

Cars parked in rows facing University Avenue, decorative flags, and lot lighting create a festive scene at the car dealerships east and west of Hamline Avenue. Automobile parts stores and car wash signs, gas stations, and fast food restaurants are found north of University Avenue at Lexington Parkway. To the south, the large Skyline Tower unfurls rows and columns of windows against the sky on the freeway horizon. Next to the tower is the rectangular brick mass of the Central Medical building. In the foreground of these two large structures is a haphazard mix of one-story strip malls, individual structures, and surface parking lots (see photograph 3.6-15). A wide variety of commercial structures, and groups of older frame houses, are visible along University Avenue from Lexington Parkway to Dale Street (see photograph 3.6-16). The steeple of Rock of Ages Ministry Church is seen on the first block of Dale Street immediately north of University Avenue (see photograph 3.6-17). At Dale Street, a handsome set of two-story brick storefronts with awnings extending over the sidewalk is visible on the northwest corner (see photograph 3.6-18). The stalls of an open-air urban market allow a view to houses south of the intersection. The tile and metal facade of the Unidale Mall is seen across a surface parking lot on the southeast corner of Dale Street, with a high-rise housing tower visible behind. Looking east, groups of brick storefronts, many with billboards mounted on their roofs, are seen from Western Avenue all the way to Rice Street (see photograph 3.6-19 and 3.6-20).

The repeated spacing of cobra-head street lights creates a visual rhythm along the length of University Avenue in St. Paul. Traffic signal arms extend into the avenue's viewshed at major intersections. Utility poles hold wires, frequently crossing University Avenue but rarely strung along it. As a whole, the character of University Avenue is utilitarian, but displaying the vitality of the marketplace and life of the community. The mix of retail, hospitality, office and industrial land uses is rough in places, yet touches of color and charm are seen in individual buildings and groups of structures. The wide variety of old and new, urban storefronts and shopping malls, cars, buses, and people make a trip down University Avenue a parade of visual experiences.

## STATE CAPITOL

At the intersection of Rice Street and University Avenue the character of development changes from commercial to office buildings and institutions in the area of the State Capitol. The League of Minnesota building on the northwest corner with Rice Street presents large, arched windows and a clock tower. Leif Erickson Park on the southeast corner creates a green foreground for views of the State Capitol dome. The vegetation and mature trees constrain views to the southeast until reaching the edge of the park at Constitution Avenue; there the full view of the capitol is opened along the curve of Constitution Avenue from the side facade around to the front (see photograph 3.6-21). Views of the front facade of the capitol are seen across the landscaped capitol mall.

The State Capitol sits on the top of a rise, with the mall descending to the south. Views across the mall are both up to the capitol and down to the freeway corridor and downtown St. Paul. To the west of the mall, views are of state office buildings fronting on Constitution Avenue and John Ireland Boulevard. To the east of the mall, the view is of a long office building fronting on Cedar Street. The mall is designed with a primary axis aligned to the center of the capitol facade and a bilaterally symmetrical apron expanding out from the capitol axis to the framing streets of John Ireland Boulevard and Cedar Street. Careful attention has been paid to creating and controlling views of the capitol facade.

The State Capitol can also be viewed from the University Avenue side. This side of the building does not exhibit the same careful creation of long views as in front, in fact the view to the north

side of University Avenue is of an aging concrete parking garage (see photograph 3.6-22). Passing to the east of the capitol, the view is constrained by a narrower right-of-way and a steep rise in land to the north. The graceful arch of the Cedar Street bridge passes over University Avenue, while University Avenue quickly descends to Robert Street. A broad view to downtown St. Paul opens on Robert Street, which is flanked by surface parking lots. The new Department of Revenue building is visible on the east side of Robert Street at Columbus Avenue.

## **DOWNTOWN ST. PAUL**

Looking down Cedar Street from the State Capitol mall area, a wide boulevard is visible with landscaped medians and elaborate, covered sidewalk promenades on the freeway overpass. The Minnesota World Trade Center, the tallest building in downtown St. Paul, rises above Cedar Street at 7th Street, paired with the North Central Life Tower across Cedar Street to the west.

Entering downtown St. Paul on Cedar Street, the double cupola towers of the St. Louis Catholic Church are visible next to the taller steeple of Central Presbyterian Church (see photograph 3.6-23). The land drops off to the south at Exchange Street, where the view is enclosed by parking garages with office space above on the east side and the older brick of the Exchange Building and public parking ramp on the west side. The World Trade Center and North Central Life Tower create a canyon effect on Cedar Street constraining views, while buildings further south appear in the view, accentuating the perspective. A skyway is seen connecting across Cedar Street. South of 7th Street, the view is nearly totally enclosed due to the blank walls of the Marshall Fields store and Town Square building, and because of the Norwest Center parking ramp which extends over Cedar Street between 6th and 5th Streets (see photograph 3.6-24). The long shadows and minimal streetscaping create a rather dreary aspect looking down Cedar Street in this block. The grade of Cedar Street begins to rise again between 5th and 4th Streets. The Pioneer Press building is visible to the west, with a mid-block skyway blocking views to some extent. To the east between 5th and 4th Streets, the concrete and glass facade of the Midwest Federal building is seen next to the brick and stone facade of the University Club Downtown building.

Views to the west on 4th Street are enclosed by the Qwest building following the curve of the road to the north (see photograph 3.6-25). Two skyways also cross 4th Street west of Cedar Street. Looking east down 4th Street, a surface parking lot is visible on the northwest corner of 4th and Minnesota Streets. This open land allows a good view of the facade of the First National Bank building facing Minnesota Street. A skyway connecting across 4th Street from the First National Bank building to Kellogg Square constrains views down the street. Views from 4th Street to the north at Minnesota and Robert Streets, are of large office buildings, to the south a view of the sky opens at the river bluff, but the river itself is not visible. On 4th Street, between Robert and Jackson Streets the brick facades of the Pioneer and Endicott buildings are visible, with a skyway connecting across 4th Street to the Federal Courts building. A parking ramp is visible at the northwest corner of Jackson and 4th Streets.

East of Jackson Street, buildings within the Lowertown National Register District are visible. On the northeast corner of Jackson and 4th Streets is the First Trust Center, a large brick structure and the smaller 333 Sibley building next to it. On the south side of 4th Street, the Minnesota Telecenter is visible, including a mural on the east facade overlooking a playground. The view east of Sibley Street is opened by the generous setback of the Union Depot on the south side of 4th Street. Doric columns stretch across the front facade and up to the second story level. A landscaped lawn and drive circle are visible in front of the depot (see photograph 3.6-26). Looking to the north side of the street, brick industrial style structures are seen, and a two-level parking deck. South of the Union Depot, the Ramsey County offices and U.S. Post Office are

visible. The right-of-way in front of the Union Depot is wider than the blocks to the west, with the open space in front of the depot allowing sunlight for street trees on the north side of the street. Decorative lamps line the streets signifying the Lowertown district.

The Robert Street Bridge crosses from the bluffs of downtown St. Paul to the West Side area, with long views of the Mississippi River from the bridge. The West Side is generally an open flat area, with suburban-style office buildings and large parking lots.

### **3.6.2 Impacts Related to Visual/Aesthetic Conditions**

Visual and aesthetic impacts are those changes to the existing environment in the Central Corridor that would result from the placement of new infrastructure for the two build alternatives. The University Avenue LRT Alternative would introduce track, poles, OCS, stations, electrical substations, retaining walls, and vehicles. The University Avenue Busway/BRT Alternative would introduce fewer fixed elements, with the greatest potential impact from proposed stations. The analysis of potential changes to visual or aesthetic qualities is a highly subjective judgement and changes may be deemed to detract from or enhance the visual environment.

This section rates potential impacts as "low," "moderate," and "high" and the section discusses the overall level of impact to the visual and aesthetic characteristics of the five districts within the corridor. Subjective judgements about whether impacts are likely to be deemed as positive improvements or negative detractions to a specific visual environment are discussed where necessary. The section provides specific recommendations for visual and aesthetic mitigation at locations where high impacts are expected and likely to be deemed negative. Factors that were considered in evaluating the overall and specific impacts include:

- Station environment
- Property acquisition and disruption
- Right-of-way environment
- Views and visual interruption
- Infrastructure requirements

#### **BASELINE ALTERNATIVE**

The Baseline Alternative would have no additional visual or aesthetic impact, nor would it improve existing conditions.

#### **UNIVERSITY AVENUE LRT ALTERNATIVE**

The following is a discussion of the potential visual and aesthetic impacts for the University Avenue LRT Alternative within each of the five characteristic districts of the Central Corridor.

##### ***Downtown Minneapolis***

Central Corridor LRT vehicles would run on tracks and stop at stations constructed for the Hiawatha LRT. Other than more frequent LRT vehicles, no visual or aesthetic impacts are expected.

### ***University of Minnesota***

The overall impact to the visual environment on the University of Minnesota Minneapolis campus would be high: LRT tracks, poles, and OCS would be visible in the middle of Washington Avenue, from 19th Street SE to the tunnel portal. The West Bank Station would add a substantial new element at the approach to the Washington Avenue Bridge, including overhead mezzanines allowing access from 19th Street and the campus plaza down to Washington Avenue. These changes may improve the aesthetic quality of the area by providing more visible connections to the plaza above Washington Avenue, by unifying the 19th Street overpass to the plaza area and visually reducing the width of the existing roadway depression. The introduction of the East Bank Station would have a high impact on the visual environment between Northrup Mall and the Coffman Memorial Union. Depressing the tracks below the existing grade would create an additional obstacle visibly separating Washington Avenue. Views of retaining walls and the tunnel portal would add a major new element in this important campus location. Access to the station platform is from a below-grade tunnel, which would place new elevator sheds and stairways at the south end of Northrup Mall. The Stadium Village Station would alter the visual continuity of commercial buildings from Washington Avenue around the corner to Oak Street by removing two small storefronts. The tunnel portal and retaining walls would add a new element to the visual environment, including a new facility under Fourth Street and University Avenue. The introduction of LRT into the University of Minnesota Transitway area north of University Avenue would have a low impact on this industrial and railroad corridor.

### ***University Avenue***

The overall impact on the visual environment along University Avenue would be positive. The proposed embedded tracks would add a new visual element in the middle of a wide right-of-way, where a median now exists along most of the length. Currently, the roadway is wide and somewhat bleak, and this proposed new infrastructure might in fact improve the aesthetic qualities of the right-of-way. The proposed budget for the LRT Alternative would include a complete rebuild of the avenue, which would allow for aesthetic improvements. The introduction of OCS catenary poles would create a vertical element in the middle of the right-of-way, thereby reducing the perceived width. Embedded track would place concrete around the steel rails in the middle of the roadway, creating a visual effect similar to the existing medians. The LRT vehicles are nearly twice the length of semi tractor-trailers and would create movement in the right-of-way median. Installation of OCS wires would add a new element to the streetscape. Stations are likely to create the most prominent visual effect along University Avenue. Most stations would have platforms on both sides of major intersections. Elements on the platforms would include ticket vending machines, wind screens, canopies, and lights. Because the station canopies would be raised, they have the greatest potential for visual and aesthetic impact. Stations and canopies may block visual access across the roadway, including views of storefronts and business signage. New pedestrian crossings for access to stations and track crossings at all intersections would add new visual elements to the streetscape. LRT would reconstruct University Avenue, thereby creating a major opportunity to improve the environment for pedestrians and visual quality of the streetscape.

### ***State Capitol***

The visual impact on the rear of the State Capitol may be high. The alignment on University Avenue would impact the view of the north facade, by placing OCS in the view, especially when viewing the capitol from the north side of University Avenue. However, the viewing area of the capitol available from University Avenue includes the north facade, considered to be the rear view. On the south side of the capitol, large investments have been made in creating a landscaped mall that allows long views to the south facade. LRT infrastructure would have an impact on the

visual environment of the capitol mall and the south facade of the capitol for a short block on Cedar Street, between Columbus Avenue and I-94. LRT OCS would be visible in views of the capitol from the east side of Cedar Street in this block. The displacement of small structures on Robert Street and in the vicinity of the proposed Capitol East Station may improve the visual quality of the area.

