Circle Line Alternative

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1 Introduction

The Chicago Transit Authority (CTA) circle line L was first proposed in 2005 as a means to connect several Chicago neighborhoods. The circle line would use the Paulina connector on the west side, and extend it north to the Green Line (rehab old infrastructure). The line would continue northeast and connect into the Brown/Red lines. The circle line would go through downtown, onto the Orange Line, and then continue north on the Paulina connector.

This document is an enthusiast's perspective of a potential circle line for the Chicago Transit Authority (CTA). Several enthusiasts have noted that the Circle line is misplaced, doesn't meet all Metra connectors, and requires much purchasing of private property. The plan outlined in this document is an alternative to that proposed by the CTA.

2 Purpose

The proposal as outlined by the CTA requires much acquisition of private property along the Paulina corridor. The Paulina connector originates from railroad entities predating the CTA, from Cullerton to Division avenues. During the years, sections were allowed to deteriorate, and ultimately close sections north of the Eisenhower expressway. The L north of Lake had been torn down in the 1950's.

The CTA didn't have a way to circulate L trains from the Blue line to the rest of the network, as the Blue line doesn't intersect or use any other L rail tracks. The CTA proposed the circle line, which would rehabilitate the Paulina corridor from the Eisenhower expressway (Blue line Douglas branch) to the Green Line (Lake St). Documents were created assessing the need and viability of the circle line, along with projected costs and ridership[1].

The circle line would be developed in stages, starting with the Paulina connector rehabilitation. Federal and state funding were provided for the project; however, the state mandated that the rehabbed section of the corridor provide revenue service. Thus the CTA created the Pink Line, which services the Cermak branch of the L system. This had the side benefit of running only Blue line trains on the Douglas and O'Hare branches of the system.

Experts have mentioned that the real purpose of the circle line proposal was to only rehab the Paulina connector, and not provide connections between all L lines[2]. Comments from riders and enthusiasts have stated that the proposed corridor for such a circle line is too far east. Aerial photographs show that extending the Paulina connector north and south

[1] http://www.transitchicago.com/news_initiatives/planning/circle.aspx

[2] http://forum.skyscraperpage.com/showpost.php?s=80834f2d23bba04d801f700115d41925&p=5242578&postcount=7809

would require much private property acquisition, for the purposes of tearing down buildings (many of which are homes) in favor of placing an L line.
The proposal in this document will attempt the following:

- Use corridors that will not result in the destruction of many private properties
- Use corridors that will hide the L train for aesthetic reasons.
- Attempt to use corridors where there is room for 2 L train tracks, as well as possible infrastructure to be reused for L transit (such as abandoned bridges).
- Move the circle line to orient it more towards Western Ave.
- Connect all CTA L lines, and incoming Metra lines.
- Attempt to provide an L line that is not at-grade with street crossings.

3 Potential Corridors

This section will identify potential corridors for use for the Circle line. The corridors discussed here do not entertain the possibility of creating L tracks over existing streets, especially major streets. In general, CTA L line infrastructure runs through alleys, expressways, minor streets, or subways. Instead of using streets, the potential corridors must have an unobstructed pathway to reach certain destinations.

3.1 Metra corridors

Metra trains use class 1 railroad lines to enter the city. Most of the rail lines do not have room on the right of way (ROW) to support additional tracks for L service. Additionally, some Metra lines, such as the Southwest Service (SWS) and the Metra Electric provide intra-city stops, and can function as an intra-city transit line. Note that Metra intra-city transit is not considered "rapid transit".

The CTA has a proposal to extend the Red line further south to 115th street, even possibly to 130th street. One of the proposed corridors would build an L line using the ROW along the Union Pacific tracks. The CTA will consider using the ROW along established rail corridors, usually when room allows it. However, the CTA hasn't created an L service that parallels a Metra/freight corridor.

3.2 North corridors

This section discusses possible corridors on the northern part of the city.

3.2.1 Bloomingdale Ave

A rail corridor exists along Bloomingdale Ave from Hamlin St on the west to the Kennedy Expressway on the east. This rail corridor appears to be abandoned, as the rail corridor has much plant overgrowth. This corridor is composed of an embankment and several bridges. The condition of the bridges appears to be deteriorating. This corridor is especially important as it appears to be the only northern intra-city corridor that is unobstructed. This corridor will be used as part of the circle line.

