

Chicago Transit Authority Circle Line Alternatives Analysis Study

Screen 3 Public Involvement Responses to Public Comments and Questions

Written questions and comments regarding the Circle Line Alternatives Analysis Study were submitted by individuals and groups from throughout the Chicago region at the study's Screen 3 Public Meetings held on September 29, 30 and October 1, 2009. In addition, public comments and questions on Screen 3 were submitted directly to the Chicago Transit Authority (CTA) via e-mail through October 30, 2009.

All of the questions and comments have been collected and compiled to provide a comprehensive review of the issues raised along with CTA's responses. Every question, comment, and suggestion, submitted during the public comment period has been compiled in the "Outreach Comment Database" (see separate document). Each question has been recorded verbatim and assigned a number that corresponds with the answers provided in this document, ensuring every question or comment submitted has been reviewed and answered or acknowledged. Collectively, the public comments and preferences will be considered in the evaluation of alternatives and concepts introduced through the public involvement process and may be evaluated and/or reflected in advancing alternatives as appropriate.

Many of the comments received were very similar in nature. As a result, similar comments and their responses have been grouped by topic and "General Comment" heading below to avoid duplicative responses. In order to understand some terms used in the Comments and Responses, it may be necessary to review the original Screen 1 and Screen 2 presentation materials (including Screen 1 Comments and Responses), which are posted on CTA's Web site at www.transitchicago.com.

The list below shows the index of topics covered in the report, along with the number of comments received for each. Numerous comments received were regarding the corridors analyzed and other recommended Circle Line routes. This was followed by an interest in the recommended Locally Preferred Alternative (LPA) selection and the Future Vision of the project. A number of general comments, compliments and complaints also were submitted. Because comments often refer to more than one topic, the numbers associated with each do not equal the total number of comments received.

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1. Overall Circle Line Project Timeline, Purpose, and Need

General Comment:

What is the time frame for planning, construction, and completion of the project? How do we ensure the project satisfies pressing transportation needs?

Pertains to specific comments:

39, 46, 67, 78, 83, 95, 96, 108, 120, 125

Response:

The Federal Transit Administration (FTA) New Starts grant program requires transit project proposals to proceed through a formal process of planning, design, and construction. Upon completion of this process, the project will be ready for operation. The process involves five formal steps: Alternatives Analysis (AA); Environmental Impact Statement (EIS); Preliminary Engineering (PE); Final Design (FD); and Construction. At a minimum, each of these steps typically takes 2-3 years to complete. Initiation of each step is also contingent upon continued availability of federal and local funding, the timing of which will also affect the overall project schedule. In addition, the FTA must approve entry into PE, FD and construction steps. For highly complex projects, the Final Design and Construction steps will take longer, particularly if construction is implemented in sequential phases rather than all at once.

Alternatives analysis has been a key part of FTA's process for advancing local fixed guideway transit projects for over 25 years. No two alternatives analyses studies are completely alike, because the analysis must respond to the unique conditions of the corridor under review. Because of its inherent national perspective, FTA cannot fully appreciate the context of any alternatives analysis study absent at least a basic understanding of the local study area and the specific problems and needs to be addressed in the study.

Establishing a well-specified purpose and need statement for which alternative solutions are being analyzed is a key early step of the corridor planning process. When undertaken as part of the National Environmental Policy Act (NEPA) process, a study's "purpose and need" establishes the problems that must be addressed in the analysis; serves as the basis for the development of project goals, objectives, and evaluation measures; and provides a framework for determining which alternatives should be considered as reasonable options in a given corridor. More fundamentally, the statement of purpose and need serves to articulate – and justify - why an agency is proposing to study and implement a project that may cause significant environmental impacts and why these impacts are acceptable.

In the Circle Line alternatives analysis, FTA guidance requires that the project's purpose and need are identified, alternatives to address the purpose and need are developed and evaluated, comprehensive and on-going public involvement is initiated, and a Locally Preferred Alternative (LPA) is ultimately determined. The Circle Line project is currently in the alternatives analysis step.

The Circle Line alternatives analysis study has completed screens 1, 2 and 3 and has identified a recommended LPA. The next step of the analysis is to review the public input collected from the Screen 3 public involvement outreach and incorporate any new findings into the recommended LPA.

The purpose of the Circle Line project is to address the fact that rail transit riders must now travel through Chicago's Loop to get to most destinations outside of the immediate central area. The Circle Line will provide better access to various neighborhoods, regional job centers, and civic and educational institutions by connecting the region's transit lines before they enter Chicago's central area. The Circle Line will also more effectively link Chicago and its neighborhoods with suburban communities and bring workers closer to jobs. The Circle Line will complement existing CTA and Metra systems by creating numerous transit system travel shortcuts.

2. Evaluation Criteria Used in the Alternatives Analysis Study

General Comment:

How are screening criteria applied throughout the analysis to advance the alternatives being evaluated?

Pertains to specific comments:

71, 76, 85, 95, 107, 119, 125

Response:

In Screen 1, the Alternatives Analysis Study began with a large universe of alternatives. The alternatives included a wide array of transit vehicle technologies, six corridors within the study area, and three possibilities for vertical profiles (i.e., at ground level, above ground, and below ground). The initial universe of alternatives was evaluated in Screen 1 to identify technologies, corridors and profiles that satisfied the project's goals and objectives. General evaluation criteria were used to eliminate those alternatives that were not capable of meeting the project's goals. For more details on Screen 1, please see the reports and presentation materials on CTA's Web site.¹

The Screen 2 evaluation process began with the subset of alternatives that survived the Screen 1 evaluation process. These alternatives included three transit vehicle technologies (Bus Rapid Transit [BRT], Light Rail Transit, and Heavy Rail Transit [HRT]), four corridors (Ashland, Ashland-Ogden, Western, and Western-35th Street), and three profiles (At-Grade, Mostly Elevated, and Limited Elevated).

Multiple evaluation criteria were applied to each of the alternatives to determine their relative strengths and weaknesses. Detailed summaries of these evaluations are available for review on the Screen 2 presentation boards, which are available for download at the CTA's Web Site www.transitchicago.com as noted in the introduction to this document. The Screen 2 findings identified four "build" alternatives (HRT and BRT on Ashland and Ashland-Ogden) as well as a "baseline" alternative (limited capital investment) and a "no build" alternative for further study.

Screen 3 continued the evaluation process, but CTA made a decision to expand the original study area of the alternatives analysis as a direct result of the public input received during Screen 2. Numerous comments were received during the Screen 2 public involvement meetings requesting the analysis consider corridors further to the west of the original study area. As a result, the study area was significantly enlarged. The Screen 3 analysis took significantly longer than the original two screens due to the significantly larger study area and resulting new corridors and alignments studied.

Screen 3 analyzed the alternatives applying additional criteria in an effort to identify a recommended LPA that meet the requirements of the Purpose and Need of the alternatives analysis. Criteria such as order of magnitude capital cost, annual operating cost, projected annual ridership, annual travel time savings and projected cost per hour of travel time savings were evaluated and applied to the alternatives. The resulting recommended LPA was identified after all of the study's criteria were evaluated, identifying an alternative that offers the best option to move forward and receive funding.

¹ This report routinely mentions materials that are available on the CTA Web site, under Screens 1, 2 and 3 of the Circle Line. This material can be accessed by following this link: http://www.transitchicago.com/news_initiatives/planning/circle.aspx.

3. Circle Line Study Area

General Comment:

How were the boundaries of the study area determined?

