Draft Final Report

May 2022

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Grand County Utah

CITY OF MOAB UTAH

Kimley»Horn
Expect More. Experience Better.

Draft Final Report

MAY 2022

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List of Acronyms

ACS	American Community Survey
AADT	Annual Average Daily Traffic
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
ARPA	American Rescue Plan Act
FHWA	Federal Highway Administration
FLAP	Federal Lands Access Program
HAWK	High-Intensity Activated Crosswalk
HCM	Highway Capacity Manual
HSIP	Highway Safety Improvement Program
ITS	Intelligent Transportation System
JHC	Joint Highway Committee
LOS	Level of Service
LPA	Local Public Agency
MPO	Metropolitan Planning Organization
MUTCD	Manual on Uniform Traffic Control Devices
OHV	Off-Highway Vehicle
PHB	Pedestrian Hybrid Beacon
ROW	Right-of-Way
RRFB	Rectangular Rapid-Flashing Beacon
RUC	Road Usage Charge
SITLA	Utah School and Institutional Trust Lands Administration
SR	Utah State Route
SRTS	Safe Routes to School
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
TAC	Technical Advisory Committee
TAP	Transportation Alternatives Program
TAZ	Traffic Analysis Zone
TDM	Travel Demand Model
UDOT	Utah Department of Transportation
US 191	United States Highway 191
USU	Utah State University
UTMP	Unified Transportation Master Plan
WFRC	Wasatch Front Regional Council

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1. Executive Summary

Introduction

Grand County and City of Moab collaboratively prepared this Unified Transportation Master Plan (UTMP). The UTMP identifies actionable steps, strategies, and specific projects to achieve the community's goals for a safe, reliable, connected, and efficient transportation system to improve mobility and connectivity for people, using all modes of transportation, as shown in **Figure ES-1**. The focus of the Grand County and City of Moab UTMP are roads, streets, trails, and connections that are under jurisdiction and responsibility of Grand County and City of Moab. References are made to projects and plans with mutual impact including other jurisdictional interests (e.g. Utah Department of Transportation [UDOT], federal lands, etc.).

The UTMP recommends projects to be considered for implementation in Grand County and Moab over near-, mid-, and long-term planning horizons. Prioritized projects include street connections, roadway improvements, and new pathways.

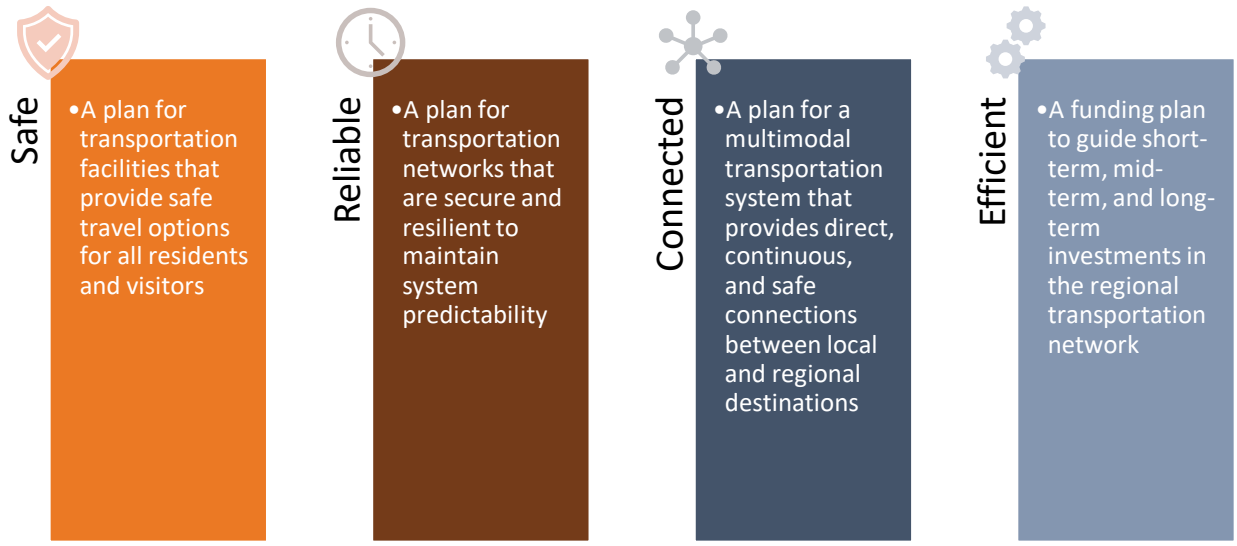


Figure ES-1. UTMP Outcome Goals

Previous Plans and Studies

Previously completed transportation plans provide a base set of recommended improvements to the regional transportation system. These transportation plans vary in focus and scale, and the UTMP does not replace or supersede these plans and studies.

The Technical Advisory Committee (TAC) assisted the study team to identify previously-recommended projects, for which Grand County or City of Moab are responsible to implement, that were carried forward into the UTMP process.

Current Conditions

The study area roadway network is heavily reliant on United States Highway 191 (US 191). Incidents and closures on US 191 have a significant impact on regional mobility, reducing the reliability and resiliency of the transportation network.

While the pedestrian network is well-connected in central Moab, much of the study area consists of isolated and disconnected sidewalks. An extensive network of bike lanes and trails provide connectivity for bicyclists; however, there are key gaps in the system.

The number of crashes that occurred on study area roadways increased by 14 crashes in 2021 compared to the previous year. There were 824 crashes within the study area between 2017-2021, with 154 occurring in 2021. From the 824 crashes, there were 31 bicycle and pedestrian crashes between 2017-2021. Crashes involving pedestrians and bicycles are more likely to result in severe injuries or fatalities.

Roadways within the study area generally operate at acceptable levels of service (LOS) for typical daily traffic conditions. However, visitors to Moab during peak weekends and during the tourism season stretch the limits of the transportation system, including US 191 and corridors that access recreation areas such as Millcreek Drive.

Future Conditions

Population, employment, and tourism are anticipated to continue to increase in the region. Central Moab is anticipated to increase in both population and employment in the coming decades. By 2040, congestion is anticipated to continue to increase on US 191. US 191 averages nearly 20,000 vehicles per day in sections of Moab. Some portions of US 191 are expected to increase daily traffic by approximately 9,000 vehicles. Several intersections along Millcreek Drive and 400 East will require improvements. By 2050, congestion is anticipated to be at an unacceptable level for most of US 191 in the area.

Needs and Deficiencies

The previous plans and studies reviewed for development of the UTMP identified safety, capacity, and active transportation needs. In addition, needs were identified from the existing and future conditions analysis. Stakeholder discussions helped to confirm needs, and to identify potential solutions. Stakeholders also expressed their vision of the transportation system.

Safety needs were identified at multiple locations with a high concentration of crashes, and at locations of crossings on US 191 in and around downtown Moab.

Roadway needs include segments and intersections with high recreation/tourism/visitor traffic, off-highway vehicles, and truck traffic.

Active transportation needs include improving the ability for bicyclists and pedestrians to cross US 191. In addition, there are multiple gaps in the shared use path and sidewalk network. Completing projects in these gaps will improve multimodal connectivity.

Stakeholder and Community Outreach

The UTMP study team engaged the community early in the process to provide input on transportation needs, deficiencies, and potential solutions. Stakeholders represented City and County staff, elected officials, local businesses, contractors, transportation advocates, partner agencies, surrounding governments, and Utah State University (USU).

Community meetings provided opportunity for public comment. An online stakeholder survey was conducted in Fall 2021 to obtain input on transportation needs in the community.

Recommendations

Policies, strategies, and improvement projects were identified to address the transportation needs.

Recommended Policies

Recommended policies to be considered by Grand County and the City of Moab are listed in **Table ES-1.**

Table ES-1. Recommended Transportation Policies

Policy Name	Description
Complete Streets Policy	Develop a Complete Streets Policy to guide future design of multimodal streets. The policy will emphasize County and City goals to accommodate all users and modes of the transportation system, particularly downtown (e.g., trucks, vehicles, pedestrians, bicycles).
Downtown Bicycle Parking Facilities	Develop a policy to require bicycle parking facilities with new or re-development throughout the downtown area.
Future Trail Acquisition	Formalize policy and code to require a review of potential trail easements in conjunction with new development or redevelopment reviews.
UDOT Frontage Road Study	Support implementation of UDOT Frontage Study in future development plans and consider streetscape improvements that enhance a multimodal environment and safety.

Recommended Strategies

Network-wide strategies to be considered by the Grand County and the City of Moab are listed in **Table ES-2**.

