

5 Environmental

5.1 Purpose and Approach

In addition to the engineering and operations, the feasibility of the Northern Alignment is in part determined by its ability to avoid significant environmental impacts and/or obtain necessary permits/approvals from local, state, and federal agencies. For the purposes of the report, an inventory of key environmental issues addressed by the National Environmental Policy Act (NEPA) and Minnesota Statute 116 was conducted to identify any potential impacts that would be significant enough to render the Northern Alignment unfeasible. Should the Northern Alignment be considered as a potential Locally Preferred Alternative (LPA) for the Central Corridor, additional analysis of environmental issues would be required to fulfill state and federal requirements.

5.2 Key Issues Identified

All environmental issues typically addressed by state and federal environmental documents were assessed to determine which issues were present along the Northern Alignment and posed a threat to its feasibility. Four issues were identified that merit further discussion in this report:

- Cultural Resources
- Parks and Recreational Resources
- Environmental Justice (impacts to minority or low income populations)
- Contamination

Each of these issues is discussed below in more detail.

5.2.1 Cultural Resources

Background

Section 106 of the National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) requires federal agencies, in consultation with others, to assess the effects of their actions by identifying properties listed in, or eligible for, the National Register of Historic Places (NRHP); determining effects of the project on those properties; and consulting with interested parties to determine ways to avoid, minimize, or mitigate adverse effects caused by an undertaking. The resolution of adverse effects to historic properties is most often concluded with the execution of a Memorandum of Agreement (MOA). Execution of the MOA evidences that the federal agency has fulfilled its responsibilities under Section 106 of the NHPA.

The Federal Transit Administration (FTA) is the lead federal agency for the CCLRT project. The Minnesota Department of Transportation (Mn/DOT) Cultural Resources Unit (CRU) is acting on behalf of FTA in discussions on Section 106 issues for the CCLRT.

Section 4(f) of the Department of Transportation Act

Section 4(f) legislation as established under the Department of Transportation Act of 1966 provides protection for publicly owned parks, recreation areas, historic sites, and wildlife and/or waterfowl refuges from conversion to a transportation use. The FHWA may not approve the use of land from a significant publicly owned park, recreation area, wildlife and waterfowl refuge, or any significant historic site unless a determination is made that:

- There is no feasible and prudent alternative to the use of land from the property
- The action includes all possible planning to minimize harm to the property resulting from such use.

A Section 4(f) evaluation must be completed if there is a “use” of a 4(f) property from the proposed project. A “use” occurs (1) when land from a Section 4(f) site is acquired for a transportation project; (2) when there is an occupancy of land that is adverse in terms of the statute’s preservationist purposes; or (3) when the proximity impacts of the transportation project on the Section 4(f) sites, without acquisition of land, are so great that the purposes for which the Section 4(f) sites exist are substantially impaired (normally referred to as a constructive use).

In relation to historic properties, Section 4(f) evaluations apply only to properties listed on or determined eligible for the National Register of Historic Places (NRHP), and to properties where the proposed transportation project has been determined to cause an adverse effect on the NRHP property.

Historic properties that may require Section 4(f) evaluations will be identified in this section. Parks, recreation, and other sites that may require Section 4(f) evaluations will be discussed in Section 4.2.2.

Methodology

At the feasibility study level, it is typical to identify only those properties already listed in the NRHP and those determined eligible for the NRHP. This study has also included properties and historic districts designated by the Minneapolis Heritage Preservation Commission (HPC), because of the proximity of these properties to the proposed project. In addition, it is feasible that the HPC may be invited to participate in any discussions related to impacts to locally designated properties.

SRF contacted the State Historic Preservation Office (SHPO) and requested a site file search for identified NRHP and NRHP-eligible historic and archaeological properties along the proposed Northern Alignment. This site file search was supplemented with a review of files at the SHPO to clarify locations of properties, boundaries of historic properties and districts, and the buildings included within districts. Several items related to the NRHP status of properties and historic district boundaries were reviewed and clarified in a telephone conversation with Dennis Gimmetstad, the State Historic Preservation Officer, on April 10, 2008. Several field visits were made to better understand the proposed alignment and the types of impacts that may need to be considered.

