Introduction and Project Overview

The Chicago Transit Authority (CTA) is undertaking an initiative to completely rebuild the northern portion of the Red Line from Belmont station to Howard station and the Purple Line from Belmont station to Linden station. The Red and Purple Modernization (RPM) Program would fully replace old, deteriorating infrastructure and stations along Chicago’s busiest rail line, paving the way for CTA to significantly increase train capacity and improve service for generations to come.

RPM Phase One

This massive, multistaged program would be completed in phases and would provide riders with all the benefits of modern service and infrastructure when complete. As part of the program, the Federal Transit Administration (FTA) and CTA have been analyzing proposed improvements to the line. Phase One of the RPM Program includes the Red-Purple Bypass Project and the Lawrence to Bryn Mawr Modernization Project. Within the RPM corridor, Phase One also includes corridor signal and other interim track improvements, which are not anticipated to have any significant environmental impacts. CTA is developing preliminary designs for these interdependent projects, while each undergoes separate environmental review. This Environmental Assessment (EA) covers the Lawrence to Bryn Mawr Modernization Project.

Lawrence to Bryn Mawr Modernization Project

The Lawrence to Bryn Mawr Modernization Project would include reconstruction of approximately 1.3 miles of the existing rail line from Leland Avenue on the south to near Ardmore Avenue on the north. The four stations (Lawrence, Argyle, Berwyn, and Bryn Mawr) in this segment would be rebuilt, expanded, and modernized, while adding elevators that provide access for people with disabilities and improve convenience for the elderly and riders with carts, strollers, and bags.

The proposed project would increase passenger capacity and station access along the corridor, expand platforms and stairways, and replace and modernize crumbling embankment walls and bridge structures.

In 2014, over 5 million transit trips began at these stations. Despite recent station improvements, the main support structures, which were built over 90 years ago, are outdated and have never been replaced. The proposed improvements would modernize the infrastructure and also allow CTA to accommodate more riders, including riders with disabilities.
About this Summary

FTA and CTA have prepared an Environmental Assessment (EA) for the Lawrence to Bryn Mawr Modernization Project. The EA is a federally mandated document that evaluates the significance of impacts of the transportation project proposal. This summary provides an overview of the content and process used to prepare the EA.

Contents of this project summary include the following:

- The purpose and need for the Lawrence to Bryn Mawr Modernization Project
- A summary of the planning process and alternatives that led to this project proposal
- A description of the proposed project, identified as the Build Alternative
- A summary of the potential benefits and impacts of the Build Alternative, along with proposed mitigation measures for adverse impacts
- An overview of the public outreach and process
- Project commitments and next steps

Purpose of the Environmental Assessment (EA) Process

The National Environmental Policy Act of 1969 (NEPA) is a federal law that mandates the consideration of environmental impacts before approval of any federally funded project that may have significant impacts on the environment or where impacts have not yet been determined.

The NEPA process provides a decision-making framework to consider the purpose and need for a proposed action, potential design solutions, project costs, and relative benefits.

The EA provides a detailed assessment of social, economic, and environmental impacts of the proposed project and recommends measures to address the identified impacts.

Following public feedback on the EA, FTA will issue a finding on the proposed project based on the significance of impacts identified during the NEPA process. The finding will guide future planning and implementation of the project.
Project Purpose and Need

Project Purpose
The purpose of the Lawrence to Bryn Mawr Modernization Project is to provide continued high-speed transit service connecting Chicago’s North Side and northern suburbs to the Loop and the rest of the Chicago metropolitan area. The project will expand capacity to meet growing ridership demand, while reducing train travel times and improving access to the system for people with disabilities.

The capacity expansion would have the added benefit of bringing the aging rail infrastructure into a state of good repair, thereby improving efficiency and service reliability. Providing modern amenities at all stations, expanding of passenger capacity, and enhancing speed and reliability would address safety and accessibility concerns and extend the useful life of the system.

Need for the Project
• Peak ridership demand exceeds existing infrastructure capacity, both on the line and at stations.
• A substantial number of transit customers rely on the existing train line to connect Chicago’s North Side and northern suburbs with the Loop (Chicago’s central business district) and the rest of the metropolitan area.
• Passenger crowding is common on trains and platforms.
• Existing infrastructure is substantially past its expected lifespan.
• Station improvements are needed to ensure ADA accessibility.
• Maintaining safe operating conditions becomes more difficult and costly as the infrastructure ages.