### ***Downtown St. Paul***

The proposed 10th Street Station would have some visual impact on the churches at 10th and Cedar Streets. The canopy of the proposed side platform station would block part of the view of the churches from drivers and pedestrians traveling south on Cedar Street, until clearing the station at the intersection of 10th Street.

The 6th Street Station, on Cedar Street between 7th and 6th Street would have a high impact on the visual environment. The project would reduce vehicular drive lanes to a single lane and add wide station platforms on either side of the tracks. This construction would likely improve the aesthetic qualities of the street environment in this area, which is currently surrounded by blank walls and a parking garage elevated over Cedar at 6th Street. Closure of a garage entrance into the Town Square building offers an opportunity to create a more attractive frontage. The station would enliven the area through the introduction of a new architectural element, platform lights, and pedestrian activity.

LRT OCS would have some impact on the aesthetic qualities of Cedar Street in downtown St. Paul. The impact of tracks, OCS and LRT vehicle movement on 4th Street, from Minnesota Street to the Union Depot would be high. 4th Street has a narrow right-of-way lined by tall buildings, creating a canyon effect and installation of LRT would fill much of the ground level viewed up and down 4th Street. The visual impact of the 4th Street Station would also be high, given that the two side platforms and tracks would completely fill the right-of-way for the block between Minnesota and Robert Streets. The proposed station location in front of the Union Depot would have a high impact on the historic landmark. The station platform equipment, windscreens, and canopy would create a visual obstruction in front of the Union Depot when viewed from the north side of 4th Street. The station would displace the landscaped drive circle for the depot, and replace with a straight driveway. The proposed budget for the LRT Alternative would include a complete rebuild of the Union Depot area, which would allow for aesthetic improvements.

## **UNIVERSITY AVENUE BUSWAY/BRT ALTERNATIVE**

The following is a discussion of the potential visual and aesthetic impacts for the University Avenue Busway/BRT Alternative within each of the five characteristic districts of the Central Corridor.

### ***Downtown Minneapolis***

The proposed BRT vehicles would operate on Fourth Street in Downtown Minneapolis in a manner similar to the existing bus service. If station platforms were constructed for a BRT they would change the visual environment, however the overall impact is expected to be low.

### ***University of Minnesota***

Visual impacts of the proposed BRT would be low on the University of Minnesota Minneapolis campus. The buses would operate in mixed traffic and use existing bus hub areas on the West Bank and East Bank. Lengthening of bus pullout lanes or installation of fare vending equipment would not produce a substantial visual impact.

### ***University Avenue***

The overall impact on the visual environment along University Avenue would be low, except in station areas where the impact would be moderate. BRT would operate in the middle of the existing right-of-way in exclusive bus lanes. These lanes would not require substantial new infrastructure, and would not create new vertical elements. Elements on the platforms would include ticket vending machines, wind screens, canopies and lights. Because the station canopies would be raised, they have the greatest potential for visual and aesthetic impact. Stations and canopies may block visual access across the roadway, including views of storefronts and business signage. New pedestrian crossings for access to stations and track crossings at all intersections would add new visual elements to the streetscape. Stations would include a platform and canopies that would add a potential new visual obstruction to the street scene. The impact of these stations on the visual environment could be considered a positive addition to the public right-of-way.

### ***State Capitol***

The visual impact of the increased number of buses on Constitution Avenue may be viewed as an intrusion into the Capitol Mall area. School buses are frequently parked all along Constitution Avenue in front of the capitol, and the proposed BRT would not change the look of the State Capitol Mall area.

### ***Downtown St. Paul***

The visual impact of the proposed BRT would be low in downtown St. Paul. New shelters along Cedar and Minnesota Streets would have much the same effect as current shelters. The proposed BRT would mix with large numbers of existing buses on 5th Street and 6th Streets. The impact of the proposed BRT on the West Side neighborhood would be low, with the BRT mixing with other buses at the River Park Plaza bus hub. BRT offers no improvement to the visual environment because it does not propose any new streetscape work.

## **3.6.3 Impacts Related to Construction**

The Baseline Alternative would have no additional adverse visual and aesthetic impacts related to construction. Construction impacts associated with the University Avenue LRT Alternative and the University Avenue Busway/BRT Alternative could potentially result in temporary visual impacts. Some construction equipment and materials stored for the project may be visually displeasing to local residents, however this would be a temporary situation and would result in no lasting adverse effects.

## **3.6.4 Potential Mitigation**

The two build alternatives would vary in their potential visual impact. The proposed LRT system would have a greater impact to the visual environment than the proposed Busway/BRT system. The proposed LRT would introduce embedded track, OCS and substations along the proposed alignment, while BRT would not have any OCS or substations. Both systems would create impacts at station sites, but the BRT platform would be approximately 120-feet and the LRT platform would be approximately 200-feet. Canopies for either system would have some impact at the proposed station sites. The BRT would operate in mixed traffic when not on University Avenue and would have fewer stations with full platform and canopy. When operating in mixed traffic, BRT would have enhanced bus stops rather than formal stations. Specific issues and mitigation measures for the potential University Avenue LRT and Busway/BRT Alternatives impacts are addressed below.

## **UNIVERSITY AVENUE LRT ALTERNATIVE**

### ***Downtown Minneapolis***

No mitigation is proposed given that the Central Corridor project would only introduce new LRT vehicles, and not any new stations or other infrastructure.

### ***University of Minnesota Minneapolis Campus***

The impacts at the East Bank Station would be caused by the proposed below-grade LRT alignment between Northrup Mall and Coffman Memorial Union. The proposed below-grade LRT configuration through the campus would improve pedestrian circulation on sidewalks and reduce congestion as the number of buses is decreased. Portals on both ends of the tunnel should be carefully designed to create a pleasing visual and aesthetic element.

### ***University Avenue***

Most of the potential impacts along University Avenue are likely to be improvements to the existing visual environment. The proposed project would also include reconstruction of sidewalks along University Avenue, giving the whole corridor a look of substantial public investment. OCS supports could be selected and painted to minimize their overall impact and blend into the visual background. The proposed stations along University Avenue are likely to improve the look of the major intersections where they would be located. Attention should be paid to architectural detail, especially on the canopies. The community should be involved in the station design process, which may include the commissioning of unique pieces of artwork for inclusion in the station design. Because the station would be in the middle of the existing right-of-way, the potential for new landscaping would be limited; however some seasonal planters may be included to soften the visual and aesthetic impact.

### ***State Capitol***

Mitigation of the potential LRT impacts on University Avenue as it passes behind the State Capitol may include OCS attached to side poles set in the sidewalks, instead of installing poles in the middle of the street. Such side poles can be designed to also hold street lighting and traffic signs, thereby reducing the visual clutter along the street. Special paving material, such as paver bricks or tiles, may also improve the aesthetics of the LRT system in the State Capitol area. In regard to the visual impact along the short block of Cedar Street, special paver bricks between the tracks could be used along with decorative OCS side support poles.

### ***Downtown St. Paul***

Construction of the LRT Alternative in downtown St. Paul would include reconstruction of wide portions of the public right-of-way, especially at the 6th Street Station and 4th Street Station. The station platforms would be located to share space currently taken by the sidewalks and this reconstruction would include aesthetic treatments of the streetscape. The reconstruction offers an opportunity to improve the streetscape on Cedar Street and 4th Street. Architectural treatments could be selected for Union Depot Station to compliment the Union Depot and its function as a historic passenger rail depot, helping to mitigate some of the potential negative impacts.

## **UNIVERSITY AVENUE BUSWAY/BRT ALTERNATIVE**

### ***Downtown Minneapolis***

Anticipated impacts are low and are unlikely to require mitigation.

### ***University of Minnesota Minneapolis Campus***

Anticipated impacts are low and are unlikely to require mitigation.

### **University Avenue**

The proposed stations along University Avenue are likely to improve the look of the major intersections where they would be located. Attention should be paid to architectural detail, especially on the canopies. The community should be involved in the station design process, which may include the commissioning of unique pieces of artwork for inclusion in the station design. Because the station would be in the middle of the existing right-of-way, the potential for new landscaping would be limited; however some seasonal planters may be included to soften the visual and aesthetic impact.

### **State Capitol**

Perceived impacts to the visual environment caused by the increased number of buses in the Capitol Mall area would be difficult to mitigate.

### **Downtown St. Paul**

Anticipated impacts are low and are unlikely to require mitigation.

## **3.7 CULTURAL RESOURCES**

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as implemented by 36 CFR 800 Protection of Historic Properties, requires federal agencies, or designees (i.e., the recipients of federal funds or applicants for federal permits or licenses) to consider the effects of their actions on historic properties before undertaking a project. The Central Transit Corridor project is receiving Federal Transit Authority funding and, therefore, must comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and with other applicable federal and state mandates, including the Minnesota Field Archaeology Act, the Minnesota Historic Sites Act, and the Minnesota Private Cemeteries Act.

A historic property is defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). The Section 106 process consists of steps for: 1) identifying and evaluating historic properties; 2) assessing the effects of an undertaking on historic properties; and 3) consultation for methods to avoid, minimize or mitigate any adverse impacts. In Subpart 800.4 Identification of Historic Properties, the Section 106 regulations state that an agency official may phase the identification and evaluation of historic properties if the alternatives consist of corridors or large land areas (Subpart 800.4[b][2]).

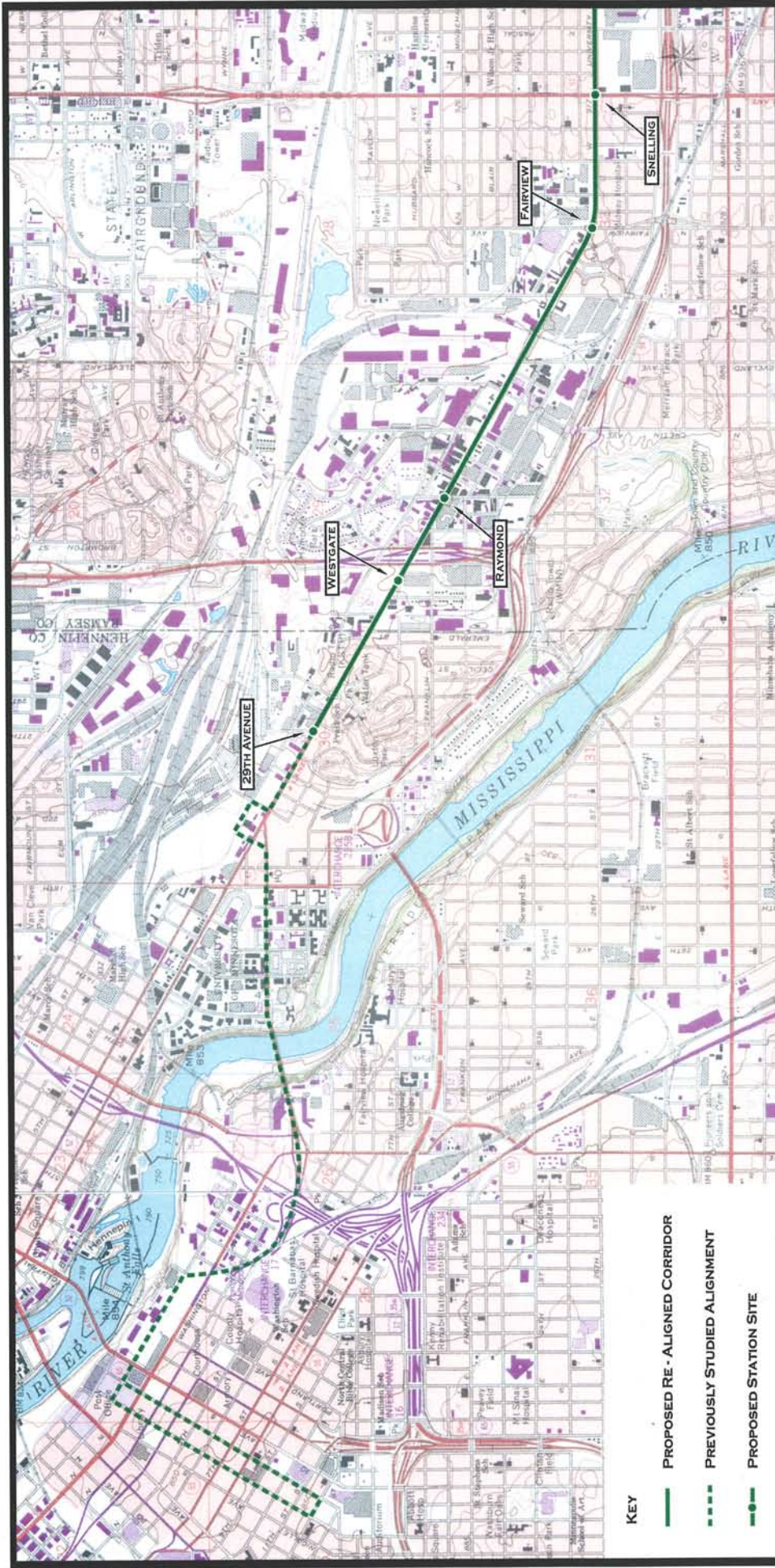
The current proposed alignment for the Central Transit Corridor is shown in Figures 1A and 1B. A significant portion of this corridor was the subject of a Section 106 Phase I and Phase II investigation completed in 1995 as part of a previous DEIS. (*Phase I and II Cultural Resources Investigations of the Central Corridor, Minneapolis, Hennepin County and St. Paul, Ramsey County, Minnesota* [BRW, Inc. et al., 1995]).

