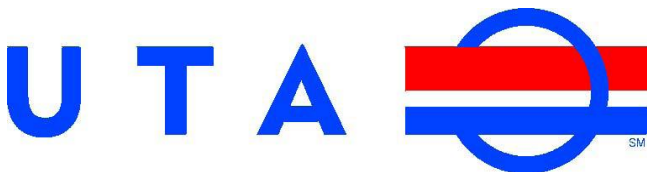




Central Bus Operations and Maintenance Facility

Environmental Assessment
and Draft Section 4(f) Evaluation

May 2012

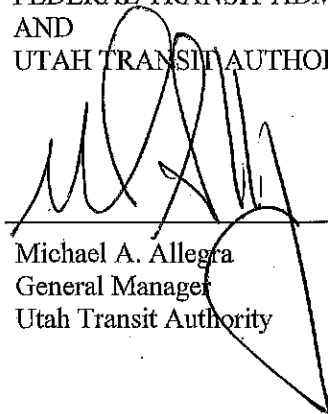


**669 West 200 South
Salt Lake City, Utah 84101**

Central Bus Operations and Maintenance Facility
Environmental Assessment and Draft Section 4(f) Evaluation
Submitted Pursuant to 771.119(c)

By the

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
AND
UTAH TRANSIT AUTHORITY



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Acronyms

APE	Area of Potential Effects
BRT	Bus Rapid Transit
CERCLIS	Comprehensive, Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Register
CG	General Commercial
CLG	Certified Local Government
CNG	Compressed Natural Gas
CO	Carbon Monoxide
D&RGW	Denver & Rio Grande Western
DFCM	Utah Division of Facilities Construction Management
DOT	Department of Transportation
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FLHQ	FrontLines Headquarters
FTA	Federal Transit Administration
GMU	Gateway Mixed Use
LWCF	Land and Water Conservation Fund
LOS	Level of Service
LUST	Leaking Underground Storage Tank
M-2	Heavy Manufacturing
MCI	Motor Coach Industries
MOA	Memorandum of Agreement
NAAQS	National Ambient Air Quality Standards
NBA	National Basketball Association
N/A	Not Applicable
NEPA	National Environmental Policy Act
NFRAP	No Further Remedial Action Planned
NRHP	National Register of Historic Places
PM _{2.5}	Particulate Matter Smaller than 2.5 Microns
PM ₁₀	Particulate Matter Smaller than Ten Microns

ppm	Parts Per Million
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SLC	Salt Lake City
SO ₂	Sulfur Dioxide
SWCA	An Environmental Consulting Firm
THPO	Tribal Historic Preservation Office
TOD	Transit Oriented Development
UDAQ	Utah Division of Air Quality
UDOT	Utah Department of Transportation
UDSH	Utah Division of State History
UDWR	Utah Division of Wildlife Resources
UDWF	Utah Division of Workforces
UGS	Utah Geological Survey
UPRR	Union Pacific Railroad
USDOT	United States Department of Transportation
USPR	Utah Division of State Parks and Recreation
UST	Underground Storage Tank
UTA	Utah Transit Authority
VOC	Volatile Organic Compound

Introduction

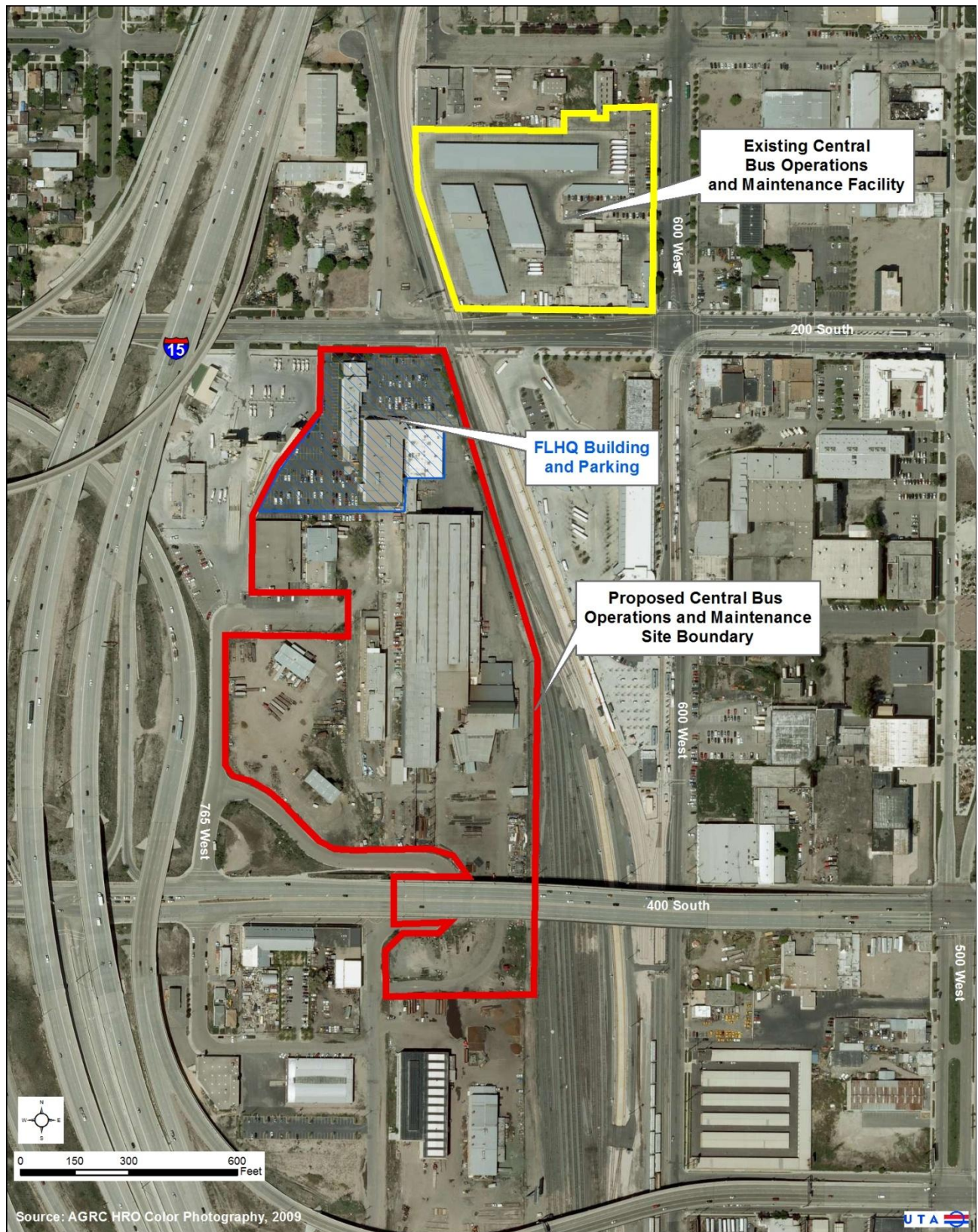
The Utah Transit Authority (UTA) proposes to move the existing Central Bus Operations and Maintenance Facility from the current location at 616 West 200 South in Salt Lake City, Utah, to 750 West 300 South, approximately one block south and one block west of the existing facility. The new facility would occupy up to 18.69 acres. The current facility occupies 7.3 acres and maintains a fleet of 110 vehicles, consisting of 30-foot to 40-foot buses. Future programming needs of UTA's Central Bus Operations and Maintenance Facility must be capable of accommodating a fleet of 250 buses, which includes a new compressed natural gas (CNG) fleet of up to 101 buses. The existing Central Bus Operations and Maintenance Facility will not meet future needs, nor does it meet existing demands. The existing site setting and conditions are shown in Figures 1 and 2. If the proposed Central Bus Operations and Maintenance Facility is constructed, the existing Central Bus Operations and Maintenance Facility site at 616 West 200 South would be available for future Transit Oriented Development by UTA, possibly in conjunction with the Redevelopment Agency of Salt Lake City.

UTA is seeking federal funding from the Federal Transit Administration (FTA) to construct the proposed Central Bus Operations and Maintenance Facility. In accordance with the National Environmental Policy Act (NEPA), UTA has prepared this Environmental Assessment to provide an evaluation sufficient for FTA to determine whether the proposed Central Bus Operations and Maintenance Facility would have adverse impacts significant enough to require the preparation of an Environmental Impact Statement. If the need for an Environmental Impact Statement is not indicated, a Finding of No Significant Impact (FONSI) would be issued by FTA.

Figure 1: Central Bus Operations and Maintenance Facility Setting



Figure 2: Existing Central Bus Operations and Maintenance Facility and Proposed Central Bus Operations and Maintenance Facility Site Boundary



Section 1 - Purpose and Need

Background

UTA service boundaries cover approximately 1,400 square miles, extending from Ogden in Weber County to Provo in Utah County. UTA organizes its bus routes and bus fleet maintenance activities by business units that are geographically located. This organization allows UTA to reduce “deadhead miles” and, thus, the cost inefficiencies associated with operating a bus out of revenue service. UTA’s Salt Lake Business Unit is comprised of the Central Bus Operations and Maintenance Facility and the Meadowbrook Bus Operations and Maintenance Facility. The Meadowbrook Bus Operations and Maintenance Facility is responsible for UTA’s core bus service outside the Downtown Salt Lake City area, Ski Service, and Bus Rapid Transit (BRT). The Central Bus Operations and Maintenance Facility provides 1) local bus service to Downtown Salt Lake City and the neighborhoods in and around Salt Lake City and 2) commuter bus services that bring people into and out of Salt Lake City. The existing Central Bus Operations and Maintenance Facility is located at 630 West 200 South in Salt Lake City. Of the existing 372 buses in the Salt Lake Business Unit, 110 of these are maintained at the existing Central Bus Operations and Maintenance Facility.

“Deadhead miles” refers to the number of miles a bus must be driven to get from the garage to the bus route where revenue operations begin.

There are several constraints with the existing Central Bus Operations and Maintenance Facility, most notably being the size of the site. Sitting on just over seven acres, the site services 105 diesel and five hybrid buses ranging from 30- to 40-feet in length. As discussed in more detail later in this section, current facility standards recommend between 3,000 and 5,000 square feet per bus maintained, which equates to approximately 7.5 to 12 acres for the existing 110 buses. Built in 1972 and partially remodeled in 1987, the existing Central Bus Operations and Maintenance Facility is outdated in design, technology and layout.

Purpose

The purpose of the Central Bus Operations and Maintenance Facility project is to construct a facility that will allow UTA to meet the existing and future maintenance and storage needs of an expanded bus fleet needed to adequately serve the transit demand in the Salt Lake Business Unit through year 2030.

Need

Existing Needs

UTA’s ability to provide transit services to the public is dependent on maintenance facility capacity; any existing or planned services require adequate maintenance space for the vehicles in the fleet. The existing Central Bus Operations and Maintenance Facility and site are inadequate in meeting the needs of the existing 110 buses and are unable to accommodate additional vehicles connected with both existing and new services.

The site configuration of the existing Central Bus Operations and Maintenance Facility does not allow for parking of 40-foot buses on the western side of the site, reducing the

flexibility to serve the fleet. In addition, twenty of the 110 total buses have no space to park on the existing site so are parked down the street at UTA's FrontLines Headquarters (FLHQ) building at 750 West 300 South. A mechanic must walk over and drive each bus to and from the maintenance facility to service--a daily time-consuming occurrence.

Even before UTA expands services, there are buses that should be maintained by the existing Central Bus Operations and Maintenance Facility but are being temporarily maintained at the Meadowbrook Bus Operations and Maintenance Facility. Twenty-eight commuter buses serving the Central Bus Operations and Maintenance Facility are currently housed at the Meadowbrook Bus Operations and Maintenance Facility, because they cannot be adequately maintained and stored at the existing Central Bus Operations and Maintenance Facility due to space limitations. This increases deadhead miles for the affected buses and places a burden on the Meadowbrook Bus Operations and Maintenance Facility because it requires the Meadowbrook Bus Operations and Maintenance Facility to spend time maintaining and repairing Central Bus Operations and Maintenance Facility buses that should be spent maintaining and repairing Meadowbrook Bus Operations and Maintenance Facility buses. The Meadowbrook Bus Operations and Maintenance Facility currently maintains 245 buses, not including the twenty-eight commuter buses serving the Central Bus Operations and Maintenance Facility.

Below is a list of additional reasons why the existing Central Bus Operations and Maintenance Facility is inadequate:

- Limited rooftop access to coaches. At the existing Central Bus Operations and Maintenance Facility, one bus bay must accommodate 12 hybrid buses that require access to the roof for maintenance on the hybrid drive power storage and controls, 20 Optima buses that require roof access for maintenance on the climate control system, and, within the next three years, 101 CNG coaches that will require roof access for maintenance of the fuel storage and control systems. Due to the existing Central Bus Operations and Maintenance Facility design, this same bus bay is the only bay that can be used as a pull through for brake testing. With scaffolding in place for roof access, maintenance personnel have less than six inches on each side of the coach to squeeze the roughly 100 coaches through for weekly brake testing.
- Lifts at the existing Central Bus Operations and Maintenance Facility do not accommodate the low clearance on the Optima coaches. Consequently, custom made ramps must be moved into place before the Optima coaches can be serviced in certain maintenance bays.
- The Motor Coach Industries (MCI) coaches are too large for current hoists at the existing Central Bus Operations and Maintenance Facility. Consequently, work must be done on the ground or over the service pits. Unfortunately, the existing three service pits are used daily for preventative maintenance inspections, leaving most MCI coach understructure work done by personnel laying on their back on the ground.
- Due to limited space on the east side of the existing Central Bus Operations and Maintenance Facility, the maintenance employees are forced to back up and pull forward multiple times to line up the coaches with the antiquated 12 foot wide maintenance doors. New shop standards are 14 foot wide doors.

- Existing storage is not adequate to accommodate the entire stock of mechanic and shop tools. Consequently, many tools are stored in the already cramped work areas.
- The existing fuel island was designed with two bays, lined up in sequence, one after the other. This design creates a bottleneck that renders the second fuel station ineffective. Coaches leaving the fuel island must go through the wash bay, which is extremely narrow and requires careful driving to avoid damaging the coaches or the wash bay. Next, coaches leaving the wash bay must swing a “U” turn and attempt to mix with the incoming coaches, which are backed up waiting for the fare box retrieval process, and then return to the parking area.

Future Needs

Based on UTA’s ongoing operational and fleet projections and the UTA Facility Master Plan, the Salt Lake Business Unit has determined it needs to increase its bus fleet from 372 buses in 2005 to 855 buses by 2030 (PBRC, 2005). UTA’s Salt Lake Business Unit is comprised of the Central Bus Operations and Maintenance Facility and the Meadowbrook Bus Operations and Maintenance Facility. The Meadowbrook Bus Operations and Maintenance Facility is responsible for UTA’s core bus service outside the Downtown Salt Lake City area, Ski Service, and Bus Rapid Transit (BRT). The Central Bus Operations and Maintenance Facility provides 1) local bus service to Downtown Salt Lake City and the neighborhoods in and around Salt Lake City and 2) commuter bus services that bring people into and out of Salt Lake City. The increase includes 140 additional buses to be maintained at the existing Central Bus Operations and Maintenance Facility over the existing count of 110, for a total of 250 buses. The existing Central Bus Operations and Maintenance Facility is incapable of accommodating the additional 140 buses needed for future Central Bus Operations and Maintenance Facility routes. As stated in *Analysis of Potential Utilization of Utah Transit Authority (UTA) Property Located at 750 West 300 South, Salt Lake City, Utah For a New Central Division Facility*, based on UTA’s Meadowbrook and Central Facilities, site space needs for a bus facility are 13 to 15 buses per acre. These space requirements equate to approximately seven to nine acres for the existing 110 buses; the existing site is 7.3 acres. The proposed Central Bus Operations and Maintenance Facility would require at least 17 acres for 250 buses (Crosby, 2012).

The total space needs for a bus facility include land area requirements for bus parking, shop requirements, and bus circulation. Standard canopy design requires a land area of 1,405 square feet per bus, totaling 351,250 square feet or 8.1 acres for parking of 250 buses (Crosby, 2012). The Maintenance Bay and Shop area would require 117,341 square feet or 2.7 acres for 250 buses (GF, 2009b). The remaining acreage requirements are necessary for site circulation and site organization.

The number of bus movements at a bus maintenance facility for a fleet of 250 buses would be approximately 700 per day (Crosby, 2012). The bus movements would include buses coming and going; buses moving to be fueled, washed, and inspected; and buses being taken to repair bays and detail cleaning stations. UTA’s bus circulation criteria are:

- Make each trip as short and unimpaired as possible.
- Have the fewest possible turns. (The turning pattern of 40 ft and 60 ft buses is much different from a passenger car).
- Minimize right hand turns. The visibility of the operator is far superior for left hand turns as compared to right hand turns - just like in a passenger car.

- Provide safe circulation for vehicles and pedestrians alike throughout the complex.

As mentioned previously, deadhead miles are those associated with a bus driving from the maintenance facility to the beginning of the bus route or from the end of the route back to the maintenance facility, when the bus is out of service and generating no revenue. Each additional deadhead mile consumes additional fuel, increases mechanical and tire deterioration, increases operator time and labor costs, increases air pollutant emissions, and results in less available transit service for UTA's customers. A new facility will need to minimize deadhead miles and the associated costs by being located near the beginning of a majority of bus routes. A more detailed discussion of deadhead miles and the associated costs is included in the alternatives analysis.

A portion of the expanded fleet would include 60-foot articulated buses for the future BRT routes. The new bus facility would need to accommodate BRT vehicles.

Due to rising fuel prices, UTA is actively procuring new CNG buses. The inability of the existing Central Bus Operations and Maintenance Facility to adequately service and fuel these technologies is a growing issue. The addition of 101 CNG buses to the Central Bus Operations and Maintenance Facility fleet by the end of 2014 would require CNG infrastructure, including a new fueling system and proper ventilation of all maintenance facilities. Facilities must be sufficiently ventilated to quickly remove any combustion risk associated with a natural gas leak. Additional clearance is also needed in the facility and additional space on site is required for CNG fueling infrastructure.

Section 2 - Proposed Action and Alternatives

This section describes the Proposed Action evaluated for this Environmental Assessment and summarizes the screening process that resulted in a preferred site for the Proposed Action. In addition to the Proposed Action, the No-Action Alternative is also discussed. The No Action Alternative is described first, then the Proposed Action. Next, the screening procedures used to identify acceptable sites for the Proposed Action are described in detail. Finally, the selected Proposed Action location is presented.

No-Action Alternative

The No-Action Alternative includes retaining the existing Central Bus Operations and Maintenance Facility. Under the No-Action Alternative no new buildings would be constructed and the Central Bus Operations and Maintenance Facility would continue to operate with the existing infrastructure which will not be able to support expected future bus requirements of UTA's Salt Lake Business Unit. Under the No-Action Alternative, a new Central Bus Operations and Maintenance Facility would not be constructed and operations would remain at the existing 7.3 acre site. The No-Action Alternative does not meet the purpose of the project, which is to operate and maintain a fleet of 250 buses for UTA's Central Bus Operations and Maintenance Facility, and UTA would continue to maintain buses at the existing Central Bus Operations and Maintenance Facility in an inefficient and costly manner. It would be inefficient because many of the Central Bus Operations and Maintenance Facility buses would need to be stored and maintained at the Meadowbrook Bus Operations and Maintenance Facility, located at 700 West and 3600 South in Salt Lake City. This facility is located six miles away from the centroid of service for the Central Bus Operations and Maintenance Facility bus routes, which is located at approximately 300 South and 200 West. The additional driving required to reach the Meadowbrook Bus Operations and Maintenance Facility equates to additional labor, fuel, and maintenance costs.

Centroid of Service is the theoretical intersection point of all bus routes serviced out of the Central Bus Operations and Maintenance Facility.

In addition, the Meadowbrook Bus Operations and Maintenance Facility would continue to be burdened by maintaining and storing commuter buses that serve Central Bus Operations and Maintenance Facility routes. Also, CNG capabilities would not all be conducted at one site under this alternative; some would occur at the existing site and some would occur elsewhere, creating additional inefficiencies. This alternative would limit the number of buses available to the public and, thereby, increase both the number of cars on the road and the air pollution in the region. The No-Action Alternative is not prudent because it does not meet the purpose and need for the project.

Proposed Action

The Proposed Action consists of constructing a new Central Bus Operations and Maintenance Facility to replace the existing Central Bus Operations and Maintenance Facility. The Proposed Action would address the operational and storage capacity deficiencies of the existing Central Bus Operations and Maintenance Facility by

constructing a new, state of the art, maintenance facility at a larger site. The new facility would provide high-quality bus service for UTA's Central Bus Operations and Maintenance Facility.

Proposed bus operation and maintenance facilities at the site would include bus storage for up to 250 vehicles, a new bus maintenance and operations building, fuel/wash operations, a tank farm, compressed natural gas fueling facilities, detail bays, chassis wash bays, and a permanent location for support vehicle and equipment. The facility would maintain and store the buses for 30 bus routes.

Proposed Action Site Selection

UTA utilized a tiered screening process to identify acceptable sites for the new operations and maintenance facility. To be considered acceptable, the site must meet the project's purpose and need, as described in Section 1, and must be considered feasible and prudent to construct and operate. An alternative that cannot be built as a matter of sound engineering judgment is not feasible. An alternative that compromises a project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need is not prudent. The concepts of prudent and feasible are discussed further in the Draft Section 4(f) Evaluation of this Environmental Assessment. The tiered analysis process used to identify acceptable sites for the proposed action is discussed below.

In Tier 1, initial sites were identified that would meet the size and location requirements for the Proposed Action. These initial sites were screened through two subsequent tiers, with sites that met the screening criteria carried forward to the next tier. Sites that did not meet the screening criteria were eliminated from further consideration. The screening criteria are discussed briefly below, followed by a detailed discussion of the screening process for each tier.

Tier 1 Screening

- Identify sites (contiguous parcels) located in Salt Lake County that are 17 acres in size or greater.
- Identify parcels meeting the size requirement above that are located within a 2 mile driving distance of the centroid of service (300 South 200 West) for all Central Bus Operations and Maintenance Facility bus routes.

Tier 2 Screening

- Eliminate parcels that would not be prudent to use for a bus operations and maintenance facility due to severe social, economic, or environmental impacts due to current land use considerations.

Tier 3 Screening

For the remaining sites, determine the following:

- Is the zoning and land use consistent with a bus operations and maintenance facility?
- Are there any safety concerns associated with the site?
- Does the site have the necessary access to major arterials?

Tier 1 Screening

For the Tier 1 screening, UTA looked at sites that were located within an acceptable distance from the centroid of service for the Central Bus Operations and Maintenance Facility bus routes, and were of sufficient size to accommodate the functions required for the new operations and maintenance facility. An alternatives analysis conducted in 2007 for the purchase of the property currently housing UTA's FLHQ offices was used as a starting point for determining what an acceptable distance would be. The 2007 alternatives analysis identified seven potential sites, including expansion of the existing Central Bus Operations and Maintenance Facility.

