Chicago Union Station Master Plan Study

Final Report

Prepared For:

CDOT
CHICAGO DEPARTMENT OF TRANSPORTATION

In Cooperation With:

AMTRAK

Metra®

cta

Regional Transportation Authority

Chicago Metropolitan Agency for Planning

Illinois Department of Transportation

MetropolitanPlanningCouncil

U.S. Department of Transportation
Federal Railroad Administration

The Department of HOUSING and ECONOMIC DEVELOPMENT

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UNION STATION MASTER PLAN

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Prepared For:

Chicago Department of Transportation

In Cooperation With Stakeholders Including:

Amtrak

Metra

Chicago Transit Authority

Regional Transportation Authority

Chicago Metropolitan Agency for Planning

Illinois Department of Transportation

Metropolitan Planning Council

U.S. Department of Transportation

City of Chicago Department of Housing and Economic Development

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Photographs were taken by TranSystems unless otherwise noted.

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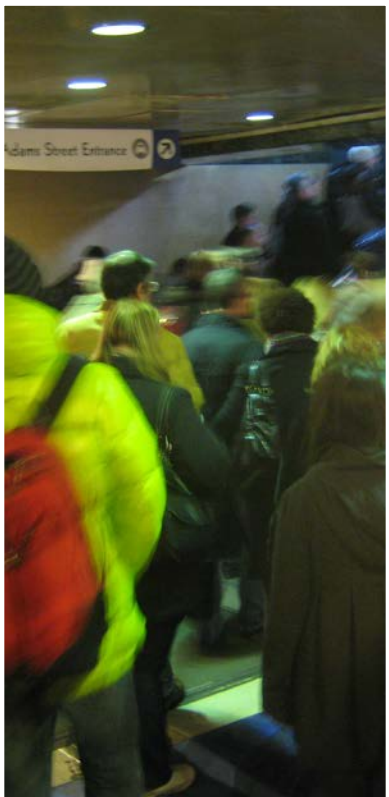
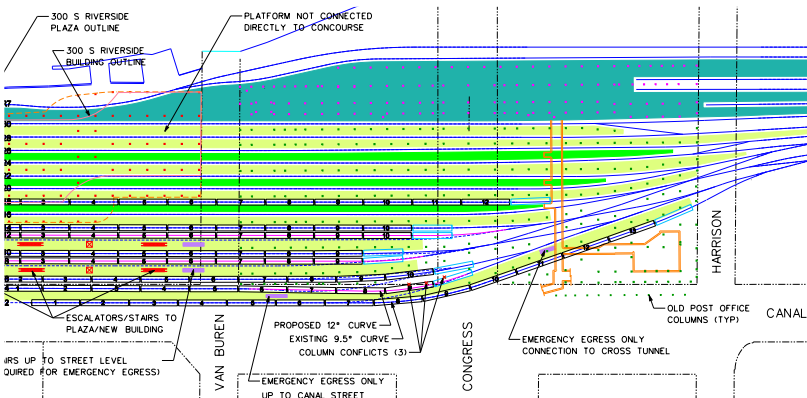




Overview

The Chicago Department of Transportation (CDOT) has conducted the Chicago Union Station Master Plan Study in a collaborative effort with extensive participation from Amtrak (the station's owner), Metra (the station's primary tenant), and other stakeholder organizations. The current planning efforts represent a continuation of the City of Chicago's longstanding interests in improving passenger transportation and interchange facilities in the Union Station area, consistent with the City's Central Area ACTION Plan of 2009 and the Chicago Metropolitan Agency for Planning's GO TO 2040 regional plan.

Union Station is one of the region's key transportation facilities and economic drivers. It is the third-busiest railroad terminal in the United States, serving over 300 trains per weekday carrying about 120,000 arriving and departing passengers – a level of passenger traffic that would rank it among the ten busiest airports in the U.S. Most travelers at Union Station take Metra commuter trains. The Station is also the hub of Amtrak's network of regional trains serving the Midwest as well as most of the nation's overnight trains, which connect to the Atlantic, Gulf, and Pacific coasts.

This Study identifies potential ideas for adding tracks and platforms, as well as possible opportunities for improving passenger flows. Short, medium, and long-term opportunities have been identified to assist Amtrak, Metra, and other station stakeholders in preparing for these future improvements.

Goals of the Study

* Provide sufficient capacity for significant increases in Metra and intercity passenger train ridership
    * Estimated 40% increase in trains by 2040
    * Possible significant further increases
* Make the terminal more inviting for passengers
* Provide more direct and convenient transfers to buses, CTA trains, taxis, shuttles, pick-up/drop-off
* Create a terminal that is vibrant, a civic asset, and a catalyst for growth in the West Loop and region

Existing Conditions

Today's Station originally opened in 1925, and was designed primarily to serve long distance trains, including large amounts of mail and express traffic. Significant alterations were made to the station's Concourse level, located east of Canal Street, in 1970. Soon after Amtrak was established in 1971, it concentrated all intercity passenger train operations in Chicago at Union Station. Amtrak gained ownership of Union Station in 1984 and completed a major re-modeling in 1992. Amtrak is currently planning further improvements to the station in 2012 and beyond.

Most passenger station activities today take place in the Concourse area of the station, which now often operates at or close to capacity. In addition, station activity is constrained by street-level conflicts between taxis, buses, automobiles, shuttles, pedestrians, and bicycles. Continuing growth in both commuter rail service and Amtrak long distance and intercity passenger rail service, combined with the potential for future growth in high-speed intercity passenger rail, has compelled the City and affected railroads to consider future options for accommodating further growth in station traffic.

South concourse in morning rush hour

Planned Short Term Station Improvements

Several station improvement projects currently have funding committed for implementation during the next few years.

Amtrak Improvements

Amtrak is currently making a number of improvements that will enhance passenger conditions and amenities within the Station and reduce crowding. Installation of air conditioning in the historic headhouse building was completed by Amtrak in 2011. During 2012-13, Amtrak plans to replace the unsightly and obstructive concrete security barriers at major station entrances with more functional bollards. Amtrak also plans to relocate its Metropolitan Lounge facility into the headhouse building. This lounge is where sleeping car passengers wait before boarding their train, and is very well used as Chicago is served by more overnight trains than any other Amtrak station. After this is move is completed the existing main waiting area will be nearly doubled in size, incorporating the space occupied by the old Metropolitan Lounge. The waiting room improvements and addition of new rest rooms are currently being budgeted and scheduled by Amtrak.

CDOT Improvements

Two upcoming CDOT projects will improve local street traffic flow and curbside access to Union Station. The Central Area East-West Bus Rapid Transit project will improve bus lanes adjacent to the station on Clinton and Canal streets and provide enhanced Chicago Transit Authority (CTA) bus connections

between the station and the Central and East Loop areas. The Union Station Transportation Center project will create an off-street bus terminal located on the site of the existing surface parking lot south of Jackson, between Canal and Clinton (immediately north of the Amtrak-owned parking garage). It will provide direct, weather protected connections between the station and CTA buses while also relieving congestion on some of the nearby streets. Both of these CDOT-led initiatives are currently being designed and are scheduled for construction in 2013-2014.

Proposed Medium Term Station Improvement Ideas

This study has proposed several ideas for medium term improvements to be studied further and implemented over a 5-10 year horizon.

Convert baggage platforms for commuter use

Union Station features special baggage platforms that alternate with the passenger platforms on either side of the terminal tracks. Today many of these baggage platforms are seldom used, and the space they occupy could be better allocated to relieve crowding on the relatively narrow platforms that primarily serve commuter train passengers. It is proposed to remove two of the baggage platforms on south side tracks that are used almost exclusively by Metra commuter trains. Two tracks could then be relocated into the space now occupied by baggage platforms, allowing the adjacent passenger platforms to be widened to about 22 feet. That would be wide enough to permit the construction of stairs, escalators or elevators to provide direct access between the platforms and street level. These improvements would relieve overcrowding by both adding space and providing the opportunity for passengers to exit without going through the Station concourse.

Convert unused mail platform for intercity passenger train use

Another vestige of an earlier time is the large unused "mail platform" located between the station's south tracks and the Chicago River. It is proposed to convert this space to passenger platforms served by tracks from both the north and south, which could add critical capacity to accommodate growth in intercity passenger train operations. Under the mail platform there is an existing underutilized basement area with high ceilings, as well as a below-grade passageway connecting this area to the basement under the existing passenger waiting areas. The space under the repurposed mail platforms could be redeveloped into a dedicated departure lounge and food service areas for the new passenger platforms, while the below-grade passageway could be renovated as a formal walkway connection to the existing station's concourse and waiting areas.

Enhance existing passenger station facilities to improve flow

This study has developed ideas to more boldly reconfigure space within the existing concourse area to increase capacity and overall station utility for peak period crowds. The goals would be to open up the concourse to:

* Improve circulation and relieve congestion, particularly during peak periods and in the event of a major train delay
* Improve sight lines, so that people can more easily see where they want to go
* Expand capacity to allow for bi-directional access at major points of vertical circulation

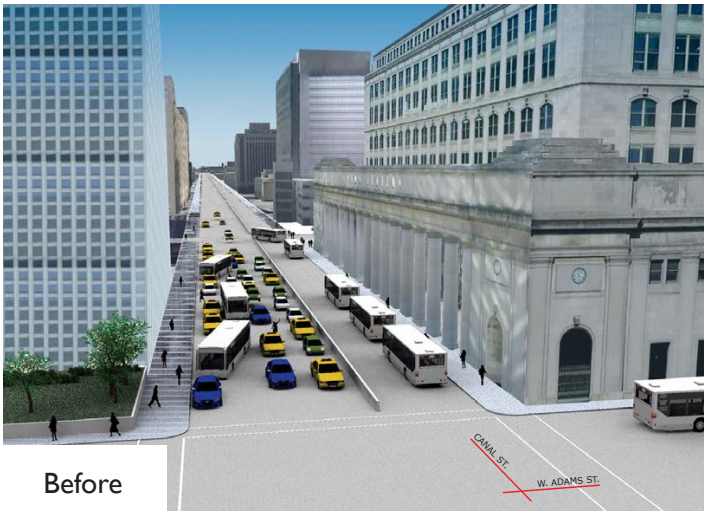
As shown in the BEFORE (top) and AFTER (bottom) images to the left, reallocating baggage platform space would allow for passenger platforms to be widened and vertical circulation to be added.

Some existing facilities on the concourse-level, such as Amtrak's ticket office, the passenger service area, rental car counter, and newsstand may be relocated to the historic headhouse to free up space for these circulation improvements in the concourse area.

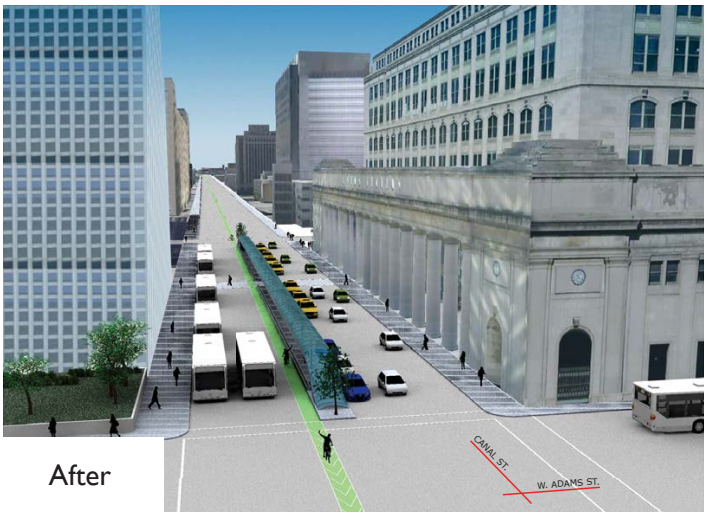
Rebuild Canal Street viaduct in a manner that improves street access

Key segments of Canal Street are on a viaduct structure over Union Station's tracks. Constructing station tracks under the viaduct was an original design feature to increase the capacity of Union Station, and in the block between Adams and Jackson, the Canal Street viaduct forms the ceiling over an integral part of Union Station's passenger concourse. The viaduct was constructed in conjunction with the station, and is at the end of its design life. CDOT is planning to rebuild the viaduct later this decade and the Master Plan Study team has investigated whether some modifications could and should be made to the future replacement viaduct design to help in achieving the study goals, rather than simply replacing the structure exactly as it was originally built. Chief among these ideas would be creating traffic islands in Canal Street to add curb space for pick-up and drop-off traffic. This would be similar to pick up lanes at an airport terminal, with channelized traffic and parallel curbs. As part of the viaduct reconstruction project, direct stairs/escalators could be added between street level along Canal Street and the track/concourse level immediately below.

Planned reconstruction of Canal Street will provide an opportunity for improved street access as shown in the BEFORE (top) and conceptual AFTER (bottom) images to the right



Before



After

Possible Long Term/Visionary Station Improvement Ideas

The study has developed concepts for increasing passenger handling capacity and improving the traveler experience by significantly expanding or completely replacing the existing intercity and/or commuter station facilities. These plans include two alternatives:

* Development of a new passenger train station facility in the 300 S. Riverside block, to be constructed on air rights over Union Station's south tracks (which are owned by Amtrak) and integrating parts of the existing office building on this block
* Development of a completely new commuter and intercity passenger train station in the 200 S. Riverside block (replacing the structures currently on this block)

The study has also investigated two concepts for adding additional track and platform capacity in underground alignments that bypass and augment Union Station's existing track and platform infrastructure. These plans would entail construction of functionally equivalent subway tunnels on one of two alternative alignments, Clinton Street or Canal Street.

Placemaking

The Union Station Master Plan Study team has worked closely with a Civic Advisory Committee established by the Metropolitan Planning Council to advance the goal of creating a transportation terminal that is vibrant, a civic asset, and a catalyst for growth in the West Loop and region, as well as exploring innovative financing strategies for the overall redevelopment effort. These placemaking principles call for the station's redesign to favor the creation of vibrant public spaces that have the potential to transform an imposing historic structure into one that invites interaction with its users and the surrounding city. Through the planned investments, the station should not only evolve into an efficient intercity and regional railroad hub, with easy connections to other transit modes, but also become a truly great place that attracts travelers and non-travelers alike.

Public Input

A public meeting was held as part of the Union Station Master Plan Study during the late afternoon/early evening of Thursday, December 15, 2011 at Union Station's Union Gallery Room. The meeting utilized an open house format so that attendees could browse through numerous exhibits and discuss issues individually with staff from stakeholder agencies and the consultant team. A narrated presentation was delivered at two times during the open house. Approximately 200 people attended the event, and 67 of the attendees completed questionnaires on site. Additional comments from 30 people were also submitted by the Midwest High Speed Rail Association at the meeting, and 30 more comments were received online at the project website. This feedback was incorporated into the study's findings and recommendations.

Next Steps

This master planning study has advanced and developed numerous ideas that are intended to address major functional and operational issues affecting Chicago Union Station in the short, medium, and long term. The next steps for these ideas vary, but all involve proceeding with further planning, design, and/or construction to achieve the expected benefits. The overarching objective is to move each of these projects from ideas into construction and operation.

The Short Term ideas described in this report are already well advanced in planning and design, and in the case of CDOT's off street bus terminal and improved bus lane projects grant funds have been obtained for their construction. Several near term Amtrak customer facility improvement projects have also had their design work largely completed, but construction is not yet funded. Obtaining funding to complete these initiatives, as well as addressing Amtrak's outstanding "state of good repair" needs throughout Union Station should be a priority next step.

The Medium Term projects that have been identified are all focused on resolving serious operational shortcomings that have a direct impact on the ability of Union Station to serve a growing number of passengers. These projects will require further planning analysis and design work before they are ready to be funded for construction. The next stage of the CDOT-led Union Station Master Plan Study, involving simulation of train, station, and nearby street operations, is to begin later this year. This analysis will more precisely quantify the capacity increase that may be expected from each of the Medium Term ideas. It will effectively determine just how long the "medium term" is likely to be, and how soon the stakeholders will need to begin more serious consideration of the "long term/visionary" ideas for increasing capacity and improving the station's functionality.

The Medium Term ideas have thus far been conceived such that each of them would complement and not preclude or make more difficult the implementation of any of the more complex and expensive Long Term/Visionary ideas. However, the Long Term/Visionary ideas include two mutually exclusive alternatives for adding track and platform capacity via new underground alignments, as well as two other mutually exclusive alternatives for creating new station building facilities in either the 200 or 300 block of South Canal Street. Further analysis and public/stakeholder consultation will be needed to assess and determine the relative merits of each of these proposals and to decide which alternatives should advance towards implementation.

A new intercity passenger train station could be constructed in the 300 S. Riverside block, integrating part of the existing office building on this block as well as Amtrak-owned air rights

UNION STATION
MASTER PLAN

1 - Introduction

Main entrance to Union Station located on S. Canal Street

The City of Chicago's Department of Transportation has been conducting the Chicago Union Station Master Plan Study in a collaborative effort with extensive participation from Amtrak (the station's owner), Metra (the station's primary tenant), and other stakeholder organizations. All stakeholders were represented on a Technical Advisory Committee for this study, which met five times as the study progressed.

Union Station is one of the region's key transportation facilities and economic drivers. It is the third-busiest railroad terminal in the United States, serving over 300 trains per weekday carrying about 120,000 arriving and departing passengers – a level of passenger traffic that would rank it among the ten busiest airports in the U.S. Most travelers at Union Station take Metra commuter trains. The Station is also the hub of Amtrak's network of regional trains serving the Midwest as well as most of the nation's overnight trains, which connect to the Atlantic, Gulf, and Pacific coasts.

Today's Station originally opened in 1925, and significant alterations were made to the Concourse level, located east of Canal Street, in 1970. Soon after Amtrak was established in 1971, it concentrated all intercity passenger train operations in Chicago at Union Station. Amtrak gained ownership of Union Station in 1984 and completed a major re-modeling in 1992. Amtrak is currently planning further improvements to both the Concourse and the headhouse in 2012 and beyond.

Entrance to Union Station near W. Adams Street, existing conditions

Most passenger station activities today take place in the Concourse area of the station, which now often operates at or close to capacity. Continuing growth in both commuter rail service and Amtrak long distance and intercity passenger rail service, combined with the potential for future growth in high-speed intercity passenger rail, has compelled the City and affected railroads to consider future options for accommodating further growth in station traffic.

Based on passenger traffic, Union Station would currently rank among the ten busiest *airports* in the country.

The current planning efforts represent a continuation of the City of Chicago's longstanding interests in improving passenger transportation and interchange facilities in the Union Station area. The City's Central Area Plan of 2003, and related studies in the years immediately preceding its release, brought together a coordinated group of proposed transportation improvements in the West Loop under an overall concept called the "West Loop Transportation Center" (WLTC). The WLTC concept attracted wide publicity and support and was reaffirmed in the City's Central Area ACTION Plan of 2009 (CAAP). In addition to building upon the WLTC concept, the Union Station Master Plan Study addresses all related "Goals and Needs" identified in the CAAP:

* Improve transit in the Central Area
    * Serve growth in transit trips
    * Improve transit service coverage & options
* Increase regional transit capacity
* Improve the pedestrian environment
* Manage traffic circulation
* Encourage alternative modes (such as bicycles and water taxis)
* Improve national & international connections
    * Accommodate Midwest high-speed rail
    * Improve access to airports

In 2010 the Chicago region adopted its current comprehensive regional plan, *GO TO 2040*. This plan recognized that the West Loop Transportation Center would be necessary to meet significant regional transportation needs. WLTC was therefore identified as a regional priority and included on the list of Fiscally Constrained Projects which will move ahead towards implementation. This priority designation indicates that the WLTC concept has a higher status than other concepts which have not been adopted as a priority by the region. The following WLTC project description is excerpted from *GO TO 2040*:

West Loop Transportation Center

The West Loop Transportation Center is a proposed transportation terminal located between the Eisenhower Expressway and Lake Street in Chicago. The terminal structure for the West Loop Transportation Center is envisioned to improve transfers between intercity rail, potential high-speed rail, commuter rail, rapid transit,

and bus services. The proposal also includes increased capacity for Chicago Union Station, which serves several commuter and intercity passenger rail services.

This project will provide a focal point and a gateway into the Chicago region and facilitate movements and connections throughout the region. Incorporating and integrating seamless transit connections with elements of urban design focused on this transit center will be important to facilitating the Chicago region as the Midwest hub for high-speed rail, as well as increasing transit usage and promoting economic development opportunities. Travelers from outside the region can safely arrive at this station and have a number of connection options at their discretion to access the city or the suburbs. For those residents within the region, this project will offer easier access from Metra commuter trains and various points within the city whether by bus or El line. (GO TO 2040, p. 279)

The West Loop Transportation Center will help transform the West Loop/Union Station area into a gateway to Chicago and a well-functioning transportation hub. WLTC comprises a broad range of related improvements that may be implemented incrementally to achieve these goals.

This Master Plan Study addresses the WLTC goals and represents the next step in advancing WLTC implementation consistent with the *GO TO 2040* regional plan. The Study identifies ideas for adding tracks and platforms, as well as opportunities for improving passenger flows. Most passenger station activities today take place in the Concourse area of the station, which is now overcrowded during the busiest times of day. Short, medium, and long-term opportunities are identified ranging from re-purposing platforms originally designed for handling mail, to better connections to other rail and transit services, to the construction of new multilevel subways. In addition, the study examines strategies for transforming Union Station into a West Loop destination and thriving economic development engine. This Study, consistent with and building upon CDOT's previous planning efforts, will assist Amtrak, Metra, and other station stakeholders in preparing for these much needed future improvements.

