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4.3 Parks and Recreation

Parks and recreation areas are important community facilities that warrant consideration under NEPA. Additionally, publicly-owned parks are afforded protection under Section 4(f) of the Department of Transportation Act (49 USC 303). Section 4(f) protects public park and recreation lands (as well as wildlife and waterfowl refuges and historic sites) from use for transportation projects unless there is no prudent and feasible alternative to using that land, and unless the transportation project includes all possible planning to minimize harm. Section 4(f) impacts to parks and recreation facilities are addressed in **Chapter 5 Section 4(f) Evaluation**. Additionally, public parks and recreation areas acquired, developed, or improved with grant funds provided by the federal Land and Water Conservation Fund Act are protected, under Section 6(f) of the Act, from conversion to uses other than public outdoor recreation, as discussed below.

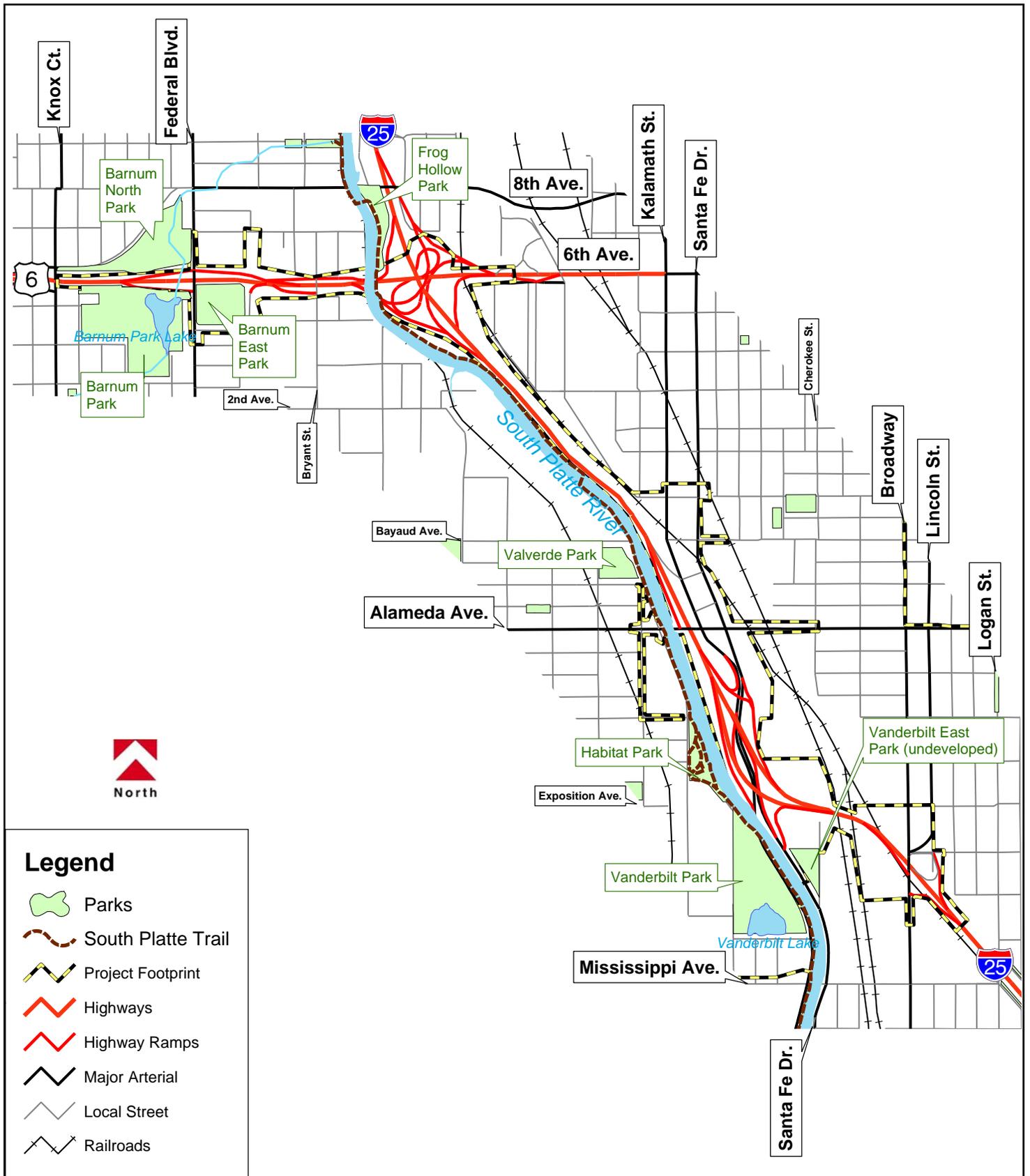
4.3.1 Current Conditions

A total of 9 parks and recreation resources occur in the vicinity of the project area, all of which are owned by City and County of Denver (see **Table 4.3-1**). Information about the size and amenities of these City-owned parks was derived from park inventory data provided by City and County of Denver (CCD, 2004a). Information about 6(f) improvements to specific parks was obtained from the Colorado State Parks headquarters in Denver. The locations of these facilities are shown on **Figure 4.3-1**. Summary information about each park and recreation facility is provided below.

