





Transportation Technical Memorandum

Illinois Terminal Expansion at the Yards

Champaign-Urbana Mass Transit District

Champaign, Illinois

October 2020



Technical Memorandum

1.0 Purpose of Memorandum

The purpose of this memorandum is to present the assessment of impacts to the transportation network as a result of the proposed Illinois Terminal Expansion Project (Project) in Champaign County, Illinois. This assessment is to support an Environmental Assessment (EA) following the National Environmental Policy Act (NEPA).

This memo describes the impacts of the proposed Project using current FTA guidelines, NEPA regulations, and the Fixing America's Surface Transportation Act.

2.0 Project Description

FTA awarded MTD a Section 5339 Bus and Bus Facilities grant in 2019 and Urbanized Area Formula 5307 funding to complete the Illinois Terminal Expansion Project evaluated in this EA. Illustrated in blue on Figure 1, the proposed Project includes:

- 1. Expansion of bus platforms, including dedicated space for rural and intercity services;
- 2. Construction of controlled pedestrian access to bus platforms and visibility improvements;
- 3. Interior renovation and expansion of the Illinois Terminal and waiting areas;
- 4. Construction of a mixed-use structure that connects to Illinois Terminal and includes bus platforms, waiting areas, expanded leasable space, residential units, and a parking deck that supports these uses; and
- 5. Land acquisition.







Source: Ratio Architects 2020

The mixed-use structure would be constructed with public and private funding. A portion of the mixeduse structure would be dedicated private residential units and retail space. Under the Joint Development project, FTA funding would potentially contribute to the site preparation, utilities, building foundations, walkways, pedestrian and bicycle access, streetscape improvements, safety and security equipment, and construction of the shell of the mixed-use structure, which would include space for commercial uses. Only private funding would be used to complete the interior build-out (or outfitting) of any private commercial or residential elements.

The area shown in Figure 1 is collectively referred to as "The Yards." However, the area south of Logan Street, shown in grey, would be completed as a separate private project and is <u>not</u> included as part of the proposed Project evaluated in this EA. Information relating to potential future development south of Logan Street is included for informational purposes and to evaluate cumulative effects.

Illinois Terminal is located at 45 East University in downtown Champaign, Illinois The proposed Project limits are depicted on Figure 2 and defined by University Avenue to the north, the Canadian National (CN) railroad tracks to the east, Logan Street to the south, and Walnut Street to the west.







Source: HDR 2020

2.1. No Build Alternative

The No Build Alternative is a required alternative as part of the NEPA environmental analysis and is used for comparison purposes to assess the relative benefits and impacts of implementing the proposed Project. The No Build Alternative would not upgrade or expand Illinois Terminal nor would it allow MTD to leverage private investment to increase value and improve quality of life for the community. The No Build Alternative is identified as the "Business as Usual" scenario in the travel modeling and includes potential future private development south of Logan Street. Operational crowding of buses and passenger crowding on platforms and within the waiting areas would continue to increase as the community grows, development in the downtown area progresses, and demand for public transportation rises. Safety of passengers would continue to be a concern for MTD and users of Illinois Terminal as buses compete for platform space, queue on local streets, and load and unload passengers at non-platform areas in parking lots and at double-parked locations.

2.2. Build Alternative

The proposed Project limits are depicted on Figure 2. The potential private development proposed south of Logan Street is not included in the Build Alternative. The Build Alternative would renovate the Illinois Terminal building, expand the Illinois Terminal building (referred to as the mixed-use structure) on



existing surface parking lots to the south and southwest, and reconfigure the site layout for better operations and safety.

The following physical elements would be included and are discussed in more detail as outlined below:

- 1. Expansion of bus platforms, including providing dedicated space for rural and intercity services;
- 2. Construction of controlled pedestrian access to bus platforms and visibility improvements;
- 3. Interior renovation and expansion of the Illinois Terminal and waiting areas;
- 4. Construction of a mixed-use structure that connects to Illinois Terminal and includes bus platforms, waiting areas, expanded area for leasable space, residential units, and a parking deck that supports these uses; and
- 5. Land acquisition.

Expanded Platforms and Separation of Transportation Modes

The Build Alternative would create dedicated platforms for up to three rural and intercity vehicles along Market Street in front of the Illinois Terminal building, as shown in Figure 3. A bus bay would be created along Market Street to remove the buses from traffic; this would lower the number of crashes that are experienced on Market Street. Pedestrian crossings would be provided to allow for safe access across the circular drive to the rural and intercity platforms along Market Street and at Market Street and Bailey Street.