Union Station Master Plan Study Goals

* Provide sufficient capacity for significant increases in Metra and intercity passenger train ridership
  * Estimated 40% increase in trains by 2040
  * Possible significant further increases
* Make the terminal more inviting for passengers
* Provide more direct and convenient transfers to buses, CTA trains, taxis, shuttles, pick-up/drop-off
* Create a terminal that is vibrant, a civic asset, and a catalyst for growth in the West Loop and region

UNION STATION
MASTER PLAN

2 - History

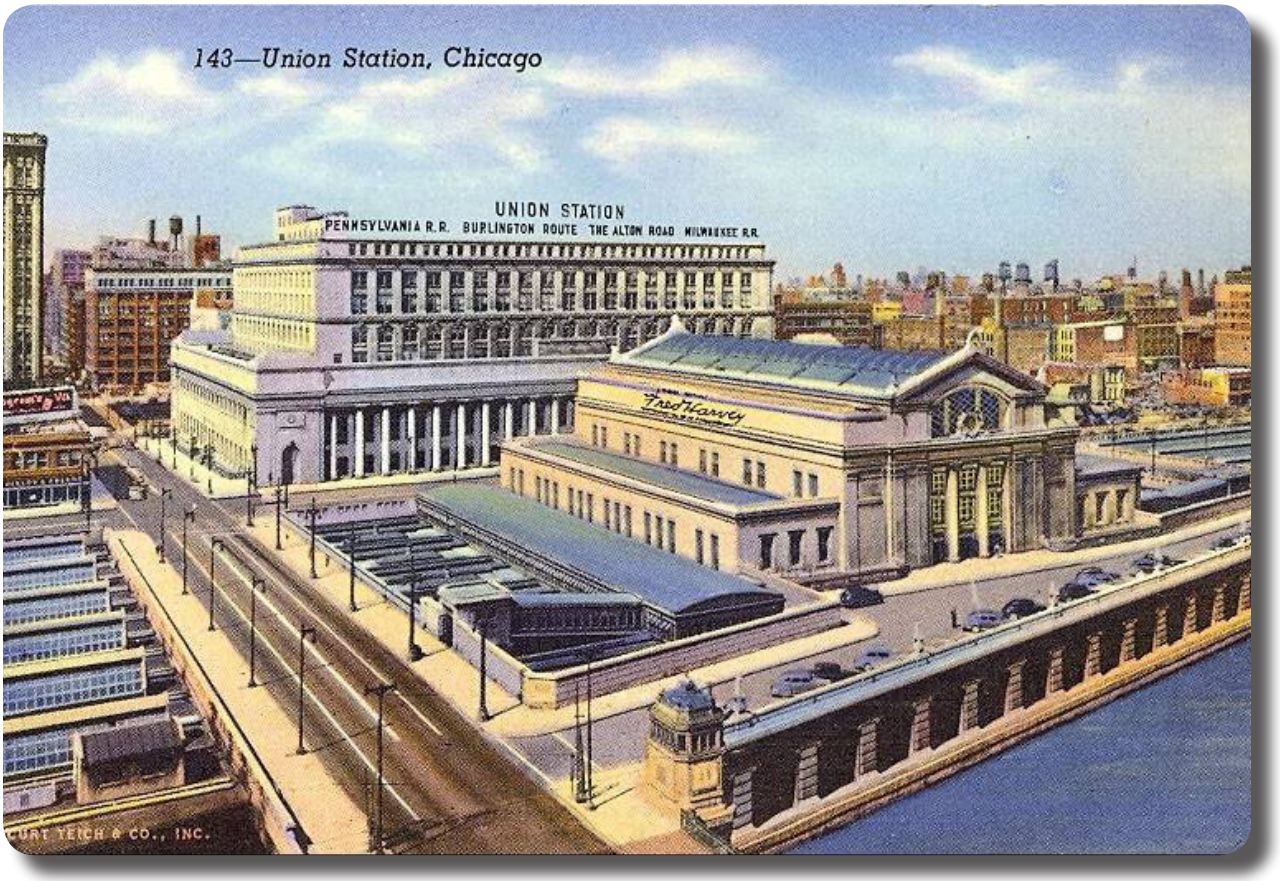
Interior of the original Chicago Union Station concourse building, facing west from the riverfront entrance

(University of Arizona Library/Fred Harvey Collection)

Chicago Union Station opened in 1925. It replaced the Union Depot that had been built on essentially the same site in 1882. It was necessary to replace that station because it lacked the capacity to handle the number of trains and passengers that had been growing rapidly during this period. The new station was built by the Chicago Union Station Company (CUSCo) which was established in 1913. CUSCo was owned by the Pennsylvania Railroad (50%), the Chicago, Burlington, and Quincy Railroad (25%), and the Chicago, Milwaukee, and St. Paul Railroad (25%). The Chicago and Alton Railroad, the only other user, was always a tenant.

The Station Layout

Several features that were incorporated in the new station's design retain their great significance today. The concept for the layout of tracks, platforms, and passenger facilities for Union Station was developed by the Pennsylvania Railroad. The station structure itself was designed by Graham, Burnham & Company. A major feature was the construction of many viaducts carrying roadways over the tracks, replacing older viaducts or, in two cases, creating new grade separations between rail routes and local streets. While the old Union Depot was basically a through station, it was not used in that way as no trains operated through. Thus, the new Station was created as essentially two stub-end stations. Only two through tracks were retained alongside the River, and only one of these is on a platform. The other was intended primarily to transfer freight and mail cars between railroads. To maximize space available for tracks the Station's headhouse, all of the station's support facilities (including the ticket office, waiting room, restaurants, shops, taxi courts,



Chicago Union Station, as it appeared upon completion in 1925. The Original Concourse Building, demolished in 1968, is in the foreground. (Chuckman Collection)

and offices) were located west of Canal Street. Some of the Station's increase in capacity was achieved by locating some of its passenger platforms and tracks under a structure supporting Canal Street (the Union Depot had been entirely east of Canal). The headhouse and concourse were, in effect two separate buildings, functioning seamlessly as a single building below street level. From the inside there's no hint that part of the "building" is under Canal Street. For a time, 22 stories of office space were planned for construction above the headhouse but, in the end, this was reduced to eight stories. The final design of the station was produced by Graham, Anderson, Probst, and White, which succeeded the previous firm after Daniel Burnham's sons left the firm.

An 'L' station was located directly above the south tracks and connected to the concourse via a direct walkway, but was removed from service in 1958.

An 'L' station was located directly above the south tracks, midway between Jackson and Van Buren, with the concourse connected via a direct walkway protected from the weather. This was removed from service in 1958 when the Metropolitan 'L' branch was replaced by the Congress subway; since then the closest rapid transit station has been the subway station at Clinton/Congress.

When Union Station opened, the vast majority of trains were intercity passenger trains. Relatively few people lived in Chicago's suburbs and commuter train services were a very small proportion of the Station's activities. Virtually all trains carried U.S. Mail and express packages (express package service, similar to today's United Parcel Service or Federal Express, was handled by the Railway Express Agency, a nationwide company owned jointly by the railroads). Some trains were operated predominantly or, even, exclusively for this traffic. The Station was designed with features intended to allow this traffic to be handled efficiently. Separate "baggage platforms" were built alternating with the passenger platforms which allowed passengers to board or alight from one side of a train without conflicting with baggage mail and express handling activities, such as food service stocking, on the other side at the same time. The baggage platforms were designed free of column obstructions (which were, instead located on the passenger platforms) with a ramp down to the basement where baggage, express, and mail was sorted. This feature is thought to be unique to Chicago Union Station. The basement of the contemporary "mail handling building" (which was later integrated into the new main post office when it was subsequently constructed over the south tracks), was connected to the Union Station basement with a new tunnel designed for use by electrically drawn carts.

Separate platforms for handling baggage and mail were a unique feature of Union Station (Jack Delano, 1943 - Library of Congress)

The Metropolitan 'L' traveled east-west between Jackson and Van Buren but was replaced in 1958 by the Congress subway. The photo above is from 1924, prior to completion of Union Station so canopies do not yet cover the tracks and platforms below. To the left, the photo shows the sign in the concourse that directed passengers to the walkway to the 'L' station. The aerial image below, showing Canal 'L' station adjacent to Union Station, is from 1958, prior to demolition of the 'L'.

Top: CTA

Middle: Jack Delano, 1943 - Library of Congress

Bottom: Bruce Moffat Collection

The station handled voluminous amounts of mail
(Jack Delano, 1943 - Library of Congress)

Construction

Construction consisted of many projects, most of which were required to create the space required for the greatly increased amount of station track and platforms: new grade separation viaducts, new railroad freight houses, and utility relocations. Work started in 1915, but the process was painstakingly slow because of the need to maintain ongoing train operations at all times, several labor strikes, shortages of labor and material caused by World War I, the 26 month long period in which operation of the nation's railroads was taken over by the federal government, and the depression that followed the War. Work on the station buildings re-started in earnest in 1922. When the Station opened it was hailed as a great marvel. Railway Age magazine, the industry's primary trade journal, devoted an issue with a 22 page article (see Appendix A) describing its many features.

The first building to be built on air rights in Chicago was the Daily News Building (now the 2 N. Riverside Plaza building) built over the north end of the north platforms in 1929. The new Post Office (now the old Post Office), also built on air rights, was completed in 1932. This building integrated into the previous mail handling building, under which Union Station's mail platforms were located.

Station Usage

Although the growth in automobile usage was starting to affect intercity passenger train ridership, particularly on local trains, usage of Union Station was fairly constant (declining from about 390 to 365 trains per weekday) until the start of the Depression. There were major ridership declines and, in turn,

The Union Station design reflected the fact that almost all trains used to carry U.S. Mail and express packages.

a significant number of trains were discontinued during the 1930's. A bright spot was the introduction of streamlined trains, starting with the Twin Cities Zephyr in 1935. This began the use of diesel locomotives, to replace steam.

Ridership on intercity trains increased tremendously during World War II, with over 100,000 passengers per day, on about 400 weekday trains. While the number of passengers today is higher (about 118,000 on weekdays) the number of trains is significantly lower (about 320) because of the greater number of passengers per train (many of today's commuter trains carry over 1500 passengers, using double-deck cars). With the focus now on commuter trains, today's operations are also much more concentrated in the peak periods.

After the end of the war intercity ridership resumed its decline despite the massive investment in streamlined trains with air conditioning and other former luxuries becoming common. The Burlington introduced dome cars in 1945, a feature quickly adopted by all of the western railroads, which had adequate clearances. The Burlington also developed bi-level commuter cars in 1950. These were designed, specifically, to reduce the number of cars required for its growing suburban service as CUSCo charges were based on the number of cars brought into the Station. Another efficiency in commuter train operation was the introduction of push-pull service, avoiding the need to turn locomotives. The conversion of all Union Station operations from steam to diesel locomotives was completed in the mid 1950's. The number of Milwaukee Road long distance trains increased temporarily with the 1955 switch of the Union Pacific's Western trains from the Chicago and Northwestern. However, on the Burlington and Milwaukee Road suburban trains, ridership increased markedly with the postwar development of the suburbs despite the construction of the expressway network. Development around Union Station also continued during this period and by the early 1960's the north side tracks disappeared from view with the construction of the 10 and 120 South Riverside buildings.

The 1960's were a hard time for intercity passenger trains with the near-completion of the Interstate Highway System, widespread use of jet aircraft and the wholesale cancellation of mail contracts (a major source of railroad revenue) by the Post Office in 1968. Intercity passenger trains were discontinued at a rapid pace during this decade. The Pennsylvania Railroad sold the air rights above Penn Station in New York City and it was demolished in 1964. Demolition of the Chicago Union Station Concourse Building followed in 1968 (the Penn Central Railroad, product of the 1968 merger of the Pennsylvania and New York Central Railroads, was still the majority owner of

During World War II 100,000 passengers per day passed through Chicago's Union Station
(Jack Delano, 1943 - Library of Congress)

Union Station). By that time, neither the Penn Central, nor its partners in the ownership of CUSCo, had a long term interest in continuing passenger train service and they allowed the developers of the air rights building built on the site of the Union Station concourse to provide minimal facilities for the handling of passengers -- in what was obviously the basement of their building. It was quickly apparent that passenger facilities that remained were woefully inadequate.

Intercity passenger trains were discontinued at a rapid pace during the 1960's.

Amtrak and Metra

In 1970 Congress passed the law that created Amtrak, the quasi-governmental agency that now operates all intercity passenger trains in the United States. The law's most immediate impact was a moratorium on the discontinuance of passenger trains. The U.S. Department of Transportation issued its map of the "Basic System" to be operated. Amtrak started service May 1, 1971, consolidating almost all of its service in Chicago at Union Station (the final Amtrak service relocation to Union Station was completed in 1972).

In 1976 the freight railroads of the northeastern United States were also consolidated into a government owned railroad called Conrail. The Milwaukee Road entered bankruptcy in 1977. In 1981 Congress passed key legislation resulting in major regulatory changes to Conrail and the entire freight rail industry. One result was that the ownership of CUSCo was turned over to Amtrak in 1984.

Meanwhile, a similar process occurred in the commuter rail field. In the Chicago area, the Regional Transportation Authority (RTA) was created in 1974. It took responsibility for funding operations of the commuter services previously provided by the private railroads. Over the next few years it purchased railroad assets used predominantly for commuter operations and in some cases directly hired the operating staff (this approach was utilized in the case of the Milwaukee Road's commuter lines at Union Station). In other cases, commuter railroad ownership remained with the private railroads but the operations were supported using purchase of service contracts (this applies to the former Burlington commuter service at Union Station, now operated by BNSF). In 1983 there was a major reorganization of the RTA which included the creation of Metra, a semi-autonomous "service board", with its own Board of Directors. This agency continues to have responsibility for Chicago's commuter rail network, including the six routes operated from Union Station (BNSF, Milwaukee District North, Milwaukee District West, SouthWest Service, North Central Service, and Heritage Corridor).

When Union Station opened, the majority of trains were intercity passenger trains traveling across the country. Today, most trains serve suburban commuters.

Metra opened the Madison Street entrance to six north side tracks in 1987. Also in 1987, Amtrak began a major remodeling of Union Station focused on improving the quality and passenger handling capacity of the "basement concourse" that had been created nearly 20 years earlier. This work was completed in 1991. As part of this effort all Amtrak and Metra passenger-handling functions (ticketing, waiting, and other support activities) were moved out of the Great Hall with the intent of redeveloping that side of the station complex separately from the passenger facilities. Since then, three successive developers have attempted to accomplish such a redevelopment. Key to all of them has been the concept of constructing 15 or more additional stories above the Great Hall. Of course, this was as originally planned by the station's architects and the building's caissons could support this. All of these redevelopment plans for the Great Hall building proposed multi-use facilities, typically combining retail, hotel, office, and condominium elements, but none included transportation facilities. However, none of those redevelopment efforts have been successful, and Amtrak's current plans call for re-integrating transportation functions into the Great Hall building in addition to mixed-use redevelopment.

Primary Sources of History Section:

DeRouin, Edward M., *Chicago Union Station, A Look at Its History and Operations Before Amtrak*, Pixels Publishing, 2003.

Kitt Chappell, Sally A., *Architecture and Planning of Graham, Anderson, Probst, and White*, 1912-1936, University of Chicago Press, 1992.

Review of the draft by Fred Ash is acknowledged with appreciation.

3 - Background

South Concourse in morning rush hour

Union Station now often operates at or close to capacity. Weekday rush hour ridership is higher now than at any time in the past and growth is expected to continue. Union Station will also be the hub for the planned network of improved and high speed intercity passenger rail routes in the Midwest. This is expected to further increase the rate of growth in train operations and passengers. A tabulation summarizing the estimated increases in ridership, and associated likely increases in train operations, is presented later in this chapter.

The issues that affect the current station facility can be grouped into the following categories:

* Street Access Issues
* Station Congestion Issues
* Track/Platform Issues

Many prior studies and analyses have documented and reflected the need for improvements to Union Station. These prior ideas have been recognized and taken into consideration as the Master Plan has been developed. The previously developed concepts have ranged from new underground station facilities to new office towers on top of a new intermodal transportation center.

An important component of the Master Plan study is the ability to leverage future station area improvements to support the economic development opportunities generated by a new intermodal transportation center. A supplemental report has been prepared that documents the past trends in real estate development in the West Loop area surrounding Union Station and discusses likely future directions and implications (see Appendix E).

Street Level Access Issues

As part of the Union station Master Plan Study a comprehensive Existing Conditions Report was prepared (see Appendix B). As the volume of commuters going through the station has increased over recent decades, weekday peak period traffic is now busier than ever before. Meanwhile, the capacity of the streets surrounding the Station has not changed.

The purpose of the Existing Conditions report was to document the traffic conditions on the streets and sidewalks surrounding Chicago Union Station, based on an analysis of collected data and field observations. The focus of this study was on the immediate area surrounding Union Station. This area is bounded on the west by S. Clinton St., the east by the Chicago River, the north by W. Monroe St., and the south by W. Van Buren Street.

The goal of this analysis was to understand current volumes and operating patterns of all the modes that affect street-level traffic operations. As the number of Metra and Amtrak riders grows, there will be increased stress on the street-level operations surrounding Union Station. The general behaviors and preferences of Union Station users can help determine where to focus street-level improvements.

Union Station now often operates at or close to capacity. Weekday rush hour ridership is higher now than at any time in the past and growth is expected to continue.

Canal Street in afternoon rush hour

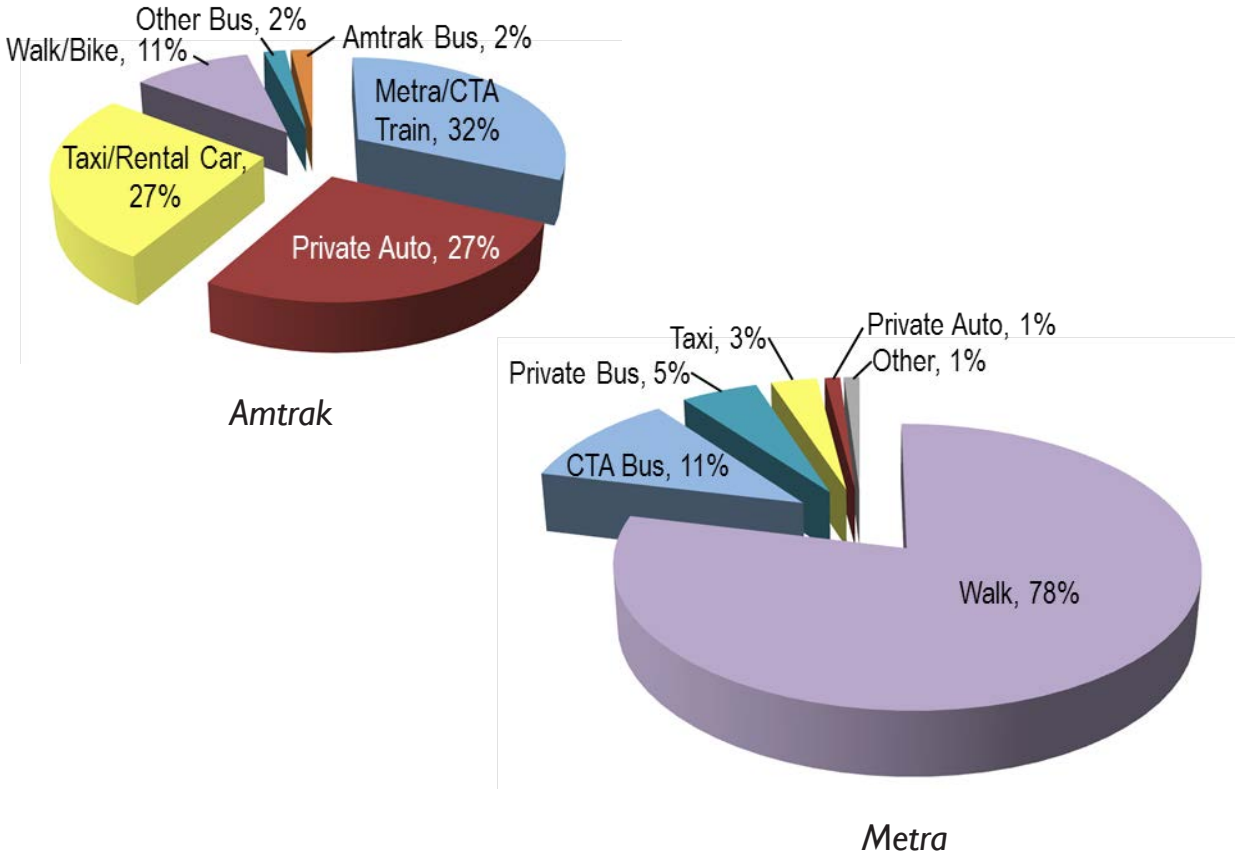
In addition to Amtrak and Metra trains, there are many other modes available to access the area around Union Station, including: walking (including walking to CTA rail), CTA bus, taxi, private vehicle, shuttle bus, and bicycle. Each of these modes affects the area in its own way. The effects of each mode on the station and on each other were examined.

Existing data sets for traffic and pedestrians were obtained from various sources. All the modes that contribute to the street-level activity were considered, focusing on weekday peak period and peak hour conditions. Because the street-level activity at Union Station is so complex, field observation was an important part of documenting the existing conditions.

There are two primary causes for problems in the street-level activity at Union Station: capacity and conflict. Capacity involves the supply and demand of each individual mode in the system. Conflict involves the interaction between two or more modes in the system. For this study, the area around Union Station was separated into seven street intersections and eight street segments and each mode was rated for each location based on its capacity and demand as well as its conflicts with other modes. These ratings are relative and were developed specifically for this analysis.

The study of existing conditions resulted in several key findings that will help to focus the development of solutions. Some problems are limited to specific locations and some locations have multiple problems. All of these problems are the result of one or more modes exceeding the capacity available or two or more modes conflicting with each other.

A general problem at several locations in the area around Union Station is that there is not sufficient curb space to accommodate all of the modes that use a particular stretch of curb space. Prime curb space adjacent to principal access points for Union Station is limited, and often there is too much demand for the



Union Station Passenger Access Modes (Amtrak: 2008 CUS Modal Access data; Metra: 2006 Survey)

curb space available. Also, the demand is unbalanced. Streets directly adjacent to the 222 S. Riverside Plaza office building are the most convenient for station users and therefore have the most demand for use. At the same time, streets adjacent to the Union Station headhouse, or located across the street to the west or north, are not as convenient and are under-utilized. There are opportunities for both improving the management of existing curb space and increasing the overall supply of curb space.

With so many different modes sharing the area, conflicts also regularly occur even where there is sufficient curb space. This is because the intentions of different modes often conflict with each other. Although curb space is allocated for each mode, the space available is often insufficient to accommodate the physical interactions between modes. The intentions of each mode should be considered when developing proposed solutions. There are also significant temporal variations in curb space demand patterns. The situation during weekday peak periods and busy off-peak and weekend times is quite different. Commuters, who dominate the peak periods, follow regular patterns, and the access modes they use operate in a more orderly manner. Traffic at other busy times is dominated by occasional and intercity travelers. During busy off-peak times, traffic problems tend to be limited to Canal Street, where traffic conditions are often very chaotic.

Proposed solutions will also need to consider and address the different levels of ridership during the weekday and on weekends, as indicated on the following chart:

Passengers	Amtrak	Metra	Total
Weekday	9,000	109,000	118,000
Saturday	9,000	10,500	19,500
Sunday	9,000	7,000	16,000

Even with increased curb space and improved curb space allocation among the different modes, problems will still occur if there is not proper signage to direct users and if there is no enforcement to ensure that users comply. Supplying information is particularly important for private vehicle drop-offs and pick-ups, as these users are not as familiar with the area. Enforcement is particularly important for taxis and intercity buses, as these modes have a direct financial stake in the activity around Union Station. Signage and enforcement should be important components of all proposed solutions.

Some short term ideas and medium term ideas for improvements to street-level access issues have been developed.

Prior to the demolition of the concourse building in 1968, the concourse had been a wide open space with a 90-foot high ceiling and abundant light.

Congestion Issues Inside the Station

Over the years there have been major changes to the way Union Station functions from the point of view of the passenger. The most significant change was the demolition of the concourse building in 1968, near the end of the period of private ownership of the Station. Prior to this time the concourse had been a wide open space, with a 90-foot high ceiling and skylights providing abundant natural light. Navigating through the Station was simplified by direct sightlines to primary destinations (train gates, waiting rooms, exits, etc.). In case of uncertainty, an information counter staffed with well-trained agents was located in the center of the space. When the 222 S. Riverside Plaza office building was completed in 1970, the concourse had become a basement with bare concrete floors and unpainted concrete block walls. The former wide open spaces with high ceilings and natural light were replaced by a forest of columns, an obstacle course of restaurants and stores, and low ceilings with fluorescent light. The space had become very difficult for visitors (especially infrequent train riders) to navigate. By this time commuter rail ridership had begun to increase steadily, so the new station layout also suffered from rush hour congestion. By 1972 Amtrak had taken over nearly all remaining intercity train operations in the U.S. and had consolidated all Chicago service at Union Station, leading to an increase in intercity passengers – rather than the continued decline that had been anticipated when the old concourse was demolished.

After Amtrak gained control of Union Station, they began a major renovation that was completed in 1992. An effort was made to provide more direct routes from the gate areas to the street, in an attempt to facilitate commuter movements through the Station and separate commuters from intercity travelers. Several new escalators were installed to improve circulation. Station finishes were greatly upgraded. The restaurants were moved to a new food court on an expanded mezzanine. However, the low ceilings and forest of columns supporting the building above remained. In addition, much of the space in the

concourse that was freed up by creating the mezzanine food court was re-filled with the creation of a large Amtrak waiting room and moving the ticket offices and other customer service facilities from the historic headhouse into the concourse area.