Table ES-2. Recommended General Strategies

Strategy Name	Project Description
Bicycle and Pedestrian Safety Awareness Campaign	Prepare education materials relating to safe practices by motorists, pedestrians, and bicyclists when using County or City streets. The materials can be distributed at hotels and visitor centers.
Downtown Wayfinding Signage Plan	Prepare a downtown signage wayfinding plan. The plan would identify the destinations, and locations for wayfinding signage. Destinations could include trails, trailheads, and on-street cycling route alternatives to US 191 in downtown Moab.
Wayfinding Signage (Parking) Plan	Prepare a wayfinding plan to City-owned parking lots and available spaces.
Transportation Technology Plan	Identify opportunities to implement technology-based infrastructure to improve traffic operations and safety. These could include vehicle detection, communication, and travel information signs.
Multimodal Nodes	Consider future opportunities for multimodal interaction at key public/private spaces and include shuttles, bicycles, pedestrians, and links to trail heads. Also consider a conflict management strategy that recognizes different users (vehicles, pedestrians, bicyclists, OHVs, etc.), common corridors, traffic patterns, loading/transfer areas, trailheads, and potential mode conflicts
Rail Service Feasibility Study	Conduct a feasibility study to evaluate short rail kickouts/spurs connecting the future parking at Moab Uranium Mill Tailings Remedial Action (UMTRA) project site to the airport that may include passenger rail service.

Table ES-2. Recommended General Strategies (continued)

Strategy Name	Project Description
East-West Spanish Valley Connectivity	Conduct a study to identify needed future east-west connections in Spanish Valley, particularly to/from US 191.
Freight Transfer Plan	Conduct a feasibility study to evaluate need for and location, outside of downtown Moab, for a freight, goods, and cargo transfer station. The facility would facilitate transfer of freight, goods, and cargo from large trucks to local delivery vehicles, easing congestion on US 191.
Pavement Maintenance and Preservation Program (Grand County)	Establish a comprehensive pavement maintenance program.
Intelligent Transportation System (ITS)	Consider ITS in all project development. ITS components include technologies that improve safety, efficiency, or sustainability of the transportation network (e.g., cameras, communication, fiber, message signs, etc.).
Shared Use Path Design Standards	Evaluate and update standards, guidelines, and criteria for shared use path construction to reflect best practices. The standards will reflect a range of users including bicycles, pedestrians, scooters, e-bikes and road separation.

Recommended Improvements

Strategies are categorized as:

- Active transportation strategies refer to those that improve conditions for walking and bicycling.
- Roadway improvements focus on strategies that improve connectivity and safety for those driving in and around the Moab area.
- Parking and transit strategies further each of those aspects of the transportation network.

The UTMP recommends 38 transportation improvement projects and assessments including 19 active transportation, 14 roadway, 3 parking, and 2 transit. Planning-level cost estimates were prepared for each of the recommended projects.

The UTMP recommends 16 active transportation-related projects and 3 planning assessments. Recommended projects include pedestrian and bicycle facilities, shared-use paths, and planning assessments in the transportation network that help improve connectivity, safety, and mobility for all users in the area.

The UTMP recommends 10 roadway-related projects and 4 roadway planning assessments. Projects include roadway connections, intersection control, roadway improvements, and planning assessments in the transportation network that help improve connectivity, safety, and mobility for all users in the area.

The UTMP recommends 3 parking and 2 transit-related projects. Projects include improvements to parking and transit facilities in the transportation network that help improve wayfinding, access management, multimodal options, and mobility in the study area.

Prioritization and Implementation

A project prioritization methodology was developed for the UTMP to quantitatively score recommended active transportation and roadway projects. A summary of the prioritization structure for roadway and active transportation projects is provided in **Figure ES-2**.

Figure ES-2. Roadway and Active Transportation Prioritization Elements

Active transportation projects are shown in **Table ES-3** in prioritized order.

Table ES-3. Prioritized Active Transportation Projects

Project Number	Project Name	Project Category	Project Description	Prioritized Ranking
AT10	Shared Use Path Construction and Connections; Pack Creek and Mill Creek	Shared-Use Paths	Construct a shared use path that connects the pedestrian hybrid beacon on US 191 at City Market crossing Pack Creek to Kane Creek Boulevard and north to 300 South, and to 100 West	1
AT2	Dogwood Avenue and US 191 Area Crossing	Pedestrian Facilities	Construct enhanced pedestrian crossing on US 191 near Dogwood Avenue (Pedestrian Hybrid Beacon [PHB]/High Intensity Activated Crosswalk [HAWK] crossing)	2
AT5	US 191 at Millcreek Drive/Aggie Boulevard Bicycle and Pedestrian Crossing	Pedestrian Facilities	Construct tunnel at US 191 and Millcreek Drive/Aggie Boulevard intersection to cross US 191	3
AT1	US 191 Sidewalk Improvements: Fourth East to Bittle Lane	Pedestrian Facilities	Construct sidewalk to connect existing gap along US 191 from Fourth East to Bittle Lane	4
AT12	Spanish Valley Drive Shared-Use Path	Shared-Use Paths	Construct a shared use path on Spanish Valley Drive from Millcreek Drive to South County line	5
AT4	Holyoak Sidewalk Connection	Pedestrian Facilities	Construct sidewalk along Holyoak Lane from Mill Creek Drive to Wagner Avenue	6
AT8	Kane Creek Boulevard Bicycle Lanes Improvements	Bicycle Facilities	Stripe bicycle lanes and construct paved shoulders (if needed) on Kane Creek Boulevard from US 191 to 500 West	7
AT11	Colorado River Shared-Use Path Gap	Shared-Use Paths	Construct shared use path along Colorado River between Grandstaff Canyon and Goose Island (existing gap)	8
AT14	Sand Flats Recreation Area Bicycle and Pedestrian Access	Shared-Use Paths	Construct pedestrian and bicycle facilities to connect Sand Flats Recreation to downtown.	9
AT3	Millcreek Drive Sidewalk Improvements	Pedestrian Facilities	Construct sidewalk where missing on Millcreek Drive, Spanish Valley Drive to bridge north of Lasal Road	10
AT6	100 East Bicycle Lanes	Bicycle Facilities	Install bicycle lane pavement markings on 100 East from 200 North to Millcreek Trail and on to City Market	11
AT16	San Miguel Connection	Shared-Use Paths	Construct a connection between San Miguel north to path over Pack Creek, eventually connecting to Millcreek Drive	12
AT9	Murphy Lane Paved Shoulders (Bicycle) Improvements	Bicycle Facilities	Construct paved shoulders (for use by bicyclists) on Murphy Lane from Millcreek Drive to Spanish Trail Road	13
AT7	Kane Creek Boulevard Paved Shoulders (Bicycle) Improvements	Bicycle Facilities	Construct paved shoulders (for use by bicyclists) on Kane Creek Boulevard from 500 West to Kane Creek Recreation Parking (end of pavement)	14
AT13	Mill Creek Canyon Trailhead Connections	Shared-Use Paths	Construct trail connections to Mill Creek Canyon Trailhead (Powerhouse Lane) to Pack Creek and/or Millcreek pathways	15
AT15	Sand Flats Road Shared-Use Path	Shared-Use Paths	Construct shared-use path from Sand Flats Road Access to Porcupine Rim Trailhead	16

Roadway projects are shown in **Table ES-4** in prioritized order.

Table ES-4. Prioritized Roadway Projects

Project Number	Project Name	Project Category	Project Description	Prioritized Ranking
R6	200 North and US 191 Traffic Signal	Intersection Control	Construct traffic signal at US 191 at 200 North intersection	1
R10	Kane Creek Boulevard	Roadway Improvement	Reconstruct and widen Kane Creek Boulevard from US 191 to Kane Creek Recreation Parking; include intersection improvements to Kane Creek Boulevard and 500 West	2
R4	Millcreek Drive/Aggie Blvd and US 191 Traffic Signal	Intersection Control	Construct traffic signal at Millcreek Drive and US 191 intersection	3
R3	US 191 to Spanish Valley Drive Connection near Beeman Road	Roadway Connection	Construct new east-west street connection between Spanish Valley Drive and US 191 near Beeman Road	4
R2	Walnut Lane Street Connection	Roadway Connection	Construct street connection and sidewalk of Walnut Lane to Orchard Park Lane (Hospital Road)	5
R5	Meador Drive and US 191 Traffic Signal	Intersection Control	Construct traffic signal at US 191/Meador Drive	6
R8	US 191 Gemini Bridges and Bar M Access Improvements	Roadway Improvement	Realignment of access roads on US 191 at Gemini Bridges and Bar M (AKA Old Highway, Moab Canyon)	7
R7	West Moab Boat Dock Road and US 191 Improvements	Roadway Improvement	Identify and construct safety improvements to Moab Boat Dock Road intersection at US 191	8
R1	Park Drive Connection	Roadway Connection	Construct street connection and sidewalk of Park Drive, Opal Avenue to Park Road	9
R9	Sand Flats Road Improvement	Roadway Improvement	Roadway improvement (paving) on Sand Flats Road from Sand Flats Road Access to Porcupine Rim Trailhead	10

Parking and transit improvement projects are shown in **Table ES-5** and were prioritized by the project team and TAC.