Table 4.3-1 Park and Recreation Resources

Park or Recreation Resource	Year Acquired/ Established	Size	Facilities	Section 6(f) Improvements ?
Barnum Park	1906	35.6 acres	Basketball court, drinking fountain, flower garden, fishing/lake, outdoor swimming pool, playground, picnic tables and shelter, recreation center, restroom, soccer field, tennis court	Yes
Barnum East Park	1937	11.8 acres	Lighted baseball field, drinking fountain, restroom, lighted soccer field	No
Barnum North Park	1951	13.6 acres	Soccer field, lighted softball field, drinking fountain, restroom,	Yes
Frog Hollow Park	1976	4.0 acres	Bike path, drinking fountain, fishing, picnic tables	No
Habitat Park	1976	6.5 acres	Bike path, drinking fountain, fishing, picnic table	No
Valverde Park	1944	4.8 acres	Baseball field, basketball court, football field, softball field	Yes
Vanderbilt Park	1922	30.9 acres	Bike path, drinking fountain, lake, restroom, lighted softball field	Yes
Vanderbilt East Park	1922	+/- 5 acres	Undeveloped, no facilities	No
South Platte River Trail	1980	~2.25 miles	Paved bike trail	No

Source: City and County of Denver, Department of Parks and Recreation, 2003a



Parks and Recreation Resources

Figure 4.3-1

The boundaries of these parks were investigated to establish a basis for determining impacts. This effort involved a review of sources in a variety of repositories, including the Denver Parks and Recreation Department, the Denver County Clerk & Recorder, the Denver County Assessor, the Colorado State Archives, the Denver City Clerk's Office, the Denver Public Library, CDOT Archives, the Colorado Railroad Museum, and the Denver County Transportation and Surveyor's Offices (Farnsworth, 2004). The boundaries were discussed with the City and County of Denver, the local agency with jurisdiction over the parks. Some discrepancies remain in historical boundary documentation and efforts to resolve boundary / right-of-way issues are on-going.

4.3.1.1 BARNUM PARK

Barnum Park (also known as Barnum South Park) is located on the southwest side of the US 6 and Federal Boulevard interchange, within the Southwest Denver Park District. The irregularly shaped parcel extends approximately between US 6 on the north and 3rd Avenue on the south, and between Federal Boulevard on the east and Julian Street on the west. This 35.6-acre park contains a small man-made lake (Barnum Park Lake) and provides facilities for a wide variety of recreational activities, including fishing, swimming, basketball, soccer, tennis, and picnicking.

Section 6(f) improvements were made at Barnum Park between 1965 and 1967 under Land and Water Conservation Project # 05-00106. The improvements included installation of 150 feet of 8 foot by 1 foot culvert, earth fill, landscaping, and sprinkler system expansion. These improvements were confined to the southeastern portion of the park.

4.3.1.2 BARNUM EAST PARK

Barnum East Park is located southeast of the intersection of US 6 and Federal Boulevard. This roughly rectangular, 11.8-acre park is situated in the Southwest Denver Park District. Barnum East Park is bounded on the north by US 6, on the south by the on-ramp from Federal Boulevard to eastbound US 6, on the west by Federal Boulevard, and on the east by Decatur Street. Barnum East Park provides facilities for baseball and soccer and is equipped with lights for night games.

Parts of the parking facilities for Barnum East Park extend beyond the parks southern and eastern boundaries. No Section 6(f) improvements have been made to the park.

4.3.1.3 BARNUM NORTH PARK

Barnum North Park is located northwest of the intersection of US 6 and Federal Boulevard. This 13.6-acre park is situated within the Northwest Denver Park District. This roughly triangular parcel is bounded by Federal Boulevard on the east, US 6 on the south, and the 8th Avenue bypass/ramp to westbound US 6 on the northwest. Landscaped CDOT-owned land extends from the western edge of the park to Knox Court. Barnum North Park provides facilities for soccer and softball and is equipped with lights for night softball games.

Section 6(f) improvements were made at Barnum North Park in 1973 and 1976. The 1973 project (Land and Water Conservation Project # 08-00363), included design and construction of an archery range shooting pad, a hiking and biking trail, and a parking lot. These improvements encompassed a large area of the park. Additional improvements were made in 1976 (Land and

Water Conservation Project # 08-00514) and included construction of two ball fields with fencing, backstops, and a sprinkler system, as well as restrooms and a combination storage/press box building in the central area of the park. Certain 6(f) improvements made in 1973 have been modified or are no longer in use, including the archery range, southwest parking lot, and practice ball field located in the southeastern part of Barnum North Park. Another 1973 6(f) improvement, the hiking/biking trail, has been partially reconfigured in the past, and now serves primarily as a park maintenance access road. A portion of this park maintenance access road extends south of the southern park boundary, onto the US 6 right-of-way.