Red Line – Over 90 Years of Service

Lawrence station, 1940s, looking east, Chicago Transit Authority

Argyle station, 1940s, looking west. Photo Courtesy of Chicago History Museum

Beverly station, 1957, looking east. Chicago Transit Authority

Project Summary
Alternatives Development Process

The proposed project evaluated in this EA was developed and evolved through a multiyear planning process that began in 2009. From 2009 to 2013, CTA has continued to refine the Build Alternative based on technical analyses and through continual dialogue with the community.

- **2009–2010**: CTA conducted a vision study between fall 2009 and fall 2010 to understand the public’s priorities and concerns, conduct an existing conditions analysis, and frame project alternatives. This analysis helped define the purpose and need for the project and included a high-level evaluation of potential improvements to the corridor. The process included four public meetings attended by over 300 people, a website, a comment period, and a direct mail survey sent out to over 11,000 residents and businesses along the corridor.

- **2011**: In January 2011, the NEPA scoping process began. The purpose of this process was to inform the public about the project and gather input on the scope of the environmental studies, draft purpose and need statement, and alternatives to be evaluated. Four public scoping meetings provided the public with an opportunity to comment on the project purpose and need, alternatives to be considered, and issues and areas of concern to be considered in the Draft Environmental Impact Statement for the entire 9.6-mile RPM corridor.

- **2012**: CTA held two community update meetings in early 2012, which allowed attendees to learn about refined alternatives for the RPM corridor based on public scoping, review project information, and clarify their understanding of the project and environmental process.

- **2013**: During 2013, CTA conducted additional research and a conceptual design process to look at ways to further minimize environmental impacts. In late 2013, FTA and CTA developed a tailored approach for phased improvements to the RPM corridor.

- **2014**: CTA announced the Lawrence to Bryn Mawr Modernization Project to the public in April 2014. Throughout spring 2014, CTA held a number of focused community group meetings and held a public open house. These meetings were conducted to gather early input from the public on the proposed improvements and determine areas of concern to be analyzed and documented within the EA.
Alternatives Considered

This EA compares the No Build Alternative and Build Alternative for the Lawrence to Bryn Mawr Modernization Project.

**No Build Alternative**
The No Build Alternative is required as part of the NEPA environmental analysis and is used for comparison to assess the relative benefits and impacts of the Build Alternative. It represents the future situation that would likely exist if the Lawrence to Bryn Mawr Modernization Project were not implemented.

*Key Characteristics of the No Build Alternative*
- Includes typical ongoing maintenance and repairs, including funding for emergency repairs at historical levels
- Does not expand capacity
- Does not modernize infrastructure
- Does not provide elevators for people with disabilities (ADA Accessibility)
- Limited benefits that only provide a short-term extension of structure life

**Build Alternative**
The Lawrence to Bryn Mawr Modernization Project Build Alternative consists of reconstructing approximately 1.3 miles of the existing Red and Purple lines from Leland Avenue on the south to near Ardmore Avenue on the north. The project area is in the Uptown and Edgewater community areas.

The project would result in modern structures with a useful life of 60 to 80 years and would support future growth and development in the corridor.

*Key Characteristics of the Build Alternative*
- Replaces and modernizes crumbling embankment walls and bridge structures
- Accommodates more passengers by nearly doubling the width of station platforms
- Provides greater train capacity to support future growth and development in the corridor
- Provides full ADA accessibility at reconstructed stations
- Improves access with wider stairs

The following sections describe major physical elements of the Build Alternative, the anticipated construction and implementation schedule, and cost and funding considerations.

**Station Improvements**
The Lawrence, Argyle, Berwyn, and Bryn Mawr stations would be completely reconstructed as part of the Build Alternative. New features such as elevators, wider and longer platforms, and wider stairways would increase capacity, provide ADA accessibility, and improve passenger and emergency access.

*Key Benefits*
- ADA access at all stations
- Improved accessibility for riders
- Reduced wait times
- Faster boarding and exiting
- Improved passenger circulation on platforms
- Improved amenities, including lighting and signage

*Bryn Mawr Station Visualization*

*Key Impacts*
- Additional right-of-way would be required to accommodate the new, wider platforms.