With the continuing increase in both Metra and Amtrak ridership during the past two decades, conditions in the concourse side of Union Station have become very congested. Poor performance of station facilities is particularly notable in the following areas:

* Morning rush hour congestion at the foot of the bank of three escalators on the south side, especially when more than one south side commuter train is unloading simultaneously
* Congestion on the two escalators and single staircase between the mezzanine level and the Adams Street exit
* Inadequate capacity of Amtrak's waiting rooms lead to an overflow of customers standing for long periods in the concourse level hallways during Amtrak's busiest periods (typically mid-afternoon). Some relief to this situation is currently in the works with the planned construction of Amtrak's new Metropolitan Lounge off the Great Hall. Upon relocation, the old Metropolitan Lounge space will be used to expand the general waiting room.
* There is currently no formal waiting area for Metra passengers. Normally, this is not a problem because commuters closely coordinate their arrival at the station with their train's departure time. However, when there is a service delay -- particularly in the afternoon rush hour, when thousands of commuters descend upon the station every few minutes, the very limited circulation space quickly becomes extremely congested with people, making movement very difficult.

In addition to congestion, the complex layout of today's concourse building remains very confusing. Sight lines and natural light are very limited, there are multiple levels to navigate, and escalator banks only operate unidirectionally during peak periods. Overall, the environment is not particularly inviting and it is especially difficult for infrequent visitors to navigate through the tide of rush hour commuters.

Track/Platform Issues

The existing Union Station track and platform layout is, in large measure, unchanged since the station opened in 1925. The station has the same number of boarding tracks, and the passenger and baggage platforms are the same width. Probably the most significant change was the opening, in about 1987, of a Madison Street entrance that provides a second point of access to platforms serving six of the ten north side tracks.

In contrast with the physical plant, train operations at Union Station have changed a great deal over the years. The biggest change has been the shift in the share of traffic between intercity and commuter trains during peak periods -- especially in the AM peak, when many overnight trains used to arrive. Most of these overnight trains used to include many cars of mail and express packages which had been serviced from the baggage platforms or at the mail platforms.

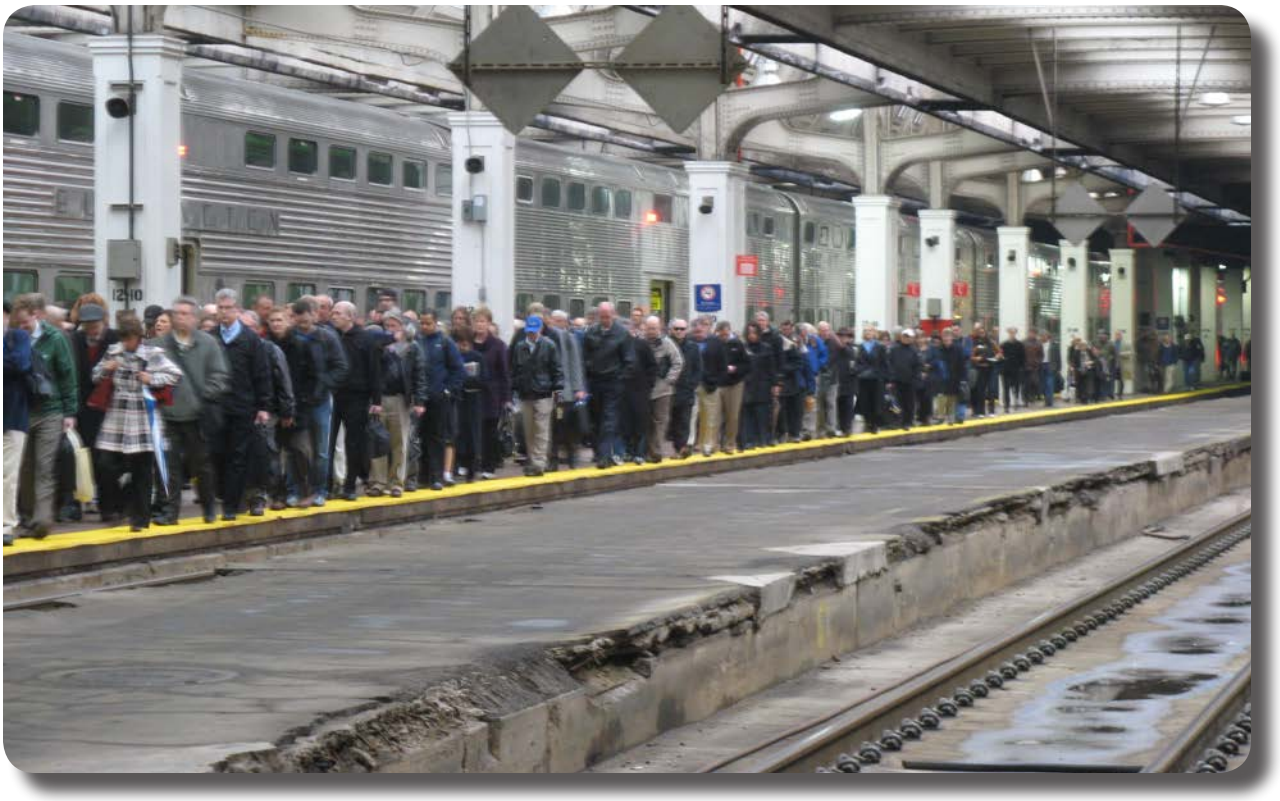
The existing track and platform layout is, in large measure, unchanged since the station opened in 1925.

Adams Street exit in morning rush hour

Besides the big increase in number of commuter trains, today's commuter trains are longer than in the past (up to 11 cars) and they consist entirely of high-capacity double deck cars; many of these trains now carry over 1500 passengers during peak periods. A number of platforms are too short to accommodate the longer commuter trains. Another significant issue is that the platforms, at 12 feet in width, are too narrow to quickly unload these trains without overcrowding and delay. This issue also limits flexibility in train operations because dispatchers must avoid simultaneously bringing two trains onto tracks that share a platform since this could create overcrowding. With the limited number of tracks and platforms available for commuter operations, and the short length of several platforms, these factors all add up to a significant operational constraint. Similar to the additional egress/access point at Madison Street for three of the north side platforms, a second egress/access point could be a partial solution on the south side, where all platforms only have the single access point, at the connection to the concourse.

Another result of the increase in commuter operations, which are heavily concentrated during the morning and afternoon rush hours, is that there is now an overall shortage of platforms during these periods. This is particularly true on the south side of the station which hosts most of Amtrak's operations as well as the busier part of Metra's operations. It takes a minimum of 20 minutes to turn around a commuter train

Today's commuter trains are larger than in the past and many now carry over 1,500 passengers during peak periods.



Passengers alighting from Metra BNSF train in morning rush hour, with unused baggage platform in foreground

including time for, unloading, attaching station power, light cleaning, flipping seats, a brake test, loading, detaching station power, and some tolerance for late arrival. There are several additional activities that intercity trains are involved in that may require these trains to sit longer in the station, particularly if it is turning for another trip, rather than coming from/going to the service/storage yard (activities required between runs of intercity passenger trains include longer unloading and loading times than commuter trains, as well as food service stocking, filling water tanks, inspection, etc.).

As noted, at one time the handling of mail was an important facet of passenger train operations. Amtrak wound down this function about 2002. Since that time the large mail platform (over 100 feet wide and 1300 feet long), located between the station south tracks and the Chicago River, has sat unused. While the only at-grade access to these platforms requires crossing active tracks, there is a below grade walkway (currently off-limits to passengers) that connects these platforms to the station's basement.

Prior Ideas

There have been several alternative concepts proposed for Union Station over the years. They go back to the time before the construction of the Union Station facilities that opened in 1925.

Changes in the Original Design

When construction of the headhouse building was started in 1919 the original design, from about 1913, was changed to add a 22 story office tower rising above the Great Hall. Caissons had already been installed without provision for this weight and extensive modifications to the foundation were required. Once the design was formalized, 192 additional caissons were installed to support the office tower. This concept was adapted from the Michigan Central Station in Detroit, built in 1912-13 with 18 floors intended for office

Proposal for Union Station with office tower (c. 1916)

space or a hotel. In the end, the railroads noted that the Michigan Central had been unsuccessful in its attempts to find a user for the tower above its Detroit station (it never did) and the Chicago Union Station headhouse building was significantly scaled back with the office portion reduced to the eight stories that the railroads committed to use themselves. Because the building was designed with this provision, future construction of an office tower above the Great Hall remains a possibility and would not necessarily be in conflict with Union Station's historic character. The three rounds of redevelopment proposals that were active in the period between about 1990 and 2008 all included plans for such a tower (or, in one case, two separate towers).

West Loop Transportation Center (2001)

A four level multi-purpose subway under Clinton Street, the west side of Union Station, was part of the original WLTC concept. Levels would include (from street level down):

Concourse Level – an area from about Van Buren to north of Madison, connected to the basement level of Union Station on the south and Ogilvie Transportation Center on the north. This level could, potentially, accommodate ticketing, retail/food service, waiting space, and/or connections to other buildings along Clinton, as well as access to/from the sidewalks above.

Bus/Streetcar Level – This facility was proposed to serve transit links to/from the River North/Navy Pier/ North Michigan Avenue area as well as to/from the Central Loop, with stops at Lake Street, Ogilvie, and Union Station, and a terminal on the block south of Jackson between Clinton and Canal. The relative merits of building such future links underground versus at street level remains a subject of analysis; current transit improvements in these corridors are focused on the street level.

Four-level subway, part of West Loop Transportation Center plan of 2001

Rapid Transit Level – This level was intended to accommodate improved rapid transit system access to the West Loop area, which continues to see robust growth in office-oriented development. This facility was conceived as supporting either a CTA Blue Line link (which would create a fourth side of an underground downtown Loop, and separate the Blue Line's O'Hare branch from the Forest Park Branch) or a route to accommodate a CTA Red Line "bypass" (which would diverge from the existing Red Line south of North/Clybourn station and converge back to the existing Red Line north of Cermak/Chinatown station. Two stops were proposed: at Ogilvie and at Union Station.

Railroad Level – This level would effectively add through track and platform capacity to Union Station for passenger and/or commuter trains. The new tracks would diverge from the Union Station north lead tracks at a point east of Racine (now part of Metra's Milwaukee District) and re-connect at about Taylor Street on the south. Through tracks have the potential to greatly increase capacity by eliminating time that is lost in changing the direction of a train's operation (for crew change, seat reversal, inspection, brake test, etc.). At the time of this proposal, Amtrak was still in the mail and express business, and a new underground alignment appeared to be the only way to significantly increase Union Station's capacity.

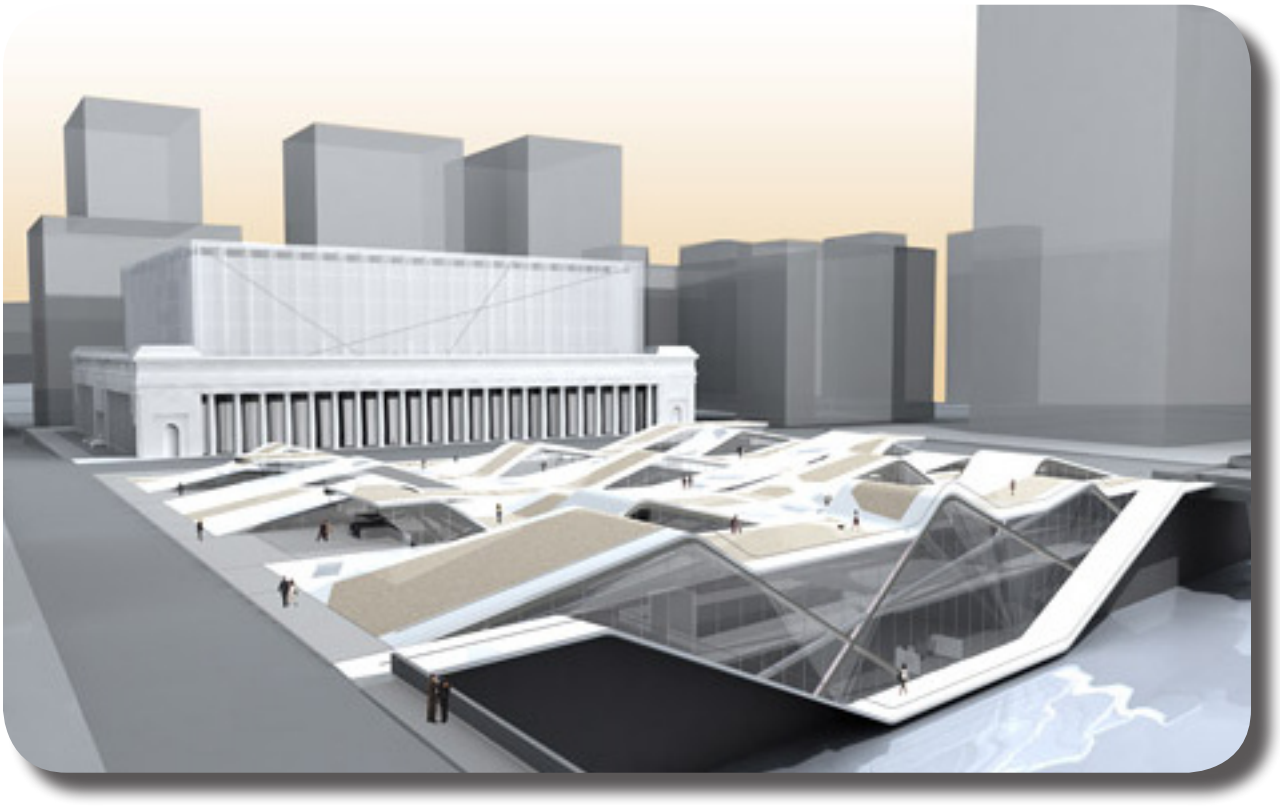
Consistent with the characterization of the West Loop Transportation Center in the current comprehensive regional plan, *GO TO 2040*, the Union Station Master Plan Study has considered a broader range of alternatives for accomplishing the goals of the original 2001 West Loop Transportation Center concept (see Introduction). Specifically, a Clinton subway is now identified as one of several possible implementation approaches to achieving these goals.

Old Post Office

There has been some consideration of using a portion of the old Post Office for a new intercity railroad station. The original main lobby is an attractive space and the building spans most of Union Station's south tracks. However, there are a number of complications with re-use of this space as a railroad station. A major disadvantage is that it would be awkward to provide a convenient connection to Union Station; the two facilities would have to function essentially as two separate stations, a major inconvenience for passengers. In recent times the building has been sold to a private owner based in the U.K. It is understood that he is pursuing a variety of possible paths for possible redevelopment of the building. None that have been revealed to date show any connection to the tracks below. Amtrak has indicated that it is not interested in pursuing such a connection.

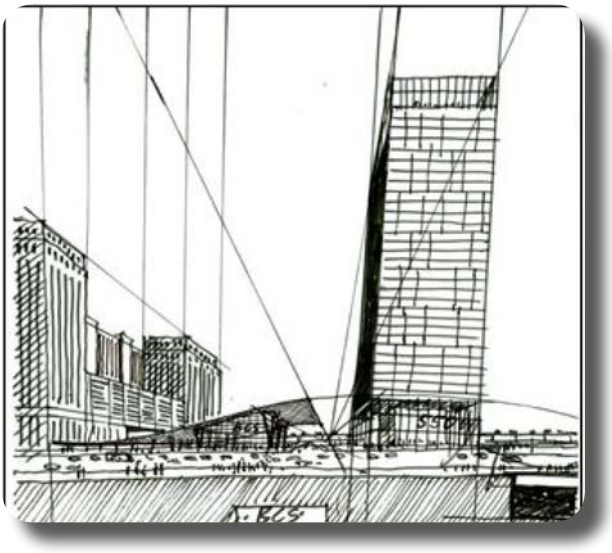
Burnham Prize Union Station 2020 Competition, Chicago Architectural Club (2008)

Illustrated below is the winner of the first prize, a design created by Michael Cady, Elba Gil, David Lillie, and Andres Montana, employees of the Chicago office of Thompson Ventulett Stainback & Associates. UNION STATION 2020 asked for innovative solutions for the transformation of Union Station into a center of high speed rail traffic and related programs. It was not simply a question of designing an efficient and functional transit hub. Instead, the questions to address in the design included: how can this intermodal node become more than a mere knot of infrastructure? What role can this project play in the reconfiguration of Chicago's West Loop and of the city and region? How can an existing landmark building be transformed to accommodate and generate a new combination of activities while welcoming an unprecedented level of rail traffic?



Winner of Chicago's Union Station 2020 Design Competition (2009)

While the design is attractive, the implied track configuration would likely pose significant operational challenges relative to the present layout. The competition's assumption was that commuter rail service could be shifted somewhere else, which would likely prove much more challenging than removing the 222 S. Riverside building without an on-site replacement.



Helmut Jahn proposal for separate high speed rail station east of Old Post Office (2010)

Proposal for a Separate High Speed Rail Station (2010)

This proposal by noted architect Helmut Jahn was prepared for Reuben Hedlund, a civic-minded zoning lawyer who headed the Chicago Plan Commission from 1991 to 1997. Although, it was a very preliminary concept, it featured use of tracks in the area now occupied by the unused mail platform, an idea featured in this study. In his review the Chicago Tribune's Blair Kamin noted that the site's location, cut off from the Loop by its location south of the Expressway at Congress, was a major shortcoming. Connections to other trains at Union Station might also be difficult under this proposal.

Proposal for Station Replacing 222 S. Riverside (2011)

This proposal was developed by Chicago architecture firm Solomon Cordwell Buenz in cooperation with the Midwest High Speed Rail Association. It features a monumental glass structure on the site of the former Union Station Concourse Building and current 222 S. Riverside Plaza office building. It features 8 through tracks located where the concourse is now, with passenger circulation and service functions moved up to street level. The effect of so many through tracks on overall station capacity is unclear, and possibly negative. Such a radical change in train operations would also have major operating and capital cost implications for the train yards serving Union Station which were not addressed in the proposal. Similar to the Burnham Prize Competition winner, this proposal also implies a loss of income from the air rights development that currently occupies this space.

High Speed Rail Hub

The first modern high speed rail system was the initial Japanese "Shinkansen" (literally, New Trunk Line) route between Tokyo and Osaka, in 1964. In 1981 European high speed rail service started with the opening of the first TGV (Train à Grand Vitesse) route between Paris and Lyon. There a now 15 countries that regularly operate trains at speeds in excess of 155 mph (250 kph), although none are in the Americas. The newest systems are being built for operation at 220 mph.

The U.S. DOT started designating high speed rail corridors in 1992, with what has now become known as the "Chicago Hub Network" of routes in the first group. The Midwest Regional Rail Initiative (MWRRI), an interstate compact among State Departments of Transportation, was formed soon afterward and has been planning the development of a network of mixed freight and passenger routes (with passenger trains expected to operate at 110 mph) since that time. Federal capital dollars for high speed rail first became available in 2008, with a $100M program and the passage of the Passenger Rail Investment and Improvement Act. A much larger federal high speed and intercity passenger rail investment program ($8B)

Solomon Cordwell Buenz/MHSRA proposal (2011)

was included in the 2009 American Recovery and Reinvestment Act of 2009 (ARRA), and additional funds were included in the FY 2010 federal appropriations bill. The Midwest states (most notably Illinois and Michigan) have been very successful in competing for these grants and funding is now in place to bring most of the track in the Chicago-St. Louis and the Chicago-Detroit corridors up to 110 mph operation using new trains within the next few years. Even without these upgrades, ridership on Amtrak's network of existing Midwest corridors has grown rapidly in recent years. This growth is particularly apparent in Illinois where the state has funded a doubling of frequencies on three routes (Chicago to Springfield/St. Louis, Chicago to Champaign/Carbondale, and Chicago to Galesburg/Quincy). The new 110 mph services are expected to bring St. Louis and Detroit within about 4½ hours of Chicago, a travel time faster than driving, with increased service reliability. In addition to the upgraded track on these two routes, new trains are being purchased for the routes to Milwaukee, Champaign/Carbondale, and Galesburg/Quincy. New

1964 - First modern high speed rail system began in Japan

1981 - European high speed rail service began in France

2012 - 15 countries regularly operate high speed trains over 155 mph

Midwest Regional Rail Initiative - Connecting the Midwest Map

conventional speed (79 mph) service, with new trains, has also been funded for new passenger rail routes to the Quad Cities and to Rockford/Galena/Dubuque. Rail service will be very competitive with driving on all of these routes.

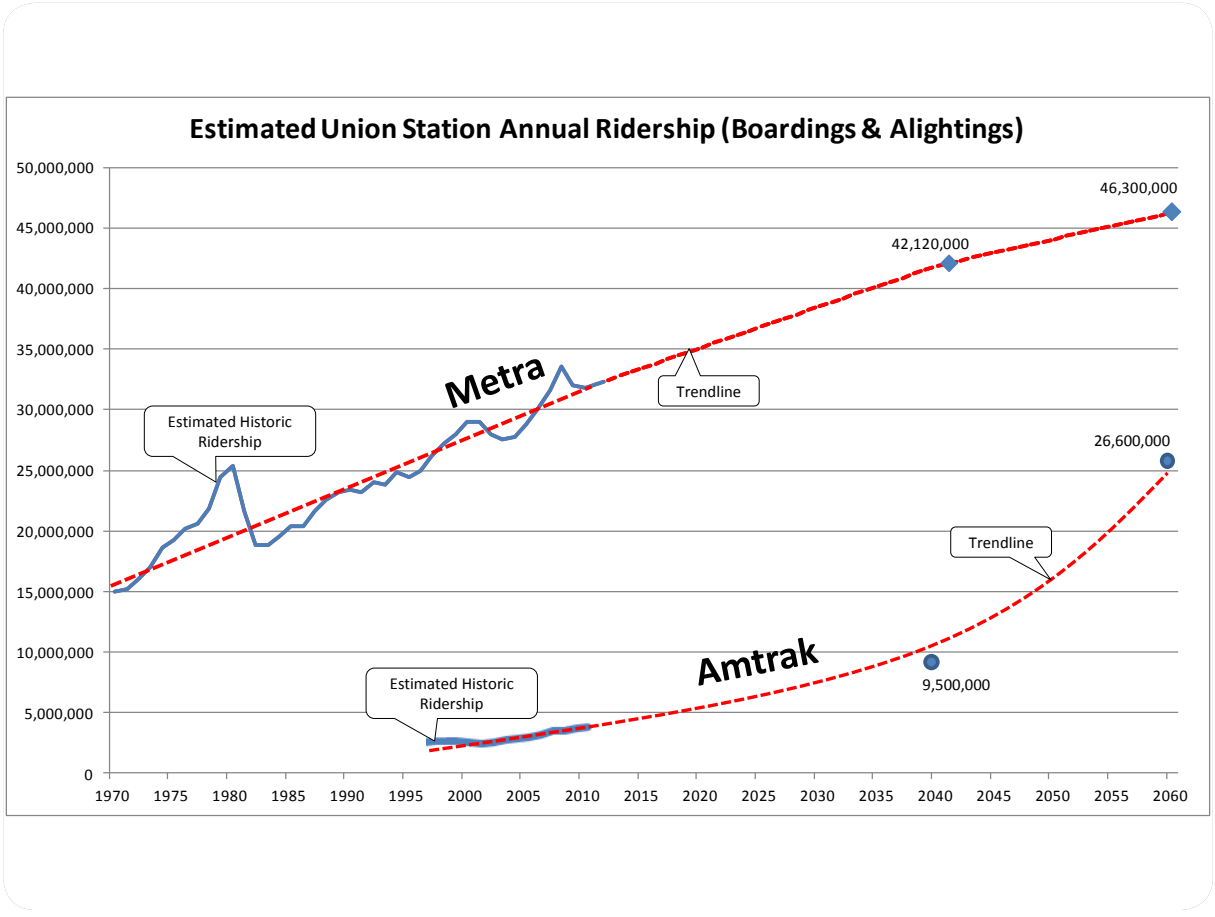
The State of Illinois has also started a study of a possible future dedicated passenger-only rail system designed for 220 mph operation. Such service would bring cities like Detroit, St. Louis and Indianapolis within two hours of Chicago (the Twin Cities would be less than 3 hours), making rail very competitive with air service in these corridors.