In addition to the three new rural and intercity bus platforms on Market Street, the Build Alternative would increase the number of platforms for dedicated MTD service from 10 to 19, with total capacity for 23 buses. The four existing platforms behind Illinois Terminal are able to accommodate five buses and would remain in their current configuration. Fifteen new dedicated MTD bus platforms would be constructed south of Illinois Terminal and north of Logan Street, shown in Figure 3. The new MTD platforms would be constructed on an existing surface parking lot and would be on the ground floor of a new mixed-use structure





Figure 3. Site Layout and First Floor Plan for Illinois Terminal Expansion

Source: Ratio Architects 2020

The majority of taxi cab and ride share service use at Illinois Terminal is by Amtrak rail passengers. The Build Alternative improves traffic circulation in front of Illinois Terminal by moving taxi and rideshare traffic to a dedicated space on the second floor of the mixed-use structure (Figure 4).



Figure 4. Second Floor Plan for Illinois Terminal Expansion

Source: Ratio Architects 2020

Pedestrian and Access Improvements

Highly visible crosswalks would be carefully positioned on the ground floor of the mixed-use structure for pedestrians crossing lanes of bus traffic to enter/exit island platforms (see Figure 3). Abundant lighting in the platform area would be implemented. The viability of installing pedestrian activated flashing beacons at the crosswalks is also being considered as a design feature. Barriers would be



installed on the back side of platforms, forcing passengers to utilize the crosswalk as it would be the only entrance/exit to the platform on the ground floor.

As shown in Figure 4 and Figure 5, second floor access would be provided to outer island platforms, Amtrak passenger rail, and rideshare/taxi pickup and drop-off. Vertical circulation elements (stairs, elevators, escalators) would facilitate access to MTD platforms without the need to cross the bus drive. All improvements to Illinois Terminal and the mixed-use structure would be compliant with guidelines of the Americans with Disabilities Act of 1990. Universal design principals would be incorporated to the extent feasible.



Figure 5. Second Floor Pedestrian Connections

Source: Ratio Architects 2020 Note: Elevators not shown.

Interior Renovation of the Existing Illinois Terminal and Waiting Areas

Under the Build Alternative, the interior of the Illinois Terminal would be renovated to accommodate connections to the mixed-use structure and platforms to the south, provide additional passenger waiting areas, and expand tenant spaces. The READY School space on the third floor, CityView Event and Meeting Center on the fourth floor, and other existing office space would be retained in their current configurations. The READY School space on the first and second floor of the Illinois Terminal would be moved to the third floor of the mixed-use structure. Renovations to the interior of the existing Illinois Terminal building would provide the following:

- Expansion of the Amtrak waiting room to accommodate more than 200 passengers;
- Up to 17,000 square feet in amenity and leasable space; and
- Up to 1,750 square feet of bus waiting areas to accommodate 115 passengers.

Mixed-Use Structure

The mixed-use structure would be constructed on three parcels located north of Logan Street between Walnut Street and the Canadian National railroad tracks. As a joint development structure, FTA funding



would be used to construct the building shell, including the bus platforms, transit-serving passenger amenities, MTD tenant space, and parking. The interior build-out of private development space for retail and residential uses within the mixed-use structure would be privately funded as part of the joint development agreement. Interior build-out related to transit and transit-serving passenger amenities would utilize FTA funding.

East of Market Street, the mixed-use structure would be five floors and would include a parking deck with approximately 374 parking spaces for use by Illinois Terminal passengers and employees, the public, taxi and ride share services, and residents of the private development. See Figure 6 for the full site layout and Table 1 for a listing of conceptual-level programming.

It is anticipated that 195 spaces of the total 374 spaces in the mixed-use structure would be for transit and transit-supportive uses. Approximately 17 spaces would be marked as reserved for MTD and police parking, Zipcar, and taxi/ride share. Approximately 126 prepay visitor spaces would be available for transit riders, multi-day parking, visitors to Illinois Terminal, and the general public. The parking deck would be managed by the City of Champaign, similar to the existing West parking lot at Illinois Terminal. Multi-day parking would be controlled through check-in procedures at Illinois Terminal. Approximately 179 parking spaces will be allocated to residential use.



Figure 6. Site Layout for Illinois Terminal Expansion.