The site file search did not identify any archaeological properties within the vicinity of the project that were either listed on or determined eligible for the NRHP. A number of historic/architectural properties listed on or eligible for the NRHP within the vicinity of the proposed project were identified and are listed in Table 5. In order to provide a comprehensive list, properties were initially identified in a larger Study Area with the following boundaries:

- I-35W on the west
- I-94 on the south
- Huron Boulevard SE on the east to University Avenue SE, then east on University Avenue to one-half block east of 25th Avenue SE, then north to the Burlington Northern Santa Fe (BNSF) Railway main line
- West along the BNSF line to 15th Avenue SE, south on 15th Avenue SE to 5th Street SE and west to I-35W

Analysis

Table 5 identifies NRHP listed and eligible properties and districts, and is keyed to Figure 22. The properties that are shaded in Table 5 represent a proposed “Area of Potential Effects,” or APE. Under Section 106 regulations, an APE must be determined in consultation with FTA (CRU, acting on behalf of FTA). For this feasibility study, a proposed APE has been developed as a preliminary “first cut” of identified historic properties that are closest to the alignment in terms of proximity, and would likely experience effects from the proposed project. The CRU and the SHPO will officially establish the APE and will also be responsible for determining whether there are adverse effects to historic properties from the proposed project.

Potential Impacts

As noted in Table 5, this feasibility study identifies where potential impacts to historic properties are anticipated. There will be a direct effect to Northern Pacific Railroad (NPRR) Bridge No. 9, a former railroad bridge that was converted to a pedestrian/bicycle bridge in 2000 and has been determined eligible for the NRHP. The proposed LRT project would remove the piers and bridge structure and replace it with a new LRT bridge.

There are concrete retaining walls along the railroad trench on the East Bank side of the river. These retaining walls are considered significant elements of the University of Minnesota Old Campus Historical District and should be considered in effects determinations.

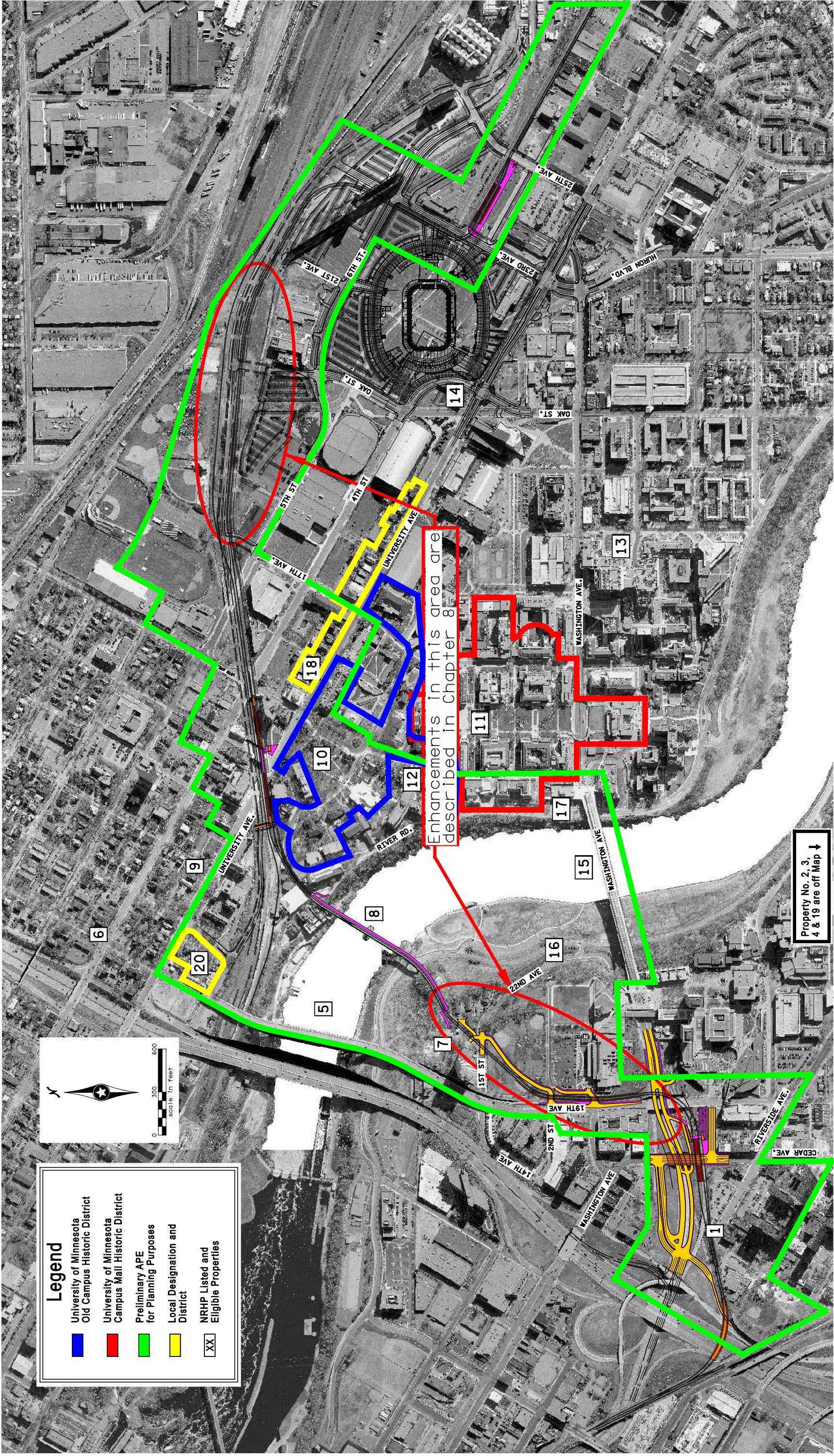
Other properties that may need to be considered for impacts are also noted in Table DRAFT 05/19/08. It is anticipated that there may be an impact to the University of Minnesota Old Campus Historical District, which is adjacent to the tracks. There may be a potential for visual impacts to the setting of the campus, as well as potential for noise or vibration impacts to the historic buildings.