*How the Build Alternative Reduces Impacts*
- To minimize impacts on adjacent properties, the right-of-way widening would take place over adjacent alleys along the east side of the alignment, where possible.
Reconstructing the Tracks

The Build Alternative would also completely reconstruct the elevated track system from Leland Avenue to near Ardmore Avenue. The proposed structure would be a closed-deck, aerial structure with direct-fixation track, welded rail (welded at joints), and noise barriers. With direct-fixation track, rails are mounted to specially designed concrete blocks that are fixed to the concrete deck.

**Key Benefits**
- Increased train speeds through elimination and prevention of slow zones
- Minimized noise and vibration impacts through use of a closed-deck track
- Reduced maintenance with use of direct-fixation tracks

**Key Impacts**
- The tracks would be constructed further apart to accommodate wider platforms.

Viaduct Improvements

Currently, viaducts (bridge-like structures that allow trains to pass over the street and cars to pass under the tracks) consist of concrete slab structures supported on piers (pillars) in the center of east-west roadways and on the sidewalks. The exception to this configuration is at Lawrence station, where there are no piers in the roadway. As proposed, the improvements would remove piers in the roadway throughout the project corridor, improving sightlines and safety for pedestrians, drivers, and bicyclists.

**Key Benefits**
- The new viaducts, raised 5 to 10 feet, would be in compliance with current Illinois Department of Transportation vertical clearance standards.

**Key Impacts**
- There would be no impacts beyond the increased height of structures.

**How the Build Alternative Reduces Impacts**
- No modifications would be required.
Modernizing the Track Structure

The Build Alternative would include a new, slightly higher structure to support the tracks. The current track support, referred to as “embankment,” was constructed in the 1920s using embankment walls with earth-fill. The embankment currently supports four tracks (northbound and southbound Red Line tracks, and northbound and southbound Purple Line express tracks).

Reconstruction of stations would involve removal of portions of the existing embankment walls and earth-fill to construct the new stationhouses. Each station would have improved access from the ground floor to the platform with elevators (for ADA accessibility) and wider stairways.

Key Benefits
- The new, modern structures would have a useful life of 60 to 80 years.

Key Impacts
- Construction would displace some buildings to accommodate permanent right-of-way needs and construction staging sites.

How the Build Alternative Reduces Impacts
- The proposed aerial structure would minimize property displacements.
How the Project Would Be Constructed

The Build Alternative would use off-street construction staging sites throughout construction. Two stages of track construction are anticipated for this project. This approach was developed to allow the greatest amount of improvement in the shortest amount of time, while minimizing service impacts on passengers and impacts on the community.

Construction Sites

- Construction would generally occur within the existing CTA right-of-way and on properties to be purchased for this project.
- Off-street construction sites were identified to meet construction needs while minimizing street closures. Where possible, surface parking lots were identified for construction use to minimize property impacts.
- Portions of some construction sites would provide opportunities for redevelopment after construction of the project. This redevelopment would occur independently of the project.

Construction Stages

Construction is proposed to occur in two stages:

- **Stage A** – For approximately 18 months, the east two tracks would be reconstructed while Red and Purple line trains share the existing two western tracks. The Lawrence and Berwyn stations would be closed. Customers would access the Red and Purple line trains using temporary platforms at Bryn Mawr and Argyle stations.

- **Stage B** – For approximately 18 to 24 months, the two western tracks would be reconstructed, while Red and Purple line trains share the two newly reconstructed tracks on the east. Lawrence, Argyle, and Berwyn stations would be closed. Customers would access the Red and Purple line trains using temporary platforms at Bryn Mawr (southbound only) and Foster/Winona (both directions).

During construction, Red Line train trips will continue on 24-hour schedules and the frequency of trains will generally be the same as it is currently.

Construction Implementation Schedule

- Contingent upon funding, construction of the Build Alternative could begin as soon as 2017 and would take a total of approximately 36 to 42 months.
**Project Costs and Funding Considerations**

Preliminary construction costs for the Lawrence to Bryn Mawr Modernization Project were estimated based on conceptual engineering. These estimates will be refined through ongoing preliminary engineering.