Pertains to specific comments:

18, 42, 61, 69, 71, 82, 125

Response:

A key component of the Alternatives Analysis process is specifying a study area of a definite size for the project. The goal is to establish a specific area and to define the transit challenges and opportunities within this particular space, so that potential solutions can be measured against these defined challenges. Keeping the study area focused also helps to avoid confusion between multiple unique transit project proposals within the same city or region. A study area that is too large can make it difficult to determine accurately whether the potential solutions effectively address the identified transportation purpose and needs.

The original study area for the Circle Line is bordered by Fullerton (2400N), Rockwell Avenue (2600W), Pershing Road (3900S), and Lake Michigan to the east. These boundaries define a compact area with numerous opportunities for improving transit connections and making transit a more appealing transportation option. The area also contains all of CTA's rail rapid transit lines and Metra's commuter rail lines that currently serve downtown Chicago. The boundaries of the study area roughly correspond with the maximum load point for each of these existing CTA and Metra rail lines (the points on each line where the trains typically have the greatest number of riders on board). By creating linkages between the existing transit lines in this area, the maximum number of customers should be served. A key goal of the Circle Line is to provide greater access between and within neighborhoods and activity centers outside the central business district, so that Chicago's rail transit network will no longer require travelers to enter the Loop if that is not their final destination. The size of the study area in relation to the existing transit infrastructure within it addresses this goal.

As a result of the public input received during Screen 2, the CTA decided to significantly alter the original study parameters and expand the study area. As a result, the study area was enlarged to almost three times the size of the original study area. The expanded study area for the Circle Line is bordered by Lawrence (4800N), Cicero (4800W), 79th (7900S) and Lake Michigan to the east.

Expanding the study area allowed for additional alignments to be analyzed as part of the Circle Line Alternatives Analysis. Additional alignments studied include: BRT from Kimball/Lawrence to Jefferson Park; BRT from Jefferson Park to Midway, also known as the Mid-City Transitway; BRT from Midway to 87th/Dan Ryan; HRT from Jefferson Park to Midway to 87th using existing freight corridor, also known as Mid-City Transitway; and HRT from Kimball to Jefferson via a Brown Line extension elevated or underground along Lawrence.

4. Alignments (Corridors) Analyzed

General Comment:

How were the initial corridors determined in this analysis? How did the evaluation of the corridors identify the recommended Locally Preferred Alternative alignment?

Pertains to specific comments:

11, 19, 21, 22, 23, 36, 53, 65, 86, 91, 95, 97, 103, 105, 107, 121, 122, 125

Response:

In the first screen of the Circle Line Alternatives Analysis Study, potential corridors were identified for further study as possible locations for new transit service that would achieve the project's purpose and

need. At that stage, the corridors did not represent exact locations of transit lines, but rather represented general routings for potential service. The six corridors initially analyzed in Screen 1 could all connect numerous CTA and Metra transit lines and, to varying degrees, cut travel times for transit customers.

The preliminary findings of Screen 1 recommended that three corridors (Ashland, Ashland-Ogden, and Western) be advanced for further analysis. Public comments at the conclusion of Screen 1 made a strong case for analyzing a fourth potential corridor, Western-35th, which the study team did. The first screen's evaluation process showed that the other corridors did not address the identified purpose and need for the project as well as the four corridors that advanced for further analysis.²

As a result of the public input received during Screen 2 and the resulting expanded study area, additional alignments were analyzed as part of the Circle Line alternatives analysis. Additional alignments studied include: BRT from Kimball/Lawrence to Jefferson Park; BRT from Jefferson Park to Midway, also known as the Mid-City Transitway; BRT from Midway to 87th/Dan Ryan; HRT from Jefferson Park to Midway to 87th using existing freight corridor, also known as Mid-City Transitway; and HRT from Kimball to Jefferson via a HRT Brown Line extension, either elevated or underground, along Lawrence Avenue.

The remaining Screen 3 alternatives and the alternatives introduced following the Screen 2 public involvement process were evaluated based on a three step process. The first step initially involved the refinement of the prior alternatives to optimize efficiency and effectiveness. The alternatives were evaluated and screened in Step 1 using ridership, cost estimates and travel time savings. The alternatives were then further refined in Step 2 to achieve a more cost effective project with the least impacts. Step 2 included no-build and baseline, one BRT and five HRT alternatives. Step 3 included further refinement including alternative operating plans, reduction in capital cost and evaluation of potential implementation phases. The screen also included evaluation of several alternatives introduced as a result of feedback at public meetings.

Throughout the Screen 3 analysis, criteria were applied that resulted in alternatives advancing or being eliminated. A listing of all the corridors analyzed (including Cicero BRT) and the results of the analysis can be reviewed on page 9 and 10 of the Public Meeting Display Boards included on the CTA Web site in the Screen 3 section of the Circle Line Alternatives Analysis Study.

Numerous public comments have been received that provide input regarding preferences and reasons for using one corridor routing versus another, including variations, alterations, and additions to the corridors presented at the Circle Line public meetings. These comments have been noted and will be analyzed and evaluated as appropriate in Screen 3 as a part of determining the recommended Locally Preferred Alternative. The overall purpose of the Alternatives Analysis is to identify a Locally Preferred Alternative that will define a particular mode and alignment that best achieves the goals and objectives of the project.

5. Data Used for the Analysis

General Comment:

How were the ridership estimates and cost projections determined?

Pertains to specific comments:

4, 31, 60, 69, 76, 82, 85, 107, 118, 119, 121, 125

Response:

As required by the FTA, CTA is working in cooperation with other regional transportation agencies and the Chicago Metropolitan Agency for Planning (CMAP) to develop a regional travel forecasting computer model that can be used to predict ridership for the various alternatives being studied. This computer

² Transit service improvements in corridors that did not advance in the Circle Line evaluation may possibly be warranted to serve other purposes or needs, but those corridors have been determined to not best address the purpose and need identified for the Circle Line project specifically.

model is based on other models already used by CMAP for other regional transportation planning purposes. The data used throughout the Alternatives Analysis process comes from both the CMAP models and financial cost projections based on current architecture and design standards which are indexed for inflation.

The CMAP population models for 2030 are the same models that are used throughout the region to estimate future population trends, including data used for highway construction and greenhouse gas emission and mass transit needs of the region. These projections are updated regularly by CMAP, and were plugged into the models used to estimate ridership of the Circle Line. In addition to the population projections, ridership estimates also heavily depend on household preferences throughout the region. This data is also collected and maintained by CMAP, but is based on household surveys sent throughout the region to determine how and when people most use mass transit, as well as other forms of transportation. Combining population projections with household preference data gives an accurate projection of the future use of CTA.

These projections don't implicitly include potential land use changes, but this was done intentionally. Since this project is going to be applying for Federal funds, all data must meet Federal standards for New Starts projects. The New Starts process does not allow land use change to be considered while estimating future ridership of the project.

Adding a new HRT or BRT line would most likely have a positive impact on residential and commercial density, but this is the case for almost any new mass transit project. While the Alternatives Analysis process does not allow for land use changes to be considered in ridership projections, potential land use changes are not overlooked as benefits to such a project.

Conceptual capital costs are based on unit cost pricing for each alternative. Typical unit prices appropriate to the Chicago area for the types of work expected are based on previous CTA construction cost experience. The major types of work included in the conceptual capital cost estimates include guideway and track elements, station and stop facilities, vehicle storage yard and maintenance facilities, site work and special conditions, systems (signaling, communications, power supply, etc.), right-of-way acquisition, and vehicles. Soft costs, such as the cost of design, construction management, and agency costs are included as add-on percentages of hard costs. Contingency factors, appropriate for the level of alternative definition and engineering at this project phase, were also developed and applied.