Several other NRHP listed or eligible properties may also be impacted, although it is anticipated that these impacts would be related to the views of the river and the proposed bridge from these properties.

The direct impact to the Northern Pacific Railroad Bridge No. 9 (demolition) would require mitigation that would be determined in consultation with the CRU, SHPO, and other stakeholders that may have interest in the bridge. In a preliminary conversation, the State Historic Preservation Officer indicated that the loss of the bridge may be able to mitigated, but that consultation should be undertaken to discuss this matter.

Table 5 – Historic Properties/NRHP-Listed and NRHP-Eligible — Locally Designated Properties (Not on NRHP)

Item No.	Inventory No.	Property Name	Address	NRHP Status	In proposed APE?	Potential Effects/Potential 4(f)
1	HE-MPC-4636	Minneapolis Fire Station G, Engine House 5 (Mixed Blood Theatre)	1501 4th Street S	Determined Eligible; also locally designated	Yes*	Potential visual, construction (vibration, noise, traffic) impacts
2	HE-MPC-5026	John Gund Brewing	1501-1507 6th Street S	Determined Eligible	No	--
3	HE-MPC-5027	Minneapolis Brewing Company	1516 7th Street S	Determined Eligible	No	--
4	HE-MPC-4511	Augsburg Old Main	731 21st Avenue S	NRHP; also locally designated	No	--
5	HE-MPC-4423	Cedar Avenue S Bridge (Bridge No. 2796)	19th Avenue S/10th Avenue NE over Mississippi River	NRHP	Yes	Potential visual, construction (vibration, noise, traffic) and traffic impacts
6	HE-MPC-3130	B.O. Cutler House	400 10th Avenue SE	NRHP; also locally designated	No	--
7	HE-MPC-3312	NPRR Bridge No. 10 (Bridge #99163)	Near 20th Avenue S	REMOVED	Yes	--
8	HE-MPC-3311	NPRR Bridge No. 9 (Bridge #99162)	Pedestrian bridge over Mississippi River (Include walls along trench-East Bank)	Determined Eligible	Yes	Direct Impact/Bridge Removal. Potential Section 4(f) evaluation
9	HE-MPC-3097	Phi Gamma Delta	1129 University Avenue SE	NRHP	No	--
10	HE-MPC-3046	University of Minnesota Old Campus Historic District	University Avenue and 15th Avenue SE	NRHP (District being reevaluated in April 2008)	Yes	Potential visual, construction (vibration, noise, traffic) and traffic impacts
11	HE-MPC-3152	University of Minnesota Campus Mall Historic District	University of Minnesota Campus, at Washington Avenue	Determined Eligible	Yes	Potential visual, construction (vibration, noise, traffic) traffic impacts
12	HE-MPC-3162	Scott Hall	72 Pleasant Street SE	Determined Eligible	Yes	Potential construction (vibration, noise) and traffic impacts
13	HE-MPC-3315	Grace Evangelical Lutheran Church	324 Harvard Street SE	NRHP	No	--
14	HE-MPC-3104	Fire Station No. 19	2001 University Avenue SE	NRHP; also locally designated	No	--
15	Not Assigned	Washington Avenue Bridge	Washington Avenue between Pleasant Street SE & 21st Avenue S	Determined Eligible	Yes	Potential visual, construction (vibration, noise, traffic) and traffic impacts
16	Not Assigned	West River Parkway	West River Parkway	Section under bridge is non-contributing to eligible Grand Rounds; contributing area located south of Washington Avenue bridge	Yes	Potential construction and traffic impacts
17	Not Assigned	East River Parkway	East River Parkway	Contributing section of eligible Grand Rounds is adjacent to campus, north to Arlington Ave.	Yes	Potential visual, construction (vibration, noise, traffic) and traffic impacts
Local Historic Designations—City of Minneapolis						
18	City of Minneapolis Designations, not on NRHP	See individual buildings	University of Minnesota Greek Letter Chapter House Historic District	Local Historic District	Yes	No
19	City of Minneapolis Designations, not on NRHP	HE-MPC-4499	John A. Wadstrom Tenement	Locally designated	No	--
20	City of Minneapolis Designations, not on NRHP	HE-MPC-3095	Florence Court	Locally designated	Yes	Not on NRHP; subject to visual, construction and traffic impacts