4.3.1.4 FROG HOLLOW PARK

Frog Hollow Park is a narrow, irregularly shaped park located along the east bank of the South Platte River between US 6 and 8th Avenue. Its eastern boundary is the I-25 right-of-way line. This park encompasses 14.5 acres. Facilities include a bike path (the South Platte River Trail), a drinking fountain, and picnic tables. The main uses of the park are biking and fishing. The park also provides access to a pedestrian bridge that spans the South Platte River.

No Section 6(f) improvements have been made to Frog Hollow Park.

4.3.1.5 HABITAT PARK

Habitat Park is an irregularly shaped park located along the west bank of the South Platte River, a short distance south of Alameda Avenue. The 10-acre park is bounded on the south by Exposition Avenue and on the west by Jason Street. Facilities include a bike path (the South Platte River Trail), a drinking fountain, and picnic tables. The park's main uses are biking and fishing.

No Section 6(f) improvements have been made to Habitat Park.

4.3.1.6 VALVERDE PARK

Valverde Park occupies a trapezoid-shaped parcel on the west side of the South Platte River and is situated between Bayaud Avenue on the north, Cedar Avenue on the south, Navajo Street on the west, and South Platte River Drive on the east. The 4.8-acre park is situated within the Southwest Denver Park District. Valverde Park provides facilities for outdoor sports, including baseball and softball fields, a basketball court, and a football field.

Section 6(f) improvements were made at Valverde Park in 1980 under Land and Water Conservation Project # 08-00716. The improvements included grading, filling, landscaping, and construction of a sprinkler system, and a multi-purpose area with equipment, trail, bike rack, and picnic tables. These improvements encompassed a large area of the park – all but the southeast corner.

4.3.1.7 VANDERBILT PARK

Vanderbilt Park occupies a 30.9-acre roughly triangular-shaped parcel on the west side of the South Platte River, directly south of Habitat Park. The park is bounded by Tennessee Avenue on the south, Huron Street on the west and Santa Fe Drive on the east. An undeveloped four-

acre triangular parcel adjoining the southeast side of the park is owned by Cherokee Denver L.L.C. Vanderbilt Park is within the Southwest Denver Park District. A man-made lake (Vanderbilt Lake), approximately seven-acres in area, occupies the southern portion of the park. Facilities include a lighted softball field, a restroom, drinking fountain, a parking lot, and a bike path.

Section 6(f) improvements were made at Vanderbilt Park from 1967 to 1969 and again in 1977. The first project (Land and Water Conservation Project #05-00140) involved the installation of a sprinkler system and landscaping throughout the entire park. The second project (Land and Water Conservation Project #08-00526) involved earthwork, grass installation, a sprinkler system, fencing, and buried electric utility lines, as well as construction of lighted ball fields, a restroom, a combination storage/press box building, a parking lot with an access road, and a model airplane flying pad.

4.3.1.8 VANDERBILT EAST PARK

Vanderbilt East Park is located on the east side of the South Platte River, directly opposite and east of Vanderbilt Park. Vanderbilt East Park is currently undeveloped and occupies a small, triangular-shaped parcel bounded on the east by Cherokee Street, on the north by Ohio Avenue, and on the west by Santa Fe Drive. The park encompasses an estimated five acres and does not contain any improvements or facilities.

No Section 6(f) improvements have been made to Vanderbilt East Park.

4.3.1.9 SOUTH PLATTE RIVER TRAIL

The South Platte River Trail runs along the west side of the South Platte River, from the southern project limits to approximately 1st Avenue, where it crosses a bridge to the east side of the river. From this point to the northern project limits, the South Platte River Trail follows the east bank of the South Platte River. The segment in the project area is approximately 2.25-miles long. The trail serves dual purposes as a City and County of Denver maintenance access road and as a heavily used public bike and pedestrian trail.

Trail improvements include a five acre landscaped area with picnic tables on the east bank of the South Platte River, between 4th Avenue on the south and US 6 on the north. The bike trail provides the only means of public access. This area, known as "Phil Milstein Park" or "Milstein Grove," is located with in City and County of Denver-owned land dedicated as right-of-way for the Valley Highway, and is not officially designated a park.

No Section 6(f) improvements have been made to the South Platte River Trail.

4.3.2 Consequences of the Alternatives

Impacts to park and recreational resources from the system alternatives, which include System Alternatives 1, 2, 3, and the Preferred Alternative, are summarized in **Table 4.3-2** and discussed below. Impacts to public parks are also discussed in **Chapter 5 Section 4(f) Evaluation**.