Distance Considerations

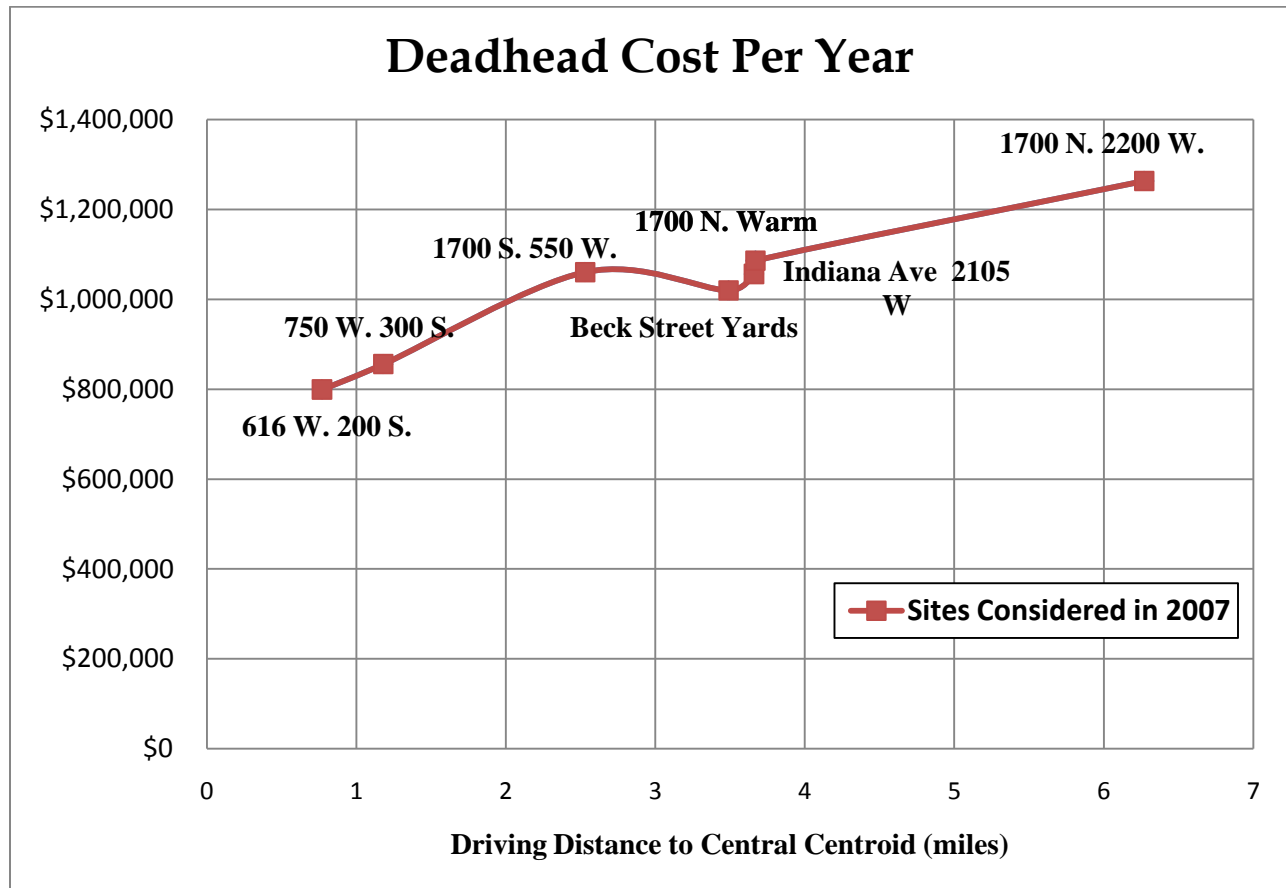
A cost analysis of "deadhead miles" conducted for the seven identified sites demonstrates the economic, social, and environmental burden associated with deadhead operation of the Central Bus Operations and Maintenance Facility bus fleet. Deadhead miles are those associated with a bus driving from the maintenance facility to the beginning of the bus route or from the end of the route back to the maintenance facility, when the bus is out of service and generating no revenue. Each additional deadhead mile consumes additional fuel, increases mechanical and tire deterioration, increases operator time and labor costs, increases air pollutant emissions, and results in less available transit service for UTA's customers. An alternative that results in excessive deadhead miles is not considered prudent.

The deadhead analysis included the 30 Central Bus Operations and Maintenance Facility bus routes. The "deadhead miles" cost calculation is based on trips per route, both weekday and Saturday, miles per trip, minutes per trip, cost per mile, and cost per hour. The cost per mile is based on the cost of fuel and operator wages; the cost per hour is based on equipment costs and maintenance technician wages. The miles and cost per mile are multiplied to estimate the operational costs, and the minutes and cost per hour are multiplied to estimate the maintenance costs. The total deadhead cost is the sum of the operational costs and the maintenance costs. The result of the deadhead cost calculation for the seven initial sites is shown below in Figure 3.

As shown in the graph below, deadhead costs rise sharply between 0.8 and 2.5 miles driving distance from the centroid of operations. Sites located more than 2 miles driving distance from the center of bus service for all Central Bus Operations and Maintenance Facility bus routes would generate over \$1 million dollars per year in deadhead costs, compared to the existing Central Bus Operations and Maintenance Facility deadhead costs of \$800,000 per year. This equates to an estimated \$4,000,000 or more additional operating costs by the year 2030. Because UTA strives for cost-efficiency in order to maximize transit service and to use taxpayer dollars wisely, our goal is to keep deadhead costs as low as possible. UTA selected a 2-mile driving distance or less from the potential Central Bus Operations and Maintenance Facility to the centroid of operations to keep estimated annual deadhead costs below \$1,000,000. Of course the shorter the driving distance to the centroid the more cost-effective the alternative will be. Selecting a site further away would add undesirable excess operating costs every year.

For 2011, the actual deadhead costs incurred for the Central Bus Operations and Maintenance Facility were 8.6% of their overall operating budget. In comparison, the percentage of deadhead costs to the overall budget for the Meadowbrook Bus Operations and Maintenance Facility was 8.35%, for the Timpanogos Business Unit in Utah County it was 8.58%, and for the Ogden Business Unit in Weber County it was 9.63%.

Figure 3: Deadhead Analysis



In addition to cost concerns, air quality is also a consideration for keeping deadhead miles as low as possible. Deadhead miles do not transport passengers, and provide no service benefit. However, they do consume fuel and result in additional air pollutants in the valley. Reducing deadhead miles improves overall air quality.

Another consideration in locating the proposed Central Bus Operations and Maintenance Facility as close as possible to the centroid of service is reliability. Traffic congestion between the bus facility and the start of each bus route imposes substantial operational penalties on bus service (NJDOT, 2003). While it is difficult to quantify, the further away the garage is from the starting point of a bus route, the more likelihood that congestion would impact the bus' starting schedule.

Site Size Considerations

To meet the project purpose and need, the preferred site size would need to be at least 17 acres at full build-out. UTA looked at parcels that were at least 17 acres in size, or combinations of contiguous parcels, not divided by public through-roads, that added up to the 17 acres needed. Properties or combinations of properties smaller than 17 acres in size were not considered feasible for the proposed action.

Although the existing Central Bus Operations and Maintenance Facility site is smaller than 17 acres, UTA did consider the possibility of expanding the site for the proposed action. The existing Central Bus Operations and Maintenance Facility site is 7.3 acres; an additional 2.5 acres is located north of the site within the same block. The total acreage available on the block is 9.8 acres, which is not sufficient size to meet the project's purpose and need. There is no additional land available adjacent to the site, as the block on which it is located is bounded by city streets on three sides and the railroad corridor on the fourth side. Therefore, expansion of the existing Central Bus Operations and Maintenance Facility site was eliminated from further consideration as it was not feasible.

Tier 1 Screening Results

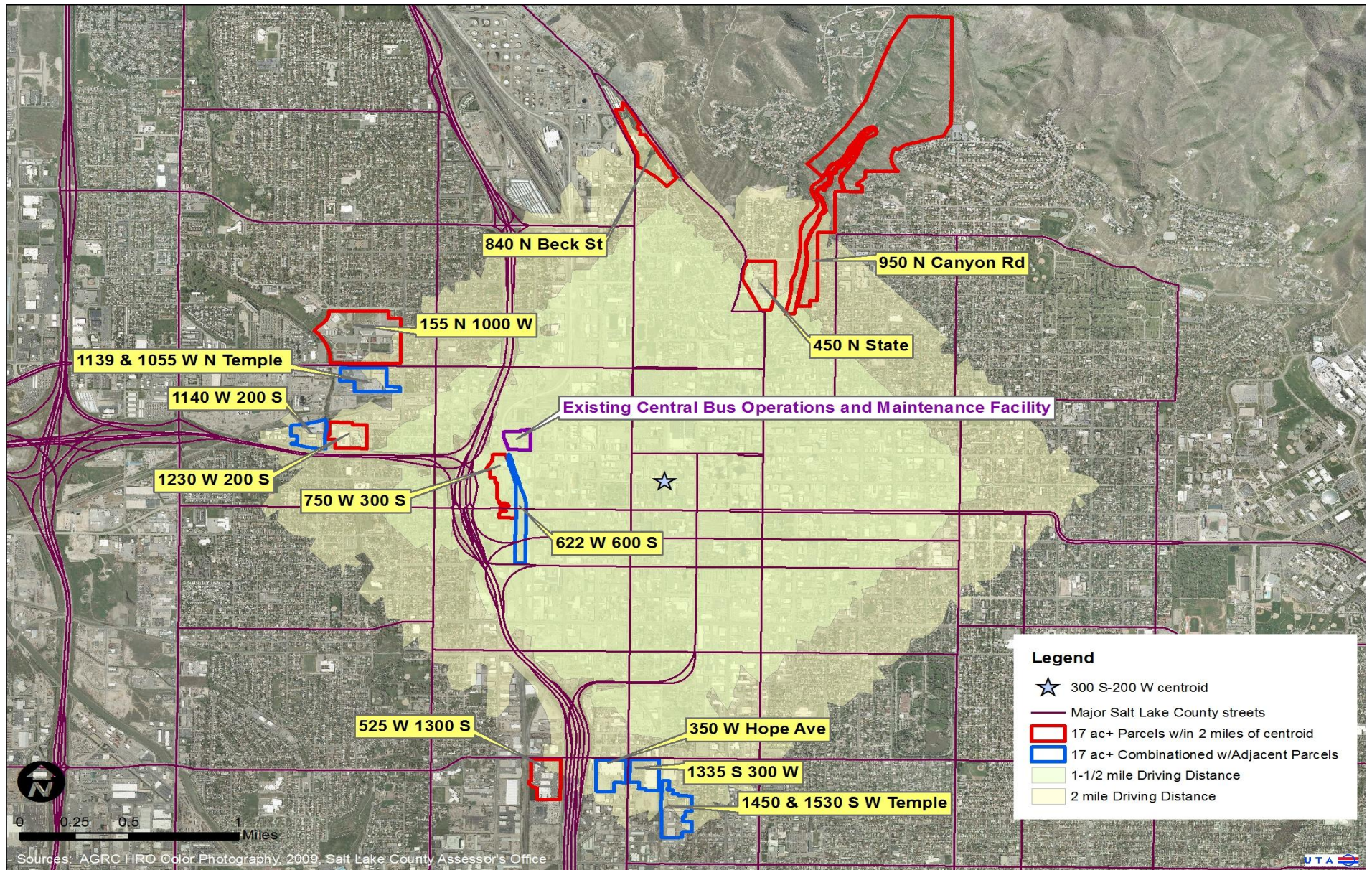
UTA conducted a Tier 1 screening of properties, or combinations of contiguous properties, located in Salt Lake County, greater than 17 acres in size, and within a 2 mile driving distance to the centroid of service at 300 South 200 West. A total of 13 sites were identified as a result of the Tier 1 screening. They are listed on Table 1 and shown in Figure 4. Please note that some of the parcel totals shown on Table 1 are smaller than 17 acres in size, but there are a number of smaller contiguous parcels adjacent to those properties that would be incorporated to make the site meet the 17 acre requirement to be considered feasible for the proposed Central Bus Operations and Maintenance Facility.

Table 1: Tier 1 Screening Results

Site	Size (acres)	Current Occupant(s)
950 N Canyon Rd	241.50	Bonneville Shoreline Trail
840 N Beck Street	20.04	Warm Springs Park
155 N 1000 West	50.00	Utah State Fairgrounds
1139 W N. Temple 1530 W N. Temple	6.17/ 9.52*	Utah DFCM Sandberg Investments
450 N State Street	20.04	Utah State Capitol Building
750 W 300 South	17.71	UTA and Crane Construction
622 W 600 South	13.34*	UPRR
1230 W 200 South	12.27*	Mark Steel Corp
1140 W 200 South	19.40	Questar Gas Company
1335 S 300 West	12.59*	Lowes Home Improvement
525 West 1300 South	17.17	Larry Miller Ford & Utah Jazz practice facility
350 W Hope Ave	13.17*	Wal-Mart Stores, Inc
1450 S W. Temple/ 1530 S W. Temple	9.31/ 10.36	Miller Towne Gate and Salt Lake City properties

*** These properties are less than 17 acres, so some adjacent, contiguous properties would also need to be purchased to reach the 17 acre size requirement for the site.**

Figure 4: Property Search for Site 17+ Acres in 2 Mile Radius of 300 S 200 W Centroid



Tier 2 Screening

The 13 Tier 1 sites went through a second screening to identify sites that were not considered prudent because they would result in severe social, economic, or environmental impacts. The Tier 2 screening resulted in the removal of 12 sites, as shown in Table 2, which were determined to be imprudent for the proposed Central Bus Operations and Maintenance Facility due to current land use considerations. These sites were eliminated for the reasons discussed below.

Warm Springs Park: Warm Springs Park is a city-owned park. Amenities at the park include tennis courts, playground, softball field, multi-purpose fields, restrooms, and picnic tables. Parks are not compatible uses for a bus operations and maintenance facility. It would not be prudent socially or environmentally to use the park for a bus facility.

Utah State Fairgrounds: The Utah State Fairgrounds are owned by the State of Utah and is the site of the annual State fair. The site is 50 acres, and contains numerous buildings and a stadium for rodeos, concerts, and other performances. Other services at the site include a state driver's license office, catered events, auctions, concerts, overnight horse stall rentals, boat/rv storage rental, and numerous other events throughout the year. It would not be prudent socially or economically to relocate the State fairgrounds.

DFCM/Sandberg Investments properties: These two sites together total 15.7 acres. Additional adjacent parcels would be required for the site to total 17 acres. The adjacent parcels are primarily small residential properties, but there are also a few neighborhood restaurants contiguous with the site. The Utah Division of Facilities Construction Management (DFCM) owns 6+ acres at the site, which is used for parking during the state fair and other events at the fairgrounds. DFCM has plans to construct a state agency office building on this site. The Sandberg property houses three manufacturing facilities: Anderson Mill and Cabinets, EnviroTech Molded Products, and Jumping Jack Trailers. It would not be prudent economically to relocate three successful manufacturing businesses to construct a bus operations and maintenance facility. Salt Lake City would lose both property tax and sales tax revenue due to the relocation of these businesses. In addition, it would not be prudent socially to relocate the adjacent residents and small neighborhood businesses.

Bonneville Shoreline Trail: This site consists of 240 acres of open space. The portion of the open space that is located within the two-mile driving distance is located along City Creek. Open space properties are not compatible uses for a bus operations and maintenance facility. It would not be prudent socially or environmentally to use the open space for a bus facility.

Utah State Capital Building: The State Capital Building houses the Governor's office, the House and Senate Chambers, and the Attorney General's office. The legislators' offices are also located on the grounds, as are the legislative staff offices and administrative services for the state. It would not be prudent socially or economically to relocate the State Capital building and associated offices.

UPRR Mainline: The Union Pacific Railroad (UPRR) Mainline includes the active, mainline tracks, for both Union Pacific and UTA's FrontRunner operations and would not allow for a bus facility on the property. There is no place to relocate the tracks that would not pass through existing residential and/or commercial development. It would not be prudent economically or socially to relocate the tracks.

Mark Steel Corporation: This site is the headquarters of a steel fabricating company with between 100 and 249 employees (UDWF, 2012). In addition, since the Mark Steel site is less than 17 acres in size, approximately 10 adjacent smaller parcels would need to be

purchased to meet the 17-acre minimum size requirement. There are a number of small businesses located on these ten properties. Salt Lake City would lose both property tax and sales tax revenue due to the relocation of these businesses. It would be cost-prohibitive and not prudent economically to relocate these businesses.

Questar: This complex houses the administrative offices for Questar Gas Company. There are over 1000 employees located in five buildings located on this site (Larsen, 2012). There is also a CNG fueling station located at this site. It would be cost-prohibitive and not prudent economically to relocate this business. In addition, Salt Lake City would lose property tax revenue due to the relocation of this facility.

Lowes Home Improvement: Lowes is a national chain of home improvement stores. This Lowes store was constructed in 2006, making it a relatively new facility. There are between 100 and 249 employees at this location (UDWF, 2012). Salt Lake City would lose both property tax and sales tax revenue due to the relocation of this facility. It would be cost-prohibitive and not prudent economically to relocate this business.

Larry Miller Ford and Utah Jazz Practice Facility: The Utah Jazz professional basketball team opened their premier practice facility at this site in March 2003. At a construction cost of over \$5 million, the facility consists of two levels with 40,111 square feet of floor area on the first level and 10,879 square feet on the second level. An adjoining 53,400 square foot one story building to the south was remodeled in conjunction with this project and houses the Larry H. Miller Prestige Financial Services Corporate Headquarters. The Larry H. Miller Truckland dealership is also located on this site. (NBA, 2012). It would be cost-prohibitive and not prudent economically to relocate the basketball facility and businesses.

Wal-Mart: Wal-Mart Stores is a national chain department store. This Wal-Mart store was constructed in 2004, making it a relatively new facility. There are between 250 and 499 employees at this location (UDWF, 2012). Salt Lake City would lose both property tax and sales tax revenue due to the relocation of this facility. It would be cost-prohibitive and not prudent economically to relocate this business.

Miller Town Gate and Salt Lake City properties: The Miller Town Gate property consists of 288 residential units located on 9.3 acres. The condominium units were constructed in 2007. The adjacent 10.3-acre site owned by Salt Lake City is the main office for their public utilities department. It would not be prudent socially or economically to relocate the residents and the office facility.

Table 2: Tier 2 Screening Results

Site	Current Occupant(s)	Current Land Use	Imprudent?*	Move to Tier 3?
950 N Canyon Rd	Bonneville Shoreline Trail	Open Space	Yes	No
840 N Beck Street	Warm Springs Park	Park	Yes	No
155 N 1000 West	Utah State Fairgrounds	State Fairgrounds	Yes	No
1139 W N. Temple 1530 W N. Temple	Utah DFCM Sandberg Investments	Fairgrounds parking/ Manufacturing facilities	Yes	No
450 N State Street	Utah State Capitol Building	State Capitol	Yes	No
750 W 300 South	UTA and Crane Construction	Manufacturing and Bus Storage	No	Yes
622 W 600 South	UPRR	UPRR & Frontrunner Mainline Tracks	Yes	No
1230 W 200 South	Mark Steel Corp	Large steel fabricator	Yes	No
1140 W 200 South	Questar Gas Company	Admin building & CNG fueling station	Yes	No
1335 S 300 West	Lowe's Home Improvement	Home improvement store	Yes	No
525 West 1300 South	Larry Miller Ford & Utah Jazz practice facility	Car dealership and indoor practice facility	Yes	No
350 W Hope Ave	Wal-Mart Stores, Inc	Department store	Yes	No
1450 S W. Temple/ 1530 S W. Temple	Miller Towne Gate and Salt Lake City properties	Condo complex/ City offices	Yes	No

* Reasons parcels are not prudent is discussed previously for each parcel in detail under the heading Tier 2 Screening.

Tier 3 Screening Analysis

Only one parcel moved forward from the Tier 2 analysis. It was further analyzed to determine if the proposed site was consistent with the Salt Lake City zoning ordinance and existing or planned land use. Within the corporate limits of Salt Lake City, bus line yards and repair facilities are permitted uses only in heavy manufacturing (M-2) zoning districts and commercial general (CG) zoning districts. The site was also evaluated to determine if there were any major safety concerns that would preclude its use as a bus facility, and to determine if the site location provides adequate access to major arterials such as Interstate 15 and Interstate 80, which would be used to access the start of some downtown bus routes and also for access when returning from distant routes such as Park City, Tooele County, and some Davis County routes.

Tier 3 Analysis Result

Property Adjacent to UTA FLHQ, 750 West 300 South, 17.71 Acres (includes four acres occupied by UTA FLHQ building and associated parking; up to 4.98 acres of adjacent parcels would be acquired to achieve 17+ acres for the Proposed Action)

Zoning and Land Use: This site is zoned general commercial (CG). The Northwest Future Land Use Map, amended December 2006, for Salt Lake City labels the future land use for this property as part of the Gateway Master Plan. This property in the Gateway Master

Plan, adopted August 1998, is part of the I-15/Railroad Sub-district. This area was to include various modes of transportation to create a transportation hub. A bus operations and maintenance facility is consistent with both zoning and land use for the area.

Safety Concerns: This site poses no major safety issues for the Proposed Action as access to the site is available via 400 South and the railroad track crossing can be avoided.

Access to Major Arterials: The site is located 0.3 miles driving distance from Interstate 15 and one mile from Interstate 80. This location near the interstates provides optimal access for long distance routes.

Proposed Action Location

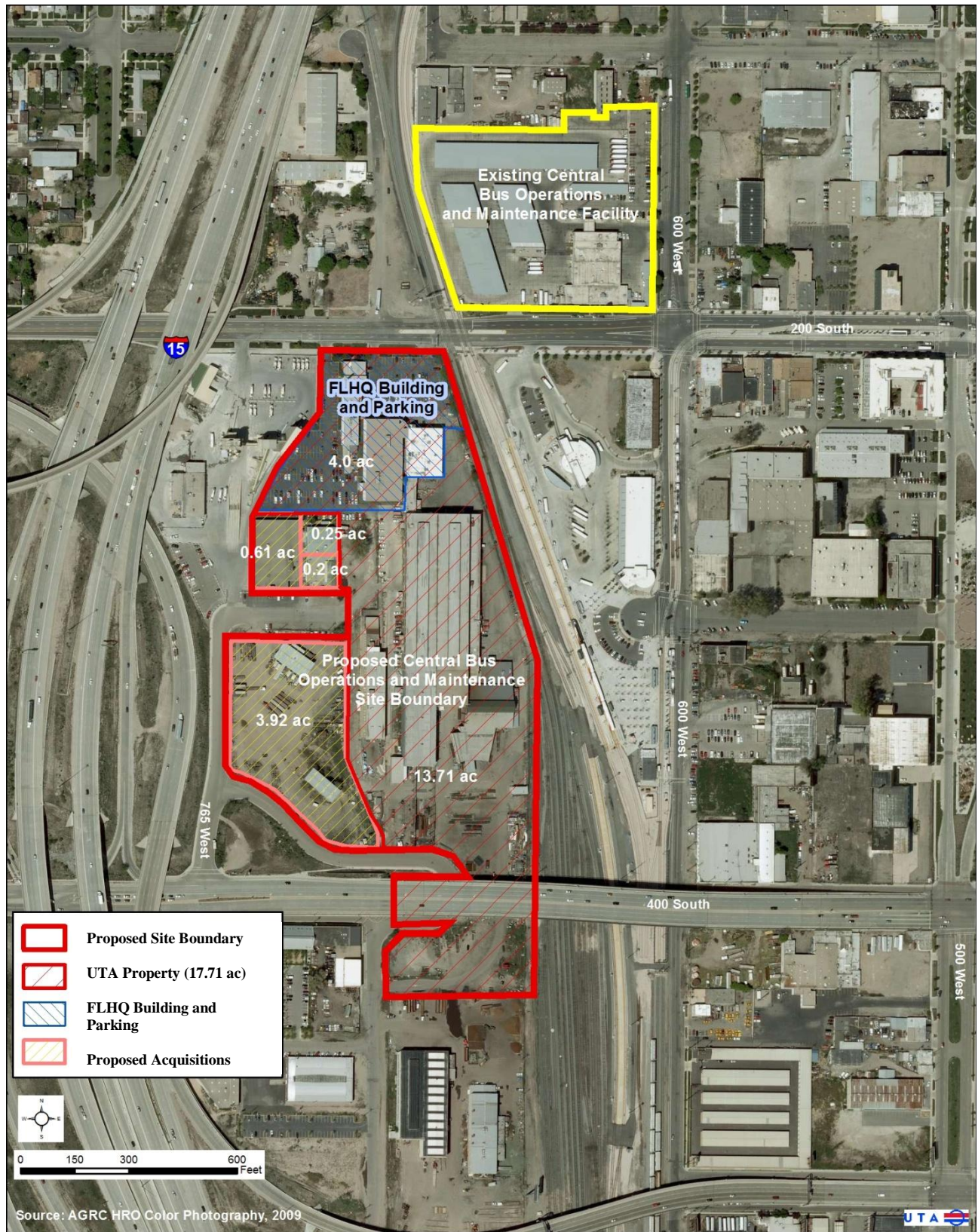
Based on the screening analysis, the property adjacent to UTA FLHQ at 750 West 300 South was selected as the Proposed Action site. The site meets City zoning requirements, and its development as a bus operations and maintenance facility is consistent with the City's local land use plans. The site is of sufficient size for a bus operations and maintenance facility, is located less than 2 miles from the centroid of service for Central bus routes, and has direct access to Interstate 15 and Interstate 80.

This site provides maximum safety by allowing for counter-clockwise bus circulation and minimizing two-way bus traffic. Bus ingress and egress to the site is proposed to be at 765 West, off of 400 South. The final site design and layout is subject to change based on cost considerations and any issues identified as the site planning progresses.

The proposed site provides good proximity to existing bus routes. UTA purchased this property from EIMCO in 2007 and currently owns 17.71 acres at this location, including the FLHQ building. The FLHQ building and associated parking occupies approximately four acres of the UTA owned property, leaving 13.71 available acres owned by UTA for the Proposed Action. Consequently, some property acquisitions would be necessary for the proposed bus facility. Sufficient contiguous property to meet the size requirements of the project is located adjacent to the UTA owned property. Approximately 4.98 acres of adjacent property has been identified for the project. If the 4.98 acres is acquired, 18.69 acres would be available for the entire project. The UTA owned property; the area occupied by the FLHQ building and associated parking; and the adjacent properties identified for acquisition are shown in .

The historic properties survey conducted for the project identified a number of historic properties located on the Proposed Action site that would be adversely affected by the Proposed Action. This is discussed further in Section 3 in the Historic Properties and Parklands section. In addition, the design alternatives UTA considered to avoid or minimize impacts to some or all of these historic properties are presented in the Draft Section 4(f) Evaluation of this Environmental Assessment.

