equipment	General Liability $5M per occurrence, $10M aggregate. No RR exclusion in the General Liability coverage and RR Protective Liability $5M per occurrence and $10M aggregate.		Edd Baswell	1/24/2020
CPR	Canadian Pacific Railway, 11306 Franklin Ave, Franklin Park, IL 60131	Otis Goodman at (630) 860-4117, otis_goodman@cpr.ca	2-4 weeks	Otis Goodman at (630) 860-4117, otis_goodman@cpr.ca	On Track Safety / Roadway Worker Training required using e-Railsafe	5 days, subject to availability, may take longer	50 ft. unless Division Engineer Approval	General Liability minimum combined single limit $5M per occurrence and $10M aggregate. Statutory Worker's Compensation. RR Protective Liability Insurance $5M per occurrence and $10M aggregate. Auto Liability $2M per incident.		Dan Sabatka	6/12/2017
CSX	500 Water Street, J180, Jacksonville, FL 32202	Alex Saar, Office: 904-279-3956, Cell: 904-534-1391, alex_saar@csx.com **CSX's Utility Permitting and Rights-of-Entry Processes:** https://www.csx.com/index.cfm/customers/value-added-services/property-real-estate/permitting-utility-wireless-infrastructure-installations-and-rights-of-entry/	4 weeks	For those who have existing agreemetns with CSX and need to schedule construction, submit an 'outside party' request through the CSX property portal, send tracking number you receive to Alex Saar so he can work to prioritize the project. **CSX Property Portal Link:** https://propertyportal.csx.com/pub_ps_res/ps_res/jsf/public/index.faces		30 days	25 ft. with approval from CSX Operations. Inspector is required to be onsite at all times of work on CSX property.	General Liability $5M per occurrence. Workers Compensation $1M. Auto Liability $1M. RR Protective Liability $5M per occurrence, $10M aggregate		Brett Guarino	1/24/2020

CREATE Program - Engineering and Construction
Railroad Right of Entry Requirements and Insurance Summary
Subject to change - always verify with railroad

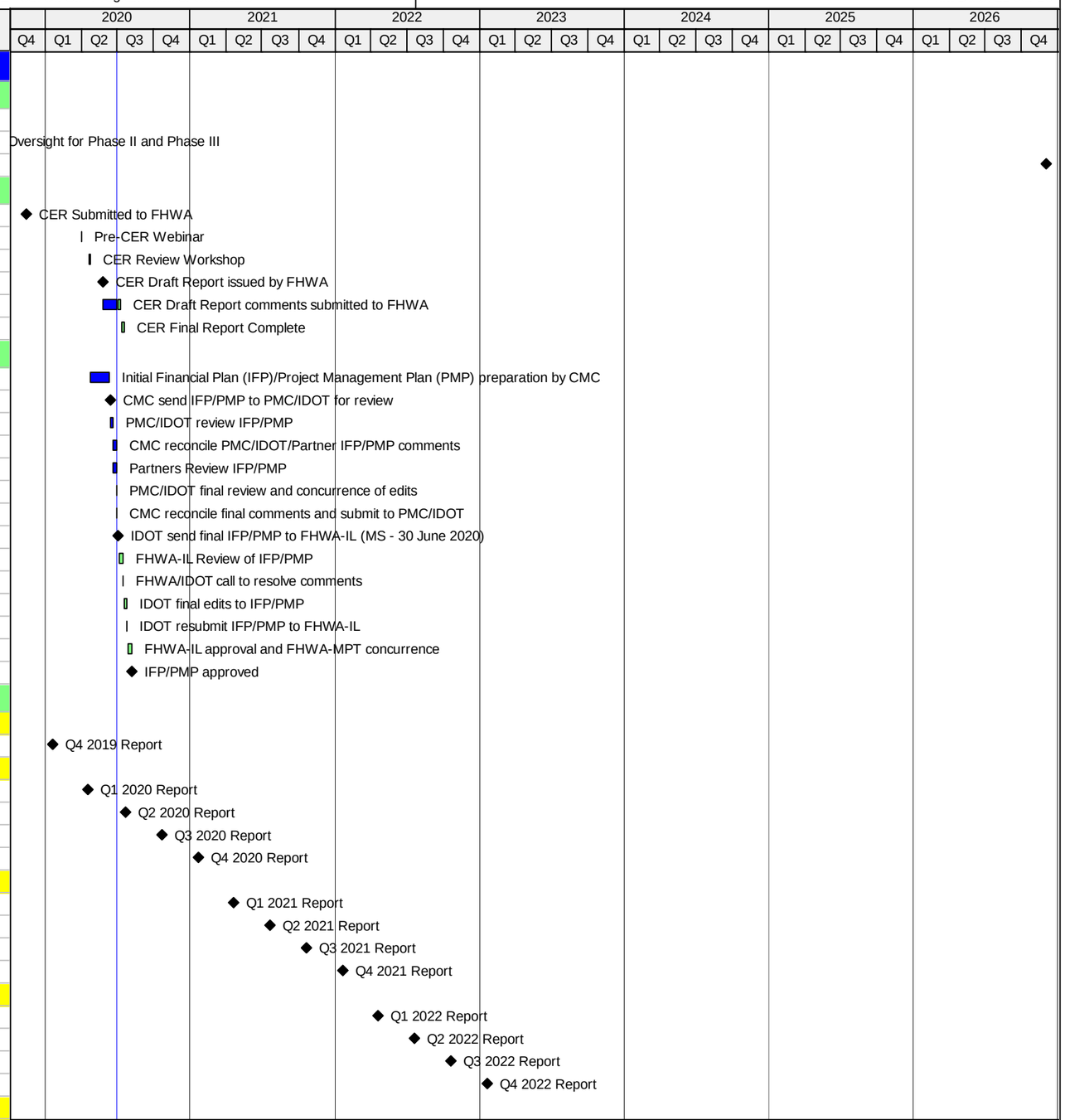
IHB	Indiana Harbor Belt Railroad Co., 2721 161st St., Hammond, IN 46323-1009	Dave Glidewell, General Foreman – CREATE, (219) 989-4916, fax (219) 989-4896, dglidewell@ihbrr.com	2 weeks	Dave Glidewell, General Foreman – CREATE, (219) 989-4916, fax (219) 989-4896, dglidewell@ihbrr.com	Roadway Worker Training required	3 days	25 ft.	Statutory Worker's Compensation. General Liability single limit $2M per occurrence and $3M general aggregate. RR Protective Liability insurance $5M per incident and $10M aggregate. Employer's liability min. $1M each accident. Umbrella Liability/Excess coverage over primary insurance min. $10M per occurrence. Auto Liability $2M. Professional Liability $5M.		Will Geeve	1/24/2020
METRA Southwest Service, Rock Island District, Electric District and Milwaukee District	METRA, 547 W. Jackson Blvd., Chicago, IL 60661	Insurance - Marilyn Schlismann (312) 322-7093, mschlismann@metrarr.com	3 to 5 weeks	Rock Island/Southwest Service/Electric District - Mike Tempinski, (312) 322-2745, mtempinski@ metrarr.com Milwaukee District - Joel Winchester, (312) 322-4101, jwinchester@ metrarr.com	OnTrackSafety using ContractorOrientation.com	3 days	flagman required at all times on METRA property	General Liability (for SWS, other Norfolk Southern locations and any Union Pacific lines) $5M per occurrence, $10M aggregate; (for others) $2M per occurrence, $6M aggregate. Auto Liability $1M CSL, RR Protective Liability (for SWS, other Norfolk Southern locations and Union Pacific lines) $5M per occurrence, $10M aggregate; (for others) $2M per occurrence, $6M aggregate. Workers' Compensation Statutory, Employers' Liability $1M, Professional Liability $2M.		Don Jurkowski	1/24/2020
NS	Norfolk Southern Railway Co., 1200 Peachtree St., NE, Atlanta, GA 30309	Less than 30 days: Lisa Martin, Dearborn Div. Office Mgr, (419) 254-1540 Lisa.Martin@nscorp.com More than 30 Days: Deniece Dennis, Real Estate Dept., (404) 962-5716, Deniece.Dennis@nscorp.com	4 weeks	Derek Tichy, derek.tichy@nscorp.com	Roadway Worker Training required (see NS list of approved contractors)	5 days	25 ft.	General Liability combined single limit $2M per occurrence. Auto Liability combined single limit of $2M, Workers Compensation Statutory. RR Protective Liability $2M per occurrence and $6M aggregate.		Derek Tichy	1/24/2020
UP	Union Pacific Railroad 1400 Douglas St. STOP 1690 Omaha, NE 68179-1690	Stan Dulinski, Phone: (402) 544-0353, SJDULINS@UP.COM	4 weeks	Austin Ilg Manager Track Maintenance Phone: (402) 680-4851 Email: amilg@up.com	eRailSafe (preferred) or OnTrackSafety using ContractorOrientation.com	10 days	25 ft. (at the discretion of the MTM, dependant on work being performed)	General Liability $2M per occurrence, $4M aggregate. Auto Liability of $2M per accident. Workers Compensation $500,000. RR Protective Liability $2M per occurrence and $6M aggregate.		Ken Freimuth	1/24/2020

Notes for CREATE projects:
1) All railroads require railroad right of entry contact prior to contractors or consultants entering property.
2) All railroads require right of entry permit but have waved right of entry permit fees.
3) All railroads require all insurance and flagging costs be covered by consultant or contractor.
4) All railroads require prints showing planned activities on railroad right-of-way be provided by consultant or contractor.

RDG updated 3/9/2020

Appendix F: Program Master Schedule and Work Breakdown Structure (WBS)

Activity ID	Activity Name	Duration	Start	Finish
Major Project Requirements		3184	19-Sep-14 A	03-Dec-26
Program Milestones		2074	21-Dec-18 A	03-Dec-26
INF0110	Funds Ready	0		21-Dec-18 A
INF0120	CMC Oversight for Phase II and Phase III	0	31-May-19 A	
INF0130	75th Street CIP Project End	0		03-Dec-26
Cost Estimate Review (CER)		177	13-Nov-19 A	17-Jul-20
INF0400	CER Submitted to FHWA	0		13-Nov-19 A
INF0410	Pre-CER Webinar	1	02-Apr-20 A	02-Apr-20 A
INF0420	CER Review Workshop	3	21-Apr-20 A	23-Apr-20 A
INF0430	CER Draft Report issued by FHWA	0		26-May-20 A
INF0440	CER Draft Report comments submitted to FHWA	33	27-May-20 A	10-Jul-20
INF0450	CER Final Report Complete	5	13-Jul-20	17-Jul-20
Initial Financial Plan & Project Management Plan		76	24-Apr-20 A	07-Aug-20
INF1250	Initial Financial Plan (IFP)/Project Management Plan (PMP) preparation by CMC	35	24-Apr-20 A	12-Jun-20 A
INF1320	CMC send IFP/PMP to PMC/IDOT for review	0		12-Jun-20 A
INF1330	PMC/IDOT review IFP/PMP	4	15-Jun-20 A	19-Jun-20 A
INF1340	CMC reconcile PMC/IDOT/Partner IFP/PMP comments	7	19-Jun-20 A	30-Jun-20 A
INF1335	Partners Review IFP/PMP	6	19-Jun-20 A	29-Jun-20 A
INF1350	PMC/IDOT final review and concurrence of edits	1	30-Jun-20 A	01-Jul-20 A
INF1360	CMC reconcile final comments and submit to PMC/IDOT	0	01-Jul-20 A	01-Jul-20 A
INF1260	IDOT send final IFP/PMP to FHWA-IL (MS - 30 June 2020)	0		02-Jul-20*
INF1270	FHWA-IL Review of IFP/PMP	7	06-Jul-20*	14-Jul-20
INF1370	FHWA/IDOT call to resolve comments	1	16-Jul-20*	16-Jul-20
INF1280	IDOT final edits to IFP/PMP	5	17-Jul-20	23-Jul-20
INF1290	IDOT resubmit IFP/PMP to FHWA-IL	1	24-Jul-20	24-Jul-20
INF1300	FHWA-IL approval and FHWA-MPT concurrence	10	27-Jul-20	07-Aug-20
INF1310	IFP/PMP approved	0		07-Aug-20
Infra Quarterly Reports		1305	20-Jan-20 A	20-Jan-25
2019 Infra Quarterly Reports		0	20-Jan-20 A	20-Jan-20 A
INF0540	Q4 2019 Report	0		20-Jan-20 A
2020 Infra Quarterly Reports		198	17-Apr-20 A	20-Jan-21
INF0550	Q1 2020 Report	0		17-Apr-20 A
INF0560	Q2 2020 Report	0		20-Jul-20*
INF0570	Q3 2020 Report	0		20-Oct-20*
INF0580	Q4 2020 Report	0		20-Jan-21*
2021 Infra Quarterly Reports		197	20-Apr-21	20-Jan-22
INF860	Q1 2021 Report	0		20-Apr-21*
INF870	Q2 2021 Report	0		20-Jul-21*
INF880	Q3 2021 Report	0		20-Oct-21*
INF890	Q4 2021 Report	0		20-Jan-22*
2022 Infra Quarterly Reports		197	20-Apr-22	20-Jan-23
INF900	Q1 2022 Report	0		20-Apr-22*
INF910	Q2 2022 Report	0		20-Jul-22*
INF920	Q3 2022 Report	0		20-Oct-22*
INF930	Q4 2022 Report	0		20-Jan-23*
2023 Infra Quarterly Reports		197	20-Apr-23	22-Jan-24