Table ES-5. Prioritized Parking and Transit Projects

Project Number	Project Name	Project Category	Project Description	Prioritized Ranking
P1	Oversized Lot Parking Improvements	Parking	Construct oversized parking lots north and south of downtown Moab	1
P3	US 191 Parking	Parking	Evaluate no parking zones on US 191 to limit parking inhibiting sight distances; include freight parking	2
T1	Multimodal Transfer Center	Transit	Construct a multimodal transfer center near Canyonlands Regional Airport, connecting Moab Canyon Pathway, SR 128 Trail, SR 313, and shuttle services	3
P2	Arches National Park Overflow Parking Area	Parking	Construct parking at UMTRA site for Arches National Park/City Shuttles/etc.	4
T2	Grand County Shuttle System	Transit	Implement shuttles (transit, medical, retail, etc.) to serve key destinations including Arches, Airport, Hospital, USU, Spanish Valley/Spanish Trail Road, Rocky Mountaineer Hub, etc.	5

The roadway and active transportation planning assessments were not prioritized using the same methodology as the active transportation and roadway projects. The recommended planning assessments should be completed when funds are available. The County and City can coordinate efforts to complete planning assessments that traverse multiple jurisdictions.

The planning assessments were prioritized based on input from the project team and TAC. Active transportation planning assessments are prioritized in **Table ES-6** and roadway planning assessments are prioritized in **Table ES-7**.

Table ES-6. Prioritized Active Transportation Planning Assessments

Project Number	Project Name	Project Category	Project Description	Prioritized Ranking
AT Plan 3	Pack Creek Drainage Assessment	Active Transportation Planning Assessment	Complete an assessment/feasibility study for improvements to the Pack Creek drainage including a bike trail, fire break, access, and floodway considerations	1
AT Plan 1	500 West Safe Routes to School Improvements	Active Transportation Planning Assessment	Evaluate bike lane and parking needs on 500 West from 400 North to US 191 to provide a "Safe Route to School"	2
AT Plan 2	100 West Corridor Assessment	Active Transportation Planning Assessment	Complete a corridor assessment for 100 West from Swanny City Park to 100 South including pedestrian and bicycle crossings, sidewalks, capacity improvements, and bike lane needs	3

Table ES-7. Prioritized Roadway Planning Assessments

Project Number	Project Name	Project Category	Project Description	Prioritized Ranking
Roadway Plan 1	Millcreek Drive Corridor Assessment and Preliminary Plan	Roadway Assessment	Prepare preliminary plans for the Millcreek Drive from Spanish Valley Drive to Fourth East, including the Fourth East/300 South intersection. Plans may identify improvements to the following: • Millcreek Drive / Spanish Valley Drive • Millcreek Drive / Murphy Lane • Millcreek Drive / Sand Flats Road • Millcreek Drive / Fourth East • Fourth East / 300 South	1
Roadway Plan 3	Spanish Valley Drive	Roadway Assessment	Conduct an assessment of capacity and multimodal improvements to Spanish Valley Drive from Millcreek Drive to County Line; Spanish Valley Drive to be an alternative route to US 191 during incidents	2
Roadway Plan 4	Spanish Trail Road	Roadway Assessment	Conduct an assessment of capacity and multimodal improvements to Spanish Trail Road from US 191 to Murphy Lane	3
Roadway Plan 2	Fourth East Improvements	Roadway Assessment	Conduct an assessment of capacity and multimodal improvements (intersection and segment) to Fourth E. Street between 100 North and US 191	4

Funding for transportation needs can come from a variety of federal, state, and local sources. Leveraging funds from a variety of available sources is an important component of a transportation master plan and various available sources of funding are explored in the UTMP.

Next Steps

Similar to any plan, this UTMP provides perspective from a specific point in time. The UTMP should be regularly updated to reflect work accomplished, identify new needs that arise, and update funding resources and cost estimates. Ultimately, implementation of UTMP recommendations requires identification of funding for the proposed prioritized projects.

2. Introduction

Grand County and City of Moab collaboratively prepared this Unified Transportation Master Plan (UTMP). The UTMP identifies actionable steps, strategies, and specific projects to achieve the community's goals for a safe, reliable, connected, and efficient transportation system to improve mobility and connectivity for people, using all modes of transportation.

The UTMP recommends projects to be considered for implementation in Grand County and Moab over the next 5, 10, and 20 years. Prioritized projects include street connections, roadway improvements, and new pathways.

Upon implementation, projects will improve mobility for residents and visitors in Grand County and the City of Moab. Planning-level cost estimates are provided. Recommendations are prioritized considering community, stakeholder, and technical advisory committee (TAC) input.

2.1 Project Background

Several regional transportation planning studies have been completed since 2008. These studies vary in their focus and scope, goals, and recommendations. Studies have focused on United States Highway 191 (US 191) under the jurisdiction of the Utah Department of Transportation (UDOT). Others have focused on downtown Moab. This updated unified transportation plan does not replace the studies that have been previously completed.

The focus of the Grand County and City of Moab UTMP is the roads, streets, trails, transportation infrastructure, and connections that are under the jurisdiction and responsibility of Grand County and the City of Moab. While the UTMP makes recommendations for intersections of County or City streets with US 191, the study does not analyze or make recommendations for corridor improvements to US 191 or to the adjacent public lands. Adjacent public lands include Bureau of Land Management, Utah School and Institutional Trust Lands Administration (SITLA), National Parks, United States Forest Service, State Parks, or the adjacent San Juan County. In addition, the study does not provide any additional analysis or recommendation of potential bypass routes around Moab – as those have been previously analyzed – or any evaluation or recommendation regarding the proposed Book Cliffs Highway.

2.2 Goals and Objectives

The UTMP identifies actionable steps and projects to achieve the community's goals for a safe, reliable, connected, and efficient multimodal transportation system, as shown in **Figure 1**. Plan objectives to achieve this goal include:

- Identify current and future transportation needs for Grand County and City of Moab study area.
- Identify multimodal improvements and strategies to meet the needs.
- Prioritize improvements considering community and stakeholder input.
- Prepare preliminary cost estimates and identify applicable funding strategies.
- Develop an implementation plan for near-, mid-, and long-term planning horizons.

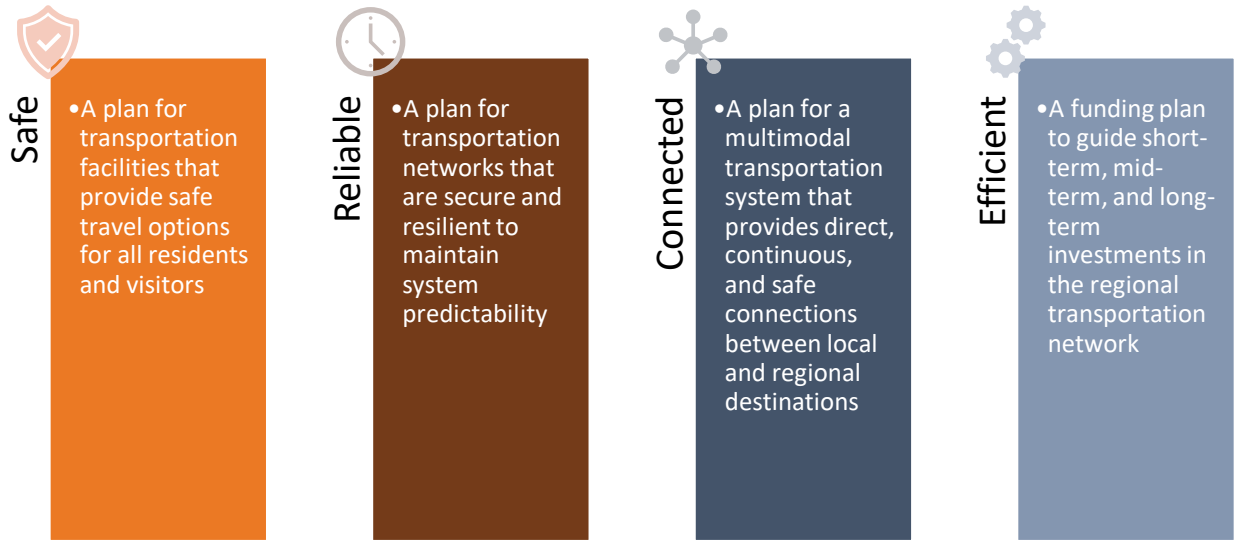


Figure 1. UTMP Outcome Goals

2.3 Study Area

The UTMP study area includes streets and roads under the jurisdiction of Grand County and the City of Moab. **Figure 3** shows the location of the study area within the State of Utah.