Table 4.3-2 Impacts to Parks and Recreation Resources

Resource	No Action Alternative	System Alternative 1	System Alternative 2	System Alternative 3	Preferred Alternative
Barnum Park	No impacts	Widening of Federal Boulevard, including westward relocation of sidewalk would result in very small acquisition of land (0.01 acre) from the park's northeast corner. Recreational use of the park will be unaffected.	Widening of Federal Boulevard, including westward relocation of sidewalk would result in very small acquisition of land (0.01 acre) from the park's northeast corner. Recreational use of the park will be unaffected.	Widening of Federal Boulevard, including westward relocation of sidewalk would result in very small acquisition of land (0.02 acre) from the park's northeast corner. Recreational use of the park will be unaffected.	Widening of Federal Boulevard, including westward relocation of sidewalk would result in very small acquisition of land (0.01 acre) from the park's northeast corner. Recreational use of the park will be unaffected.
Barnum East Park	No impacts	Widening of Federal Boulevard south of US 6 would cause encroachment along west edge of park, necessitating acquisition of a narrow (14 ft-wide/0.16 acre) strip of landscaped land adjacent to Federal Boulevard. No impacts to recreational features (ball fields) should occur. Reconfiguration of the on- and off-ramp to eastbound US 6 would increase separation of roadway from ball field at east end of park, and allow for potential park expansion. Pedestrian access and safety should be improved by installation of traffic signals at the park's southwest and southeast corners. Temporary construction impacts associated with replacement of the Federal Boulevard bridge over US 6 may occur.	Substantial encroachment along the northern and western edges of park due to eastward expansion of Federal Boulevard to accommodate turning lanes on Federal Boulevard bridge over US 6, and new roadway/ramp from Federal Boulevard to eastbound US 6 or Bryant Street. Approximately 1.54 acres of park land would be converted to transportation use. New right-of-way would cut across both ball fields, impairing their use and necessitating redesign and construction of some or all park facilities. Temporary construction impacts associated with replacement of the Federal Boulevard bridge over US 6 may occur.	Narrow (10 ft-wide/0.14 acre) strip of new right-of-way would be required along the west side of the park due to expansion of Federal Boulevard to accommodate turning lanes on Federal Boulevard bridge over US 6, and new roadway/ramp from Federal Boulevard to eastbound US 6. No impacts to recreational features (ball fields) should occur. Closing ramp from Federal Boulevard on south side of park to eastbound US 6 will increase separation of roadway from ball field at east end of park and allow for potential park expansion. Temporary construction impacts associated with replacement of the Federal Boulevard bridge over US 6 may occur.	Substantial encroachment along the northern and western edges of park due to eastward expansion of Federal Boulevard to accommodate turning lanes on Federal Boulevard bridge over US 6, and new roadway/ramp from Federal Boulevard to eastbound US 6 or Bryant Street. Approximately 1.54 acres of park land would be converted to transportation use. New right-of-way would cut across both ball fields, impairing their use and necessitating redesign and construction of some or all park facilities. Temporary construction impacts associated with replacement of the Federal Boulevard bridge over US 6 may occur.

Table 4.3-2 Impacts to Parks and Recreation Resources (continued)

Resource	No Action Alternative	System Alternative 1	System Alternative 2	System Alternative 3	Preferred Alternative
Barnum North Park	No impacts	Narrow (10 ft-wide/0.02 acre) strip of land along the east edge of the park would be required for new right-of-way to accommodate a redesigned westbound on-ramp to US 6 from southbound Federal Boulevard. A portion of the existing maintenance access road/trail that terminates at the park's southwest corner would be removed, but no impacts to recreational facilities or recreational uses are expected.	Narrow (10 ft-wide/0.03 acre) strip of land along the east edge of the park would be required for new right-of-way to accommodate a redesigned westbound on-ramp to US 6 from southbound Federal Boulevard. Small (0.02 acre) area required along south side of the park for ramp to US 6. The existing maintenance access road/trail that terminates at the park's southwest corner would be impacted, but no impacts to recreational facilities or recreational uses are expected.	Small amounts of new right-of-way would be required along the eastern and southern edges of the park. Acquisitions include 0.11 acre of park land along the park's east edge, and another acquisition (0.29 acre) at the south side to accommodate the westbound US 6 on-ramp. The existing maintenance access road/trail that terminates at the park's southwest corner would be impacted, but no impacts to recreational facilities or recreational uses are expected.	Narrow (10 ft-wide/0.03 acre) strip of land along the east edge of the park would be required for new right-of-way to accommodate a redesigned westbound on-ramp to US 6 from southbound Federal Boulevard. Small (0.02 acre) area required along south side of the park for ramp to US 6. The existing maintenance access road/trail that terminates at the park's southwest corner would be impacted, but no impacts to recreational facilities or recreational uses are expected.
Frog Hollow Park	No impacts	No impacts	No impacts	No impacts	No impacts
Valverde Park	No impacts	No impacts	No impacts	No impacts	No impacts
Habitat Park	No impacts	No impacts	No impacts	No impacts	No impacts
Vanderbilt Park	No impacts	No impacts. Realignment of southbound Santa Fe Drive toward northeastern edge of park would stay within existing designated right-of-way.	No impacts. Realignment of southbound Santa Fe Drive toward northeastern edge of park would stay within existing designated right-of-way.	No impacts. Realignment of southbound Santa Fe Drive toward northeastern edge of park would stay within existing designated right-of-way.	No impacts. Realignment of southbound Santa Fe Drive toward northeastern edge of park would stay within existing designated right-of-way.
Vanderbilt East Park	No impacts	No impacts	No impacts	No impacts	No impacts
South Platte River Trail	No impacts	Replacement of bridges at US 6, Alameda Avenue, and Santa Fe Drive would result in temporary closure with detours during construction, but would provide permanent benefits by raising of bridge profiles.	Replacement of bridges at US 6, Alameda Avenue, and Santa Fe Drive would result in temporary closure with detours during construction, but would provide permanent benefits by raising of bridge profiles.	Replacement of bridges at US 6, Alameda Avenue, and Santa Fe Drive would result in temporary closure with detours during construction, but would provide permanent benefits by raising of bridge profiles.	Replacement of bridges at US 6, Alameda Avenue, and Santa Fe Drive would result in temporary closure with detours during construction, but would provide permanent benefits by raising of bridge profiles.