- Anticipated capital costs for the Lawrence to Bryn Mawr Modernization Project are approximately $1.33 billion in year-of-expenditure dollars.
- CTA is intending to seek Capital Investment Grant (CIG) program funding from FTA for the Lawrence to Bryn Mawr Modernization Project. The CIG program, more commonly known as the New Starts, Small Starts, and Core Capacity Program, involves a multiyear, multistep process that project sponsors must complete before a project is eligible for funding. The steps in the process and the basic requirements of the program can be found on FTA’s website at [www.fta.dot.gov](http://www.fta.dot.gov).
- CTA proposes to use a mixture of federal, state, and local funds to fund this project. Use of federal funds requires a local match (state and local funds) equal to more than half of project costs. CTA is continuing to work with federal, state, and local agencies and elected officials to secure the necessary funding to keep this project moving forward with the support of the community.
- CTA is investigating the potential for cost-saving strategies through alternative construction and financing methods.
Potential adverse environmental impacts are detailed in Chapters 3 and 4 of the EA and summarized below.

**Transportation (Chapter 3)**
The Build Alternative would be constructed using two construction stages. During both stages of construction, only two of the four existing tracks would carry trains while construction takes place on the other two tracks. There would be temporary adverse impacts:

- Phased, temporary station closures would cause additional walk times to and from stations for passengers.
- Pedestrian detours would be required.
- Bicycle parking at stations would be temporarily displaced during construction.
- Station entrances would be reconfigured to separate passengers from active construction zones and temporary station entrances would be provided.
- Train and bus service disruptions during construction would occur during weekends and off-peak periods to the extent possible. CTA would provide notifications for temporary service changes to neighboring property owners, residents, businesses, and transit passengers.
- When viaducts would be temporarily closed due to construction activities, affected bus routes would be temporarily rerouted.
- CTA would add service to parallel and connecting bus routes as necessary to accommodate additional riders choosing to take buses instead of the Red Line due to temporary station closures.

**Displacements (Section 4.1)**
The properties that would be impacted are limited to two commercial uses (two adjacent Toyota car dealerships near Broadway and Hollywood Avenue) and several parking lots. No residential parcels are proposed for either temporary or permanent acquisition as part of the Build Alternative. There will be temporary displacements of four parking lots and air rights or construction easements for some buildings.

Temporary construction easements would accommodate construction activities and equipment and materials storage. Displaced owners and tenants would be compensated and relocated per the Uniform Act and FTA guidelines.

For temporary construction easements, CTA would work with the businesses and owners to establish reasonable compensation for the temporary use of property.

**Land Use and Economic Development (Section 4.2)**
Portions of parcels remaining after construction could potentially be redeveloped with transit-related uses in cooperation with the CTA. This potential redevelopment would be independent of the project, and would be consistent with surrounding land uses and City zoning standards. Only one business is proposed to be permanently displaced as a result of the project.

**Neighborhood, Community, and Business Impacts (Section 4.3)**
Construction activities for the Build Alternative would last approximately 36 to 42 months. Temporary construction impacts could include noise, dust, detours, temporary station closures, altered access to businesses and residences, negative visual and aesthetic changes, changes in emergency vehicle routing, construction vehicle emissions, and truck traffic throughout the corridor. CTA would implement a Construction Outreach and Coordination Plan to assist local businesses and residences affected by construction. In addition, CTA would work with the City of Chicago Department of Planning and Development to provide incentives to encourage redevelopment consistent with local and regional development plans, as soon as construction activities allow.
Historic and Archeological Resources (Section 4.4)
The project would result in adverse effects on four historic resources:
1. Elevated Track Structure
2. Uptown Square Historic District
3. West Argyle Street Historic District
4. Bryn Mawr Avenue Historic District

FTA and CTA, in consultation with Illinois Historic Preservation Agency (IHPA), developed a Memorandum of Agreement (MOA) to resolve the adverse effects. The Draft MOA is provided in the full EA documentation and will be circulated for signature by the agencies following public comment on the EA. The MOA outlines a series of commitments that would both protect the historic resources, where possible, and integrate historic architectural patterns into the stations, which are in the historic districts. In addition, an interpretive display conveying the history and significance of the north Red and Purple lines is proposed.

Visual Impacts (Section 4.5)
Construction of the Build Alternative would result in temporary adverse impacts on the surrounding visual environment due to construction work zones. The Build Alternative would introduce visual changes and new visual elements to areas within view of the track structure and stations.