Figure 5: Proposed Site and Adjacent Properties



Section 3 - Affected Environment and Environmental Impacts

This section describes the existing conditions at the proposed site, and evaluates the environmental impacts of the Proposed Action and the No-Action Alternative to the following resource categories:

- Historic Properties and Parklands
- Hazardous Materials
- Land Use and Zoning
- Land Acquisitions and Displacements
- Traffic and Parking
- Air Quality
- Noise and Vibration
- Water Quality
- Wetlands
- Flood Plains
- Ecologically Sensitive Areas
- Endangered Species
- Safety and Security
- Community Disruption
- Environmental Justice and Title VI Issues
- Construction Impacts
- Cumulative Impacts

Historic Properties and Parklands

Statutory and Regulatory Setting

Section 106 of the National Historic Preservation Act

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties and give the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The National Historic Preservation Act was enacted to assess impacts to historic properties that may be affected by federal undertakings. The Act requires federal agencies that fund, in whole or in part; issue a permit, license, or approval for; or are otherwise involved in a project to consider the impacts that the undertaking would have on historic properties. The Act mandates that agencies perform the following actions:

- Initiate the Section 106 process by first determining whether the agency has an undertaking that is the type of activity that may affect historic properties. If so,

the agency must identify the appropriate State Historic Preservation Office (SHPO)/Tribal Historic Preservation Office (THPO) to consult with during the process. It should also plan to involve the public and identify other potential consulting parties. If it determines that there is no undertaking, or that its undertaking is a type of activity that has no potential to affect historic properties, the agency has no further Section 106 obligations.

- Identify historic properties that may be affected by a project, including historic sites that either are listed on the National Register of Historic Places (NRHP) or have been determined through a consensus process to be eligible for listing on the NRHP.
- Assess adverse effects including the nature and extent of the expected effects on the qualities of the property that resulted in its listing on the NRHP or the determination that it was eligible for listing on the NRHP or have been determined through a consensus process to be eligible for listing on the NRHP.
- Resolve adverse effects by considering measures to avoid, minimize, or mitigate those effects.

The process for carrying out the mandates of the National Historic Preservation Act is described in 36 Code of Federal Regulations (CFR) 800 and subsequent sections. This process includes steps for consulting with state and/or tribal historic preservation officers, the Advisory Council on Historic Preservation, Native American tribes, and other interested parties.

Section 4(f) of the Department of Transportation Act

Section 4(f) of the Department of Transportation Act of 1966 gives special consideration to historic properties that are either listed on or eligible for listing on the NRHP. Section 4(f), which also addresses publicly owned parks, recreation areas, and wildlife and waterfowl refuges, is discussed in detail in Section 4 of this Environmental Assessment, entitled Draft Section 4(f) Evaluation.

Methods to Identify and Evaluate Historic Resources

The Section 106 process describes specific steps for assessing the impacts of federal undertakings on historic properties. The first step is initiation of the Section 106 process by determining whether the agency has an undertaking that is the type of activity that may affect historic properties. If so, the agency must identify the appropriate SHPO/THPO to consult with during the process. It should also plan to involve the public and identify other potential consulting parties. If it determines that there is no undertaking, or that its undertaking is a type of activity that has no potential to affect historic properties, the agency has no further Section 106 obligations.

The second step involves identifying historic properties that may be affected by the project, including historic sites that either are listed on the NRHP or have been determined through a consensus process to be eligible for listing on the NRHP. In order to complete this step, the project team must establish the area of potential effects (APE)—the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties.

The third step in the Section 106 process is assessing adverse effects to historic properties including the nature and extent of the expected impacts on the qualities of the

property that resulted in its eligibility listing on the NRHP or the determination that it was eligible for listing on the NRHP.

Criteria for Evaluating the Eligibility of Historic Resources

To be eligible for the NRHP, historic properties must be important in American history, architecture, archaeology, engineering, or culture. In addition, properties must possess integrity of location, design, settings, materials, workmanship, feeling, or association and must meet at least one of four criteria shown in Table 3.

Table 3: Criteria for Evaluating the Eligibility of Historic Resources for the NRHP

NRHP Criterion	Characteristics for the Historic Resource
A	Associated with events that have made a significant contribution to the broad patterns of our history.
B	Associated with the lives of persons significant in our past.
C	Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
D	Yielded, or may be likely to yield, information important in prehistory or history.

Source: 36 CFR 60

Agencies, Tribes, and Other Consulting Parties and Their Roles

The FTA is the lead federal agency in the environmental review process for the Proposed Action. As a federal agency, FTA must comply with Section 106 of the National Historic Preservation Act, which requires all federal agencies to take into account the effects of their undertakings on historic properties. In addition, as an agency within the U.S. Department of Transportation, FTA is required to comply with Section 4(f) of the Department of Transportation Act of 1966, as amended, which protects historic properties as well as parklands, recreation areas, and wildlife refuges.

The Advisory Council on Historic Preservation is the federal agency responsible for overseeing compliance with Section 106. Typically, the Council does not participate directly in the Section 106 consultation process for a specific undertaking. However, the Council must be notified of federal agencies' determinations at key milestones, and the Council has the right to enter the consultation process based on criteria in the Section 106 regulations. The Council also can participate in resolving disputes between federal and state agencies or project proponents that might arise regarding the management of historic and archaeological resources within the APE of an undertaking.

As part of the effort to identify historic resources in the APE, Section 106 consultation was carried out between FTA, UTA, and several agencies and organizations. Among those agencies consulted were the Utah SHPO, federally recognized Native American tribes, and other potential consulting parties.

As required by the National Historic Preservation Act for an undertaking, FTA and UTA consulted with the SHPO and other consulting parties on several occasions regarding the project. The SHPO was asked to review and comment on the list of potential consulting parties and the APE. The consulting parties were subsequently asked to comment on the following:

- The eligibility of historic properties on the proposed Central Bus Operations and Maintenance Facility site;
- The finding of effect to eligible historic properties from the project; and
- The measures proposed to avoid, minimize, or mitigate any adverse effects to eligible properties.

The FTA, UTA, and the consulting parties then developed a Memorandum of Agreement (MOA) to describe the stipulations to mitigate any adverse effects from the proposed undertaking.

SHPO Consultation

FTA and UTA consulted with the Utah SHPO on a number of occasions through both written correspondence and verbal communication. FTA formally initiated Section 106 consultation with the SHPO regarding the Proposed Action on June 10, 2010 regarding the project APE. The SHPO indicated its concurrence with the APE by written letter to FTA dated July 7, 2010.

On March 16, 2011, FTA submitted a reconnaissance level survey to the Utah SHPO with FTA and UTA's list of identified historic properties and archaeological resources and determinations of eligibility for the NRHP for each resource. The Utah SHPO concurred with the determinations on March 24, 2011.

Following the steps of the Section 106 process, FTA also submitted a letter to the SHPO describing FTA and UTA's findings of effects for archaeological sites and historic properties in the APE. This letter was sent on May 10, 2011. A meeting between FTA, UTA, SHPO and the consulting parties was held on June 16, 2011 to discuss the findings of effects letter. The Utah SHPO requested additional information before they were able to concur with the findings of effects, as documented by their e-mail of that date. A site visit was also conducted on June 27, 2011 to discuss and view the proposed site with the consulting parties.

UTA procured consultants to complete a utilization analysis (Crosby, 2012) and a structural analysis (Reaveley, 2011) to study the possibility of avoiding or repurposing the historic properties on the Proposed Action site and still meeting the purpose and need of the project. The analyses showed that it was not feasible and/or prudent to avoid or repurpose the historic properties for the Proposed Action. A meeting was held on February 9, 2012 between FTA, UTA, and the consulting parties to discuss the results of the analyses. A second findings of effects was submitted to SHPO on February 24, 2012. The Utah SHPO concurred with the second findings of effects on March 5, 2012. See Appendix C, Section 106 Consultation, for the SHPO concurrence letter. Additional meetings were held on February 24, 2012, March 19, 2012, and April 9, 2012 between FTA, UTA, and the consulting parties to discuss potential mitigation options for demolition of the historic properties on the proposed bus facility site.

FTA and the Utah SHPO have worked with the consulting parties to prepare a Draft MOA, with UTA as an invited signatory. The Draft MOA, which is included in Appendix B, describes the specific mitigation measures FTA and UTA propose to implement if the Proposed Action is selected for the project. FTA welcomes and is seeking public comment on the EA, the adverse effects to historic properties, and mitigation of the adverse effects to historic properties in the Draft MOA. The MOA will be finalized and executed before FTA issues its decision on this project.

Copies of all formal Section 106 correspondence with the SHPO regarding Section 106 responsibilities, the APE, identification of historic properties, determinations of eligibility, and findings of effects are provided in Appendix C, Section 106 Consultation. Also included in Appendix C are copies of meeting minutes summarizing project meetings held with the consulting parties.

Tribal Consultation

Federal legislation such as the National Historic Preservation Act and Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, mandates that federal agencies involved in an undertaking that may affect resources of importance to Native American tribes must consult with those federally recognized tribes when the location of the federal undertaking is within an area of traditional use for the tribe. This consultation is to occur at a government-to-government level in recognition of the sovereign status of the tribes.

The goal of the consultation is to identify resources of importance to the affected tribes, to assess the nature and extent of the impact on the characteristics of the resources that make them important, and to work through a collaborative process to identify acceptable measures for avoiding, minimizing, or mitigating significant impacts to the resources. Other laws, such as the Native American Graves Protection and Repatriation Act, mandate additional consultation with tribal governments if human remains, burial goods, or items of cultural patrimony are identified in association with a federal undertaking and are on federal or tribal land.

The following five Native American tribes with patrimonial claims over the general project area were sent invitations by FTA on October 6, 2010 to be consulting parties to the Central Bus Operation and Maintenance Facility project Section 106 process, asked to concur with the proposed APE and methods of identification, invited to provide comments on known or potential resources or issues of concern to the tribes, and offered a meeting with UTA and FTA:

- Confederated Tribes of Goshute Reservation
- Northwestern Band of Shoshone Nation
- Shoshone-Bannock Tribes
- Skull Valley Band of Goshute Indians
- Ute Indian Tribe

None of the Native American tribes contacted by FTA requested to be consulting parties, to meet with UTA and/or FTA, or to provide input on the proposed undertaking. FTA continues to coordinate with the tribes to get their comments on the environmental effects of the project and the Draft Memorandum of Agreement. Copies of the letters sent to the tribes can be found in Appendix C, Section 106 Consultation.

Local Governments and Historical Societies

In addition to the agencies and tribes, consultation was undertaken with several other entities with direct interest in historic properties that could be affected by the project. Agencies with direct jurisdiction over land within or adjacent to the Proposed Action site were also consulted. These entities included the certified local government (CLG) representative, historical societies, and historical organizations. The following groups and their representatives were contacted by letter on October 7, 2010; were invited to become consulting parties for the project; and were invited to provide information about historic properties of importance to their communities or organizations:

- Salt Lake City Community and Economic Development Department (CLG): Ms. Janice Lew, Planner
- Salt Lake City Historic Landmarks Commission: Mr. Warren Lloyd, Chair
- Utah Heritage Foundation: Mr. Kirk Huffaker, Executive Director
- Utah Professional Archaeological Council, Dr. James Allison, President

Of the parties that were invited to become formal consulting parties in the Section 106 process, two parties—the Salt Lake City Community and Economic Development Department and the Utah Heritage Foundation — requested to become a consulting party. FTA sent the consulting parties a request for concurrence on adverse effects on May 10, 2011 and February 24, 2012 (see Appendix C, Section 106 Consultation).

The Public

The Section 106 process requires that FTA and UTA provide an opportunity for the public to review the results of the agency's effort to identify historic properties, evaluate their significance, and assess the undertaking's effects on them. When adverse effects are found, the federal agency must also make information available to the public about the undertaking, must explain its effects on historic properties and alternatives to resolve the adverse effects, and must provide the public with an opportunity to express their views about how to resolve adverse effects. When adverse effects are found, the federal agency must also notify the Advisory Council on Historic Preservation and provide them an opportunity to consult. FTA sent the Advisory Council on Historic Preservation a Notice of Adverse Effect on March 23, 2012. The Advisory Council requested additional information on March 26, 2012; FTA sent additional information to the Advisory Council on April 6, 2012. The Advisory Council sent a letter to FTA on April 13, 2012 stating that their involvement in the consultation to resolve adverse effects is not needed for this project.

FTA and UTA are seeking public comments on the Environmental Assessment, the Section 106 process, and the Draft MOA.

Affected Environment

Historic Properties

A reconnaissance-level historic property survey was completed for the proposed site in early 2010 (SWCA, 2010). Additional survey work was completed in August 2010. The APE for the Central Bus Operations and Maintenance Facility project is the area south of 200 South, west of the Union Pacific Railroad tracks, including the tracks, east of 765 West and I-15, and north of 450 South; the block north of 200 South, south of 100 South,

west of 600 West and east of the Union Pacific Railroad tracks is also included in the APE. The Utah SHPO was consulted regarding the APE in June 2010 (see Appendix C, Section 106 Consultation) and concurred with this APE. The APE is shown in Figure 6.

For the purpose of the historic properties inventory, the standard operating procedures for selective reconnaissance-level surveys issued by the Preservation Department of the Utah Division of State History (UDSH) were applied. In order to accommodate the potential lag time between the field inventory and any development action by UTA, a 45-year construction age cut-off was used as the criteria for defining properties as historic. As such, all properties constructed during or before 1965 were considered historic.

As part of the historic survey process, coordination occurred with the SHPO and other consulting parties regarding the historical findings, subsequent eligibility determinations, possible effects of the Central Bus Operations and Maintenance Facility project, and possible mitigation measures.

The ground surface in the area of the proposed Central Bus Operations and Maintenance Facility site is paved with asphalt or concrete, graded and graveled, occupied by buildings or other structures, or otherwise disturbed due to past industrial uses. As defined, the APE extends beyond the proposed Central Bus Operations and Maintenance Facility site area by one additional parcel width in all directions and it includes the entire block that contains the existing Central Bus Operations and Maintenance Facility.

FTA determined that six historic properties within the APE were eligible for listing on the NRHP and SHPO concurred with FTA's determination. These properties were newly documented as a result of the survey. Several modern properties, including the main FrontLines Headquarters building, two UTA storage structures, the existing Central Bus Operations and Maintenance Facility, and several private commercial structures are also present within the APE. The properties and their eligibility ratings are shown below in Figure 6 and Table 4.

Figure 6: APE and Historic Properties

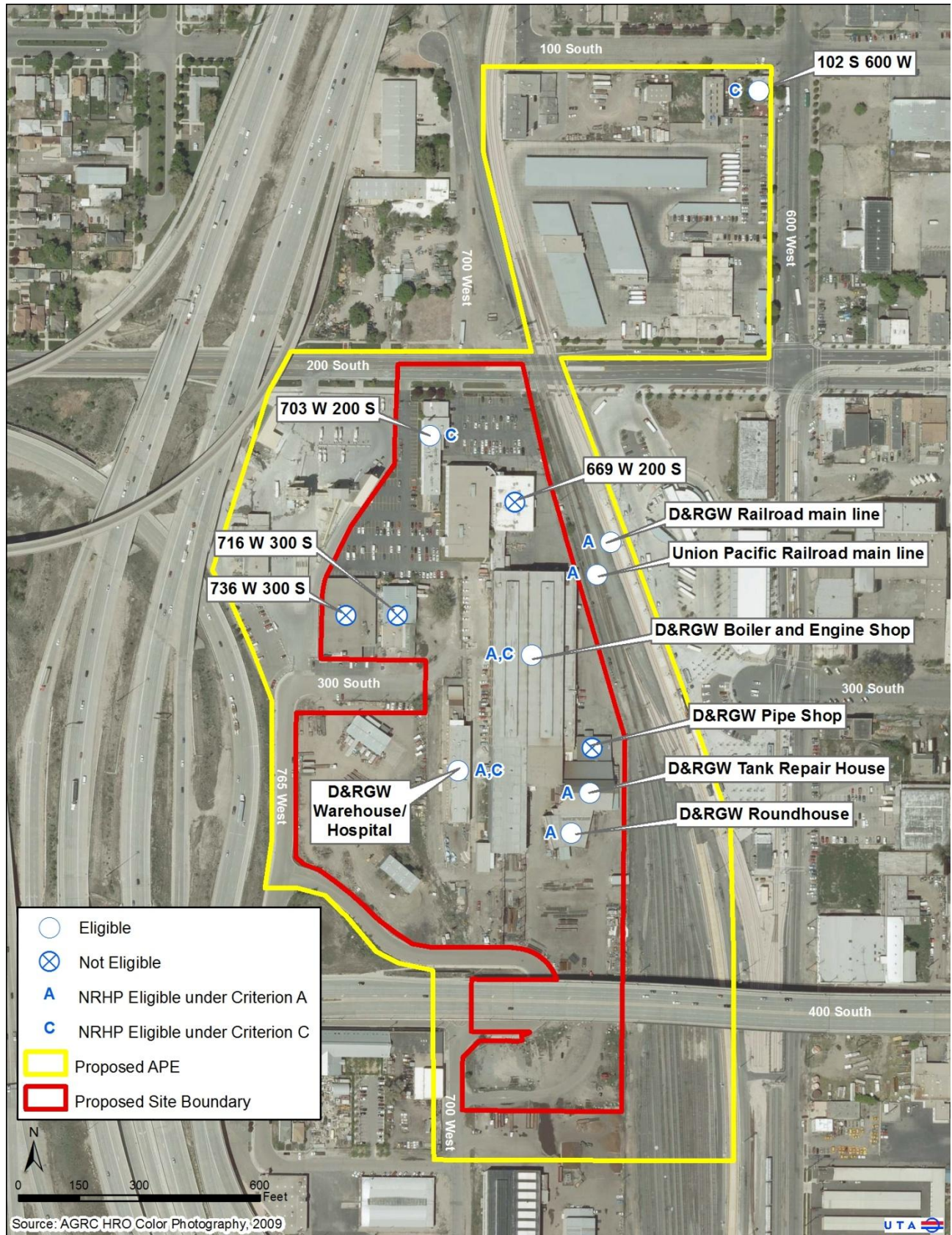


Table 4: Historic Properties Located in the APE

Address	Year Built	Architectural Style	NRHP Eligibility/ Criterion	Use
102 S. 600 W. (The Trap)	ca. 1950	Vernacular	Eligible/C	Commercial
703 W. 200 S. (FLSmith Minerals, a.k.a. The Laboratory)	ca 1960	Post WWII Other style	Eligible/C	Commercial
669 W. 200 S. (annex)	ca. 1960	Late 20 th Century: Other	Not Eligible	Commercial
669 W. 200 S. (Denver & Rio Grande Western (D&RGW) Boiler and Engine Shop, a.k.a The Locomotive Shop)	ca 1900	Early 20 th Century Commercial & Late 20 th Century: Other	Eligible/A& C	Commercial
669 W. 200 S. (D&RGW Pipe Shop)	ca 1900	Late 20 th Century: Other	Not Eligible	Commercial
669 W. 200 S. (D&RGW Tank Repair House)	ca. 1900	Late 20 th Century: Other	Eligible/A	Commercial
669 W. 200 S. (D&RGW Roundhouse)	ca. 1920	Early 20 th Commercial Century	Eligible/A	Commercial
669 W. 200 S. (D&RGW Warehouse/Hospital)	ca. 1940- 1955	Vernacular Mid-20 th Century	Eligible/A& C	Commercial
716 W. 300 S. (Vacant)	ca. 1945	Indeterminate	Not Eligible	Residential/ Commercial
736 W. 300 S. (K&R Bedspreads)	ca. 1950	Post-WWII: Other & Late 20 th Century: Other	Not Eligible	Commercial

Table 5: Linear Historic Resource Sites Located in the APE

Site Number	Site Name	NRHP Eligibility/ Criterion
42SL293	D&RGW Railroad main line	Eligible/A
42SL300	Union Pacific railroad main line	Eligible/A

Linear Historic Resources

Both the D&RGW Railroad main line and the Union Pacific main line railroads are located within the APE on the east side of the proposed Central Bus Operations and Maintenance Facility site. These historic railroad lines are eligible for listing in the NRHP under Criterion A. The site numbers for the D&RGW railroad line and the UP railroad line are shown in Table 5.

Paleontological Localities

The Utah Geological Survey (UGS) has indicated that no paleontological localities have been documented within the APE (UGS, 2010). The quaternary and recent alluvial deposits that are exposed in the area are not likely to yield significant fossil localities.

Proposed Action

Impacts to historic properties from the Proposed Action were documented using the Section 106 guidelines in 36 CFR 800.5. These impacts are described as no historic properties affected, no adverse effect, or adverse effect. The types of impacts from the Proposed Action were documented by FTA and UTA in the Determination of Eligibility and Finding of Effect (see Appendix C, Section 106 Consultation). These impacts are defined as follows:

- No historic properties affected.
A no historic properties affected determination is made when it is determined that either there are no historic properties present or there are historic properties present but the undertaking would have no effect on them as defined in 36 CFR 800.16(i).
- No adverse effect.
A no adverse effect determination is made when the undertaking's effects do not meet the criteria described in the item below for an adverse effect, or the undertaking is modified or conditions are imposed, such as the subsequent review of plans for rehabilitation by the SHPO, to ensure consistency with the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR 68) and applicable guidelines, to avoid adverse effects.
- Adverse effect.
An adverse effect determination is made when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or

association. Consideration is given to all qualifying characteristics of a historic property, including those that might have been identified after the original evaluation of the property's eligibility for the NRHP. Adverse effects can include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

For NRHP-eligible historic properties, if the contributing characteristics of an identified historic property would be altered so that the property would no longer convey its historic significance as an eligible property, an adverse impact was considered likely. The assessment of effects on both historic properties and historic linear resource sites was carried out in consultation with the Utah SHPO, tribes, and other consulting parties as described previously.

Of the six properties eligible for listing on the NRHP identified within the APE, the Proposed Action would have No Effect on two properties and an Adverse Effect on four properties. In addition, the project would have No Effect on the identified linear historic resources. The project effects on the NRHP-eligible historic properties and linear historic resources are shown in Table 6.

Table 6: Impacts on NRHP-Eligible Historic Properties

Address/Name	NRHP Eligibility/ Criterion	Nature of Impact	Effect
<i>Historic Properties</i>			
102 S. 600 W. (The Trap)	Eligible/C	No Direct or Indirect Effect	No Historic Properties Affected
703 W. 200 S. (FLSmith Minerals, a.k.a. The Laboratory)	Eligible/C	No Direct or Indirect Effect	No Historic Properties Affected
D&RGW Boiler and Engine Shop (a.k.a. The Locomotive Shop)	Eligible/A&C	Demolition	Adverse Effect
D&RGW Tank Repair House	Eligible/A	Demolition	Adverse Effect
D&RGW Roundhouse	Eligible/A	Demolition	Adverse Effect
D&RGW Warehouse/Hospital	Eligible/A&C	Demolition	Adverse Effect
<i>Linear Historic Resources</i>			
D&RGW Railroad main line (42SL293)	Eligible/A	No Direct or Indirect Effect	No Historic Properties Affected
Union Pacific railroad mainline (42SL300)	Eligible/A	No Direct or Indirect Effect	No Historic Properties Affected

UTA provided the SHPO and consulting parties with the following information with regards to the effects of the project on the identified historic properties:

- Design options that avoid and/or minimize impacts to the historic properties on the proposed site, including consideration of the maintenance facility on the west side of the proposed site.
- Consideration of a decked employee parking facility to possibly avoid impact to some of the historic properties.
- Bus circulation requirements and site design options to avoid or minimize impacts to the historic properties.
- Quantification of the feasibility of retrofitting/restoring the historic properties to avoid and/or minimize impacts.

Avoidance of the historic properties, while still using the proposed site for the proposed Central Bus Operations and Maintenance Facility, was considered and is described in the Draft Section 4(f) Evaluation. Complete avoidance of the historic properties while allowing for construction of new properties on the site is not feasible and prudent because it does not leave enough available space on the site for the remaining operations and bus storage. In addition, the location of the historic properties would impede the overall site circulation and traffic safety (Crosby, 2012). Construction of a new bus maintenance facility while retaining the existing structures would not leave enough room on the site for other new properties. All of the historic properties would require some form of seismic retrofitting for safety reasons (Reaveley, 2011).

The utilization report (Crosby, 2012) presents various site layouts to illustrate the feasibility from an operational standpoint of trying to make use of the existing historic properties. Feasible site arrangements must integrate the functions of dispatch, fueling, service, maintenance, storage, parking of buses, and circulation of vehicles and pedestrians to achieve efficient, safe performance of the facility.

The utilization report resulted in the following findings:

- It is infeasible to use the existing Locomotive Shop structure for bus parking because it only allows for bus parking of 46 buses, which would severely limit the amount of land area available for other operations on the site. In addition, the location of this building would impede the overall site circulation and traffic safety.
- Potential use of the Locomotive Shop as a shop facility is infeasible because it does not allow adequate site design efficiency to provide the needed bus maintenance capacity.
- It is infeasible to use the existing Warehouse/Hospital structure for any part of the proposed facility. The warehouse is elevated 48" above the surrounding grade, which prevents any repurposing option of the building as the bus maintenance shop or for bus parking. The property is too small to handle the proposed facility's parts operation. In addition, the location of the building impedes the site circulation, bus parking and bus maneuvering, as the building is located in the center of the property.
- There is no useful purpose for which the Roundhouse can be used and it cannot be avoided without compromising the available space on the proposed site.