The study area encompasses 38.5 square miles and includes the entirety of the City of Moab and a portion of south-central Grand County, including the area known as Spanish Valley.

Figure 4 shows a detailed view of the study area, which generally follows the US 191 corridor in a northwest-southeast direction with extensions along Kane Creek Boulevard to the west and Sand Flats Road to the east. The study area also includes two locations that are discontinuous with the rest of the study area:

- Canyonlands Field Airport near the intersection of US 191 and Blue Hills Road.
- The area around the intersection of US 191 and Utah State Route (SR) 313.

2.4 Planning Process

The UTMP development followed a collaborative effort to establish a vision for the region's transportation system, based on direction from the TAC and considering input from the community and stakeholders.

The UTMP answers four key questions, as illustrated in **Figure 2**:

1. **Where are we now?**
    - The UTMP summarizes existing transportation system conditions and needs.
2. **Where do we want to go?**
    - The UTMP establishes transportation system goals and objectives.
3. **What will it take to get us there?**
    - The UTMP provides recommendations for various modes of transportation.

4. **How do we allocate our resources?**
    - The UTMP guides how resources will be expended for transportation improvements.

The next step following this UTMP is for Grand County and the City of Moab to program the projects within their respective Capital Improvement Programs (CIPs), identify funding sources, and establish timetables for delivery.

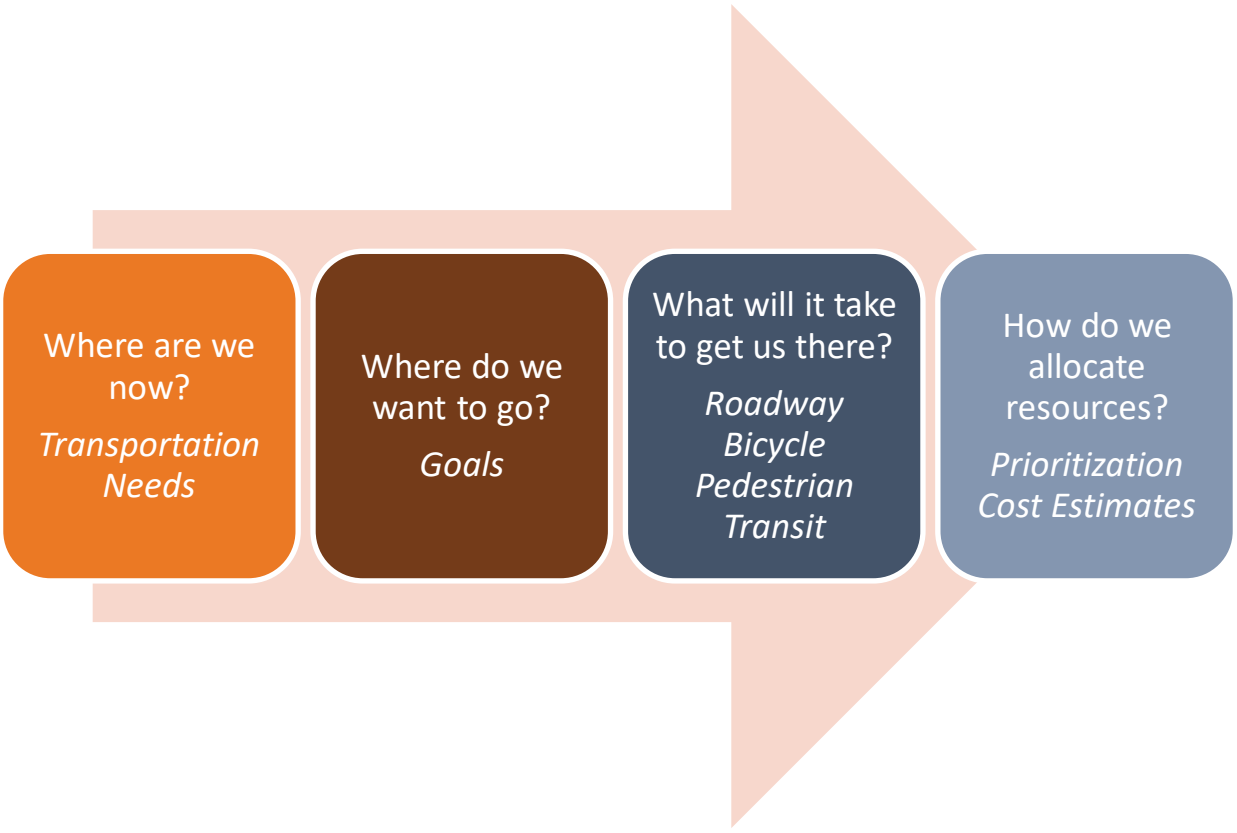


Figure 2. UTMP Planning Process

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Legend

- County
- Water
- Study Area

BOX ELDER
CACHE
RICH
WEBER
MORGAN
DAVIS
SALT LAKE
SUMMIT
DAGGETT
TOOELE
WASATCH
DUCHESNE
UINTAH
UTAH
JUAB
CARBON
MILLARD
EMERY
GRAND
SEVIER
BEAVER
PIUTE
WAYNE
IRON
GARFIELD
SAN JUAN
KANE

84 15 80 40 191 6 89 50 70

0 15 30 Miles

CITY OF MOAB UTAH

Figure 3. Study Area Location

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

191
279
Kane Springs Rd
Utah Hwy. 279 - Potash Rd.
500 West St
400 East St
Sand Flats Rd
Mill Creek Dr
Murphy Ln
Spanish Trail Rd
Spanish Valley Dr
313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

- Major Road
- Other Road
- Railroads
- City of Moab
- Park
- Water
- Study Area

Figure 4. Study Area Detail

3. Previous Plans and Studies

Transportation-related plans and studies previously completed by agencies and jurisdictions within the study area were reviewed for relevant recommendations. The type of improvement recommended and implementation status, if known, were identified. The recommendations were reviewed with the UTMP project team and TAC to determine if a previous improvement recommendation should be further considered within the UTMP. **Table 1** lists the improvements summary by previous plan and study. Italicized projects are not advanced in the UTMP.

The following transportation-related plans, studies, and reports were reviewed. Included are the agencies involved and the year the study was completed.

- Moab and Spanish Valley 2050 Regional Transportation Plan (2021) – UDOT, Grand County, San Juan County, City of Moab, SITLA
- City of Moab 2021-2025 Capital Improvement Project List (2021) – City of Moab
- Moab City Roadway Evaluation and Facilities Plan (2020) – City of Moab
- Moab Downtown Plan (2019) – City of Moab
- Moab Parking Management Study (2019) – City of Moab
- US 191 Truck Parking Study (2019) – UDOT
- San Juan County Spanish Valley Area Plan (2018) – San Juan County
- Spanish Valley Plan – US Highway 191 Access Management Plan (2018)
- Main Street (US-191) Moab Bypass Planning Study (2018) – UDOT
- Grand County Spanish Valley Shared Use Path (2018) – Grand County
- US 191 Corridor Preservation Study, MP 112.0-123.4 (2015) – UDOT
- Book Cliffs Transportation Corridor Study (2015) – Grand County, Uintah County, Duchesne County, SITLA
- Grand County to Uintah County Connection Final Feasibility Study (2014) – UDOT
- Grand County Utah General Plan (2012) – Grand County
- Grand County Non-Motorized Trails Master Plan (2011) – Grand County
- Grand County Scenic Byways Corridor Management Plan (2008) – Grand County
- Spanish Valley Transportation Plan (2008) – Grand County
- Moab Transportation Plan (2004) – UDOT