The portions of the proposed alignment west of 29th Avenue SE and south of Columbus Street are the same as the alignment proposed in the 1995 DEIS. The portion of the proposed alignment east of 29<sup>th</sup> Avenue SE and north of Columbus/west of Cedar has been altered from the previous DEIS. The current proposed transit improvement would be located in the median of University Avenue between 29<sup>th</sup> Avenue SE and Cedar Avenue.



A supplemental *Phase I Architectural History Investigation for the Proposed Central Transit Corridor, Hennepin and Ramsey Counties, Minnesota* (The 106 Group Ltd., July 2003) was completed in July 2003 for those sections of the corridor alignment not included in the 1995 investigation. The 2003 inventory includes all properties built before 1962 in the new alignment. All properties constructed before 1962 and not previously recorded within the original 1995 Area of Potential Effect (APE) were also assessed in 2003 in order to update the previous records.

The purpose of the 2003 Phase I architectural history investigation was to determine whether any of the architectural history properties within the project area may be *potentially* eligible for listing on the National Register of Historic Places. The Minnesota Department of Transportation Cultural Resources Unit (Mn/DOT CRU) has determined that no additional archaeological research is needed for the current corridor since no tunneling is proposed outside the area studied during the 1995 investigation. The methodologies used for the assessment and the photographic log of properties are documented in *Phase I Architectural History Investigation for the Proposed Central Transit Corridor, Hennepin and Ramsey Counties, Minnesota* (The 106 Group Ltd., July 2003) and *Cultural Resources Assessment for the Proposed Central Transit Corridor, Hennepin and Ramsey Counties, Minnesota* (The 106 Group Ltd., December 2002).



SOURCE: USGS QUADRANGLES. 7.5 MINUTE SERIES. MINNEAPOLIS SOUTH, 1967 (1993) AND ST. PAUL WEST, 1967 (1993), MINNESOTA.

PROJECT MAP

CENTRAL TRANSIT CORRIDOR  
 PHASE I ARCHITECTURAL HISTORY STUDY  
 HENNEPIN AND RAMSEY COUNTIES, MINNESOTA

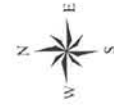
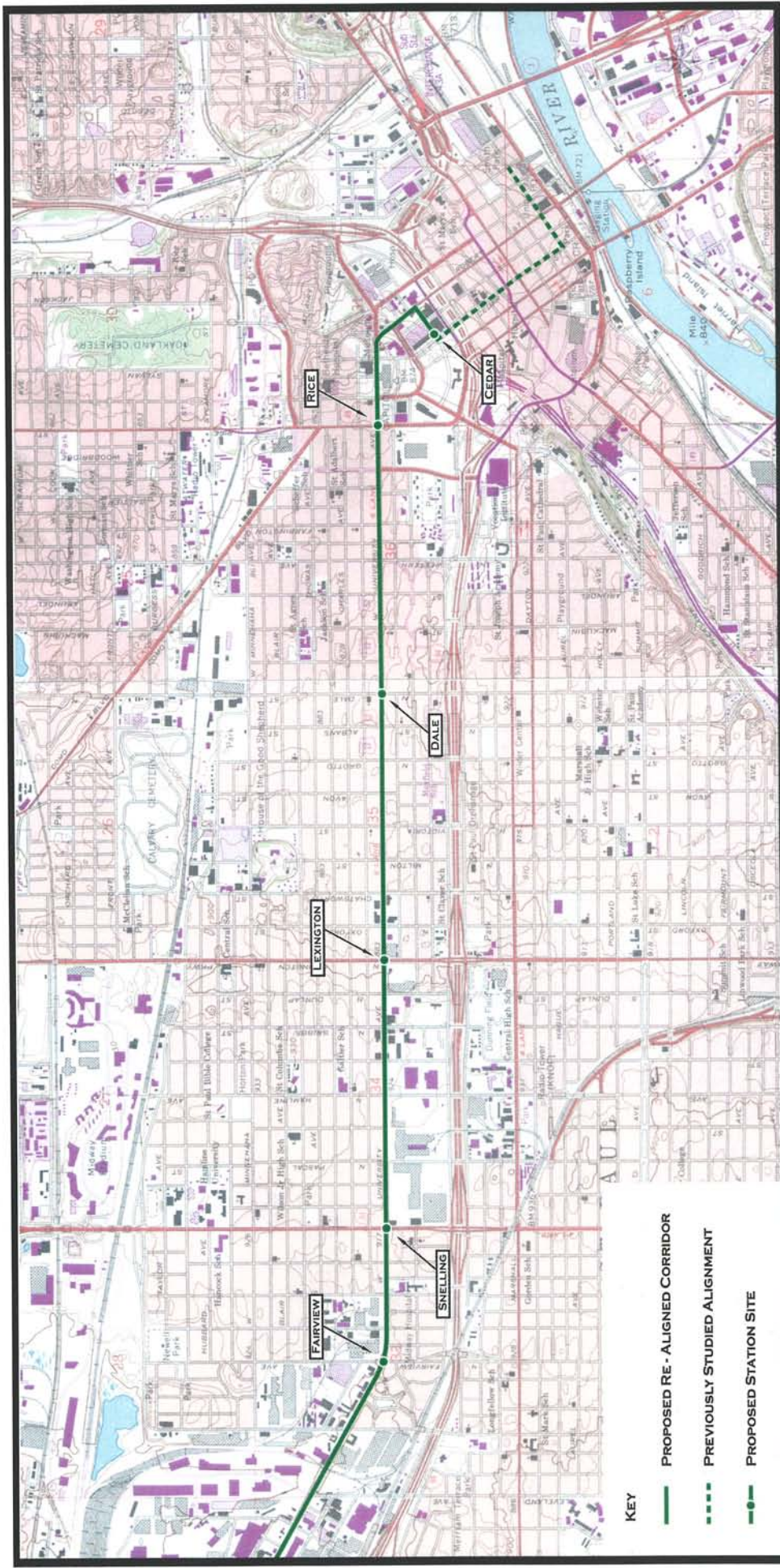


FIGURE 1A





SOURCE: USGS QUADRANGLES, 7.5 MINUTE SERIES, MINNEAPOLIS SOUTH, 1967 (1993) AND ST. PAUL WEST, 1967 (1993), MINNESOTA.

PROJECT MAP

CENTRAL TRANSIT CORRIDOR  
 PHASE I ARCHITECTURAL HISTORY STUDY  
 HENNEPIN AND RAMSEY COUNTIES, MINNESOTA

FIGURE 1B

## AREA OF POTENTIAL EFFECT

The Area of Potential Effect (APE), shown in Figure 2 was based on the potential for the following impacts:

- Right-of-way acquisition
- Changes in access to properties
- Noticeable traffic volume increases or alterations in traffic patterns
- Perceptible increases in noise
- Visual effects from changes in grade
- Increases in vibration
- Changes in air quality
- Impacts to land use and a property's setting

Within the areas west of 29<sup>th</sup> Avenue SE and south of Columbus Avenue, no significant changes have been made to the project's construction plans or alignment. Therefore, the previously established APE within these areas was not altered. Based on the above-mentioned factors and reviews by Mn/DOT CRU and the Minnesota State Historic Preservation Office (MnSHPO), the APE for the re-alignment of the Central Transit Corridor between 29<sup>th</sup> Avenue SE and Columbus Avenue was defined as all properties within the right-of-way or construction zones, and the first tier of adjacent properties, with the addition of properties potentially affected by secondary redevelopment impacts surrounding the proposed station sites (see Figure 2). The basis for the APE is documented in *Phase I Architectural History Investigation for the Proposed Central Transit Corridor, Hennepin and Ramsey Counties, Minnesota* (The 106 Group Ltd., July 2003).

## HISTORICAL CONTEXTS AND THEMES

Several previously developed architectural history surveys and contextual studies useful to the Phase I Investigation were consulted, including:

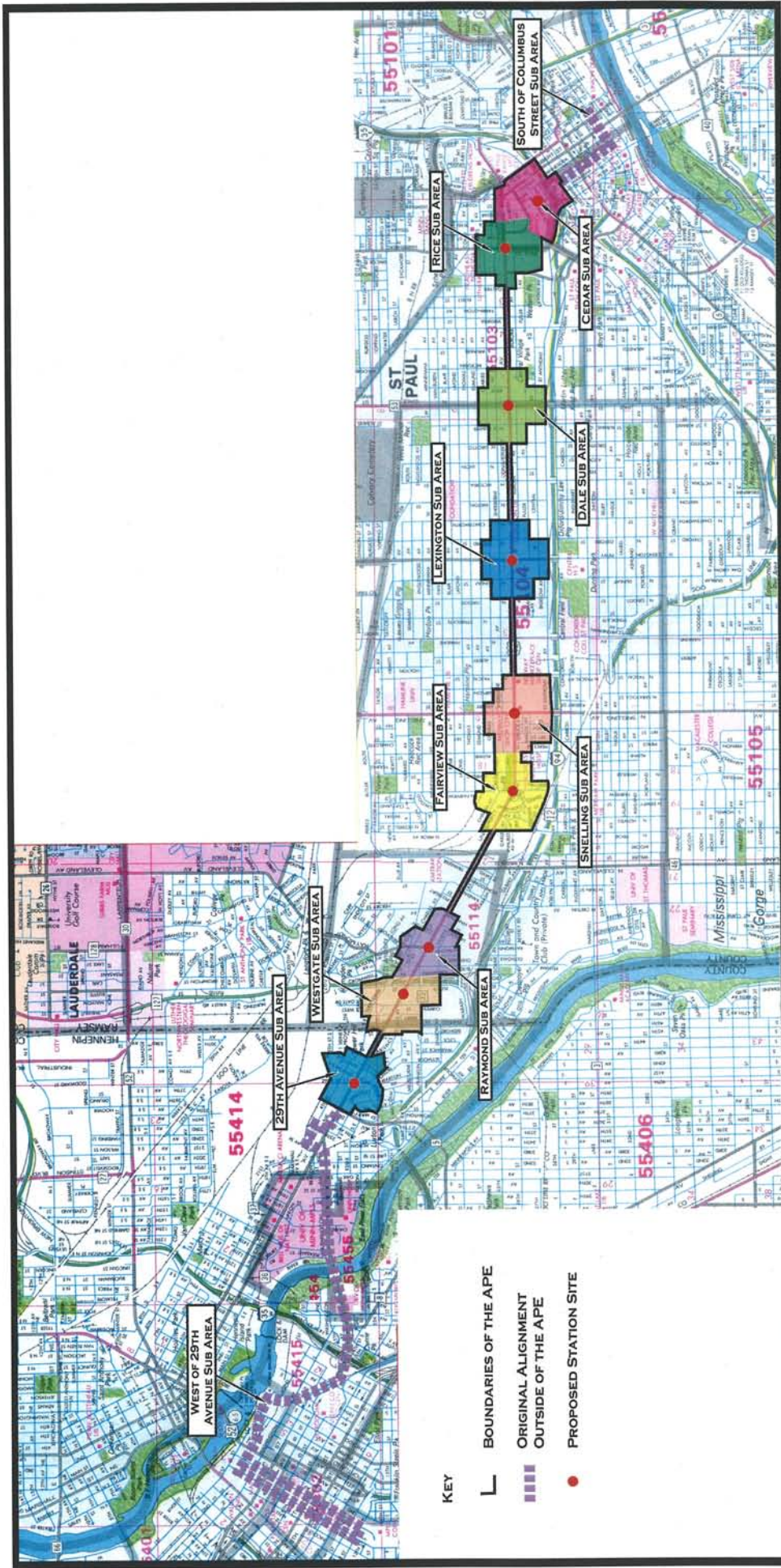
- *Phase I and II Cultural Resources Investigations of the Central Corridor, Minneapolis, Hennepin County and St. Paul, Ramsey County, Minnesota* (BRW, Inc. et al, 1995)
- *Historical Survey of Prospect Park* (Pearson, 2001)
- *University of Minnesota Preservation Plan* (Landscape Research, 1998)
- *Historic Sites Survey of St. Paul and Ramsey County* (Murphy and Granger, 1983)
- *Study of West University Avenue Historic District* (currently underway, St. Paul HPC)
- *Transportation Corridors: 1857-1950* (Zellie and Peterson, 2001) \*
- *Neighborhood Commercial Centers: 1874-1960* (Zellie and Peterson 2001) \*
- *Churches, Synagogues and Religious Buildings: 1849-1950* (Zellie and Peterson, 2001) \*
- *Pioneer Houses: 1854-1880* (Zellie and Peterson, 2001)
- *Residential Real Estate Development: 1880-1950* (Zellie and Peterson, 2001) \*
- *Downtown St. Paul: 1849-1975* (Zellie and Peterson, 2001) \*
- *Cultural Resources Assessment for the Proposed Central Transit Corridor, Hennepin and Ramsey Counties, Minnesota* (The 106 Group Ltd., December 2002).