3.2.2 Lincolnwood

A former rail corridor exists starting at the intersection of the Blue line and the Milwaukee district North line. The corridor goes north to Lawrence Ave, and then northeast towards Bryn Mawr Ave.
The corridor splits where the original line goes northeast towards Skokie Northshore Channel Park. The split line goes northwest towards Emily Oak Nature Center, near the Yellow line. The northwest branch contains electrical utility ROW alongside the former railroad. This corridor is interesting in that it is unobstructed by buildings, even though the former rail tracks have been removed. Unfortunately, this corridor is too far north to be effective for any circle line use.

3.3 West corridors

This section discusses possible corridors on the western part of the city.

3.3.1 Paulina

The CTA proposes to use the current Paulina connector to go north to meet the O'Hare Blue line and south to meet the Orange line at Ashland. This corridor has the advantage of cost, in that the CTA can reuse existing infrastructure. This alone would probably save $1 Billion. However, several private properties would need to be acquired and demolished. Many have argued that the circle line needs to go further west, and the Paulina Connector does not accomplish this. Additionally, connecting into the Orange line at Ashland and using the Orange line into downtown fails to adequately move anyone towards the southern part of the city. New Metra stations at 18th street aren't feasible, considering the closeness of their downtown termini. The Paulina connector is not recommended.

3.3.2 Western Ave

On the north side of the Chicago River, a stretch of railroad parallels west of Western Ave. On the south side of the Chicago River, the stretch crosses Western and parallels Western Ave one block east. This is known as the Western corridor. This is currently a freight corridor, serving multiple railroads. This rail corridor has 4 sets of tracks, with room on the western edge for 2-4 more sets. The rail is set upon an above ground embankment, with several bridges spanning roads, as well as the river. Most of the bridges appear to be in good repair. The unused ROW has overgrowth. This corridor has much potential, as it has much ROW, and is near Western Ave. This corridor goes under the Pink, Green, and Blue lines, with stations relatively nearby. Metra also has stations that meet at Western Ave, which could connect into a potential Circle line using this corridor.

However, several railroads have rail connectors into this corridor that would provide engineering issues with use with the CTA. Also, a string of power lines with towers use

this corridor, which also requires some engineering to work-around. Nonetheless, this corridor provides many benefits, and is recommended for use.

3.3.3 Cicero Ave

A few sets of railroad tracks parallels Cicero Ave. Some ROW exists for potential CTA use. This corridor would connect several residential neighborhoods, which could provide access to transit to many people. However, this corridor is too far west, and not very useful at this current stage.

3.4 South corridors

This section discusses possible corridors on the southern part of the city.

3.4.1 40th Street rail

A major rail corridor and rail yard exists between Western Ave and the Dan Ryan Expressway, which parallels 40th St. An old bridge exists where the former Stockyards L line once existed, which crosses the Dan Ryan. A ROW can be dedicated to connect from the Western Ave rail to connect into the Green line. Once in the Green line, travelers can transfer at a mega station at 35th Ave, which connects the existing Red line and Metra Rock Island (RI) stations.

3.4.2 49th Street rail

The 49th street rail is an abandoned rail corridor that can carry up to 4 sets of rail tracks. The corridor is an elevated embankment, with bridges spanning all streets. The corridor starts at Western Ave, and goes east to Wallace Street. This corridor has plant overgrowth. The bridges appear to be in decent repair.

The Circle line could re-use the Orange line along Western Ave, and then turn east along the 49th St. corridor. From there, it could go elevated, and meet the Red line at 47th, and then continue and connect into the Green line.

Such an alignment would require that Metra would create 2 new stations. Additionally, the circle line wouldn't have a way to connect with the Metra Electric line further east. Extending the circle line this far south could possibly serve more residents; however, the alignment is not as symmetrical with regards to the northern alignment. This corridor is not recommended for the circle line, but it may have uses later.

3.4.3 Green line at 63rd

The circle line could use the Orange line tracks, continue south on new ROW tracks along the Western corridor, and meet at 63rd St. The Green line would extend west until the Western corridor tracks. This has the benefit of using the existing Green line infrastructure to go into downtown. Additionally, the Green line East 63rd St could be

extended to the Metra Electric (as it once did in the past), and provide a transfer point to the ME.