Table 1. Previous Plans and Studies Recommended Improvements Summary

Previous Plan, Study, or Report	Recommendation	Improvement Category	Status	Feedback Received
Moab and Spanish Valley 2050 Regional Transportation Plan (2021)	US 191 SB passing lane, MP 143.9 to 145.4	Roadway Capacity	Incomplete	
	US 191 west multimodal path connection, 100 W to Kane Creek Boulevard	Active Transportation	Incomplete	
	Separated trail system along Spanish Valley Drive, from Millcreek Drive to Coronado Street	Active Transportation	Incomplete	This project has been funded and will be managed by Grand County
	Widen and update Kane Creek Road, including bike lanes, from US 191 to Campgrounds near Moab Rim Trailhead	Roadway Capacity	Incomplete	
	US 191 Frontage Road system from Millcreek to south Spanish Valley (Phases 1 and 2), intersection projects and frontage roads	Roadway Capacity	Incomplete	UDOT has a current study underway for this project
	Intersection improvement, 200 North and Main	Intersection Improvements	Incomplete	
	Electronic message board system for congestion, parking, and special notices	Parking	Incomplete	
	Transit/shuttle study including intercity bus service to Wasatch Front and Grand Junction	Transit	Ongoing	Awarded to Moab by UDOT for a five-year pilot to begin service spring of 2022
	Pilot shuttle project	Transit	Ongoing	
	Plan for Millcreek Parkway continuation	Active Transportation	Ongoing	
	Multimodal transfer center near Canyonlands Field Airport airport, connecting Moab Canyon Pathway, SR 128 Trail, and any shuttle service	Transit	Incomplete	
City of Moab 2021-2025 Capital Improvement Project List (2021)	400 East construction	Roadway Capacity	Incomplete (3-5 years)	This project is not currently funded
	400 East bridge widening (over Pack Creek)	Roadway Capacity	Incomplete (1-2 years)	This is a current programmed project
	Median parking	Parking	Incomplete (1-2 years)	This is a current programmed project
	100 West construction	Roadway Capacity	Incomplete (3-5 years)	This project is not currently funded
	Minnie Lee paving improvements	Maintenance/Preservation	Incomplete (1-2 years)	This is a current programmed project
	Emma Boulevard dispersed parking	Parking	Incomplete (1-2 years)	This is a current programmed project
	Shuttle/transit project	Transit	Incomplete (3-5 years)	Awarded to Moab by UDOT for a five-year pilot to begin service spring of 2022
Moab City Roadway Evaluation and Facilities Plan (2020)	Establish a comprehensive pavement maintenance program	Maintenance/Preservation	Incomplete	
	Budget funds for pavement preservation treatments	Maintenance/Preservation	Ongoing	

Previous Plan, Study, or Report	Recommendation	Improvement Category	Status	Feedback Received
Moab Downtown Plan (2019)	*Raised median, Main Street from 100 North to 100 South*	*Roadway Capacity*	*Incomplete*	*Recommend that project not advance*
	Support bypass (US-191)	*Roadway Capacity*	*Incomplete*	*Recommend that project not advance; UDOT does not have plans to further consider a US 191 bypass*
	Widen sidewalk on west side by two feet, Main Street from 400 North to 200 South	Active Transportation	Incomplete	
	Add curb bulb-outs, Main Street from 200 North to 100 South	*Intersection Improvements*	*Incomplete*	*Recommend that project not advance*
	Cycle track, 100 West from 400 North to 100 South	*Active Transportation*	*Incomplete*	*Recommend that project not advance*
	Bike Lanes, 100 South from 100 West to 100 East	*Active Transportation*	*Incomplete*	*Recommend that project not advance*
	Bike Lanes, 100 North from 100 West to 100 East	*Active Transportation*	*Incomplete*	*Recommend that project not advance*
	Bike Lanes, 100 East from 200 North to Millcreek Trail	Active Transportation	Incomplete	
	Downtown parking garage	*Parking*	*Incomplete*	*Recommend that project not advance; this project has been rescoped into dispersed parking*
	Back-in parking, 100 South from 100 West to 100 East	*Parking*	*Incomplete*	*Recommend that project not advance*
	Back-in parking, 100 North from 100 West to 100 East	Parking	Incomplete	Back-in parking was installed, and after numerous complaints, was reverted back to front-in parking
	Back-in parking, 100 East from 100 North to 100 South	Parking	Incomplete	
	Downtown Core: sidewalk, curb/gutter, vegetation, site amenities, lighting retrofits replacements	*Maintenance/Preservation*	*Incomplete*	*Many of the Main Street Improvements recommended would require UDOT approval*
Moab Parking Management Study (2019)	Continue with FREE parking	Parking	Ongoing	
	Public parking sign with a two-hour time limit	*Parking*	*Ongoing*	*City of Moab planning to implement*
	Add parking signs to encourage parking in the City-owned lots and available spaces	Parking	Incomplete	
	Add red curb paint to restrict parking within 30 feet of an intersection	Parking	Ongoing	
	Back-in angle parking on roads with planned bike lanes	*Parking*	*Incomplete*	*Recommend that project not advance*
	Delineate specific parking stalls for the parallel parking downtown, especially on Main Street	*Parking*	*Incomplete*	*Recommend that project not advance*
	Continue forward with the plan to add a parking garage on the current city lot	*Parking*	*Incomplete*	*Recommend that project not advance*
	Continue forward with the plan to add oversized parking lots north and south of Moab	Parking	Incomplete	
	Add wayfinding signs to encourage walking to destinations one to two blocks away	Active Transportation	Incomplete	

Previous Plan, Study, or Report	Recommendation	Improvement Category	Status	Feedback Received
US 191 Truck Parking Study (2019)	*No applicable projects recommended in study*			
San Juan County Spanish Valley Area Plan (2018)	Develop a well-connected transportation system with safe access from US 191 that incorporates multiple modes of transit (shuttle/bus, bicycle, walking, etc.)	Active Transportation	Ongoing	
Spanish Valley Plan - US Highway 191 Access Management Plan (2018)	Establish US 191 as a Limited Access Highway with three to five interchanges	Roadway Capacity	Incomplete	
	Establish frontage roads alignments along US 191	Roadway Capacity	Incomplete	Current UDOT Study
	Establish six east-west connector roads, one every mile	Roadway Capacity	Incomplete	
	Establish neighborhood centers along Spanish Valley Drive	Roadway Capacity	Incomplete	
Main Street (US-191) Moab Bypass Planning Study (2018)	*Add the bypass as a project to state and local transportation plans*	*Roadway Capacity*	*Ongoing*	*Recommend that project not advance; UDOT does not have plans to further consider a US 191 bypass. Moab City Council and Grand County Commission both passed resolutions against the bypass in 2020.*
	Advance the two alternatives studied by completing National Environmental Policy Act (NEPA) requirements, public outreach, and identifying funding	*Roadway Capacity*	*Incomplete*	
Grand County Spanish Valley Shared Use Path (2018)	Shared use path parallel to Spanish Valley Drive	Active Transportation	Ongoing	
US 191 Corridor Preservation Study, MP 112.0-123.4 (2015)	Traffic signal at Old Spanish Trail Arena (MP 120.6)	Intersection Improvements	Incomplete	
	Traffic signal at Spanish Trail Road (MP 121.5)	Intersection Improvements	Incomplete	Intersection improvements (signal) are in design
	Traffic signal at Millcreek Drive (MP 123.2)	Intersection Improvements	Incomplete	Should be evaluated
Books Cliffs Transportation Corridor Study (2015)	*No applicable projects recommended in study*			
Grand County to Uintah County Connection Final Feasibility Study (2014)	*No previous recommendations within the study area*			
Grand County Utah General Plan (2012)	Facilitate planning and coordination of regional multimodal transportation	Active Transportation	Ongoing	
	Work with UDOT and City of Moab to improve US 191 and its intersections south of Moab	Intersection Improvements	Ongoing	
Grand County Non-Motorized Trails Master Plan (2011)	Address overcrowding, create more single-track trails	Active Transportation	Ongoing	
Grand County Scenic Byways Corridor Management Plan (2008)	*No previous recommendations within the study area*			

Previous Plan, Study, or Report	Recommendation	Improvement Category	Status	Feedback Received
Spanish Valley Transportation Plan (2008)	Improve Millcreek Drive to a three- to four-lane cross section	Roadway Capacity	Incomplete	New bridge over Pack Creek constructed in 2010.
	Improve Spanish Valley Drive to a three- to four-lane cross section from Millcreek Drive to the County Line	Roadway Capacity	Incomplete	
	Extend five-lane section of US 191 from Sage Avenue to Spanish Trail Road and eventually to County Line	Roadway Capacity	Incomplete	
	Construct new east-west connectors between Murphy Lane and Spanish Valley Drive at Marshall Lane; and between Spanish Valley Drive and US 191 near Beeman Road	Roadway Capacity	Incomplete	
	Geometric improvements and/or signalization at the following intersections: • Holyoak Lane / Millcreek Drive • Spanish Valley Drive / Millcreek Drive • Murphy Lane / Millcreek Drive • Sand Flats Road / Millcreek Drive • US 191 / Sage Avenue • US 191 / Spanish Trail Road • Spanish Trail Road / Spanish Valley Drive	Intersection Improvements	Incomplete	US 191 / Spanish Trail Road intersection recently signalized.
Moab Transportation Plan (2004)	New signs and enforcement to reduce speeds on Main Street (US 191)	Enforcement	Ongoing	
	Add pedestrian crossing and bicycle lanes (downtown area)	Active Transportation	Ongoing	
	School crossings at US 191 at 400 North and Uranium	Active Transportation	Ongoing	
	Emergency vehicle preemption on Moab's traffic signals	Intersection Improvements		
	Traffic calming medians (general area)	Roadway Capacity	Ongoing	
	By-pass feasibility study	*Roadway Capacity*	*Complete*	*Moab City Council and Grand County Commission both passed resolutions against the bypass in 2020*
	Moab shuttle service	Transit	Ongoing	Programmed project; awarded to Moab by UDOT for a five-year pilot to begin service spring of 2022
	Enhancements to the North Corridor including adequate turning lanes and highway width and bicycle/pedestrian trails	Roadway Capacity	Ongoing	