\*Prepared for the St. Paul HPC

Historical contexts established by the MnSHPO under which properties in the Central Transit Corridor would potentially be evaluated include:

- Railroad and Agricultural Development: 1870-1950
- Urban Centers: 1870-1940





AREA OF POTENTIAL EFFECT

CENTRAL TRANSIT CORRIDOR  
CULTURAL RESOURCES ASSESSMENT  
HENNEPIN AND RAMSEY COUNTIES, MINNESOTA

A historical overview of University Avenue, the primary artery of the Central Corridor, was undertaken during the 2003 Phase I investigation. Although an important corridor in Twin Cities geography and development, the combined historical overview and results of the Phase I investigation concluded that the University Avenue corridor does not represent an overarching unified theme or context. While portions of the corridor and several individual buildings appear to illustrate early commercial nodes, mid-twentieth-century automobile services, or industrial freight transfer-related facilities, none of these buildings or structures is geographically cohesive enough to sufficiently form a district. The most significant pattern of historical properties found along the University Avenue corridor is the rail, trucking, warehousing and manufacturing facilities between Highway 280 and Prior Avenue. Although comprising a significant number of related properties, the area was not found to be contiguous or physically coherent enough to form a historic district. Instead, the properties relating to this theme will be addressed by a NRHP Multiple Property Documentation Form (MPDF) during a future Phase II evaluation. Future research will further explore the significance of freight transfer industry in this area and within the context of the greater metropolitan area. The criteria established for the MPDF will then be applied to determine the eligibility of individual properties within the APE. The St. Paul Historic Preservation Commission (HPC) is currently working on a "University-Raymond Historic District", which may become one component of the MPDF in the Phase II evaluation.

## **PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES AND SURVEYS**

Phase I and II archaeological investigations were conducted in the Central Transit Corridor project area during the 1995 study of the original alignment for this project. The archaeological study area included the currently proposed alignment. These investigations consisted of an extensive literature search and records review to establish historical contexts for the area; visual reconnaissance of the project area; and soil borings in those areas determined to have high potential for intact archaeological resources. Twenty-two soil borings were excavated during the 1995 study. The last 150 years of construction have left much of the Central Corridor disturbed and, in many places, filled, built upon or paved over. This substantially reduces the likelihood of finding pre-European contact sites, historical archaeological sites, and undisturbed soil horizons. Five borings were conducted to locate intact soil surfaces, which might contain evidence of Native American occupations. Only one boring located an intact soil horizon, but it was buried to such a depth that it would not be impacted by construction. As a result of this survey, it was recommended that no additional investigation for precontact cultural resources be conducted for the Central Corridor project.

Based on the remaining seventeen soil borings and two shovel tests, three areas were recommended as containing post-contact archaeological significance. Only one of these sites – the central mall of the State Capitol area - is within the APE for the current alignment. Preliminary geotechnical testing and intensive documentary research indicate that this site is eligible for the National Register. The Metrodome Station (Block 107) is shown as within the APE for the Central Corridor but is being built as part of the Hiawatha Corridor. Therefore, any issues related to the Section 106 process have been addressed as part of the Hiawatha Corridor Section 106 process.

## **ARCHITECTURAL HISTORY PROPERTIES**

A total of 765 properties 40 years of age or older have been recorded in the combined 1995 and 2003 Area of Potential Effect (APE) for the currently proposed Central Transit Corridor. The

Phase I report prepared in 2003 was reviewed by the Minnesota SHPO. The Minnesota SHPO concurred with the determination of properties to be included in a Phase II evaluation except that five additional properties were determined to need a Phase II evaluation. The results of the combined Phase I and II 1995 survey, the Phase I 2003 survey, and the SHPO determinations are shown in Tables 1 and 2.

- Eighteen properties are listed on the National Register of Historic Places (NRHP) (see Table 1).
- Nineteen individual properties have been determined to need a Phase II evaluation. Four of these properties have also been recommended as part of the MPDF (see Table 2).
- Twenty-five properties within the APE have been determined to need a Phase II Evaluation as part of a Multiple Property Documentation Form (MPDF). Four of these properties have also been determined as needing Phase II Evaluation as individual properties.
- There is one Historic District listed on the NRHP (Lowertown). There are two eligible districts (Minnesota State Capitol and University of Minnesota), and one district (Prospect Park) has been recommended as potentially eligible. In addition, the St. Paul HPC is currently working on a "University-Raymond Historic District" that will be included in the Phase II Evaluation as appropriate.

## IMPACTS ON CULTURAL RESOURCES

Potential impacts on cultural resources include the following. These impacts will be assessed in more detail during the Section 106 Phase II investigation, which will be completed prior to or during the PE/FEIS phase of the Central Corridor project.

- *Right-of-way Acquisition:* Generally speaking, this project will not change the current curb alignment along the affected streets. There are two areas where right-of-way acquisition will occur with the LRT alternative: (1) near the Stadium Village station where the proposed LRT alternative would enter a tunnel, and (2) in the vicinity of the Fairview station area where the LRT alternative would require the acquisition of two properties. No land acquisition is expected with the BRT alternative.
- *Access to Properties:* In a few cases, access to properties may be potentially affected by the loss of on street parking near the station sites. This impact will occur with both the LRT and BRT alternatives.
- *Traffic Volumes and Traffic Patterns:* No noticeable increase in traffic volumes on University Avenue or parallel streets is expected with either the LRT or the BRT alternatives. Straight-through movements are not permitted across many major north-south streets (for example, Lexington Avenue) on streets parallel to University Avenue. Therefore, no major shifts in traffic patterns are expected as a result of either alternative.
- *Noise:* There will be no perceptible increases in noise with either the BRT or LRT alternatives. LRT operations are typically quieter than bus operations.



- *Vibration:* Increases in vibration are possible during the construction phase of the project, but will be limited to buildings facing the proposed alignment.
- *Air Quality:* There will be no measurable increases in air pollution. Typically, LRT operations result in slight improvements in air quality over BRT operations.
- *Changes in Grade:* Grades will generally not be altered except at the Stadium Village station, where the LRT alternative would enter an underground tunnel.
- *Land Use and Property Setting:* The impacts to land use around the proposed station sites will be among the most significant effects to the area due to the secondary impact of redevelopment surrounding the proposed station sites. Between station areas, the potential impacts to land use and property setting will be limited to the adjacent (facing) buildings. These impacts will be similar for both the LRT and BRT alternatives. However, there may be greater redevelopment with LRT and, therefore, greater secondary impacts to surrounding land uses and property settings in the vicinity of LRT stations.

**TABLE 1: NRHP Listed and Determined Eligible Properties**

<b>Property/District Name</b>	<b>Address</b>	<b>City</b>	<b>NRHP Status</b>
Valspar Corporation Office (Mn Linseed Oil Office & Paint Manufactory)	1101 South 3 <sup>rd</sup> St.	Minneapolis	Eligible
Valspar Corporation Office (Mn Linseed Oil Pair Warehouse)	1101 South 3 <sup>rd</sup> St.	Minneapolis	Eligible
Valspar Research Center (Mn Linseed Oil Varnish Manufacture Bldg)	312 11 <sup>th</sup> Avenue S.	Minneapolis	Eligible
Mixed Blood Theatre	1501 South 4 <sup>th</sup> St.	Minneapolis	Eligible
Duplex (Minneapolis Brewing Co.)	1516-1518 S. 7 <sup>th</sup> St.	Minneapolis	Eligible
Prospect Park Water Tower	55 Malcolm Ave. SE	Minneapolis	Listed
Krank Building (Iris Park Place)	1885 University Ave.	St. Paul	Listed
Minnesota State Capitol	75 Constitution Ave.	St. Paul	Listed
Minnesota Historical Society Building	25 Constitution Ave.	St. Paul	Listed
St. Louis King of France Church	506 Cedar St.	St. Paul	Eligible
St. Louis Church Rectory	506 Cedar St.	St. Paul	Eligible
Central Presbyterian Church	500 Cedar St.	St. Paul	Listed
Exchange Building (St. Agatha's Conservatory of Music and Fine Arts)	26 Exchange St.	St. Paul	Listed
First Trust Company (First National Bank)	332 Minnesota St.	St. Paul	Eligible
University of Minnesota District		Minneapolis	Eligible District
Minnesota State Capitol District		St. Paul	Eligible District
Lowertown Historic District		St. Paul	Listed District

**TABLE 2 – Properties in APE Determined to Require Phase II Evaluation**

Property	Address	City
Minnesota Transfer Railway Company Railroad		St. Paul
Railroad Bridge Over University Avenue	Between Prior and Cleveland Avenues	St. Paul
Norwegian Evangelical Lutheran Church (Christ Lutheran Church)	105 University Ave.	St. Paul
Ford Building	117 University Ave.	St. Paul
Engine Company No. 18	681 University Ave.	St. Paul
Owens Motor Company	709-719 University Ave.	St. Paul
Gas Station	774 University Avenue	St. Paul
Victoria Theater	825 University Ave.	St. Paul
St. Paul Casket Company	1222 University Ave.	St. Paul
Griggs & Cooper Co. Building	1821 University Ave.	St. Paul
Porky's Drive-In	1884 University Ave.	St. Paul
St. Paul Fire Department	2179 University Ave.	St. Paul
M. Burg & Sons Co.	2402-2414 University Ave.	St. Paul
Building	2700 University Ave.	St. Paul
KSTP Office & Tower	3415 University Ave.	St. Paul
La-Vera Apartments	517-519 Asbury St.	St. Paul
Martin M. McNulty House	516 Lexington Pkwy	St. Paul
State of Minnesota Department of Employment (City of Lakes Building)	309 2 <sup>nd</sup> Ave.	Minneapolis
St. Olaf Catholic Church	215 8 <sup>th</sup> Street S.	Minneapolis
Power Plant	691 Robert St	St. Paul
Freight Transfer MPDF		St. Paul
<ul style="list-style-type: none"> <li>• Griggs &amp; Cooper Bldg</li> <li>• Sewall Gear Mfg. Co.</li> <li>• Grocery</li> <li>• Great Lakes Coal and Dock Co</li> <li>• Wright, Barrett &amp; Stillwell Building</li> <li>• Twin City Grocery Warehouse</li> <li>• Patterson Company</li> <li>• Mpls Street Railway Co. Barns</li> <li>• Mattress Company</li> <li>• Redwing Stoneware Co.</li> <li>• Northwestern Furniture Exposition Co.</li> <li>• Ingersoll Machinery</li> <li>• Twin City State Bank</li> <li>• G.M. Truck and Coach Building</li> <li>• Upham Building</li> <li>• Commercial Building</li> <li>• M. Burg &amp; Sons Co.</li> <li>• Minneapolis St. Paul Building</li> <li>• Brown-Jaspers Store Fixtures</li> <li>• Twin City Four Wheel Drive Co.</li> <li>• Mack International Motor Truck Co.</li> <li>• Overland Stoves Company</li> <li>• Minnesota Transfer Railway Co Railroad</li> <li>• Minnesota Transfer Railway Company bridge</li> <li>• St. Paul HPC "University-Raymond Historic District"</li> </ul>	<ul style="list-style-type: none"> <li>1821 University Ave.</li> <li>705 Raymond Ave.</li> <li>779 Raymond Ave.</li> <li>2102 University Ave.</li> <li>2233 University Ave.</li> <li>2285 University Ave.</li> <li>2295 University Ave.</li> <li>2324 University Ave.</li> <li>2341 University Ave.</li> <li>2345 University Ave.</li> <li>2356-2362 University Ave.</li> <li>2375 University Ave.</li> <li>2388 University Ave.</li> <li>2390-2400 University Ave.</li> <li>2401 University Ave.</li> <li>2418-2422 University Ave.</li> <li>2402-2414 University Ave.</li> <li>2429 University Ave.</li> <li>2441 University Ave.</li> <li>2478-2512 University Ave.</li> <li>2505 University Ave.</li> <li>2550 (2572) University Ave.</li> <li>At University Ave.</li> <li>At University Ave. and Raymond</li> </ul>	