4.3.2.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, no impacts or new benefits would occur and the intensity of park use would likely remain unchanged, since all of these facilities are surrounded by well-established residential, commercial, and industrial areas.

4.3.2.2 SYSTEM ALTERNATIVE 1

This alternative would result in slight encroachments and direct impacts (see **Table 4.3-2**) to three parks in the vicinity of the US 6/Federal Boulevard interchange: Barnum Park, Barnum East Park, and Barnum North Park. Proposed reconfiguration of the interchange includes widening of both sides of Federal Boulevard and would require the acquisition of a tiny (0.01 acre) piece of land from Barnum Park's northeast corner, as well as narrow strips of land for new right-of-way along the west edge of Barnum East Park and along the east edge of Barnum North Park. These right-of-way acquisitions are limited to landscaping and would not affect existing park use but would result in 4(f) impacts.

System Alternative 1 would result in beneficial effects to Barnum East Park, since reconfiguration of the on- and off-ramp to eastbound US 6 will increase the separation distance of the roadway from the ball field located at the park's east end. Additionally, pedestrian access and safety for users of Barnum East Park should be improved by installation of traffic signals at the park's southwest and southeast corners.

Two of the parks affected by this alternative – Barnum and Barnum North – have had 6(f) improvements. None of Barnum Park's 6(f) improvements will be impacted. In Barnum North Park, however, a portion of the existing maintenance access road/trail (originally a 6(f) bike/hiking trail near the park's southern edge) falls within the proposed new right-of-way needed for construction of the new westbound on-ramp from Federal Boulevard to US 6. No other park or recreation resources would be affected by System Alternative 1.

Replacement of bridges at US 6, Alameda Avenue, and Santa Fe Drive would result in temporary closure of the South Platte River Trail with detours occurring during construction.

4.3.2.3 SYSTEM ALTERNATIVE 2

This alternative would result in direct impacts (see **Table 4.3-2**) to three parks in the vicinity of the US 6/Federal Boulevard interchange: Barnum Park, Barnum East Park, and Barnum North Park. Under System Alternative 2, substantial acquisitions of land for new right-of-way would be required from Barnum East Park, to accommodate construction of a new ramp from Federal Boulevard to eastbound US 6 and access to Bryant Street, as well as substantial widening of Federal Boulevard to provide turning and ramp access lanes. New right-of-way will cut across both existing ball fields in Barnum East Park, impairing their use and necessitating redesign and construction of some or all park facilities.

Widening of Federal Boulevard under System Alternative 2 would also require the acquisition of a tiny (0.01 acre) piece of land from Barnum Park's northeast corner, as well as approximately 0.03 acre of land for new right-of-way along the eastern edge of Barnum North Park. These right-of-way acquisitions would not affect existing recreational uses of Barnum and Barnum North Parks, but would result in 4(f) use.

Two of the parks affected by this alternative – Barnum and Barnum North – have had 6(f) improvements. None of Barnum Park’s 6 (f) improvements will be impacted. In Barnum North Park, however, a portion of the existing maintenance access road/trail (originally a 6(f) bike/hiking trail) near the park’s southern edge falls within the proposed new right-of-way needed for construction of the new westbound on-ramp from Federal Boulevard to US 6. No other park or recreation resources would be affected by System Alternative 2.

Replacement of bridges at US 6, Alameda Avenue, and Santa Fe Drive would result in temporary closure of the South Platte River Trail with detours occurring during construction.