Table 1. Joint Development Mixed-Use Structure Conceptual Plan Elements

Floor	Use	Floor Area (sq. ft.)
1	Transit Amenity	2,160
	Retail	18,650
	15 bus platforms	7,285
	MTD Common	550
	MTD Waiting	2,650

Floor	Use	Floor Area (sq. ft.)
	Retail "Back of House" (storage and employee break rooms)	5,735
2	MTD (leasable space)	8,250
	MTD Common	4,150
	Taxi and Rideshare pickup/drop-off	2,800
	Residential*	27,000
3	MTD (leasable space - READY School)	8,650
	Parking	34,000
	Residential*	27,000
4	Parking	40,000
	Residential *	27,000
5	Parking	40,000
	Residential *	27,000
6	Residential *	27,000
7	Residential *	27,000

*The interior build-out of the private development would be funded separately from the Illinois Terminal Expansion Project

3.0 Legal/Regulatory Context and Methodology

MTD conducted a transportation analysis in compliance with current FTA guidelines, NEPA regulations, and the Fixing America's Surface Transportation Act. MTD also studied local resources to understand the existing transportation network and other planned or programmed projects in the Project Area. These resources included the Champaign-Urbana Urbanized Area Transportation Study (CUUATS) Long Range Transportation Plan: Sustainable Choices 2040, City of Champaign's transportation and community plans, and parking and traffic memoranda prepared for a larger development area that includes the Project. In light of COVID-19 and atypical traffic levels, traffic data collected in 2019 and information from a 2019 Traffic Impact Analysis was used to complete a review of traffic impacts.

Using Champaign County Regional Planning Commission's (CCRPC) traffic projections, 2019 traffic and parking technical reports, and calculating anticipated demand, MTD assessed potential temporary and permanent impacts to the transportation system, including construction and permanent impacts to Illinois Terminal, transit service, traffic patterns, parking, and pedestrian and bicycle accessibility. An impact would be considered adverse if it resulted in permanent or temporary loss of parking spaces, reduced roadway capacity, increase in travel for motorized or non-motorized users, inability to access the Illinois Terminal, or a decrease in safety. In the event of an adverse impact, MTD identified measures to minimize or mitigate impacts to meet the guidelines of the jurisdictional agencies' policies.



4.0 Existing Conditions

4.1. On-Site Circulation

As the regional transportation hub, Illinois Terminal supports the following local, rural, and intercity bus service and Amtrak passenger rail service:

Fixed Route Services:

- MTD 11 local routes
- Greyhound 13 daily buses¹
- Danville Mass Transit 8 daily buses
- Peoria Charter 14 daily buses¹
- Champaign County Area Regional Transportation System (C-CARTS) 4 daily buses
- Amtrak 6 daily trains
- Burlington Trailways 10 daily buses

On-Demand Services:

- Piattran
- Burlington Trailways: Charter bus service
- C-CARTS

Within the Project Area, MTD operates 11 local routes, with weekday service hours at Illinois Terminal from 5:57 a.m. to 12:55 a.m. Saturday service hours at Illinois Terminal span from 6:07 a.m. to 12:55 a.m. and Sunday service hours from 8:52 a.m. to 12:41 a.m. Service frequencies vary by line and time of day.

Currently, buses enter the Illinois Terminal site from the north at the access drive from Chester Street south of University Avenue. Bus circulation is clockwise around the building to exit the site at the access drive along Market Street. Bus platforms are located on the east and south sides of the Illinois Terminal building.

¹ Daily counts reflect pre-pandemic service levels. Service is expected to be restored to pre-pandemic levels as ridership returns.



Illinois Terminal is currently operating over capacity. Illinois Terminal has 11 bus platforms (including one island platform with capacity for 1 bus) as originally constructed. Buses use the curb along Market Street and double-park at 3 bus platforms for additional space (see Figure 6). Since construction of the Terminal in 1999, CUMTD has added additional routes and increased service frequency. With the overall ridership up nearly 25% since 1999, CUMTD now operates 11 routes and 16 route segments that serve the Illinois Terminal.

ILLINOIS TERMINAL University 7:40 AM TRANSFER Chester The 7:40 AM transfer provides passengers with a guaranteed transfer to any route scheduled to depart ATFORM Market Illinois Terminal at 7:40 AM. £ Routes are designated to certain areas, but the particular **PLATFORMB** order of buses within these areas may change from day to day. Teal Departs 1N - 1 Yellow North 5E - 5 Green East 7W - 7 Grev West -38AM 15 - 1 Yellow South 5W - 5 Green West 9A - 9A Brown PLATFORM D 2U - 2 Red Urbana 6E - 6 Orange Hopper East 98 - 98 Brown 3N - 3 Lavender North 6W - 6 Orange West 12E - 12 Teal East 4W **6**E 4W - 4 Blue West 7E - 7 Grey East 6W 3N

Figure 7. Universal Transfer Platform and Driveway Utilization

Source: MTD 2020

The 11 available platforms are not only utilized by MTD buses, but also intercity buses and rural transit services, which add an additional 39 buses a day at Illinois Terminal. During peak periods where all platforms are occupied, the intercity and rural transit providers must use the interior parking lot or double-park at platforms for passenger boarding.