## **3.8 SAFETY AND SECURITY**

### **3.8.1 Personal Safety and Property**

This section assesses the safety and security aspects of the Baseline, LRT and BRT alternatives for the Central Corridor. The purpose is to describe the existing safety and security conditions, to identify any perceived or potential areas of concern for residents and transit users, and to describe the proposed facility security measures and pedestrian safety design features being considered for each of the alternatives.

#### **EXISTING CONDITIONS**

In the Central Corridor, both the City of Minneapolis and the City of St. Paul provide police, fire and emergency response units. Current street configurations allow comprehensive localized access by police, fire and ambulance vehicles. Police departments, fire departments, hospitals and medical services are located along and adjacent to the proposed alignments. Police reports provided by both cities identify theft and vandalism as the highest reported offenses within the corridor.

Existing streets and sidewalks are moderately lit with a few isolated well-lit areas. Most pedestrian crossings are at signalized intersections, with the exception of a few mid-block crossings. In cases where street widths are deemed unsafe for pedestrian crossing, a median is provided as a refuge.

#### **IMPACTS RELATED TO PERSONAL SAFETY AND PROPERTY**

This section summarizes the potential impacts regarding public safety and security associated with each of the alternatives.

##### ***Baseline Alternative***

Under this scenario, the service currently provided by the City of Minneapolis and City of St. Paul would continue without any changes.

##### ***University Avenue LRT Alternative***

As with all new public facilities, moderate potential for increases in theft, vandalism and other emergency services could develop at proposed station locations. Metro Transit Police would assign officers along the line and at stations for fare enforcement. This additional police presence as part of patrol coverage should deter crime at station areas and along the corridor.

Station platforms would include emergency telephone access. This would allow patrons to contact 911 emergency services should they be required.

Station areas would be well lit with limited visual obstructions. The presence of transit users would provide increased opportunity for natural surveillance of the facilities. Surveillance of station platforms would be enhanced through the use of video cameras and monitors. Cameras would monitor ticket vending machines for added security. Nearby residents, employers in the area and passersby would also contribute to natural surveillance.

Metro Transit would clean and maintain stations as part of operating and maintaining the system. This would contribute positively to the perception and reality of the area being safe and secure for transit users and adjacent property owners.

### ***University Avenue Busway/BRT Alternative***

The potential impacts described for LRT would also apply to this alternative.

## **IMPACTS RELATED TO CONSTRUCTION**

Construction impacts related to the construction of LRT and BRT could potentially result in temporary hazards to personal safety at construction sites and potential security issues related to construction site vandalism. Both federal Occupational Safety and Health Administration (OSHA) and Minnesota OSHA (MNOSHA) standards for the safety of construction site personnel would be maintained, and access to construction sites would be limited by fencing and security gates to prevent inadvertent access by persons not having access clearance. A security perimeter would minimize opportunities for property vandalism.

The use of construction equipment, delivery of materials and other construction site activity may have temporary negative safety impacts on adjacent roadways, pedestrian areas and personal property. Construction activities would be coordinated through Best Management Practices (BMPs) to minimize hazards to the safety of persons and property.

## **MITIGATION MEASURES RELATED TO PERSONAL SAFETY AND PROPERTY**

### ***Baseline Alternative***

No action required.

### ***University Avenue LRT Alternative***

A regular police presence, opportunities for natural surveillance, design optimization of station platform lighting and cameras, and Metro Transit maintenance should adequately provide safe and secure facilities.

### **Fire/Life Safety Criteria**

For the Central Corridor LRT system, Metro Transit would use the LRT Fire/Life Safety Criteria established for the Hiawatha LRT system.

### **Training and Dispatch**

Metro Transit will train and use police officers and supervisors to respond to LRT-related incidents. There will be full-time officers assigned to the proposed Central Corridor transit line. Emergency drills for all scenarios (e.g. tunnel fire, train derailment) will be conducted numerous times prior to opening the LRT line. Additionally, an emergency response plan will also be developed and deployed prior to opening the LRT line.

Police officers would be dispatched from a Rail Control Center. The Center would dispatch both local and Metro Transit police. If the local police are able to respond first, Metro Transit police will still be dispatched.

### **Prosecution of Crimes**

Crimes will be prosecuted by the jurisdiction in which they take place (i.e. City of St. Paul or City of Minneapolis).

#### **Emergency and Maintenance Vehicle Access**

Emergency and maintenance vehicles would gain access to the LRT tracks by driving over mountable curbs that separate tracks from mixed traffic.

#### ***University Avenue Busway/BRT Alternative***

Metro Transit's existing emergency dispatch plan and safety and security plan would be used for the proposed Central Corridor facility as in the Baseline Alternative.

#### **Emergency and Maintenance Vehicle Access**

Emergency and maintenance vehicles would gain access to the exclusive BRT guideway (on University Avenue between Bedford Street and Rice Street) by driving over mountable curbs separating tracks from mixed traffic.

### **3.8.2 Pedestrian and Vehicular Safety**

Pedestrian, bicycle and vehicular traffic are all presently provided for in the design for the proposed Central Corridor. Pedestrian safety is provided through the use of sidewalks, traffic signals and signage. Bicycle rider safety is provided through the use of signage and striping, and where bicycle paths share roadway right-of-way (e.g. Fourth Street South in downtown Minneapolis), the same warning systems in place for vehicular traffic apply to cyclists.

## **IMPACTS RELATED TO PEDESTRIAN AND VEHICLE SAFETY**

#### ***Baseline Alternative***

No impacts would result from this alternative.

#### ***University Avenue LRT Alternative***

Pedestrian, bicycle and vehicular crossings would be allowed only at designated signalized intersections.

The implementation the LRT Alternative would include the designed and constructed elements of the LRT system. Collectively, these elements provide for the safety of pedestrians, bicyclists and vehicular traffic. All applicable federal, state and municipal laws regulating LRT system design and procedures would be followed.

#### ***University Avenue Busway/BRT Alternative***

Pedestrian, bicycle and vehicular crossings would be allowed only at designated signalized intersections. The implementation of this Busway/BRT Alternative would include the designed and constructed elements of the BRT system. Collectively, these elements provide for the safety of pedestrians, bicyclists and vehicular traffic. All applicable federal, state and municipal laws regulating bus system design and procedures would be followed.

## **MITIGATION MEASURES RELATED TO PEDESTRIAN AND VEHICLE SAFETY**

#### ***Baseline Alternative***

No impacts would result from this alternative.

### ***University Avenue LRT Alternative***

Crossing protection would be provided at all proposed at-grade crossings. Crossing protection could include automatic roadway crossing warning systems. The roadway crossing warning system equipment could consist of any combination of flashing light signals, cantilevers, gates and cross arms. All crossing warning systems would provide for pedestrian, bicyclist and vehicular safety.

To maintain access to the corridor for emergency vehicles, the design of the guideway would include mountable curbs separating the guideway from mixed traffic. The signal system could also include emergency vehicle preemption system for the entire corridor.

Additionally, other wayside features would be utilized for pedestrian, bicyclist and vehicular safety. These features would include any combination or standalone use of crossing signage, striping, physical barriers and fencing.

The Light Rail Vehicle (LRV) (based on the Hiawatha LRT design specifications) would include features that provide for the safety of LRV passengers, pedestrians, bicyclists and vehicles. These features include:

- Safety mirrors on the LRV
- Manual car door release
- Sight and sound warning systems
- Public address system with interior and exterior vehicle capabilities
- Emergency brake capabilities.
- Impact-resistant windows and windshields
- Sensitive edges on passenger doors to detect obstructions
- Operator control having an automatic vehicle stop feature (dead man feature)

### ***University Avenue Busway/BRT Alternative***

Crossing protection would be provided at all proposed at-grade crossings. Crossing protection could include automatic roadway crossing warning systems. The roadway crossing warning system equipment could consist of any combination of flashing light signals, cantilevers, gates and cross arms. All crossing warnings systems would provide for pedestrian, bicyclist and vehicular safety.

Similar to the LRT alternative, the guideway design would include mountable curbs to maintain access by emergency vehicles. The signal system could also include emergency vehicle preemption system for the entire corridor.

Additionally, other wayside features would be utilized for pedestrian, bicyclist and vehicular safety. These features would include any combination or standalone use of crossing signage, striping, physical barriers and fencing.

The BRT vehicle would include features that provide for the safety of BRT passengers, pedestrians, bicyclists and vehicles. These features include:

- Safety mirrors on the vehicle

- Manual car door release
- Sight and sound warning systems
- Public address system with interior and exterior vehicle capabilities
- Emergency brake capabilities.

The BRT vehicle could provide other passenger safety features borne by the vehicle:

- Impact-resistant windows and windshields
- Video surveillance cameras
- Energy-absorbing bumpers
- GPS transponder
- Silent alarm
- Radio communications

For both the LRT and Busway/BRT alternatives, a preliminary hazard analysis will be performed during PE. This analysis will identify, assess and resolve potential hazards to safety and security. It should be conducted in accordance with the Hazard Analysis Guidelines for Transit Projects published by the FTA Office of Safety and Security.

### **3.9 ENVIRONMENTAL JUSTICE**

This section explains how Environmental Justice concerns have been addressed in the evaluation of alternatives for the Central Corridor Draft Environmental Impact Statement (EIS). This section also identifies how areas protected under the Environmental Justice Executive Order 12898 were defined and the extent to which areas of minority and low-income populations would be affected by the alternatives under evaluation in this Draft EIS. The issues discussed in this section pertain to the social factors analyzed in Section 3.0: Social and Land Use Impact Analysis. These include effects related to neighborhood cohesion, displacements, visual and aesthetic conditions, historic and archaeological resources and parklands. Additional analysis regarding environmental, economic and transportation issues can be found in Chapters 4.0, 5.0 Economic Impact Analysis, and 6.0.

#### **3.9.1 Legal and Regulatory Requirements**

Presidential Executive Order 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994) requires that federal agencies consider and address disproportionate adverse environmental effects of proposed federal projects on minority and low-income communities. The Order states:

*To the greatest extent practicable and permitted by law...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations...(subsection 1-101).*



*Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin (sub section 2-2).*

The intent of the USDOT Final Order on Environmental Justice [DOT Order 5610.2, "Environmental Justice" (April 15, 1997)] is to integrate the goals of Executive Order 12898 into USDOT operations.