The existing CTA operating and maintenance cost (O&M) model was used to estimate the annual cost of operations and maintenance. Inputs to the O&M cost model include the physical dimensions and levels of service developed in the conceptual designs and preliminary operating plans for the alternatives. This includes inputs such as the number of peak period trains and buses needed, the vehicle miles and hours, the number of stations and stops, track miles, bus terminals, fare collection equipment, and facilities (storage yards, maintenance shops).

Changing guidelines and circumstances played a large role in the study of costs for a Cicero HRT line³. While projects similar to the one studied during Screen 3 have been evaluated before, recent events have increased the cost estimates of this project. Previous studies of a Cicero HRT line assumed the freight railroad right-of-way had sufficient open space to build the new track necessary for HRT. This can no longer be assumed as the private railroads (which own the right-of-way) and regulatory agencies have begun to require larger separation distances between freight and HRT tracks. This is due to several recent incidents involving the derailment of freight trains and increased liability concerns. This change requires significant infrastructure modifications to the existing freight railroad corridor. Without the ability to easily fit the HRT alternative within the railroad right-of-way, capital costs rise dramatically due to a need for significant land acquisition and/or infrastructure development (such as retaining walls). These capital costs are a major part of the total costs presented for the Cicero HRT alternative.⁴

³ In other studies, a Cicero HRT Line has been referred to as a Mid-City Transitway (MCT) or the Mid-City Corridor.

⁴ A complete description of cost estimates from Screen 3 can be found on Page 20 of the Public Meeting Presentation.

6. Transit Vehicle Technologies (Modes) Analyzed

General Comment:

What types of vehicles were considered for use on the Circle Line, and how do they compare to each other?

Pertains to Specific Comments:

1, 3, 5, 32, 36, 44, 65, 66, 102, 107, 109, 114, 125

Response:

Screen 1 of the Circle Line study started with a broad range of potential technologies. Eleven transit technologies were identified for consideration. These technologies included: Automated Guideway/Monorail, Bus Rapid Transit, Commuter Bus, Commuter Rail, Heavy Rail Transit, High Speed Rail, Light Rail Transit, Local Bus, MagLev, Personal Rapid Transit, and Streetcar. They were evaluated based on their attributes and features for typical station spacing for the respective mode, customer capacity, proven reliability, and ability to integrate with existing CTA travel modes. Key findings for the description and comparison of the transit technologies are in Screen 1 public meeting display boards available on CTA's Web site. Screen 1 narrowed the potential technologies suitable for this project to four modes.

Screen 2 narrowed down transit technologies further to three technologies that best address the anticipated transportation needs. Of the initial 3 transit vehicle technologies considered in Screen 2, only Bus Rapid Transit (BRT) and Heavy Rail Transit (HRT) were advanced for further study in Screen 3. The other technology considered in Screen 2 – Light Rail Transit (LRT) – was not advanced for several reasons. First, although it would provide similar capacity as BRT, LRT would cost two to three times as much as BRT. Second, an LRT corridor would create substantially greater impacts than other alternatives. (This finding is not to say LRT may not be an effective mode in other locations. However, when compared with other alternatives in corridors which follow avenues such as Ashland, Armitage, or North, LRT posed greater potential for impacts and was dropped from further study for the Circle Line.)

Heavy Rail Transit would be separated from surface traffic by operating either above or below grade. Some portions of the proposed BRT alternative would operate in dedicated lanes while other portions would operate in mixed traffic conditions.

Because BRT alternatives would operate on existing streets, the total capital cost for BRT was lower than HRT alternatives. However, also because BRT alternatives would operate on existing streets, travel times for BRT alternatives were longer and projected ridership was lower. The Circle Line study did identify several corridors where BRT may constitute a cost-effective transit improvement, but weighted against the entirety of the purpose for the Circle Line, these BRT segments were not carried forward as the recommended Locally Preferred Alternative (LPA). In addition to evaluation factors, public input at each stage of the Circle Line study favored rail options (HRT) which would provide greater capacity and faster travel times than BRT alternatives. The BRT alternatives showing potential were retained for consideration by CTA as future projects in their system planning efforts.

7. Proposed Circle Line Stations

General Comment:

Where would stations on the proposed Circle Line be located, and why were other options not included in the LPA?

Pertains to Specific Comments:

6, 7, 12, 23, 26, 28, 29, 34, 43, 48, 95, 125

Response:

The recommended LPA specifically calls for 4 new stations to be built for the Circle Line. The stations can be built incrementally, and three of the four will improve access to current infrastructure before the final Circle Line construction process is finished. The three new stations making current infrastructure more accessible are 18th/Clark – Chinatown, Roosevelt, and Congress/Paulina. These stations provide significant and immediate improvements to the Pilsen, Little Village, and Chinatown communities. They also provide access to job centers like the Illinois Medical District (IMD), which is projected to have significant job growth by the year 2030, providing over 100,000 jobs at that time. The benefits of these three new stations could be realized before the complete Circle Line is implemented. The fourth proposed station would be located on the new track connecting the Pink Line and the Orange Line and would be at Cermak-Blue Island. A diagram highlighting the locations of these new stations is available on page 12 the Screen 3 Public Meeting Display Boards, which are included on the CTA Web site in the Screen 3 section of the Circle Line Alternatives Analysis Study section.

A major purpose of the Circle Line is to establish connectivity across the transit network, so candidate station sites have been designated at all points of potential interconnection with other CTA rail routes, at or near major streets served by CTA bus routes, and at locations where the Circle Line route would cross Metra commuter rail lines. These station locations also provide convenient access to the major activity centers located along the Circle Line corridor. For example, the 18th/Clark – Chinatown station could provide connectivity to future Metra stations for the Rock Island (RI) and Southwest Service (SWS) lines, while the new station at Congress/Paulina would connect the Blue and Pink lines.

Physical and operating constraints, the ability to transfer between lines, cost issues, property acquisition and other critical station design issues must all be addressed in the preparation of the federally required Environmental Impact Statement (EIS). The EIS process is a requirement for federal funding and mandates that any negative environmental impacts—including impacts upon the built environment—must be mitigated in order to receive federal approval. The EIS process begins after the Alternatives Analysis process ends and an LPA is determined.

The CTA is always open to suggestions for new stations, and while not every possibility has been included in the recommended LPA, future stations along the route of the Circle Line are not precluded. The CTA may reconsider the addition of certain stations due to the comments that have been received as part of the Screen 3 public involvement process. In regards specifically to a possible station at Madison St., to serve the United Center and as a connection to the #20 bus, the recommended LPA does not include a station here because of the close proximity of two other stations to this community. The station at Congress/Paulina, which also connects the Blue and Pink Lines, would have an entrance and exit on Jackson Blvd., making this stop only three blocks South of Madison St. and five blocks from the United Center. To the North, the current station at Ashland/Lake is just a few blocks from Madison St. and the United Center as well.

8. Proposed Circle Line Operations

General Comment:

What is the route and schedule of the Circle Line, and how does this affect capacity and congestion problems?

Pertains to Specific Comments:

10, 13, 15, 20, 38, 46, 55, 72, 83, 98, 125

Response:

The Circle Line would be a new line, adding to the CTA's current system of HRT lines. A map of the recommended LPA can be found on page 12 of the Public Meeting Display Boards included on the CTA Web site in the Screen 3 section of the Circle Line Alternatives Analysis Study section. The route originates in the north, perhaps as far north as Linden though the recommended LPA does not finalize this aspect, and follows current CTA elevated track to Fullerton Ave. At Fullerton Ave., the route continues south on the State Street subway, following the path of the Red Line. At Roosevelt, the Circle Line switches to the elevated Orange Line tracks, following it southwest to the Ashland/Archer station. The Circle Line then utilizes the proposed new track connecting the Orange Line track to the Pink Line track, following the current Pink Line track north to the Ashland/Lake stop. A turn back will be built at the Ashland/Lake stop, allowing the Circle Line trains to follow the same path in the opposite direction. This is a non-circumferential path.