During a typical weekday, there are 23 fifteen-minute periods where the demand for a bus platform exceeds the 11 platforms provided, demonstrating that the existing facility is over capacity 46% of the time from 6:30 am to 7:00 pm. In addition, the demand for the current 11 bus platforms is either met or exceeded 70% of the time during the same time period. Figure 8 shows the number of buses at the Illinois Terminal during a typical weekday.





Figure 8. Total Weekday Local and Intercity Buses at Illinois Terminal (15-Minute Intervals)

The result of this demand is congested bus staging where buses stack and block Chester Street and University Avenue, at times creating safety issues. From 2004 to 2019, there were 41 crashes at the bus entrance to the Illinois Terminal at its intersection with Chester Street involving MTD buses (See Figure 9).





Figure 9. Crashes near Illinois Terminal (2005 – 2019)

Additional safety concerns are evident in the bus loading/unloading area of the Illinois Terminal site. When two or more buses are serving the same platform, it forces buses to navigate the space around each other. Spatial limitations require passengers to walk between buses to board double-parked buses

or cross parking lots in unmarked areas to access buses in the parking lot or along Market Street. See the Photo 1 depicting this condition.

As shown in Figure 9, 76 crashes occurred within and around the Illinois Terminal property from 2004 to 2019. Of the 76 total crashes, 55 involve collisions between two vehicles and 4 with a bicycle or pedestrian. The remaining 17 crashes involved a bus colliding with a fixed object, such as a platform column.

Illinois Terminal has a taxi stand that accommodates 8 taxis and is served by approximately 38 taxi companies. There is currently no dedicated space for ride share and Transportation Network Companies (TNC) such as Uber and Lyft, and these operators typically utilize any open space in the main parking lot.



Photo 1. Passengers navigate through buses to board at nonplatform locations.



There are 64 bike spaces within the Illinois Terminal site, with 32 double sided racks located on the west side of the Illinois Terminal building, near a bicycle repair station. The remaining bicycle parking is located south of the building, near the canopy for the bus platforms. Bicyclists need to cross sidewalks or the parking lot when entering the site to get to the bicycle parking rack, increasing the likelihood of crashes with vehicles.

4.2. Traffic

A Traffic Impact Analysis (TIA) was completed in August 2019 to estimate and analyze the potential traffic impacts of the Project and potential future development by others south of Logan Street (Appendix A). The TIA evaluated traffic operations of the intersections around the Illinois Terminal as part of a future development in the area. Intersection operations are measured in accordance with the Highway Capacity Manual, 2010 reported as Level of Service (LOS) using a scale of LOS A (best) to LOS F (worst). LOS is a measurement of vehicle delay during typical weekday peak hours (morning and afternoon) that reflects the experience of the motorist. A LOS C and better is considered acceptable. LOS D on arterial streets can be acceptable in more urbanized areas. According to the TIA, the City of Champaign has allowed LOS D during peak hours to be acceptable. Based on the TIA, the existing LOS at the intersections surrounding the Illinois Terminal of University Avenue at Market Street, University Avenue at Chestnut Street, and Logan Street at Market Street all operate at LOS B.

4.3. Parking

There are three parking lots in the Project Area and one MTD parking lot immediately adjacent to Illinois Terminal, as shown in Figure 10.

- City of Champaign West parking lot. Located in front of Illinois Terminal, the West parking lot has 110 spaces and is near its capacity during typical weekdays. The West lot has spaces for prepay hourly and prepay multi-day public parking, ADA spaces, as well as reserved spaces for MTD, Zipcar, taxis, police, and the Subway sandwich shop.
- City of Champaign South parking lot. This lot is permit-only with 52 spaces. Permits are available to the general public through the City of Champaign. It is currently at 75 percent capacity.
- Christie Clinic. This is a privately owned, permit-only lot and is not available to the general public. It has 74 spaces for Christie Clinic employees and is considered at capacity.
- MTD East Lot. The East lot is outside of the Project Area but serves Illinois Terminal. It is a permit-only lot with 168 spaces used by Amtrak, Illinois Terminal tenants, MTD employees, and City of Champaign employees. It typically has available parking spaces during the day as confirmed by the MTD.