However, this location is too far south for the circle line. Additionally, the Green line alignment doesn't transfer with the Red line, and doesn't intersect any existing Metra rail stations along the SWS and RI. This route is not preferred.

3.5 Corridor Map

4 Proposed Route

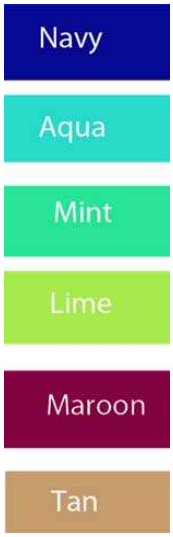
The proposed route would use the Bloomingdale Ave corridor on the north, using the embankment infrastructure. This alignment will intersect the Blue line O'Hare branch, as well as the combined Metra UP-N and UP-NW Clybourn station. Heading west, it would meet up with the Milwaukee District lines, and turn south, either using the ROW of the tracks or an elevated section. The path follows to the rail yards, then turns south onto the western rail corridor. Stations will be placed to provide transfers to the Green, Blue, and Pink lines, as well as the Metra stations on the MD and the BNSF. The proposed path will cross the Chicago Sanitary & Ship Canal (possibly using the existing bridges), provide an Orange Line transfer near 35th and Archer (with a proposed new Metra Heritage Corridor station at the Orange Line station). The route would head east along the rail tracks at 40th street, and intersect into the Green line. If necessary, the circle line route would use the old Kenwood embankment (rather genius, in my opinion) to go towards the Metra Electric line (possible future "Gray" line[3]), with a proposed station at Oakland Blvd. The Oakland station would also provide bus transfers along Lake Shore Drive.

The Circle line would use the existing L infrastructure and go through downtown. The Circle line would use the Green line heading north at 40th street, and stop at a brand new mega station at 35th street. This new mega station will allow transfers between the Green and Red lines, as well as the Metra RI station. Metra could create a SWS station at 35th street to extend the mega station concept. Along the Green line, the Circle line can either go through the subway downtown at the Green line subway connector, or stay above ground and go around the loop. If such a project were approved, a possible bonus could be reconstruction of the Brown line from the Loop to North/Clyborn, eliminating many curves.

4.1 Colors

Potential color codes to be used.