4.3.2.4 SYSTEM ALTERNATIVE 3

This alternative would result in slight encroachments and direct impacts to three parks (see **Table 4.3-2**) in the vicinity of the US 6/Federal Boulevard interchange: Barnum Park, Barnum East Park, and Barnum North Park. These right-of-way acquisitions would not affect existing park use but would result in 4(f) impacts.

Widening Federal Boulevard included in this alternative and westward relocation of the sidewalk would result in acquisition of a tiny (0.02 acre) land from Barnum Park’s northeastern corner. Recreational use of the park will be unaffected.

A narrow strip of new right-of-way would be required along the west side of Barnum East Park due to expansion of Federal Boulevard to accommodate turning lanes on the Federal Boulevard bridge over US 6 and a new on-ramp from Federal Boulevard to eastbound US 6. This area of the park contains landscaping. No impacts to recreational features (ball fields) should occur. Closure of the existing ramp from Federal Boulevard to eastbound US 6 would result in increased physical separation of the roadway from a ball field at the east end of Barnum East Park.

With respect to Barnum North Park, relatively small amounts of new right-of-way would be required along its eastern and southern edges. These right-of-way needs include a 0.11 acre of landscaped park land along the park’s east side (similar to System Alternatives 1 and 2, and the Preferred Alternative), and another acquisition (0.29 acre) at the southern margin of the park-south of its boundary – to accommodate the proposed westbound US 6 on-ramp. The existing maintenance access road/trail that terminates at the park’s southwestern corner would be impacted, but no impacts to recreational facilities or recreational uses are expected.

Two of the parks affected by this alternative – Barnum and Barnum North – have had 6(f) improvements. None of Barnum Park’s 6(f) improvements would be impacted. In Barnum North Park, however, a portion of the existing maintenance access road/trail (originally a 6(f) bike/hiking trail) near the park’s southern edge falls within the proposed new right-of-way needed for construction of the new westbound on-ramp from Federal Boulevard to US 6. The same ramp would also necessitate taking of land from an existing secondary (unused) parking lot near the park’s southwest corner. No other park or recreation resources would be affected by System Alternative 3.

Replacement of bridges at US 6, Alameda Avenue, and Santa Fe Drive would result in temporary closure of the South Platte River Trail with detours occurring during construction.

4.3.2.5 PREFERRED ALTERNATIVE

This alternative, similar to System Alternative 2, would result in direct impacts (see **Table 4.3-2**) to three parks in the vicinity of the US 6/Federal Boulevard interchange: Barnum Park, Barnum East Park, and Barnum North Park. Under the Preferred Alternative, acquisition of approximately 1.54 acres of land for new right-of-way would be required from Barnum East Park, to accommodate construction of a new ramp from Federal Boulevard to eastbound US 6 and access to Bryant Street, as well as widening of Federal Boulevard to provide turning and ramp access lanes. This new right-of-way would include the northern portion of both existing ballfields in Barnum East Park, impairing their use and necessitating redesign and construction of some or all park facilities.

Widening of Federal Boulevard under the Preferred Alternative would require the acquisition of approximately 0.01 acre of land from Barnum Park's northeast corner. The Preferred Alternative would also require approximately 0.03 acre for new right-of-way along the eastern edge and approximately 0.02 acre along the southern edge of Barnum North Park. These right-of-way acquisitions would not affect existing recreational uses of Barnum and Barnum North Parks, but would result in 4(f) use.

Two of the parks affected by this alternative – Barnum and Barnum North – have had 6(f) improvements. None of Barnum Park's 6(f) improvements will be impacted. In Barnum North Park, a portion of the existing maintenance access road/trail (originally a 6(f) bike/hiking trail) near the park's southern edge falls within the proposed new right-of-way needed for construction of the new westbound on-ramp from Federal Boulevard to US 6. No other park or recreation resources would be affected by the Preferred Alternative.

Replacement of bridges at US 6, Alameda Avenue, and Santa Fe Drive would result in temporary closure of the South Platte River Trail with detours occurring during construction.

4.3.3 Mitigation Measures

Avoidance, minimization, and mitigation of impacts to parks and recreation resources are detailed in the following sections. Specific mitigation measures will be refined during final design.

No parks are impacted under the No Action Alternative. Three parks – Barnum Park, Barnum East Park, and Barnum North Park – are subject to impacts by each of the system alternatives, including the Preferred Alternative. Minimization and mitigation measures for these impacts are described below.

As described above, each of the system alternatives, including the Preferred Alternative would require relocation of a portion of a trail in Barnum North Park that was originally constructed as part of 6(f) improvements to this park. The trail was originally constructed to provide access to an archery range that has been removed. The portion of the trail to be relocated is contained mostly within the US 6 right-of-way (not within the park boundary) and currently serves primarily as a maintenance trail for park staff. Following relocation, the trail will serve an equivalent function. CDOT has consulted with the City and County of Denver regarding impacts to this trail (as well as other impacts to the parks), and they have indicated that minor changes in this area can be accommodated if the overall park function is maintained. Based on the above, the

realignment of the trail near the southern boundary does not represent a land conversion under the provisions of Section 6(f). CDOT and FHWA will continue consultations regarding this issue during final design and will provide appropriate mitigation.