Figure 10: Parking Lots within or adjacent to Project Area

5.0 Environmental Impacts

As part of its long range transportation plan model the Champaign County Regional Planning Commission (CCRPC) developed 2045 traffic projections for a "Business as Usual" scenario (No Build) and Preferred Scenario (includes the Build alternative) for roadways adjacent to the Project Area. The Illinois Terminal Expansion project was considered in the Preferred Scenario by applying increased employment and households within the Illinois Terminal traffic analysis zone; however, no changes were applied to the street network. Table 2 below summarizes the traffic volumes for the existing and two future conditions and provides the basis for the traffic analysis. Comparing the Build and the No Build alternatives, the variation in traffic volumes for the roadways listed below ranges from approximately 3 percent to 8 percent. Over a 30-year span, that amount of variation will have a minimal impact upon the recommendations for the area roadway network under either build alternative.



Table 2. Average Daily Traffic (ADT) Volumes

Segment	2015	No-Build 2045	Build 2045
University Avenue from Neil Street to First Street	16,700	20,200	20,800
Walnut Street from Neil Street to University Avenue	7,500	9,000	9,500
Neil Street from Walnut Street to University Avenue	8,000	10,300	11,100
First Street from Springfield Avenue to University Avenue	5,600	6,500	6,700

5.1. No Build Alternative

Under the No Build Alternative, neither additional bus nor parking capacity would be added at Illinois Terminal. Safety improvements for pedestrians, vehicles, and buses would not be constructed. As the demand to provide service for a growing population, adding additional buses and traffic to the Illinois Terminal site would constrain the circulation and further reduce the safety. Without additional platforms, more congestion on the surrounding street network would be expected as buses queue and traffic volumes increase. The increase in congestion would create a higher potential for crashes involving buses, especially at the high-crash intersection of Chester Street and the entrance to Illinois Terminal, as shown on Figure 8. Vehicle crashes between other vehicles and pedestrians would be expected to increase. If space limitation to accommodate additional bus service to meet future demands was not addressed, safety issues currently present would continue and the transit system would become less reliable with the potential for overcrowded buses having to turn away passengers.

5.2. Build Alternative

Permanent Impacts

Traffic

The Illinois Terminal project includes expansion of the Illinois Terminal building, expansion of bus services, and the private development adjoining the project north of Logan Street (residential and mixed-use retail). Table 3 below identifies the anticipated traffic generated by each of these three components to the Illinois Terminal project during the PM Peak Hour.

The trips generated by the Illinois Terminal project were developed from data provided by the MTD, the Institute of Transportation Engineer's (ITE) Trip Generation Manual and, a TIA completed on behalf of the City of Champaign for a private development adjacent to the Illinois Terminal site.



Land Use	In	Out	Total
Illinois Terminal Building Expansion	35	45	80
Expanded Bus Service	14	14	28
Private Development North of Logan Street	170	119	289
Total	219	178	397

Table 3. Illinois Terminal Project Proposed Additional Traffic – Weekday PM Peak Hour

The TIA evaluated three trip generation scenarios. The lowest trip generation scenario resulted in 300 cars each entering and exiting the development for a total site trip generation of 600 vehicles in the Weekday PM Peak Hour. Comparing the Illinois Terminal project traffic (Table 3) to the TIA proposed traffic, the Illinois Terminal traffic is approximately 66 percent of the traffic generated in the TIA for the scenario with the least amount of traffic. The traffic specific to the Illinois Terminal expansion of the building and bus service is approximately 108 total vehicles entering/exiting the site which is approximately 18 percent of the traffic associated with the private development in the TIA. The point of making this correlation is that the conclusions of the TIA are conservative when being referenced in the analysis for the Illinois Terminal project.

In order to compare the Illinois Terminal traffic to the 2045 Build Alternative traffic, the Weekday PM Peak Hour traffic from the Illinois Terminal needs to be calibrated to a daily traffic volume. Customary standards for traffic engineering principles is that 10 percent of the daily traffic can be assumed to occur during the Weekday PM Peak Hour. Therefore, with a Weekday PM Peak Hour traffic volume shown in Table 2 of 397 vehicles, it can be assumed that the daily traffic generated by the Illinois Terminal project is 3,970 vehicles. The proposed parking garage entrance and exit for the Illinois Terminal site is located along Walnut Street, which is one-way northbound, north of Logan Street. This will result in the majority of Illinois Terminal traffic exiting onto Walnut Street and then travel north to University Avenue. Bus traffic will exit the site onto Market Street and will have the opportunity to travel north or south. Non-transit traffic exiting onto Walnut Street will be approximately 1,780 less 140 (bus traffic) during an average weekday. When comparing this additional traffic onto Walnut Street to the CCRPC data for both 2045 alternatives, it is evident that the traffic generated by the Illinois Terminal project (both MTD and private development traffic) is accounted for in the Build Alternative traffic volumes. Furthermore, it can be concluded that the traffic capacity analyses performed by Clark Dietz addressed the traffic being generated by the Illinois Terminal project and accounts for the growth for the 2045 Build Alternative.