- Repurposing of the Tank Repair House was considered, but it would create operational inefficiencies. The building would potentially house the brake inspection and wash bay operations of the maintenance facility. This option, however, would create operational inefficiencies. The placement of the Tank Repair House on the site would restrict bus circulation and increase safety concerns. The building retains only its east wall, and small portions of its original south and north wall, and original roof structure. The refurbishment of this building would not be accomplished to meet the Secretary of the Interior's Standards for Historic Preservation, because new perimeter walls would need large garage doors for vehicular access.
- The Laboratory would be reused as a structure for other purposes not associated with the bus operations and maintenance facility.

In addition to avoidance or repurposing of the historic properties, UTA and FTA considered a no-action alternative, as well as other alternative locations, as discussed in Section 2, for the proposed facilities to avoid adverse effects to historic properties. The numerous site design options to minimize adverse effects on the proposed site are described in more detail in the utilization report (Crosby, 2012). The avoidance and minimization considerations determined that there is no way to avoid or minimize impacts to the historic resources on the proposed site and still meet the purpose and need of the project.

Specific avoidance and minimization considerations for the historic properties are also discussed in detail in the Draft Section 4(f) Evaluation of this Environmental Assessment.

After considering all location and design avoidance alternatives, construction of the proposed Central Bus Operations and Maintenance Facility would result in an Adverse Effect on four historic properties, as listed in Table 6. No location or design alternatives to the Proposed Action were found to be feasible and prudent for the proposed Central Bus Operations and Maintenance Facility site.

Mitigation

Adverse effects to the four historic properties would require mitigation. The mitigation measures, as presented in the Draft MOA in Appendix B, include the following:

- Development of an Interpretive Display that incorporates the thematic elements of railroading's role in the local area and the history of the affected properties;
- Development of educational curriculum that includes a teaching kit with a related lesson and activity plan targeting public education students in the 4th and/or 7th grades;
- A monetary contribution to the Utah Heritage Foundation's Revolving Fund Loan Program; and
- A monetary contribution to the Utah Heritage Foundation to help fund a statewide study on the benefits of historic preservation in Utah.

Commitments for the mitigation measures are specifically outlined in the Draft MOA contained in Appendix B. In addition, in accordance with 36 CFR 800.13(b), FTA and UTA are providing for the protection, evaluation, and treatment of any historic property discovered prior to or during construction. The procedures to be followed if any historic

properties and/or human remains are discovered during construction of the project are described in the Draft MOA.

Next Steps

FTA and UTA are seeking public comments on the Environmental Assessment, the adverse effects to historic properties, mitigation of the adverse effects to historic properties, and the Draft MOA. All consulting parties and all Native American tribes initially contacted for this project will receive copies of this Environmental Assessment and the Draft MOA.

No-Action Alternative

Under the No-Action Alternative, the historic properties would remain largely vacant and continue to deteriorate.

Parklands

No parkland would be acquired or displaced by the proposed Central Bus Operations and Maintenance Facility. The closest park to the Proposed Action site is the Post Street Tot Lot Park, located at 940 West 500 South, which is one-third mile southwest of the site. Pioneer Park, located between 300 & 400 West and 300 & 400 South, is approximately ½ mile east of the Proposed Action site. As there are no parklands within the vicinity of the Proposed Action, there would be no impacts on parklands from the Proposed Action and the No-Action Alternative.

Section 6(f)

Section 6(f) of the 1965 Land and Water Conservation Fund (LWCF) Act provides funding for acquiring property and developing public recreational facilities and also protects the loss of that property to other uses. Section 6(f) of this act states, “no property acquired or developed with assistance under this section shall, without the approval of the Secretary be converted to other than public outdoor recreation uses.” Section 6(f) applies if a project acquires property where Land and Water Conservation Funds have been used to either acquire or develop the property. The Utah Department of Natural Resources, Division of Parks and Recreation, reviewed the proposed Central Bus Operations and Maintenance Facility site and stated that there are no 6(f) properties within one-half mile of the proposed project (USPR, 2010).

No Section 6(f) properties would be affected by the Proposed Action; therefore, no further discussion of Section 6(f) properties occurs in this document. No mitigation measures are necessary.

Hazardous Materials

Affected Environment

From approximately 1880 until the 1950's, the majority of the proposed Central Bus Operations and Maintenance Facility site was owned by the D&RGW Railroad and used as a rail yard and locomotive repair and maintenance facility. In 1961, EIMCO Corporation, a global mining company, purchased the D&RGW property. EIMCO operated at the site until 2003. The western portion of the property was operated by Continental Oil as a bulk oil storage facility from the late 1800's until the 1950's.

Based on the site history, a Phase I site assessment and a Phase II limited site investigation were conducted prior to UTA purchasing the property in 2007 to identify any soil or groundwater contamination (IHI, 2007(PI) & IHI, 2007(PII)). An environmental records search was conducted as part of the Phase I investigation. The records search identified sixteen leaking underground storage tank (LUST) sites, three Comprehensive, Environmental Response, Compensation, and Liability Information System/No Further Remedial Action Planned (CERCLIS/NFRAP) sites, and two voluntary cleanup sites within one-half a mile of the proposed Central Bus Operations and Maintenance Facility site. Two of the LUST sites were located on the proposed site itself (IHI, 2007(PI)). Four underground storage tank (UST) sites were also identified on or adjacent to the subject property. Based on the distance and regulatory status, off-property sites do not pose an environmental threat to the proposed site.

Figure 7 shows the location of the former LUST sites on the proposed site. The tank west of the Boiler and Engine Shop was a 150-gallon, field constructed, waste oil tank. The tank was removed in 1989. Soils were removed to 12 feet below ground surface. Excavation to the east of the tank was limited by the Boiler and Engine Shop building foundation, and excavation to the west of the tank was limited by a crane structure present at the time. The second LUST site, a 1,000-gallon tank south of the existing roundhouse structure, was removed in 1990. Soils were removed to groundwater level, approximately nine feet below ground surface (IHI, 2007(PI)).

The Phase II investigation identified long-chained petroleum hydrocarbons and polynuclear aromatics as the most prevalent contaminants present at the proposed site. Free phase petroleum product was encountered in the soil and the groundwater on the east side of the property. Elevated levels of lead and arsenic were found in the soil throughout the property. The soil and groundwater impacts observed during the investigations are typical of a property used for historical railroad and manufacturing purposes.

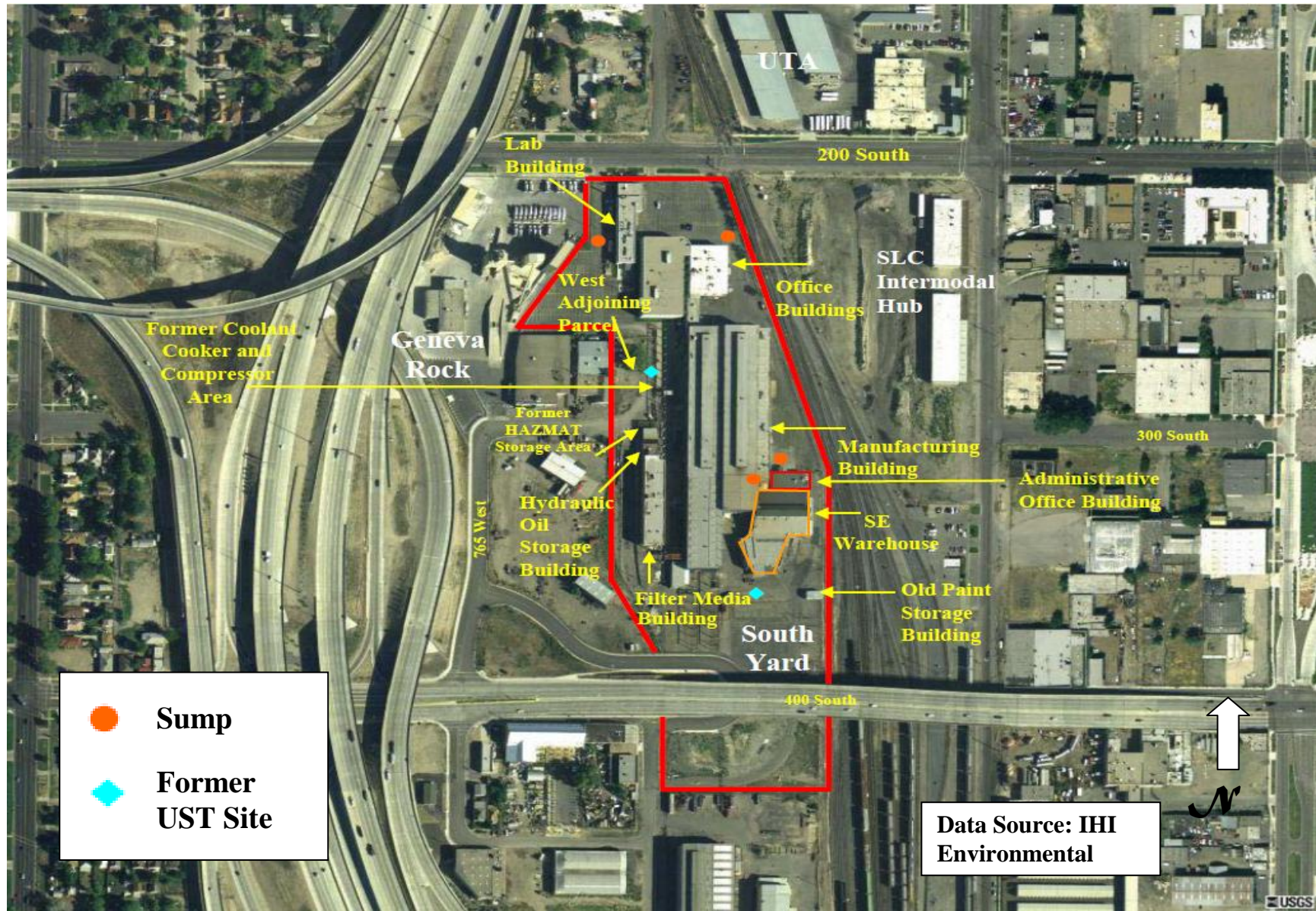
Proposed Action

Due to the historical presence of hazardous materials on the Proposed Action site, hazardous materials may be encountered in contaminated soils and/or groundwater during construction of the Proposed Action.

Mitigation

If pollutant concentrations of the hazardous materials encountered during construction exceed acceptable regulatory levels, excavated soils would be removed from the site. Soil characterization would be conducted to determine the appropriate disposal options. If groundwater is encountered during construction, the groundwater would also be sampled and disposed of properly. Procedures would be implemented by UTA in conformance with local, state, and federal regulations and the appropriate authorities would be notified. When necessary, personal protective equipment for workers and engineering controls, such as dust control, temporary soil covers, and groundwater extraction, would be used to reduce the potential for public or worker exposure to hazardous materials. Implementation of appropriate handling and disposal procedures during construction would reduce or eliminate any potential impacts from hazardous materials.

Figure 7: Former LUST Site Locations



No-Action Alternative

The No-Action Alternative would not involve excavation of the ground and possible subsequent exposure to hazardous materials. As a result, there would be no hazardous materials' impacts from the No-Action Alternative.

Land Use and Zoning

Affected Environment

The existing Central Bus Operations and Maintenance Facility site is zoned Gateway Mixed-Use District (GMU), which would accommodate future Transit Oriented Development (Salt Lake City Code, Title 21A, 2011). The GMU district encourages the development of urban neighborhoods containing supportive retail, service commercial, office, industrial uses, and high density residential. The proposed Central Bus Operations and Maintenance Facility site is zoned General Commercial (CG). The purpose of the CG district is to provide an environment for a variety of commercial uses (SLC, 2011).

Proposed Action

The proposed Central Bus Operations and Maintenance Facility would be a permitted use in the CG zone. The proposed Central Bus Operations and Maintenance Facility would fall under the miscellaneous use category, bus line yards and repair facilities, as listed in the Salt Lake City Code, Title 21A, Chapter 21A.26.080. In addition, the GMU district would permit future Transit Oriented Development at the existing Central Bus Operations and Maintenance Facility site.

The Northwest Future Land Use Map, amended December 2006, for Salt Lake City, labels the future land use for the Proposed Action site as part of the Gateway Master Plan. The Proposed Action site in the Gateway Master Plan, adopted August 1998, is part of the I-15/Railroad Sub-district. This area was to include various modes of transportation to create a transportation hub. A bus operations and maintenance facility is consistent with both zoning and land use for the area. No mitigation measures are recommended.

No-Action Alternative

The No-Action Alternative would maintain existing land use at the existing Central Bus Operations and Maintenance Facility site and the Proposed Action site.

Land Acquisitions and Displacements

Affected Environment

Including adjacent property and the UTA owned property, some occupied by the FLHQ building and parking, the total land area of the affected environment is 22.69 acres. UTA currently owns 17.71 acres at the site, four acres of the 17.71 acres are occupied by the FLHQ building and parking. One business (Crane Construction Northwest, Inc.) operates on UTA property under a month-to-month lease agreement. Four properties are located west of the UTA owned property, with a total of three businesses operating on these properties. The four properties are listed on Table 7. Figure 8 shows the affected environment.

Table 7: Properties to be Acquired

Location	Size (acres)	Current Use
735 W. 300 S.	3.92	Booth Welding
714 W. 300 S.	0.25	Hamblin Furniture
736 W. 300 S.	0.61	K & R Bedspread
716 W. 300 S.	0.2	Vacant

Proposed Action

The FLHQ building and associated parking take up approximately four acres of the UTA owned property, leaving 13.71 acres owned by UTA for the Proposed Action. Consequently, some property acquisitions would be necessary for the Proposed Action. Approximately 4.98 acres of adjacent property have been identified for the project. If the 4.98 acres are acquired, 18.69 acres would be available for the entire project.

Figure 8 shows the property to be acquired as part of the Proposed Action. The properties, including three businesses, are listed in Table 7 and total 4.98 acres. The three businesses operating adjacent to the UTA owned property, as listed in Table 7, would be relocated as a result of the Proposed Action. In addition, Crane Construction Northwest, Inc. operates on UTA's property on a month-to-month lease basis. The lease agreement requires UTA to provide a 90-day notice of lease termination.

Mitigation

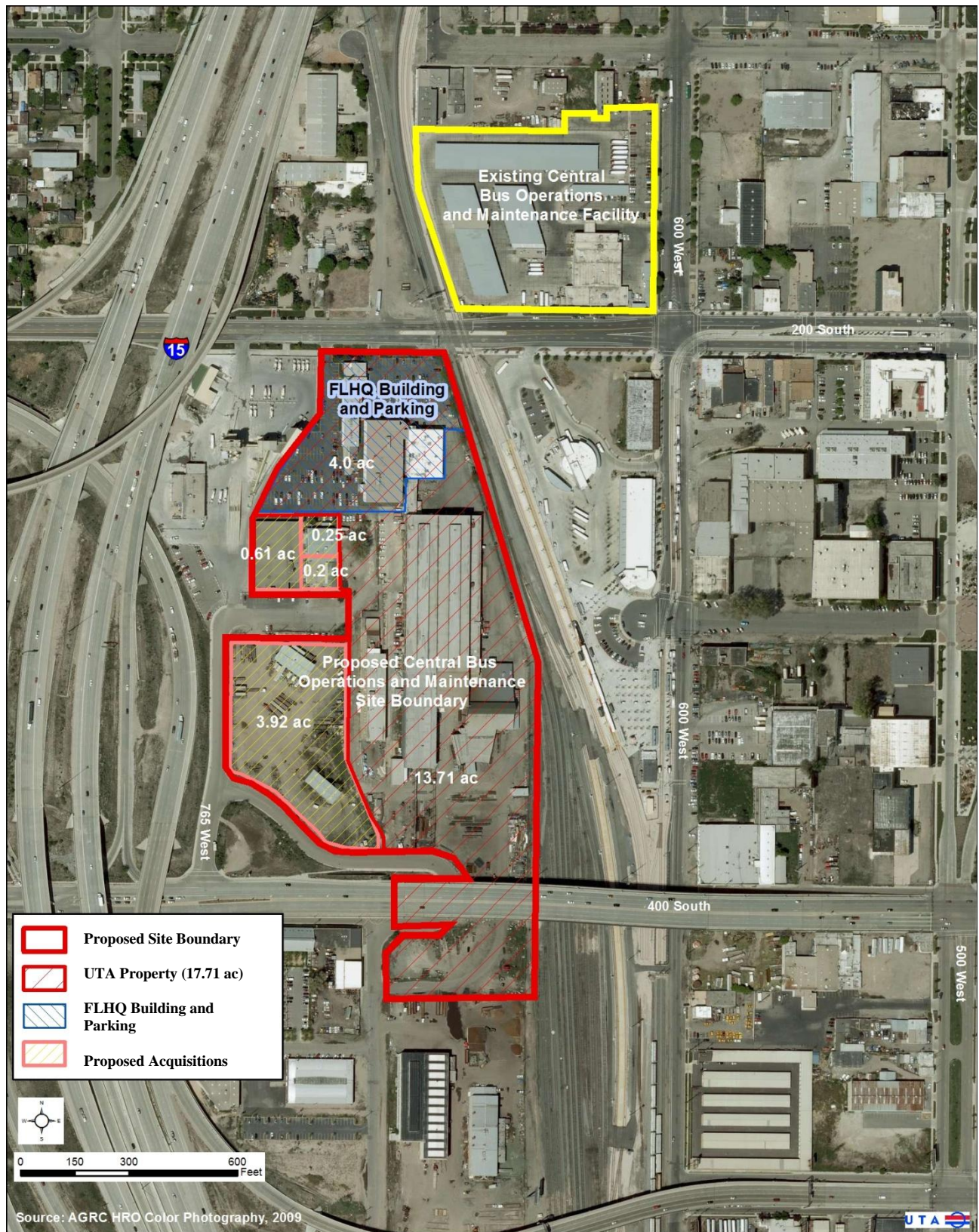
The Proposed Action would require the acquisition by UTA of four properties and the relocation of four businesses. Adequate, decent, safe, and sanitary replacement facilities are available at affordable costs in the area. Relocation resources would be available to all relocated persons without discrimination.

All acquisitions and relocations would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (49 CFR 24).

No-Action Alternative

The No-Action Alternative would require no acquisitions or relocations.

Figure 8: Proposed Action Property



Traffic

Affected Environment

The primary access for the proposed Central Bus Operations and Maintenance Facility would be the 765 West/400 South intersection. WCEC, an engineering consulting firm, completed a traffic analysis for 765 West/400 South, along with the two adjacent signalized intersections along 400 South at I-15 and 500 West. The existing and 2030 background Level of Service (LOS) for the study intersections were determined by WCEC using SimTraffic traffic analysis software (WCEC, 2010). Tables 8 & 9 show the results of the analysis.

Under existing conditions, the intersections operate with acceptable delays during the p.m. peak hour as shown in Table 8. By 2030, growth in background traffic would result in high delays at all examined intersections, as shown in Table 9.

Proposed Action

WCEC also determined the 2030 LOS for the study intersections for the Proposed Action ("plus project") conditions using SimTraffic traffic analysis software (WCEC, 2010). Table 10 shows the results of the analysis.

Table 8: Existing PM Peak Hour LOS

Intersection		Worst Approach ¹			Overall Intersection ²	
Location	Control	Approach ¹	Avg. Delay (s/veh) ¹	LOS ¹	Avg. Delay (s/veh) ²	LOS
PM Peak Hour						
I-15/ 400 South	Signal	N/A	N/A	N/A	43.5	D
765 West/ 400 South	N/S Stop	SB Right	29.4	D	7.4	A
500 West/ 400 South	Signal	N/A	N/A	N/A	24.7	C

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle).

N/A = Not Applicable

Table 9: 2030 Background PM Peak Hour LOS

Intersection		Worst Approach ¹			Overall Intersection ²	
Location	Control	Approach ¹	Avg. Delay (s/veh) ¹	LOS ¹	Avg. Delay (s/veh) ²	LOS
PM Peak Hour						
I-15/ 400 South	Signal	N/A	N/A	N/A	260.2	F
765 West/ 400 South	N/S Stop	SB Right	865.9	F	55.7	F
500 West/ 400 South	Signal	N/A	N/A	N/A	219.5	F

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle).

Table 10: 2030 Background Plus Project PM Peak Hour LOS

Intersection		Worst Approach ¹			Overall Intersection ²	
Location	Control	Approach ¹	Avg. Delay (s/veh) ¹	LOS ¹	Avg. Delay (s/veh) ²	LOS
PM Peak Hour						
I-15/ 400 South	Signal	N/A	N/A	N/A	297.2	F
765 West/ 400 South	N/S Stop	SB Right	911.1	F	61.8	F
500 West/ 400 South	Signal	N/A	N/A	N/A	208.5	F

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle).

As shown in Tables 9 & 10, the delay increases slightly at the I-15/400 South and the 765 West/400 South intersections, as a result of the Proposed Action. The average delay decreases slightly at the 500 West intersection with the addition of bus traffic. This indicates that the impact at these intersections is negligible. The analysis used a traffic simulation model which involves random simulation; as a result, the delay fluctuates slightly between each model run. The results shown are the average of 10 simulations. The “plus project” scenario delays would be slightly higher or lower than the background delays for each individual simulation.

The majority of the motorists traveling through the study intersections would experience a minimal to no impact due to the construction of the proposed Central Bus Operations and Maintenance Facility. The Proposed Action would add a total of 81 peak hour trips to the study intersections in the p.m. peak hour. Based on the comparison of the modeled 2030 LOS in the affected intersections with and without the Proposed Action, as shown in Tables 9 & 10, the proposed Central Bus Operations and Maintenance Facility would result in minimal impact to the traffic in the area.

The Salt Lake City Transportation Planning Engineer reviewed the traffic analysis completed for the Proposed Action and pointed out that westbound busses leaving the facility may experience difficulties making the westbound turning movement from 765 West onto 400 South during the pm peak hour. Based on the traffic study that was completed for the Proposed Action, the pm peak hour occurs on 400 South around 4:30 pm to 5:30 pm. The majority of busses at the facility will be pulling out of the facility before 6:30 am and will be pulling into the facility after 7 pm. Therefore, the difficult westbound turning movement at 765 West and 400 South would not be an issue for the Proposed Action. In addition, the Salt Lake City Engineering Division expressed concern that some adjacent streets may not be able to handle the increase in loads from the additional bus traffic associated with the project, requiring repair work of the roads sooner than was planned or budgeted by the City. UTA would work with Salt Lake City and inform them of the project schedule, so the City could include any necessary roadway improvements, as appropriate, in the City programming and budget.

No mitigation measures are necessary.

No-Action Alternative

As stated previously, the study intersections are expected to experience high levels of delay in 2030 from non-project related growth. The study intersections are all estimated to operate at LOS F in 2030. The No-Action Alternative would result in the delays and LOS as shown in Table 9.

Parking

On-site parking is currently adequate for all employees and visitors to the site.

Proposed Action

Parking at the Proposed Action site includes employee and visitor parking for both the proposed Central Bus Operations and Maintenance Facility and for the FLHQ building; parking would be shared between the two facilities. According to the Salt Lake City Zoning Code, Title 21A, the minimum number of off street spaces for a bus facility is one space per two employees plus one space per bus. In addition, the FLHQ building, a general office building, requires three spaces per 1,000 square feet gross floor area for

the main floor plus 1¼ spaces per 1,000 square feet gross floor area for each additional level, including the basement. The proposed Central Bus Operations and Maintenance Facility, excluding FLHQ, would include approximately 112 full time employees and 300 bus operators. Based on these employee numbers, the new facility would require 206 spaces for employees. The FLHQ square footage totals approximately 100,000 square feet, which would require 212 parking spaces, based on 50,000 square feet on the main floor and 50,000 square feet on additional floors. Thus, a grand total of 418 spaces for employees and visitors would be required per Salt Lake City minimum off street parking requirements. The number of on-site parking spaces available for employees and visitors at the Proposed Action site will be determined in final design.

Mitigation

If the Proposed Action final design does not include sufficient on-site parking for all employees and visitors to the facility, a request for alternative parking requirements, as specified in 21A.44.030B of the Salt Lake City Zoning Code, would be submitted by UTA to the Salt Lake City zoning administrator requesting a reduction of required parking spaces at the site, based on the fact that the site is located adjacent to a transit hub. If the request for a reduction of required parking spaces is not approved by Salt Lake City, UTA would construct an employee parking structure on the Proposed Action site to accommodate the parking requirements. No impacts are expected from the employee parking structure on the site because it would be a 2-story structure, located on UTA property, in an industrial setting.

No-Action Alternative

The No-Action Alternative would have no impact on parking.

Air Quality

The proposed Central Bus Operations and Maintenance Facility site is located within Salt Lake City and Salt Lake County. Salt Lake County is designated by the U.S. Environmental Protection Agency (EPA) and the Utah Division of Air Quality (UDAQ) as a nonattainment area for coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and sulfur dioxide (SO₂); and as a maintenance area for ozone. Salt Lake City is a federally designated carbon monoxide (CO) attainment area with a maintenance plan, which means the area is in attainment for CO, but operates under the requirements of a maintenance plan.