Ridership

Projections for ridership on trains arriving and leaving Union Station have been developed for 2020 and 2040, shown in the table and graph that follow. Different growth rates have been assumed for Metra, Midwest regional trains, and long distance overnight trains. The 2040 projection assumes that a 110 mph service is in place on the major Midwest Regional routes, while the 2060 estimate assumes that the major intercity routes have been upgraded to 220 mph operation.

	Annual			Average Weekday			Peak Hour		
	Current	Year 2040	Year 2060	Current	Year 2040	Year 2060	Current	Year 2040	Year 2060
Metra	30,400,000	41,900,000	46,300,000	109,000	150,000	165,500	27,200	34,400	36,400
Intercity	3,000,000	9,500,000	26,600,000	9,700	30,500	85,800	1,000	3,600	10,300
Total	33,400,000	51,400,000	72,900,000	118,700	180,500	250,800	28,200	37,500	45,000

In the table and graph, numbers are rounded and Metra ridership is based on weekday growth at 0.5% annually, with the assumption of a continuation of the long-term growth trend in Metra ridership. Boarding and alighting riders are counted separately; thus transfers (or thru riders) are counted twice (per airport usage practice). The sharp increase in intercity ridership reflects the significantly faster and more frequent Midwest corridor service that is proposed. The HSR portion of the 2040 intercity estimate is based on the proposed MWRRI network buildout; the 2060 estimate assumes that routes from Chicago to St. Louis, Detroit, Cleveland, Cincinnati, & Twin Cities are upgraded to 220 MPH service with HSR ridership projected to be 193% higher than the MWRRI 110 MPH estimates. These factors have been based on examples in Europe and the lower end of estimates for Midwest HSR in recent Siemens and SNCF studies. It may be noted that TGV trains carry 128 million passengers per year on a network similar in size and scope to that proposed for the Midwest, but with tracks nearly fully dedicated to passenger service.



The projected ridership increase has been translated into an estimate of the increased number of trains that would have to be accommodated in the morning and afternoon peak hour to estimate how much peak train handling capacity may be needed. These estimates are shown in the following table.

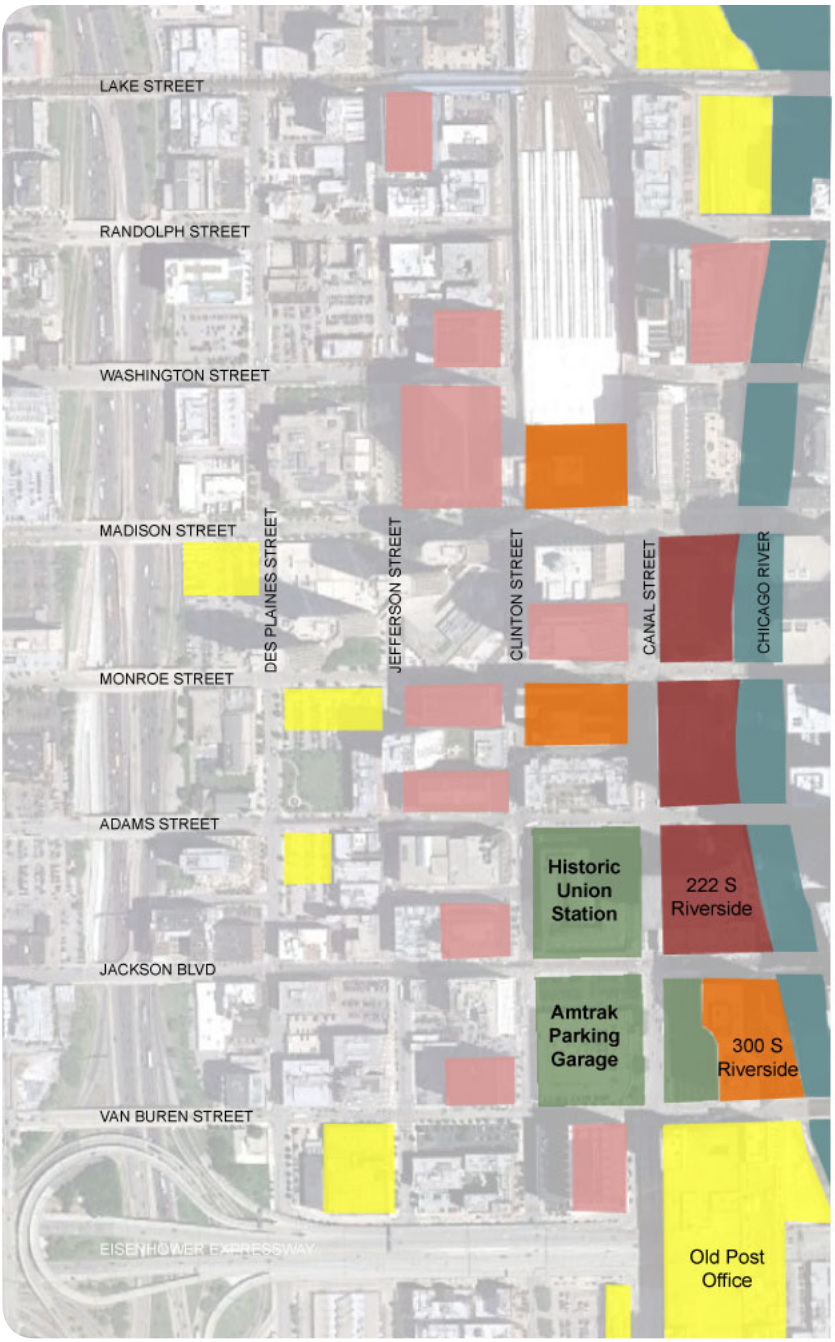
Existing (2011) Arrivals and Departures			
	Metra	Intercity	Total
Peak Morning	38	4	42
Peak Evening	36	5	41
2040 with MWRRI Build Out Arrivals and Departures			
	Metra	Intercity	Total
Peak Morning	53	7	60
Peak Evening	50	6	56
2060 with 220 mph HSR Arrivals and Departures			
	Metra	Intercity	Total
Peak Morning	58	14	72
Peak Evening	55	17	72

The overall increase is projected to be about 16 additional peak hour trains (40% more) in 2040 and 30 peak hour trains (over 70% more) in 2060. While such long range projections are subject to imprecision, they do provide an order of magnitude approximation of likely future capacity needs.

Projections estimate a need for about 16 additional peak hour trains (40% increase) in 2040 and 30 additional peak hour trains (70% increase) in 2060 at Union Station.

West Loop Development Context

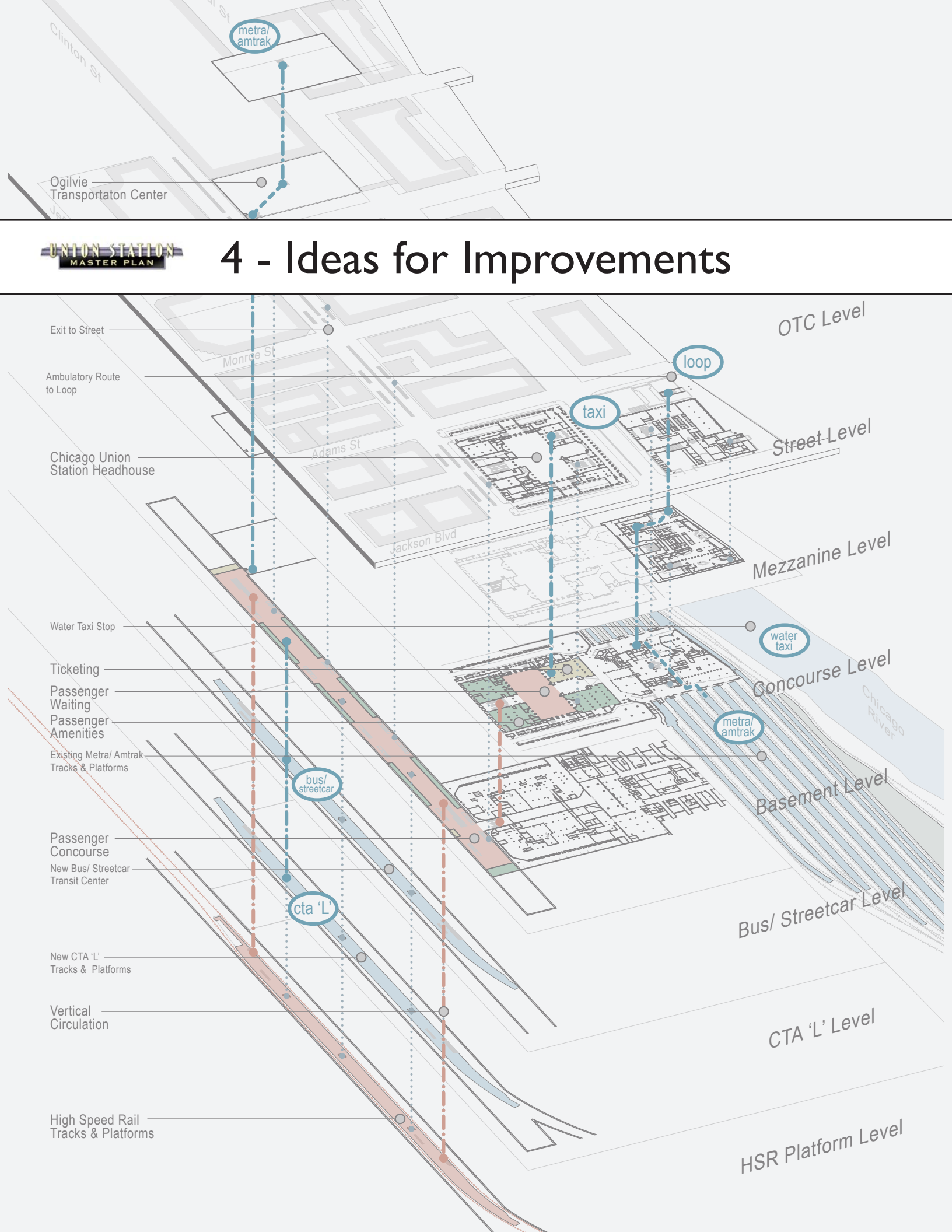
The following map provides insight into the development trend in the area surrounding Union Station. It shows that Union Station is in the center of an area with strong potential for high density development. The site owned by Amtrak west of 300 South Riverside and the Amtrak-owned garage west of Canal are at very valuable locations and have the potential to bring significant income, either on a sale or lease basis. This income could help offset the cost of realizing of one of the concepts for a new/improved railroad station discussed in this report. For more information, see the Goodman Williams Group report in Appendix E.



Union Station Development Context

Office Buildings

- completed 1960s-70s
- completed 1980s
- completed 1990s-2000s
- proposed developments
- Amtrak-owned parcels


metra/
amtrak
Ogilvie
Transportaton Center
UNION STATION
MASTER PLAN
4 - Ideas for Improvements
Exit to Street
Ambulatory Route
to Loop
Chicago Union
Station Headhouse
Water Taxi Stop
Ticketing
Passenger
Waiting
Passenger
Amenities
Existing Metra/ Amtrak
Tracks & Platforms
Passenger
Concourse
New Bus/ Streetcar
Transit Center
New CTA 'L'
Tracks & Platforms
Vertical
Circulation
High Speed Rail
Tracks & Platforms
OTC Level
loop
taxi
Street Level
Mezzanine Level
water
taxi
Concourse Level
metra/
amtrak
bus/
streetcar
Basement Level
cta 'L'
Bus/ Streetcar Level
CTA 'L' Level
HSR Platform Level
Monroe St
Adams St
Jackson Blvd
Clinton St
Chicago
River

A number of ideas for future improvements to Chicago's Union Station have been incorporated in this study. Some ideas were originally developed in other studies and have been adopted, sometimes with modifications. Others were initiated in the process of the current study effort.

The Union Station Master Plan Study worked from the bottom up. The initial focus was on identifying track/platform layouts that could provide increased capacity for handling trains. Prior to the first meeting of the stakeholder's Technical Advisory Committee the consultant team developed a number of alternatives for consideration. These were revised, eliminated, or added to over the course of the study. The ones deemed most desirable were advanced to more detailed development and are described in this section. Conceptual design drawings for the preferred ideas appear in Appendix C and D. The brief descriptions and drawings of alternatives that were not advanced appear in Appendix F. Alternatives for stations were only developed in association with the track/platform alternatives that were advanced.

The ideas described in this section have been sorted by their rough time frames for implementation:

* Short Term
* Medium Term
* Long Term / Visionary

Short Term Ideas

These projects currently have funding committed for implementation during the next few years.

* *Amtrak Projects*: Amtrak is in the process of undertaking some improvements that will improve passenger conditions and amenities within the Station and reduce crowding. The first of these projects, announced in 2010 have already been completed.
* *CDOT Projects*: Two upcoming CDOT projects will improve local street traffic flow and curbside access to Union Station:
    * Central Area East-West Bus Rapid Transit project
    * Union Station Transportation Center

Amtrak Projects

The following improvements were announced by Amtrak in October 2010:

* Installation of air conditioning in the historic headhouse building was completed in 2011. While Union Station was one of the first air conditioned buildings in Chicago when it opened, the primitive original system failed sometime in the 1960's. The new system will support re-development of the entire headhouse building. The first facilities to occupy redeveloped space in the headhouse building were Amtrak's new Midwest Control Center and the return of Amtrak's Midwest offices from nearby rented office space. Both facilities opened in 2011.
* At street level, Amtrak plans to replace the concrete security barriers at major station entrances, which currently create an unsightly obstruction for people entering and leaving the station. The barriers will be replaced with more functional and aesthetically pleasing bollards. In addition, an expanded and more visible canopy is planned for the Main Entrance on the east side of Canal Street. These improvements are anticipated to be completed during 2012-13.
* Amtrak plans to nearly double the number of seats in its waiting rooms. This will greatly relieve the overflow conditions resulting from the inadequate capacity of Amtrak's waiting room off of the station concourse, as described in the Background section. The first step in this process will

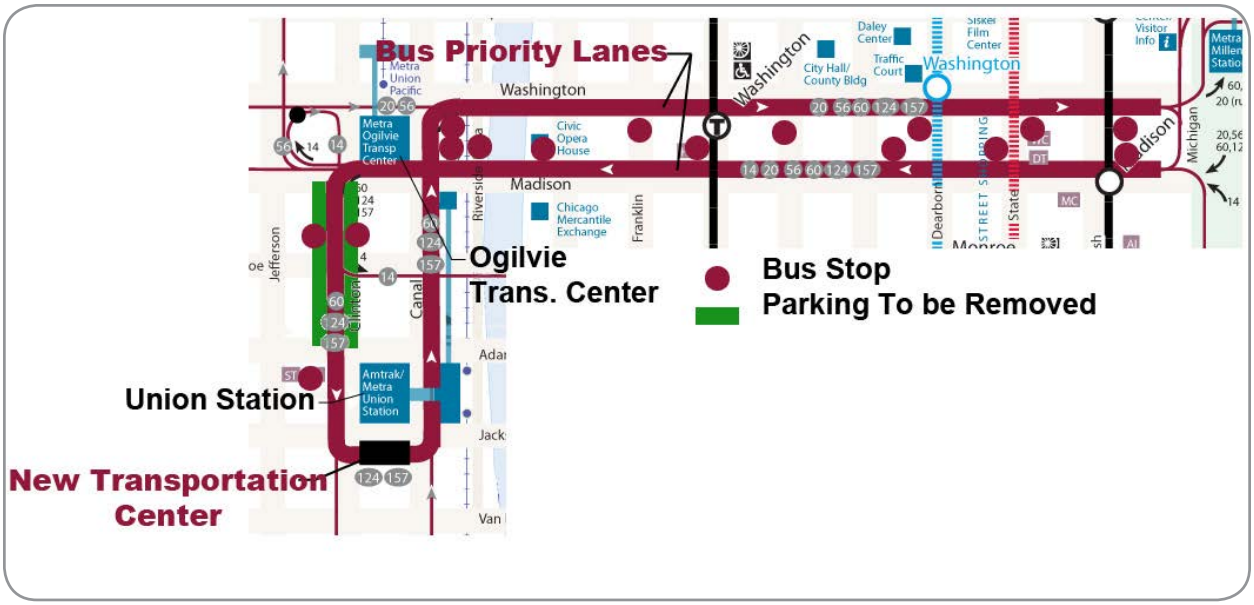
be to construct a new Metropolitan Lounge in the historic headhouse building. The Metropolitan Lounge is a facility for sleeping car passengers to wait before boarding their train. This is very important since Chicago is served by more overnight trains than any other Amtrak station. Many of these passengers also change trains in Chicago. The new facility will have two levels, connected by a circular staircase and elevators. After this is completed the existing main waiting area will be renovated, incorporating the space occupied by the current Metropolitan Lounge, greatly expanding its seating capacity.

* Construction of a new public rest room in the concourse area is also planned. The existing ones in the Amtrak waiting room and next to the Metra ticket office are overcrowded and there is significant inconvenience when they are closed for cleaning. The rest room and waiting room improvements are currently being budgeted and scheduled.

Central Area East-West Bus Rapid Transit (BRT) project

In July, 2010 the Federal Transit Administration announced the award of a grant to the City of Chicago for implementation of "bus rapid transit" improvements in a corridor connecting Union Station and the Central Loop. The key improvement is the designation of dedicated bus lanes on Washington and Madison Streets across the Loop and on Canal and Clinton Streets south to Union Station. As discussed in the Street Level Access Issues section, the blocks of Canal Street near Union Station are very congested. While establishing a dedicated bus lane in this block is very important, it is also very difficult due to the many other competing uses for the limited street space.

Providing sufficient space for peak period CTA bus activity is critical to the effective performance of Union Station. Among motorized modes, CTA buses account for the highest share of transfer connections by Metra customers. A proposed solution to the issue of insufficient street and curb space adjacent to Union Station is to expand off-street capacity to better accommodate peak period CTA bus activity. This may be achieved with the construction of an off-street bus terminal, the "Union Station Transportation Center" described further in the following section.



East-West BRT Corridor

A bus rapid transit (BRT) route will allow passengers to quickly move between Union Station and the Loop.

This Union Station Master Plan Study has also suggested a concept, subject to and contingent upon further traffic analysis, for relocating CTA buses that now terminate in the contraflow bus lane located on the west side of Canal in the block between Adams and Jackson. If feasible, this relocation would allow unidirectional traffic on this block, and the installation of a mid-street island to provide additional curb space for taxi and passenger car pick-up and drop-off at Union Station using the west side of the island. A mid-street island would also make it possible to dedicate the traffic and curb lanes east of the island exclusively for bus activity. Portions of the curb space in this block would be assigned to CTA, Amtrak's Thruway Bus service, and private shuttle buses.

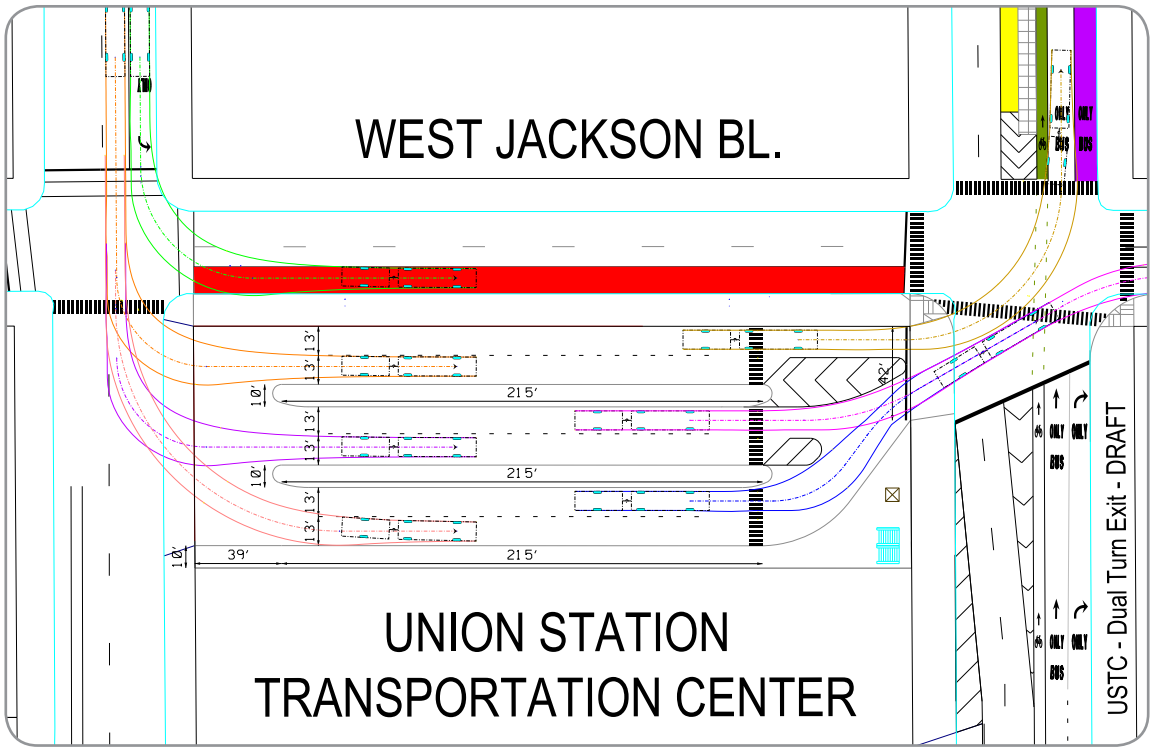
The concept of adding an island to provide additional curb space is taken from standard practice at airports (such as Chicago's O'Hare Airport). It is anticipated that the cost of construction of this island will not be major and that funding from the East-West BRT grant will be sufficient. A railing on the east side of the island, to limit people to crossing to the sidewalk at designated crosswalks, is also proposed for safety. If funding permits, it would also be desirable to provide a weather protection canopy on the island. The island could be enhanced further in the future by adding vertical circulation to take people directly to/from Union Station's concourse level, which is located directly below Canal Street in this area. It is proposed that such vertical access improvements be coordinated with the planned Canal Street Viaduct Reconstruction project, described in the medium term projects section of this report.