*...National Environmental Policy Act of 1969 (NEPA), Title VI of the Civil Rights Act of 1964 (Title VI), ..., the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and other DOT statutes, regulations and guidance that address or affect infrastructure planning and decisionmaking; social, economic, or environmental matters; public health; and public involvement.*

Between June 1997 and March 1998, the Minnesota Department of Transportation's (Mn/DOT's) Committee on Environmental Justice met and was charged with developing guidance to implement Executive Order 12898. The Committee on Environmental Justice produced *Mn/DOT's Environmental Justice Draft Guidance*, dated August 5, 1998. Methodology outlined in the guidance document was used to evaluate the proposed corridor for environmental justice. To meet both the requirements of NEPA and Executive Order 12898, this section addresses the characteristics of the affected communities, potential effects on minority and low-income communities and potential mitigation measures.

### **3.9.2 Community Characteristics**

To determine if disproportionately high effects would be borne by historically disadvantaged communities, Census 2000 block level data were used to define areas of minority populations and 1990 Census block groups (the lowest level of 1990 data available) were used to define areas of low-income populations (income data for the decennial 2000 Census is not available at the time of this analysis)<sup>1</sup>. Ethnic composition and income characteristics within the impact assessment area have been identified in accordance with definitions established by the USDOT and the United States Environmental Protection Agency (EPA) guidance on Environmental Justice. The impact assessment area likely to be affected by the alternatives under evaluation was defined as any census block or block group within one-half mile of the centerline of the proposed build alternatives. Blocks or block groups partially within the one-half mile radius were used in their entirety.

To determine areas of minority or low-income populations, race/ethnic and income characteristics were identified and compared to the overall characteristics of the counties of Hennepin and Ramsey and the cities of Minneapolis and St. Paul. Potential environmental justice issue areas were identified as those census blocks or block groups that exceeded a rate higher than the county's rate of minority and low-income persons. Since the corridor traverses two counties and each county has different percentages of minority and low-income persons, the county with the lowest percent minority and low-incomes was used as the threshold to determine where minority and low-income populations are located. In both cases, Hennepin County had the lowest percent minority at 21.1

<sup>1</sup> A block is the smallest geographic entity for which the Census Bureau collects and tabulates decennial census information. A block group is a combination of census blocks that is a statistical subdivision of a census tract.

percent and percent low-income at 9.2 percent. Table 3.9-1: Percent Minority and Low-Income by County and City, shows percent minority and low-income for both counties and both cities.

Figures 3.9-1: Minority Population and 3.9-2: Population Below Poverty Level, show concentrations of census blocks or block groups that exceed the county percent. These areas will be evaluated in this environmental justice analysis. To illustrate the degree of intensity, the figures also show minority and low-income populations that exceed the city level. These areas will also be evaluated in this environmental justice analysis.

**Table 3.9-1: Percent Minority and Low-Income by County and City**

	Percent by Hennepin County	Percent by Ramsey County	Percent by Minneapolis	Percent by St. Paul
<b>Minority</b>	21.1	24.7	37.5	36.0
<b>Low-Income</b>	9.2	11.4	18.5	16.7

## MINORITY POPULATIONS

Based on the USDOT April 15, 1997, Order 5610.2, the definitions of minority and minority population are as follows:

Minority means a person who is: (1) Black (a person having origins in any of the black racial groups of Africa); (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture, regardless of race); (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

Minority Population means any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed USDOT program, policy or activity.

As shown on Figure 3.9-1, census blocks that exceed the thresholds described above are shaded light and dark purple. Census blocks within one-half mile radius of the alignments will be evaluated in the environment section for disproportionately high and adverse effects. The largest concentration of minorities, adjacent to the corridor alignment, is located north and south of University Avenue between Lexington Parkway and Interstate 35E in the Thomas-Dale and Summit-University neighborhoods in St. Paul. Neighborhood boundaries are shown in Figure 3.1-1.

## LOW-INCOME POPULATIONS

Based on USDOT April 15, 1997, Order 5610.2 the definition of low-income populations are as follows:

Low-Income means a person whose median household income is at or below the Department of Health and Human Services poverty guidelines.<sup>2</sup>

<sup>2</sup> The Department of Health and Human Services states that "...1989 and 1990 poverty guidelines should NOT be used in connection with determining poverty population figures from 1990 Decennial Census data. Poverty population figures are calculated using the Census Bureau poverty thresholds, not the poverty guidelines."

Low-Income Population means any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed USDOT program, policy or activity. [For this evaluation, the term "low-income" is equivalent to and used interchangeably with "persons/populations below the poverty level.]"

As shown in Figure 3.9-2, 1990 census block groups that exceed the thresholds described above are shaded light and dark purple. Census block groups within one-half mile radius of the alignments will be evaluated in the environment section for disproportionately high and adverse effects. Populations below the poverty level are adjacent to the corridor alignments for the entire length of the corridor with the exception of the University of Minnesota East Bank campus area.

### **3.9.3 Impacts Related to Environmental Justice for Social Factors**

#### **METHODOLOGY**

The analysis for social factors includes an examination of the effect of the alternatives on minority and low-income populations, as shown in Figures 3.9.1 and 3.9.2, with regard to the issues discussed in Chapter 3 including neighborhood cohesion, displacements, visual and aesthetic concerns and parklands.

The impact assessment for each social factor is analyzed to determine the number and magnitude of effect on minority and low-income populations and areas compared to non-minority and non-low-income populations. Transit dependent populations are also considered. Positive and adverse impacts are discussed for each alternative. Displacements and partial displacements that affect public land or community facilities are specifically named.

#### **BASELINE ALTERNATIVE**

Positive impacts offered by the build alternatives, such as improved mobility, affordable transportation and potential redevelopment opportunities, would not be provided with the Baseline Alternative. Ridership projections indicate that transit overcrowding would occur during rush hours. This would negatively impact access to work and educational opportunities by corridor residents. While minority and low-income populations are free from direct physical impacts, indirect impacts would be borne by minority and low-income populations in terms of benefits forgone, such as increased mobility, improved access to local businesses and educational facilities, visual enhancements provided in station area and potential improvements to pedestrian and bicycle connections.

#### **UNIVERSITY AVENUE LRT ALTERNATIVE**

The impact assessment for social factors such as community cohesion, parklands, displacements and visual and aesthetics is analyzed to determine the number and magnitude of effect on minority and low-income populations as compared to non-minority and non-low-income populations. Transit dependent populations are also considered. Positive and adverse impacts are discussed for the LRT alternative.

#### ***Neighborhoods, Community Facilities and Community Cohesion***

In general, the University Avenue LRT Alternative would provide enhanced access to transit and increased mobility and would not have major negative impact on the cohesiveness of the neighborhoods, including minority or low-income neighborhoods or transit dependent populations, along the proposed LRT route. For the LRT Alternative, the negative impacts of right-of-way acquisition through the Prospect Park, Hamline Midway, Thomas Dale, and

Downtown St. Paul neighborhoods would total 13 non-residential structures to be removed. These structures are located near proposed station areas. Impacts to community cohesion due to the displacement of two commercial properties and City of Minneapolis Fire Station No. 19 would have an impact on the cohesion of the Stadium Village commercial node. This station area has minority and low-income populations that could be adversely effected; however, adverse effects would not be disproportionately borne by these populations.

In the University Avenue corridor the proposed University Avenue LRT Alternative would provide improved transit service to the Prospect Park neighborhood in Minneapolis. In Saint Paul, service would be provided to the Westgate area, Saint Anthony Park, Hamline-Midway, Thomas-Dale, Merriam Park, Snelling-Hamline, Lexington-Hamline, and Summit-University. Several of these neighborhoods have high concentrations of minority or low-income populations. The increased mobility provided by transit improvements and the siting of proposed LRT stations may act as a catalyst to new investment in the University Avenue corridor. Proposed LRT stations would also be new community facilities that would add to the stature of the adjacent neighborhoods and service as focal points to daily activity. Negative impacts at the neighborhood level would be some additional restriction of turning movements for vehicles from University Avenue into roadside parcels to right-in and right-out movement, which would impact accessibility to several businesses at selected locations. This would result in more U-turns at signalized intersections in order for drivers to double-back to their destinations and could also displace traffic onto adjacent neighborhood streets. These restrictions already exist at many locations because of medians. Neighborhood transportation impacts and loss of on-street parking spaces are further addressed in Chapter 6.0.

### ***Parklands***

As currently proposed, none of the ten parks within 300-feet of the proposed alignment would be directly impacted by right-of-way acquisition associated with the LRT alternative. The University Avenue LRT Alternative would not substantially impair or diminish the activities, features, or attributes at any of the ten parks. As shown in Table 3.9-2: Social Factor Analysis, parklands would not be impacted; therefore, minority or low-income populations would not be adversely effected.

### ***Displacements***

Table 3.9-2 summarizes the residential and non-residential displacements in minority and low-income population areas as compared to total displacements for non-minority or non-low-income population areas. As shown in the table, the LRT Alternative would not displace residential structures. Non-residential displacements would occur in both minority and non-minority population areas under the University Avenue LRT Alternative. Non-residential displacements would have the potential to adversely effect minority and non-minority populations and would not be disproportionately borne to minority populations.

Another impact associated with potential displacements would be the loss of jobs those businesses provide. Potential displacements would occur within the proposed Stadium Village, 29th Avenue SE, Rice Street and Capitol East station areas. The small businesses being displaced

are generally reflective of the surrounding land use and could be readily relocated within the corridor.

**Table 3.9-2: Social Factor Analysis**

POPULATION GROUP	IMPACTS		
	Baseline Alternative	LRT Alternative	BRT Alternative
<b>Minority Impact Areas</b>			
Displacements			
Residential	None	None	None
Non-Residential	None	<ul style="list-style-type: none"> <li>• 3 structures (Stadium Village)</li> <li>• 3 structures (partial displacement-Fairview)</li> <li>• 1 structure (Rice)</li> </ul>	None
Community Facilities	None	Fire Station No. 19 (Stadium Village)	None
Parklands Impacted	None	None	None
<b>Non-Minority Impact Areas</b>			
Displacements			
Residential	None	None	None
Non-Residential	None	<ul style="list-style-type: none"> <li>• 1 structure (Stadium Village)</li> <li>• 1 structure (parking garage @ 29<sup>th</sup> Ave)</li> <li>• 4 structures (Capitol East)</li> </ul>	None
Community Facilities	None	None	None
Parklands Impacted	None	None	None
<b>Low-Income Impact Areas</b>			
Displacements			
Residential	None	None	None
Non-Residential	None	<ul style="list-style-type: none"> <li>• 4 structures (Stadium Village)</li> <li>• 1 structure (parking garage at 29<sup>th</sup> Ave)</li> <li>• 3 structures (partial displacement-Fairview)</li> <li>• 1 structure (Rice)</li> <li>• 4 structures (Capitol East)</li> </ul>	None
Community Facilities	None	Fire Station No. 19 (Stadium Village)	None
Parklands Impacted	None	None	None
<b>Non-Low-Income Impact Areas</b>			
Displacements			
Residential	None	None	None
Non-Residential	None	None	None
Displaced Community Facilities	None	None	None
Parklands Impacted	None	None	None

Source: URS

Note: A displacement or partial displacement was considered to be in a minority or low-income area if the structure was located in or adjacent to a census block or block group that exceeded the average percent threshold set for minority or low-income populations.

The potential displacements on Rice Street, Robert Street, and Columbus Avenue would enable assembly of sites for new redevelopment projects that should relate directly to the proposed new transit station, or in the case of properties in the State Capitol area, may coincide with planned redevelopment efforts. All of the stations listed above have high or moderate development

potential and may have direct positive effects on the neighborhoods in which they are located. Loss of jobs caused by the displacement of businesses in the Central Corridor would not have an adverse effect on minority or low-income populations.

For low-income populations, the table shows that all displacements and partial displacements would occur in low-income areas. However, as illustrated in Figure 3.9-2, low-income populations are adjacent to the LRT line for the majority of corridor and any displacement would likely occur in a low-income area. In the Stadium Village area, four displacements would occur that could adversely affect low-income populations; however, adverse effects would not be disproportionately borne to these populations.

At the southwest corner of Rice Street and University Avenue, a small one-story commercial building would be displaced; however, this building is within an area already identified for development of a new state office building. Along the west side of Robert Street between Constitution Avenue and Columbus Avenue, three small commercial structures would be displaced. A larger building would be displaced at the corner of Columbus Avenue and Cedar Street. These buildings are within the State Capitol area and their displacement is already planned by the CAAPB.