The proposed span of service on weekdays is 4:30 a.m. until 2:30 a.m. the following day. Saturday service would begin at 4:30 a.m. and end at 2:00 a.m. the following day. Sunday service would begin at 5:00 a.m. and end at 1:00 a.m. the next day. These spans of services are consistent with existing CTA rail operating hours.

The operating plan assumes service frequencies that range from 5 to 15 minutes, depending on the time period. Proposed service frequencies are generally the same for all BRT and HRT alternatives. Note that frequency of service for some alternatives is constrained by capacity of the existing system. For example, to stay within the limits of train capacity in the State Street Subway, HRT alternatives using the Subway were limited to 10-minute frequency.

Decreasing demand on some capacity-constrained portions of the CTA rail system is an additional benefit of the recommended LPA. The LPA as recommended decreases congestion on the elevated Loop by decreasing the number of trains operated on the elevated Loop. Decreased congestion will translate into decreased delays, improved travel times, and improved reliability for those riding trains passing through or around the elevated Loop. The decreased congestion on the elevated Loop is realized by running the recommended LPA through the State Street Subway, integrating that service with the existing Red Line service. Note that the recommended LPA (in combination with the Red Line service) does not exceed capacity within the State Street Subway.

Looking to the future beyond the recommended LPA, the Circle Line "Future Vision" (connecting Lake/Ashland to other lines in the vicinity of North/Clybourn) would allow much greater ridership, continued decrease in congestion in the Loop, and additional opportunities for changes in travel patterns. With this "Future Vision" portion, the Circle Line would further leverage existing infrastructure and, as travel demand modeling demonstrated in earlier phases of the Circle Line study, further increase rail ridership.

9. Ridership Estimates and Related Issues

General Comment:

How many riders are expected to use the Circle Line and how, if at all, does the ridership estimate support the recommended LPA?

Pertains to Specific Comments:

4, 31, 33, 47, 49, 51, 66, 85, 95, 118, 125

Response:

For the year 2030, yearly project ridership for the Circle Line is estimated at 10 million. For a complete description of how this estimation was generated, see topic 5. For a complete description of how this number compares to the ridership of other alternatives studied in Screen 3, please see page 10 of the Public Meeting Display Boards included on the CTA Web site in the Screen 3 section of the Circle Line Alternatives Analysis Study section. The recommended LPA was chosen in part because of this ridership estimate and how it relates to the capital cost of the project.

Official FTA guidance prohibits assigning qualitative factors to bus or rail that would make one mode inherently preferable over another in the demand forecasting process. The results of the travel demand model must therefore estimate future ridership based on characteristics such as travel time savings, station locations, ease of connection to other modes, and other quantitative factors. Aside from the demand forecasting process, it should also be noted that different transit vehicle technologies have different inherent capacities. Traditional CTA buses and Bus Rapid Transit are medium-capacity modes, while Heavy Rail Transit, with the ability to form 8- or 10-car trains, is a high-capacity mode.

It is expected that both increased ridership and a change of travel pattern will occur. The Circle Line will improve travel options for some existing transit customers who will choose to change their travel patterns to take advantage of the new service.⁵ These same service improvements and the new transit connections created by the line will also make transit a more convenient and competitive travel option for other trips that do not presently take place on transit (or at all), thereby causing a net increase in overall transit travel.

10. Potential Property Acquisition and Impacts

General Comment:

How much property would be acquired in order to build the Circle Line?

Pertains to Specific Comments:

68, 91, 125

Response:

At this stage in the Alternatives Analysis Study it is too early to determine the level of property acquisition that would be necessary in order to construct and operate the Circle Line. A final determination on the vehicle technology, alignment and vertical profile will need to be established before potential property impacts can be assessed.

Potential property impacts are determined in detail as a part of the Preliminary Engineering (PE) phase of project development, which proceeds concurrently with the preparation of the Environmental Impact

⁵ For instance, instead of riding in from the south side on the Red Line or from the southwest side on the Orange Line, and then transferring in the most crowded part of downtown to the Pink Line to get to Polk station, a traveler will be able to transfer to the Circle Line before reaching the congested downtown area and then proceed directly to the Illinois Medical District at Polk. This will provide more direct service for the customer traveling to Polk, and the changed travel pattern will also free up transit capacity to accommodate future travel growth in the Loop.

Statement (EIS). The EIS process is a requirement for federal funding and mandates that any negative environmental impacts—including impacts upon private property—must be mitigated in order to receive federal approval. The EIS and PE processes both begin after the Alternatives Analysis process ends and an LPA is determined. Public acquisition of private property is governed by federal and local laws. In accordance with these laws, affected property owners would be compensated for their properties based on fair market values and can be provided relocation costs.

In a densely populated urban area such as Chicago, every effort is made to minimize the impact on existing properties. Decisions regarding impacted properties are thoroughly reviewed during the Environmental Impact Statement, and are only approved if there is a significant benefit to the affected community.

The recommended LPA does provide for a significant increase in CTA accessibility to the communities that would be impacted by private property acquisition. While the CTA always works to minimize these impacts, it is important to note that the plan does provide a new station to the area affected by track construction. The community surrounding the new track, connecting the Orange and Pink lines, gains substantial new service from the Circle Line.

11. Alternatives Analysis Public Involvement Process and Format

General Comment:

Does the public involvement process for the Circle Line Alternatives Analysis Study allow individuals sufficient opportunity to be informed about and comment on the project?

Pertains to Specific Comments:

79, 87, 107, 125

Response:

The public involvement process for the Circle Line Alternatives Analysis Study includes a total of nine public involvement meetings, three each at the conclusion of the Screen 1, Screen 2, and Screen 3/LPA analyses.

The Screen 1 meetings were held at the Mexican Fine Arts Museum in Pilsen (south), Lincoln Park High School (north), and the University of Illinois at Chicago (central). The Screen 2 meetings were held at the Bucktown-Wicker Park Branch of the Chicago Public Library (north), the National Teachers Academy (south) and the First Congregational Baptist Church (central). The Screen 3 meetings were held at the Bucktown-Wicker Park Branch of the Chicago Public Library (north), the University of Illinois at Chicago (central), and Benito Juarez Community Academy (south). All meetings were close to public transit and accessible to people with disabilities. An interpreter for the hearing impaired and translators for the Spanish speaking and Chinese speaking communities were available at the public meetings.

All three rounds of meetings were announced through ads in neighborhood newspapers as well as public alerts on CTA trains and buses, at rail stations, on the CTA Web site, and distributed to print and broadcast media via a news release.

The format of the meetings included groups of presentation boards containing detailed information on each area of analysis in the study, where individual conversations between the public and project staff knowledgeable about that area of analysis could take place. The public meetings also included a community presentation that provided information in a slideshow format led by the study's project managers. Meeting attendees were requested to submit questions and comments in a written format. CTA's goal in emphasizing written questions and comments has been to ensure everyone's thoughts are collected and reviewed, rather than only those individuals who might choose to speak publicly at a meeting. The intent has been for everyone to have an equal opportunity to participate in the process. In addition, by reviewing similarly worded questions, the presenters have been able to efficiently address

multiple individuals at once and avoid repetition during the public meetings. CTA and the consultant team staff have also been available to answer any individual questions on a one-on-one basis following the general question and answer period at each meeting. To date, more than 650 questions and comments have been answered. Questions and comments were accepted at all 9 of the public meetings, and were accepted via email, phone call, fax, and mail up to 30 days after the public meetings. The responses are available in writing at the CTA Web site in the Circle Line Alternatives Analysis Study section, which makes them readily available to both meeting attendees and all other members of the general public.