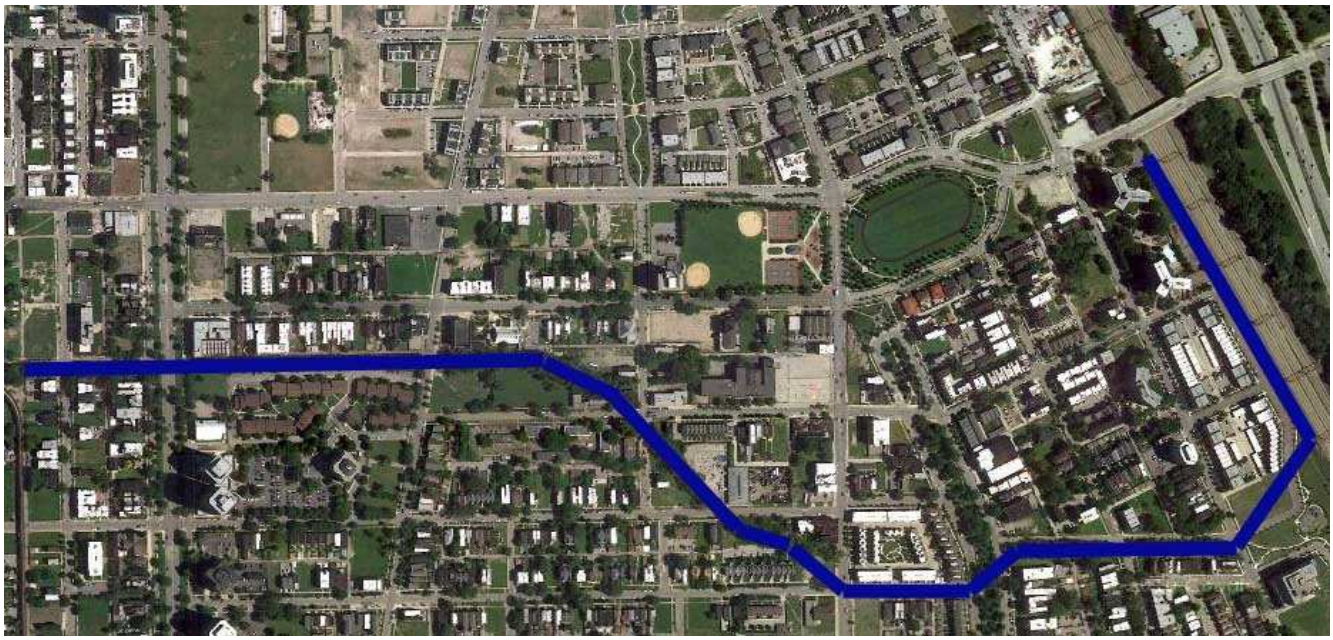
[3] http://www.grayline.20m.com/


Navy
Aqua
Mint
Lime
Maroon
Tan

4.2 Route Diagram

The route is shown in the “Navy” color.

4.3 Kenwood extension



5 Advantages

The following are listed as advantages for the proposed alignment

1. Humboldt Park Access – Five or more stations created along the northern segment provides access to the Humboldt Park neighborhood. From there, residents could access any of the other CTA lines via the Circle line.
2. Pershing Road Access – New stations at Pershing/Ashland and Pershing/Halsted allow new CTA L access to residents.
3. Connection to all CTA L lines – All current CTA L lines are connected, along with a proposed Kenwood branch that could access a proposed "Gray" line.
4. Metra Station connections – This route will use the following existing Metra stations:
    a. Clybourn (UP-NW and UP-N)
    b. BNSF Western
    c. Western (MD-W and MD-N) – The station is a couple blocks away.
    d. RI 35th.

    Potential station transfers with Metra:
    a. SWS at 35th St, for a mega station.
    b. HC at 35th/Archer for Orange Line
    c. Western Ave for UP-W, near the MD Western station.

5. Circle route follows Western Ave.
6. Mega station at 35th – Consolidates a transfer point between Red and Green lines, with access to the RI Metra station.

7. Symmetry – The north and south access corridors are nearly symmetrical, meaning that no part of the city is favored over another.
8. Airport Access – Residents on the west side have easier access to transfers to the Orange or Blue lines to take them to Midway or O'Hare, respectively.

6 Challenges

The following are listed as challenges – obstacles to implementation.

1. Cost – The cost of the project will probably run between $4 and $6 billion. Most of the cost will be to acquire rights of way, lay track, rehab bridges, etc. The CTA does not receive enough revenue to perform general maintenance, and must rely on federal funding.
2. ROW access – the ability to acquire the ROW may be obstructed by several railroads. Additionally, some corridors may not have enough ROW to provide for 2 sets of rail tracks. This is especially a concern along the MD track alignment.
3. CREATE and ROW engineering – A rail project to improve rail speed and reduce delays (CREATE[4]) adds complexity to the engineering of the CTA ROW. Several projects impact the Western corridor, including a BNSF rail connector, as well as an underpass/overpass for the CN lines which provides the Metra Herritage Corridor (HC) service. This construction would impact the ability to reuse some existing infrastructure, mainly the rail bridge over the Chicago Sanitary and Ship Canal.
4. Metra/CTA interoperability – Currently the CTA and Metra do not have an interoperability agreement where a resident would get a discount for transferring between services. This is biggest potential problem of the proposed Gray line. However, Metra inter-connection doesn't have to be the first priority of the given alignment.
5. Long transfer tunnels – Many of the existing stations are somewhat far from the proposed alignment, some as much as 3 blocks. Providing transfer operations would require long tunnels between L lines and Metra stations.
6. "Not Invented Here" – Considering that this is an enthusiast proposal, certain professional elements may reject the proposal.
7. Rail yards – This proposal does not consider locations needed for rail yards for the circle line.

7 Key Takeaways

The important note about this route is the need to acquire rights of ways, before development overtakes them. This is especially true for the former Kenwood L branch, where one part of the embankment has been destroyed and redeveloped into housing. Other existing rail corridors may also be demolished for other potential uses.

[4] http://www.createprogram.org/