The Clark Dietz study was performed for the City of Champaign for potential development located both north and south of Logan Street. The portion of the private development north of Logan Street includes the private development portion of this Illinois Terminal project. The study by Clark Dietz is referenced as a component to the traffic impact analysis for the Illinois Terminal project in part because the Clark Dietz study was able to use traffic counts from June of 2019, prior to this Environmental Assessment study for the Illinois Terminal project.



To analyze the impact of a development upon the local area roadway network, intersections are analyzed using the Highway Capacity Manual (2010). The ability of an intersection to accommodate traffic flow is expressed in terms of Level of Service (LOS), which is assigned a letter from A to F based on the average total delay experienced by each vehicle passing through an intersection. LOS A is the highest rating representing the best traffic flow and least delay, LOS E represents saturated or atcapacity conditions, and LOS F is the lowest rating representing oversaturated or over capacity conditions. The acceptable Level of Service for design purposes is LOS C. The Clark Dietz study concluded that all intersections would operate at acceptable LOS C or D during the weekday PM Peak Hour, the anticipated peak period generator of traffic for the Illinois Terminal. As previously discussed, LOS D has been allowed by the City of Champaign. The weekday PM Peak Hour is referenced for the Illinois Terminal project as that is anticipated to be the peak generator of traffic for the Illinois Terminal.

As the proposed, Illinois Terminal project generates less traffic than the development scenarios in the Clark Dietz study, it can be concluded that the operations of the intersections will perform at improved LOS only considering the Illinois Terminal project traffic shown in Table 2. It was determined as part of this study that some of the intersections that operate at LOS D, which are Neil Street with University Avenue and Clark Street, could benefit from traffic signal timing adjustments. This is not uncommon with any proposed development as new traffic is drawn to the area and existing volumes are redistributed on the adjacent roadway network. Therefore, it is recommended that the traffic signals be reoptimized once the Illinois Terminal project is concluded to help balance the operations of the intersections, reduce delay, and still accommodate non-motorized users of the adjacent street network.

The Build Alternative would result in permanent transportation benefits by providing bus platforms to meet current and future demands. The provision of additional bus platform areas, additional bus bays, the separation of Intercity buses from MTD buses, a dedicated area for taxi/rideshare companies, a parking garage for patrons all have a positive impact on the safety of the Illinois Terminal site. These new amenities will greatly reduce conflicts between different motorized users and will also improve the safety for non-motorized users.

Proposed Site Circulation

The Illinois Terminal project proposes to construct a new parking garage just north of Logan Street, south of Bailey Street and between Walnut Street and the railroad tracks. This parking garage will replace the surface parking lot immediately west of the Illinois Terminal building. The entrance and exit for this garage will be onto Walnut Street, which is one-way northbound. Amtrak patrons will be able to use the proposed parking structure as opposed to the parking lot east of the railroad tracks as they currently do.

The buses for the MTD and the other service providers enter the Illinois Terminal site from Chester Street and exit onto Market Street. This is the circulation today and after the project is constructed.

The area immediately west of the Illinois Terminal building is a surface parking lot. In the proposed conditions, the parking lot will be repurposed into a pick-up/drop-off area.



Pedestrians and bicyclists that desire to gain access to the Illinois Terminal will continue to use the adjacent street sidewalk roadway and sidewalk system. Bike racks will continue to be provided adjacent to the Illinois Terminal building.

The construction of the Illinois Terminal project will address several existing deficiencies. A current substantial deficiency is safety as related to on-site circulation. Today and in the proposed condition, buses enter the site from Chester Street, circulate around the east and south sides of the Illinois Terminal building, and then exit the site onto Market Street. The major change with the proposed condition is that more bus bays will be provided. Today, there are 11 bus bays for loading and unloading passengers. Current data shows that the demand for these 11 bus bays is exceeded 46% of the time during a typical weekday. This results in buses backing onto Chester Street. This causes congestion at the entrance to the Illinois Terminal site on Chester Street where there were 41 crashes between 2004 and 2019. With the provision of 20 bus bays, a 180% increase, crashes at the Chester Street entrance are anticipated to be reduced.