The CTA takes the public outreach process very seriously and has conducted significant outreach throughout the Circle Line study. In the most recent phase of the study, CTA implemented a public outreach plan to maximize public involvement, especially in areas that could be directly affected by the recommended LPA.

To detail the most recent phase of the Circle Line analysis, Screen 3, three public meetings were held across the study area to ensure Chicagoans who may be affected by the Circle Line would have an opportunity to learn about the recommended LPA. In addition to meetings at the Bucktown/Wicker Park Public Library and UIC's Molecular Biology Research Building on Ashland, CTA hosted a meeting at Benito Juarez Community Academy in Pilsen where improvements and construction are recommended, to ensure the community had the opportunity to learn about the Circle Line project.

Leading up to these meetings, significant outreach was implemented in order to raise awareness of the meetings. Outreach included: advertising the meetings in 10 daily and weekly newspapers in English, Spanish and Chinese; CTA staff briefed all of the Alderman whose wards fall within the study's boundaries and requested those officials to inform their constituents of the upcoming meetings through their regular communication channels; the CTA posted 3,953 signs on buses and trains announcing the meetings dates and times; media reported the upcoming meetings; a special meeting was held for transit focused organizations in Chicago to provide them with a preview of the study details and CTA called all of the invited organizations numerous times in an effort to inform them of the meetings; throughout the study CTA collected contact information of everyone who was interested in the study allowing CTA to invite them to subsequent meetings; the Wicker Park Bucktown Special Service Area Redpost system included ads announcing the meetings, which was displayed adjacent to the CTA Bus Tracker; the question and comment period is open for 30 days after the meetings to allow individuals who were unable to attend one of the three meetings to still submit comments for consideration and the CTA Web site has posted the meeting presentation and materials along with all of the other information presented throughout the study.

The agenda for each public meeting allows for interaction between the planners and engineers who work directly on the Circle Line study, allowing ample time for professionals to answer any and all questions posed by attendees. The presentation given at each of the meetings is created to provide a general overview of the study that can be easily understood by all residents, regardless of technical expertise an individual may possess. The multiple meetings are held to ensure individuals interested in the study have the opportunity to attend one, if not all of the meetings.

The written comments received at the public meetings and other detailed comments submitted subsequently are answered within this document, are available on the CTA Web site, sent by e-mail to public meeting participants and available in hard copy by written request. All of the comment cards and other written communications (primarily e-mails) will collectively become part of the evaluation process and will be submitted to the Federal Transit Administration as a part of the official documentation for the Alternatives Analysis Study.

12. Funding for Circle Line Construction and Operations

General Comment:

What are the anticipated sources of capital and operating funds for the Circle Line, and how can the CTA afford to proceed with new projects, such as the Circle Line, if they are currently facing funding shortfalls for operating and maintaining the existing system?

Pertains to Specific Comments:

9, 23, 37, 45, 97, 112, 113, 115

Response:

CTA, along with all transit agencies in the United States, receive public funding for both operating expenses and capital expenses.

The operating budget supports CTA's day-to-day operations and helps determine the service frequency and hours CTA can offer on its bus and rail system. Nearly half of CTA's operating budget comes from customer fares and revenue generated from sources such as advertising and concessions. To be clear, fare revenue is part of CTA's operating budget, which is not used for capital projects such as the Circle Line. The other half of the operating budget comes from regional sales taxes and matching funds from the State of Illinois. No federal funds are available specifically to cover operating expenses. Once the Circle Line is built and operational, the funds to operate the system will come from fare revenue as well as local and state funding sources, consistent with the funding mechanisms that support CTA's other bus and rail transit services.

It is important to note that the Chicago region's current transit operating funding structure is based on geographic boundaries and retail spending—not ridership or service provided. As a result, CTA's share of this public funding has lagged nearly one full percentage point behind inflation for the past two decades. This issue is at the core of the well publicized operating funding crisis facing CTA today.

Meanwhile, CTA's capital funding is provided both by the federal government and State of Illinois and is granted specifically for improvement projects such as rail station renovations, track and structure rehabilitation, bus and rail car purchases, and rail extensions. It is capital funding that is being sought for the Circle Line and other New Starts projects.

CTA has initiated this Alternatives Analysis Study for the Circle Line as a first step towards obtaining capital funding for the project through the Federal Transit Administration's "New Starts" grant program.⁶ This program provides funding for major public transit infrastructure projects throughout the U.S. through a highly competitive process. Upon successfully advancing through the four phases of project implementation (Alternatives Analysis, Environmental Impact Statement, Preliminary Engineering, and Final Design) a project will be qualified to receive a "Full Funding Grant Agreement" (FFGA) from the U.S. Government. The amount of funding in the FFGA typically covers fifty percent of the project's capital costs. State and local funds comprise the remainder of capital funding. It is possible to seek alternative sources of federal and non-federal funding for the project, but the federal New Starts grant program is specifically intended to support transit projects of this nature and is the public funding mechanism most capable of doing so.

As indicated above, to ultimately secure federal New Starts grant funding, matching funds for the remaining fifty percent of the project's capital costs are required from sources other than the New Starts grant program mainly from non-federal (i.e., state and local) sources. From 2000 through 2004, the Chicago region's matching funds came from the State of Illinois through the Illinois FIRST legislation. The Illinois FIRST legislation expired on June 30, 2004. Since that time, CTA has been working with the

⁶ CTA is also conducting concurrent studies for the other candidate New Starts expansion projects that have been authorized by the U.S. Congress—extending the Red Line to 130th Street, extending the Orange Line to Ford City, and extending the Yellow Line to Old Orchard.

Illinois Legislature to enact a replacement to Illinois FIRST and ensure that all future federal transit funds available to the Chicago region can be fully utilized.

CTA is simultaneously pursuing solutions to its overall operating and capital funding challenges while also positioning itself (through Alternatives Analysis studies such as this one) to secure capital funding to meet the region's future transit infrastructure needs. While it is necessary and critical for CTA to obtain the capital and operating resources it needs to maintain its system in a state of good repair on an ongoing basis, it is equally important to plan for the future; there is little value in maintaining an existing system if it will not adequately address future travel needs. CTA's overall Capital Improvement Program not only identifies funding needs to maintain the existing system in a state of good repair, but it also identifies and addresses future needs to serve growing regional transit travel demands. With a growing population and shifting travel patterns and travel needs, it is important to anticipate CTA customers' future needs and plan accordingly. For instance, many of today's key transit links—including the Red Line Dan Ryan Branch, the Blue Line to O'Hare, the Orange Line to Midway, and the Yellow Line to Skokie—were made possible by past generations who understood the need to invest in transit's future even as they addressed significant day-to-day financial pressures.

It is also important to recognize that federal capital funding for transit system expansion projects comes largely from the New Starts grant program funds that are allocated separately from federal formula funds dedicated to ongoing "state of good repair" capital improvements. While federal formula funds may be used for infrastructure renewal projects, New Starts funds are discretionary funds that can only be used for system expansions. Given that CTA has demonstrated need for both formula and New Starts funding, it is prudent that CTA take all necessary steps to obtain funding from both sources and not focus on just one while passing up the other. CTA does not propose diverting its federal formula funds to support system extensions and expansions.