Union Station Transportation Center

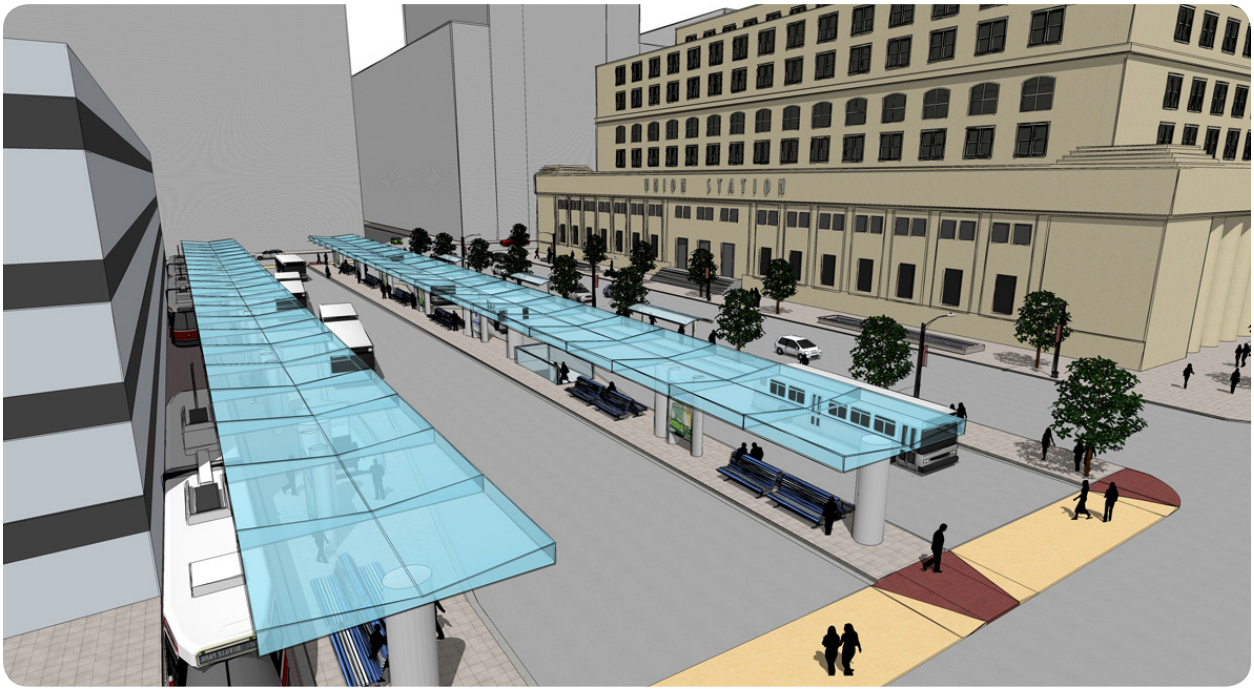
The Union Station Transportation Center project is closely-related to the East-West BRT project and is also fully funded from a recent Federal grant to CDOT. The Transportation Center, to be designed by CDOT in coordination with CTA, will be an off-street bus terminal located on the site of the existing surface parking lot that is south of Jackson, between Canal and Clinton (immediately north of the Amtrak-owned parking garage).

An off-street bus terminal located on an existing parking lot will help relieve traffic congestion around Union Station.

It is anticipated that the Transportation Center would relieve some of the nearby street congestion by expanding space for additional transit connections surrounding Union Station for buses that currently must lay over at the end of their routes on the streets near Union Station. Passenger access to buses using the Transportation Center would be provided at street level as well as via a direct stairway/elevator connection to the existing below grade walkway between the station's concourse level and the Amtrak parking garage.



Union Station Transportation Center concept plan



Conceptual rendering of the future Transportation Center proposed to be located on an existing parking lot on the southwest corner of Canal Street and Jackson Boulevard

While current plans call for this site to be converted relatively quickly to function as an off-street bus terminal, the potential also exists to construct a major new office/commercial building on air rights over the transit center sometime in the future. Such a future development could also be integrated with re-development of the site now occupied by the Amtrak parking garage, immediately to the south.

Medium Term Ideas (see Appendix C for more detailed plans)

* Widen selected Metra platforms (using the area now occupied by unused baggage platforms) and add direct access to/from street level
* Create new station tracks and passenger platforms by converting unused former mail platform space
* Modify existing passenger station facilities to improve passenger flow and simplify wayfinding
* Coordinate further street access improvements with CDOT's planned Canal Street Viaduct reconstruction project

Widen Selected Metra Platforms

A unique characteristic of Union Station is that it features special platforms that were designed specifically for the handling of baggage, mail, and packages. These baggage platforms alternate with the passenger platforms on either side of the terminal tracks. Each of these "baggage platforms" leads to a ramp into the Station's basement. At the time Union Station was built most trains at the station were for longer-distance travel and handled checked baggage, mail, and express packages. As such, it was very useful to have platforms where these items could be handled without conflicting with passengers boarding or alighting from trains. Today, however, most trains at Union Station are Metra commuter trains. Some tracks are now almost exclusively used by Metra and there is no need for baggage platforms on those tracks. Meanwhile, Union Station's existing 12-foot wide passenger platforms are very narrow given the volumes of commuters they must accommodate. Some of Metra's peak period commuter trains operate with up to 11 cars, carrying an average of about 150 passengers per car. In addition, Union Station's south side platforms only have exits/entrances at one end. This can result in platform overcrowding during peak periods and extended times for commuter trains to load and unload.

Union Station's existing 12-foot wide passenger platforms are very narrow. Changes could allow the platforms to be widened to 22 feet to alleviate overcrowding.

It is proposed to remove two of the baggage platforms (on the south side, between tracks 6 and 8 and between tracks 10 and 12). These tracks are currently used exclusively by Metra commuter trains. Tracks 8 and 12 would then be re-located to the east, into the space now occupied by baggage platforms. This would allow the passenger platforms to be widened to about 22 feet, which would be wide enough to permit the construction of stairs, escalators or elevators to provide direct access between the platforms and street level (i.e., the south side of Jackson Blvd). Together, the platform widening and addition of direct

As shown in the BEFORE (top) and AFTER (bottom) images, eliminating unused baggage platforms would allow for passenger platforms to be widened and vertical circulation to be added.

vertical access would relieve the overcrowding by both adding space and providing the opportunity for passengers to exit without going through the Station concourse. Three north side platforms at Union Station already have a secondary access/exit point at Madison Street, relieving what would otherwise be similar overcrowding issues for most north side commuters.

Discussions and analysis as part of this study have also suggested that it may be possible to construct direct vertical access to street level from the track 2 and 4 platform. Although this would require shortening this platform slightly, it is currently longer than needed for Metra's longest trains.

Such improved platforms could also increase Metra's operating flexibility. Associated changes in track geometry could also make the track 6-8 and 10-12 platforms one to two cars longer, and the wider platforms would make it possible for two trains to unload simultaneously or in rapid succession on both sides of the same platform, an operating practice that is used only sparingly today due to the overcrowding that results.

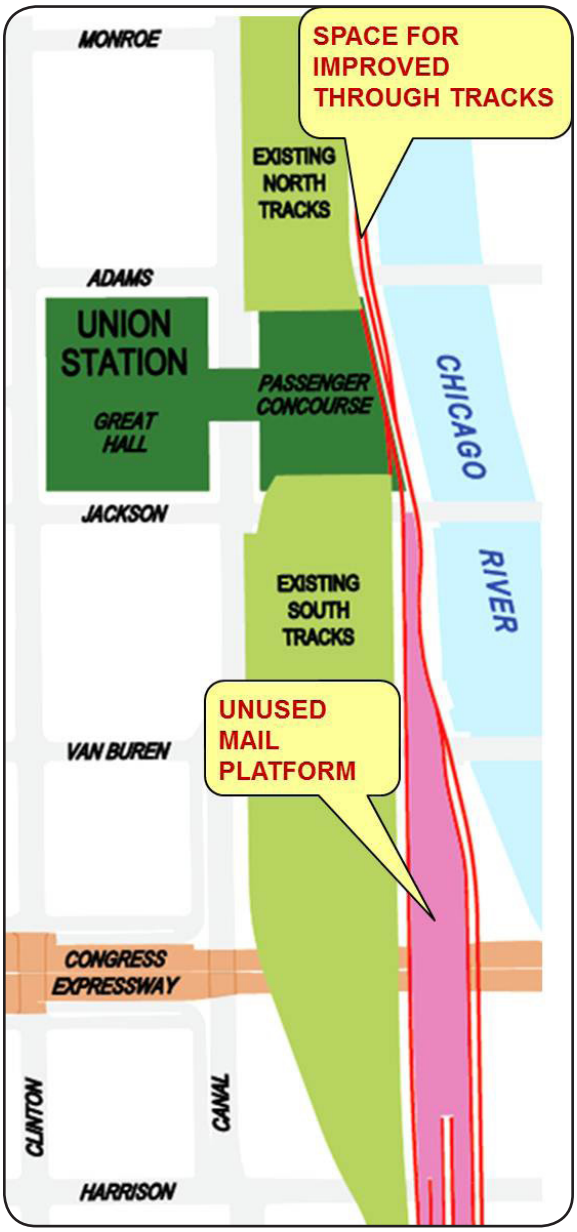
Convert Mail Platform

Another vestige of an earlier time is the large "mail platform" located between the station's south tracks and the Chicago River. This platform space was extremely busy during the years when large amounts of mail were transported as part of the railroads' passenger train business, but Amtrak wound down this function about ten years ago. Since that time the large platform (over 100 feet wide and 1300 feet long, and raised four feet to match the floor height of the mail cars), has sat unused.

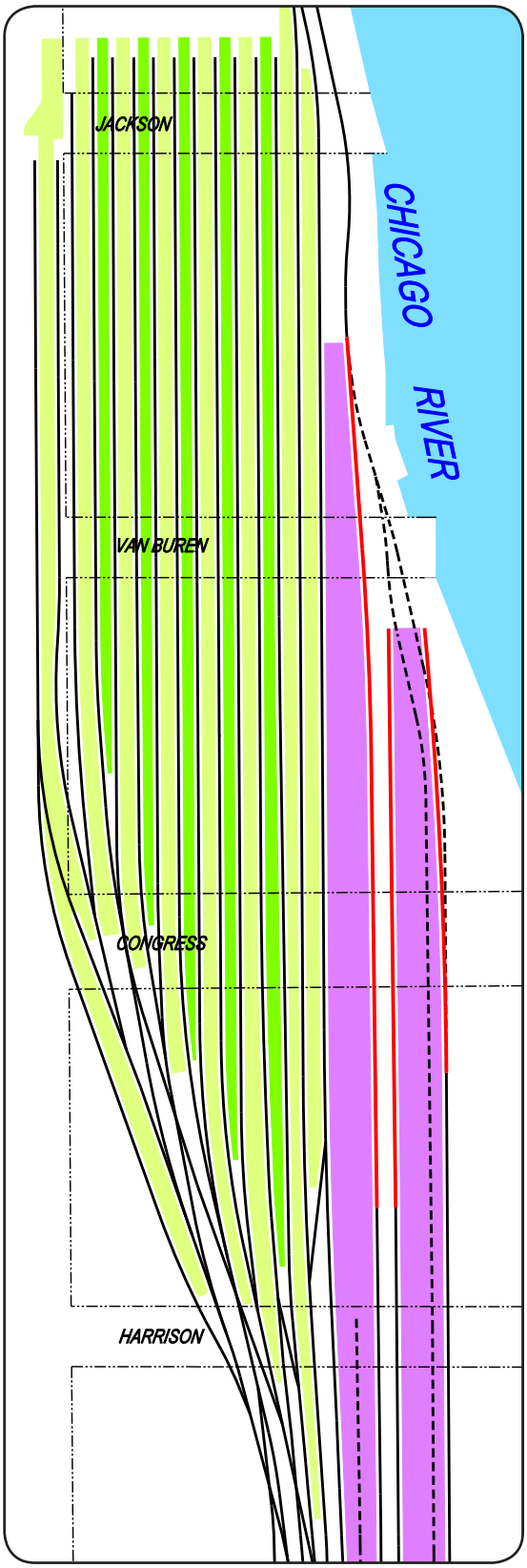
New station tracks and passenger platforms could be created by converting unused former mail platform space.

It is proposed to convert this space to passenger platforms, which could add critical capacity to accommodate growth in intercity passenger train operations while also potentially freeing up some existing platform capacity for growth in commuter train use during peak periods. Parts of the old mail platform lie under various buildings: the old Post Office, the new Post Office, and 300 S. Riverside Plaza. It would be physically possible to extend two tracks that bisect the south end of the platform through to its north end, which would divide the existing extra-wide platform into two platforms of ample width to serve passengers, each served by tracks on both sides. This platform is also interrupted by numerous columns supporting the structures above, but relatively few would require relocation to make this proposed track and platform reconfiguration possible (these columns are located at the south end of the proposed east platform and support a portion of the 5-story new Post Office building).

Although it's located on the south side of Union Station, the mail platform – unlike nearly all existing passenger platforms – is served by tracks that run through to the north side of the station. Thus, the mail platforms, repurposed for passenger use, could become through-service platforms. Because of existing physical constraints, it would require substantially more work to run both tracks serving the eastern-most of two new platforms through to the north side. Therefore, it is proposed to initially construct the eastern platform tracks as stub tracks, accessible only from the south (which is the more congested portion of the station). At such time as a need for more through tracks is identified in the future, it would be physically possible to extend them to the north (although this would require additional column relocations



Converting the unused mail platform provides the opportunity to add passenger platform capacity and create new through tracks



and relocation of a segment of the river wall in this area). This additional work is proposed to be considered part of a Long term alternative.

Under the mail platform there is an existing underutilized basement area with high ceilings, as well as a below-grade passageway connecting this area to the basement under the existing passenger waiting areas. This space under the re-purposed mail platforms could be redeveloped into a departure lounge and food service areas for the new passenger platforms – a particularly useful amenity given that they will be over a block south of the existing Union Station concourse facilities. Vertical circulation (escalators/stairs/elevators) and gate control would be provided between the new lower-level departure lounge and the re-purposed mail platforms.

Existing below-grade passageway could be upgraded for passengers using converted mail platforms

The existing below-grade passageway could be renovated as a formal walkway connection to the existing station's concourse and waiting areas, allowing rail customers to avoid needing to cross active tracks to reach the new departure lounge and platforms. The future plans should also consider how to possibly introduce natural light into the long below-grade walkway and the proposed new lower level departure lounge.

Emergency exits from the new platforms, required to meet current codes, could be placed closer to their south ends, which would allow them to open onto the area of the plaza on the north side of the new Post Office (on the south side of Harrison Street).

Additional alternatives for accessing these platforms may be possible in the 300 South and/or 400 South (old Post Office) blocks. See the discussion of the New Station in the 300 S. Riverside Plaza block in the Long Term/Visionary Ideas section for further details. Amtrak has indicated that it is not interested in pursuing a connection to the old Post Office due to numerous complexities involved.

Improvements to the Existing Station

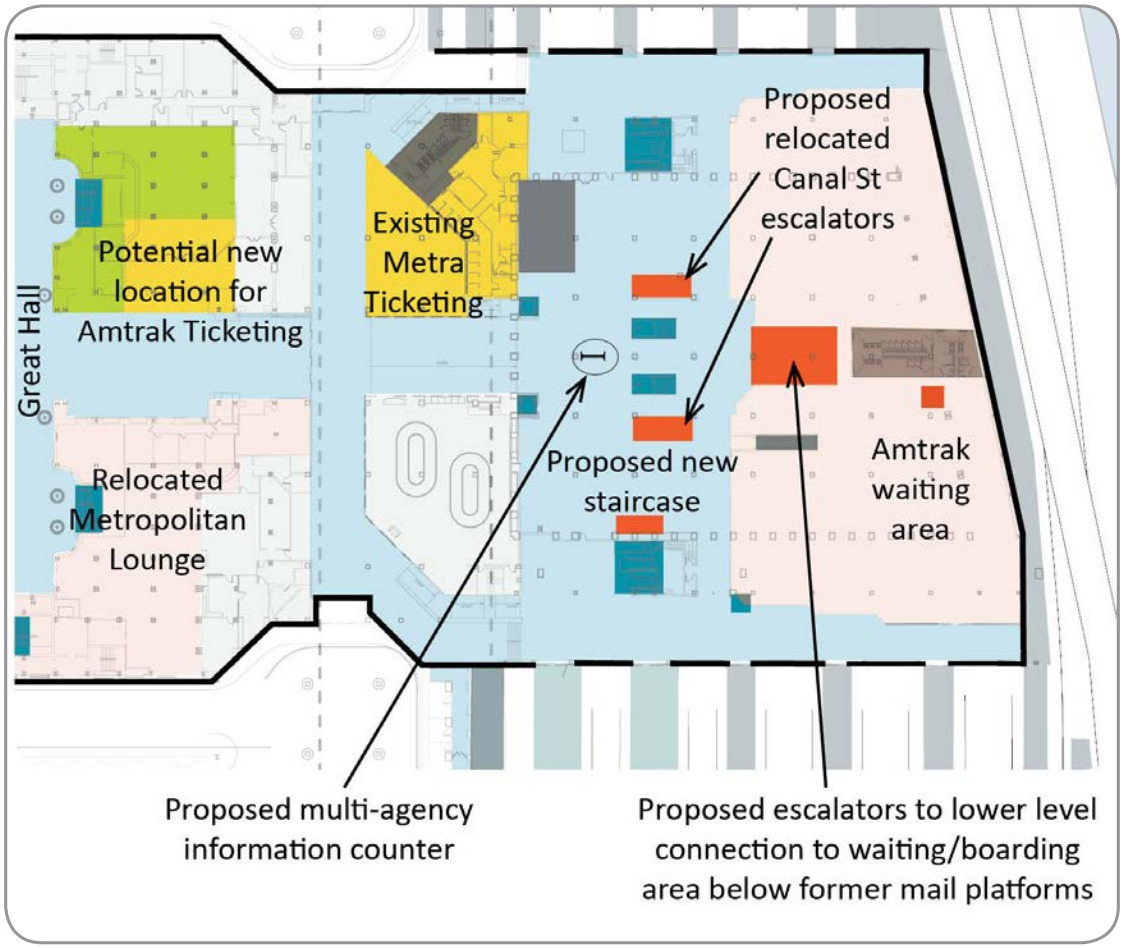
The Background Section featured a discussion of the factors contributing to severe peak period congestion and the difficulties in navigating within Union Station, especially in the passenger concourse areas east of Canal Street. As a first step towards addressing these issues, Amtrak has started to move some passenger waiting area functions out of the concourse level and back into the historic headhouse (see discussion in Short Term Ideas). This study has developed some further ideas to more boldly reconfigure space within the existing concourse area to increase capacity and overall station utility for peak period crowds (see conceptual space plan layout in Appendix C). The goals would be to open up the concourse to:

* Improve circulation and relieve congestion, particularly during peak periods and in the event of a major train delay
* Improve sight lines, so that people can more easily see where they want to go
* Expand capacity to allow for bi-directional access at major points of vertical circulation (currently major escalator banks need to operate uni-directionally in order to accommodate peak demand, and the "contraflow" escalator is difficult to find).

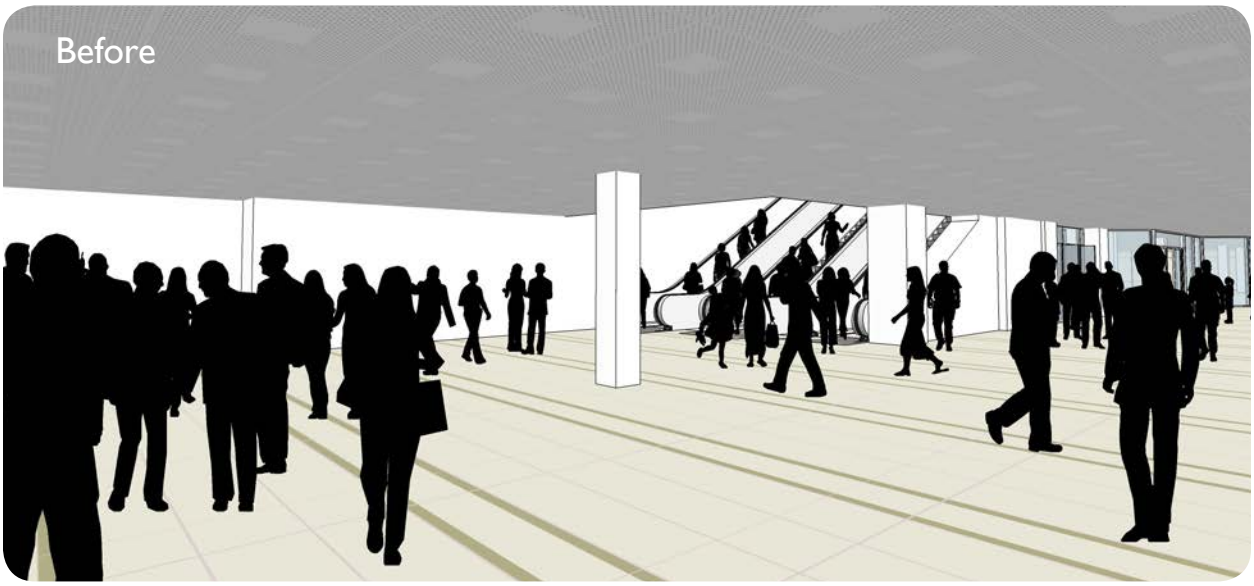
Key existing facilities on the concourse-level that may be candidates for relocation include:

* Amtrak Ticket Office – This could be returned to the historic headhouse building on the north side of the corridor connection to the concourse area under Canal Street. This space is now used by a restaurant, and is located across the corridor from where Amtrak's ticket windows had been prior to the start of the 1987-1991 station renovations – the area that is now to be repurposed for the new Metropolitan Lounge. Relocation of the ticket office may be facilitated by the fact that the number of ticket windows in service has gradually declined with the advent of automated "Quik Trak" ticket machines. This reduction is expected to continue with Amtrak's systemwide rollout of E-ticketing, planned for 2012.
* Passenger Service Area, Rental Car Counter, and Newsstand – These can be relocated to places out of the concourse level's main circulation area.

Using some of the space occupied by the current ticket counter it is proposed that the central (Canal Street) escalators be relocated north and south of the adjacent staircases, thereby opening up clear east-west sight lines between the soon-to-be expanded Amtrak waiting area on the east and the walkway to the Great Hall on the west. The information counter could be moved to the now more visible center of this space (perhaps about where the fountain is now), and much more room would be available for passenger movement.