Another safety benefit of the additional bus bays is that pedestrians will not need to walk in between buses. Because of the limited number of bus bays, pedestrians often must walk around buses to board their desired bus. With the provision of the additional bus bays, the likelihood of pedestrians needing to walk around buses will be greatly reduced. Safety barriers are proposed in the MTD bus loading area along the platforms to encourage pedestrians to cross at designated locations. These crossing areas will be further enhanced with flashing pedestrian signage for safety alerting buses of pedestrians crossing. In addition, two platform areas that are situated away from the main platforms adjacent to the Illinois Terminal building, will also be accessible from the second level via stairs down to the extra platforms. This will further reduce the need for pedestrians to walk around buses.

Intercity buses will load from a bus bump out area along Market Street separate from the MTD bus platform areas. This will minimize patron confusion and bus conflicts in the MTD platform area. Also, the second level of the parking garage will have a dedicated space for taxi and rideshare companies.

Some additional benefits to non-motorized users include the following:

- Non-motorized users seeking to access the Illinois Terminal building will not have to traverse through a parking lot to gain access to the building or bicycle racks. This will reduce pedestrian / bicycle conflicts within the Illinois Terminal site.
- Entrance and exit points for vehicles will be designed using appropriate standards and computer software so that vehicles will remain in the roadway.
- All pedestrian crosswalks will be designed with reflective material making these areas more visible to vehicles on the roadway.

Parking

Parking Relocation

The existing three parking lots that are within the Project Area (West, South and Christie Clinic) and the MTD East parking lot provide a total capacity of 402 parking spaces. Parking would be relocated as follows:



- City of Champaign West parking lot. The West lot would be repurposed and 106 of the 110 existing parking spaces would relocate to the parking deck in the proposed mixeduse structure. Details on the anticipated space allocations are provided below. The remaining four loading spaces would be maintained in the repurposed West lot area.
- City of Champaign South parking lot. The currently permitted spaces in the South lot would relocate to the parking deck. The eastern section of the mixed-use structure would be constructed on this lot.
- Christie Clinic. Vehicles in the Christie Clinic parking lot (74 spaces) would be relocated to a parking lot located two blocks west of the existing lot (see Figure 10) that would be purchased by Joint Development partner, Core Spaces. The western section of the mixed-use structure would be constructed on this lot.
- MTD East Lot. Amtrak parking (23 spaces) that is currently allocated in the East lot would move to the parking deck. There would be no ground disturbance, modifications, or existing parking capacity added to the MTD East parking lot as part of the proposed Project.



Figure 11: Parking Lot Relocation



Parking Deck Space Allocations

The proposed parking deck would include 374 parking spaces. Approximately 17 spaces would be reserved spaces for MTD, police, Zipcar, and taxi and ride-share services. It is anticipated that 126 transit-supportive spaces would be available any time, similar to the current availability at the existing West parking lot. Approximately 52 monthly permit spaces would be available to visitors to Illinois Terminal and the general public on evenings and weekends. The parking deck would include the following parking space allocations:

- Transit and transit-supportive spaces (195 spaces)
 - MTD/police short term: 9 spaces
 - Zipcar: 2 spaces
 - Taxi and ride share: 6 spaces
 - Illinois Terminal multi-day: 40 spaces
 - Public hourly: 74 spaces
 - Public permit: 52 spaces
 - ADA spaces at Illinois Terminal: 7
 - Illinois Terminal tenant: 5 spaces
- Residential (179 spaces)

Like the current operations of the West lot, the prepay hourly and multi-day public parking included in the parking deck would be managed by the City of Champaign. Spaces reserved for transit and residential uses would be marked and times of enforcement would be posted.

Market Street

With the proposed parking garage entrance/exit on Walnut Street, these vehicles would neither directly interact with bus traffic exiting onto Market Street nor the Intercity bus platform area on Market Street north of Bailey Street, which would reduce potential conflicts and crashes with buses. Pedestrian crosswalk enhancements are proposed at the Market Street/Baily Street intersection, which will provide a safety benefit for pedestrians and bicyclists.

Bailey Street

Bailey Street would continue to be open to all roadway users. The east leg at its intersection with Market Street provides access into the Illinois Terminal pick-up/drop-off area adjacent to the building as it does today. With the parking lot removed adjacent to the Illinois Terminal, it is anticipated that less traffic will use the Bailey Street intersection with Market Street further enhancing vehicle, pedestrian, and bicycle safety at the Illinois Terminal entrance.

Construction Impacts

Construction of the Illinois Terminal would cause traffic impacts to the existing parking system, buses and pedestrians. In order to minimize the impacts, it is recommended to construct the project in different phases. For example, constructing the parking structure south of Illinois Terminal building



before reconstructing the West parking lot into a drop-off loop drive will help to maintain adequate parking spaces during construction.