13. Project Cost

General Comment:

What is the specific cost breakdown of the recommended LPA?

Pertains to specific comments:

23, 64, 70, 77, 84, 85, 100

Response:

Cost effectiveness is one of the most important measures that determine a project's eligibility for federal funding as part of the FTA's New Starts program and was the focus of the Screen 3 evaluation. Although cost effectiveness is only one of multiple criteria the FTA uses to rate projects, it is often the most formidable obstacle when trying to advance a project in the New Starts process. Please note that the cost effectiveness numbers provided on page 10 of the Public Meeting Display Boards included on the CTA Web site in the Screen 3 section of the Circle Line Alternatives Analysis Study section are not the same numbers used by the FTA to compare projects across the country. The numbers shown on the Public Meeting Display Boards and discussed at the public meetings are compared to no-build, while the FTA uses a different baseline.

The total capital cost of the recommended locally preferred alternative is \$1 billion dollars in 2009 dollars and is estimated to total \$1.1 billion in inflated dollars (rounded). The capital cost estimates have been prepared to current FTA formats and provide cost information in a comparative manner to facilitate the selection of a recommended LPA and for the advancement of the selected alternative into the preliminary engineering phase. The estimate addresses the principle elements used in the preparation of capital cost estimates for the study including:

- Procedures
- Capital costs categories & units of measure
- Unit prices

- Quantities
- System wide costs
- Project capital cost estimate factors
- Cost of vehicles
- Professional services
- Contingencies
- Escalation

The capital cost estimate for each alternative has been based on the sum of the total prices for the major items of construction work. Unit prices were derived from:

- Documented information provided from other transit properties
- Actual bids for similar types of construction
- Published construction documents and/or reports such as "Means Building Construction Cost Data," 2005 edition
- The FTA Web site for typical elements of cost

In the event there was not a unit price available for a particular major item of work, an estimate has been built up from the cost of its individual components.

The capital cost estimate includes the development of route feet or linear foot direct costs for a number of typical design cross-sections, as well as direct costs for other special line items unique to each of the project alignments in the study.

Costs estimates were prepared in 2005 dollars and reflect the total project costs including site preparation, facilities construction, vehicles, purchase and installation of system wide facilities and equipment, restoration of adjacent infrastructure, artwork for stations and public areas, engineering and design, construction management, owner administration, special condition costs and costs incurred by entities such as the CTA, commuter and/or freight railroads and the City of Chicago. Allowances are included in these estimates for both public and private utilities requiring replacement, relocation or modification.

All total costs used for alternatives evaluation were reported in constant 2005 dollars in the baseline and total program capital cost estimates. These costs were escalated to 2007 dollars by using the ENR index for Chicago to escalate to 2006 and the Macroeconomic Outlook, Global Insight, Inc., April 2005 to bring the numbers up to 2007. Cost breakdown by major project component is shown in the following table. These are "order of magnitude" costs and are not intended to represent design or construction estimates.

Project Component	Order of Magnitude Opinion of Probable Capital Cost (\$M, Year of Expenditure)
Guideway & Track Elements	\$168
Stations	\$158
Sitework and Special Conditions	\$147
Signal and Communication Systems	\$53
Right of Way Acquisition	\$35
Vehicles	\$112
Engineering, Construction Management, Testing and Start Up	\$168
Unallocated Contingency	\$282
Total (Year of Expenditure):	\$1,123

14. Potential Circle Line Impacts on Existing CTA Services

General Comment:

How would the Circle Line impact current CTA services?

Pertains to specific comments:

38, 47, 49, 93, 94, 99

Response:

It is premature at the Alternatives Analysis step to fully assess impacts that the Circle Line could have on existing CTA services during construction and operation. Some of the benefits and impacts (such as potential connections with existing CTA and Metra services) may be sufficiently characterized at this time to assist in the evaluation process, while others (such as specific details of possible complimentary bus or train routings) cannot be fully considered until later in the project planning and design process—possibly during the Environmental Impact Statement or Preliminary Engineering phase when the federal process requires potential impacts to be assessed in much greater detail.

The proposed span of service on weekdays is 4:30 a.m. until 2:30 a.m. the following day. Saturday service would begin at 4:30 a.m. and end at 2:00 a.m. the following day. Sunday service would begin at 5:00 a.m. and end at 1:00 a.m. the next day. These spans of services are consistent with existing CTA rail operating hours.

The operating plan assumes service frequencies that range from 5 to 15 minutes, depending on the time of day. Proposed service frequencies are generally the same for all BRT and HRT alternatives. Proposed headways are generally “on clock” headways that can easily be remembered by the transit customer (every 10 minutes or every 15 minutes). However, there were some time periods when HRT headways were modified to obtain a better fit with Red Line service frequencies. For example, proposed HRT weekday late evening service frequencies are 12 minutes instead of 15 minutes, to allow for coordination of Red Line and Circle Line trains.

It is important to note that these are initial proposed service frequencies prior to sensitivity tests with the travel demand model and ridership forecasts. Because the optimum level of service is not known at this time, the capacity of the existing transit network and the potential impacts regarding delays have not been factored into the evaluation of alternatives at this stage of the analysis.

It is expected that both increased ridership and a change of travel pattern will occur. The Circle Line will improve travel options for some existing transit customers who will choose to change their travel patterns to take advantage of the new service.⁷ These same service improvements and the new transit connections created by the line will also make transit a more convenient and competitive travel option for other trips that do not presently take place on transit (or at all), thereby causing a net increase in overall transit travel.

⁷ For instance, instead of riding in from the north or south sides on the Red Line and then transferring in the most crowded part of downtown to the Pink Line to get to Polk station, a traveler will be able to transfer to the Circle Line before reaching the congested downtown area and then proceed directly to the Illinois Medical District at Polk. This will provide more direct service for the customer traveling to Polk, and the changed travel pattern will also free up transit capacity to accommodate future travel growth in the Loop.

15. Potential Circle Line Connections with Existing Regional Transit Services

General Comment:

Will the Circle Line connect with existing CTA and Metra lines? Will I be able to transfer from one service to another?

Pertains to specific comments:

16, 27, 28, 29, 80, 97, 107

Response:

A component of the Circle Line's Purpose and Need is to utilize and integrate existing regional transit infrastructure to the greatest extent possible. Station sites have been designated at all points of potential interconnection with other CTA rail routes, at or near major streets served by CTA bus routes, and at locations where the Circle Line route would cross Metra commuter rail lines. These station locations also provide convenient access to the major activity centers located along the Circle Line corridor. The 18th/Clark – Chinatown station could provide connectivity to future Metra stations for the Rock Island (RI) and Southwest Service (SWS) lines, while the new station at Congress/Paulina would connect the Blue and Pink lines. The 18th/Pauline station could connect to a future Metra station for the BNSF line. The recommended LPA also connects the Orange Line with the Pink Line outside of the loop.

As a part of the Alternatives Analysis process, CTA meets regularly with its counterparts at Metra, RTA, the Chicago Department of Transportation, the Illinois Department of Transportation, and the Chicago Metropolitan Agency for Planning to facilitate coordination within the region's transportation network.

16. Potential Circle Line Economic and Environmental Impacts

General Comment:

What will be the economic and environmental impact of the Circle Line?

Pertains to specific comments:

67, 68, 114, 117, 125

Response:

Per FTA guidance, an Environmental Impact Statement (EIS) is the next step of the federal New Starts process and the environmental evaluation begins upon completion of the Alternatives Analysis study. It will analyze in detail the social, economic, and environmental consequences and benefits of the Circle Line recommended LPA. It will result in a detailed written statement on the anticipated environmental impacts of the Circle Line and the steps that will be taken to reduce any negative impacts to the community and the natural environment. The environmental review process is required by the *National Environmental Policy Act of 1969 (NEPA)* and related laws includes a public involvement component.