Proposed Action

Regional Conformity

The Proposed Action is not a regionally significant project and, therefore, is not required to be included in the regional transportation plan.

Project-Level Conformity

Carbon Monoxide

As NEPA requires implementation of the Clean Air Act, an assessment of project level air quality impacts are required to show that the project would not cause or contribute to any

new localized CO National Ambient Air Quality Standard (NAAQS) violations, or increase the frequency or severity of any existing NAAQS violations. For the Proposed Action, the demonstration of acceptable CO concentrations at critical intersections is shown using the CAL3QHC model. As outlined in the Utah Department of Transportation (UDOT) Air Quality Hot Spot Manual (UDOT, 2003), CAL3QHC modeling is required because the project is located in a former CO maintenance area and it affects a signalized intersection that is projected to operate at a LOS D, E, or F.

Two signalized intersections, I-15 & 400 South and 500 West & 400 South, are projected to operate at LOS F in the year 2030 under the Proposed Action. CAL3QHC modeling does not apply at non-signalized intersections, such as 765 West & 400 South. As shown in Table 8 in the Traffic and Parking section, the intersection of I-15 & 400 South currently functions at a LOS D, and the intersection of 500 West & 400 South operates at a LOS C. By the year 2030 under both the no-build and the build scenario, I-15 & 400 South and 500 West & 400 South are projected to operate at a LOS F.

The CAL3QHC modeling results for I-15 & 400 South and 500 West & 400 South are shown in Table 11 (UTA, 2010). The existing CO concentrations for 400 South & 500 West were not modeled because a LOS C does not require modeling. The estimated future CO concentrations for the Proposed Action are 14.1 parts per million (ppm) at I-15/400 South and 14.2 ppm at 500 W/400 S for the 1-hour standard, which is less than the 1-hour CO NAAQS of 35.0 ppm. The corresponding 8-hour concentrations were estimated at 7.47 ppm and 7.54 ppm, respectively, which is less than the 8-hour CO NAAQS of 9.0 ppm. The modeling results predict that the Proposed Action would not result in any new violations of the CO NAAQS.

Table 11: Existing and 2030 CO Hot Spot Results

Intersection	1-hour (ppm)			8-hour (ppm)		
	Existing	No Build	Build	Existing	No Build	Build
NAAQS Level	35			9.0		
Background	12			6		
I-15/ 400 South*	13.5	14.10	14.10	7.05	7.47	7.47
500 W/ 400 South*	N/A	14.20	14.20	N/A	7.54	7.54

N/A Not Applicable; traffic volumes do not warrant CAL3QHC modeling

* Concentrations include background concentrations.

Particulate Matter

Conformity criteria as stipulated in 40 CFR 93.116 also requires preparation of a localized hot spot analysis of PM_{2.5} and PM₁₀ for transportation projects located within PM_{2.5} and PM₁₀ nonattainment areas. The analysis should demonstrate that the proposed project would not cause or contribute to any new localized PM_{2.5} or PM₁₀ violations, or increase the frequency or severity of any existing violations. The evaluation of PM_{2.5} and PM₁₀ hot-spots are currently limited to a qualitative analysis (EPA, 2010).

Diesel buses are a source of PM_{2.5} and PM₁₀ emissions. The Proposed Action would increase bus activity at the site. A significant number of the buses at the site, however, would be CNG buses, which would help to reduce the particulate emission concerns associated with diesel buses. In addition, as shown in the Traffic Section of this document, implementation of the Proposed Action would result in a negligible traffic volume increase of both buses and other vehicles at I-15 and 400 South, and 500 West and 400 South, in the year 2030 over the No-Action volumes. Consequently, it is unlikely that the slight increase in traffic volumes expected as a result of the Proposed Action would result in any new PM_{2.5} or PM₁₀ violations of the NAAQS.

No significant air quality impacts are expected from implementation of the Proposed Action.

Mitigation

The Utah Air Quality Rules require a dust control plan from all sources whose activities or equipment have the potential to produce fugitive dust or airborne dust along the Wasatch Front. Dust control plans, as outlined in R307-309, are required to minimize fugitive dust on-site from pits, yards, storage areas, and areas of operation and to prevent greater than 10% opacity from fugitive dust at the property boundary. The plans are required when activities include handling of aggregate materials, construction/demolition activities on greater than ¼ acre, roadways, mining activities, and tailings piles and ponds (UDAQ, 2010). A plan must be submitted to UDAQ no later than 30 days after the source becomes subject to the rule. A dust control plan would be submitted for the construction phase of the Proposed Action.

No-Action Alternative

As traffic volumes associated with the No-Action Alternative are less than the Proposed Action volumes, CO concentrations are assumed to be less than those associated with the Proposed Action. Similarly, PM_{2.5} and PM₁₀ changes would be less than those expected from the Proposed Action.

Noise and Vibration

Bus Projects

Because the rubber tires and suspension systems of buses provide vibration isolation, it is unusual for buses to cause ground-borne noise or vibration problems. When buses cause effects such as rattling of windows, the source is almost always airborne noise. Most problems with bus-related vibration can be directly related to a pothole, bump, expansion joint, or other discontinuity in the road surface. Smoothing the bump or filling the pothole would usually solve the problem. Problems are likely when buses would be operating inside buildings. Intrusive building vibration can be caused by sudden loading of a building slab by a heavy moving vehicle or by vehicles running over lane divider bumps. A bus transfer station with commercial office space in the same building may have annoying vibration within the office space caused by bus operations.

Based on FTA's Transit Noise and Vibration Impact Assessment (FTA, 2006), the screening distance for noise assessments for yards and shops is 1000 feet from the center of the noise generating activity if the receptor is unobstructed, and 650 feet from the center of the noise generating activity if there are intervening buildings. The screening distance for vibration impacts is 450 feet for high sensitivity receptors (buildings where

vibration would interfere with operations within the building), 150 feet for residential receptors, and 100 feet for industrial uses.

The facility is located in a light industrial/commercial area, adjacent to a major 8-lane State highway. There are no residential receptors and no sensitive business receptors within the screening distances noted above.

Proposed Action

Based on FTA's Transit Noise and Vibration Impact Assessment (FTA, 2006), if no noise-sensitive or vibration-sensitive land uses are present within the area of project noise influence, then no further noise or vibration assessment is necessary. As no noise sensitive or vibration sensitive land uses are present near the proposed site, the Proposed Action would have no significant noise or vibration impacts. No mitigation measures are recommended.

No Action Alternative

Under the No Action Alternative, there would be no construction activities or maintenance operations; therefore there would be no noise or vibration impacts.

Water Quality

Affected Environment

The Jordan River is the nearest body of water to the proposed Central Bus Operations and Maintenance Facility site located approximately three quarters of a mile west of the site. Subsurface investigations at the site indicate that the ground water levels are seven to nine feet below ground surface (ERM, 1990; AMEC, 2003). The groundwater flow direction is west, northwest.

Proposed Action

Under the Proposed Action, stormwater runoff should not change significantly at the site. The Proposed Action is not expected to substantially alter existing drainage patterns. Stormwater requirements would be properly evaluated and coordinated with Salt Lake City to ensure that the stormwater system can carry stormwater associated with the site.

Mitigation

Appropriate storm drainage facilities would be included in the design, in accordance with Salt Lake City regulations for storm drainage. In addition, appropriate use of best management practices during both construction and operation activities would ensure that no contamination from the proposed project would reach nearby bodies of water. All process-related water from maintenance operations would be discharged to the sanitary sewer in accordance with local requirements.

No-Action Alternative

The No-Action Alternative would have no effect on water quality at the site.

Wetlands

Affected Environment

The proposed Central Bus Operations and Maintenance Facility site has been an industrial operation for over 100 years and the majority of the property is paved. The vegetation present in unpaved portions of the site includes upland grasses and weeds, thistle, and a few mature trees; no wetland indicator vegetation is present on or adjacent to the site (White, 2011). Consequently, no jurisdictional or non-jurisdictional wetlands are located on or near the subject property.

Proposed Action

As no wetlands exist at the Proposed Action site, construction of the Proposed Action would have no impact on wetlands or waters of the U.S. and a Section 404 Wetland Permit would not be required. No mitigation measures are necessary.

No-Action Alternative

The No-Action Alternative would have no impact on wetlands.

Flood Plains

Affected Environment

The proposed Central Bus Operations and Maintenance Facility site is not located in the 100-year floodplain. The site is classified as Zone X according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map 49035C0143E. Zone X is an area of moderate or minimal hazard from the principal source of flood in the area. An area adjacent to the site on the southeast side is designated as Zone AH on the FEMA map; AH is a special flood hazard area inundated by 100-year floods and means flood depths of one to three feet (usually area of ponding); base flood elevations determined.

Proposed Action

The Proposed Action is not expected to cause or contribute to flooding on the site or other properties. Currently, the Proposed Action site includes various industrial and commercial uses.

Mitigation

As stated previously in the Water Quality Section, appropriate storm drainage facilities would be included in the design, in accordance with Salt Lake City regulations for storm drainage.

No-Action Alternative

The No-Action Alternative would have no impact on flooding conditions.

Ecologically Sensitive Areas

Affected Environment

The proposed Central Bus Operations and Maintenance Facility site is located in a developed portion of Salt Lake City. There are no ecologically sensitive areas within or adjacent to the proposed Central Bus Operations and Maintenance Facility site. The nearest ecologically sensitive area is the Jordan River Parkway, located approximately three quarters of a mile west of the proposed site. This area would not be affected by the proposed Central Bus Operations and Maintenance Facility.

Proposed Action

As no ecologically sensitive areas are within or adjacent to the Proposed Action site, no impacts to ecologically-sensitive areas from the Proposed Action are expected. No mitigation measures are necessary.

No-Action Alternative

The No-Action Alternative would have no impacts on ecologically sensitive areas.

Endangered Species

Affected Environment

In a letter dated March 24, 2010, the Utah Division of Wildlife Resources (UDWR) stated that it does not have records of occurrence for any threatened, endangered, or sensitive species within the project area (UDWR, 2010). The letter is contained in Appendix A. Sightings have been recorded in the vicinity (within one mile) for the burrowing owl, Lewis's woodpecker and yellow-billed cuckoo, but there is no suitable wildlife habitat on the site itself. All of the mentioned recent sightings and historical occurrences are included on the *Utah Sensitive Species List*.

Proposed Action

No threatened or endangered species are located in the proposed project area according to the Utah Division of Wildlife Resources. In addition, there is no suitable wildlife habitat at the site. Consequently, no impacts are expected to endangered species. No mitigation measures are necessary.

No-Action Alternative

The No-Action Alternative would have no impact on endangered species.

Safety and Security

Affected Environment

The closest Salt Lake City police station is located at 1040 West 700 South, three blocks south and four blocks west of the proposed site. The nearest fire station is located at 800 South 948 West, approximately four blocks south and two blocks west of the proposed site.

Proposed Action

UTA's bus circulation criteria for the facility are:

- Make each trip as short and unimpaired as possible.
- Have the fewest possible turns. (The turning pattern of 40 ft and 60 ft buses is much different from a passenger car).
- Minimize right hand turns. The visibility of the operator is far superior for left hand turns as compared to right hand turns - just like in a passenger car.
- Provide safe circulation for vehicles and pedestrians alike throughout the complex.

Proposed bus operation and maintenance facilities at the site would include bus storage for up to 250 vehicles, a new bus maintenance and operations building, fuel/wash operations, a tank farm, compressed natural gas fueling facilities, detail bays, chassis wash bays, and a permanent location for support vehicle and equipment. The facility would maintain and store the buses for 30 bus routes.

Safety features incorporated into the design of the facility would include adequate lighting and visibility to prevent criminal activity, sufficient circulation for bus traffic, and easy access for fire and police vehicles. Facility design would also provide safe working conditions for all facility operations. The Proposed Action operations would be addressed in UTA's bus system safety plan. Site security measures would also include fencing, gates, and proper signage.

Mitigation

Final design of the Proposed Action would include safety and security measures as stated above. In addition, operation of the Proposed Action would be included in UTA's bus system safety plan.

No-Action Alternative

The No-Action Alternative is not expected to impact safety and security at the site.

Community Disruption

Affected Environment

The proposed site is bounded to the east by the Union Pacific railroad tracks, to the west by Geneva Rock Products and Interstate 15, to the north by 200 South, and to the south by Metro Group, Inc. The area to the east of the railroad tracks consists primarily of commercial operations and the area to the west of I-15 consists of residential neighborhoods and industrial/commercial operations. The Salt Lake City library is located at 400 South 210 East, which is approximately eight blocks east of the site. Salt Lake City Hall is located approximately seven blocks east of the site at 451 South State Street. The Gateway Mall, an outdoor retail mall, is located approximately three blocks east of the proposed site.

Proposed Action

The Proposed Action would not disrupt, disable, or isolate any segments of the community. Construction of the proposed Central Bus Operations and Maintenance

Facility and the opportunity for future transit oriented development at the existing Central Bus Operations and Maintenance Facility is expected to enhance the character of the surrounding area by revitalizing the affected sites and providing new employment opportunities and economic benefit to the community. No mitigation measures are recommended.

No-Action Alternative

The No-Action Alternative would potentially result in inadequate bus service for UTA's Central Bus Operations and Maintenance Facility, including the community surrounding the proposed site.

Environmental Justice and Title VI Issues

Title VI of the Civil Rights Act requires that federal programs and expenditures are not discriminatory and that benefits of federal investments and programs are shared across the population. Executive Order 12898, signed in 1994, was designed to focus federal attention on environmental and human health conditions in minority and low income communities with the goal of achieving environmental justice.

Utah Transit Authority (UTA) System-Wide Compliance

UTA is required to meet the requirements of Title VI and is subject to periodic compliance reviews. The system-wide compliance would be submitted separately by UTA.

Proposed Action

Three aspects of environmental justice that were considered relative to the Proposed Action are:

- Adjacent community impacts
- Impacts on minority business owners and tenants
- Changes in transit service

Adjacent Community Impacts

The Proposed Action site is located in one of Utah's most densely populated counties. Population in the region has grown substantially over the past 15 years. Demographic data for the area is shown in Table 12. The data is shown for Salt Lake City and the two census tracts that contain the project area. The defined tract areas are shown in Figure 9. Tract 1025 includes the majority of the project area and Tract 1140 includes the southern edge of the site and areas south to 900 South and east to 200 East. These census tracts have a higher percentage of renter-occupied housing units than Salt Lake City. The percentage of households below poverty level is also higher in Tracts 1025 and 1140 than Salt Lake City, particularly in Tract 1025.

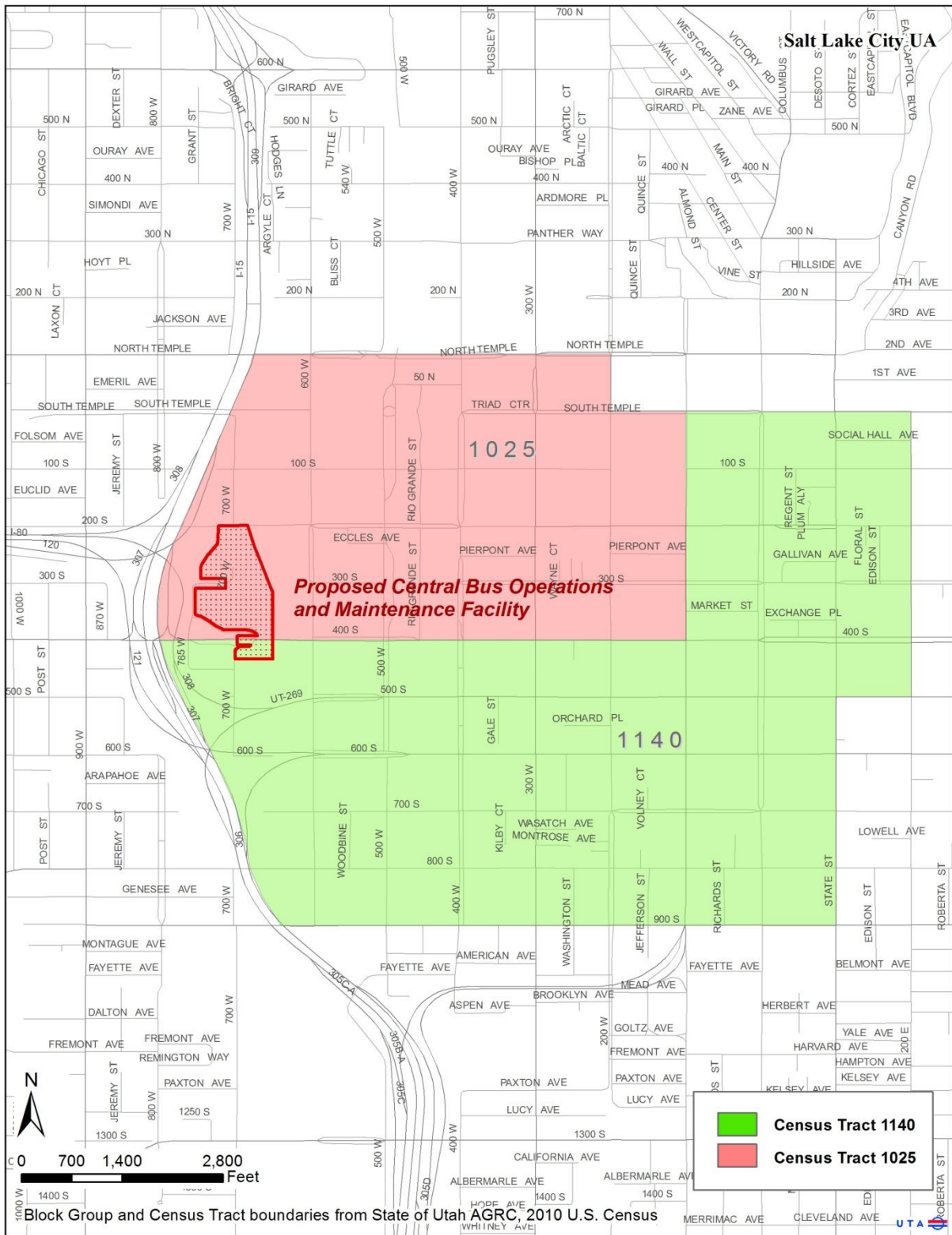
No residential communities are located adjacent to the project site. A residential community is located on the west side of I-15. The interstate, I-15, is built on a raised structure running north to south parallel to the western side of the proposed site. Any traffic increase associated with the project would be minimal (~80 vehicles per peak hour). Therefore, the Proposed Action would not significantly impact the communities west of I-15.

Table 12: Demographics/Income of Area Population

Characteristic	Salt Lake City	Tract 1025	Tract 1140
Total Population	186,440	3,460	1501
Total Number of Housing Units	80,724	1,939	1219
<i>Income/Ownership</i>			
% Individuals Below Poverty Level	17.5	46.1	18.0
% Owner-occupied Housing units	48.4	12.3	38.4
% Renter-occupied Housing units	51.6	87.7	61.6
<i>Age</i>			
% 18 Years and Older	77.5	91.0	94.0
% 65 Years and Older	9.4	6.3	13.5
<i>Race</i>			
% White/Caucasian	75.1	76.0	82.9
% African American	2.7	6.9	3.6
% Native American	1.2	2.5	2.4
% Asian	4.4	5.0	3.5
% Native Hawaiian and Other Pacific Islander	2.0	1.0	0.5
Some Other Race	10.7	4.4	4.1
<i>Ethnicity</i>			
% Hispanic or Latino (any race)	22.3	16.8	12.8

Source: U.S. Census Bureau, 2010

Figure 9: Census Tracts 1025 and 1140, Salt Lake County, Utah



Impacts on Minority Business Owners and Tenants

As shown in Table 8 and as previously stated in the Land Acquisition and Displacements Section, four businesses would be displaced as a result of the Proposed Action. Two businesses lease the property and the remaining two businesses own the property they occupy. None of the businesses to be relocated are known to be minority owned. Geneva Rock Products is adjacent to the site on the west side and will remain at its current location. Three additional businesses, including FFKR Architects, Metro Group Metal Recycling, and Thornton Plastics are located south of the proposed site. None of the businesses are known to be minority owned.

Changes in Transit Service

The Central Bus Operations and Maintenance Facility would be moving approximately two blocks southwest of the current location. Therefore, the Proposed Action would not require any route changes for UTA buses.

Proposed Action

The existing Central Bus Operations and Maintenance Facility is located two blocks northeast of the Proposed Action site. The Proposed Action would occur in the same community as the existing Central Bus Operations and Maintenance Facility. The proposed Central Bus Operations and Maintenance Facility would include improvements and possibly environmental cleanup at the Proposed Action site, which would enhance the overall community. Although the Proposed Action site is located near a minority and low-income community, there would be no disproportionately high adverse effects on those populations. No mitigation measures are recommended.

No-Action Alternative

The No-Action Alternative would reduce adequate bus service for low-income or minority populations in the area.

Construction Impacts

Construction of the proposed Central Bus Operations and Maintenance Facility would take approximately 24 months to complete.

Historic Resources

During construction, additional historic resources may be inadvertently discovered.

Mitigation

As stated previously in the historic properties section, FTA and UTA would provide for the protection, evaluation, and treatment of any historic property discovered prior to or during construction, in accordance with 36 CFR 800.13(b). The procedures to be followed if any historic properties and/or human remains are discovered during construction of the project are described in the Draft MOA.

Construction Noise

Noise impacts from construction of the project would be generated by heavy equipment used during major construction periods, located as close as 50 feet from existing

structures along the project boundary. Common vibration-producing equipment used during at-grade construction activities includes jackhammers, pavement breakers, hoe rams, auger drills, bulldozers, and backhoes. No noise sensitive land uses are near the site.

Mitigation

All construction activities will comply with city and county noise ordinances.

Disruption of Utilities

Utility disruptions may occur during construction activities.

Mitigation

Prior to construction, UTA will coordinate with utility providers, including but not limited to gas, electric, telephone, stormwater system, sanitary sewer, and water system. This coordination would decrease the possibility of utility disruptions.

Disposal of Debris and Soils

Construction activities would include the demolition of several existing structures.

Mitigation

Resulting debris would be handled in accordance with all federal, state, and local regulations. If contaminated soils are encountered during construction activities, the affected material would also be handled in accordance with all applicable federal, state, and local regulations.

Water Quality and Runoff

The Proposed Action would involve excavation, grading, or other soil-disturbing activities. These activities may increase erosion and consequently increase the potential for sediments to be transported to local surface waters.

Mitigation

As more than one acre of soil would be disturbed, a Utah Pollution Discharge Elimination System general stormwater permit for construction activities would be obtained. This permit would include provisions for the application of best management practices and the creation of a storm water pollution prevention plan, which would minimize the potential for erosion or scour on the project site and in local affected waterways. If necessary, contaminated groundwater would be handled or disposed in accordance with applicable federal, state, and local regulations.

Access and Distribution of Traffic

Construction activities requiring traffic diversion and short term road closures could make it temporarily more difficult to access local businesses.

Mitigation

Mitigation measures will include coordination by UTA with local residents and business owners to keep these groups aware of construction-related activities, as well as signage to keep the public aware of businesses that are open during construction. In addition, a

cautionary speed limit will be posted, as necessary, such as when heavy duty equipment hauling building supplies or preformed structures is blocking a roadway or utility construction is required and equipment must be located adjacent to or in the roadway or if roadway improvements are necessary once the utility construction has been completed and placement of new pavement is necessary, to reduce traffic speeds. Signage and a cautionary speed limit would help drivers adjust driving patterns and improve traffic safety during construction.

Air Quality and Dust Control

Construction of the Proposed Action would temporarily increase emissions of fugitive dust, construction equipment tailpipe emissions, and evaporative volatile organic compounds (VOCs) from paving and painting operations. In addition to the temporary nature of these emissions, the impacts would be localized to the area adjacent to the construction zones.

Mitigation

Mitigation measures would include efficient operation of construction equipment, and preparation and implementation of a dust control plan to minimize construction dust.

Construction Safety

Standard construction practices to ensure safety and security on and around the construction site would be implemented.

Mitigation

Mitigation would include adherence to all Occupational Safety and Health Administration guidelines and UTA Health and Safety Standard Operating Procedures. When necessary, appropriate barriers would be placed around the construction area to redirect traffic.

Disruption of Businesses

Four commercial or industrial businesses would be relocated as a result of the proposed Central Bus Operations and Maintenance Facility under the Proposed Action. Three adjacent businesses are located on the west side of the site and one is located in the center of the site.

Mitigation

Coordination by UTA with adjacent businesses would be made to alleviate any inconveniences or prevent disruptions and access problems for the businesses and their patrons.

Significance of Construction Impacts

Proposed Action

Construction impacts would be regulated by UTA through the construction contract process, specifying environmental requirements necessary for meeting local, state, and federal air, noise, land, and water quality standards.

No-Action Alternative

No construction impacts would occur as part of the No-Action Alternative.