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Since the Central Corridor Management Committee meeting of April 30, 2008, continued feasibility design development of the Northern Alignment has resulted in further enhancements which are described in Chapter 8 of this report.

Areas Requiring Further Study

Detailed survey work has not been completed in all areas adjacent to the corridor, and would be necessary to meet Section 106 requirements for the CRU and the SHPO reviews. In consultation with the State Historic Preservation Officer, it was noted that the following work might be required to complete the evaluation of impacts on historic resources:

1. The Dinkytown area would require a Phase I survey; this would likely include all the property north of University Avenue and west of 15th Avenue, excluding any properties previously covered in University of Minnesota surveys.
2. There is a reevaluation of the University of Minnesota Old Campus Historic District currently underway; this reevaluation may adjust boundaries of the existing NRHP district, and may include additional buildings that have not yet been determined eligible.
3. Recent surveys have been conducted of properties in the vicinity. These include:
 - a. Hess, Roise and Company, “The Junction of Industry and Freight: The Development of the Southeast Minneapolis Industrial Area” (February 2003). This study made recommendations of NRHP eligibility for several properties. Properties near the proposed alignment included:
 - *McLaughlin Gormley King Company*, 1701-1715 5th Street SE (HE-MPC-3609)
 - *Electric Steel Elevator Company*, 600 25th Avenue SE and 649 26th Avenue SE (HE-MPC-3607)
 - b. Mead & Hunt, “City of Minneapolis Historic Resources Inventory: Cedar-Riverside Area” (July 2003). This study recommended several buildings for local designation and potential NRHP eligibility; the only property near the alignment was:
 - *Holtzermann Building*, 417-423 Cedar Avenue S (HE-MPC-4927 and HE-MPC-4928)

To date, the SHPO has not made official determinations of eligibility for these properties, but they may be considered in future evaluations.

Next Steps

Table 6 identifies the next steps for the CCLRT/CCPO to pursue in compliance with Section 106 of the NHPA and to undertake further study of its historic properties along the Northern Alignment if selected as the LPA.

**Table 6 –
Next Steps in the Cultural Resources Process**

Task	Purpose	Result	Notes
1. Consultation meeting with Mn/DOT CRU (acting on behalf of FTA)	Determine Area of Potential Effects (APE)	Use APE to determine where and what further work is required (Phase I survey or Phase II evaluations)	
2. Phase I survey	To identify properties that have not been surveyed	To determine whether any properties should be studied for eligibility	Phase I survey will likely be required in Dinkytown if some portion is in the APE; a cultural resources consultant may be hired to carry out this work
3. Phase II evaluations	To evaluate whether identified historic properties are eligible for the NRHP	Properties determined eligible will be examined to determine whether they will be adversely affected by the project	Phase II evaluations may include properties identified in Phase I survey or properties recommended eligible in other studies (as noted previously in this study)
4. Determination of Adverse Effects to NRHP listed and eligible properties	To protect the qualities and character-defining features of historic properties	To develop strategies to mitigate for adverse effects to historic properties (both previously identified and those identified in this study); these strategies will be documented in a Memorandum of Agreement (MOA), to be carried out by the project proposers	MOA will be developed by the CRU (on behalf of FTA) and the SHPO, in consultation with project proposers and other affected stakeholders