4. Current Conditions

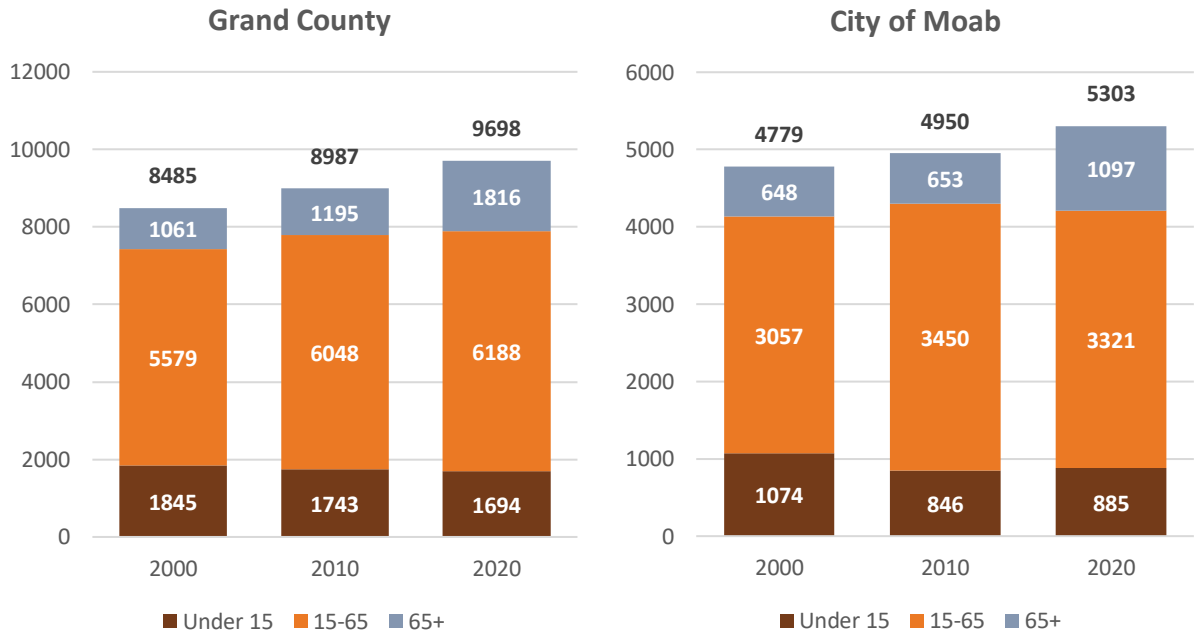
An understanding of the current state and potential deficiencies of the transportation system informs identification and prioritization of potential projects.

Current conditions also serve as the baseline for identification of future transportation deficiencies that will be addressed by UTMP recommendations.

4.1 Population, Employment, and Development

The total population of Grand County is estimated at approximately 9,698 residents, as shown in **Figure 5**. Since 2000, the population has grown by roughly 1,200 residents, an average annual rate of 0.67%. The fastest growing age group is those 65 and older, which grew by over 70% over the past 20 years. In contrast, the population age 15 and younger has declined by almost 9%.

Moab has seen slightly slower growth than Grand County, growing by over 500 permanent residents over the last 20 years, at an average annual growth rate of 0.52%. Similar to Grand County, the population 65 and older has grown by 69% and the population age 15 and younger has declined by 21%.



Source: U.S. Census Bureau (2000 Decennial Censuses, American Community Survey 2010 and 2020 5-Year Estimates)

Figure 5. Grand County and Moab Population by Age (2000-2020)

Study area population is unevenly distributed throughout the region. **Figure 6** shows population density by Traffic Analysis Zone (TAZ) from the Wasatch Front Regional Council (WFRC) Statewide Travel Demand Model (TDM). Population densities are highest to the north and west of downtown Moab, along the 400 North corridor. The area southeast of downtown Moab, along 300 South and Locust Lane also has relatively high population density. The remainder of the study area has relatively low population density, particularly away from central Moab and the residential areas in Spanish Valley.

4.1.1 Employment

Employment data was obtained from the WFRC Statewide TDM at the TAZ level. It is estimated that there are 8,311 jobs within the study area. Similar to population, employment is also unevenly distributed throughout the region. **Figure 7** shows the distribution of employment density. Employment is highly concentrated in downtown Moab. The area along US 191 between Bowling Alley Lane and 400 North has the highest density of employees in the study area. The remainder of the study area has sparse employment.

What is a Traffic Analysis Zone?

The development of the UTMP relies in part on the analysis of the WFRC TDM, which forecasts future traffic patterns and trends based on calibrating a base-year model from observed traffic conditions and future projections of population and employment demographics.

The TDM uses unique, custom zones based on Census Tracts and Blocks as well as natural and manmade barriers to travel, such as rivers and railroads. Demographic information, such as population and employment characteristics, is assigned to each TAZ based on U.S. Census Bureau data paired with data from other local and state sources. In the UTMP study area, there are a total of 57 model TAZs within or partially within the study area.

4.1.2 Potential Growth Areas

Vacant properties within the study area represent potential growth opportunities for Grand County and the City of Moab. **Figure 8** shows vacant properties by acreage in the study area. Larger properties provide an opportunity for regional-scale developments and planned communities, while smaller properties provide an opportunity for small-scale, infill development to increase density within the existing built environment.

Larger parcels are most prevalent on the edges of the study area, where topography may limit the development potential of some parcels. There are several large vacant properties on US 191 north of downtown Moab as well as properties on Sand Flats Road east of Millcreek Drive. There are several moderately sized vacant parcels on either side of 500 West, west of downtown Moab, though several of these parcels are impacted by Millcreek, which may limit development. Smaller parcels are scattered throughout the City.

4.1.3 Tourism

Grand County and Moab continue to be tourism destinations for the region. In 2021, Arches National Park recorded over 1.8 million visitors and nearby Canyonlands National Park recorded over 900,000 visitors[1]. Along with national parks, Grand County and Moab provide access to multiple other tourism and recreation destinations such as Dead Horse Point State Park, Utahraptor State Park, Green River State Park, Sand Flats Recreation Area, the Colorado River, and renowned hiking, biking, and off-road vehicle recreation.

[1] https://irma.nps.gov/STATS/, accessed April 2022

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

191

279

Sand Flats Rd

500 West St

400 East St

Kane Springs Rd

Utah Hwy. 279 - Potash Rd.

Mill Creek Dr

Murphy Ln

Spanish Trail Rd

Spanish Valley Dr

313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

People/Sq. Mi.
- Less than 150
- 150 to 500
- 500 to 1,000
- 1,000 to 2,500
- Greater than 2,500
- Major Road
- Other Road
- Water
- Park
- City of Moab
- Railroads
- Study Area

CITY OF MOAB UTAH

Figure 6. Current Population Density by TAZ (2020)

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Study Area extends southwest on Kane Creek Boulevard to Pritchett

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Arches National Park

Utah Hwy. 128 - River Rd.

Sand Flats Rd

500 West St

400 East St

Sand Flats Rd.

Mill Creek Dr

Murphy Ln

Spanish Trail Rd

Spanish Valley Dr

Kane Springs Rd

Potash Rd.

Utah Hwy. 279 - Potash Rd.

191

279

313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

Employees/Sq. Mi.
- Less than 250
- 250 to 1,000
- 1,000 to 2,500
- 2,500 to 5,000
- Greater than 5,000
- Major Road
- Other Road
- Water
- Park
- City of Moab
- Railroads
- Study Area

Figure 7. Current Employment Density by TAZ (2020)

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

191

279

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Sand Flats Rd

500 West St

400 East St

Sand Flats Rd.

Mill Creek Dr

Murphy Ln

Spanish Trail Rd

Spanish Valley Dr

Kane Springs Rd

Hwy. 279 - Potash Rd.

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

Potential Growth Areas
- <2 acres
- 2 - 5 acres
- 5 - 20 acres
- 20 - 40 acres
- >40 acres

Major Road
Other Road
Water
Park
City of Moab
Railroads
Study Area

CITY OF MOAB UTAH

Figure 8. Potential Growth Areas

4.2 Planned Projects

Grand County and the City of Moab each have planned or programmed projects. The programmed transportation improvements will be considered when evaluating the 2040 and 2050 horizon years.

4.2.1 Grand County Projects

Several Grand County projects recommended in the 2008 Spanish Valley Transportation Plan are actively in the planning process. These projects are shown in **Table 2**.