Typically, EIS studies address the potential impact areas of air and water quality from emissions, noise and vibration, historic and cultural properties, parklands, contaminated lands, displacement of residences and businesses, and community preservation. During the federal environmental review process, the CTA will work concurrently with state and other local agencies to also comply with state and local environmental laws.

Regarding the economic impact of the Circle Line, economic benefit would occur in Cook County, surrounding counties, and in the State of Illinois. Connectivity to activity centers is the one means of comparison for evaluating Community and Economic Development among candidate alternatives. The Circle Line study area contains four primary activity centers outside of the downtown/Loop area that would benefit from new HRT service. These four primary activity centers are the United Center, Illinois Medical District, the Pilsen Industrial Corridor, and Chinatown. There is also a large area on the near north and northwest sides of downtown that serves many commercial, retail, and entertainment activity

centers. From this area, four additional activity centers have been selected which are relevant to the routing of the candidate alternatives. These four additional activity centers are the North/Clybourn Corridor, River North, State Street Shopping District, and the South Loop Colleges. Evaluation is based on how many total activity centers each alternative serves.

Economic impacts would include direct job creation from the project, indirect stimulus job creation based on the spending of earnings from the direct job creation, job creation from support of new development near stations, and increased revenues to the City, counties, and State. Implementation of the recommended LPA would be expected to generate approximately 20,000 direct and indirect jobs.

In a densely populated urban area such as Chicago, every effort is made to minimize the impact on existing properties. Decisions regarding impacted properties are thoroughly reviewed during the Environmental Impact Statement, and are only approved if there is a significant benefit to the affected community.

The recommended LPA does provide for a significant increase in CTA accessibility to the communities that would be impacted by private property acquisition. While the CTA always works to minimize these impacts, it is important to note that the plan does provide a new station to the area affected by track construction. The community surrounding the new track, connecting the Orange and Pink Lines, gains substantial new service from the Circle Line.

The Circle Line's projected annual ridership is also evaluated, providing another quantifiable evaluation measure. The latter indicator speaks directly to the fact that higher numbers of passengers translates to fewer autos, thus reducing emissions.

17. Relationship of Circle Line to Other Proposed Transit Projects

General Comment:

Are other proposed transit projects also being considered by the CTA, and if so, what is their relationship with the Circle Line project?

Pertains to specific comments:

18, 24, 25, 37, 59, 76, 125

Response:

A key feature of the Federal Transit Administration's Alternatives Analysis process is its ability to evaluate all transit projects from across the United States by a common set of standards. In this way, the benefits and costs of a project can be objectively measured in comparison to all others, and grant funding may be recommended based on project need. If multiple projects in the same region are evaluated highly on their own merits, multiple projects in the same region may be recommended to receive funding. It is not unusual for a large region such as Chicago to seek and receive federal funding approval for several major transit initiatives at the same time. CTA and the Federal Transit Administration (FTA) have initiated the federal environmental process pursuant to the National Environmental Policy Act (NEPA) that will allow the preparation of an Environmental Impact Study (EIS) for the Red, Orange and Yellow line extension projects. Information on each of these projects is available on the CTA Web site.

18. Recommended Locally Preferred Alternative Future Vision

General Comment:

What does the Future Vision include and how does it relate to the recommended Locally Preferred Alternative (LPA)?

Pertains to specific comments:

8, 23, 30, 37, 50, 51, 53, 63, 72, 83, 89, 90, 91, 97, 101, 110, 111, 116, 125

Response:

The Future Vision is an additional component of the Circle Line that isn't being recommended along with the current LPA. Due to complex environmental challenges in the northern region of the study area and the significant capital required to build this portion, the CTA is recommending the exact alignment of the Northern component of the Circle Line be analyzed and finalized in the future so efficiencies and benefits outlined in this LPA can be realized more quickly. This allows the Circle Line to be built incrementally, while the complete line can be phased in when most appropriate. In the current fiscal climate, the recommended LPA is both reasonable and beneficial.

The Future Vision includes a potential connection of the Ashland/Lake station to the rail system on the North. A diagram with complete details of this potential connection can be found page 11 of the Public Meeting Display Boards included on the CTA Web site in the Screen 3 section of the Circle Line Alternatives Analysis Study section. Both the Ashland and Ashland/Ogden corridors are being considered for this potential connection. Since the recommended LPA does not include specifics about this future connection, it is unknown what this alignment will include.

For a complete description of how the LPA was chosen, please review topics 1 and 2. As outlined in the Purpose and Need of the Circle Line, the main goals of this project are to improve connectivity of the transit systems within the CTA and between other services like Metra, better meet the demand of changing job and population centers, and reduce travel times. The recommended LPA meets all these goals. It provides direct access to the Illinois Medical District, which is projected to have the largest job growth outside downtown by the year 2030. The new route also provides large travel time saving benefits for residents of the Pilsen, Little Village, and Chinatown communities. And, with potential future connections with Metra, suburban commuters who currently need to take the Metra to downtown, and then transfer onto the CTA to go back West or Southwest, the recommended LPA provides many possibilities for these travelers to take shortcuts and shorten travel time. The timeline of the Circle Line Project is explained in detail in Topic 1. The Future Vision would be completed separately from this process, so it is difficult to estimate a reasonable timeline of completion. A more detailed study of the Northern region must occur in order for a final alignment to be chosen.

19. Construction/Process

General Comment:

What technologies and methods will be used during construction of the new stations and track for the Circle Line, and what will the process entail?

Pertains to specific comments:

41, 53, 63, 88, 92, 93, 94, 109, 125

Response:

All new construction, including track and stations, would be built using the latest design standards and methods available.

If the recommended LPA does advance, full details on the design and extent of structure required would be determined in the Preliminary Engineering (PE) phase of project development and through preparation

of the federally required Environmental Impact Statement (EIS). The EIS process is a requirement for federal funding and mandates that all negative environmental impacts—including disruptions due to construction—must be mitigated in order to receive federal approval. The EIS and PE processes begin after the Alternatives Analysis Study ends and an LPA is determined. The amount and nature of potential disruption will vary based on proximity to the final alignment, construction methods, and the locations of stations and other project facilities.

In regard to the construction process, it is not possible to determine specific methods for construction and specific impacts such as construction-related disruptions. Several questions inquired about construction methods, such as cut-and-cover or the use of a tunnel boring machine. Note that the Locally Preferred Alternative (LPA) does not include subway construction. The new construction segments will be on elevated structure or new stations on existing (above ground) stations. The Future Vision could include subway segments, and construction methods and impacts would be considered as part of the final development of this component of the project.

The CTA continually updates its Web site on the status of all major construction projects. For more information on any current construction project, please visit www.transitchicago.com.

20. Olympic Impact

General Comment:

How will the Olympic decision affect the Circle Line project?

Pertains to specific comments:

17, 23, 26, 54, 56

Response:

While the public involvement meetings were held before the Olympic decision was announced, everyone now knows Chicago will not host the 2016 Olympic Games. While hosting the Olympics could have had a positive impact on this and other transit projects in the region, the CTA believes the need for a Circle Line is still strong. The initial idea for a Circle Line was established before Chicago announced its bid for the 2016 Olympics, and the CTA will continue advancing this project even without the possibility of a Chicago 2016 Olympics.