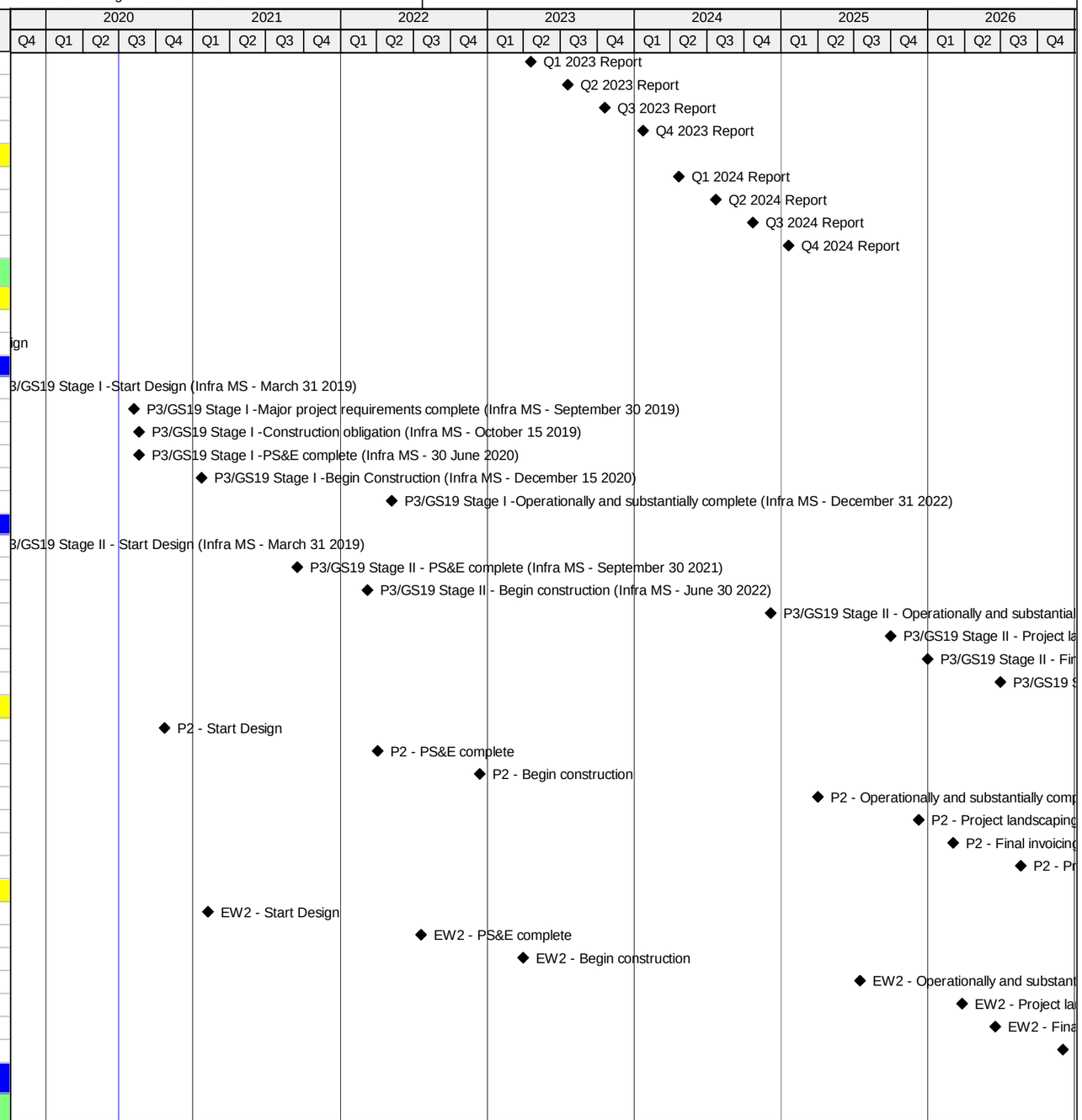


Remaining Level of Effort | Actual Work | Critical Remaining Work

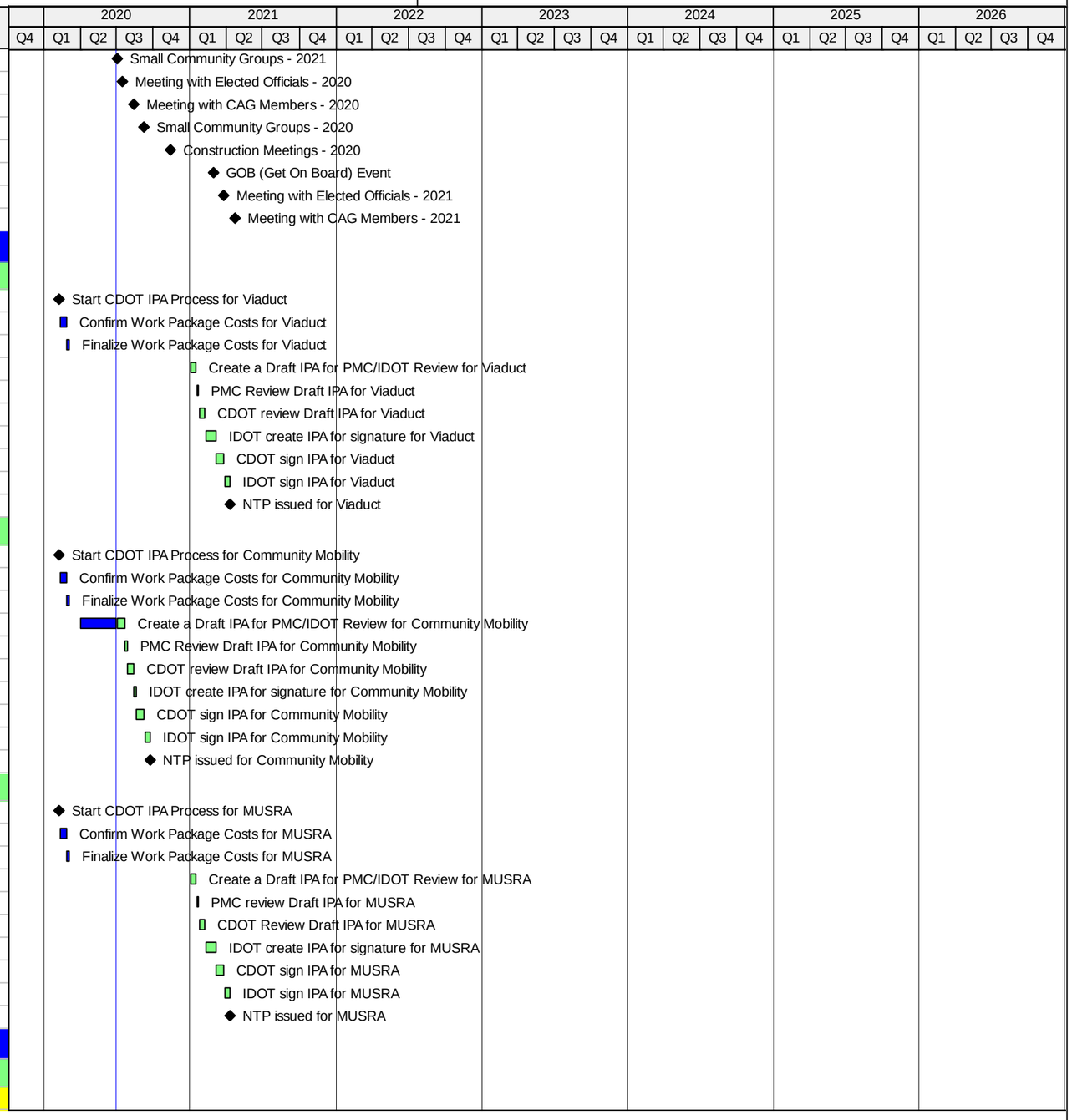
Actual Level of Effort | Remaining Work | Milestone

TASK filter: All Activities

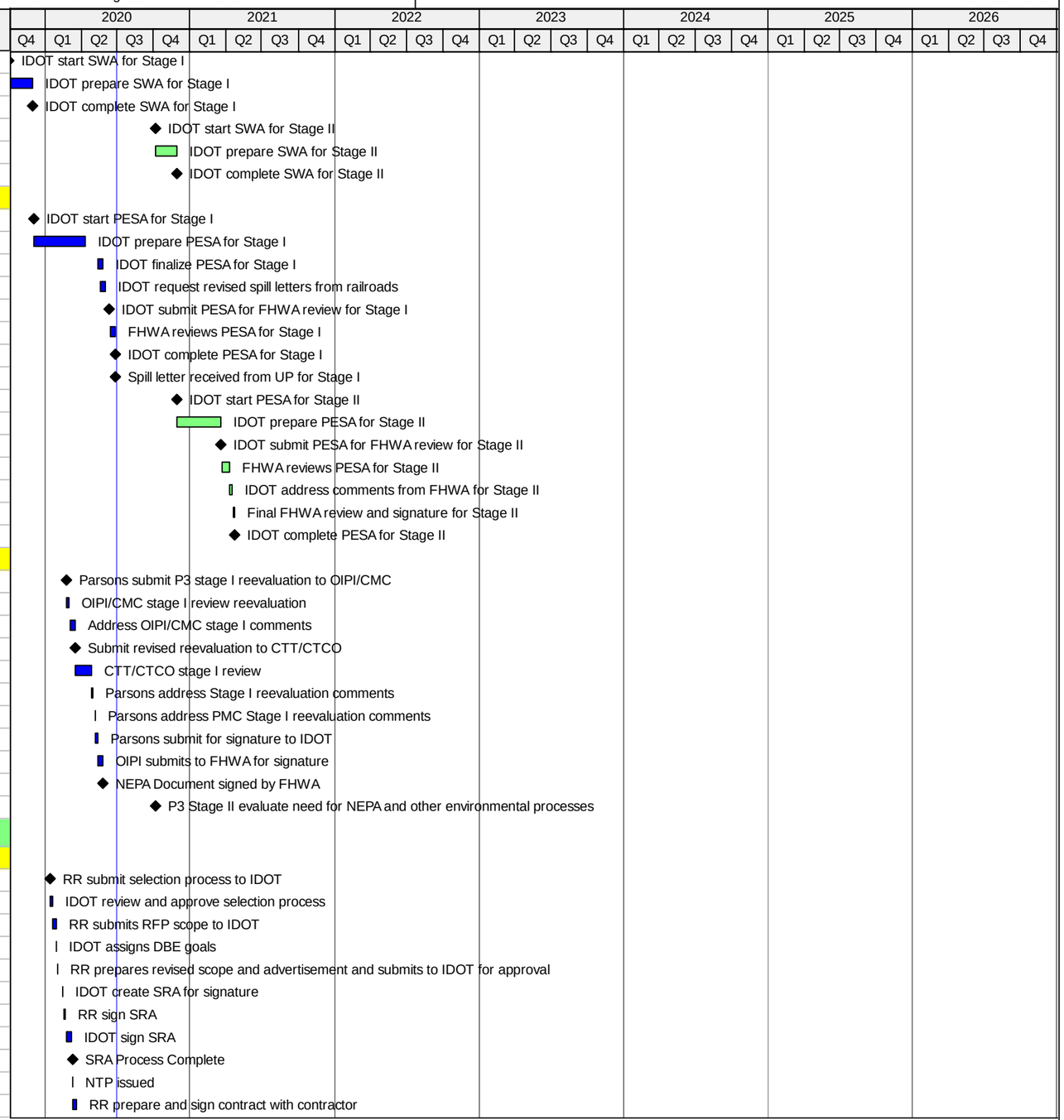
Activity ID	Activity Name	Duration	Start	Finish
INF940	Q1 2023 Report	0		20-Apr-23*
INF950	Q2 2023 Report	0		20-Jul-23*
INF960	Q3 2023 Report	0		20-Oct-23*
INF970	Q4 2023 Report	0		22-Jan-24*
2024 Infra Quarterly Reports		195	22-Apr-24	20-Jan-25
INF980	Q1 2024 Report	0		22-Apr-24*
INF990	Q2 2024 Report	0		22-Jul-24*
INF1000	Q3 2024 Report	0		21-Oct-24*
INF1010	Q4 2024 Report	0		20-Jan-25*
75th St CIP Project Milestones		3184	19-Sep-14 A	03-Dec-26
P3/GS19 Infra Milestones		3072	19-Sep-14 A	30-Jun-26
INF0720	NEPA Complete	0		19-Sep-14 A
INF0730	Obligation for design	0		14-Dec-18 A
P3/GS19 Stage I		718	08-Aug-19 A	09-May-22
INF0740	P3/GS19 Stage I -Start Design (Infra MS - March 31 2019)	0	08-Aug-19 A	
INF0750	P3/GS19 Stage I -Major project requirements complete (Infra MS - September 30 2(	0		07-Aug-20
INF0760	P3/GS19 Stage I -Construction obligation (Infra MS - October 15 2019)	0		19-Aug-20
INF0770	P3/GS19 Stage I -PS&E complete (Infra MS - 30 June 2020)	0		19-Aug-20*
INF0780	P3/GS19 Stage I -Begin Construction (Infra MS - December 15 2020)	0	20-Jan-21*	
INF0790	P3/GS19 Stage I -Operationally and substantially complete (Infra MS - December 31	0		09-May-22*
P3/GS19 Stage II		1799	08-Aug-19 A	30-Jun-26
INF0800	P3/GS19 Stage II - Start Design (Infra MS - March 31 2019)	0	08-Aug-19 A	
INF0810	P3/GS19 Stage II - PS&E complete (Infra MS - September 30 2021)	0		17-Sep-21*
INF0820	P3/GS19 Stage II - Begin construction (Infra MS - June 30 2022)	0	09-Mar-22*	
INF0830	P3/GS19 Stage II - Operationally and substantially complete (Infra MS - December 3	0		05-Dec-24*
INF0840	P3/GS19 Stage II - Project landscaping and cleanup (Infra MS - September 30 2025	0		30-Sep-25*
INF0850	P3/GS19 Stage II - Final invoicing (Infra MS - December 31 2025)	0		31-Dec-25*
INF0860	P3/GS19 Stage II - Project Closeout (Infra MS - June 30 2026)	0		30-Jun-26*
P2 Milestones (Placeholder)		1520	21-Oct-20	18-Aug-26
INF1020	P2 - Start Design	0	21-Oct-20	
INF1030	P2 - PS&E complete	0		05-Apr-22
INF1040	P2 - Begin construction	0	14-Dec-22	
INF1050	P2 - Operationally and substantially complete	0		01-Apr-25
INF1060	P2 - Project landscaping and cleanup	0		09-Dec-25
INF1070	P2 - Final invoicing	0		03-Mar-26
INF1080	P2 - Project Closeout	0		18-Aug-26
EW2 Milestones (Placeholder)		1520	05-Feb-21	03-Dec-26
INF1100	EW2 - Start Design	0	05-Feb-21	
INF1110	EW2 - PS&E complete	0		21-Jul-22
INF1120	EW2 - Begin construction	0	31-Mar-23	
INF1130	EW2 - Operationally and substantially complete	0		17-Jul-25
INF1140	EW2 - Project landscaping and cleanup	0		26-Mar-26
INF1150	EW2 - Final invoicing	0		18-Jun-26
INF1160	EW2 - Project Closeout	0		03-Dec-26
Public Involvement		213	01-Jul-20	23-Apr-21
75th St. CIP Public Involvement Activities		213	01-Jul-20	23-Apr-21