Each of the system alternatives, including the Preferred Alternative, would also require temporary closure of portions of the South Platte River Trail during bridge replacement. Detours will be provided and closure time minimized.

4.3.3.1 NO ACTION ALTERNATIVE

The No Action Alternative would not change the physical characteristics or uses of park and recreation resources. No avoidance, minimization, or mitigation measures are required.

4.3.3.2 SYSTEM ALTERNATIVE 1

Under System Alternative 1, the following measures would be undertaken to minimize and/or mitigate impacts to parks and recreation facilities.

Acquisition of right-of-way along the eastern edge of Barnum North Park, the western edge of Barnum East Park, and the northeastern corner of Barnum Park would be minimized to the greatest extent possible. The Federal Boulevard cross section would be designed to acquire the least possible amount of park land while meeting geometric and safety requirements. No impacts would occur to athletic facilities.

A portion of Barnum North Park's maintenance access road/trail near the park's southern edge would be relocated to allow for construction of the proposed new westbound on-ramp from Federal Boulevard to US 6, as described above. Periodic closure of portions of the South Platte River Trail would be required primarily for bridge replacement, as described above. Detours would be provided and closure time would be minimized.

4.3.3.3 SYSTEM ALTERNATIVE 2

Under System Alternative 2, the following measures would be undertaken to minimize and/or mitigate impacts to parks and recreation facilities.

Acquisition of right-of-way along the northern and western sides of Barnum East Park would be impossible to avoid. The Federal Boulevard cross section and US 6 ramp would be designed to acquire the least possible amount of park land while meeting operational and safety requirements. Encroachment on the park's baseball fields will render them unsuitable for use, and would require redesign and construction of the park to restore this use.

Right-of-way acquisition on the east edge of Barnum North Park and at the northeastern corner of Barnum Park would be minimized to the greatest extent possible while allowing sufficient roadway width to meet operational and safety standards and objectives.

A portion of Barnum North Park's maintenance access road/trail near the park's southern edge would be relocated to allow for construction of the proposed new westbound on-ramp from Federal Boulevard to US 6, as described above. Periodic closure of portions of the South Platte

River Trail would be required primarily for bridge replacement, as described above. Detours would be provided and closure time would be minimized.

4.3.3.4 SYSTEM ALTERNATIVE 3

Under System Alternative 3, the following measures would be undertaken to minimize and/or mitigate impacts to parks and recreation facilities.

Right-of-way acquisition on the western edge of Barnum East Park, the northeastern corner of Barnum Park, and the eastern and southern edges of Barnum North Park would be minimized to the greatest extent possible, while allowing sufficient roadway width to meet operational and safety standards and objectives. An existing maintenance access road/trail in Barnum North Park will be impacted by the right-of-way acquisition at the southern edge of the park, and would be reconfigured to restore its utility.

A portion of Barnum North Park's maintenance access road/trail near the park's southern edge would be relocated to allow for construction of the proposed new westbound on-ramp from Federal Boulevard to US 6, as described above. Periodic closure of portions of the South Platte River Trail would be required primarily for bridge replacement, as described above. Detours would be provided and closure time would be minimized.

4.3.3.5 PREFERRED ALTERNATIVE

Under the Preferred Alternative, the following measures will be undertaken to minimize and/or mitigate impacts to parks and recreation facilities.

As with the other system alternatives, the Preferred Alternative will require relocation of a portion of a trail in Barnum North Park and temporary closures of portions of the South Platte Trail. A portion of Barnum North Park's maintenance access road/trail near the park's southern edge will be relocated to allow for construction of the proposed new westbound on-ramp from Federal Boulevard to US 6, as described above. Periodic closure of portions of the South Platte River Trail will be required primarily for bridge replacement, as described above. Detours would be provided and closure time would be minimized.

Right-of-way acquisition on the east and south edges of Barnum North Park and at the northeastern corner of Barnum Park will be minimized to the greatest extent possible while allowing sufficient roadway width to meet operational and safety standards and objectives.

Acquisition of right-of-way along the northern and western sides of Barnum East Park will be impossible to avoid. The Federal Boulevard cross section and US 6 ramp would be designed to acquire the least possible amount of park land while meeting operational and safety requirements. Encroachment on the park's baseball fields will render them unsuitable for use, and will require redesign and construction of the park to restore this use.

A concept for reconstructing Barnum East Park (see **Figure 4.3.2**) with upgraded facilities has been developed in consultation with the City and County of Denver. This concept would maintain the existing functions of the park and add some amenities.