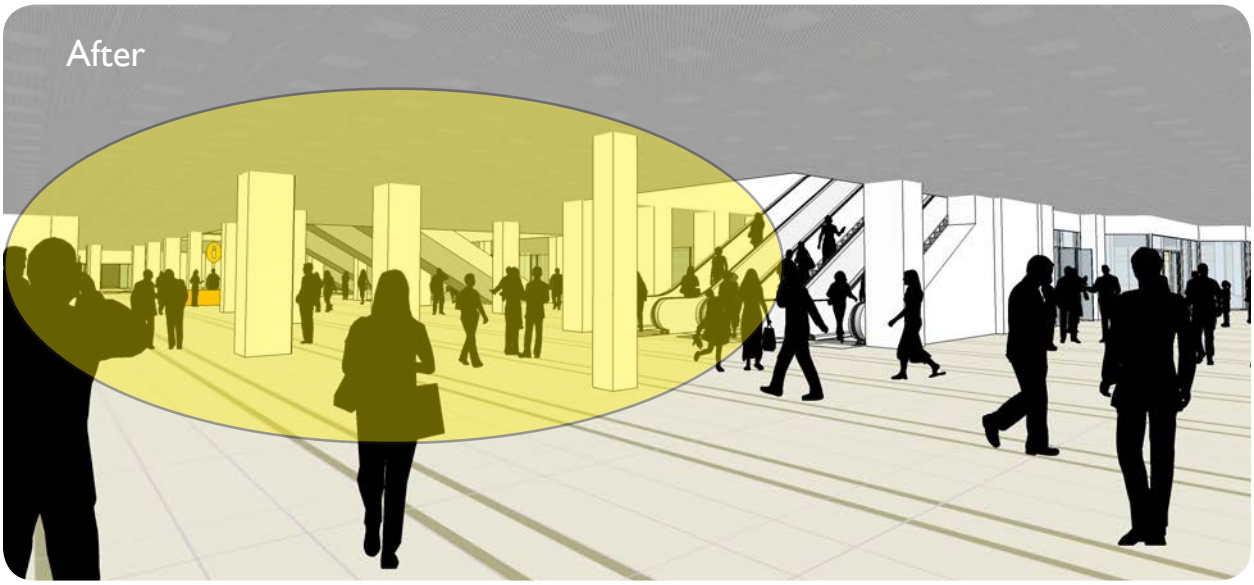


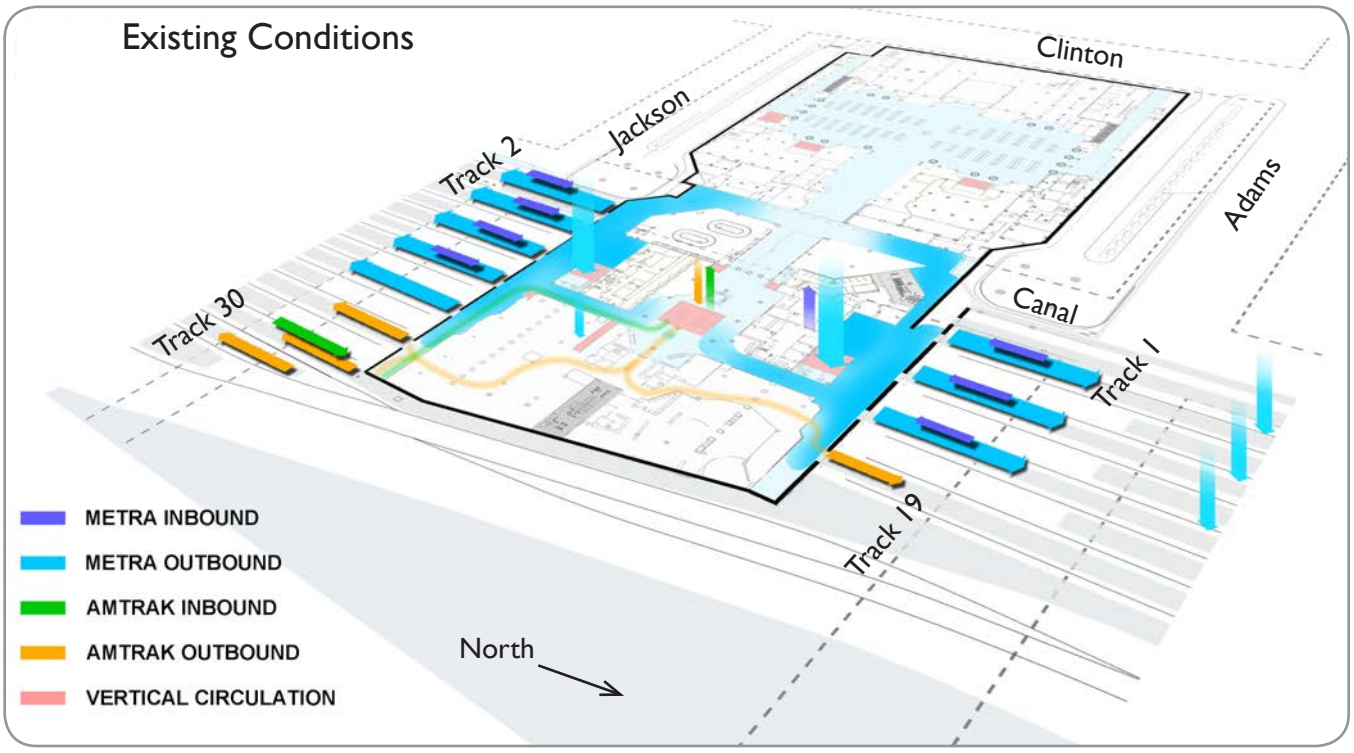
Conceptual plan for concourse area reconfiguration



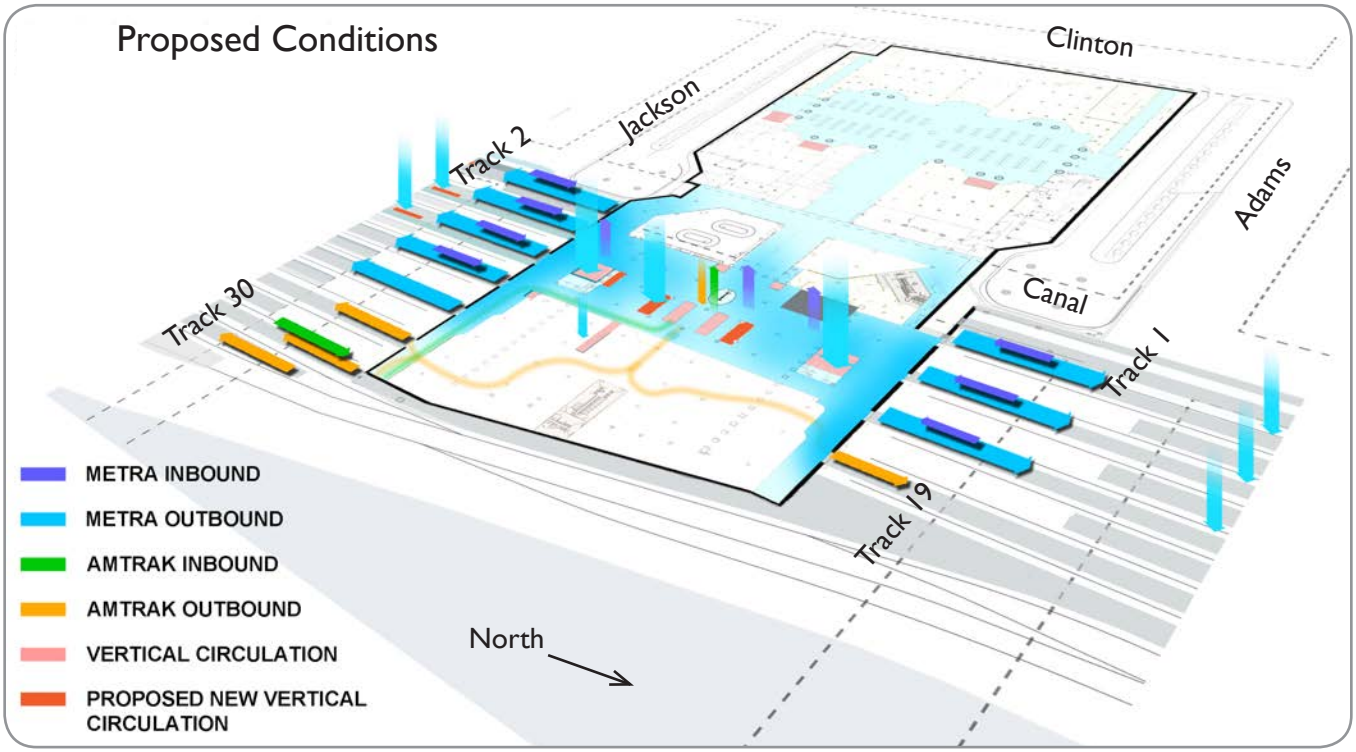
***Above**:View looking north from southwest corner of concourse BEFORE proposed modifications including relocation of Amtrak ticket office.*

***Below**:The effect of modifications is shown in the yellow area in the AFTER image. Relocation of the Amtrak ticket office could open up sight lines and allow more room for passenger movement.*





Conceptual illustration of Union Station concourse passenger flows in PM rush, when there are delayed Metra departures and late arrival of an Amtrak train



One positive feature of the existing concourse configuration is the way it subtly, but effectively, separates the main flow of commuters moving between trains on the west (lower numbered) tracks and the doorways next to the Adams and Jackson bridges from Amtrak's customers, most of whom arrive and depart through the Canal Street entrance or the Great Hall and use trains on the east (higher numbered) tracks. The problem is that the number of commuters has increased by more than 50% since this existing configuration was introduced during the 1987-1991 renovations. The current vertical circulation is also dependent on operating all of the station's escalators in the peak direction, except for one difficult to find contraflow escalator. Three of the station's four escalator banks have stairs that can be used by people traveling in the opposite direction from the commuter peaks, but there are no stairs between the concourse and mezzanine levels on the south side, which is the busiest escalator bank. By relocating some of the existing concourse-level facilities as described above there should be room to install additional vertical circulation between the mezzanine and concourse levels, facilitating station navigation, especially for travelers who are less familiar with the station.

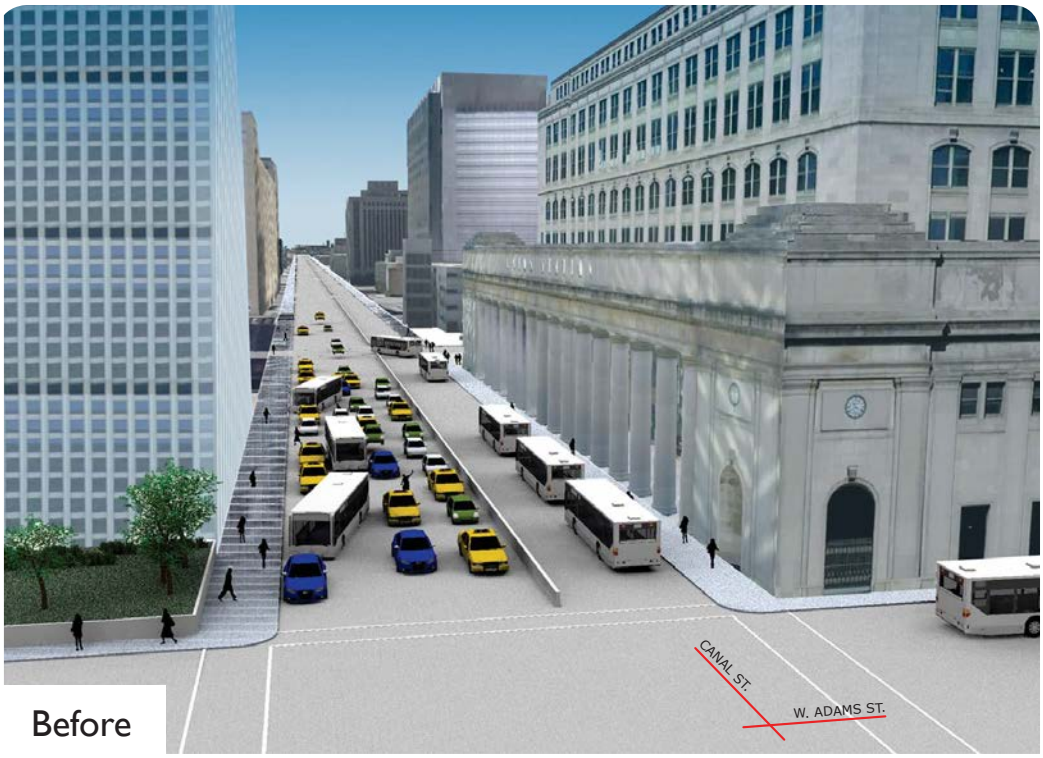
It should also be noted that the platform widening project described earlier will provide additional congestion relief in the station by creating direct exits to the street level from three busy south side platforms used overwhelmingly by Metra trains.

Canal Street Viaduct Reconstruction

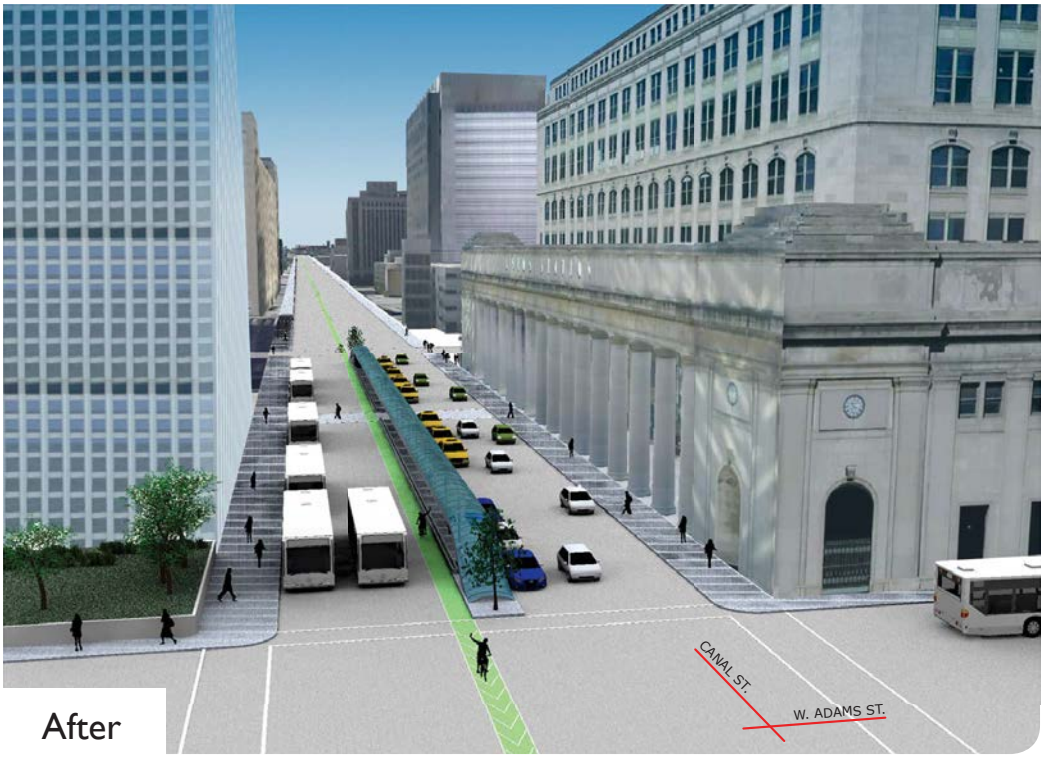
Key segments of Canal Street are on a viaduct structure over Union Station's tracks. Constructing station tracks under the viaduct was an original design feature to increase the capacity of Union Station. The viaduct structure runs from Madison Street on the north to Taylor Street on the south. North of Harrison Street the structure generally runs only under the east half of the street, the section south of Harrison extends the full width of the street. In the block between Adams and Jackson the viaduct also spans the full width of Canal Street and forms the ceiling over an integral part of Union Station's passenger concourse. The viaduct was constructed in conjunction with the station, so it is nearing 90 years old, at the end of its design life. It needs and has received extensive maintenance attention and is prone to leaking during wet weather; it no longer fully protects facilities and passengers on station platforms from such weather conditions.

The aging Canal Street viaduct will need complete replacement soon, providing an opportunity to incorporate vertical access and curbline changes to improve Union Station.

The Master Plan Study team has investigated whether some modifications could and should be made to the future replacement viaduct design to help in achieving the study goals, rather than simply replacing the structure exactly as it was originally built. As such, the main focus of this analysis has been on the portion of the viaduct structure north of Van Buren Street. In the Street Access portion of the Background section it was noted that a major problem is a lack of curb space proximate to major station entrances for vehicles of all types to drop off and pick up passengers. The concept of creating an island in Canal Street was suggested among the Short Term Ideas section to be implemented as part of CDOT's ongoing East



Before



After

Reconstruction of Canal Street will provide an opportunity for improved street access as shown in the BEFORE (top) and conceptual AFTER (bottom) images above

West BRT project. This would be similar to pick up lanes at an airport terminal, with channelized traffic and parallel curbs.

An enhancement to this Short Term idea would be to add vertical circulation between street level along Canal Street and the track/concourse level below (especially in the block between Adams and Jackson, as well as immediately north and south). In this study two conceptual alternatives have been developed, one based on street operations remaining as they are (i.e., Canal continues to be a northbound street and Clinton southbound) while the other is based on reversing this traffic pattern (i.e., Canal southbound and Clinton northbound). Opportunities for additional islands with vertical circulation, in the blocks of Canal immediately north of Adams and south of Jackson, are also included in these alternatives.

Because the viaduct structure will need complete replacement, the incremental expense of incorporating vertical access and potential changes to curblines at the same time should be relatively small as a proportion of that project's overall costs.

Details of the design of the new Canal viaduct could and should also facilitate other possible projects identified in the Master Plan Study. For example, it appears that two existing Canal viaduct columns conflict with the location where a track would need to be shifted in conjunction with the Metra platform widening opportunity, another medium term idea. Careful placement of columns could also facilitate potential future construction of Canal or Clinton subways, two of the long term/visionary proposals.

Long Term / Visionary Ideas (see Appendix D for more detailed plans)

The study has developed concepts for increasing passenger handling capacity and improving the traveler experience by significantly expanding or completely replacing the existing intercity and/or commuter station facilities. These plans are described as:

* A new facility in the 300 S. Riverside block, to be constructed on air rights over Union Station tracks (which are owned by Amtrak) and integrated with the existing office building on this block
* Redevelopment of the 200 S. Riverside block with new intercity and commuter station facilities
* Construct a new fourth lead track on the north side of the station

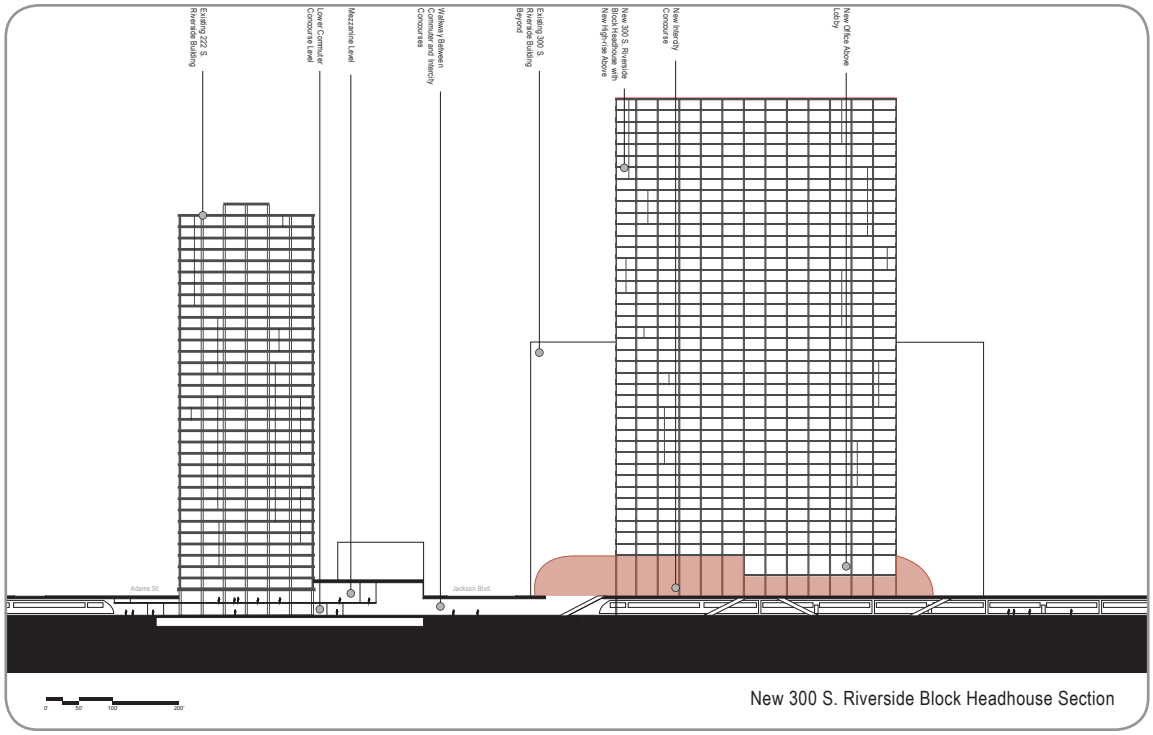
The study has also developed two concepts for adding additional track and platform capacity in underground alignments that bypass and augment Union Station's existing track and platform infrastructure. These plans are described as:

* Clinton Subway (per the original West Loop Transportation Center concept)
* Canal Subway

New Intercity Station in 300 S. Riverside Block

This concept would create a new intercity passenger train station in the 300 S. Riverside block (see space plan layout). It would not involve the demolition of any buildings, but rather would be constructed on the Amtrak-owned air rights on the west side of the block. This concept would also repurpose the lobby space of the existing 300 S. Riverside Plaza Building (which runs through from Jackson to Van Buren) into additional train station space, with a new office lobby constructed one floor up. This building is located above the mail platform that is proposed for conversion to two wide intercity passenger train platforms as a medium term idea.

Primary access to all of the south side platforms would be from above, requiring the widening of the existing platforms to provide room for stairs/escalators/elevators. A similar platform widening concept



A new intercity passenger train station could be constructed in the 300 S. Riverside block, integrating the existing office building as well as Amtrak-owned air rights

was also proposed as a medium term idea to serve Metra trains and riders, meaning a total of four more platforms would need to be widened as part of this project. Service access to these four platforms could be provided by constructing ramps to the existing but little-used "cross connect tunnel" which runs east-west under the south side platforms just south of Congress. This concept would provide opportunities for attractive and functional circulation space, waiting areas, and restaurant spaces along the riverfront at street level as well as one level up.

New building and station concept at 300 block of S. Canal / Riverside Plaza

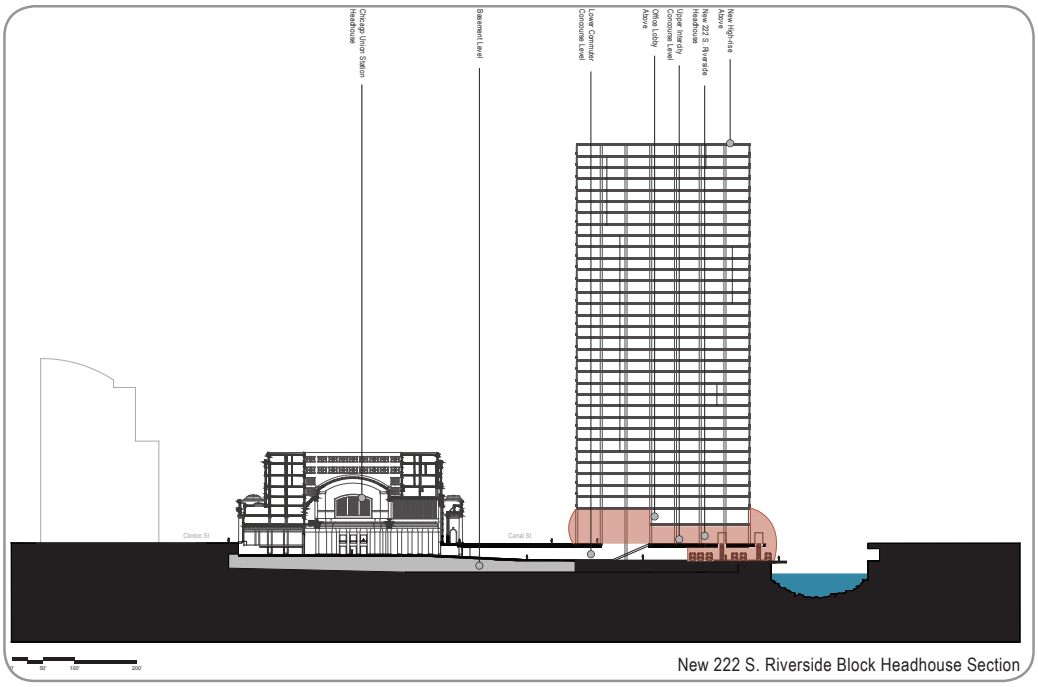
This new intercity passenger train station would be connected to the existing Union Station concourse below street level via a new wide walkway under Jackson Boulevard. The existing concourse would then be dedicated entirely to Metra passengers and could be reconfigured to optimize its utility for commuter train passenger and operations needs.

Amtrak owns the parking garage west of Canal Street, also in the 300 South block. Redevelopment of this prime parcel could also be integrated with the station facility, possibly including an above ground walkway across the street, a street-level bus transfer terminal, some Amtrak customer parking, and loading docks servicing both the new station site development as well as the parking garage site redevelopment. Such future redevelopment of the Amtrak parking garage site might also integrate air rights development over the adjacent transportation center currently being planned by the City of Chicago DOT, along with the potential for an expanded bus terminal.