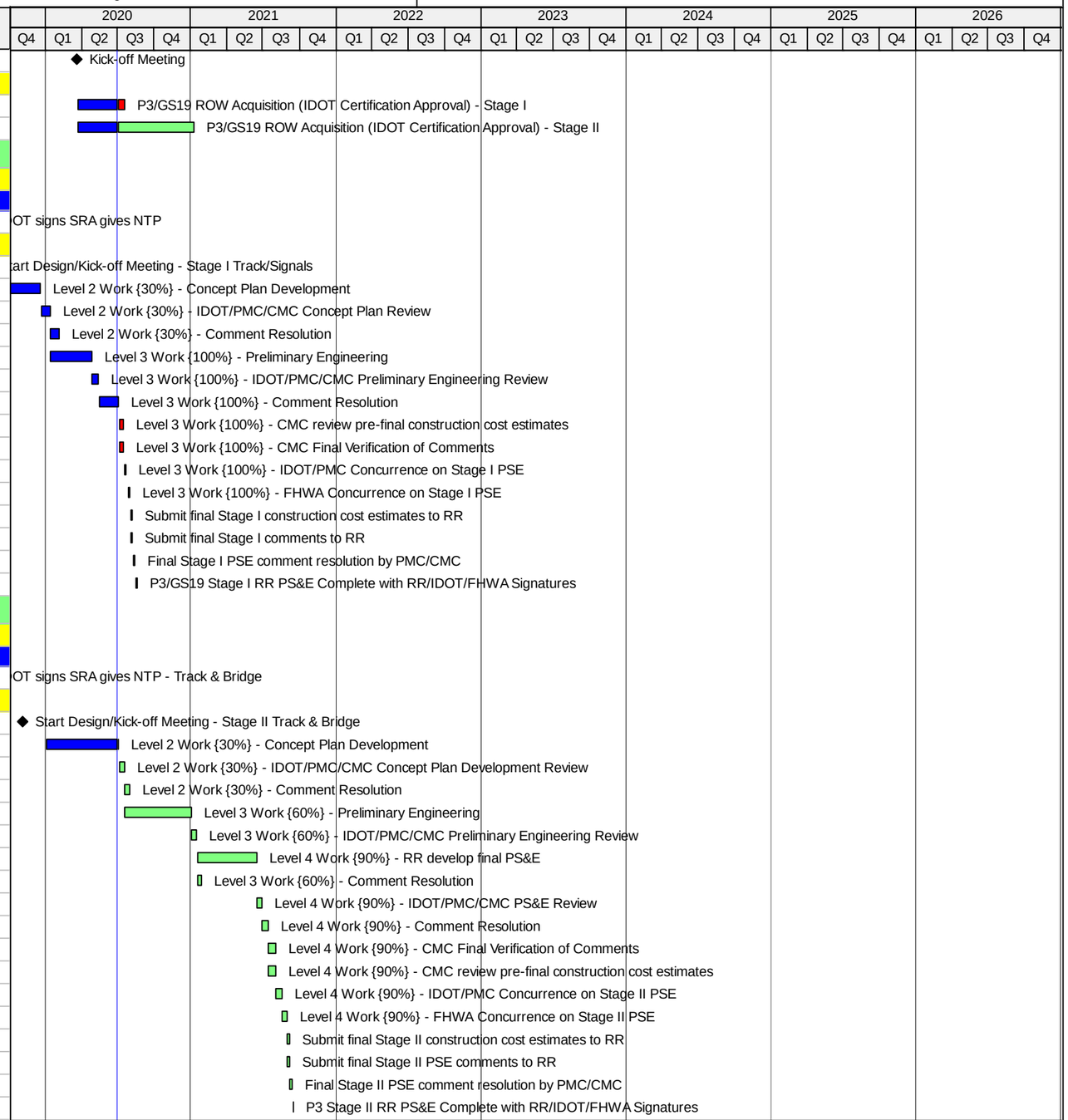
Activity ID	Activity Name	Duration	Start	Finish
INF0640	Small Community Groups - 2021	0		01-Jul-20
INF0600	Meeting with Elected Officials - 2020	0		14-Jul-20
INF0610	Meeting with CAG Members - 2020	0		11-Aug-20
INF0620	Small Community Groups - 2020	0		08-Sep-20
INF0660	Construction Meetings - 2020	0		11-Nov-20
INF0650	GOB (Get On Board) Event	0		01-Mar-21*
INF0690	Meeting with Elected Officials - 2021	0		26-Mar-21
INF0680	Meeting with CAG Members - 2021	0		23-Apr-21
CDOT		306	07-Feb-20 A	09-Apr-21
IPA for CDOT Viaducts		306	07-Feb-20 A	09-Apr-21
OS2300	Start CDOT IPA Process for Viaduct	0	07-Feb-20 A	
OS22310	Confirm Work Package Costs for Viaduct	13	10-Feb-20 A	27-Feb-20 A
OS22350	Finalize Work Package Costs for Viaduct	3	28-Feb-20 A	04-Mar-20 A
OS22360	Create a Draft IPA for PMC/IDOT Review for Viaduct	10	04-Jan-21	15-Jan-21
OS22510	PMC Review Draft IPA for Viaduct	5	18-Jan-21	22-Jan-21
OS22320	CDOT review Draft IPA for Viaduct	10	25-Jan-21	05-Feb-21
OS22380	IDOT create IPA for signature for Viaduct	20	08-Feb-21	05-Mar-21
OS22390	CDOT sign IPA for Viaduct	15	08-Mar-21	26-Mar-21
OS22400	IDOT sign IPA for Viaduct	10	29-Mar-21	09-Apr-21
OS22410	NTP issued for Viaduct	0		09-Apr-21
IPA for CDOT Community Mobillity		163	07-Feb-20 A	22-Sep-20
OS26160	Start CDOT IPA Process for Community Mobility	0	07-Feb-20 A	
OS26170	Confirm Work Package Costs for Community Mobility	13	10-Feb-20 A	27-Feb-20 A
OS26180	Finalize Work Package Costs for Community Mobility	3	28-Feb-20 A	04-Mar-20 A
OS26760	Create a Draft IPA for PMC/IDOT Review for Community Mobility	80	01-Apr-20 A	21-Jul-20
OS26190	PMC Review Draft IPA for Community Mobility	5	22-Jul-20	28-Jul-20
OS26200	CDOT review Draft IPA for Community Mobility	10	29-Jul-20	11-Aug-20
OS26210	IDOT create IPA for signature for Community Mobility	5	12-Aug-20	18-Aug-20
OS26220	CDOT sign IPA for Community Mobility	15	19-Aug-20	08-Sep-20
OS26230	IDOT sign IPA for Community Mobility	10	09-Sep-20	22-Sep-20
OS26240	NTP issued for Community Mobility	0		22-Sep-20
IPA for CDOT MUSRA		306	07-Feb-20 A	09-Apr-21
OS25370	Start CDOT IPA Process for MUSRA	0	07-Feb-20 A	
OS25380	Confirm Work Package Costs for MUSRA	13	10-Feb-20 A	27-Feb-20 A
OS25400	Finalize Work Package Costs for MUSRA	3	28-Feb-20 A	04-Mar-20 A
OS25610	Create a Draft IPA for PMC/IDOT Review for MUSRA	10	04-Jan-21	15-Jan-21
OS25410	PMC review Draft IPA for MUSRA	5	18-Jan-21	22-Jan-21
OS25390	CDOT Review Draft IPA for MUSRA	10	25-Jan-21	05-Feb-21
OS25420	IDOT create IPA for signature for MUSRA	20	08-Feb-21	05-Mar-21
OS25440	CDOT sign IPA for MUSRA	15	08-Mar-21	26-Mar-21
OS25430	IDOT sign IPA for MUSRA	10	29-Mar-21	09-Apr-21
OS25450	NTP issued for MUSRA	0		09-Apr-21
Project P3		1393	06-Aug-19 A	05-Dec-24
P3/GS19 Environmental Activities		409	01-Oct-19 A	23-Apr-21
P3/GS19 Special Waste Assessment		304	01-Oct-19 A	27-Nov-20



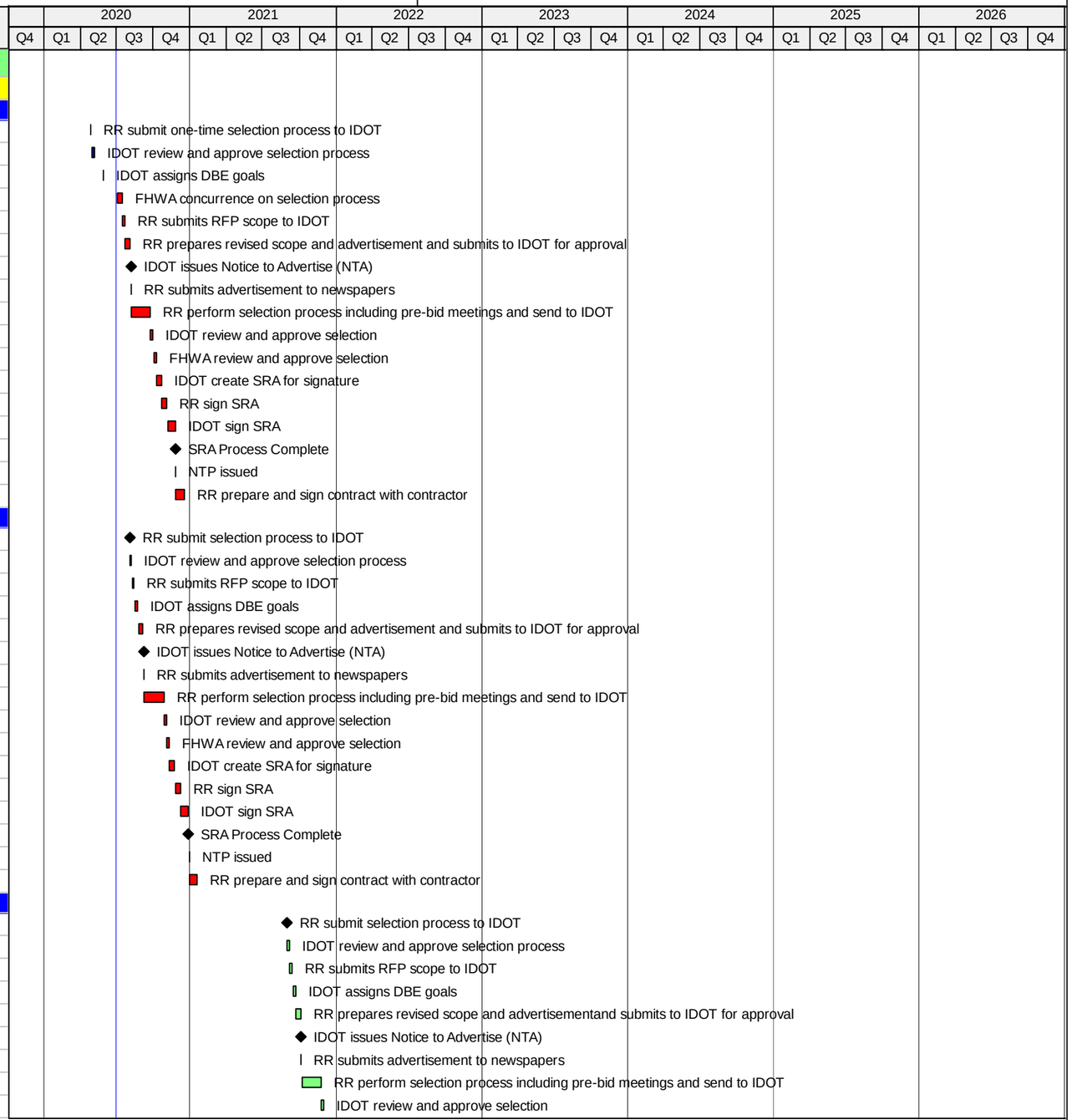
Activity ID	Activity Name	Duration	Start	Finish
OS25760	IDOT start SWA for Stage I	0	01-Oct-19 A	
OS25770	IDOT prepare SWA for Stage I	43	02-Oct-19 A	29-Nov-19 A
OS25780	IDOT complete SWA for Stage I	0		29-Nov-19 A
OS25830	IDOT start SWA for Stage II	0	05-Oct-20*	
OS25840	IDOT prepare SWA for Stage II	40	05-Oct-20	27-Nov-20
OS25850	IDOT complete SWA for Stage II	0		27-Nov-20
P3/GS19 Preliminary Environmental Site Assessment		365	02-Dec-19 A	23-Apr-21
OS25700	IDOT start PESA for Stage I	0	02-Dec-19 A	
OS25710	IDOT prepare PESA for Stage I	95	02-Dec-19 A	13-Apr-20 A
OS25790	IDOT finalize PESA for Stage I	9	12-May-20 A	25-May-20 A
OS25800	IDOT request revised spill letters from railroads	11	18-May-20 A	01-Jun-20 A
OS25720	IDOT submit PESA for FHWA review for Stage I	0		11-Jun-20 A
OS25730	FHWA reviews PESA for Stage I	10	12-Jun-20 A	25-Jun-20 A
OS25820	IDOT complete PESA for Stage I	0		25-Jun-20 A
OS25740	Spill letter received from UP for Stage I	0		25-Jun-20 A
OS25860	IDOT start PESA for Stage II	0	30-Nov-20	
OS25870	IDOT prepare PESA for Stage II	80	30-Nov-20	19-Mar-21
OS25880	IDOT submit PESA for FHWA review for Stage II	0		19-Mar-21
OS25890	FHWA reviews PESA for Stage II	15	22-Mar-21	09-Apr-21
OS25900	IDOT address comments from FHWA for Stage II	5	12-Apr-21	16-Apr-21
OS25910	Final FHWA review and signature for Stage II	5	19-Apr-21	23-Apr-21
OS25920	IDOT complete PESA for Stage II	0		23-Apr-21
P3/GS19 NEPA Reevaluation		159	24-Feb-20 A	05-Oct-20
OS25940	Parsons submit P3 stage I reevaluation to OIPI/CMC	0		24-Feb-20 A
OS25950	OIPI/CMC stage I review reevaluation	5	25-Feb-20 A	02-Mar-20 A
OS25960	Address OIPI/CMC stage I comments	10	03-Mar-20 A	16-Mar-20 A
OS25980	Submit revised reevaluation to CTT/CTCO	0		16-Mar-20 A
OS25990	CTT/CTCO stage I review	29	17-Mar-20 A	27-Apr-20 A
OS25970	Parsons address Stage I reevaluation comments	4	27-Apr-20 A	30-Apr-20 A
OS26000	Parsons address PMC Stage I reevaluation comments	2	05-May-20 A	06-May-20 A
OS26010	Parsons submit for signature to IDOT	4	08-May-20 A	13-May-20 A
OS26040	OIPI submits to FHWA for signature	9	13-May-20 A	26-May-20 A
OS26020	NEPA Document signed by FHWA	0		26-May-20 A
OS26030	P3 Stage II evaluate need for NEPA and other environmental processes	0	05-Oct-20*	
P3 ROW		259	13-Jan-20 A	07-Jan-21
P3 ROW CSX ROW: SRA P3-BOCT-XXX-003-Z-ROW		49	13-Jan-20 A	20-Mar-20 A
OS24920	RR submit selection process to IDOT	0	13-Jan-20 A	
OS24930	IDOT review and approve selection process	5	14-Jan-20 A	20-Jan-20 A
OS24940	RR submits RFP scope to IDOT	6	21-Jan-20 A	29-Jan-20 A
OS24950	IDOT assigns DBE goals	1	30-Jan-20 A	30-Jan-20 A
OS24960	RR prepares revised scope and advertisement and submits to IDOT for approval	1	31-Jan-20 A	31-Jan-20 A
OS25020	IDOT create SRA for signature	1	14-Feb-20 A	14-Feb-20 A
OS25030	RR sign SRA	4	17-Feb-20 A	21-Feb-20 A
OS25040	IDOT sign SRA	9	24-Feb-20 A	06-Mar-20 A
OS25230	SRA Process Complete	0		09-Mar-20 A
OS25050	NTP issued	1	10-Mar-20 A	10-Mar-20 A
OS25060	RR prepare and sign contract with contractor	6	11-Mar-20 A	19-Mar-20 A