Concerns for Alignment Feasibility

The feasibility of the Northern Alignment for LRT at the University depends on the replacement of the NRHP-eligible Northern Pacific Railroad Bridge No. 9 with a bridge suitable for LRT. It should be noted that NRHP listed and NRHP eligible properties can be removed, but such removal requires mitigation if the project has federal funds or federal permitting requirements.

The direct impact to the Northern Pacific Railroad Bridge No. 9 (demolition) would require mitigation that would be determined in consultation with the CRU, SHPO, and other stakeholders that may have interest in the bridge. In a preliminary conversation, the State Historic Preservation Officer indicated that the loss of the bridge might be able to be mitigated, but that consultation should be undertaken to discuss this matter.

Adverse impacts requiring mitigation may also be identified for other NRHP-listed or eligible properties, but these determinations must be made by review of the CRU and the SHPO, who would also take the lead in crafting mitigation measures for these impacts, and for recording these mitigation measures in a Memorandum of Agreement (MOA) signed by FTA and other stakeholders.

5.2.2 Park and Recreational Resources

Background

The Section 4(f) legislation, as established under the Department of Transportation Act of 1966 (49 USC 303, 23 USC 138), provides protection for publicly owned parks, recreation areas, historic sites, and wildlife and/or waterfowl refuges from conversion to a transportation use by mandating all feasible and prudent measures are under taken to avoid these properties. For this reason, impacts to parks and recreational resources are important considerations in determining the feasibility of the Northern Alignment. Note that Section 4(f) as it applies to historic sites is discussed in Section 5.2.1.

Methodology

Parks and trails in the area were identified from aerial photos, and City and University maps. The area of potential impacts was based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment* (May 2006) which indicates that properties within 350 feet of an LRT corridor could potentially experience noise impacts if they are unobstructed (i.e., there are no intervening buildings to block noise or vibration). As a conservative approach, this analysis uses a standard 350-foot distance for the length of the Northern Alignment corridor.

Analysis

The parks and trails located within 350 feet of the proposed alignment are shown in Table 7 and Figure 23, 24, 25 and 26.

**Table 7 –
Parks and Trails Within 350 Feet of the Northern Alignment**

Park/Trail Name	Park Jurisdiction	Park Resources	Potential Impacts	Section 4(f) Impact?
West River Parkway	Minneapolis Park and Recreation Board	Part of the Grand Rounds. Scenic drive with adjacent parkland and biking and walking trails. Winds along river from Plymouth Avenue to Minnehaha Park. Includes Bohemian Flats.	Potential temporary direct impacts during construction; potential indirect impacts	Yes
Bridge No. 9 Bikeway	Minneapolis Park and Recreation Board (to be confirmed)	1,450-foot trail across Mississippi River. Trail includes 2 bike lanes and 2 walking lanes.	Temporary direct impacts during construction; potential indirect impacts	Yes
Athletic Area	University of Minnesota	Track and field, baseball, softball, and tennis facilities	Potential indirect noise impacts	No
University Ball Fields	University of Minnesota (planned for relocation)	6.75-acre recreational area on the West Bank of University. Includes three ball fields.	Would be eliminated	To be determined
Mississippi National River and Recreation Area	National Park Service (NPS)	Planning and coordination activity. No public ownership. MNRRA is a designated corridor that has NPS administrative oversight.	Potential minor impacts	No