Noise and Vibration (Sections 4.6 and 4.7)
There were 68 noise- and vibration-sensitive areas identified within the project area. Of these, 20 locations were predicted to have moderate or severe noise impacts before mitigation. Noise impacts would occur where buildings would be very near the track or near special trackwork (crossovers)—major sources of noise. The EA provides mitigation options for reducing noise levels to below FTA moderate or severe thresholds. Construction noise would be reduced with alternate operational methods, scheduling, equipment choice, and acoustical treatments and implementation of best management practices.

At 12 of the 68 noise- and vibration-sensitive areas, vibration is predicted to exceed FTA thresholds before mitigation. Vibration impacts would primarily be due to buildings' proximity to the track structure and special trackwork (crossovers). The EA provides mitigation options for reducing vibration to below FTA thresholds. The EA proposes precautionary vibration mitigation strategies for minimizing the potential for damage resulting from vibration.

Hazardous Materials (Section 4.8)
One site identified for construction use was previously identified as a Moderate Concern site. Further qualitative investigations determined that there was not hazardous waste on the site. This will be confirmed prior to construction activity and federal, state, and local laws and regulations regarding hazardous materials would be followed before and during construction.

Environmental Justice (Section 4.9)
Environmental Justice (EJ) is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income. CTA and FTA considered the potential for disproportionately high and adverse impacts on low-income and minority populations that could result from the Build Alternative. The Build Alternative would result in temporary adverse construction impacts on neighborhoods surrounding the project. No high or disproportionate impacts due to construction are anticipated because impacts would be temporary in nature and would be experienced by both EJ and non-EJ communities.

Indirect and Cumulative Impacts (Section 4.10)
The Build Alternative takes into account and is being coordinated with other projects being conducted in the near future near or adjacent to the corridor. These projects include the Chicago Department of Transportation Broadway/Lawrence Avenue Streetscape Project, the Argyle Street Streetscape Project, and the North Lake Shore Drive Project, as well as the City’s North Broadway Plan and Metra’s Peterson Ridge Station Plan. The remaining impact of these plans in combination with the proposed Build Alternative would be largely beneficial to transit riders and the surrounding community.
Public Involvement

Multiyear public involvement has been crucial in the development of this project. From the initiation of the 9.6-mile RPM corridor vision study in 2009 through the development of the Build Alternative evaluated in this EA in 2014, CTA has continued to solicit feedback from the public. This feedback has shaped development of the phased approach for implementing the RPM corridor vision and definition of the Build Alternative.

Full details on the extensive public outreach efforts undertaken on this project may be found within the EA document.

Public Input Requested

The FTA has issued a Notice of Availability for this EA to provide the public an opportunity to review and comment on the EA. A 30-day comment period has been established to take formal comments. All comments received during the 30-day public comment period and responses to comments will be published as part of the final NEPA decision document.

A copy of the EA is available on the CTA website (transitchicago.com/RPMProject) in plain text and pdf formats, at CTA headquarters (567 W. Lake Street, 2nd Floor, Chicago, IL 60661), as well as at the 46th Ward (4544 N. Broadway, Chicago, IL) and 48th Ward (5533 N. Broadway, Chicago, IL) aldermanic offices. Hard copies of the EA are also available at the following libraries during the public review period:

- Bezazian Library
  1226 W. Ainslie Street, Chicago, IL 60640
- Uptown Library
  929 W. Buena Avenue, Chicago, IL 60613
- Edgewater Library
  6000 N. Broadway, Chicago, IL 60660
- Harold Washington Library Center
  400 S. State Street, Chicago, IL 60605

A public hearing is scheduled to be held to solicit comments from the community about findings presented in the EA. The location of the public hearing will be ADA-compliant and accessible by public transit. Comments received during the public hearing will be submitted to FTA and will be entered into the public record.

Written comments will also be accepted at any time during the public comment period via e-mail to LawrencetoBrynMawr@transitchicago.com and U.S. mail to Chicago Transit Authority, Strategic Planning, 10th Floor, Attn: Lawrence to Bryn Mawr Modernization Project, 567 W. Lake Street, Chicago, IL 60661.

Commitments

CTA is committed to a number of activities to minimize impacts. Additional details on mitigation measures are provided within each resource area of the EA. The final NEPA decision document will contain a detailed listing of all project commitments.