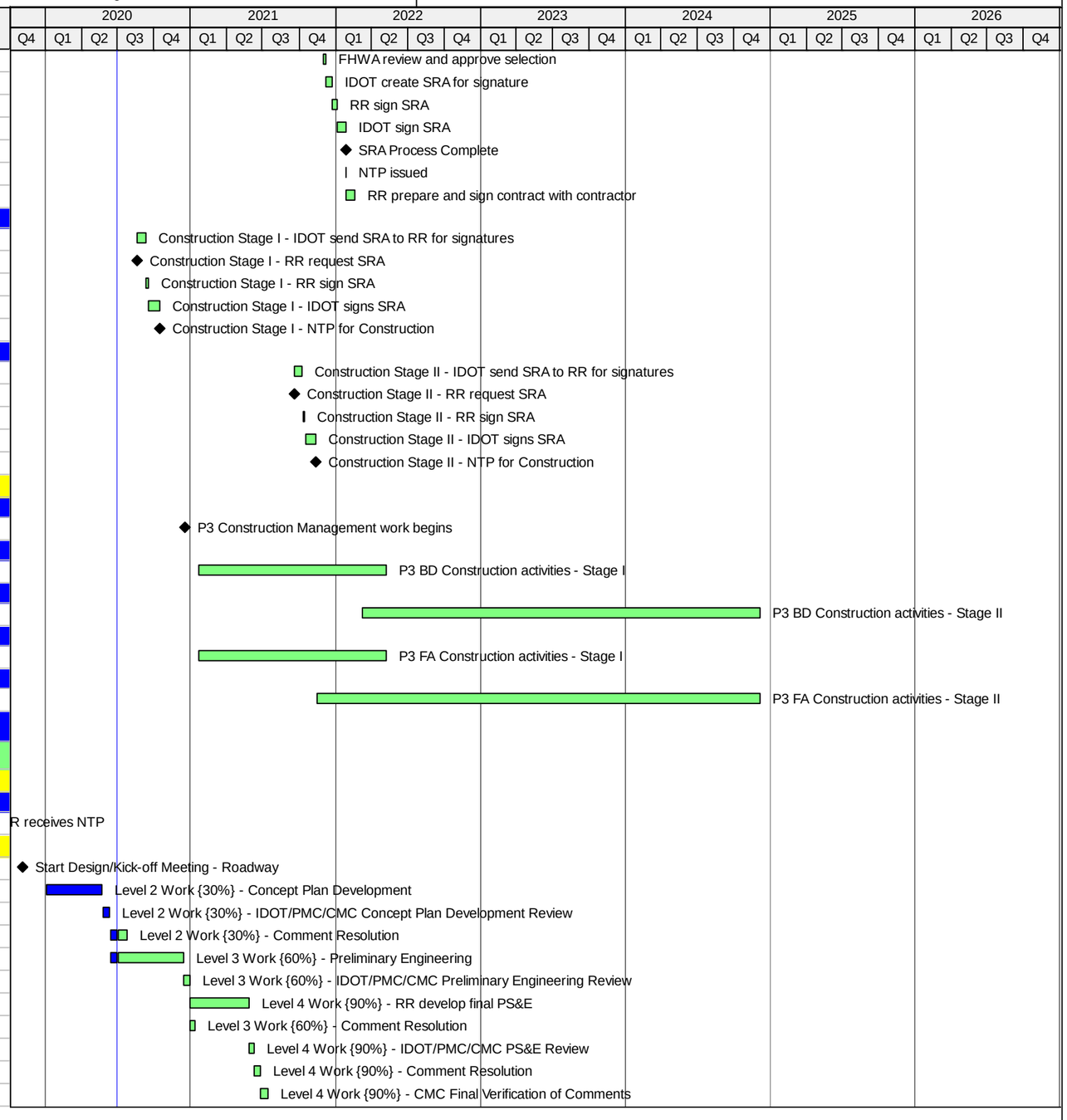
Activity ID	Activity Name	Duration	Start	Finish
OS25220	Kick-off Meeting	0	20-Mar-20 A	
P3 ROW Acquisition		209	23-Mar-20 A	07-Jan-21
OS0240	P3/GS19 ROW Acquisition (IDOT Certification Approval) - Stage I	85	23-Mar-20 A	17-Jul-20
OS25680	P3/GS19 ROW Acquisition (IDOT Certification Approval) - Stage II	209	23-Mar-20 A	07-Jan-21
P3/GS19 Stage I Final Engineering		272	06-Aug-19 A	19-Aug-20
P3/GS19 Temporary Design Services SRA		0	06-Aug-19 A	06-Aug-19 A
P3/GS19 Temporary CSX Design Services: SRA P3-BOCT-TSB-001-Z-FE		0	06-Aug-19 A	06-Aug-19 A
OS2450	IDOT signs SRA gives NTP	0		06-Aug-19 A
P3/GS19 Temporary Design		270	08-Aug-19 A	19-Aug-20
OS2460	Start Design/Kick-off Meeting - Stage I Track/Signals	0	08-Aug-19 A	
OS2530	Level 2 Work {30%} - Concept Plan Development	96	09-Aug-19 A	20-Dec-19 A
OS2600	Level 2 Work {30%} - IDOT/PMC/CMC Concept Plan Review	16	23-Dec-19 A	13-Jan-20 A
OS2540	Level 2 Work {30%} - Comment Resolution	15	14-Jan-20 A	04-Feb-20 A
OS2560	Level 3 Work {100%} - Preliminary Engineering	74	14-Jan-20 A	27-Apr-20 A
OS2610	Level 3 Work {100%} - IDOT/PMC/CMC Preliminary Engineering Review	12	28-Apr-20 A	14-May-20 A
OS2570	Level 3 Work {100%} - Comment Resolution	36	15-May-20 A	03-Jul-20 A
OS2620	Level 3 Work {100%} - CMC review pre-final construction cost estimates	7	06-Jul-20	14-Jul-20
OS2580	Level 3 Work {100%} - CMC Final Verification of Comments	7	06-Jul-20*	14-Jul-20
OS2590	Level 3 Work {100%} - IDOT/PMC Concurrence on Stage I PSE	1	20-Jul-20	20-Jul-20
OS2650	Level 3 Work {100%} - FHWA Concurrence on Stage I PSE	5	27-Jul-20	31-Jul-20
OS2630	Submit final Stage I construction cost estimates to RR	5	03-Aug-20	07-Aug-20
OS2660	Submit final Stage I comments to RR	5	03-Aug-20	07-Aug-20
OS2670	Final Stage I PSE comment resolution by PMC/CMC	5	10-Aug-20	14-Aug-20
OS2640	P3/GS19 Stage I RR PS&E Complete with RR/IDOT/FHWA Signatures	3	17-Aug-20	19-Aug-20
P3 Stage II Final Engineering		554	06-Aug-19 A	17-Sep-21
P3 Design Services SRA		0	06-Aug-19 A	06-Aug-19 A
P3 Track & Bridge SRA		0	06-Aug-19 A	06-Aug-19 A
OS4030	IDOT signs SRA gives NTP - Track & Bridge	0		06-Aug-19 A
P3 Final Design		489	05-Nov-19 A	17-Sep-21
OS22530	Start Design/Kick-off Meeting - Stage II Track & Bridge	0	05-Nov-19 A	
OS22540	Level 2 Work {30%} - Concept Plan Development	131	03-Jan-20 A	03-Jul-20
OS23060	Level 2 Work {30%} - IDOT/PMC/CMC Concept Plan Development Review	10	06-Jul-20	17-Jul-20
OS22550	Level 2 Work {30%} - Comment Resolution	10	20-Jul-20	31-Jul-20
OS22560	Level 3 Work {60%} - Preliminary Engineering	120	20-Jul-20	01-Jan-21
OS23070	Level 3 Work {60%} - IDOT/PMC/CMC Preliminary Engineering Review	10	04-Jan-21	15-Jan-21
OS22570	Level 4 Work {90%} - RR develop final PS&E	107	18-Jan-21	15-Jun-21
OS22580	Level 3 Work {60%} - Comment Resolution	10	18-Jan-21	29-Jan-21
OS22610	Level 4 Work {90%} - IDOT/PMC/CMC PS&E Review	10	16-Jun-21	29-Jun-21
OS22590	Level 4 Work {90%} - Comment Resolution	10	30-Jun-21	13-Jul-21
OS22680	Level 4 Work {90%} - CMC Final Verification of Comments	15	14-Jul-21	03-Aug-21
OS22690	Level 4 Work {90%} - CMC review pre-final construction cost estimates	15	14-Jul-21	03-Aug-21
OS22700	Level 4 Work {90%} - IDOT/PMC Concurrence on Stage II PSE	10	04-Aug-21	17-Aug-21
OS22710	Level 4 Work {90%} - FHWA Concurrence on Stage II PSE	10	18-Aug-21	31-Aug-21
OS22720	Submit final Stage II construction cost estimates to RR	5	01-Sep-21	07-Sep-21
OS22790	Submit final Stage II PSE comments to RR	5	01-Sep-21	07-Sep-21
OS22850	Final Stage II PSE comment resolution by PMC/CMC	5	08-Sep-21	14-Sep-21
OS23180	P3 Stage II RR PS&E Complete with RR/IDOT/FHWA Signatures	3	15-Sep-21	17-Sep-21