21. Relationship with other Transit Agencies and Proposals

General Comment:

How does the CTA work with other planning agencies and proposals, and how will the Circle Line fit in these plans?

Pertains to specific comments:

40, 57, 101, 125

Response:

The CTA works with other regional planning and transportation agencies on a number of fronts. Not only because it is beneficial to the planning process at the CTA, but also because regional transportation projects must be included in an official Regional Transportation Plan in order to qualify for federal funding. Chicago's Regional Transportation Plan is prepared by the Chicago Metropolitan Agency for Planning (CMAP) with input from local and state government agencies (including CTA), community organizations, and the general public. The plan is updated regularly and the Circle Line project is included in the plan. The most recent update of the 2030 Regional Transportation Plan was prepared in 2008 and involved

extensive public outreach meetings throughout the region in August and September of 2008. Information on the CMAP 2030 plan can be found on CMAP's Web site⁸.

The Central Area Action Plan⁹ (CAAP) describes transportation projects that increase trips into the downtown area or improve travel patterns, increase regional transportation capacity, and improve travel connections. The Action Plan describes the CTA Circle Line as a "Regional Supporting Project" that the City should continue to pursue. The CTA believes the CAAP and other similar plans are useful in developing long-term planning standards and works closely with all related local and regional planning agencies.

22. Recommended Locally Preferred Alternative and its Selection Criteria

General Comment:

How was the Recommended Locally Preferred Alternative (LPA) selected and what is it?

Pertains to specific comments:

12, 30, 54, 71, 76, 95, 107, 110, 125

Response:

The Recommended Locally Preferred Alternative is a line which runs from the existing Red/Purple/Brown Line tracks north of North/Clybourn, through the State Street Subway until 13th Street where a transition is made from the State Street Subway to the Orange Line tracks. The line would continue along the Orange Line to Ashland/Orange where a new connection would bring the line to the existing Pink Line. The line would follow the Pink Line until the end of the Recommended LPA at Ashland/Lake. The Recommended LPA includes new stations at 18th Street/Chinatown, Blue Island, Roosevelt, and Congress.

Based on public input and previous analysis, both of which are addressed in preceding responses, CTA developed the Recommended LPA based on public comments, stakeholder input, and attainment of project purpose, along with review of the potential range of project costs and the time frame required to work through the environmental documentation process.

The last stage of the evaluation process was Screen 3. The Screen 3 evaluation consisted of three steps. In the first step, three baselines, three BRT and four HRT alternatives were addressed. Not surprisingly, all of the BRT alternatives performed well in comparison to the HRT alternatives due to the significantly lower costs associated with bus infrastructure and operations. All of the HRT alternatives however, were well above the FTA cost effective index (CEI)¹⁰ thresholds required to advance a project in the New Starts process. The project team provided the Step 1 results to the FTA for review and comment and after a number of discussions, the CTA staff identified one baseline, one BRT and two HRT alternatives (with multiple HRT design options) to advance for refinement and further review.

Based on the results of the step 1 evaluation, a primary goal of step 2 was to substantially reduce the costs while still satisfying the purpose and need of the project. Several design options were introduced in order to provide operations flexibility and reduce potential environmental impacts. These design options were evaluated for changes in cost and impacts to right-of-way. Additionally, because of the number of design options, a streamlined approach was introduced to develop and evaluate alternatives in terms of engineering and cost estimating.

⁸ <http://www.cmap.illinois.gov/sp2030/sp2030main.aspx>

⁹ The Central Area Action Plan is the product of an 18-month planning and prioritization effort, lead and assembled by Mayor Daley. It is a Steering Committee of 30 business and civic leaders that created an actionable plan to achieve the vision defined by the 2003 Central Area Plan. The Chicago Plan Commission passed the Chicago Central Action Plan in a unanimous vote on 8/20/09. The entire plan, along with supporting documents, can be found on the City of Chicago's Web site.

¹⁰ CEI is the ratio of annual improvement cost to annual user benefits. Annual costs include the annualized capital cost and the annual operating/maintenance cost. User benefits are time savings for both existing and new riders. In the FTA process, the CEI must compare the recommended LPA against a "baseline" alternative. This baseline alternative is a low cost alternatives aimed at improving efficiency of the existing system. FTA's website has guidance on the CEI and developing baseline alternatives if more detail is desired.

Of the alternatives evaluated, only the BRT alternative appears to be within range for qualifying for advancement to preliminary engineering within the New Starts process with the potential to obtain 5309 funding for construction. In contrast, under the current FTA criteria, none of the HRT alternatives would qualify to advance into preliminary engineering. The no-build would simply be the continuation of existing and committed projects without a major capital investment as a result of the Alternatives Analysis.

Another measure evaluated in Step 2 was the impact to adjacent property. The no-build would not have right-of-way impacts in the context of this study. Baseline 4 and the BRT alternative would have marginal impacts in comparison to the HRT alternatives and would be basically limited to the area required for the yard and shop. Conversely, all of the HRT alternatives have substantial associated right-of-way impacts. The least expensive of the Ashland/North alternatives have the most extensive right-of-way impacts due to the extent of new elevated structure. Likewise the two Ashland/Ogden alternatives, the Larrabee Incline Option has the most extensive elevated structure, cost the least, yet has the greatest right-of-way impacts. For both HRT alternatives, the tradeoff is that the less expensive options have greater right-of-way impacts.

The current HRT system does have capacity limitations to consider. Obviously, the no-build, baseline and BRT alternatives would not be impacted by the current rail limitations, but all of the HRT alternatives would. Currently, the HRT alternatives have been tested for ridership estimates at 5 minutes service frequencies. However, under specific conditions the capacity limitations would only allow 12 minute service frequency for the Circle Line trains. The reduction of service may or may not reduce the cost-effectiveness of the various build alternatives, but it likely to affect all of the alternatives proportionately.

One differentiating feature among the remaining alternatives is the fact that some provide enhanced transit service in the North/Clybourn area and some do not. The desire to provide enhanced transit service to this growing area is stated explicitly in the Purpose and Need of the project. Specifically, the no-build would be the continuation of existing and planned service. The baseline and BRT alternatives would provide substantial bus service to the area and would facilitate the transfers to and from the Red, Brown and Purple line near North and Clybourn. Likewise, all of the Ashland/North HRT options would provide enhanced service and transfer capabilities to the area, but they would provide transfer opportunities with the Red, Brown and Purple lines near Division and Orleans.

Step 3, which followed Screen 2 public outreach meetings, introduced variations on alignments from Step 2 which potentially would reduce capital cost, address capacity limitations and allow for greater cost efficiencies. Based on public comments, Step 3 also introduced alternatives in the Cicero Avenue Corridor for evaluation. HRT parallel to Cicero Avenue, even if constructed along the existing railroad alignment (also sometimes referred to as the MidCity Transitway), was not cost effective and would require capital investment well over four billion dollars in order to conform to current safety and engineering standards. Variations of the Ashland/Ogden alternatives which address existing capacity constraints along the elevated Loop or in the State Street Subway provided lower potential cost, phasing options, good ridership levels and improved cost effectiveness.

23. Compliment/Complaint/Comment

General Comment:

This section includes general comments, overall viewpoints, observations that can be characterized as public input to the study process, or other comments and questions that do not pertain to the Circle Line. Many comments do not ask a question but rather point out specific views on the subject, which have been noted for the record by the study team. The individual comments can be reviewed in the accompanied Public Comment and Question Database.

Thank you for your feedback.

Pertains to specific comments:

2, 14, 16, 18, 19, 35, 52, 58, 61, 62, 73, 74, 75, 81, 87, 104, 106, 107, 123, 124, 125