New Intercity and Commuter Station in 200 S. Riverside Block

The demolition of Union Station's original Concourse Building in 1968, and its replacement by an office building that confined Chicago's most important railroad station to a column-filled basement, has been widely lamented. The Prior Ideas section of this report includes two visionary concepts for new stations proposed for the site of the old concourse building. Both would have replaced the existing 35 story 222 S. Riverside Plaza Building with an architecturally dramatic and visually iconic station structure. Both were based conceptually on linking most of the north and south side station tracks across the existing track-level concourse, thus shifting all of the passenger movements that now take place on the concourse, mezzanine, and street levels, to the street level. These ideas also called for not replacing the office space and would therefore have given up the associated economic impact from that existing asset.

This Study has assessed these prior proposals but has not found a feasible way to develop a track and platform layout plan that is operationally functional with so many and such long through tracks and platforms. Instead, this study proposes a somewhat different long term/visionary approach (see space plan layout in Appendix D) to removing the existing building and starting over on this site. This study's concept calls for largely retaining the current general track and platform configuration at Union Station, with most tracks remaining as stub-end tracks. However, it would provide the ability to have up to five through tracks, a significant increase from the one through track on a platform now available (there is another through track that does not have access to a platform), or the two through tracks that would be available in the mail platform conversion concept described under medium-term ideas. It should be noted that Metra has



A new station in the 200 S. Riverside block could retain the current general track and platform configuration while also providing additional through tracks.

indicated that commuter demand for through tracks is very limited. Stub tracks serve its needs best and two through tracks would be sufficient for future commuter needs.

In this concept, intercity operations would be moved to street level, leaving commuter services full use of the track level concourse area. The existing intercity passenger train ticketing and other support activities would be removed from track level, and the waiting room would be reconfigured to allow the track level commuter concourse to be largely open circulation space, as it was in the original concourse building. Some of the street level space could be left open, allowing daylight to reach the commuter concourse. Two small mezzanines would allow most commuters to walk to the Adams and Jackson bridges without disrupting the intercity passenger area. The new intercity train tracks converted from the mail platforms would be accessed from the new street-level intercity station via escalators as well as the re-purposed below grade walkway, as discussed in the medium term ideas section.

The new station facilities would be designed in a manner that would also allow a new office building to be constructed on air rights above the station, only this time with the needs of railroad users in mind (for example, with far fewer columns than the present building). The office building lobby would be one level above street level. Station food service, with a view of the Chicago River, might also share this level.

New building and station concept at 200 block of S. Canal / Riverside Plaza

Construct a New Fourth North Lead Track

One aspect of increasing the train handling capacity of Union station involves the ability to accommodate through train movements for regional intercity passenger trains. As discussed in the Railroad Level portion of the West Loop Transportation Center description, through tracks can have a higher train handling capacity than stub-end tracks, as through trains do not need to be turned around and a through platform's approach and departure tracks may be operated uni-directionally. However, through train movements could mean an increase in the number of trains using the north side approach tracks of Union Station. Additionally, commuter demand for through tracks is very limited, and the increased use of through tracks may require additional passenger waiting area in the station. Historically, the north side of the station has been much less busy than the south side and, as a result it has fewer lead tracks (there are currently 3 lead tracks on the north vs. more than 5 on the south). These three tracks are currently used to handle all of the Metra Milwaukee District and North Central Service trains (including movements to/from the Western Avenue train maintenance/storage facility for these trains as well as Heritage Corridor trains) and Amtrak's service to/from Milwaukee (seven daily Hiawatha service round trips and the daily Empire Builder train to/from Seattle/Portland). Future through trains could go to any of these destinations, or possibly to a future intercity passenger train station/terminal at or near O'Hare International Airport. A passenger train station at O'Hare would serve passengers connecting to air service for longer distance (including international) trips, as well as serving the 2+ million residents and the many businesses based in Chicago's Northwest suburbs.

Potential long term changes to Union Station could significantly improve capacity, enhance the passenger experience, and enrich the vitality of the Chicago region.

This study analyzed the potential for adding future track capacity to the northern approach to Union Station. There were originally four north lead tracks when Union Station was built. This number of tracks was needed for the Pennsylvania Railroad and Milwaukee Road to serve the many freight customers then located alongside the route (a flour mill on Carroll Avenue, east of Ogden, is the last one remaining and the fourth track now ends at Morgan St. – 1000W). Space for restoration of a fourth track is available west of Clinton Street. However, former railroad right-of-way has been sold off in the segment between Clinton and Lake Street and the existing right-of-way width through this curve is very restrictive. Nevertheless, it should still be geometrically possible to re-establish four approach tracks through this curve on an alignment that has been developed as part of this study. This new approach track alignment would require some right-of-way acquisition, and it would also conflict with a pier of the bridge that carries the Ogilvie Transportation Center north lead tracks. This bridge is over 100 years old and at such time as it may be replaced, the new span should be designed to accommodate a future four-track section below.

Subway Alternatives

Two alternatives have been developed based on constructing subterranean alignments, one with platforms under Clinton Street, the other with platforms under Canal Street. These would involve tunnels that completely bypass Union Station's existing tracks/platforms, connecting with Union Station's existing lead tracks on the south at Taylor Street and to the north and west at Racine and, thus, could be built

completely independently of the other ideas described earlier in this section. Either of these alternatives would be substantially more expensive to build than the previously-described Ideas. Thus, it is anticipated that the surface level projects would be constructed first. The subway alternatives would become most important in the long term, after the limits of the capacity added by the surface track/platform projects is no longer adequate. The subway alternatives have two primary features that distinguish them from the surface alternatives:

* Because the new tracks and platforms would be located west of the concourse (or west of the Great Hall, through which a direct pedestrian connection is assumed, in the case of the Clinton subway) it would be able to more fully take advantage of the historic headhouse building's great spaces for transportation-related functions.
* The north end of the tunnel's railroad platforms would extend as far north as Ogilvie Station, making it convenient to develop direct connections to both Union Station at the south end of the new underground platforms as well as Ogilvie Station, Chicago's second-busiest commuter terminal, at the north.

Most of the right-of-way identified as being required for the subway concepts is already in public ownership (i.e. City, IDOT, Amtrak, or Metra).

Clinton Subway

The concept for a multilevel subway under Clinton Street was first introduced by CDOT as part of the original West Loop Transportation Center proposal in 2001. The vision for this project is described in the Prior Ideas section. In 2001 Amtrak was still in the mail and express business, so the mail platform area was thought to be unavailable for future conversion for passenger use. It appeared that the only way to add significant track and platform capacity to Union Station would be by constructing a subway routing for tracks and platforms that would bypass the existing station tracks. It was further envisioned that the new subway tunnel under Clinton Street could be built with multiple levels, and thereby also be able to accommodate other transit services, such as a new CTA rail rapid transit route (although such connections were assumed to be ultimately developed as part of separate projects.)

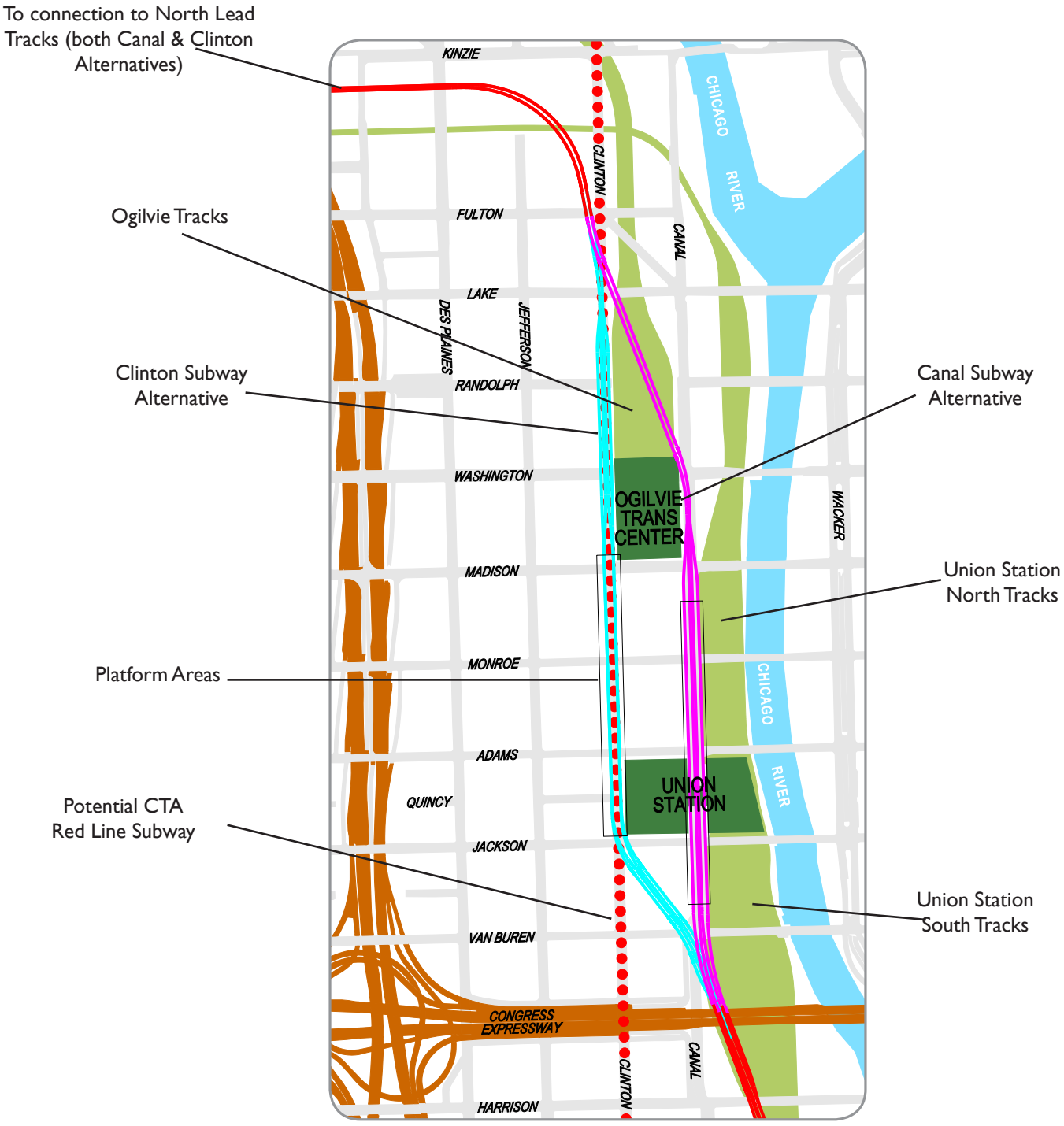
In the course of the current Study, the Clinton Street subway idea has been further refined. These modifications include:

* Removing the bus subway level, since current CDOT and CTA plans call for keeping bus operations on the surface to the greatest extent possible
* Adding a second railroad level, to increase capacity (providing a total of four platform edges served by four through tracks)
* Moving the rapid transit level to the bottom of the multi-level subway, eliminating a geometric conflict between the railroad and the existing CTA Blue Line tunnel under the River at Congress.

Trains on the upper level would encounter ruling grades of 2.5%; trains on the lower railroad level would face grades of close to 4% (see profile). About 1.3 miles of the route would be in tunnel. Because of the grades and the tunnel operation, electrified operation is likely to be essential to the future viability of this plan. The near 4% grades in particular would probably require use of electric multiple unit equipment as is used in many international high speed rail trains.

Canal Subway

Another alternative developed as part of this study is a concept for a subway tunnel carrying through tracks bypassing Union Station, with passenger platforms under Canal Street. It would be similar in function


To connection to North Lead Tracks (both Canal & Clinton Alternatives)
Ogilvie Tracks
Clinton Subway Alternative
Platform Areas
Potential CTA Red Line Subway
Canal Subway Alternative
Union Station North Tracks
Union Station South Tracks
KINZIE
FULTON
LAKE
RANDOLPH
WASHINGTON
MADISON
MONROE
ADAMS
QUINCY
JACKSON
VAN BUREN
CONGRESS EXPRESSWAY
HARRISON
CLINTON
DES PLAINES
JEFFERSON
CANAL
CHICAGO RIVER
OGILVIE TRANS CENTER
UNION STATION
WACKER

and operations to the Clinton Subway; the alignment would actually be the same north of Fulton Street, crossing over between Canal and Clinton Streets under the Ogilvie Transportation Center platforms. An advantage of using Canal Street for such a subway connection is that the street width is 100 feet, rather than 80 feet in the case of Canal. This is wide enough that it would be possible to construct four tracks and two island platforms on a single level, providing the same railroad capacity as the Clinton subway with a simpler design and less restrictive grades for all tracks (the ruling grade would be 2.5%; see profile). It is assumed that a CTA rapid transit route could still be built under Clinton Street, as proposed in the Clinton subway idea, but the projects would in this case be completely independent of each other.

Cost

The following table summarizes the costs associated with the improvements discussed.

Summary List of Improvement Ideas with Estimated Construction Cost Range

(in 2011 dollars)

	Less than $50M	$50 to 100M	$100 to 200M	$200 to 500M	$500M to 1B	$1 to 2B
Medium Term Ideas						
Reconfigure Existing Concourse to improve capacity and flow	X					
Widen Platforms 6/8 & 10/12 and add direct vertical access to street level		X				
Begin repurposing old mail platform for passenger use *Phase 1: Create connecting pedway, new waiting area, and two through tracks*			X			
Estimated Total Cost of Medium Term Ideas			X			
Long Term/Visionary Ideas						
Create a New Station Building Facility						
New Intercity Station in 300 Block* *Includes widening and adding direct vertical access to the platforms between tracks 14 and 28, and creating a modern high capacity station at street level above the existing south approach tracks with commercial joint development above (requires repurposing the street level of the existing commercial building on this block).*				X		
Complete repurposing old mail platform for passenger use *Phase 2: Create two additional through tracks (four in total)*		X				
Add a fourth lead track on the north side of the station	X					
Estimated Total Cost of New Station Building Facility - 300 Block				X		
or						
New Intercity and Commuter Station in 200 Block* *Includes removal and replacement of existing structures on this block and creation of a modern high capacity station with commercial joint development above.*					X	
Complete repurposing old mail platform for passenger use *Phase 2: Create two additional through tracks (four in total)*		X				
Add a fourth lead track on the north side of the station	X					
Estimated Total Cost of New Station Building Facility - 200 Block					X	
Add Track and Platform Capacity in a New Underground Alignment						
Clinton Subway						X
or						
Canal Subway						X

* Assumes that widening of Platforms 6/8 & 10/12 and Phase 1 of the Mail Platform conversion are already complete

UNION STATION
MASTER PLAN

5 - Public Involvement

A public meeting was held as part of the Union Station Master Plan study on Thursday, December 15, 2011 at Union Station's Union Gallery Room between 4:00-7:00 PM. The meeting utilized an open house format so that attendees could browse through numerous exhibits and discuss issues individually with staff from stakeholder agencies and the consultant team. A narrated presentation was made at 4:30 PM and 6:00 PM. Approximately 200 people attended throughout the event and 67 of those attendees completed questionnaires on site. The comments of 30 people were also submitted by the Midwest High Speed Rail Association at the meeting. Finally, 30 comments were submitted online at the project website UnionStationMP.org as of January 26, 2012. Feedback on the project from these 103 individuals is summarized below.

Goals and Issues

The public meeting and the website highlighted the project goals and key issues for the public, listed below.

Goals

* Provide sufficient capacity for significant increases in Metra and intercity ridership
    * Estimated 40% increase in trains by 2040
    * Possible significant further increases
* Make the terminal more inviting for passengers
* Provide more direct and convenient transfers to buses, CTA trains, taxis, shuttles, pick-up/drop-off
* Create a terminal that is vibrant, a civic asset, and a catalyst for growth in the West Loop and region

Issues and ideas for improvements were divided into those related to:

* Street access
* Station congestion
* Tracks/Platforms

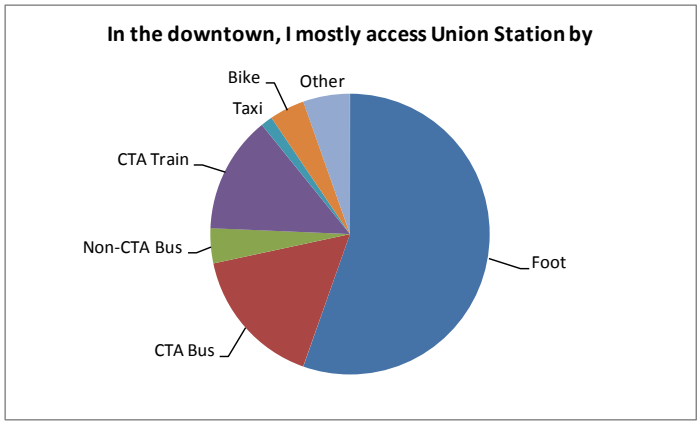
In addition to these goals and issues, meeting attendees and website respondents were encouraged to comment on any Union Station topic that they felt was important.

Public Meeting Attendees

Of the 67 people who provided information on questionnaires at the public meeting, 46 (69%) indicated that their primary interest in the study was because they were a "Metra rider". The second most common response, "Amtrak rider", was made by 24 people, or 36% (note that individuals could choose more than one interest). "Employer/employee working near Union Station" was another common response, made by 19 people (28%).

When asked how they usually access Union Station, the majority of respondents said that they walked. The second and third most common responses were "CTA Bus" followed by "CTA Train", as shown in the figure below.

Union Station Master Plan public meeting



Comment Overview

In order to get an overview of what topics were of most interest to the public, comments were transformed into a word cloud. A word cloud is a visual representation that gives greater prominence to words that appear more frequently in a given set of text. A word cloud generated from written comments submitted at the public meeting or online is shown below. The word cloud provides an introduction rather than a detailed perspective on comments.

One can see that "trains" and "platforms" were some of the most popular words used in written public comments. Perhaps the most interesting result of the word cloud is the prevalence of "platforms", which indicates that regardless of what people think about the platforms, the fact is that they commented about platforms more than many other topics. This is consistent with one of the key study issues – platforms that are insufficient for existing and future demand.

Word cloud of public comments (wordle.net)

Other popular words (beyond "Chicago", "Amtrak", and "Metra") mentioned in comments included "access" and "HSR (High Speed Rail)". "Access" highlights another key issue of the project. This could include "access" between the street and the station, station and platforms, or station and other modes of transportation. "High speed rail" is not directly listed in a project goal or issue, but it was on the minds of the public as shown in their comments.

For a transportation mode comparison, the word "trains" was mentioned six times more than "car" and eight times more than "bus". This could imply that transfers to cars and buses were not as important to the public as issues relating directly to trains at Union Station.

More detailed evaluation of comments is included in subsequent sections.

A questionnaire asked for public input regarding Union Station, including questions about entering and exiting the station, navigating the station interior and exterior, transferring to other transportation modes, directional signs, and amenities.

Questionnaire

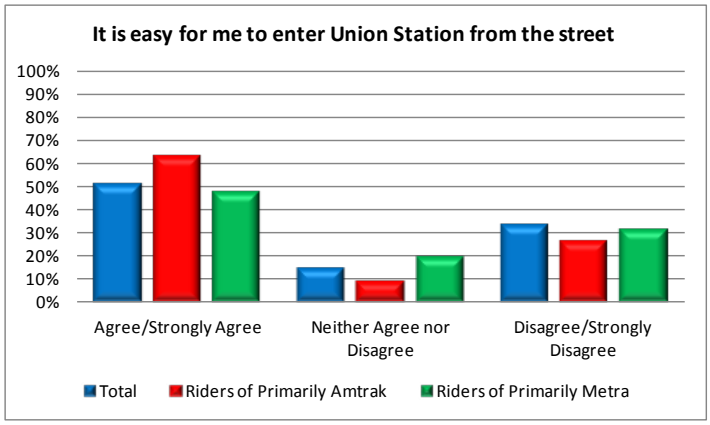
At the public meeting, the questionnaire asked respondents if they agreed or disagreed with several statements about existing conditions at Union Station. The statements were phrased in a positive manner (e.g. "it is easy for me") so if respondents agreed, then they were affirming that the existing Union Station is adequate. Responses below are divided into sections based on positive opinion, negative opinion, split opinion, and statements in which a majority of respondents did not have an opinion.

Responses were further evaluated for differences between riders who primarily ride Metra and riders who primarily ride Amtrak. Only responses that revealed interesting differences among types of riders are shown with a breakdown of responses in graphical form. For responses in which preferences did not vary between types of riders, only the responses for all respondents as a single group are displayed.

The questionnaire is included iat the end of this section.

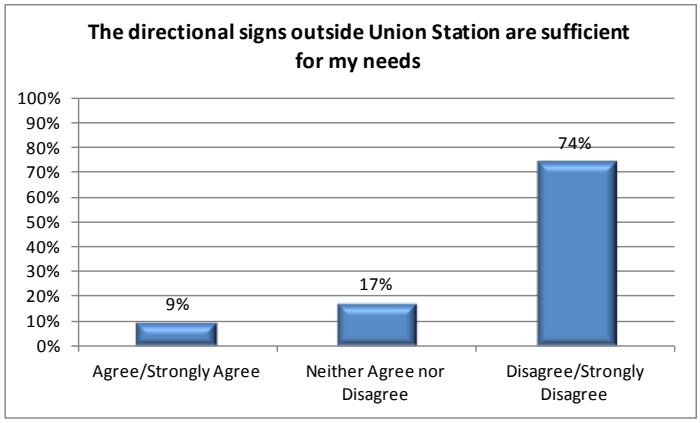
Positive Opinion

The question that received the most positive feedback, and the only statement in which over 50% of all respondents agreed or strongly agreed, concerned entrances as shown in the graph below. While 51% of all respondents answered that it is easy to enter the station, those who primarily ride Amtrak had a more favorable view of entering than those who primarily ride Metra.



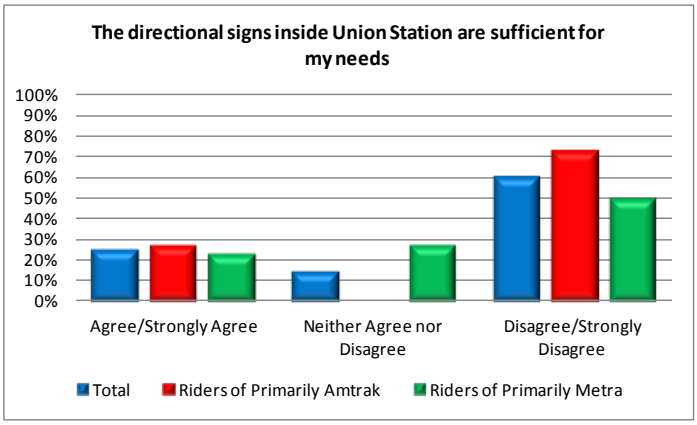
Negative Opinion

The statement that received the most negative feedback concerned directional signs outside of the station, as shown in the graph below. Three-quarters of respondents felt that directional signs outside of the station were lacking. Riders of Amtrak and Metra had similar negative opinions about this issue.

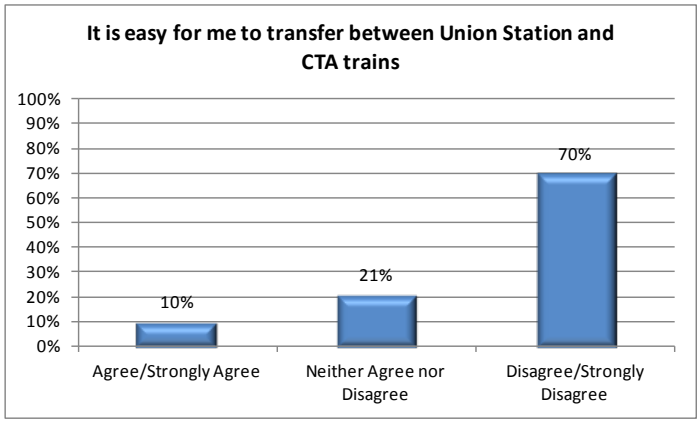


Perhaps the seemingly contradictory responses to the two questions above can potentially be reconciled by stating that if a person already knows where they are going, entering Union Station from the street is easy. If a person does not know and is looking for guidance from signs, then finding a way into the station is difficult.