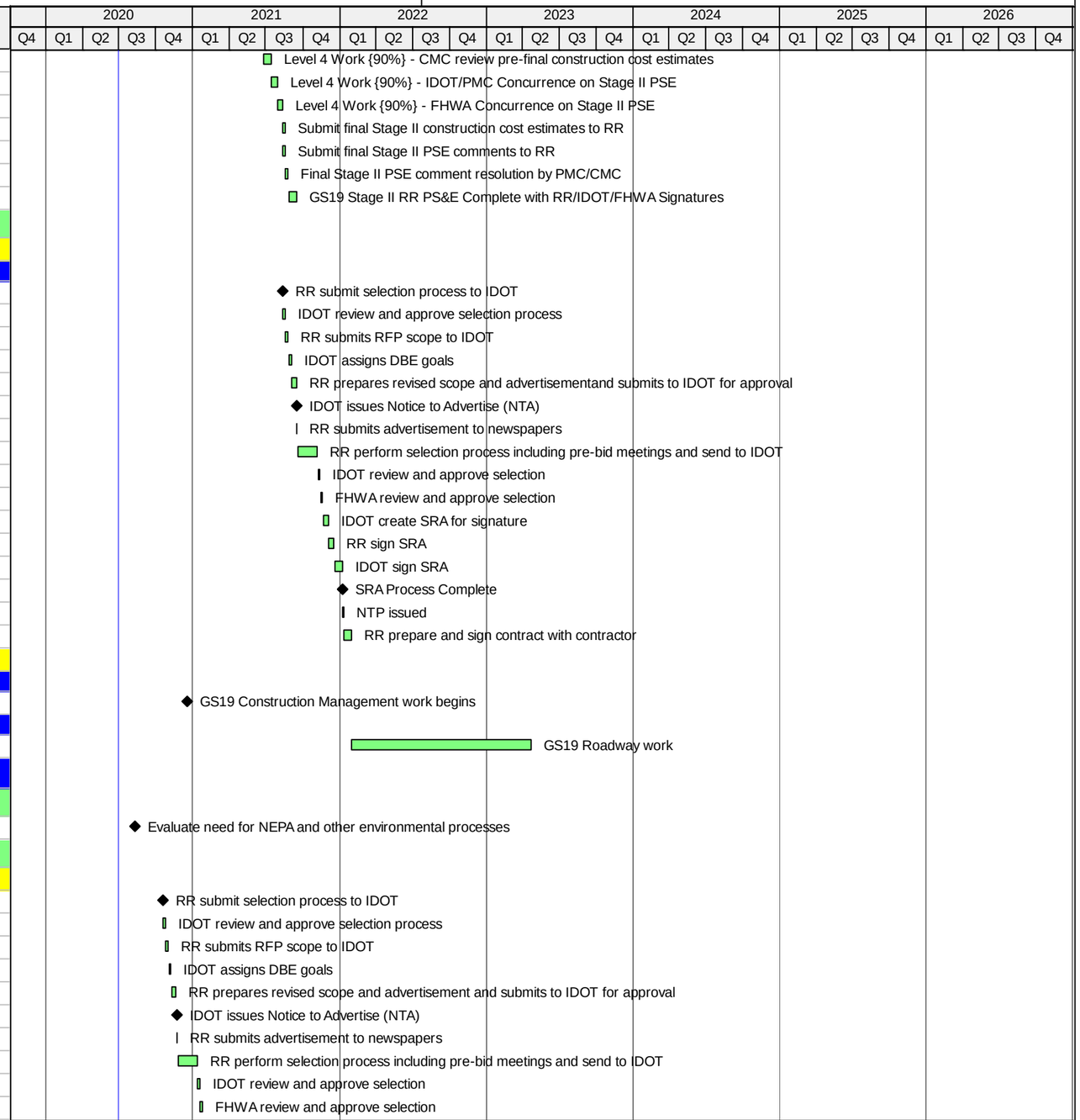
Activity ID	Activity Name	Duration	Start	Finish
P3 Construction (Phase III)		1203	28-Apr-20 A	05-Dec-24
P3 Construction Activities SRA		473	28-Apr-20 A	17-Feb-22
P3/GS19 Construction Management SRA - Stage I & II		168	28-Apr-20 A	17-Dec-20
OS2507	RR submit one-time selection process to IDOT	1	28-Apr-20 A	28-Apr-20 A
OS2508	IDOT review and approve selection process	7	29-Apr-20 A	08-May-20 A
OS2510	IDOT assigns DBE goals	1	29-May-20 A	29-May-20 A
OS2526	FHWA concurrence on selection process	10	01-Jul-20	14-Jul-20
OS2509	RR submits RFP scope to IDOT	5	15-Jul-20	21-Jul-20
OS2511	RR prepares revised scope and advertisement and submits to IDOT for approval	10	22-Jul-20	04-Aug-20
OS2512	IDOT issues Notice to Advertise (NTA)	0	05-Aug-20	
OS2513	RR submits advertisement to newspapers	1	05-Aug-20	05-Aug-20
OS2514	RR perform selection process including pre-bid meetings and send to IDOT	35	06-Aug-20	23-Sep-20
OS2515	IDOT review and approve selection	5	24-Sep-20	30-Sep-20
OS2516	FHWA review and approve selection	5	01-Oct-20	07-Oct-20
OS2517	IDOT create SRA for signature	10	08-Oct-20	21-Oct-20
OS2518	RR sign SRA	10	22-Oct-20	04-Nov-20
OS2519	IDOT sign SRA	15	05-Nov-20	25-Nov-20
OS2524	SRA Process Complete	0		25-Nov-20
OS2520	NTP issued	1	26-Nov-20	26-Nov-20
OS2521	RR prepare and sign contract with contractor	15	27-Nov-20	17-Dec-20
P3 BD Construction SRA - Stage I		122	03-Aug-20	19-Jan-21
OS2369	RR submit selection process to IDOT	0	03-Aug-20	
OS2370	IDOT review and approve selection process	5	03-Aug-20	07-Aug-20
OS2371	RR submits RFP scope to IDOT	5	10-Aug-20	14-Aug-20
OS2372	IDOT assigns DBE goals	5	17-Aug-20	21-Aug-20
OS2373	RR prepares revised scope and advertisement and submits to IDOT for approval	10	24-Aug-20	04-Sep-20
OS2374	IDOT issues Notice to Advertise (NTA)	0	07-Sep-20	
OS2375	RR submits advertisement to newspapers	1	07-Sep-20	07-Sep-20
OS2376	RR perform selection process including pre-bid meetings and send to IDOT	35	08-Sep-20	26-Oct-20
OS2377	IDOT review and approve selection	5	27-Oct-20	02-Nov-20
OS2378	FHWA review and approve selection	5	03-Nov-20	09-Nov-20
OS2379	IDOT create SRA for signature	10	10-Nov-20	23-Nov-20
OS2380	RR sign SRA	10	24-Nov-20	07-Dec-20
OS2381	IDOT sign SRA	15	08-Dec-20	28-Dec-20
OS2447	SRA Process Complete	0		28-Dec-20
OS2382	NTP issued	1	29-Dec-20	29-Dec-20
OS2383	RR prepare and sign contract with contractor	15	30-Dec-20	19-Jan-21
P3 BD Construction SRA - Stage II		122	01-Sep-21	17-Feb-22
OS2384	RR submit selection process to IDOT	0	01-Sep-21	
OS2385	IDOT review and approve selection process	5	01-Sep-21	07-Sep-21
OS2386	RR submits RFP scope to IDOT	5	08-Sep-21	14-Sep-21
OS2387	IDOT assigns DBE goals	5	15-Sep-21	21-Sep-21
OS2388	RR prepares revised scope and advertisementand submits to IDOT for approval	10	22-Sep-21	05-Oct-21
OS2389	IDOT issues Notice to Advertise (NTA)	0	06-Oct-21	
OS2390	RR submits advertisement to newspapers	1	06-Oct-21	06-Oct-21
OS2391	RR perform selection process including pre-bid meetings and send to IDOT	35	07-Oct-21	24-Nov-21
OS2392	IDOT review and approve selection	5	25-Nov-21	01-Dec-21



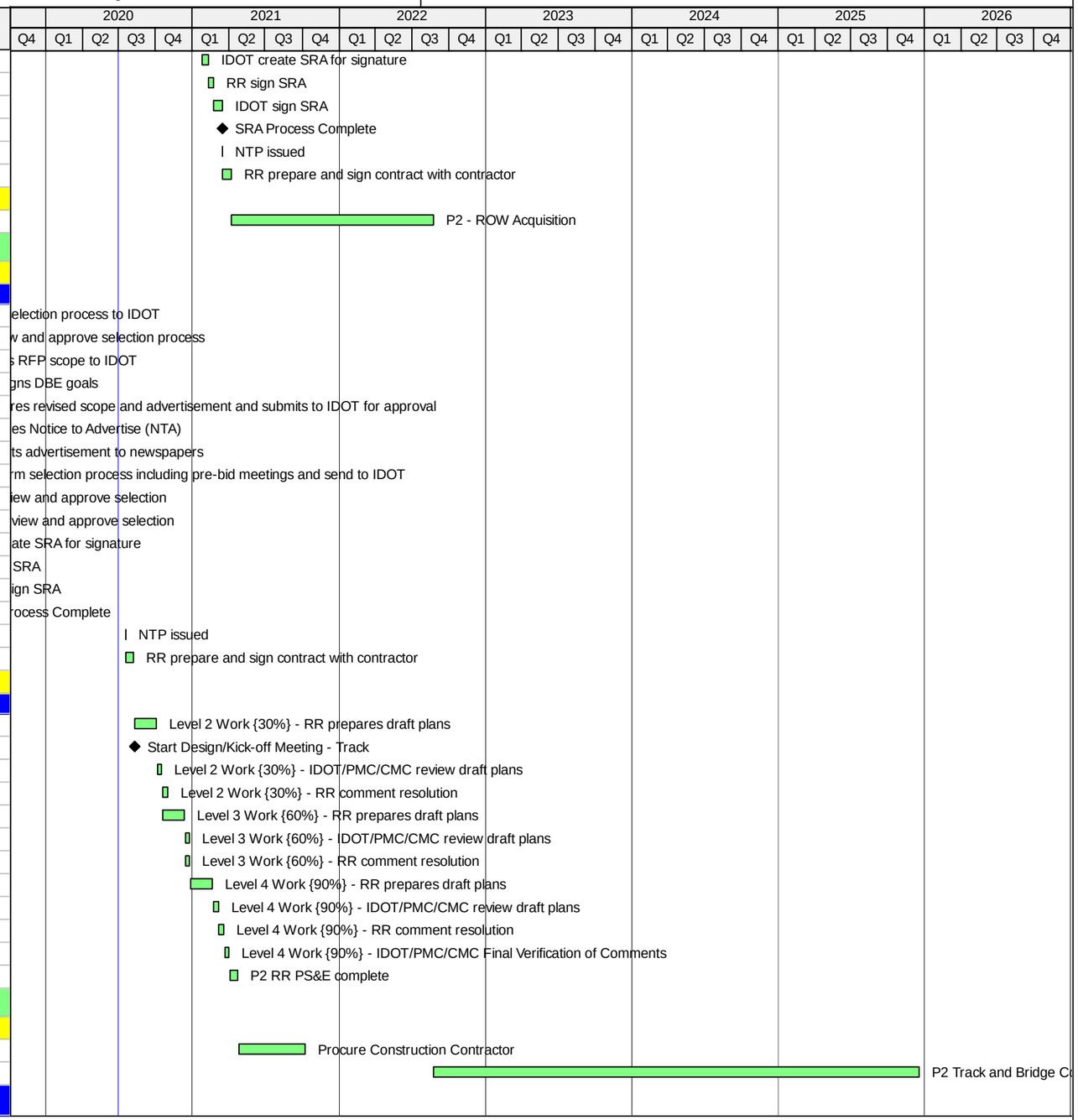
Activity ID	Activity Name	Duration	Start	Finish
OS2393	FHWA review and approve selection	5	02-Dec-21	08-Dec-21
OS2394	IDOT create SRA for signature	10	09-Dec-21	22-Dec-21
OS2395	RR sign SRA	10	23-Dec-21	05-Jan-22
OS2396	IDOT sign SRA	15	06-Jan-22	26-Jan-22
OS2448	SRA Process Complete	0		26-Jan-22
OS2397	NTP issued	1	27-Jan-22	27-Jan-22
OS2398	RR prepare and sign contract with contractor	15	28-Jan-22	17-Feb-22
P3 FA Construction SRA - Stage I		40	20-Aug-20	14-Oct-20
OS6910	Construction Stage I - IDOT send SRA to RR for signatures	15	20-Aug-20	09-Sep-20
OS6900	Construction Stage I - RR request SRA	0	20-Aug-20	
OS6920	Construction Stage I - RR sign SRA	5	10-Sep-20	16-Sep-20
OS6930	Construction Stage I - IDOT signs SRA	20	17-Sep-20	14-Oct-20
OS6940	Construction Stage I - NTP for Construction	0		14-Oct-20
P3 FA Construction SRA - Stage II		40	20-Sep-21	12-Nov-21
OS8690	Construction Stage II - IDOT send SRA to RR for signatures	15	20-Sep-21	08-Oct-21
OS8590	Construction Stage II - RR request SRA	0	20-Sep-21	
OS8790	Construction Stage II - RR sign SRA	5	11-Oct-21	15-Oct-21
OS8890	Construction Stage II - IDOT signs SRA	20	18-Oct-21	12-Nov-21
OS8990	Construction Stage II - NTP for Construction	0		12-Nov-21
P3 Construction Activities		1035	18-Dec-20	05-Dec-24
P3 Construction Management		0	18-Dec-20	18-Dec-20
OS6750	P3 Construction Management work begins	0	18-Dec-20	
P3 BD Construction Work - Stage I		339	20-Jan-21	09-May-22
OS6890	P3 BD Construction activities - Stage I	339	20-Jan-21	09-May-22
P3 BD Construction Work - Stage II		717	09-Mar-22	05-Dec-24
OS8580	P3 BD Construction activities - Stage II	717	09-Mar-22	05-Dec-24
P3 FA Construction Work - Stage I		339	20-Jan-21	09-May-22
OS6970	P3 FA Construction activities - Stage I	339	20-Jan-21	09-May-22
P3 FA Construction Work - Stage II		799	15-Nov-21	05-Dec-24
OS9000	P3 FA Construction activities - Stage II	799	15-Nov-21	05-Dec-24
Project GS19		967	09-Aug-19 A	24-Apr-23
GS19 Final Engineering (Phase II)		550	09-Aug-19 A	16-Sep-21
GS19 Design Services SRA		0	09-Aug-19 A	09-Aug-19 A
GS19 CSX Design Services: SRA GS19-BOCT-XXB-001-FE		0	09-Aug-19 A	09-Aug-19 A
OS1082	RR receives NTP	0		09-Aug-19 A
GS19 Roadway Design - Stage II		488	05-Nov-19 A	16-Sep-21
OS26050	Start Design/Kick-off Meeting - Roadway	0	05-Nov-19 A	
OS26060	Level 2 Work {30%} - Concept Plan Development	100	03-Jan-20 A	22-May-20 A
OS26070	Level 2 Work {30%} - IDOT/PMC/CMC Concept Plan Development Review	14	25-May-20 A	12-Jun-20 A
OS26080	Level 2 Work {30%} - Comment Resolution	30	15-Jun-20 A	24-Jul-20
OS26090	Level 3 Work {60%} - Preliminary Engineering	132	15-Jun-20 A	15-Dec-20
OS26100	Level 3 Work {60%} - IDOT/PMC/CMC Preliminary Engineering Review	10	16-Dec-20	29-Dec-20
OS26110	Level 4 Work {90%} - RR develop final PS&E	107	30-Dec-20	27-May-21
OS26120	Level 3 Work {60%} - Comment Resolution	10	30-Dec-20	12-Jan-21
OS26130	Level 4 Work {90%} - IDOT/PMC/CMC PS&E Review	10	28-May-21	10-Jun-21
OS26140	Level 4 Work {90%} - Comment Resolution	10	11-Jun-21	24-Jun-21
OS26250	Level 4 Work {90%} - CMC Final Verification of Comments	15	25-Jun-21	15-Jul-21