CTA has identified temporary construction sites, and utilized existing surface lots, wherever possible, to minimize both property impacts and street closures during construction. CTA will work to establish reasonable compensation for the temporary use of private property. Where there are permanent property displacements, displaced owners and tenants will be compensated and relocated per the Uniform Act and FTA guidelines. Property owners will be paid not less than fair market value for their land and buildings.

CTA understands that the community and local businesses near stations will be impacted during construction and will take a series of measures to assist local businesses and ensure community outreach, involvement, and adequate notice of construction impacts on the surrounding community and businesses within the project area. Efforts will include the following:

- **Community Input Meetings and Task Force**
  CTA will lead meetings with local residents and business owners regarding the project and anticipated construction impacts.

- **Construction Outreach and Coordination Plan**
  CTA will develop a plan that would include a Small Business Outreach Program to assist local businesses and residents affected by construction. The plan would be tailored to business and community needs, and will include a series of initiatives to minimize construction disruption to businesses and the surrounding community. CTA plans to work with the community, businesses, and elected officials to develop this plan.
**Dedicated Webpage** A dedicated webpage will be updated and maintained by CTA to provide passengers with information regarding work planned, scheduling, progress of the overall program, and other pertinent construction details.

**Construction Updates and Notifications** CTA Government and Community Relations staff will continue to coordinate with local businesses before any street or sidewalk closure to notify them of issues and schedules affecting their business. In addition, the same information will be provided to the aldermen’s offices and flyers will be posted in the area and on the RPM Program website.

Efforts to minimize the impacts to riders and the surrounding community during construction will include:

**Minimizing Service Disruptions** CTA will increase the frequency of alternative bus routes including the #36 Broadway bus during construction to accommodate additional passengers that normally board at stations that are closed during construction. In addition, buses that stop at stations closed for construction will be re-routed, as needed, to provide connecting service to riders. Two stations would be open to access the Red Line in this 1.3 mile corridor during both stages of construction. Temporary stations would be provided, where feasible, to minimize walk times and ensure continued transit access. Construction related service disruptions would be scheduled to occur on weekends and off-peak hours as much as possible.

**Road Closures and Detours** Detailed Maintenance of Traffic and Access plans will be developed to ensure safety during construction, continued emergency access, and to coordinate alternative access, garbage and delivery services. Access to businesses and parking for deliveries to businesses would be maintained throughout construction through the use of both permanent and temporary loading zones. CTA will limit roadway detours and blockages during special events in the surrounding neighborhoods.

**Off-Street Parking** CTA will require the contractor to provide designated off-street parking areas for workers to maintain on-street parking availability for the general public.

CTA is committed to developing this project in a context-sensitive manner, and several measures are proposed to minimize impacts from noise and vibration and to design the project in a way that is sensitive to the surrounding community.

**Noise and Vibration** CTA proposes a closed-deck, concrete aerial structure, noise barriers along the edges of the structure, and welded rail to minimize noise and vibration. CTA will incorporate additional features as necessary to keep noise and vibration below impact levels.

**Aesthetics** CTA will develop design plans for Argyle and Bryn Mawr stations consistent with the design of the Prairie style stations originally constructed in 1921, and that integrate into the setting of their respective encompassing historic district. CTA will also solicit visual preferences regarding the elevated track structure and incorporate an aesthetic quality selection criterion in the project contractor selection process. CTA will use off-street construction staging sites for construction machinery and materials storage as much as possible to minimize visual disruption to the surrounding neighborhoods and businesses.

Continued efforts will be undertaken throughout project development and construction to minimize disruption to communities and businesses during construction.

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**Next Steps**

The following are major next steps in the process during 2015:

- CTA will respond to public comments on the EA and submit it to FTA.
- FTA will issue a NEPA Decision Document summarizing results of the EA including all comments and responses.
- CTA will complete preliminary engineering in fall 2015.
- CTA will apply to FTA to start the next phase of the CIG funding program – Engineering.

Once an FTA NEPA decision has been made, engineering is complete, and funding is secured, CTA will begin construction of this project. Contingent on these factors, construction could begin as early as 2017. CTA will continue to work with the aldermen’s offices and community groups to host community meetings as further project details are known.