Table 2. Grand County Project List

Project	Improvement Category
Improve Millcreek Drive to a three- to four-lane cross-section	Roadway Capacity
Improve Spanish Valley Drive to a three- to four-lane cross-section from Millcreek Drive to the County Line	Roadway Capacity
Extend the five-lane section of US 191 from Sage Avenue to Spanish Trail Road (and eventually to the County Line)	Roadway Capacity
Construct new east-west connectors between Murphy Lane and Marshall Lane	Roadway Capacity
Construct new east-west connectors between Spanish Valley Drive and US 191 near Beeman Road	Roadway Capacity
Geometric improvements and/or signalization at: • US 191 and Spanish Valley Drive • Holyoak Lane and Millcreek Drive • Spanish Valley Drive and Millcreek Drive • Murphy Lane and Millcreek Drive • Sand Flats Road and Millcreek Drive • US 191 and Sage Avenue • US 191 and Spanish Trail Road • Spanish Trail Road and Spanish Valley Drive	Intersection Improvements

4.2.2 City of Moab Projects

The City of Moab has programmed transportation projects in its 2021-2025 Capital Improvement Plan. **Table 3** shows the programmed transportation projects anticipated to be completed over the next five years.

Table 3. City of Moab Five-Year Plan Projects

Project	Improvement Category	Estimated Cost	Priority
400 East Construction	Roadway Capacity	$1,693,119	3-5 Years
400 East Bridge Widening (over Pack Creek)	Roadway Capacity	$740,000	1-2 Years
Median Parking	Parking	$6,765,406	1-2 Years
100 West Construction	Roadway Capacity	$1,247,936	3-5 Years
Emma Boulevard Dispersed Parking/Minnie Lee Paving Improvements	Maintenance/Preservation/Parking	$487,791	1-2 Years
Shuttle/Transit Project	Transit	$1,500,000	3-5 Years

Source: City of Moab 2021-2025 Capital Improvement Project List

4.3 Streets and Roadways

Roads serve as the foundation of the regional transportation network, accommodating motor vehicles, freight, transit users, pedestrians, and bicyclists. Roads are the main component of the transportation network throughout the study area, and the primary public space in which residents travel daily.

In all, there are 221 miles of roads of various conditions and types. The efficiency, safety, and condition of the area's road and bridge network is essential to the functionality of the other transportation modes and to the economic prosperity and quality of life of the region.

4.3.1 Functional Classification

Transportation planners and engineers categorize roadways based on the type of traffic they are intended to serve, referred to as functional classification.

Three main functional classes are defined by the Federal Highway Administration (FHWA): arterial, collector, and local based on speed, vehicular capacity, and relationships with adjacent land uses as described in **Table 4**.

Functional classifications have an inverse relationship between land access and mobility as shown in **Figure 9**, based on the types of trips they are intended to serve. The functional classification map for the study area is shown in **Figure 10**.

Arterials move people for long distances at higher speeds within a city or between cities.

Collector streets are lower speed and shorter distances than arterials and connect travelers to the arterials.

Local streets are very low speed, extend for short distances, and provide direct access to residential and commercial properties.

Table 4. Federal Functional Classification Definitions

Functional Classification	Services Provided	Types
Arterial	Provides the highest Level of Service (LOS) at the greatest speed for the longest uninterrupted distance, with some degree of access control.	• **Principal Arterial.** Serves major activity centers; links urban areas; provides high connectivity. • **Minor Arterial.** Connects principal arterials; provides accessibility.
Collector	Provides a less highly developed LOS at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.	• **Major Collector.** Generally, major collector routes are longer; have lower connecting driveway densities; have higher speed limits; are spaced at greater intervals; have higher annual average traffic volumes; and may have more travel lanes than minor collectors. • **Minor Collector.** These roadways collect traffic from the local roadway network and distribute them to the major collector or arterial system.
Local	All roads not defined as arterials or collectors; primarily provides access to land with little or no through traffic.	

Why is Federal Functional Classification Important?

A road must be federally functionally classified as an arterial or collector road to be eligible for federal funding for improvements.

There are 221 miles of roadways within the study area. **Table 5** shows the breakdown of functional classification by mileage: 9.2% of the roadway mileage in the study area is arterial roadways, 15.9% are collectors, and 74.9% are local. There are no freeways or interstates within the study area.

US 191 is the highest classified roadway in the region as the only principal arterial. Other major regional roadways are classified as minor arterials, including 4th East Street, 100 North, and Millcreek Drive. Kane Creek Boulevard, Sand Flats Road, and SR 313 are classified as major collectors.

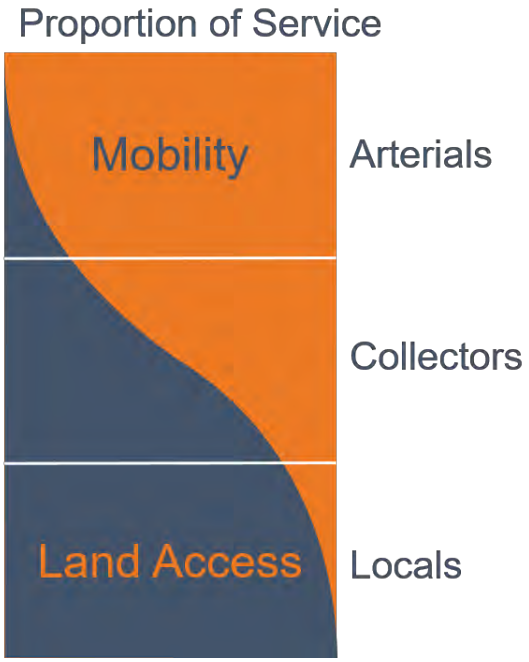


Figure 9 . Functional Classification

Table 5. Functional Classification Mileage

Functional Classification	Approximate Mileage	% of Total Mileage
Arterial	**20.4**	**9.2%**
Principal Arterial	16.8	7.6%
Minor Arterial	3.6	1.6%
Collector	**35.3**	**15.9%**
Major Collector	24.0	10.8%
Minor Collector	11.3	5.1%
Local	**165.5**	**74.9%**

4.3.2 Intersection Types

Most intersections in the study area are stop-controlled (either a four-way stop or side street stops). There are some intersections in the City of Moab that have different intersection control, including traffic signals, HAWK/PHB signals, and a roundabout. These locations are also shown geographically in **Figure 11**.

Table 6. Intersection Control by Location

Intersection Control Type	North-South Roadway	East-West Roadway
Traffic Signal	US 191	SR 128
	500 West	US 191
	US 191	100 North
	US 191	Center Street
	US 191	100 South
	US 191	200 South
	US 191	300 South
	US 191	Kane Creek Boulevard
	4th East	US 191
	US 191	Spanish Trail Road
HAWK Signal	US 191	Uranium Avenue
	US 191	Rosalie Court
Roundabout	Murphy Lane	Spanish Trail Road

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

191

279

313

Potash Rd

Kane Springs Rd

State Hwy. 279

Sand Flats Rd

Mill Creek Dr

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

Functional Classification
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Other Road