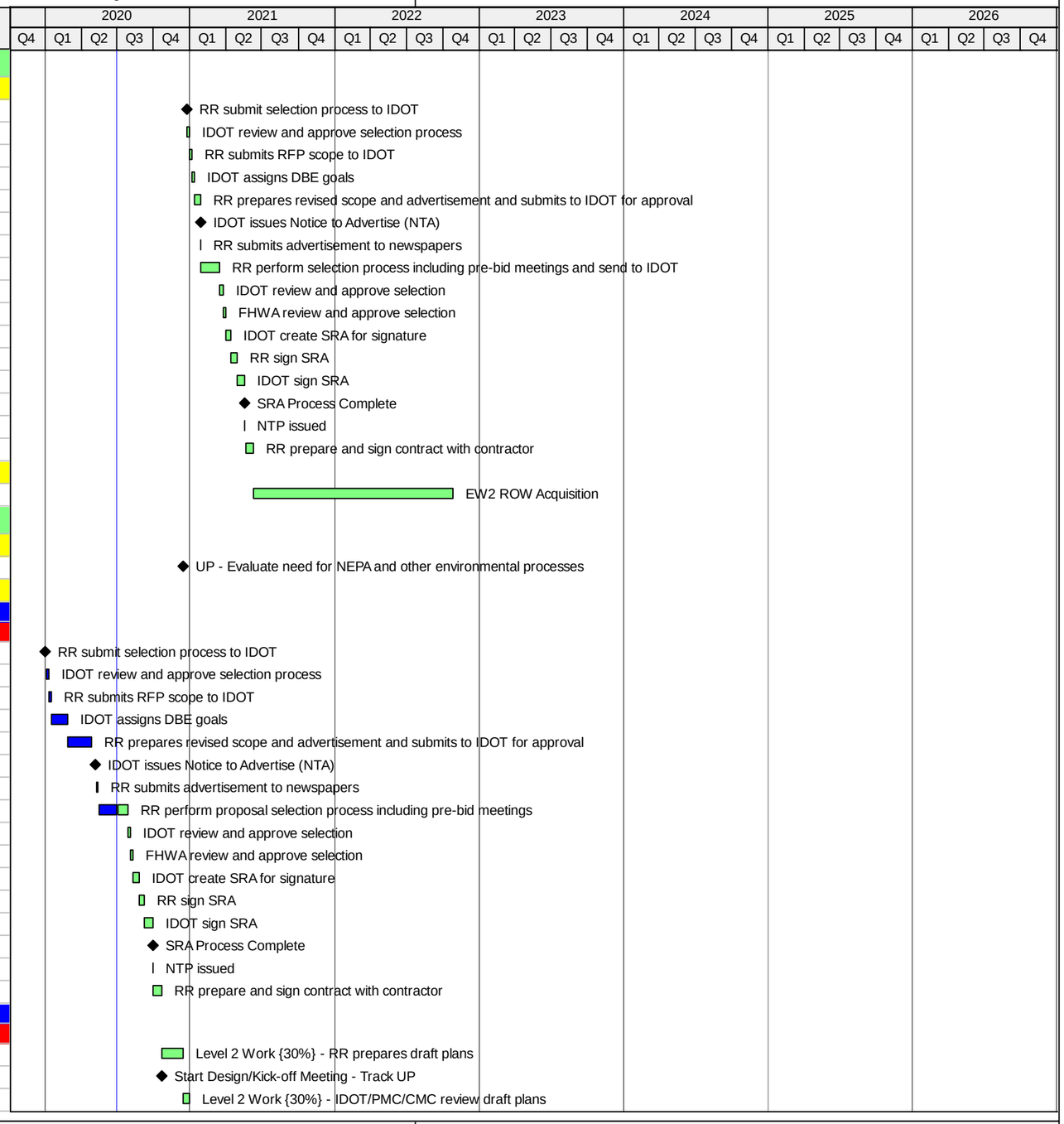
Activity ID	Activity Name	Duration	Start	Finish
OS26770	Level 4 Work {90%} - CMC review pre-final construction cost estimates	15	25-Jun-21	15-Jul-21
OS26780	Level 4 Work {90%} - IDOT/PMC Concurrence on Stage II PSE	10	16-Jul-21	29-Jul-21
OS26790	Level 4 Work {90%} - FHWA Concurrence on Stage II PSE	10	30-Jul-21	12-Aug-21
OS26800	Submit final Stage II construction cost estimates to RR	5	13-Aug-21	19-Aug-21
OS26810	Submit final Stage II PSE comments to RR	5	13-Aug-21	19-Aug-21
OS26820	Final Stage II PSE comment resolution by PMC/CMC	5	20-Aug-21	26-Aug-21
OS26150	GS19 Stage II RR PS&E Complete with RR/IDOT/FHWA Signatures	15	27-Aug-21	16-Sep-21
GS19 Construction (Phase III)		612	18-Dec-20	24-Apr-23
GS19 Construction SRA		122	13-Aug-21	31-Jan-22
GS19 BD Roadway SRA		122	13-Aug-21	31-Jan-22
OS224[illegible]	RR submit selection process to IDOT	0	13-Aug-21	
OS224[illegible]	IDOT review and approve selection process	5	13-Aug-21	19-Aug-21
OS224[illegible]	RR submits RFP scope to IDOT	5	20-Aug-21	26-Aug-21
OS224[illegible]	IDOT assigns DBE goals	5	27-Aug-21	02-Sep-21
OS224[illegible]	RR prepares revised scope and advertisementand submits to IDOT for approval	10	03-Sep-21	16-Sep-21
OS224[illegible]	IDOT issues Notice to Advertise (NTA)	0	17-Sep-21	
OS226[illegible]	RR submits advertisement to newspapers	1	17-Sep-21	17-Sep-21
OS224[illegible]	RR perform selection process including pre-bid meetings and send to IDOT	35	20-Sep-21	05-Nov-21
OS224[illegible]	IDOT review and approve selection	5	08-Nov-21	12-Nov-21
OS226[illegible]	FHWA review and approve selection	5	15-Nov-21	19-Nov-21
OS226[illegible]	IDOT create SRA for signature	10	22-Nov-21	03-Dec-21
OS226[illegible]	RR sign SRA	10	06-Dec-21	17-Dec-21
OS226[illegible]	IDOT sign SRA	15	20-Dec-21	07-Jan-22
OS226[illegible]	SRA Process Complete	0		07-Jan-22
OS225[illegible]	NTP issued	1	10-Jan-22	10-Jan-22
OS225[illegible]	RR prepare and sign contract with contractor	15	11-Jan-22	31-Jan-22
GS19 Construction Activities		612	18-Dec-20	24-Apr-23
GS19 Construction Management		0	18-Dec-20	18-Dec-20
OS121[illegible]	GS19 Construction Management work begins	0	18-Dec-20	
GS19 BD Roadway		320	01-Feb-22	24-Apr-23
OS134[illegible]	GS19 Roadway work	320	01-Feb-22	24-Apr-23
Project P2		1772	06-Mar-19 A	18-Dec-25
P2 Environmental Activities		0	10-Aug-20	10-Aug-20
OS25250	Evaluate need for NEPA and other environmental processes	0	10-Aug-20	
P2 ROW		482	19-Oct-20	23-Aug-22
P2 ROW SRA		122	19-Oct-20	06-Apr-21
OS24770	RR submit selection process to IDOT	0	19-Oct-20	
OS24780	IDOT review and approve selection process	5	19-Oct-20	23-Oct-20
OS24790	RR submits RFP scope to IDOT	5	26-Oct-20	30-Oct-20
OS24800	IDOT assigns DBE goals	5	02-Nov-20	06-Nov-20
OS24810	RR prepares revised scope and advertisement and submits to IDOT for approval	10	09-Nov-20	20-Nov-20
OS24820	IDOT issues Notice to Advertise (NTA)	0	23-Nov-20	
OS24830	RR submits advertisement to newspapers	1	23-Nov-20	23-Nov-20
OS24840	RR perform selection process including pre-bid meetings and send to IDOT	35	24-Nov-20	11-Jan-21
OS24850	IDOT review and approve selection	5	12-Jan-21	18-Jan-21
OS24860	FHWA review and approve selection	5	19-Jan-21	25-Jan-21