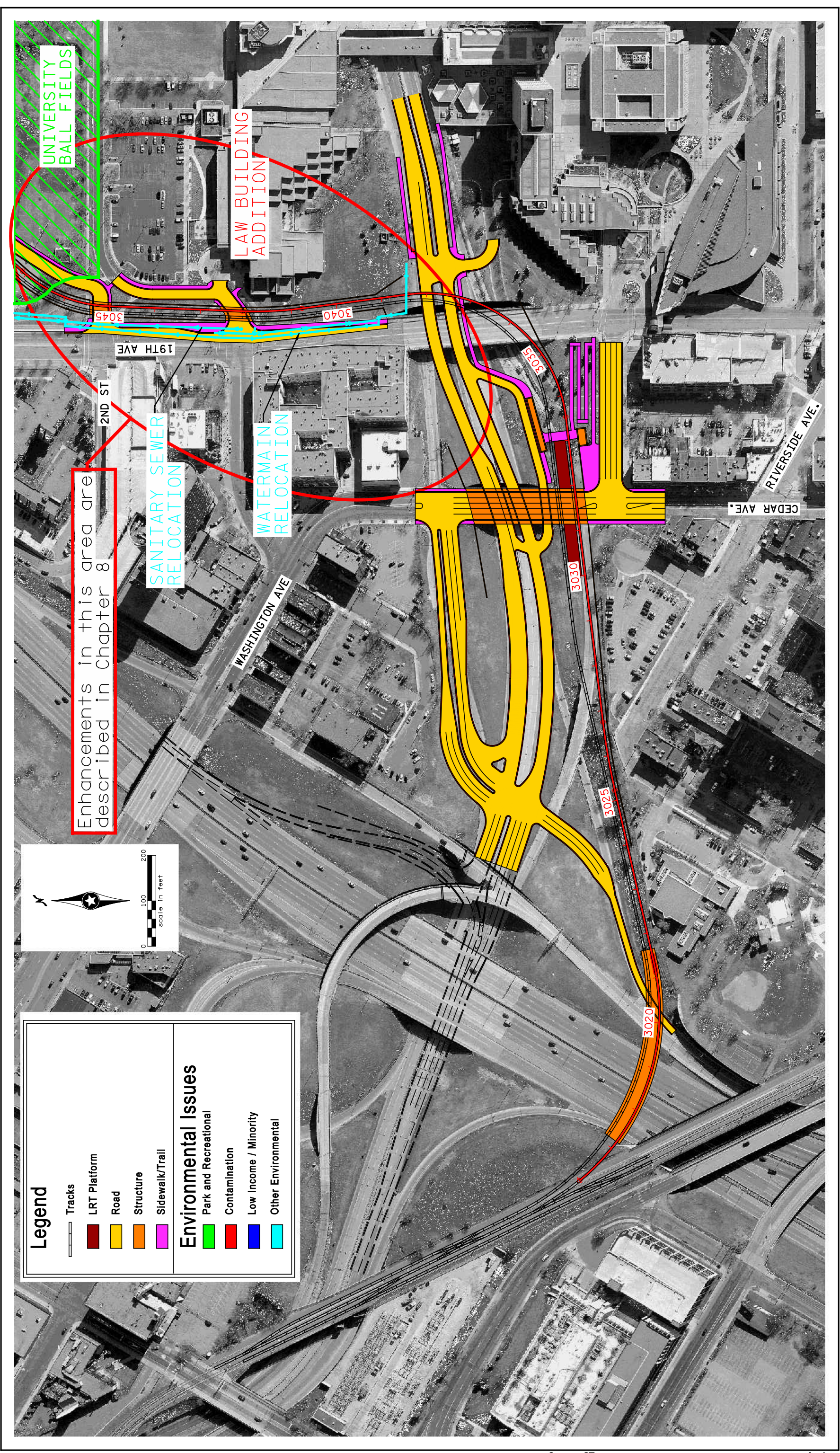
West River Parkway is part of the historic Grand Rounds National Scenic Byway, also discussed in Section 5.2.1, Cultural Resources.

The Bridge No. 9 Bikeway crosses the Mississippi River, from the Cedar-Riverside neighborhood on the West Bank into the University of Minnesota (University) campus on the East Bank.

The University Athletic Area and Ball Fields would be considered Section 4(f) resources if the fields are open to the public and serve either organized or substantial “walk-in” recreational purposes and are determined to be significant for public recreational purposes. Consultation with the University, Minneapolis Park and Recreation Board, and FTA would be needed to make this determination. It should be noted, however, that the Ball Fields are planned for relocation. The *University of Minnesota Twin Cities Campus Master Plan* (Master Plan) calls for redevelopment of the Ball Fields area into housing, mixed-use buildings, and landscaped malls.

View southwest across Bridge No. 9.