North

Barnum East Park Concept - Preferred Alternative

Specific mitigation measures included in the Preferred Alternative for Barnum East Park include the following:

- Spacing between intersections on Federal Boulevard at the ramp terminals will be kept to a minimum in order to keep as compact an interchange as possible
- Providing additional new park land along the east edge of the park by vacating the existing on-ramp and acquiring a strip of land from an adjacent property owner. The addition of this new park land will result in a net reduction in park functional area of only 0.3 acre
- Redesign and reconstruction of park facilities to provide upgraded facilities with enhanced function. The concept presented in **Figure 4.3-4** provides for replacement of the existing facilities with new facilities, enhanced accessibility for disabled individuals through ADA compliance, and the addition of a playground area between the ball fields. Final design and construction will be achieved through a cooperative effort between CDOT and the City and County of Denver. **Table 4.3-3** lists the elements of the reconstruction and upgrade of the Barnum East Park facilities.
- Arrangements to be made by the City and County of Denver to provide alternative ballfield locations from permitted field users during seasons that will be disrupted by construction.

With the measures identified above and detailed in Table 5-5, the Preferred Alternative minimizes harm to Barnum, Barnum East, and Barnum North Parks. Based on the substantial safety and operational benefits over other alternatives and the inclusion of the harm minimization measures, FHWA and CDOT have concluded that it would not be prudent to select any other alternative at this location.

Table 4.3-3 Elements of Barnum East Park Reconstruction

Measure	Preferred Alternative
Functional Park Space	<ul style="list-style-type: none"> Includes two baseball fields, two parking lots, commons area between ball fields, and landscaped perimeter Total area = 421,995 square feet = 9.69 acres (3% less than the existing; primarily lost in landscaped perimeter between ball fields)
Parking	<ul style="list-style-type: none"> Refined concept provides a single contiguous parking lot with 174 parking spaces (3.5% greater than existing) Overflow parking is provided along adjacent 5th and Decatur Streets and undeveloped park land south of 5th Street
Pedestrian Mobility/ Accessibility	<p><u>North-South</u></p> <ul style="list-style-type: none"> Sidewalks along Federal Blvd. from 5th Street to 7th Street would be replaced to meet Denver standards The new park layout better aligns its easterly most access across from Decatur St. providing more direct and safer pedestrian access <p><u>East-West</u></p> <ul style="list-style-type: none"> New sidewalks are provided within the park Detached sidewalks will be provided along the northern edge of 5th Avenue for the length of the park An additional pedestrian crossing of Federal Blvd. will be provided at 5th Avenue with a new traffic signal
Amenities	<ul style="list-style-type: none"> Two baseball fields - adult (larger) field and youth (smaller) field The adult field has a built in soccer field and is also used for Frisbee golf Other site amenities to be replaced in kind or better include: <ul style="list-style-type: none"> Adult Ball Field - Backstop and surrounding chain link fence, Bleachers, Benches, Storage cabinet, Score Board Youth Ball Field - Backstop and surrounding chain link fence, Bleachers, Benches, Storage cabinet Landscape - Deciduous trees, Evergreen trees Lighting - Parking Lot and Plaza Area, Night lighting for Adult Field, Night lighting for Youth Field Park Structures - Restroom (men and women) Miscellaneous - Barrel trash cans, Vehicular gates, Trash enclosures, Trash dumpsters, Bollards, Utility Boxes
Current Deficiencies Corrected	<ul style="list-style-type: none"> Final design of the adult field will establish an appropriate size to address Denver Parks comment that the outfield is too large The youth field will be a more uniform and symmetrical shape replacing the shorter right field Artificial turf will be considered in final design to address downtime during construction. Trench drains will be considered on field perimeters for improved drainage during final design Secure chain link fencing (10-12 ft. height) and gate to the parking lot will be provided on the edges of the fields to control illegal use of the fields Shared rest room and concession stands facilities will be incorporated A new press box for the youth field will be included Additional bleachers can be accommodated A playground will be included in the “plaza” between the two fields The new “plaza” area offers a flatter/usable space between the two fields, much improved over the current terraced space between the two fields

**Table 4.3-3 Elements of Barnum East Park Reconstruction
(Continued)**

Measure	Preferred Alternative
Park Accessibility for Vehicles	<ul style="list-style-type: none"> • Access to the park will be through two full movement access intersections to 5th Ave.
Use	<ul style="list-style-type: none"> • The new facilities will accommodate the current uses and potentially enhanced usage due to improved accessibility, a new modern facility and amenities and efficiency of layout
Temporary Construction Impacts	<ul style="list-style-type: none"> • Construction sequencing is likely to impact the use of the facility for potentially two seasons. Integrating artificial turf may allow for earlier use of the fields • Alternative ball fields may have to be identified within the City and County of Denver park system to accommodate the loss of use for this facility. Denver must assist with determining where this can best be met
Miscellaneous	<ul style="list-style-type: none"> • Noise impacts to residential properties to the south of 5th Av. would be reduced as a result of the realignment of the US 6 EB on-ramp. • Park functional areas are offset to the east, adjacent to Federal Blvd., preserving opportunities for possible future needs by others