Cumulative Impacts

Cumulative impacts result from incremental impact of the Proposed Action when added to the past, present, and foreseeable future actions (40 CFR 1508.7).

The following transit and transportation projects have been completed or are planned to be completed in the near vicinity of the Proposed Action:

- 200 South Streetcar
- 400 South Viaduct Reconstruction
- 5600 West Bus Rapid Transit
- 700 East Bus Rapid Transit
- Interstate 15 Interchange at 100 South (High Occupancy Vehicle Ramps)
- North Ogden – Salt Lake Bus Rapid Transit
- North-South TRAX
- Pleasant View to Salt Lake City Frontrunner
- Provo to Salt Lake City Frontrunner
- RDA Parking Structures East of Salt Lake City Intermodal Center
- Redwood Road Bus Rapid Transit
- Salt Lake City Bus Rapid Transit
- State Street Bus Rapid Transit
- Transit Oriented Development (TOD) at the existing Central Bus Operations and Maintenance Facility
- University to Salt Lake Central Light Rail

Potential cumulative impacts resulting from the Proposed Action, in combination with the projects listed above, are described below for environmental and social resources with potential cumulative impacts. The potentially affected resources include land use, traffic, air quality, historic properties, hazardous materials, and community disruption.

Land Acquisitions and Displacements

Four businesses would be displaced as a result of the Proposed Action. Development of the existing Central Bus Operations and Maintenance Facility site would result in changes to the commercial operations in the vicinity of the Proposed Action. Retail, commercial, and professional office opportunities are expected to expand with the planned transit oriented development.

Traffic

The Proposed Action would minimally increase traffic on local streets. The other proposed projects would or have increased traffic on local streets, such as the traffic associated with the 400 South viaduct reconstruction and the new interchange at 100 South. However, the Proposed Action and other future changes, particularly transit related projects, are also expected to improve the traffic mobility and intersection level of service along the affected corridors.

Air Quality

As shown in the Air Quality Analysis, the Proposed Action is not expected to result in any new NAAQS violations. As the majority of the past and future projects conducted in the project area have been or will be transit projects, air pollutant concentrations would likely be reduced as a result of their implementation. Consequently, the Proposed Action, in conjunction with other projects in the area, would not have a cumulative adverse impact on regional or local air quality.

Historic Properties

The Proposed Action would result in the loss of four historic properties. The Denver & Rio Grande Western Railroad and the Union Pacific main line railroad tracks have and will be indirectly impacted by the Frontrunner projects, the Streetcar project, and the extension of the University line. No adverse impacts have or would occur to the main line as a result of Frontrunner or TRAX. If additional impacts are encountered by the listed projects, appropriate measures would be implemented with SHPO concurrence.

Hazardous Materials

Potential contaminant sources would most likely be encountered during construction of the Proposed Action. Based on the industrial nature of the area, hazardous materials may also be encountered during construction of the Frontrunner project, the Streetcar project, and the extension of the University line. If hazardous materials are encountered during construction, safety precautions would be enforced to avoid contact with contaminated media, and proper mitigation and disposal methods would be followed.

Community Disruption

Development of the Proposed Action and other foreseeable projects are expected to enhance and improve the character of the surrounding area. Such development would improve community cohesion by providing a safe, clean environment that connects Salt Lake City with other area commercial centers. Improvement of pedestrian access is also expected as a result of the other foreseeable actions.

Mitigation

No mitigation measures for the expected cumulative effects are recommended.

Section 4 - Draft Section 4(f) Evaluation

Introduction

Section 4(f)

Section 4(f) of the U.S. Department of Transportation (DOT) Act of 1966 applies to all agencies within the DOT, including the Federal Transit Administration (FTA). The Section 4(f) requirement states that a transportation project or program may use publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge or site) only if there is no prudent and feasible alternative to using that land; and that if such land is used, the program or project includes all possible planning to minimize harm to the resource.

Eight resources located in the project area for the proposed Central Bus Operations and Maintenance Facility have been determined to be Section 4(f) resources and are discussed in more detail later in this section.

Regulatory Setting

Section 4(f) requirements are stated in 49 U.S.C. 303, as amended, and 23 CFR 774. The regulation 23 CFR 771 also includes amendments to Section 4(f) requirements as detailed in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which was enacted by Congress in 2005.

Section 4(f) prohibits USDOT agencies from approving the use of any Section 4(f) land for a transportation project, except as follows:

- First, the USDOT agency can approve the use of Section 4(f) land by making a determination that (1) there is no prudent and feasible alternative that would avoid the use of the Section 4(f) resource and (2) the project includes all possible planning to minimize harm to that property.
- Second, the USDOT agency can approve the use of Section 4(f) property by making a finding of de minimis impact for that property. (See Section 8.3.1, Section 4(f) Use Findings, for a definition of de minimis impact.)

The Federal Highway Administration's (FHWA's) and FTA's Section 4(f) regulations are codified at 23 CFR 774. To provide additional context for the Draft Section 4(f) findings in this section, the following sections provide information regarding the process for complying with Section 4(f):

- Identifying Section 4(f) resources
- Determining whether there is a use of any Section 4(f) resource
- Determining which of the uses, if any, are de minimis
- Analyzing avoidance alternatives and determining the least harm alternative for any uses not considered de minimis

Study Area

The study area for identifying potential sites for this project was limited to Salt Lake County, as will be explained later in this section. An area of potential effect (APE) for historic resources was determined for the project through the Section 106 process (see Historic Properties and Parklands in Section 3). The APE is the geographic area within which the Proposed Action may directly or indirectly cause alterations in the character or use of historic properties. For this project, the APE, located in Salt Lake City, Utah, is defined as the area south of 200 South, west of the Union Pacific Railroad tracks, including the tracks, east of 765 West and I-15, and north of 450 South; the block north of 200 South, south of 100 South, west of 600 West and east of the Union Pacific Railroad tracks is also included in the APE.

Purpose and Need for the Project

The Utah Transit Authority's (UTA's) existing Central Bus Operations and Maintenance Facility located at 630 West 200 South in Salt Lake City maintains 110 buses as one of two maintenance facilities located in UTA's Salt Lake Business Unit. The existing Central Bus Operations and Maintenance Facility operates under several constraints, most notably being the size of the site. The existing site operates on 7.3 acres and services 105 diesel and five hybrid buses, ranging from 30- to 40-feet in length. Current facility standards recommend between 3,000 and 5,000 square feet per bus maintained, which equates to approximately 7.5 to 12 acres for the existing 110 buses. Built in 1972 and partially remodeled in 1987, the current Facility is outdated in design, technology and layout.

Purpose

The purpose of the proposed Central Bus Operations and Maintenance Facility project is to construct a facility that will allow UTA to meet the existing and future maintenance and storage needs of an expanded bus fleet needed to adequately serve the transit demand in the Salt Lake Business Unit through year 2030.

Need

Existing Needs

UTA's ability to provide transit services to the public is dependent on maintenance facility capacity; any existing or planned services require adequate maintenance space for the vehicles in the fleet. The existing Central Bus Operations and Maintenance Facility and site are inadequate in meeting the needs of the existing 110 buses and are unable to accommodate additional vehicles connected with both existing and new services.

The site configuration of the existing Central Bus Operations and Maintenance Facility does not allow for parking of 40-foot buses on the western side of the site, reducing the flexibility to serve the fleet. In addition, twenty of the 110 total buses have no space to park on the existing site so are parked down the street at UTA's FLHQ building at 750 West 300 South. A mechanic must walk over and drive each bus to and from the maintenance facility to service--a daily time-consuming occurrence.

Even before UTA expands services, there are buses that should be maintained by the existing Central Bus Operations and Maintenance Facility but are being temporarily maintained at the Meadowbrook Bus Operations and Maintenance Facility. Twenty-eight commuter buses serving the Central Bus Operations and Maintenance Facility are

currently housed at the Meadowbrook Bus Operations and Maintenance Facility, because they cannot be adequately maintained and stored at the existing Central Bus Operations and Maintenance Facility due to space limitations.

Future Needs

Based on UTA's ongoing operational and fleet projections and the UTA Facility Master Plan, the Salt Lake Business Unit has determined it needs to increase its bus fleet from 372 buses in 2005 to 855 buses by 2030 (PBRC, 2005). The increase includes 140 additional buses to be maintained at the existing Central Bus Operations and Maintenance Facility over the existing count of 110, for a total of 250 buses. The existing Central Bus Operations and Maintenance Facility is incapable of accommodating the additional 140 buses needed for future Central Bus Operations and Maintenance Facility routes. As stated in *Analysis of Potential Utilization of Utah Transit Authority (UTA) Property Located at 750 West 300 South, Salt Lake City, Utah For a New Central Division Facility*, based on UTA's Meadowbrook and Central Facilities, site space needs for a bus facility are 13 to 15 buses per acre. These space requirements would equate to approximately seven to nine acres for the existing 110 buses; the existing site is 7.3 acres. The proposed Central Bus Operations and Maintenance Facility would require at least 17 acres for 250 buses (Crosby, 2012).

The total space needs for a bus facility include land area requirements for bus parking, shop requirements, and bus circulation. Standard canopy design requires a land area of 1,405 square feet per bus, totaling 351,250 square feet or 8.1 acres for parking of 250 buses (Crosby, 2012). The Maintenance Bay and Shop area would require 117,341 square feet or 2.7 acres for 250 buses (GF, 2009b). The remaining acreage requirements are necessary for site circulation and site organization.

The number of bus movements at a bus maintenance facility for a fleet of 250 buses would be approximately 700 per day (Crosby, 2012). The bus movements would include buses coming and going; buses moving to be fueled, washed, and inspected; and buses being taken to repair bays and detail cleaning stations. UTA's bus circulation criteria are:

- Make each trip as short and unimpaired as possible.
- Have the fewest possible turns. (The turning pattern of 40 ft and 60 ft buses is much different from a passenger car).
- Minimize right hand turns. The visibility of the operator is far superior for left hand turns as compared to right hand turns - just like in a passenger car.
- Provide safe circulation for vehicles and pedestrians alike throughout the complex.

Deadhead miles are those associated with a bus driving from the maintenance facility to the beginning of the bus route or from the end of the route back to the maintenance facility, when the bus is out of service and generating no revenue. Each additional deadhead mile consumes additional fuel, increases mechanical and tire deterioration, increases operator time and labor costs, increases air pollutant emissions, and results in less available transit service for UTA's customers. A new facility will need to minimize deadhead miles and the associated costs by being located near the beginning of a majority of the bus routes.

A portion of the expanded fleet would include 60-foot articulated buses for the future BRT routes. The new bus facility would need to accommodate BRT vehicles.

Due to rising fuel prices, UTA is actively procuring new compressed natural gas (CNG) buses. The inability of the existing Central Bus Operations and Maintenance Facility to adequately service and fuel these technologies is a growing issue. The addition of 101 CNG buses to the Central Bus Operations and Maintenance Facility fleet by the end of 2014 would require CNG infrastructure, including a new fueling system and proper ventilation of all maintenance facilities. Facilities must be sufficiently ventilated to quickly remove any combustion risk associated with a natural gas leak. Additional clearance is also needed in the facility and additional space on site is required for CNG fueling infrastructure.

Project Alternatives

This Environmental Assessment evaluates two alternatives in detail: the No-Action Alternative and the Proposed Action

No-Action Alternative – Remain At Existing Central Bus Operations and Maintenance Facility

The No-Action Alternative includes retaining the existing Central Bus Operations and Maintenance Facility. Under the No-Action Alternative no new buildings would be constructed and the Central Bus Operations and Maintenance Facility would continue to operate with the existing infrastructure which will not be able to support expected future bus requirements of UTA's Salt Lake Business Unit. In addition, Under the No-Action Alternative, a new Central Bus Operations and Maintenance Facility would not be constructed and operations would remain at the existing 7.3 acre site. The No-Action Alternative does not meet the purpose of the project, which is to operate and maintain a fleet of 250 buses for UTA's Central Bus Operations and Maintenance Facility, and UTA would continue to maintain buses at the existing Central Bus Operations and Maintenance Facility in an inefficient and costly manner. It would be inefficient because many of the Central Bus Operations and Maintenance Facility buses would need to be stored and maintained at the Meadowbrook Bus Operations and Maintenance Facility, located at 700 West and 3600 South in Salt Lake City. This facility is located six miles away from the centroid of service for the Central Bus Operations and Maintenance Facility bus routes, which is located at approximately 300 South and 200 West. The additional driving required to reach the Meadowbrook Bus Operations and Maintenance Facility equates to additional labor, fuel, and maintenance costs.

In addition, the Meadowbrook Bus Operations and Maintenance Facility would continue to be burdened by maintaining and storing commuter buses that serve Central Bus Operations and Maintenance Facility routes. Also, CNG capabilities would not all be conducted at one site under this alternative; some would occur at the existing site and some would occur elsewhere, creating additional inefficiencies. This alternative would limit the number of buses available to the public and, thereby, increase both the number of cars on the road and the air pollution in the region. Per 23 CFR 774.17, the No-Action Alternative is not prudent because it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need, and it results in unacceptable operational problems.

Proposed Action

The Proposed Action consists of constructing a new Central Bus Operations and Maintenance Facility to replace the existing Central Bus Operations and Maintenance Facility. The Proposed Action would address the operational and storage capacity

deficiencies of the existing Central Bus Operations and Maintenance Facility by constructing a new, state of the art, maintenance facility at a larger site. The facility would provide high-quality bus service for UTA's Central Bus Operations and Maintenance Facility.

Proposed bus operation and maintenance facilities at the site would include bus storage for up to 250 vehicles, a new bus maintenance and operations building, fuel/wash operations, a tank farm, compressed natural gas fueling facilities, detail bays, chassis wash bays, and a permanent location for support vehicle and equipment. The facility would maintain and store the buses for 30 bus routes.

The property adjacent to UTA FrontLines Headquarters (FLHQ) at 750 West 300 South was selected as the Proposed Action site. The site meets City zoning requirements, and its development as a bus operations and maintenance facility is consistent with the City's local land use plans. The site is of sufficient size for a bus operations and maintenance facility, is located less than 2 miles from the centroid of service for Central Bus Operations and Maintenance Facility bus routes, and has direct access to Interstate 15.

This site provides maximum safety by allowing for counter-clockwise bus circulation and minimizing two-way bus traffic. Bus ingress and egress to the site is proposed to be at 756 West, off of 400 South. The final site design and layout is subject to change based on cost considerations and any issues identified as the site planning progresses.

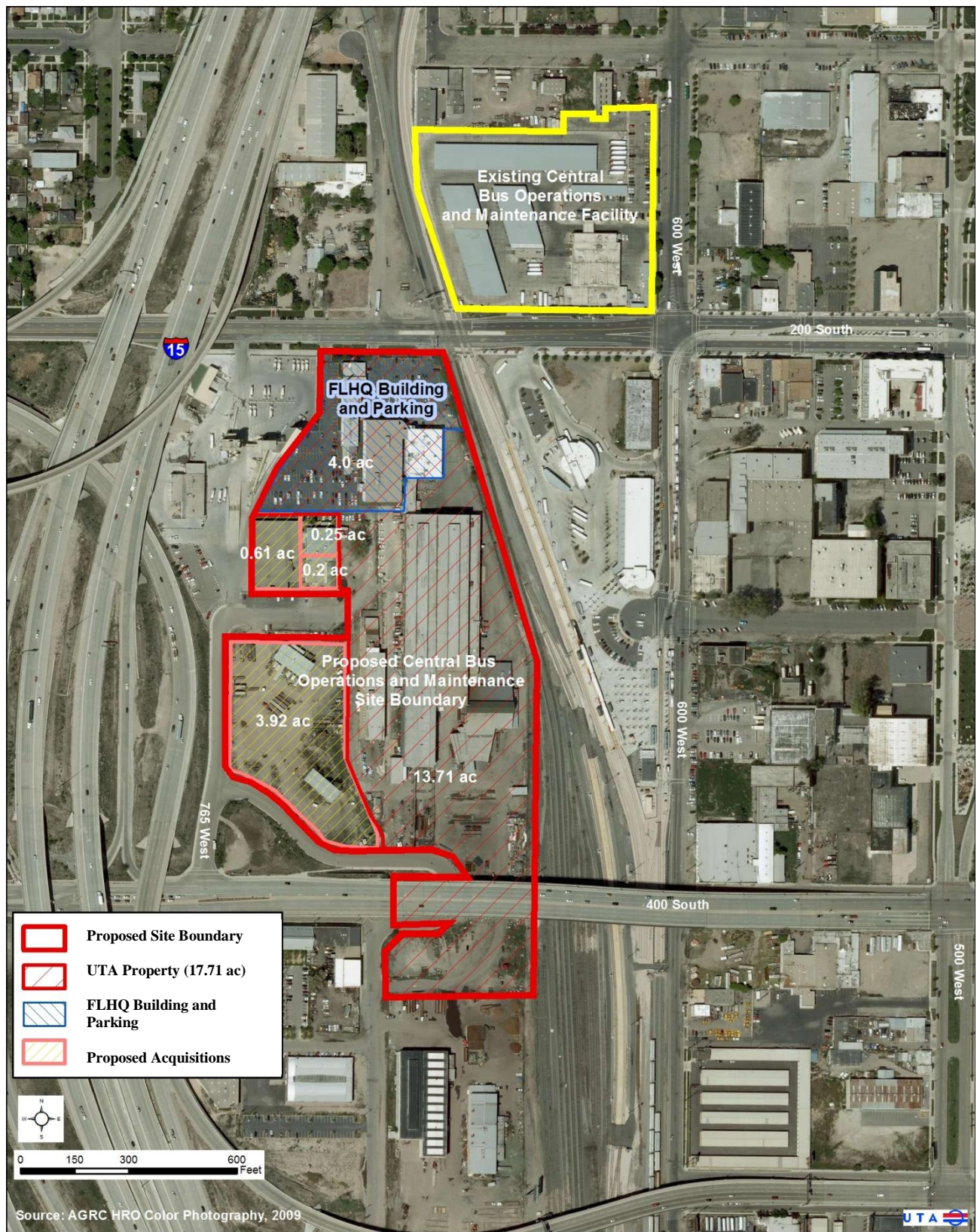
The proposed site provides good proximity to existing bus routes. UTA purchased this property from EIMCO in 2007 and currently owns 17.71 acres at this location, including the FLHQ building. The FLHQ building and associated parking occupies approximately four acres of the UTA owned property, leaving 13.71 available acres owned by UTA for the Proposed Action. Consequently, some property acquisitions would be necessary for the proposed bus facility. Sufficient contiguous property to meet the size requirements of the project is located adjacent to the UTA owned property. Approximately 4.98 acres of adjacent property has been identified for the project. If the 4.98 acres is acquired, 18.69 acres would be available for the entire project. The UTA owned property; the area occupied by the FLHQ building and associated parking; and the adjacent properties identified as potential acquisitions are shown in Figure 10.

Use of Section 4(f) Resources

A Section 4(f) "use" is defined and addressed in the FTA regulations at 23 CFR 774.17. Except as set forth in §§774.11 and 774.13, a use occurs:

- When land is permanently incorporated into a transportation facility.
- When there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose as determined by the criteria in §774.13(d). The regulation 23 CFR 774.13(d) defines five criteria that must be met to make a finding that a temporary occupancy is not a Section 4(f) use:
 1. The duration must be temporary.
 2. The scope of work must be minor.
 3. There must be no anticipated permanent adverse physical impacts or interference with the activities or purpose of the resource.
 4. The resource must be fully restored.

Figure 10: Proposed Site and Adjacent Properties



5. There must be documented agreement between the appropriate federal, state, or local agencies having jurisdiction over the resource.
- When there is a constructive use of a Section 4(f) property as determined by the criteria in 23 CFR 774.15. A constructive use occurs when there is no physical impact or use, but the project's proximity impacts—for example, noise or visual impacts—are “so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired.” The regulations in 23 CFR 774.15(a) state that a substantial impairment occurs “only when the protected activities, features, or attributes of the resource are substantially diminished.” The FTA regulations provide specific instructions and examples for determining whether a constructive use has occurred, including causing noise levels that interfere with campground use, interfering with views of a significant historical property, or restricting access to a resource that is enjoyed by the public. FTA is responsible for determining whether a project would result in the “use” of a Section 4(f) resource. This determination is made based on information developed during the NEPA process and considers input received from agencies with jurisdiction over the resource.

Section 4(f) Use Findings

For each Section 4(f) resource, FTA makes one of the following findings:

- No use
- De minimis impact
- Use; not de minimis

A finding of “no use” is made when an alternative avoids any direct physical impact on a Section 4(f) property and there would be no constructive or temporary use. For historic properties, this Section 4(f) finding of “no use” corresponds to a finding of “no effect” or “no historic properties affected” for the Section 106 process.

A finding of “de minimis impact” is made when an alternative involves a direct physical impact on a Section 4(f) resource but no adverse effect on the significant qualities of the resource. In general, a finding of de minimis impact requires a determination that the project will have “no adverse effect” on the protected activities, features, or attributes of the resource. If a finding of de minimis impact is made for a Section 4(f) resource, the requirements of Section 4(f) are satisfied; an analysis of “prudent and feasible avoidance alternatives” is not required for de minimis impacts. Per 23 CFR 774.17, a de minimis impact is defined for historic sites as an impact that the FTA has determined, in accordance with 36 CFR part 800, that no historic property is affected by the project or that the project will have “no adverse effect” on the historic property in question.

For parks or trails, FTA's finding of de minimis impact requires the concurrence of the authority with jurisdiction over the resource after the public has been given an opportunity to comment. The public comment opportunity generally is provided as part of the comment period on the environmental document. For historic properties, FTA's finding of de minimis impact requires the concurrence of the State Historic Preservation Office (SHPO), which has jurisdiction over historic properties (as well as archaeological sites,

including historic linear resource sites, that qualify for Section 4(f) protection), and must be developed in consultation with any consulting parties involved in the Section 106 process.

A finding of “use; not de minimis” is made when an alternative involves a direct physical impact on a Section 4(f) resource and that impact would cause an adverse effect on the significant qualities of the resource. This is the type of use that can be approved only if FTA finds that (1) there is no prudent and feasible alternative to the use of the resource and (2) the project includes all possible planning to minimize harm. For historic properties, this Section 4(f) finding of “use” corresponds to a finding of “adverse effect” for the Section 106 process. As explained previously, use, except as set forth in §§774.11 and 774.13, of Section 4(f) property occurs:

- (1) When land is permanently incorporated into a transportation facility;
- (2) When there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose as determined by the criteria in §774.13(d); or
- (3) When there is a constructive use of a Section 4(f) property as determined by the criteria in §774.15.

Description of Section 4(f) Resources Affected

For the proposed Central Bus Operations and Maintenance Facility, a review of potential Section 4(f) properties was conducted. Based on this review, the only 4(f) properties potentially affected by the project were historic properties.

Parks, Recreation Areas, and Wildlife and Waterfowl Refuges

No parks, recreation areas, or wildlife and waterfowl refuges exist within the project area.

Historic Properties

The Section 4(f) regulations define historic site to include 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 term includes properties of traditional religious and cultural importance to Native American tribes that are included in, or are eligible for inclusion in, the NRHP. The consultation process established under Section 106 of the National Historic Preservation Act is used to identify properties that are listed on or are eligible for listing on the NRHP. Section 106 consultation involves thorough research and coordination with the SHPO and other consulting parties to identify and evaluate potential NRHP-listed properties in the APE.

The results of the Section 106 process are documented in Section 3 under the heading Historic Properties and Parklands. The results of the Section 106 process were used to identify historic properties that qualify for protection under Section 4(f).

Use Finding of Historic Properties

Section 4(f) applies to all historic properties that are eligible for the NRHP. To identify historic properties, a reconnaissance-level historic property survey was completed for the project using standard operating procedures specified by the Preservation Department of the Utah Division of State History (SWCA, 2010). This survey documented all of the historic properties in the APE that are at least 45 years old and identified which properties are eligible for the NRHP.

The Proposed Action would result in the direct use of four properties considered eligible for the NRHP under either Criterion A or Criterion C (or both). The project will have a direct use on the D&RGW Locomotive Shop, the D&RGW Tank Repair House, the D&RGW Roundhouse, and the D&RGW Warehouse/Hospital. The project effects on historic resources are listed in Table 13 and shown in Figure 11.

Use Finding of Archaeological Sites, Including Historic Linear Resource Sites

In Utah, historic linear resource sites such as railroads and canals are managed as archaeological resources by the SHPO. Two historic linear resource sites were identified within the APE. No other archaeological sites were encountered during the survey. The historic linear resource sites within the APE are the Union Pacific Railroad main line and the D&RGW Railroad main line. The two linear resources are eligible for the NRHP under Criterion A. The project would have no effect on the linear resources, which corresponds to a Section 4(f) finding of no use.