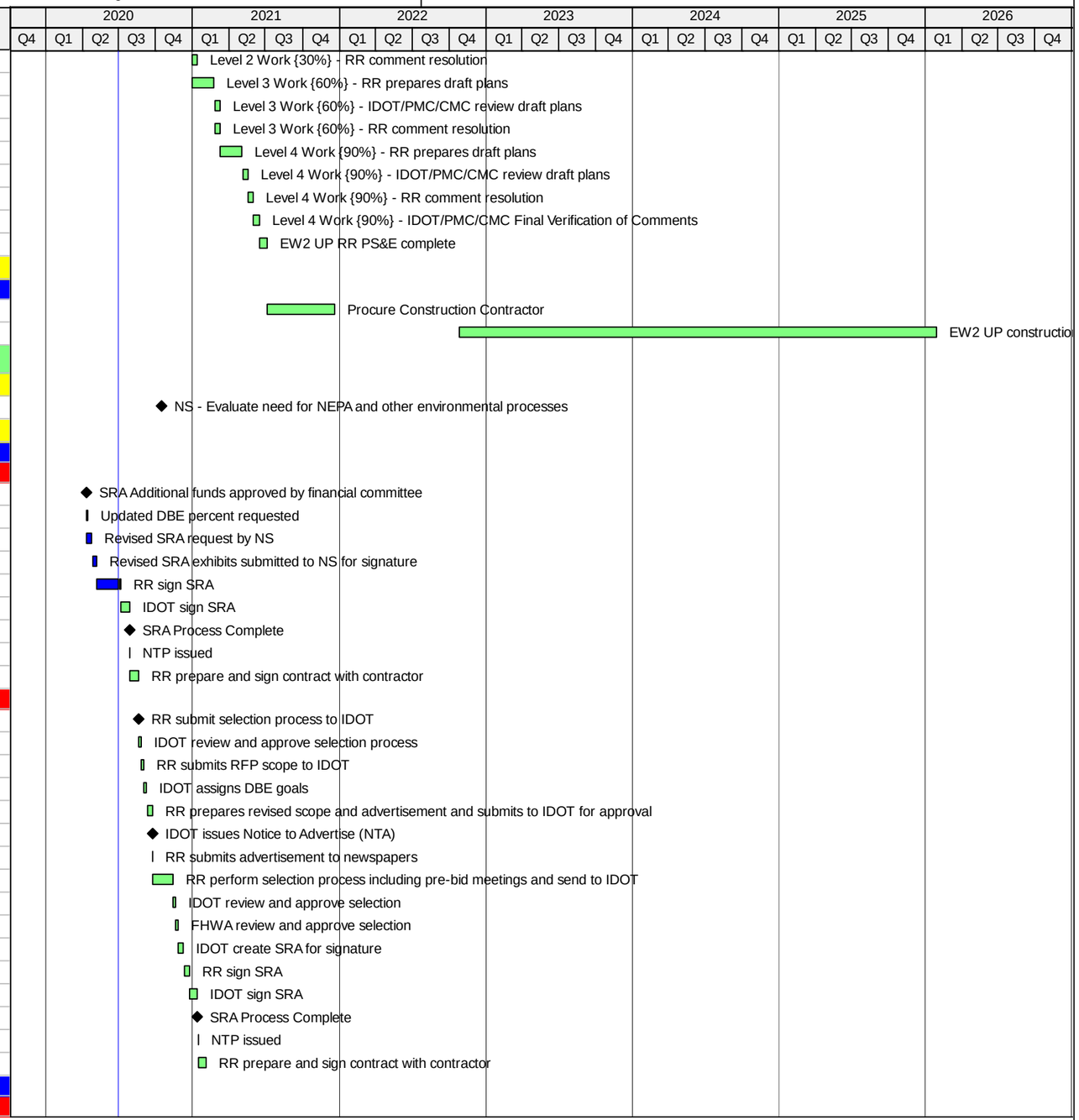
Activity ID	Activity Name	Duration	Start	Finish
OS24870	IDOT create SRA for signature	10	26-Jan-21	08-Feb-21
OS24880	RR sign SRA	10	09-Feb-21	22-Feb-21
OS24890	IDOT sign SRA	15	23-Feb-21	15-Mar-21
OS24970	SRA Process Complete	0		15-Mar-21
OS24900	NTP issued	1	16-Mar-21	16-Mar-21
OS24910	RR prepare and sign contract with contractor	15	17-Mar-21	06-Apr-21
P2 ROW		360	07-Apr-21	23-Aug-22
OS0250	P2 - ROW Acquisition	360	07-Apr-21	23-Aug-22
P2 Final Engineering (Phase II)		558	06-Mar-19 A	23-Apr-21
P2 SRA		373	06-Mar-19 A	07-Aug-20
P2 METRA Design Services: SRA P2-Metra-TXB-001-Z-FE		373	06-Mar-19 A	07-Aug-20
OS227	RR submit selection process to IDOT	0	06-Mar-19 A	
OS227	IDOT review and approve selection process	5	07-Mar-19 A	13-Mar-19 A
OS227	RR submits RFP scope to IDOT	5	14-Mar-19 A	20-Mar-19 A
OS227	IDOT assigns DBE goals	11	21-Mar-19 A	04-Apr-19 A
OS227	RR prepares revised scope and advertisement and submits to IDOT for approval	1	05-Apr-19 A	05-Apr-19 A
OS227	IDOT issues Notice to Advertise (NTA)	0	08-Apr-19 A	
OS234	RR submits advertisement to newspapers	1	09-Apr-19 A	09-Apr-19 A
OS239	RR perform selection process including pre-bid meetings and send to IDOT	3	10-Apr-19 A	12-Apr-19 A
OS240	IDOT review and approve selection	1	15-Apr-19 A	15-Apr-19 A
OS228	FHWA review and approve selection	1	16-Apr-19 A	16-Apr-19 A
OS231	IDOT create SRA for signature	1	17-Apr-19 A	17-Apr-19 A
OS228	RR sign SRA	10	18-Apr-19 A	01-May-19 A
OS228	IDOT sign SRA	14	02-May-19 A	21-May-19 A
OS228	SRA Process Complete	0		22-May-19 A
OS228	NTP issued	1	17-Jul-20*	17-Jul-20
OS240	RR prepare and sign contract with contractor	15	20-Jul-20	07-Aug-20
P2 Design		185	10-Aug-20	23-Apr-21
P2 FE Track and Bridge		185	10-Aug-20	23-Apr-21
OS170	Level 2 Work {30%} - RR prepares draft plans	40	10-Aug-20	02-Oct-20
OS169	Start Design/Kick-off Meeting - Track	0	10-Aug-20	
OS171	Level 2 Work {30%} - IDOT/PMC/CMC review draft plans	10	05-Oct-20	16-Oct-20
OS172	Level 2 Work {30%} - RR comment resolution	10	19-Oct-20	30-Oct-20
OS173	Level 3 Work {60%} - RR prepares draft plans	40	19-Oct-20	11-Dec-20
OS173	Level 3 Work {60%} - IDOT/PMC/CMC review draft plans	10	14-Dec-20	25-Dec-20
OS173	Level 3 Work {60%} - RR comment resolution	10	14-Dec-20	25-Dec-20
OS174	Level 4 Work {90%} - RR prepares draft plans	40	28-Dec-20	19-Feb-21
OS174	Level 4 Work {90%} - IDOT/PMC/CMC review draft plans	10	22-Feb-21	05-Mar-21
OS174	Level 4 Work {90%} - RR comment resolution	10	08-Mar-21	19-Mar-21
OS174	Level 4 Work {90%} - IDOT/PMC/CMC Final Verification of Comments	10	22-Mar-21	02-Apr-21
OS175	P2 RR PS&E complete	15	05-Apr-21	23-Apr-21
P2 Construction (Phase III)		1214	26-Apr-21	18-Dec-25
P2 Construction Activities		1214	26-Apr-21	18-Dec-25
OS17590	Procure Construction Contractor	120	26-Apr-21	08-Oct-21
OS17570	P2 Track and Bridge Construction	867	24-Aug-22	18-Dec-25
Project EW2		1723	25-Jun-19 A	29-Jan-26



Activity ID	Activity Name	Duration	Start	Finish
Project EW2 ROW		482	23-Dec-20	27-Oct-22
Project EW2 ROW SRA		122	23-Dec-20	10-Jun-21
OS24620	RR submit selection process to IDOT	0	23-Dec-20	
OS24630	IDOT review and approve selection process	5	23-Dec-20	29-Dec-20
OS24640	RR submits RFP scope to IDOT	5	30-Dec-20	05-Jan-21
OS24650	IDOT assigns DBE goals	5	06-Jan-21	12-Jan-21
OS24660	RR prepares revised scope and advertisement and submits to IDOT for approval	10	13-Jan-21	26-Jan-21
OS24670	IDOT issues Notice to Advertise (NTA)	0		26-Jan-21
OS24680	RR submits advertisement to newspapers	1	27-Jan-21	27-Jan-21
OS24690	RR perform selection process including pre-bid meetings and send to IDOT	35	28-Jan-21	17-Mar-21
OS24700	IDOT review and approve selection	5	18-Mar-21	24-Mar-21
OS24710	FHWA review and approve selection	5	25-Mar-21	31-Mar-21
OS24720	IDOT create SRA for signature	10	01-Apr-21	14-Apr-21
OS24730	RR sign SRA	10	15-Apr-21	28-Apr-21
OS24740	IDOT sign SRA	15	29-Apr-21	19-May-21
OS24980	SRA Process Complete	0		19-May-21
OS24750	NTP issued	1	20-May-21	20-May-21
OS24760	RR prepare and sign contract with contractor	15	21-May-21	10-Jun-21
Project EW2 ROW Acquisition		360	11-Jun-21	27-Oct-22
OS0260	EW2 ROW Acquisition	360	11-Jun-21	27-Oct-22
Project EW2 UP		1586	02-Jan-20 A	29-Jan-26
EW2 UP Environmental Activities		0	16-Dec-20	16-Dec-20
OS24990	UP - Evaluate need for NEPA and other environmental processes	0	16-Dec-20	
EW2 UP Final Engineering (Phase II)		394	02-Jan-20 A	06-Jul-21
EW2 UP SRA		209	02-Jan-20 A	20-Oct-20
EW2 UP Design Services: SRA EW2-UP-TXB-001-Z-FE		209	02-Jan-20 A	20-Oct-20
OS241	RR submit selection process to IDOT	0	02-Jan-20 A	
OS241	IDOT review and approve selection process	5	03-Jan-20 A	09-Jan-20 A
OS241	RR submits RFP scope to IDOT	5	10-Jan-20 A	16-Jan-20 A
OS242	IDOT assigns DBE goals	28	17-Jan-20 A	25-Feb-20 A
OS242	RR prepares revised scope and advertisement and submits to IDOT for approval	43	26-Feb-20 A	27-Apr-20 A
OS242	IDOT issues Notice to Advertise (NTA)	0		08-May-20 A
OS242	RR submits advertisement to newspapers	1	11-May-20 A	11-May-20 A
OS242	RR perform proposal selection process including pre-bid meetings	52	15-May-20 A	27-Jul-20
OS242	IDOT review and approve selection	5	28-Jul-20	03-Aug-20
OS242	FHWA review and approve selection	5	04-Aug-20	10-Aug-20
OS242	IDOT create SRA for signature	10	11-Aug-20	24-Aug-20
OS242	RR sign SRA	10	25-Aug-20	07-Sep-20
OS242	IDOT sign SRA	15	08-Sep-20	28-Sep-20
OS244	SRA Process Complete	0		28-Sep-20
OS243	NTP issued	1	29-Sep-20	29-Sep-20
OS243	RR prepare and sign contract with contractor	15	30-Sep-20	20-Oct-20
EW2 UP Design		185	21-Oct-20	06-Jul-21
EW2 FE UP Track and Grading		185	21-Oct-20	06-Jul-21
OS262	Level 2 Work {30%} - RR prepares draft plans	40	21-Oct-20	15-Dec-20
OS262	Start Design/Kick-off Meeting - Track UP	0	21-Oct-20	
OS262	Level 2 Work {30%} - IDOT/PMC/CMC review draft plans	10	16-Dec-20	29-Dec-20