### ***Visual/Aesthetic Conditions***

Visual impacts, both positive and negative, would occur system-wide and would introduce track, poles, overhead contact system (OCS), stations, electrical substations, retaining walls, vehicles, and on the University of Minnesota campus, tunnel portals. The analysis of potential changes to visual or aesthetic qualities is a highly subjective judgment and changes may be deemed to detract from or enhance the visual environment.

Areas that were thought to have “high” visual impacts include the University of Minnesota, the State Capitol and downtown St. Paul. In these areas, adverse visual impacts would not be disproportionately borne by minority populations. Visual impacts would affect both minority and non-minority populations. Low-income and non-low-income populations would be similarly affected in these same three areas.

### ***Summary of University Avenue LRT Alternative***

The University Avenue LRT Alternative would not cause disproportionately high and adverse effects on minority and/or low-income populations with regard to social factors.

## **UNIVERSITY AVENUE BUSWAY/BRT ALTERNATIVE**

The impact assessment for social factors such as community cohesion, parklands, displacements and visual and aesthetics is analyzed to determine the number and magnitude of effect on minority and low-income populations as compared to non-minority and non-low-income populations. Positive and adverse impacts are discussed for the BRT alternative.

### ***Neighborhoods, Community Facilities and Community Cohesion***

In general, the University Avenue BRT Alternative would provide enhanced access to transit and increased mobility and would not have a major negative impact on the cohesiveness of the neighborhoods, including minority or low-income neighborhoods or transit dependent populations, along the proposed BRT route. However, ridership projections show that rush hour demand would exceed the BRT capacity, and these trips would not be taken or would divert to automobiles. The use of an exclusive lane alignment on University Avenue in St. Paul would improve BRT service and the BRT line would improve transit service to the neighborhoods along

University Avenue, including the Westgate area, Saint Anthony Park, Hamline-Midway, Thomas-Dale, Merriam Park, Snelling-Hamline, Lexington-Hamline, and Summit-University. Several of these neighborhoods have high concentrations of minority or low-income populations. The increased mobility provided by transit improvements and the siting of proposed BRT stations may act as a catalyst to new investment in the University Avenue area. Proposed BRT stations would also be new community facilities that would add to the stature of the adjacent neighborhoods and service as focal points to daily activity. Accessibility to adjacent neighborhoods and businesses may be limited to signalized intersections, as some of the existing accesses for left-turning vehicles may be diverted. This situation already exists at many locations due to the existing medians, but additional left-turning access may be displaced. This would result in more U-turns at signalized intersections in order for drivers to double-back to their destinations and could also displace traffic onto adjacent neighborhood streets. Neighborhood transportation impacts and loss of on-street parking spaces are further addressed in Chapter 6.0.

### ***Parklands***

As currently proposed, none of the ten parks within 300-feet of the proposed alignment would be directly impacted by right-of-way acquisition associated with the University Avenue Busway/BRT Alternative. The alternative would not substantially impair or diminish the activities, features, or attributes at any of the ten parks. Minority or low-income populations would not be adversely effected.

### ***Displacements***

Table 3.9-2 summarizes the residential and non-residential displacements in minority and low-income population areas as compared to total displacements for non-minority or non-low-income population area. As shown in the table, there would be no residential or non-residential displacements associated with the University Avenue Busway/BRT Alternative, therefore, minority or low-income populations would not be adversely impacted.

### ***Visual/Aesthetic Conditions***

In general, the overall impact on the visual environment with the University Avenue Busway/BRT Alternative would be low. Areas that were thought to have “moderate” visual impacts would be at station areas along University Avenue. Several neighborhoods adjacent to University have high concentrations of minority or low-income populations. BRT would operate in the middle of the existing right-of-way in exclusive bus lanes. These lanes would not require substantial new infrastructure, and would not create new vertical elements. Stations would include platform and canopies that would add a potential new visual obstruction to the street scene. The impact of these stations on the visual environment could be considered a positive addition to the public right-of-way.

### ***Summary of University Avenue Busway/BRT Alternative***

The University Avenue Busway/BRT Alternative would not cause disproportionately high and adverse effects on minority and/or low-income populations with regard to social factors.

## **3.9.4 Mitigation Measures Related to Environmental Justice for Social Factors**

Adverse impacts of the build alternatives to minority or low-income populations have the potential to be offset with enhancement measures. Offsetting benefits such as increased mobility provided by transit improvements and the siting of proposed LRT stations may act as a catalyst to new investment in the University Avenue corridor. Proposed LRT stations and right-of-way

reconstruction would also be new community facilities that would add to the stature of the adjacent neighborhoods and serve as focal points to daily activity. Proposed BRT would only provide improvements at stations and the bus lanes on University Avenue. The Baseline Alternative would not offer the benefits associated with the build alternatives.

All impacts identified in this document would be mitigated if possible to avoid adverse impacts to all neighborhoods, with special concern and emphasis to minority, low-income and transit dependent populations. The active involvement of all neighborhoods in the corridor would continue to be a goal through design and implementation. Public engagement for all communities in the corridor will continue through the length of this project and is explained in detail in Chapter 8.0 Public and Agency Involvement Program.