Avoidance Alternatives and Measures to Minimize Harm

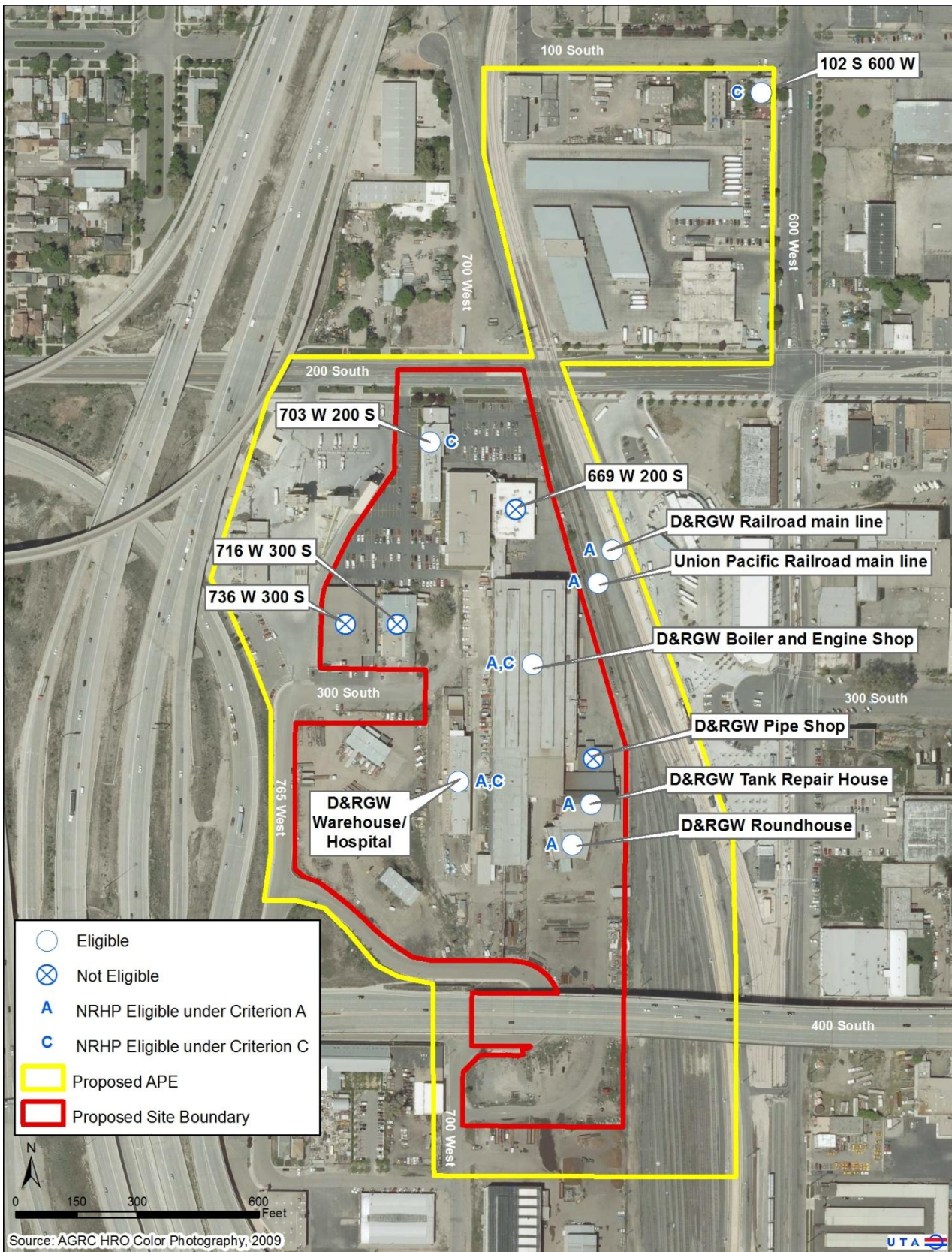
If an alternative would use a Section 4(f) resource and the use is not de minimis, FTA can approve that alternative only by determining that (1) there is no prudent and feasible avoidance alternative and (2) the project includes all possible planning to minimize harm resulting from the use (23 CFR 774.3[a]). Per 23 CFR 774.17, a feasible and prudent avoidance alternative is defined as follows:

- (1) A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. In assessing the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation purpose of the statute.
- (2) An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.
- (3) An alternative is not prudent if:
 - (i) It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
 - (ii) It results in unacceptable safety or operational problems;
 - (iii) After reasonable mitigation, it still causes:
 - (A) Severe social, economic, or environmental impacts;
 - (B) Severe disruption to established communities;
 - (C) Severe disproportionate impacts to minority or low income populations;
or
 - (D) Severe impacts to environmental resources protected under other Federal statutes;
 - (iv) It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
 - (v) It causes other unique problems or unusual factors; or

Table 13: NRHP-Eligible Historic Properties and Section 4(f) Uses

Address/Name	Description / Architectural Style	NRHP Eligibility/ Criterion	Nature of Impact	Use Finding
<i>Historic Properties</i>				
102 S. 600 W. (The Trap)	Vernacular	Eligible/C	No Direct or Indirect Effect	No Use
703 W. 200 S. (FLSmith Minerals, a.k.a. The Laboratory)	Post WWII Other style	Eligible/C	No Direct or Indirect Effect	No Use
Denver & Rio Grande Western (D&RGW) Boiler and Engine Shop (a.k.a. The Locomotive Shop)	Early 20 th Century Commercial & Late 20 th Century: Other	Eligible/A&C	Adverse Effect through Demolition	Use
D&RGW Tank Repair House	Late 20 th Century: Other	Eligible/A	Adverse Effect through Demolition	Use
D&RGW Roundhouse	Early 20 th Century Commercial	Eligible/A	Adverse Effect through Demolition	Use
D&RGW Warehouse/Hospital	Vernacular Mid-20 th Century	Eligible/A&C	Adverse Effect through Demolition	Use
<i>Linear Historic Resources</i>				
D&RGW Railroad main line (42SL293)	D&RGW Railroad main line	Eligible/A	No Direct or Indirect Effect	No Use
Union Pacific railroad mainline (42SL300)	Union Pacific railroad mainline	Eligible/A	No Direct or Indirect Effect	No Use

Figure 11: Historic Properties



(vi) It involves multiple factors in paragraphs (3)(i) through (3)(v) of this definition, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

Avoidance Analysis

When there is a Section 4(f) use and it is not de minimis, FTA is required to develop and evaluate avoidance alternatives. Under 23CFR 774, an avoidance alternative is one that completely avoids the use of Section 4(f) resources. Therefore, an alternative that avoids one Section 4(f) resource but uses another would not be considered an avoidance alternative. FTA must review each avoidance alternative and determine whether it is “prudent and feasible.”

Alternate Site Locations

UTA utilized a tiered screening process to identify acceptable sites for the proposed Central Bus Operations and Maintenance Facility. To be considered acceptable, the site must meet the project’s purpose and need, and must be considered feasible and prudent to construct and operate. The tiered analysis process used to identify acceptable sites for the proposed action is discussed below.

In Tier 1, initial sites were identified that would meet the size and location requirements for the Proposed Action. These initial sites were screened through two subsequent tiers, with sites that met the screening criteria carried forward to the next tier. Sites that did not meet the screening criteria were eliminated from further consideration. The screening criteria are discussed briefly below, followed by a detailed discussion of the screening process for each tier.

Tier 1 Screening

- Identify sites (contiguous parcels) located in Salt Lake County that are 17 acres in size or greater.
- Identify parcels meeting the size requirement above that are located within a 2-mile driving distance of the centroid of service (300 South 200 West) for all Central Bus Operations and Maintenance Facility bus routes.

Tier 2 Screening

- Eliminate parcels that would not be prudent to use for a bus operations and maintenance facility due to severe social, economic, or environmental impacts due to current land use considerations.

Tier 3 Screening

For the remaining sites, determine the following:

- Is the zoning and land use consistent with a bus operations and maintenance facility?
- Are there any safety concerns associated with the site?
- Does the site have the necessary access to major arterials?

Tier 1 Screening Results

UTA conducted a Tier 1 screening of properties, or combinations of contiguous properties, located in Salt Lake County, greater than 17 acres in size, and within a 2-mile driving distance to the centroid of service at 300 South 200 West. A total of 13 sites were identified as a result of the Tier 1 screening. They are shown in Figure 12 and listed on Table 14. Please note that some of the parcels shown on Table 14 are smaller than 17 acres in size, but there are smaller contiguous parcels adjacent to those properties that would be incorporated to make the site meet the 17 acre requirement to be considered feasible for a bus operations and maintenance facility.

Tier 2 Screening Results

The 13 Tier 1 sites went through a second screening to identify sites that were not considered prudent because they would result in severe social, economic, or environmental impacts. The Tier 2 screening resulted in the removal of 12 sites, as shown in Table 15, which were determined to be imprudent for a bus operations and maintenance facility due to current land use considerations.

The comparison of location alternatives is summarized in Table 15.

Tier 3 Screening Results

Only one site, the property adjacent to UTA FLHQ at 750 West 300 South, moved forward from the Tier 2 analysis. It was further analyzed to determine if the proposed site was consistent with the Salt Lake City zoning ordinance and with current and future land use plans. Within the corporate limits of Salt Lake City, bus line yards and repair facilities are permitted uses only in heavy manufacturing (M-2) zoning districts and commercial general (CG) zoning districts. The site was also evaluated to determine if there were any major safety concerns that would preclude its use as a bus facility, and to determine if the site location provides adequate access to major arterials such as Interstate 15 and Interstate 80, which would be used to access the start of some downtown bus routes and also for access when returning from distant routes such as Park City, Tooele County, and some Davis County routes. The Proposed Action site at 750 West 300 South meets the project's purpose and need, and is a prudent and feasible alternative. This site is zoned general commercial (CG). The Northwest Future Land Use Map, amended December 2006, for Salt Lake City labels the future land use for this property as part of the Gateway Master Plan. This property in the Gateway Master Plan, adopted August 1998, is part of the I-15/Railroad Sub-district. This area was to include various modes of transportation to create a transportation hub. A bus operations and maintenance facility is consistent with both zoning and land use for the area. This site poses no major safety issues for the Proposed Action, as access to the site is available via 400 South and the railroad track crossing can be avoided. The site is located 0.3 miles driving distance from Interstate 15 and one mile from Interstate 80.

There were no prudent avoidance alternative site locations for the Proposed Action.

Figure 12. Property Search for Site 17+ Acres in 2 Mile Radius of 300 S 200 W Centroid

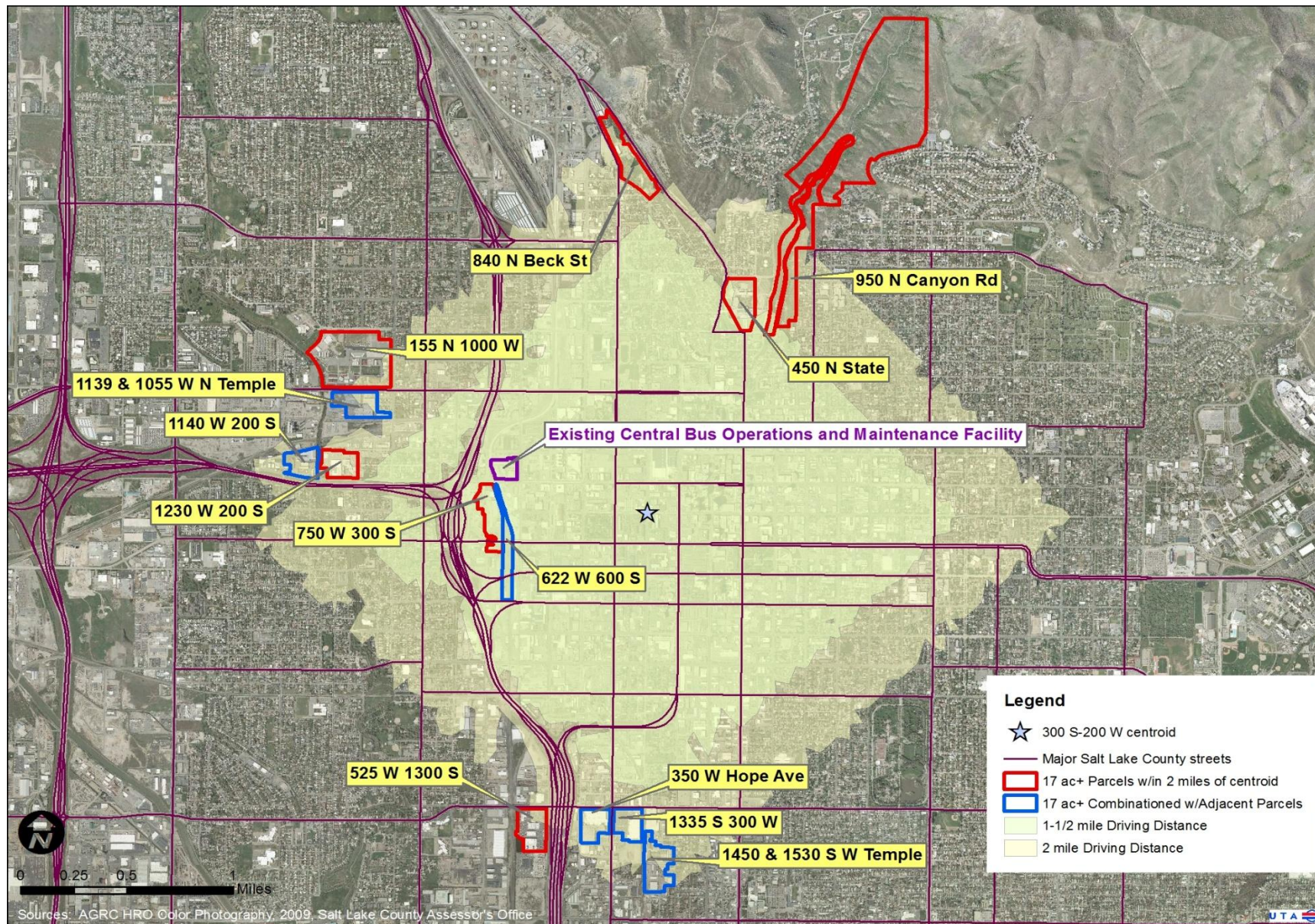


Table 14: Tier 1 Screening Results

Site	Size (acres)	Current Occupant(s)
950 N Canyon Rd	241.50	Bonneville Shoreline Trail
840 N Beck Street	20.04	Warm Springs Park
155 N 1000 West	50.00	Utah State Fairgrounds
1139 W N. Temple 1530 W N. Temple	6.17/ 9.52*	Utah DFCM Sandberg Investments
450 N State Street	20.04	Utah State Capitol Building
750 W 300 South	17.71	UTA and Crane Construction
622 W 600 South	13.34*	UPRR
1230 W 200 South	12.27*	Mark Steel Corp
1140 W 200 South	19.40	Questar Gas Company
1335 S 300 West	12.59*	Lowes Home Improvement
525 West 1300 South	17.17	Larry Miller Ford & Utah Jazz practice facility
350 W Hope Ave	13.17*	Wal-Mart Stores, Inc
1450 S W. Temple/ 1530 S W. Temple	9.31/ 10.36	Miller Towne Gate and Salt Lake City properties

* These properties are less than 17 acres, so some adjacent, contiguous properties would also need to be purchased to reach the 17 acre size requirement for the site.

Table 15: Tier 2 Screening Results

Site	Current Occupant(s)	Current Land Use	Imprudent?	Move to Tier 3?
950 N Canyon Rd	Bonneville Shoreline Trail	Open Space	Yes	No
840 N Beck Street	Warm Springs Park	Park	Yes	No
155 N 1000 West	Utah State Fairgrounds	State Fairgrounds	Yes	No
1139 W N. Temple 1530 W N. Temple	Utah DFCM Sandberg Investments	Fairgrounds parking/ Manufacturing facilities	Yes	No
450 N State Street	Utah State Capitol Building	State Capitol	Yes	No
750 W 300 South	UTA FLHQ	UTA headquarters	No	Yes
622 W 600 South	UPRR	UPRR & Frontrunner Mainline Tracks	Yes	No
1230 W 200 South	Mark Steel Corp	Large steel fabricator	Yes	No
1140 W 200 South	Questar Gas Company	Admin building & CNG fueling station	Yes	No
1335 S 300 West	Lowes Home Improvement	Home improvement store	Yes	No
525 West 1300 South	Larry Miller Ford & Utah Jazz practice facility	Car dealership and indoor practice facility	Yes	No
350 W Hope Ave	Wal-Mart Stores, Inc	Department store	Yes	No
1450 S W. Temple/ 1530 S W. Temple	Miller Towne Gate and Salt Lake City properties	Condo complex/ City offices	Yes	No

Design Avoidance Alternative

As discussed in *Analysis of Potential Utilization of Utah Transit Authority (UTA) Property Located at 750 West 300 South, Salt Lake City, Utah For a New Central Division Facility (The Crosby Report)* (Crosby, 2011), various site layouts were examined for the Proposed Action from an operational standpoint of avoiding the use of the historic properties. Complete avoidance of the historic properties while on the site is not prudent because:

- it does not leave enough available space on the site for construction of new facilities;
- would not provide the space and site configuration for a new Central Bus Operations and Maintenance Facility;
- the location of the historic properties on the site would not satisfy the circulation needs within the site;
- would not enable UTA to configure the site for safe movement of busses around remaining operations and storage; and
- the location of the historic properties would impede the overall site circulation and traffic safety.

The avoidance of the use of each historic property on the Proposed Action site as described below will compromise the Proposed Action to a degree that is unreasonable to proceed with the project in light of its stated purpose and need, and will result in unacceptable operational and safety problems and extraordinary costs.

D&RGW Boiler and Engine Shop, a.k.a. The Locomotive Shop

Avoidance of the Locomotive Shop by itself is not prudent because it does not leave enough available space on the Proposed Action site for other operations and will result in unacceptable safety or operational problems. For these reasons, avoidance of the Locomotive Shop does not prove feasible or prudent for the Proposed Action.

D&RGW Tank Repair House

Complete avoidance of the Tank Repair House is not prudent because it results in additional construction, maintenance, or operational costs of an extraordinary magnitude and results in unacceptable safety or operational problems.

D&RGW Roundhouse

Complete avoidance of the Roundhouse is not prudent because it results in additional construction, maintenance, or operational costs of an extraordinary magnitude and results in unacceptable safety or operational problems.

D&RGW Warehouse/Hospital

Avoidance of the Warehouse/Hospital by itself is not prudent because it does not leave enough available space on the Proposed Action site for other operations and will result in unacceptable safety or operational problems.

Minimization Analysis

23 CFR 774 requires that FTA consider all possible planning to minimize harm resulting from the use of a Section 4(f) property resource. Below are the design measures that were considered for the project to minimize harm to the Section 4(f) resources located on the Proposed Action site.

Design Measures to Minimize Harm to Section 4(f) Properties

Design considerations were analyzed to minimize harm to the Section 4(f) properties on the Proposed Action site. These measures included repurposing one or more of the historic properties. No measure to minimize harm option was identified that would meet the Proposed Action purpose and need. Various site layouts were examined in *The Crosby Report* to determine the feasibility of reusing the historic properties on the Proposed Action site (Crosby, 2011). A seismic evaluation of the buildings was also completed and documented in *Five Building Seismic Evaluation Report (The Seismic Report)* (Reaveley, 2011). As described in *The Seismic Report*, all of the buildings require some form of seismic retrofitting for safety reasons.

Specific design considerations and the structural integrity of the buildings are described in detail in *The Crosby Report* and *The Seismic Report*, respectively. The discussion below summarizes the design considerations for minimizing harm to each historic property.

D&RGW Boiler and Engine Shop, a.k.a. The Locomotive Shop

It is not prudent to use the existing Locomotive Shop structure for bus parking because it only allows for bus parking of 46 buses, which would severely limit the amount of land area available for other operations on the site. In addition, the location of this building would impede the overall site circulation and traffic safety. Potential use of the Locomotive Shop as the maintenance shop building is not prudent because it does not allow adequate site design efficiency to provide the needed bus maintenance capacity (Crosby, 2012). Seismic retrofitting of the building would be necessary to ensure the safety of employees and protection of buses in the building. The cost to retrofit the Locomotive Shop is estimated at \$4,500,000, as documented in *The Seismic Report* (Reaveley, 2011). For these reasons, repurposing of the Locomotive Shop is not prudent for the Proposed Action.

D&RGW Tank Repair House

Repurposing of the Tank Repair House was considered, but it would create operational inefficiencies. The building would potentially house the brake inspection and wash bay operations of the maintenance facility. This option, however, would create operational inefficiencies. The placement of the Tank Repair House on the site would restrict available areas for bus circulation and increase the potential for bus to bus damage and other safety concerns (Crosby, 2012). This option requires additional distances for circulation and daily service operations associated with fueling, which would also increase safety concerns and bus idling times. In addition, if reused, seismic retrofitting of this building would be required at a cost of approximately \$1,000,000 (Reaveley, 2011). The building retains only its east wall, and small portions of its original south and north wall, and original roof structure. The refurbishment of this building would not be accomplished to meet the Secretary of the Interior's Standards for Historic Preservation because new perimeter walls would need large garage doors for vehicular access. For these reasons,

UTA considers utilization of the Tank Repair House as not prudent for the Proposed Action.

D&RGW Roundhouse

There is no useful purpose for which the Roundhouse can be used for the Proposed Action (Crosby, 2012). Seismic retrofitting would also be required of this building at a cost of approximately \$1,000,000 (Reaveley, 2011). Use of the D&RGW Roundhouse is not prudent for the Proposed Action.

D&RGW Warehouse/Hospital

It is not prudent to use the existing Warehouse/Hospital structure for any part of the proposed Central Bus Operations and Maintenance Facility. The warehouse is elevated four feet above the surrounding grade, which prevents any repurposing option of the building as the bus maintenance shop or for bus parking. The building is too small to handle the proposed facility's parts operation (Crosby, 2012). Seismic retrofitting of this building would be required at a cost of approximately \$1,500,000 (Reaveley, 2011). In addition, the location of the building impedes the site circulation, bus parking and bus maneuvering, as the building is located in the center of the property. Use of the Warehouse/Hospital building is not prudent for the Proposed Action.

Impacts Remaining After Consideration of Avoidance and Measures to Minimize Harm

After considering the avoidance alternatives and measures to minimize harm, construction of the proposed Central Bus Operations and Maintenance Facility would result in the use of four historic properties, as listed in Table 13. There is no way to avoid or minimize impacts to these historic resources on the Proposed Action site and still meet the purpose and need of the project. Prior to construction of the Proposed Action, the UTA and SHPO would execute a Memorandum of Agreement (MOA) pursuant to 36 CFR 800.6(b), which would outline measures to mitigate the use of the historic properties.

Ability to Mitigate the Use of Each Section 4(f) Property

The direct use of the four historic properties would require mitigation. The proposed mitigation measures, as presented in the Draft MOA in Appendix B, Draft Memorandum of Agreement, include the following:

- Development of an Interpretive Display that incorporates the thematic elements of railroading's role in the local area and the history of the affected properties;
- Development of educational curriculum that includes a teaching kit with a related lesson and activity plan targeting public education students in the 4th and/or 7th grades;
- A monetary contribution to the Utah Heritage Foundation's Revolving Fund Loan Program; and
- A monetary contribution to an economic benefits study being completed by the Utah Heritage Foundation.

Proposed commitments for the mitigation measures are specifically outlined in the Draft MOA contained in Appendix B. FTA and UTA are continuing to coordinate with the

consulting parties. The MOA must be executed before FTA can issue its decision on this project. The final Section 4(f) determination will also be made at that time. FTA welcomes public comments on the Draft MOA. The MOA would also include stipulations for possible discovery of cultural resources, measures for dispute resolution, and include provisions specific to the Utah Native American Graves Protection and Repatriation Act (Public Law 101-601).

Coordination

The office with jurisdiction over the historic properties is the Utah SHPO. The FTA and UTA have corresponded with and met with representatives from the SHPO on several occasions throughout this project. FTA and UTA have prepared a Determination of Eligibility (DOE) and a Finding of Effect (FOE); both document the historic properties on the proposed site. The DOE establishes the eligibility rating for each historic property and the FOE defines the type of effect that each would receive from the Proposed Action. The SHPO has agreed with the DOE and the FOE, which are found in Appendix C, Section 106 Consultation. The U.S. Department of the Interior will receive a copy of this Environmental Assessment, including the Draft Section 4(f) Evaluation, for review and comment.

Proposed Section 4(f) Finding and Conclusion

FTA finds that, in consultation with the SHPO, there will be the direct use of four historic properties that are eligible for inclusion on the National Register of Historic Places. After taking into account the ability to mitigate the use, the severity of the remaining harm, the significance of the resources, and the views of the officials with jurisdiction over the resources, FTA has concluded that there are no prudent or feasible avoidance alternatives to the Proposed Action and the proposed project includes all possible planning to minimize harm to Section 4(f) properties resulting from use. Therefore, in accordance with 23 CFR 774.3(a), the Proposed Action would cause the least overall harm to Section 4(f) properties.

Section 5 - Public Involvement and Agency Coordination

This section describes the public and agency coordination efforts for the Central Bus Operations and Maintenance Facility project.