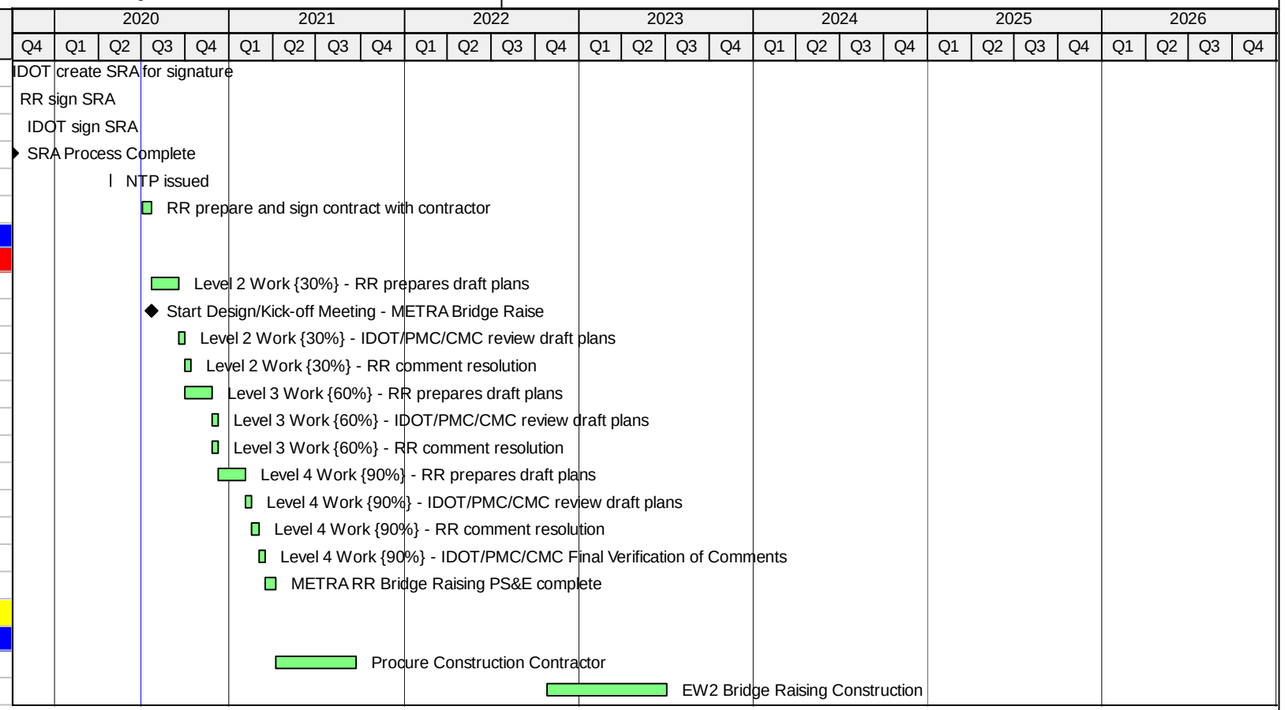


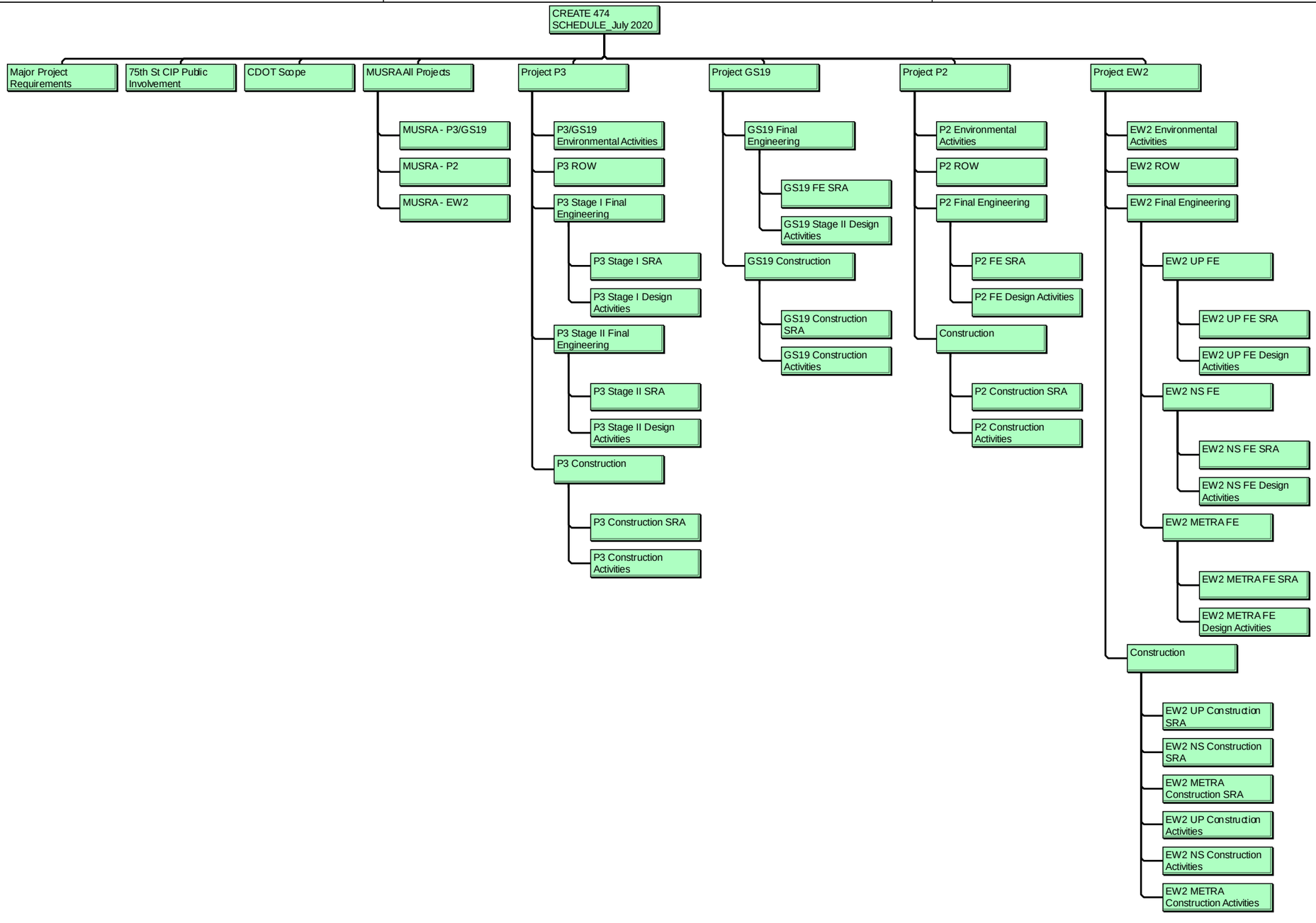
Activity ID	Activity Name	Duration	Start	Finish
OS262	Level 2 Work {30%} - RR comment resolution	10	30-Dec-20	12-Jan-21
OS263	Level 3 Work {60%} - RR prepares draft plans	40	30-Dec-20	23-Feb-21
OS263	Level 3 Work {60%} - IDOT/PMC/CMC review draft plans	10	24-Feb-21	09-Mar-21
OS263	Level 3 Work {60%} - RR comment resolution	10	24-Feb-21	09-Mar-21
OS263	Level 4 Work {90%} - RR prepares draft plans	40	10-Mar-21	04-May-21
OS263	Level 4 Work {90%} - IDOT/PMC/CMC review draft plans	10	05-May-21	18-May-21
OS263	Level 4 Work {90%} - RR comment resolution	10	19-May-21	01-Jun-21
OS263	Level 4 Work {90%} - IDOT/PMC/CMC Final Verification of Comments	10	02-Jun-21	15-Jun-21
OS263	EW2 UP RR PS&E complete	15	16-Jun-21	06-Jul-21
EW2 UP Construction (Phase III)		1192	07-Jul-21	29-Jan-26
EW2 UP Construction Activities		1192	07-Jul-21	29-Jan-26
OS197	Procure Construction Contractor	120	07-Jul-21	21-Dec-21
OS197	EW2 UP construction activities	850	28-Oct-22	29-Jan-26
Project EW2 NS		1455	10-Apr-20 A	06-Nov-25
EW2 NS Environmental Activities		0	14-Oct-20	14-Oct-20
OS25000	NS - Evaluate need for NEPA and other environmental processes	0	14-Oct-20	
EW2 NS Final Engineering (Phase II)		400	10-Apr-20 A	21-Oct-21
EW2 NS SRA		215	10-Apr-20 A	04-Feb-21
EW2 NS Design Services: SRA EW2-NS-TXB-001-Z-FE		93	10-Apr-20 A	18-Aug-20
OS243	SRA Additional funds approved by financial committee	0	10-Apr-20 A	
OS243	Updated DBE percent requested	4	10-Apr-20 A	15-Apr-20 A
OS243	Revised SRA request by NS	11	10-Apr-20 A	24-Apr-20 A
OS243	Revised SRA exhibits submitted to NS for signature	7	28-Apr-20 A	07-May-20 A
OS244	RR sign SRA	42	08-May-20 A	06-Jul-20
OS244	IDOT sign SRA	15	07-Jul-20	27-Jul-20
OS245	SRA Process Complete	0		27-Jul-20
OS244	NTP issued	1	28-Jul-20	28-Jul-20
OS244	RR prepare and sign contract with contractor	15	29-Jul-20	18-Aug-20
EW2 NS Bridge SRA		122	19-Aug-20	04-Feb-21
OS254	RR submit selection process to IDOT	0	19-Aug-20	
OS254	IDOT review and approve selection process	5	19-Aug-20	25-Aug-20
OS254	RR submits RFP scope to IDOT	5	26-Aug-20	01-Sep-20
OS254	IDOT assigns DBE goals	5	02-Sep-20	08-Sep-20
OS255	RR prepares revised scope and advertisement and submits to IDOT for approval	10	09-Sep-20	22-Sep-20
OS255	IDOT issues Notice to Advertise (NTA)	0		22-Sep-20
OS255	RR submits advertisement to newspapers	1	23-Sep-20	23-Sep-20
OS255	RR perform selection process including pre-bid meetings and send to IDOT	35	24-Sep-20	11-Nov-20
OS255	IDOT review and approve selection	5	12-Nov-20	18-Nov-20
OS255	FHWA review and approve selection	5	19-Nov-20	25-Nov-20
OS255	IDOT create SRA for signature	10	26-Nov-20	09-Dec-20
OS255	RR sign SRA	10	10-Dec-20	23-Dec-20
OS255	IDOT sign SRA	15	24-Dec-20	13-Jan-21
OS256	SRA Process Complete	0		13-Jan-21
OS255	NTP issued	1	14-Jan-21	14-Jan-21
OS256	RR prepare and sign contract with contractor	15	15-Jan-21	04-Feb-21
EW2 NS Design		307	19-Aug-20	21-Oct-21
EW2 FE NS Track and Grading		185	19-Aug-20	04-May-21



Activity ID	Activity Name	Duration	Start	Finish
OS263	Level 2 Work {30%} - RR prepares draft plans	40	19-Aug-20	13-Oct-20
OS263	Start Design/Kick-off Meeting - Track NS	0	19-Aug-20	
OS264	Level 2 Work {30%} - IDOT/PMC/CMC review draft plans	10	14-Oct-20	27-Oct-20
OS264	Level 2 Work {30%} - RR comment resolution	10	28-Oct-20	10-Nov-20
OS264	Level 3 Work {60%} - RR prepares draft plans	40	28-Oct-20	22-Dec-20
OS264	Level 3 Work {60%} - IDOT/PMC/CMC review draft plans	10	23-Dec-20	05-Jan-21
OS264	Level 3 Work {60%} - RR comment resolution	10	23-Dec-20	05-Jan-21
OS264	Level 4 Work {90%} - RR prepares draft plans	40	06-Jan-21	02-Mar-21
OS264	Level 4 Work {90%} - IDOT/PMC/CMC review draft plans	10	03-Mar-21	16-Mar-21
OS264	Level 4 Work {90%} - RR comment resolution	10	17-Mar-21	30-Mar-21
OS264	Level 4 Work {90%} - IDOT/PMC/CMC Final Verification of Comments	10	31-Mar-21	13-Apr-21
OS264	NS RR Track and Grading PS&E complete	15	14-Apr-21	04-May-21
EW2 FE NS Bridge		185	05-Feb-21	21-Oct-21
OS265	Level 2 Work {30%} - RR prepares draft plans	40	05-Feb-21	01-Apr-21
OS265	Start Design/Kick-off Meeting - Bridge NS	0	05-Feb-21	
OS265	Level 2 Work {30%} - IDOT/PMC/CMC review draft plans	10	02-Apr-21	15-Apr-21
OS265	Level 2 Work {30%} - RR comment resolution	10	16-Apr-21	29-Apr-21
OS265	Level 3 Work {60%} - RR prepares draft plans	40	16-Apr-21	10-Jun-21
OS265	Level 3 Work {60%} - IDOT/PMC/CMC review draft plans	10	11-Jun-21	24-Jun-21
OS265	Level 3 Work {60%} - RR comment resolution	10	11-Jun-21	24-Jun-21
OS265	Level 4 Work {90%} - RR prepares draft plans	40	25-Jun-21	19-Aug-21
OS265	Level 4 Work {90%} - IDOT/PMC/CMC review draft plans	10	20-Aug-21	02-Sep-21
OS265	Level 4 Work {90%} - RR comment resolution	10	03-Sep-21	16-Sep-21
OS266	Level 4 Work {90%} - IDOT/PMC/CMC Final Verification of Comments	10	17-Sep-21	30-Sep-21
OS266	NS RR Bridge PS&E complete	15	01-Oct-21	21-Oct-21
EW2 NS Construction (Phase III)		1177	05-May-21	06-Nov-25
EW2 NS Construction Activities		1177	05-May-21	06-Nov-25
OS221(	Procure Construction Contractor - Track	120	05-May-21	19-Oct-21
OS266	Procure Construction Contractor - Bridge	120	22-Oct-21	07-Apr-22
OS266	EW2 NS construction activities - Bridge	790	08-Apr-22	17-Apr-25
OS220	EW2 NS construction activities - Track	790	28-Oct-22	06-Nov-25
Project EW2 Metra		1053	25-Jun-19 A	06-Jul-23
EW2 METRA Environmental Activities		0	16-Sep-20	16-Sep-20
OS25010	METRA - Evaluate need for NEPA and other environmental processes	0	16-Sep-20	
EW2 METRA Final Engineering (Phase II)		466	25-Jun-19 A	06-Apr-21
EW2 METRA SRA		281	25-Jun-19 A	21-Jul-20
EW2 METRA Bridge Raising: SRA AC-CRE-D8WM(713)		281	25-Jun-19 A	21-Jul-20
OS240	RR submit selection process to IDOT	0	25-Jun-19 A	
OS240	IDOT review and approve selection process	5	26-Jun-19 A	03-Jul-19 A
OS240	IDOT assigns DBE goals	5	04-Jul-19 A	11-Jul-19 A
OS240	RR prepares revised scope and advertisement and submits to IDOT for approval	25	12-Jul-19 A	16-Aug-19 A
OS240	RR submits RFP scope to IDOT	5	19-Aug-19 A	26-Aug-19 A
OS240	IDOT issues Notice to Advertise (NTA)	0		27-Aug-19 A
OS240	RR submits advertisement to newspapers	0	28-Aug-19 A	28-Aug-19 A
OS240	RR perform selection process including pre-bid meetings and send to IDOT	2	28-Aug-19 A	30-Aug-19 A
OS241	IDOT review and approve selection	0	02-Sep-19 A	02-Sep-19 A
OS241	FHWA review and approve selection	0	03-Sep-19 A	03-Sep-19 A

Activity ID	Activity Name	Duration	Start	Finish
OS241	IDOT create SRA for signature	0	04-Sep-19 A	04-Sep-19 A
OS241	RR sign SRA	10	05-Sep-19 A	18-Sep-19 A
OS241	IDOT sign SRA	15	16-Sep-19 A	04-Oct-19 A
OS245	SRA Process Complete	0		04-Oct-19 A
OS241	NTP issued	0	28-Apr-20 A	28-Apr-20 A
OS241	RR prepare and sign contract with contractor	15	01-Jul-20	21-Jul-20
EW2 METRA Design		185	22-Jul-20	06-Apr-21
EW2 FE METRA Bridge Raising		185	22-Jul-20	06-Apr-21
OS266	Level 2 Work {30%} - RR prepares draft plans	40	22-Jul-20	15-Sep-20
OS266	Start Design/Kick-off Meeting - METRA Bridge Raise	0	22-Jul-20	
OS266	Level 2 Work {30%} - IDOT/PMC/CMC review draft plans	10	16-Sep-20	29-Sep-20
OS266	Level 2 Work {30%} - RR comment resolution	10	30-Sep-20	13-Oct-20
OS266	Level 3 Work {60%} - RR prepares draft plans	40	30-Sep-20	24-Nov-20
OS266	Level 3 Work {60%} - IDOT/PMC/CMC review draft plans	10	25-Nov-20	08-Dec-20
OS267	Level 3 Work {60%} - RR comment resolution	10	25-Nov-20	08-Dec-20
OS267	Level 4 Work {90%} - RR prepares draft plans	40	09-Dec-20	02-Feb-21
OS267	Level 4 Work {90%} - IDOT/PMC/CMC review draft plans	10	03-Feb-21	16-Feb-21
OS267	Level 4 Work {90%} - RR comment resolution	10	17-Feb-21	02-Mar-21
OS267	Level 4 Work {90%} - IDOT/PMC/CMC Final Verification of Comments	10	03-Mar-21	16-Mar-21
OS267	METRA RR Bridge Raising PS&E complete	15	17-Mar-21	06-Apr-21
EW2 METRA Construction (Phase III)		587	07-Apr-21	06-Jul-23
EW2 METRA Construction Activities		587	07-Apr-21	06-Jul-23
OS176	Procure Construction Contractor	120	07-Apr-21	21-Sep-21
OS175	EW2 Bridge Raising Construction	180	28-Oct-22	06-Jul-23





Appendix G – Project Plans Summary List

Below is a summary list of the various plans referenced in the PMP that team will update/maintenance as the project progress. In addition, this appendix will be updated as more plan are required.

Plan Name	Reference Section
Project Procurement Plan	3.1
Scope Management Plan	5.2
Risk Management Plan	5.5
Quality Management Plan (QMP)	5.6.1
Right-of-Way Management Plan	12.1