Circulation

During construction of the Illinois Terminal expansion, buses will be unable to circulate around the Illinois Terminal building until the parking structure is completed to a point where buses will be allowed to exit onto Market Street. During this time, temporary bus platforms would be located along the south side of Chester Street between the railroad tracks and Water Street and along the west side of Water Street south of Chester Street. See Figure 11 for the location of temporary bus staging during construction.



Figure 12: Temporary Bus Staging During Construction

Pedestrians and Bicyclists Impacts

Access to the Illinois Terminal building will need to be maintained for non-motorized users during construction. Guidance for pedestrians and bicyclists needs to be provided to help these travelers navigate through the construction area when construction staging disrupts the current route.

Market Street and Bailey Street Impacts

It is anticipated that Market Street will be closed between Logan Street and Bailey Street during a majority of the construction time. Access to Bailey Street needs to be maintained at all times as



buildings north of Bailey Street rely on it for access and emergency response. Should construction staging operations encroach upon the Baily Street right-of-way, Baily Street should be no less than 20 feet wide to accommodate at least one-way traffic.

Parking Impacts

The 52 parking spaces in the City of Champaign South lot would be unavailable during the construction of the proposed parking garage and relocated to nearby City owned parking lots and metered spaces. According to the 2019 parking survey, the City of Champaign's existing parking lots have the capacity to satisfy the parking demand during construction. Through careful construction planning and staging, the ADA parking space total would be maintained during construction in the west parking lot until such time that the new ADA parking spaces are available in the new garage and are fully accessible. In addition, ADA parking spaces in the East lot are sufficient when buses are staged temporarily along Chester Street and Water Street.

6.0 Measures to Avoid or Minimize Harm

During construction, a phased approach would be used to minimize disruption to Illinois Terminal parking, transit providers, bicyclists, and pedestrians. For example, constructing the parking structure south of Illinois Terminal building before reconstructing the West parking lot into a drop-off loop drive would help to maintain adequate parking spaces during construction. The Contractor would be required to prepare a Construction Traffic Management Plan in coordination with MTD to identify construction phasing and associated circulation on the Project site. Notifications to area businesses, residents, and patrons of the Illinois Terminal would occur before and during construction phases to minimize impacts experienced for daily users of the area. MTD and the contractor would coordinate with emergency response services, the City of Champaign, adjacent businesses, riders, and the general public about any detours, closures, or temporary parking impacts.

To address the circulation of the transit providers during construction, temporary bus platforms would be located along Chester Street and Water Street east of the Illinois Terminal. Impacts to parking during construction will be offset by the availability of nearby City parking lots. Purposely planned construction staging would maintain ADA parking spaces during construction in the west parking lot until such time that the new ADA parking spaces are available in the new garage and are fully accessible. In addition, ADA parking spaces in the east lot are sufficient when buses are staged temporarily along Chester Street and Water Street.

Pedestrian and bicyclist impacts during construction will be mitigated through the use of guide signs directing them how to access the Illinois Terminal during different construction stages. Impacts to Bailey Street will be offset by providing access during construction with at least one-way access.

The Build Alternative would result in permanent transportation benefits by providing sufficient bus platforms to meet current and future demands. The provision of additional bus platform areas, additional bus bays, the separation of intercity buses from MTD buses, a dedicated area for taxi/rideshare companies, and a parking garage for patrons all have a positive impact on the safety of



Illinois Terminal. These new amenities will greatly reduce conflicts between different motorized users and will also improve the safety for non-motorized users.

While traffic would operate at an acceptable LOS C or D during the weekday PM Peak Hour after construction, it is recommended that traffic signals be re-optimized after construction to assist with the additional and shifting traffic related to the proposed improvements to the Illinois Terminal.

7.0 References

- Champaign Urbana Urbanized Area Transportation Study. January 2021. Personal Correspondence from S. Wuzhati to J. Sullivan, MTD.
- Champaign Urbana Urbanized Area Transportation Study. December 2014. Long Range Transportation Plan: Sustainable Choices 2040.
- City of Champaign. 2019, August 26. Traffic Impact Analysis Memo. Prepared by Clark and Dietz, Inc.
- City of Champaign Public Works. 2018, September 14. *City of Champaign Shared Parking Peer Review.* Prepared by Walker Consultants.
- CORE Spaces. 2019, March 15. South Downtown Mixed-Use Development- Shared Parking Study. Prepared by Desman Design Management.
- CORE Spaces. 2019, March 1. *The Yards Champaign: Economic Impact Assessment*. Prepared by SB Friedman Development Advisors.