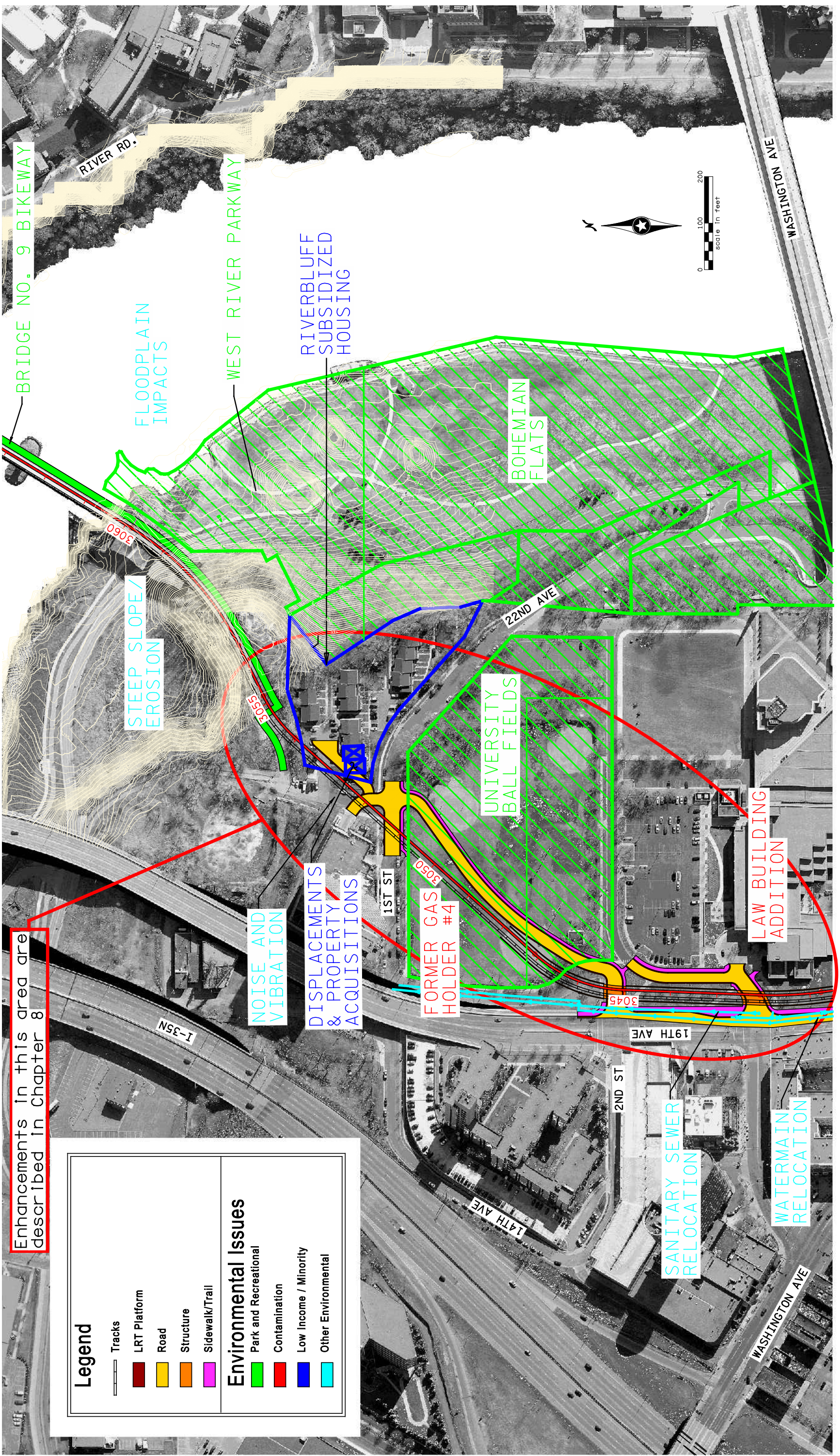




Since the Central Corridor Management Committee meeting of April 30, 2008, continued feasibility design development of the Northern Alignment has resulted in further enhancements which are described in Chapter 8 of this report.

Enhancements in this area are described in Chapter 8

Legend	
	Tracks
	LRT Platform
	Road
	Structure
	Sidewalk/Trail
Environmental Issues	
	Park and Recreational
	Contamination
	Low Income / Minority
	Other Environmental



Since the Central Corridor Management Committee meeting of April 30, 2008, continued feasibility design development of the Northern Alignment has resulted in further enhancements which are described in Chapter 8 of this report.