The following agencies were contacted regarding this Environmental Assessment:

Federal Agencies

Advisory Council on Historic Preservation

U.S. Department of the Interior

Tribes

Confederated Tribes of the Goshute Reservation

Northwestern Band of Shoshone Nation

Shoshone-Bannock Tribes

Skull Valley Band of Goshute Indians

Ute Indian Tribe

State Agencies

Utah Department of Natural Resources

Utah State Historic Preservation Office

Local Agencies

Salt Lake City Community and Economic Development Department

Salt Lake City Historic Landmarks Commission

Salt Lake City Redevelopment Agency

Utah Heritage Foundation

Utah Professional Archaeological Council

Relevant letters received are included in Appendix A. Personal communications are cited in the Reference Section.

As documented in Appendix C, consulting party invitation letters were sent to Native American tribes in Utah and a list of other interested parties to take part in the Section 106 process for the Proposed Action.

Public Involvement

Upon Federal Transit Administration approval of this document, the Environmental Assessment will be made available for a 30-day public comment period. FTA is seeking public comment on the adverse effect on historic properties and mitigation of the adverse effects in the Draft MOA. A public meeting will be held during the public comment period. The availability of the Environmental Assessment and information regarding the public meeting will be published in local newspapers and announced on the UTA website. An electronic copy of the Environmental Assessment will be placed on the UTA website at www.rideuta.com and hard copies will be available for review at UTA's offices:

UTA - Meadowbrook Office
3600 South 700 West
Salt Lake City, UT 84121

and

UTA - Front-Line Headquarters
669 West 200 South
Salt Lake City, UT 84101

Notification of the availability of the Environmental Assessment and the public meeting will also be sent to adjacent property owners. Copies of the Environmental Assessment will be sent to the SHPU, all other consulting parties, and the Utah Department of Environmental Quality.

Comments on the Environmental Assessment can be submitted by mail to:

Patti Garver, Environmental Specialist
Attn: Central Bus Operations and Maintenance Facility Project
Utah Transit Authority
Front-Line Headquarters
669 West 200 South
Salt Lake City, UT 84101

Or via email to: pgarver@rideuta.com

Once the public comment period is over, the Environmental Assessment will be updated, if necessary, to address the comments received. FTA will then determine whether or not to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement for the project.

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Appendix A

Government Agency Correspondence



GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Utah Geological Survey

RICHARD G. ALLIS
State Geologist/Division Director

March 16, 2010

Patti Garver, P.E.
Environmental Analyst
Utah Transit Authority
669 West 200 South
Salt Lake City UT 84101

RE: Paleontological File Search and Recommendations for the Utah Transit Authority Central Bus Operations and Maintenance Facility, Salt Lake County, Utah
U.C.A. 79-3-508 compliance; literature search and recommendations for paleontological specimens or sites

Dear Patti:

I have conducted a paleontological file search for the Central Bus Operations and Maintenance Facility Project in response to your letter of March 15, 2010. This project qualifies for treatment under the UDOT/UGS executed Memorandum of Understanding.

There are no paleontological localities recorded in our files within this project area. Quaternary and Recent alluvial deposits that are exposed here have a low potential for yielding significant fossil localities. Unless fossils are discovered as a result of construction activities, this project should have no impact on paleontological resources.

If you have any questions, please call me at (801) 537-3311.

Sincerely,

Martha Hayden
Paleontological Assistant



Garver, Patti (Environmental Analyst)

From: Susan Zarekarizi [susanzarekarizi@utah.gov]
Sent: Tuesday, March 16, 2010 10:18 AM
To: Garver, Patti (Environmental Analyst)
Subject: search of LWCF database

I have searched the database for 6(f) properties located in the area you provided. There are no 6(f) lands in the area (200 S to 450 South and 765 West, SLC, UT).

Thank you for the consultation.

Susan Zarekarizi
Utah State Parks and Recreation
Lands/Environmental Coordinator
Phone: 801-538-7496
Fax: 801-538-7378
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JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

JAMES F. KARPOWITZ
Division Director

March 24, 2010

Patti Garver
UTA
669 West 200 South
Salt Lake City, UT 84101

Subject: Species of Concern Near the Proposed Central Bus Operations and Maintenance Facility

Dear Patti Garver:

I am writing in response to your letter dated March 15, 2010 regarding information on species of special concern proximal to the proposed Utah Transit Authority Central Bus Operations and Maintenance Facility to be located at approximately 200 south 765 West, Salt Lake City, Utah.

The Utah Division of Wildlife Resources (UDWR) does not have records of occurrence for any threatened, endangered, or sensitive species within the project area noted above. However, in the vicinity there are recent records of occurrence for burrowing owl, Lewis's woodpecker and yellow-billed cuckoo. All of the aforementioned species are included on the *Utah Sensitive Species List*.

The information provided in this letter is based on data existing in the Utah Division of Wildlife Resources' central database at the time of the request. It should not be regarded as a final statement on the occurrence of any species on or near the designated site, nor should it be considered a substitute for on-the-ground biological surveys. Moreover, because the Utah Division of Wildlife Resources' central database is continually updated, and because data requests are evaluated for the specific type of proposed action, any given response is only appropriate for its respective request.

In addition to the information you requested, other significant wildlife values might also be present on the designated site. Please contact UDWR's habitat manager for the central region, Mark Farmer, at (801) 491-5653 if you have any questions.

Please contact our office at (801) 538-4759 if you require further assistance.

Sincerely,

Sarah Lindsey
Information Manager
Utah Natural Heritage Program

cc: Mark Farmer, CRO



Garver, Patti (Environmental Analyst)

From: White, Jaime (Contractor)
Sent: Wednesday, March 23, 2011 4:23 PM
To: Garver, Patti (Environmental Analyst)
Subject: Proposed Central Bus Facility Wetlands

The site is located between 200 South and approximately 450 South, UP rail to the east, and approximately 730 West to the west - site includes UTA owned and non-UTA owned property). Historically the site has been used for light commercial and industrial.

The following observations are based on a site visit Wednesday March 23, 2011.

The north portion of the site currently houses UTA administrative offices, parking, and some lawn. The remaining portions of the site are currently being utilized for welding/metal recycling and bus storage (10-15 vehicles). This remaining portion of the site is heavily disturbed and has been leveled/graded with large portions having been paved with asphalt in the past. Unpaved portions appear to have remnants of gravel or road base type material and support sparse vegetation. The vegetation that is present consists of upland grasses and weeds, thistle, and a few mature trees (possibly elm).

Weather at the time of the site visit was sunny, mid 50s. Preceding week was on/off rain. There was no ponded water or evidence of saturated soils aside from puddles typically associated with unimproved parking areas and work yards.

Based on the present condition of the site and lack of wetland indicator vegetation, no wetlands or other waters of the US are present on the site and no further investigation is warranted.

From: Young, Kevin [Kevin.Young@slcgov.com]
Sent: Friday, May 04, 2012 9:03 AM
To: Garver, Patricia (Environmental Compl Specialist)
Subject: RE: Central Bus Facility Traffic Analysis

Patti,

I have reviewed the traffic impact report you submitted for UTA's proposed Central Bus Facility. The report gives an overall view of the base traffic conditions as well as 2030 traffic conditions with and without the project. There was no "opening day" analysis done, so there is no information regarding what the LOS of the adjacent intersections will be when the project opens. After incorporating growth projections, the report indicates that traffic conditions in 2030, with or without the proposed project, deteriorate from base LOS ranges of A to D to LOS F at the adjacent intersections studied unless mitigation measures are implemented. While mitigation measures were recommended, it is not clear in the report if some of the recommended mitigation measures can actually be implemented and I am not sure if or when any of the mitigation measures could or would be implemented.

It is important to point out that the SB to WB right turn movement at 765 West is at LOS D in the base condition and goes to LOS F in 2030 even with the recommended mitigation measures. As traffic volumes increase over time, vehicles will find it more and more difficult to make this maneuver, at least during the pm peak hour and possibly other times as well. I bring this up to point out that there is not much that can be done to improve this individual maneuver and I want UTA to understand the conditions that will occur and the possible impacts to their operation at this proposed facility.

I did speak with the City's Engineering Division regarding the condition of the streets in the area of this project. They expressed concern that some of the streets will not be able to handle the increase in loads from the additional buses that will be using them to access this project site. They are concerned that the damage to the streets will require repair work sooner than has been planned or budgeted.

Kevin

Kevin J. Young, P.E.
Transportation Planning Engineer
801-535-7108

Appendix B
Draft Memorandum of Agreement (MOA)

**DRAFT
MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL TRANSIT ADMINISTRATION (FTA)
AND THE
UTAH STATE HISTORIC PRESERVATION OFFICER (SHPO)**

**REGARDING
THE CENTRAL BUS OPERATIONS AND MAINTENANCE FACILITY
SALT LAKE COUNTY, UTAH
May 7, 2012**

WHEREAS, the Utah Transit Authority (UTA) is proposing to construct the Central Bus Operations and Maintenance Facility (Project) and is seeking financial assistance from the U.S. Department of Transportation Federal Transit Administration (FTA) for the design and construction of the Project, which is therefore a Federal undertaking subject to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulation, 36 CFR 800; and

WHEREAS, the proposed federally assisted undertaking is the design and construction of the Project located on the site of a previous Denver & Rio Grande Western train maintenance facility between 200 South and 400 South and between approximately 650 West and 750 West in Salt Lake City, Utah with bus operations and maintenance facilities for up to 250 buses as described in detail in the *Central Bus Operations and Maintenance Facility Environmental Assessment*, April 2012, and

WHEREAS, FTA, in consultation with the SHPO and Consulting Parties (i.e. UHF and Salt Lake City), has designated the Area of Potential Effects (APE), as defined in 36 CFR 800.16(d), to be the area south of 200 South, west of the Union Pacific Railroad tracks, including the tracks, east of 765 West and I-15, and north of 450 South; the block north of 200 South, south of 100 South, west of 600 West and east of the Union Pacific Railroad tracks is also included in the APE.

WHEREAS, FTA, in consultation with the SHPO, has determined, pursuant to 36 CFR 800.5(a), that the construction of the Project will have an adverse effect by demolishing four historic properties that have been determined to be eligible for the National Register of Historic Places (NRHP). These properties are: Denver and Rio Grande Western (D&RGW) Boiler and Engine Shop (a.k.a. The Locomotive Shop), the D&RGW Tank Repair House, the D&RGW Roundhouse, and the D&RGW Hospital Building and Warehouse (a.k.a. the Hospital Building) ; and

WHEREAS, Section 106 of the National Historic Preservation Act, 16 USC 470 *et seq.* requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings; and

WHEREAS, FTA has notified the ACHP of its adverse effect determination pursuant to 36 CFR 800.6(a)(1) and the ACHP has determined that their participation in the consultation to resolve adverse effects is not needed; and

WHEREAS, the public and Consulting Parties were given an opportunity to comment on the adverse effects of the undertaking; and

WHEREAS, UTA has participated with FTA in the consultation and has been invited to be an invited signatory to the MOA to reflect its commitment to implement the stipulations in this MOA; and

WHEREAS, UHF has participated with FTA in the consultation and has been invited to be an invited signatory to the MOA to reflect its commitment to implement the stipulations related to the Revolving Loan Fund; and

WHEREAS, Salt Lake City has participated with FTA in the consultation and has been invited to be a concurring party to the MOA; and

NOW, THEREFORE, FTA and the Utah SHPO and the other parties hereto agree to implement this executed MOA in accordance with the following stipulations.

STIPULATIONS

FTA will ensure that the terms of this Agreement are carried out and will require, as a condition of any approval of FTA funding for the Project, adherence to the stipulations of this Agreement. UTA, as the project sponsor, will take the lead in the implementation of each stipulation unless otherwise noted in the stipulation.

- I. **INTERPRETIVE DISPLAY:** To address the adverse effect from demolishing the four historic properties, which are representative of the significant role of the Denver & Rio Grande Western Railroad Company in the historical settlement and development of Salt Lake City, UTA shall develop, install, and maintain a publicly accessible interpretive display that incorporates the thematic elements of railroading's role in the local area, the history of the affected buildings, or related themes agreed upon with the signatories to this agreement. UTA shall fund the development and installation of the interpretive display. UTA shall design and construct quality products for the interpretive display which shall not exceed a cost of \$100,000.
 - A. Within six months of execution of this MOA, UTA shall convene an interpretive display advisory committee (advisory committee) to assist in the development of the content and design of the interpretive exhibit. The SHPO, UHF, Salt Lake City and other individuals or groups

recommended by the signatories to this agreement shall be invited to participate on the committee and meet at major milestones to review the content and design. The design of the interpretive display shall include consideration of the following:

- i. Illustrate the historic significance of the Denver and Rio Grande Western (D&RGW) Boiler and Engine Shop (a.k.a. The Locomotive Shop), the D&RGW Tank Repair House, the D&RGW Roundhouse, and the D&RGW Hospital Building and Warehouse (a.k.a. the Hospital Building) and the associated influence on Salt Lake City.
 - ii. Design of the interpretive display shall include consideration of durability, maintenance, and safety.
- B. UTA shall develop a web based application as part of the interpretive display. The content shall be related to the historic themes represented by the buildings that are adversely affected by the Project and shall be housed on a webpage or website containing text and photographs related to the aforementioned themes.
 - i. As part of the interpretive display, UTA shall develop content for an interactive web based application for the interpretive display.
 - ii. UTA shall develop the web based application and website content and shall submit the content to FTA and the SHPO for review and comment. UTA shall provide the content to the advisory committee for review and comment. UTA shall consider the comments from the advisory committee prior to finalizing the content.
 - iii. Reviewing parties shall have 30 calendar days to provide comment to UTA. Should a party not provide comments during that period, UTA shall assume said party approves of the material.
 - iv. UTA shall provide the signatories to this MOA with a proposal as to where the web based materials shall be housed and how the web based interpretive display will be accessed, including, but not limited to the use of a Quick Response Code.
 - v. UTA shall provide the SHPO with hardcopies of the website materials and back up electronic files to re-create the web-based site if needed. UTA shall provide electronic files to the SHPO so that the website can be updated in the future, separate from the stipulations in this MOA.
- C. UTA shall locate the interpretive display in or near UTA's existing or planned Salt Lake Central Station (formally known as the Gateway Intermodal Hub). This location is adjacent to the Central Bus Operations and Maintenance Facility. Pending review of the

interpretive display by the SHPO with input from the advisory committee on the content, the interpretive display shall be placed in a location readily accessible to the general public. UTA shall consult with the signatories of this MOA and the advisory committee regarding the location of the display. If the display is located outside or in the existing intermodal hub building, UTA shall complete installation of the exhibit within 18 months from the execution of this MOA unless the signatories of this MOA agree to an extension of the time limit. If UTA proceeds with the design and construction of a new Salt Lake Central Station terminal building within 18 months from the execution of this MOA, UTA shall consult with the signatories of this MOA and the advisory committee regarding installation of the interpretive display within the new Salt Lake Central Station terminal building. The signatories of this MOA shall agree to a date for installation of the interpretive display that will coincide with the construction of the new terminal building.

- II. **MONETARY DONATION:** UTA shall donate local funds in the amount of \$175,000 to the Revolving Loan Fund program administered by the Utah Heritage Foundation (UHF).
 - A. The UHF shall ensure that the funds donated by UTA are administered in a manner consistent with the standard operating procedures of the loan program.
 - B. Funds shall be restricted to projects located within Salt Lake City.
 - C. Salt Lake City's Gateway District is located between Interstate I-15 on the west, 300 West on the east, North Temple on the north, and 1000 South on the south. Projects involving buildings associated with the railroad history of Salt Lake City or projects located with the Gateway District shall be given top priority in relation to the distribution of funds provided by the UTA; however, other projects shall be considered. This prioritization shall only apply to the initial distribution of the funds.
 - D. The donation shall be made prior to December 31, 2013 or prior to the demolition of any of the four historic properties, whichever occurs first.
- III. **PUBLIC OUTREACH – EDUCATIONAL CURRICULUM:** UTA shall develop a teaching kit with a related lesson and activity plan targeting public education students in the 4th and/or 7th grades. The kit shall be focused on the themes and resources affected by the Project and shall be developed to supplement existing student outreach activities of the UHF and the History for Kids section of the State of Utah's *History to Go* website. Within six months of the execution of this MOA, UTA shall convene an education curriculum advisory committee. UTA shall fund the development of a quality teaching kit with a cost not to exceed \$75,000.
 - A. UTA shall consult with the SHPO and the Consulting Parties regarding the content of the kit and its relationship to the existing student

outreach programs of these parties and/or other organizations identified by the signatories to this MOA.

- B. UTA shall consult with the Utah State Office of Education to identify and incorporate any curriculum or equipment restrictions to enhance the likelihood of educator adoption of the kit; however, UTA does not guarantee adoption of the kit by the Utah public school system.
- C. The draft lesson and activity plan shall be provided to consulting parties for review within 2 years of execution of this MOA.
- D. UHF shall include the Educational Curriculum developed as specified in this MOA on their website under Resources for Educators.

IV. **MONETARY DONATION FOR STATEWIDE STUDY ON BENEFITS OF HISTORIC PRESERVATION:** A statewide study on the economic benefits of historic preservation in Utah is being pursued by several organizations. The effort is being led by Utah Heritage Foundation. The Study of Economic Impacts of Historic Preservation in Utah will focus on how historic preservation contributes to Utah's recognition of history, societal well-being, positive reflection on community, and high quality standard of living.

A statewide study of the economic impacts will provide analysis of the following:

- direct impacts of reusing, preserving, and utilizing historic structures in commercial, residential, and individual settings;
- public incentive leveraging of private investment and public return
- job creation
- property values
- heritage tourism
- downtown revitalization
- affordable housing
- preservation as sustainable conservation and smart growth

UTA shall contribute \$25,000 to UHF to help fund the Study within one year of the execution of this MOA.

V. **DISCOVERY:** Should excavation or inadvertent discovery of historic properties, historic resources, archeological resources, properties of religious or cultural significance, or human remains occur, the appropriate federal and/or state laws and regulations shall apply. In accordance with 36 CFR 800.13(b), the UTA is providing for the protection, evaluation, and treatment of any historic property discovered prior to or during construction. If, prior to the start of construction, UTA determines that the undertaking shall affect a previously unidentified cultural resource that

may be eligible for listing in the NRHP, or affect a known historic property in an unanticipated manner, UTA shall address the discovery or unanticipated effect in accordance with 36 CFR § 800.13(b). If any previously unidentified resource is discovered and/or identified during construction, UTA employees and UTA contractors and subcontractors shall ensure the following procedures are implemented. The following procedures, shall be incorporated into all construction contracts:

- A. UTA contractors shall immediately suspend construction operations in the vicinity (minimum 100 foot buffer) of the discovery if a suspected historic, archeological or paleontological item, feature, prehistoric dwelling site or artifact of historic or archeological significance is encountered, unless doing so would result in unsafe work conditions. If unsafe work conditions are present, they shall immediately be made safe and then construction within the vicinity of the discovery shall immediately cease.
- B. UTA contractors shall notify the UTA Project Manager for the Central Bus Operations and Maintenance Facility project verbally of the nature and exact location of the discovery.
- C. UTA Project Manager for the Central Bus Operations and Maintenance Facility project shall immediately contact the SHPO and FTA.
- D. UTA Project Manager for the Central Bus Operations and Maintenance Facility project shall consult with a qualified historian or archaeologist to advise SHPO, FTA and UTA regarding the significance and recommended disposition of the discovery.
- E. UTA Project Manager for the Central Bus Operations and Maintenance Facility shall protect the discovered objects from damage, theft, or other harm while the procedures of this stipulation are being carried out.
- F. UTA and FTA shall consult with the SHPO in accordance with 36 CFR 800.13(b)(3) toward developing and implementing an appropriate treatment plan prior to resuming construction. The SHPO shall respond in no more than five days. The time necessary for the SHPO consultation shall depend on the nature and condition of the discovered item. FTA shall not allow work to resume in the vicinity of the discovery and UTA shall not resume construction until mitigation of historic properties is agreed upon by the SHPO, FTA, and UTA.
 - 1. If the discovery is an isolated artifact, an isolated set of fewer than 10 artifacts, or a collection of artifacts that appear to be removed from their original context, the qualified historian or

archaeologist will document the discovery and construction shall be allowed to proceed without further consultation and no treatment plan will be required.

- G. Should human remains be inadvertently discovered during construction on nonfederal lands the relevant sections of Utah Code Annotated shall apply; including, but not limited to 9-8-309 and 9-9-40. If ancient human and/or Native American human remains are excavated or inadvertently discovered on nonfederal lands, the relevant sections of Utah State Code Annotated shall apply, in particular, 9-8-309 "Ancient human remains on nonfederal lands that are not state lands" and 9-9-403 "Ownership and disposition of Native American remains."
1. All project-related ground disturbing activity within 300 feet of the discovery shall cease immediately. UTA Project Manager for the Central Bus Operations and Maintenance Facility shall notify FTA, Salt Lake City Police or coroner as soon as practicable for instructions concerning disposition of the find.
- V. REPORTING: As long as this MOA or its Amendments are in effect, UTA shall provide an annual report to FTA and the SHPO of any and all activities carried out pursuant to this MOA, and upon request, to any other interested parties by December 31 of each year.
- VI. PERSONNEL QUALIFICATIONS: UTA shall ensure that all work carried out pursuant to this MOA is completed by or under the direct supervision of a person or persons meeting or exceeding the *Secretary of the Interior's Professional Qualification Standards for History and/or Archaeology* (36 CFR Part 61) as appropriate to the specific task.
- VII. DURATION: This MOA shall be null and void upon completion of the undertaking, as evidenced by FTA close-out of all grants related to the project, or ten (10) years from the date of execution of the MOA, whichever occurs first. Prior to such time, any of the signatories hereto may consult to reconsider the terms of the MOA and amend it in accordance with Stipulation VII below.
- VIII. DISPUTE RESOLUTION: Should any signatory to this agreement object at any time to any actions proposed by UTA or the manner in which the terms of this MOA are implemented, UTA and objecting signatory shall consult to resolve the objection. If UTA or objecting signatory determines that the objection(s) cannot be resolved, it will notify the FTA, and the FTA will attempt to resolve the issue. If the FTA determines that such objection cannot be resolved, the FTA will:

- A. Forward all documentation relevant to the dispute, including the FTA proposed resolution, to the ACHP. The ACHP shall provide the FTA with advice on the resolution of the objection within thirty days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the FTA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories, and concurring parties, and provide them a copy of this written response. FTA will then proceed according to its final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the thirty day time period, the FTA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the FTA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

Further, at any time during implementation of the measures stipulated in this MOA should an objection to any such measure be raised by a member of the public, the UTA shall take the objections into account and consult as needed with the objecting party, the FTA, and the SHPO to resolve the objection.

- IX. **AMENDMENTS AND NONCOMPLIANCE:** If FTA or the SHPO determines that its terms will not or cannot be carried out or that an amendment to its terms must be made, that signatory shall immediately consult with the other parties to develop an amendment to this MOA pursuant to 36 CFR 800.6(c)(7) and 800.6(c)(8). The amendment shall be effective on the date a copy, signed by all of the original signatories, and is filed with ACHP. If the signatories cannot agree to appropriate terms to amend the MOA within 30 days, or another time period agreed to by all signatories, FTA or the SHPO may terminate the MOA in accordance with Stipulation X, below.

In the event UTA applies for federal funding or a permit from another federal agency, and the undertaking remains unchanged, the additional approving agency may comply with Section 106 by agreeing in writing to the terms of this MOA and notifying and consulting with the SHPO. Any necessary modifications will be considered in accordance with the original MOA and 36 CFR 800.6(c)(7) and 800.6(c)(8).

Once the MOA is terminated, and prior to work continuing on the undertaking, FTA shall either execute an MOA pursuant to 36 CFR 800.6 or request, take into account, and respond to comments of the ACHP

under 36 CFR 800.7. FTA shall notify the signatories as to the course of action it will pursue.

- X. **TERMINATION:** If an MOA is not amended following the consultation set out in Stipulation IX, it may be terminated by FTA or the SHPO.

Execution of this MOA by FTA and the SHPO, the submission of documentation and filing of this MOA with ACHP pursuant to 36 CFR 800.6(b)(1)(iv) prior to FTA's approval of this undertaking, and implementation of its terms, is evidence that the FTA has taken into account the adverse effects of this undertaking on historic properties, and has afforded the SHPO and ACHP an opportunity to comment on the effects of the Central Bus Operations and Maintenance Facility project on historic properties.

THE FEDERAL TRANSIT ADMINISTRATION

By: _____ Date: _____
Charmaine Knighton, Acting FTA Region VIII Administrator

UTAH STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____
Wilson G. Martin, Utah SHPO

Invited Signatories:

UTAH TRANSIT AUTHORITY

By: _____ Date: _____
Michael A. Allegra, General Manager

UTAH HERITAGE FOUNDATION

By: _____ Date: _____
Kirk Huffaker, Executive Director

Concurring Parties:

By: _____ Date: _____
Wilf Sommerkorn, Planning Director

SALT LAKE CITY CORPORATION

DRAFT

Appendix C
Section 106 Consultation

(Contained on Enclosed CD)