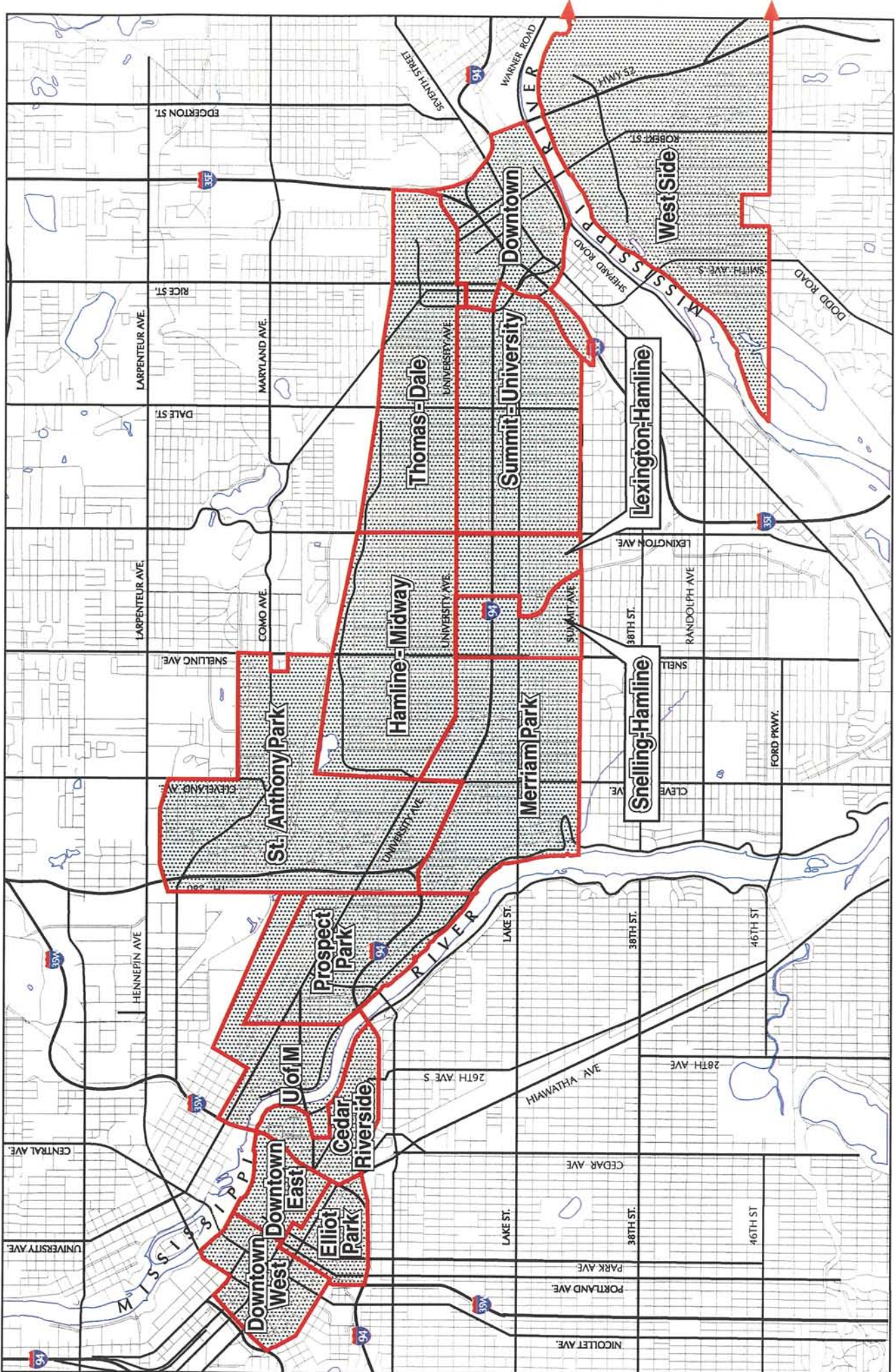


Figure 3.1-1

Designated Neighborhoods

April 2002





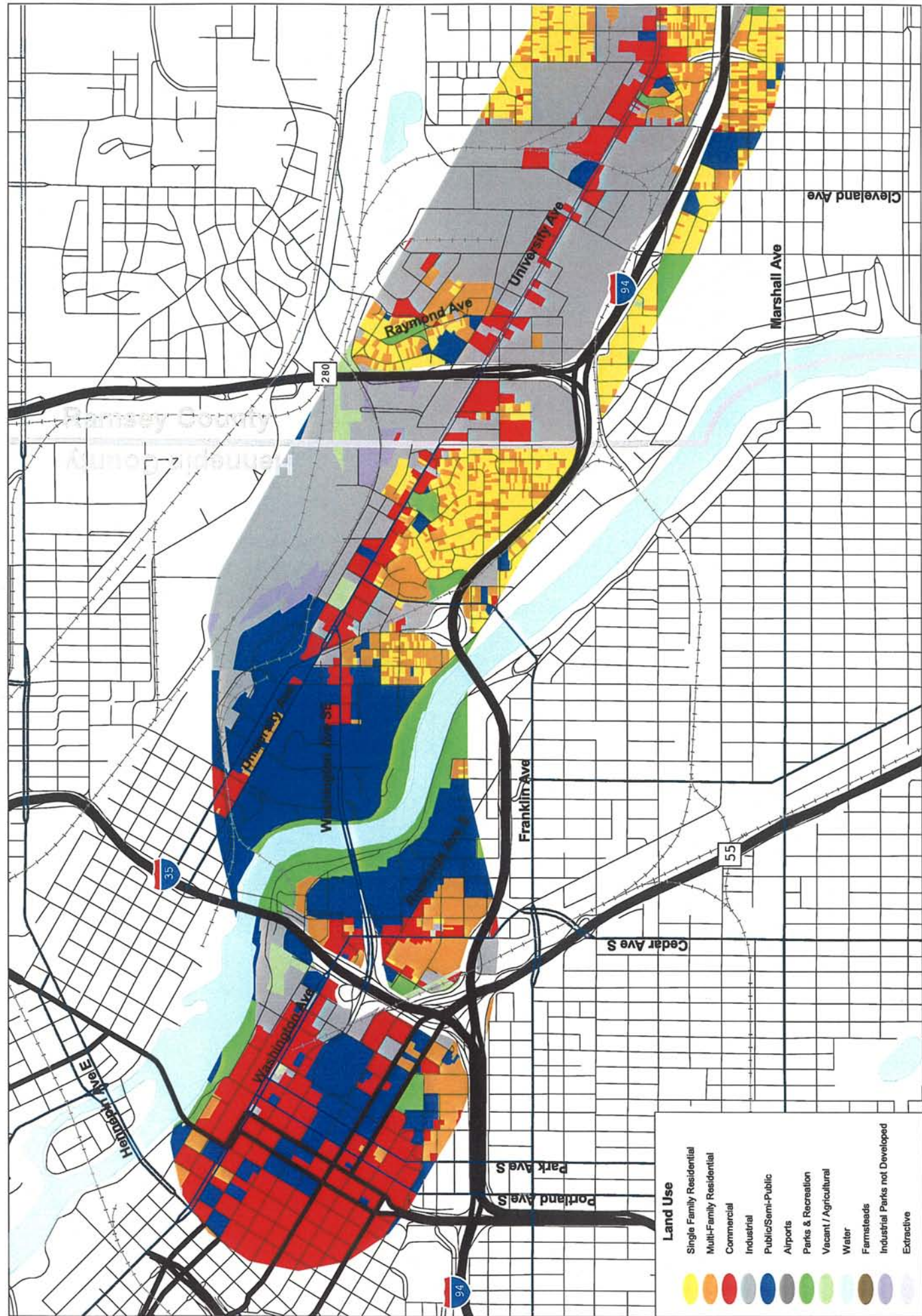


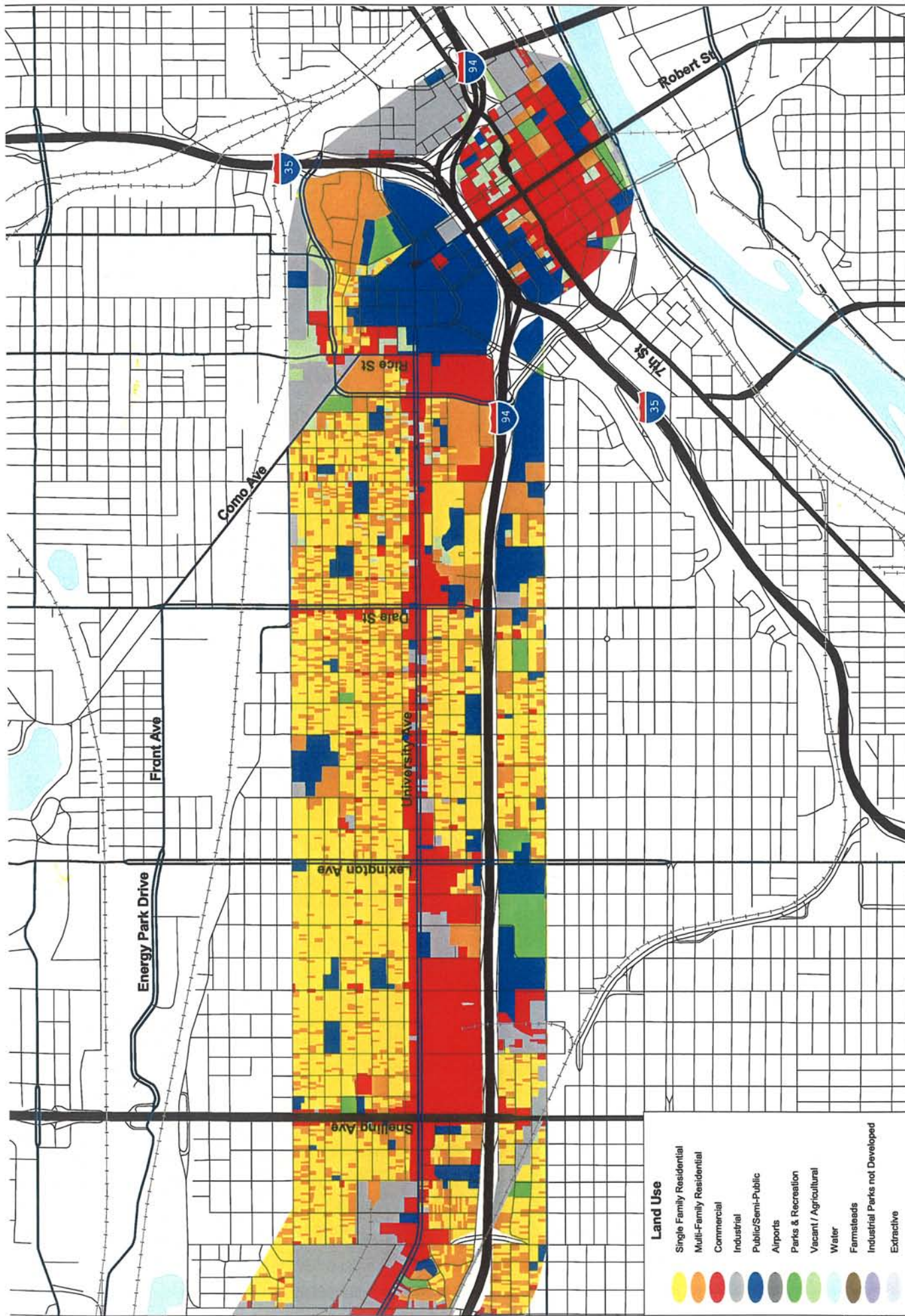
Figure 3.2-1a



Land Use  
April 2002







Land Use  
April 2002

Figure 3.2-1b





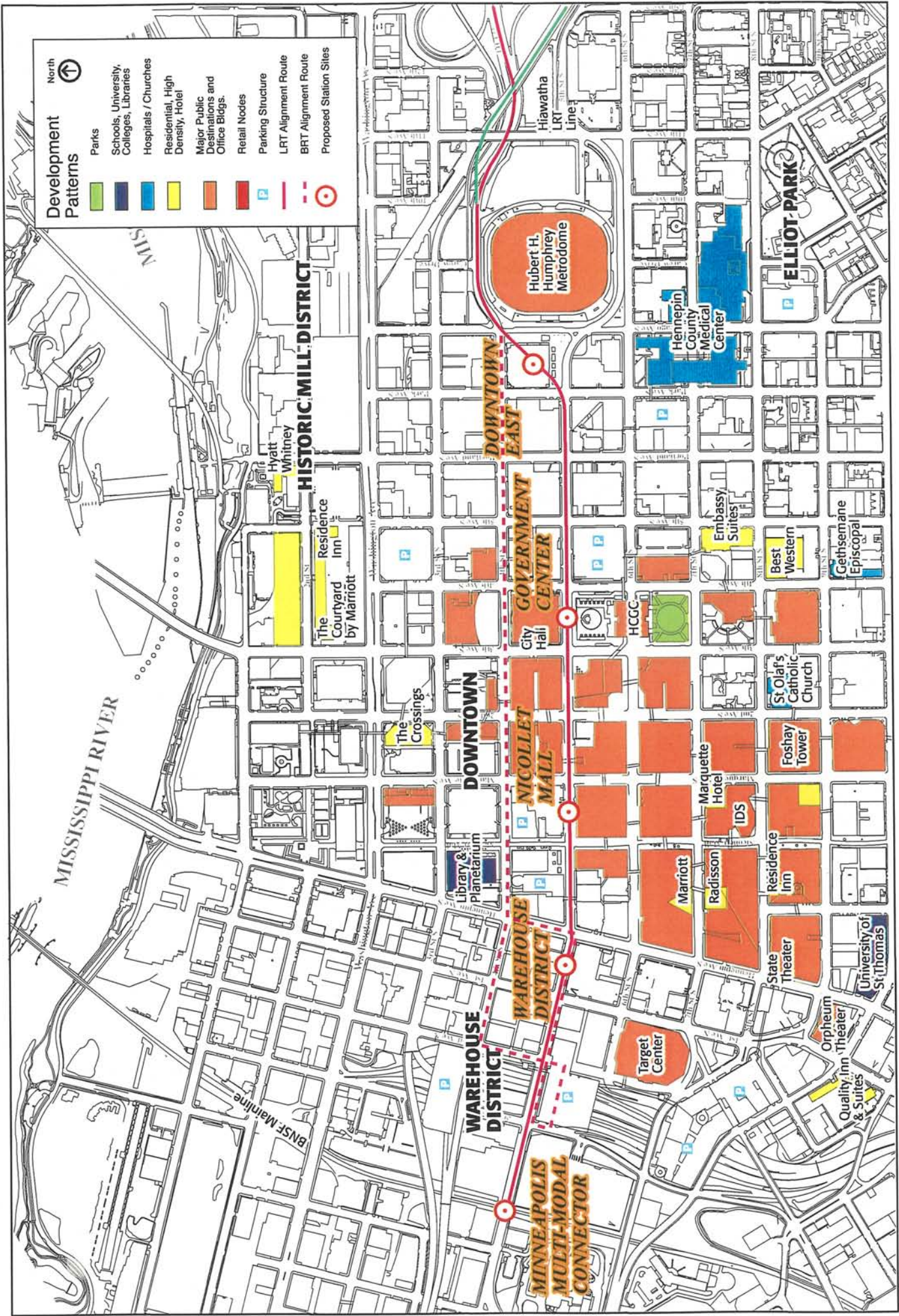


Figure 3.3-1

Downtown Minneapolis (West, East), Elliot Park

Neighborhoods, Districts, and Community Facilities





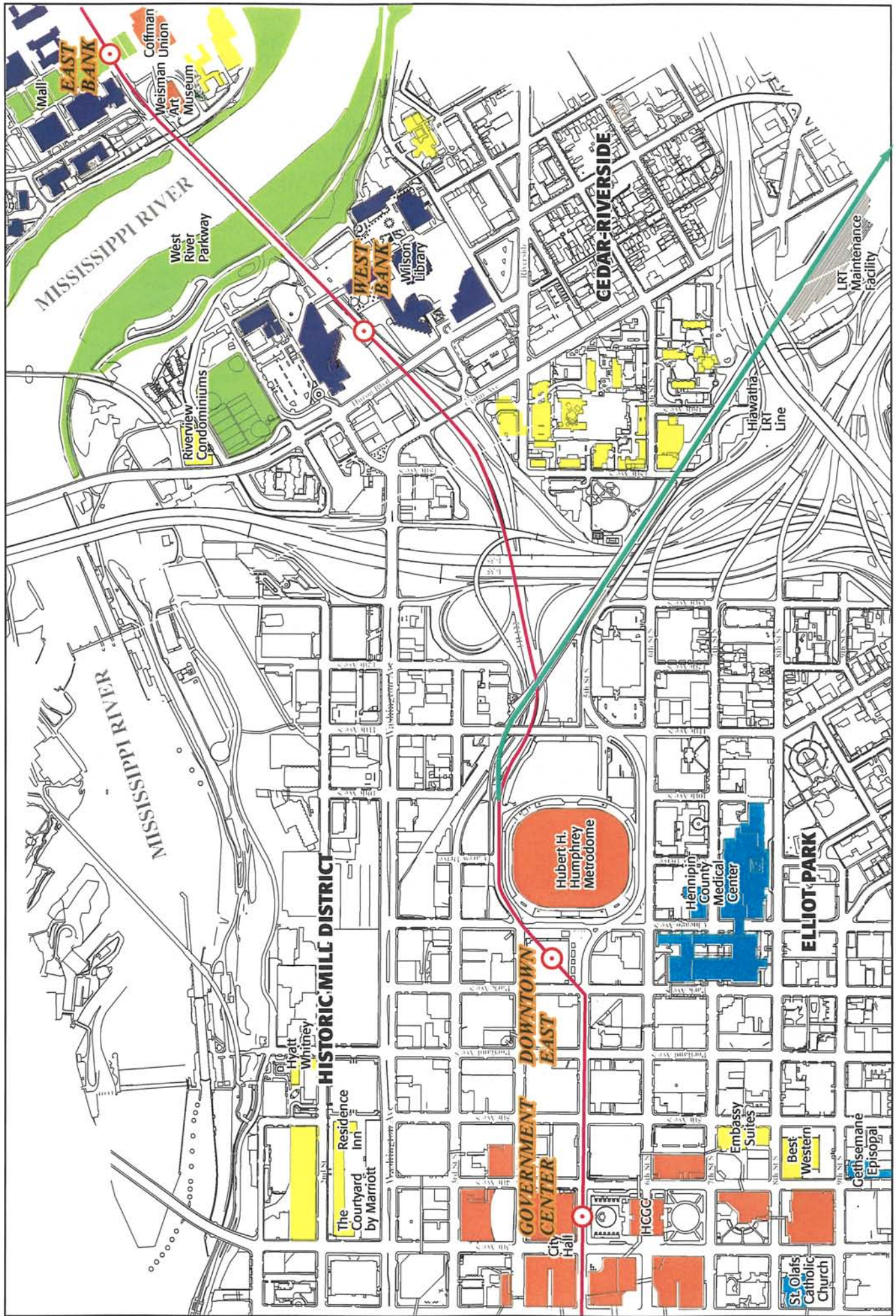


Figure 3.3-2

Downtown East, Elliot Park, Cedar-Riverside  
Neighborhoods, Districts, and Community Facilities