Similarly, the graph below shows that respondents also think that signs inside the station are not sufficient. Respondents who primarily ride Amtrak had the most negative opinion of signs inside the station.



Another strong negative response was given regarding transferring to CTA trains, in which 70% of people thought it was difficult to do from Union Station (shown in the graph below). Given that a 5 minute to 8 minute walk across several city blocks is required to transfer, and the public believes that directional signs are insufficient, it is not surprising that people said that it is not easy to transfer to CTA trains. Improving transfers between modes is a goal of the project that the public clearly thinks is an important concern.



A smaller majority of questionnaire respondents, between 50%-59%, disagreed or strongly disagreed with the statements below:

* Traveler information services in Union Station are sufficient for my needs
  * *59% disagreed/strongly disagreed*
  * *Amtrak riders had a more unfavorable opinion than Metra riders*
* It is easy for me to move around within Union Station
  * *58% disagreed/strongly disagreed*
  * *Metra riders had a more unfavorable opinion than Amtrak riders*
* The dining options in Union Station are sufficient for my needs

    * *58% disagreed/strongly disagreed*
    * *Amtrak riders had a much more unfavorable opinion than Metra riders*
* The retail services in Union Station are sufficient for my needs
    * *57% disagreed/strongly disagreed*
* The waiting room within Union Station is sufficient for my needs
    * *57% disagreed/strongly disagreed*
    * *Amtrak riders had a more unfavorable opinion than Metra riders*
* Traffic congestion on streets near Union Station is not a problem for me
    * *55% disagreed/strongly disagreed*

All of the above statements relate to the project goal to make Union Station "more inviting to passengers". Simply put, across a variety of customer experiences, the public believes that Union Station is currently inadequate.

> Across a variety of customer experiences, the public believes that Union Station is currently inadequate.

Split Opinion

On some topics, respondents did not provide a clear consensus regarding their collective opinion. In these cases, responses were split without a clear majority between "agree"/"strongly agree", "neither agree nor disagree", and "disagree"/"strongly disagree". These questionnaire statements include:

* It is easy for me to exit Union Station to the street
* It is easy for me to get to the train platforms before boarding the train
* It is easy for me to transfer between Union Station and taxis

One statement, *"It is easy for me to leave the train platforms after getting off the train"*, also yielded a split result for the respondents as a whole. However, almost 70% of Metra riders disagreed or strongly disagreed with that statement, almost twice the percentage of Amtrak riders. This could potentially be explained by the overcrowding that occurs more frequently when Metra trains arrive than when Amtrak trains do.

Majority Neutral

More people chose "neither agree nor disagree" than other options for the following statements in the questionnaire, potentially implying that many respondents had no knowledge about the experience.

* It is easy for me to transfer between Union Station and CTA buses
* It is easy for me to transfer between Union Station and non-CTA buses

In order to discover more information about public opinion on these topics, a survey specifically directed at bus riders who transfer at Union Station may be needed.

Written Comments

The questionnaire asked respondents to state the one thing they would change about Union Station. The common themes across several written comments related to the following:

* Increase the capacity of train platforms because they feel overcrowded
    * Sample comment: "Increase platform foot traffic volume"
* Provide direct access and improve transfers between Union Station and CTA trains and buses
    * Sample comment: "Seamless connection to trains and buses"
* Improve wayfinding and directional signs to reduce confusion
    * Sample comment: "Vastly improved signage - every day I assist confused/lost passengers to the Amtrak or Metra gates"
* Enhance the overall customer experience: better dining options, improved waiting areas, a more welcoming atmosphere, and elimination of the feeling that people are walking through a "basement"
    * Sample comment: "More passenger friendly - better waiting areas & wayfinding"
* Better use of the Great Hall, which many respondents thought was an architectural gem that is currently underutilized
    * Sample comment: "It's very frustrating to go from the wonderful volume of the Great Hall down into the maze of the concourse"

When the questionnaire asked what dining or retail options people wanted in Union Station, the most respondents (12) wrote that they wanted an establishment in the style of a nice full-service sit-down restaurant. This was followed by requests for a pharmacy or grocery.

Public comments commonly focused on the desire for a modern, grand, and efficient Union Station that is a suitable welcome for commuters and visitors to downtown Chicago.

Comments also included those in favor of through-routing commuter rail service and improved bicycle amenities at Union Station. Among website comments, one of the most prevalent opinions related to the desire for high-speed rail at Union Station. High-speed rail was particularly of interest in comments made by people who live outside of the Chicago region.

Only two people mentioned diesel exhaust as an issue of concern. This is surprising due to the relatively recent media attention that has focused on this issue.

Across all comments, people commonly focused on the desire for a modern, grand, and efficient facility that is a suitable welcome for commuters and visitors to downtown Chicago. For a variety of reasons described above, the public feels that Union Station needs various improvements to achieve these objectives.

Midwest High Speed Rail Association Letters

In addition, for several years the Midwest High Speed Rail Association has maintained a website downtownairport.com dedicated to promoting improvements to Chicago Union Station. It has always provided the opportunity to send a supporting email to Chicago's mayor. A copy of the email template that has been posted since December is shown in the appendix to this report. It calls on Mayor Emanuel "to think big as the master plan is developed, combining short-term fixes while seeking the funding to dramatically expand the station". Since December, 753 people have submitted the letter. Of these supporters, 269 live in Chicago, 188 are from Illinois residents from outside Chicago, and 159 are from other Midwest states. The rest are mostly travelers from other cities passing through Chicago whose impression of the City is formed by their experience at Union Station. The Association has recently submitted about 150 of these letters that have been personalized by the supporters, adding their own experiences and specific concerns beyond those mentioned in the template. The ones found to be mentioned most often included the overcrowded, hot Amtrak waiting room (21), Chicago's need for a world class station (11), the confusing layout of the station (5), the need for better 'L' connections (5), the importance of preserving the Great Hall (3), making the Great Hall more active (3), and the crowded platforms (3).

Common themes across several public comments:

* Increase the capacity of train platforms because they feel overcrowded
* Provide direct access and improve transfers between Union Station and CTA trains and buses
* Improve wayfinding and directional signs to reduce confusion
* Enhance the overall customer experience: better dining options, improved waiting areas, a more welcoming atmosphere, and elimination of the feeling that people are walking through a "basement"
* Better use of the Great Hall, which many respondents thought was an architectural gem that is currently underutilized

Survey of Public Meeting Participants - Chicago Union Station Master Plan Study – December 15, 2011

Public input is an important component of this study. Thank you for sharing your input below. This information will be used to further assess opportunities in preparation for performing more detailed analysis in the future.

I am interested in this study because:	Primary Interest	Secondary Interest
I am a Metra rider during peak periods (rush hours)	_____	_____
I am a Metra rider during off peak periods (mid-days, evenings, weekends)	_____	_____
I am an Amtrak rider	_____	_____
I am an employer/employee working near Union Station	_____	_____
I am a building owner/representative for a building that is near Union Station	_____	_____
I am a representative of a public sector agency	_____	_____
I am a representative of a transit advocacy group	_____	_____
I live nearby	_____	_____
Other (please specify): _____	_____	_____

In the downtown, I mostly access Union Station by (check one): ☐ Foot ☐ CTA bus ☐ non-CTA bus ☐ CTA train ☐ Taxi ☐ Other_____

Please circle the number below that best represents how strongly you agree or disagree with each of the following statements:	**Strongly Agree**	**Agree**	**Neither Agree nor Disagree**	**Disagree**	**Strongly Disagree**
It is easy for me to enter Union Station from the street.	1	2	3	4	5
It is easy for me to exit Union Station to the street.	1	2	3	4	5
It is easy for me to move around within Union Station.	1	2	3	4	5
It is easy for me to get to the train platforms before boarding the train.	1	2	3	4	5
It is easy for me to leave the train platforms after getting off the train.	1	2	3	4	5
Traffic congestion on streets near Union Station is not a problem for me.	1	2	3	4	5
It is easy for me to transfer between Union Station and CTA buses.	1	2	3	4	5
It is easy for me to transfer between Union Station and non-CTA buses.	1	2	3	4	5
It is easy for me to transfer between Union Station and CTA trains.	1	2	3	4	5
It is easy for me to transfer between Union Station and taxis.	1	2	3	4	5
The directional signs **inside** Union Station are sufficient for my needs.	1	2	3	4	5
The directional signs **outside** Union Station are sufficient for my needs.	1	2	3	4	5
The waiting room within Union Station is sufficient for my needs.	1	2	3	4	5
Traveler information services in Union Station are sufficient for my needs.	1	2	3	4	5
The dining options in Union Station are sufficient for my needs.*	1	2	3	4	5
The retail services in Union Station are sufficient for my needs.**	1	2	3	4	5

*I would most like to see this dining option added to Union Station (type of food or name of restaurant): _____

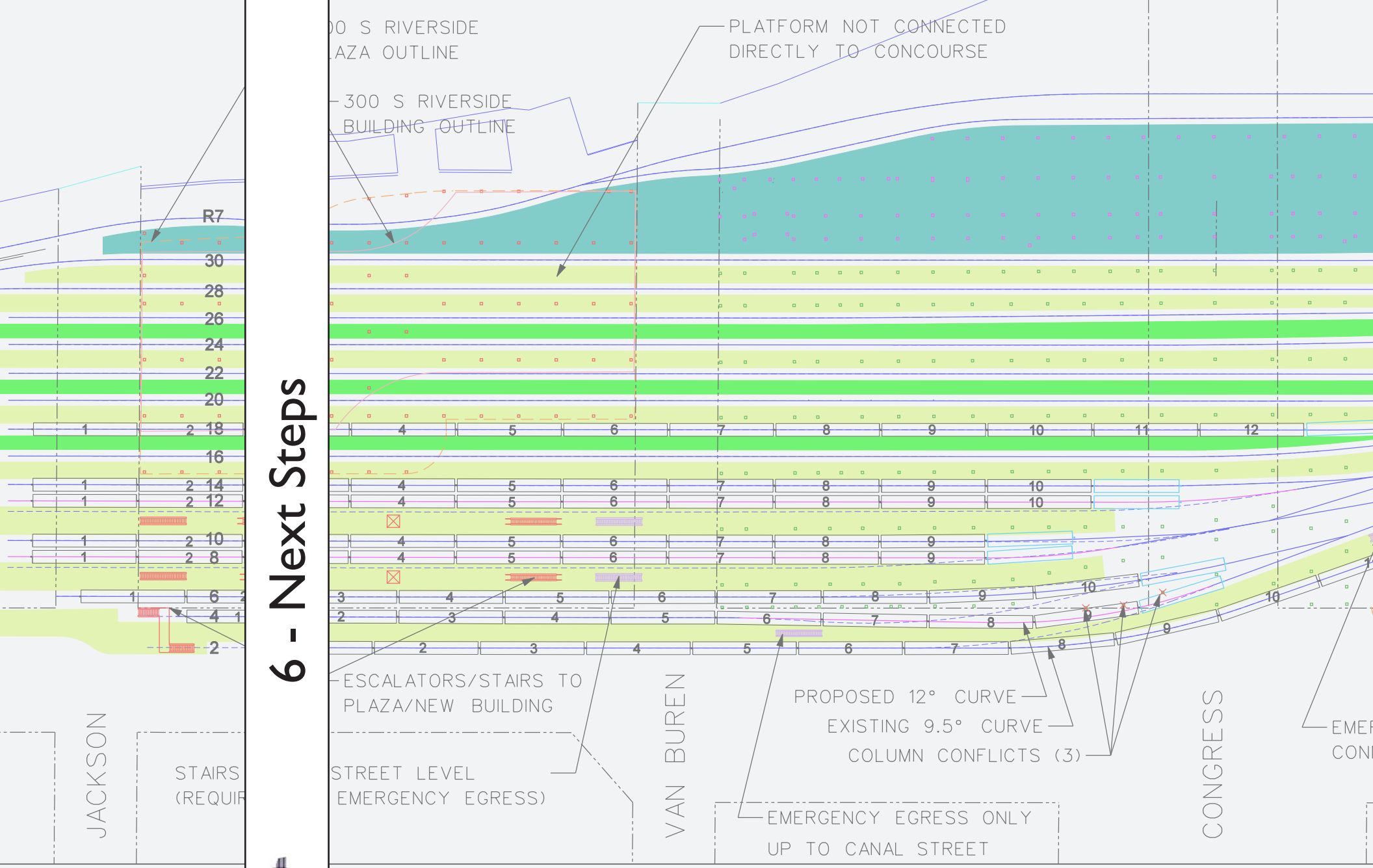
** I would most like to see this retail service added to Union Station (e.g. grocery, pharmacy, clothing, etc.): _____

If I could change one thing about Union Station, it would be: _____

(Please write any additional comments or clarifications on the reverse side of this sheet.)

Questionnaire for public input

6 - Next Steps



TRACK	EXISTING	. COACHES	PROPOSED MAX No. COACHES	SHORTEN TRACK BY:
#2			13	80'
#4			9	25'
#6			10	
#8			9	

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This master planning study has advanced and developed numerous ideas that are intended to address major functional and operational issues affecting Chicago Union Station in the short, medium, and long term. The next steps for these ideas vary, but all involve proceeding with further planning, design, and/or construction to achieve the benefits identified in the preceding chapters. The overarching objective is to move each of these projects from ideas into construction and operation.

The Short Term ideas described in this report are already well advanced in planning and design, and in the case of CDOT's off street bus terminal and improved bus lane projects grant funds have been obtained for their construction. Several near term Amtrak customer facility improvement projects have also had their design work largely completed, but construction is not yet funded. Obtaining funding to complete these initiatives, as well as addressing Amtrak's outstanding "state of good repair" needs throughout Union Station should be a priority next step.

"Medium Term" ideas in this study are focused on resolving serious operational shortcomings that have a direct impact on the ability of Union Station to serve a growing number of passengers.

The Medium Term projects that have been identified are all focused on resolving serious operational shortcomings (including train operations, congestion in the concourse, and street level access needs) that have a direct impact on the ability of Union Station to serve a growing number of passengers. These projects will require further planning analysis and design work before they are ready to be funded for construction. The following next steps are proposed for these ideas:

* Test each of the proposed ideas using simulation models to evaluate their ability to increase passenger and/or train capacity consistent with the projected increases in travel demand. This will be the focus of the next stage of the CDOT-led Union Station Master Plan Study.
* Once these ideas are refined further using the simulation models, the stakeholder agencies will need to identify which organization(s) will serve as the lead sponsor for each of the individual projects. These organizations in turn will:
    * Perform additional feasibility studies, as needed – especially to better understand any structural implications of the proposed improvements on the buildings above
    * Lead the preliminary engineering and final design efforts for individual projects, including obtaining any required environmental clearances
    * Secure funding for both design and construction, and oversee construction
    * Continue public outreach for individual projects.

The next stage of the Union Station Master Plan Study, involving simulation of train and station operations, will more precisely quantify the capacity increase that may be expected from each of the Medium Term ideas. Once the scale of these potential capacity improvements is known, the Union Station stakeholders will be able to compare the projected future growth in travel demand through the station with the

cumulative potential capacity increase from these projects and effectively determine how many years worth of growth the Medium Term improvements will provide. In essence, the upcoming modeling analysis will define just how long the "medium term" is likely to be, and how soon the stakeholders will need to begin more serious consideration of the "long term/visionary" ideas for increasing capacity and improving the station's functionality.

Trains departing Union Station

The Medium Term ideas have thus far been conceived such that each of them would complement and not preclude or make more difficult the implementation of any of the more complex and expensive Long Term/Visionary ideas. However, the Long Term/Visionary ideas include two mutually exclusive alternatives for adding track and platform capacity via new underground alignments, as well as two other mutually exclusive alternatives for creating new station building facilities in either the 200 or 300 block of South Canal Street. Further analysis and public/stakeholder consultation will be needed to assess and determine the relative merits of each of these long term/visionary proposals and to decide which alternatives should advance towards implementation.

"Medium Term" ideas can improve Union Station without precluding future implementation of "Long Term / Visionary" ideas.

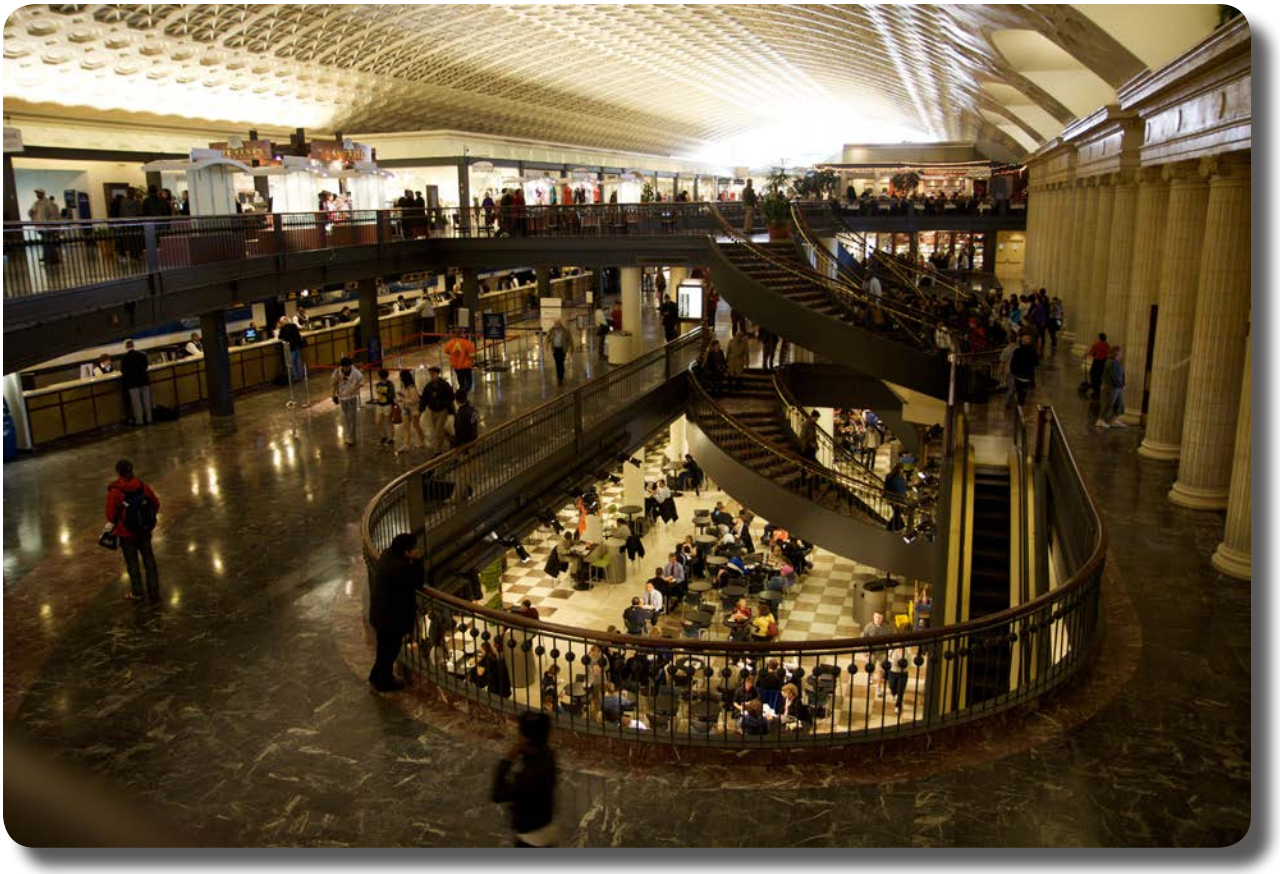
In addition to increasing capacity at Union Station, a primary function of the alternatives among the Long Term/Visionary proposals is placemaking. Either of the new/expanded station alternatives are intended to increase Union Station's visibility and provide a stronger sense of arrival than the current basement-level station which is difficult to navigate. In either of these new station alternatives, space would be available to create passenger facilities and customer amenities with appropriately grand views of the Chicago River and the surrounding downtown Chicago environment. Furthermore, the redevelopment of the station can serve as a catalyst for much needed adjacent development as well. In addition, the project will require the use of some innovative financing tools which are not well utilized in Chicago. The Union Station Master Plan Study team has worked closely with a Civic Advisory Committee established by the Metropolitan Planning Council to advance the placemaking goal and an innovative financing strategy.

The Civic Advisory Committee believes the station's redesign should favor the creation of vibrant public spaces that have the potential to transform an imposing historic structure into one that invites interaction with its users and the surrounding city. In other words, the station should evolve into both an efficient intercity and regional railroad hub, with easy connections to other transit modes, and a truly great place that attracts transit users and non transit users alike. Union Station should be transformed into an iconic destination that takes advantage of its riverfront location with places for people to gather, as well as

internal spaces that draw people for dining and shopping as well as boarding trains. As major employers deliberately relocate to the area to be part of a dynamic urban fabric and be proximate to transportation, the station can act as an economic engine that has a positive impact not only on nearby blocks in the West Loop area, but on the City and the Chicago area as a whole.

New or expanded station facilities would be a large scale project, likely costing in the hundreds of millions of dollars that will increase the value of surrounding property. It therefore behooves the Union Station stakeholders and the civic community to seriously explore innovative approaches to project financing that will most effectively leverage the value that these improvements will add to nearby real estate. The analysis of Real Estate Issues and Opportunities (presented in Appendix E) and the report on Chicago Union Station Concepts in Context (presented in Appendix H) conducted as part of this Study, provide information regarding other major rail station projects around the U.S., and the world, including some discussion as to the methods used to finance these projects. Prospective new Chicago Union Station facilities could, for instance, be designed in a manner to allow an office tower to be constructed on air rights above the station and/or on adjacent Amtrak- and City-owned parcels, creating an iconic mixed-use development that is sensitive both to the needs of rail passengers as well as commercial real estate development opportunities.

The Metropolitan Planning Council, and its Union Station Civic Advisory Committee, is proactively assessing such Union Station-related development opportunities, with particular focus on methods of financing.



In addition to being a transportation hub, Washington D.C.'s Union Station features multi-level retail and dining opportunities (Marcin Wichary)

Tools such as value capture financing have been used successfully throughout the country to finance new or existing transportation infrastructure. It is good policy precisely because it connects the benefit (and benefactors) of the investment with its cost. Financing options under exploration include various forms of Public Private Partnerships (PPP), Tax Increment Financing (TIF), Special Assessment (SSA and SA), air rights, and federal infrastructure loan programs such as those available through the Transportation Infrastructure Finance and Innovation Act (TIFIA) program. Union Station's redevelopment could be part of a larger transportation district that would leverage opportunities on multiple transit-related sites to provide financial support for transportation improvements and other enhancements. At this stage of study, it appears that developing the air rights above the transportation improvements on the 300 south block and the Amtrak parking garage block should be a high priority. These two blocks represent attractive sites for future high-density office development. If structured appropriately, a portion of the proceeds from future private-sector development on these sites could help fund transportation improvements and advance the City's economic development objectives as described in the Central Area ACTION Plan.

"Long Term / Visionary" ideas will create an iconic railroad station that integrates placemaking principles and drives economic development.

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Luann Hamilton, *Deputy Commissioner*

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