- Railroads
- City of Moab
- Park
- Water
- Study Area

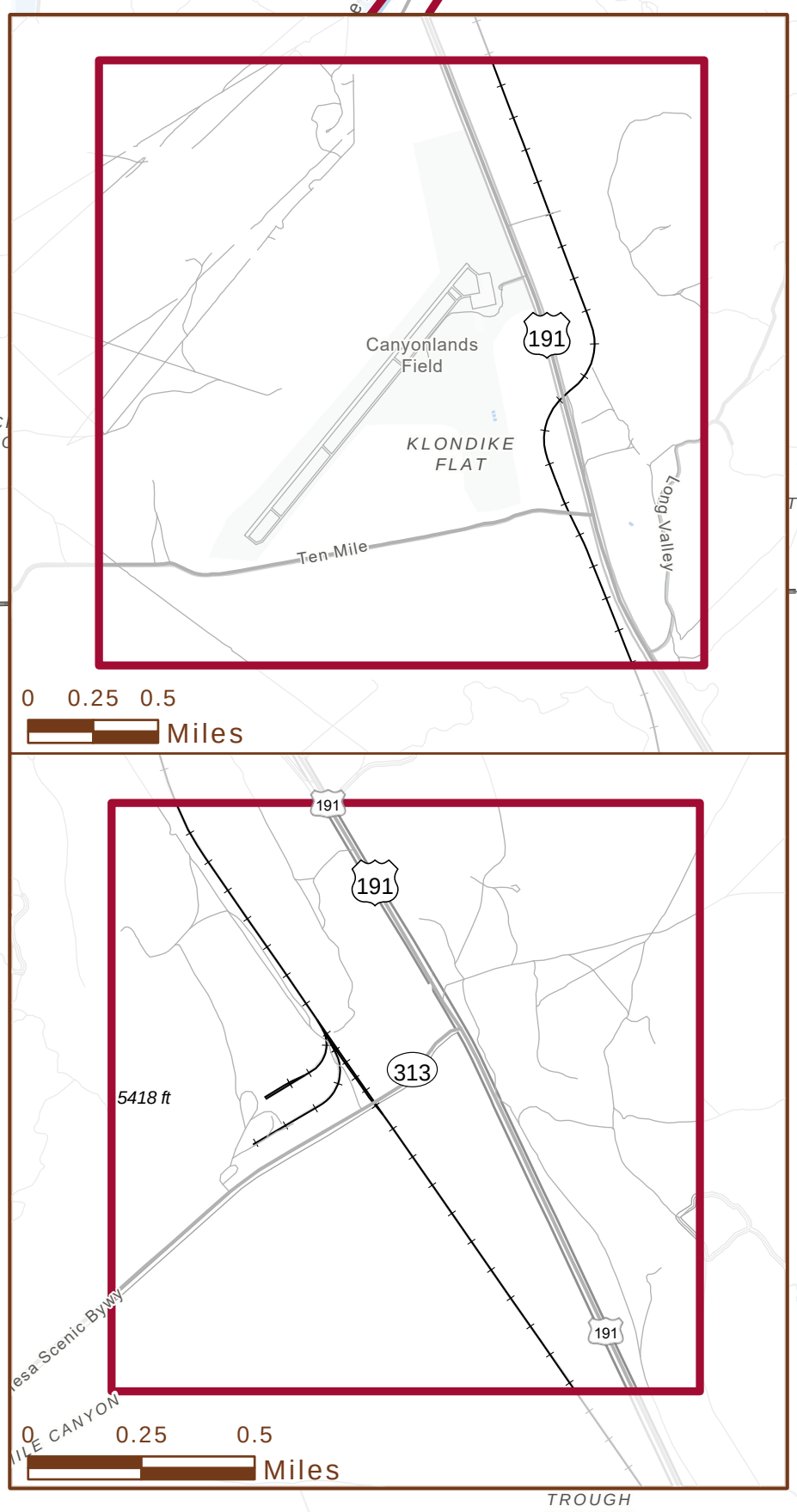
CITY OF MOAB UTAH

Figure 10. Functional Classification

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead



Legend

Intersection Type
- Traffic Signal
- HAWK Signal
- Roundabout

- Major Road
- Other Road
- Railroads
- City of Moab
- Park
- Water
- Study Area

0 0.5 1 Miles

Figure 11. Intersection Types

4.4 Active Transportation

Residents and visitors to Grand County and the City of Moab benefit from a climate and landscape conducive to choosing active transportation. With few rainy days, gentle topography along the valley floors, and beautiful vistas, walking and biking in Moab are enjoyable ways to travel.

This section provides an overview of active transportation in Grand County and the City of Moab including current trends, existing walking and biking infrastructure, local destinations, and gaps and needs in the network.

4.4.1 Existing Travel Trends

Eight percent of people in Moab live with a disability, 21% of the population is less than 18 years old, and 17.5% are 65 years or over, underscoring the importance of developing a transportation system that can provide for those who are unable to drive a vehicle.

Journey to Work

Based on the 2015-2019 ACS five-year estimates, most residents in Grand County commute to work by driving alone (74.5%), followed by bicycling at 5.9%.

Figure 12 compares Grand County's mode share compared to other small urban areas located near national parks, and to the State of Utah. It is important to note there is no public transit system in Grand County or the City of Moab.

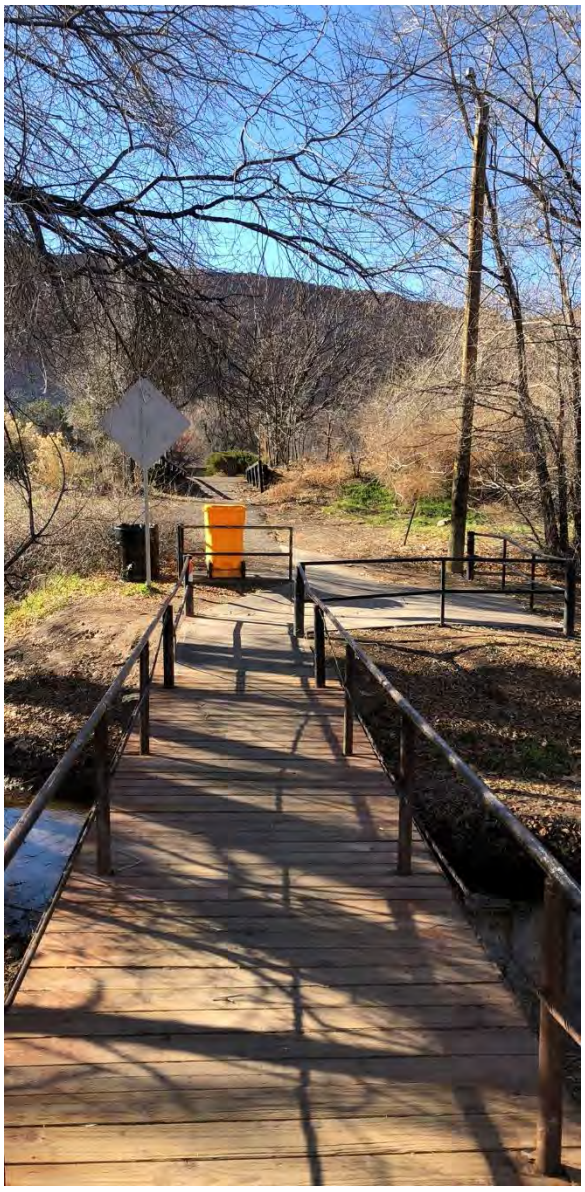


Image Credit: Kimley-Horn

While current bicycle/pedestrian mode share is relatively low, there is potential for progress. The ACS data show that the mean travel time to work for City of Moab residents is 9.4 minutes, compared to 26.9 minutes for the United States. Residents within the study area predominantly live within five miles of the center of Moab. These short times and distances create the opportunity to transform driving trips into walking or bicycling trips.

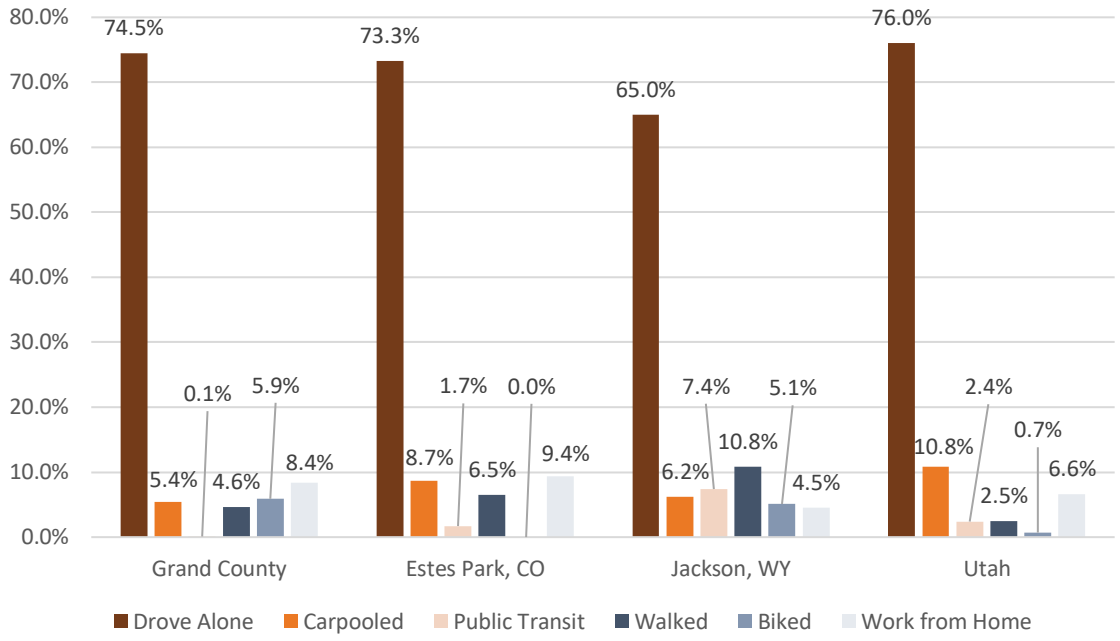


Figure 12. Commute Mode to Work

4.4.2 Trails, Paths, and Biking Infrastructure

Shared-Use Paths and Side Paths

These facilities are paved off-street paths/trails adjacent to roadways, along riparian or rail corridors, or through parks and open space. They are typically 10-12 feet wide (8 feet minimum) and are designed to accommodate two-way travel by people walking, biking, rolling, or using other non-motorized modes. There are approximately 11.3 miles of shared-use paths of varying character within the study area. The primary shared-use paths in and around Moab are:

- **Mill Creek Parkway.** This shared-use path runs along Mill Creek from 500 West to Lasal Road for roughly 1.6 miles. West of 100 West, the path is loose sand/dirt. East of 100 West, the path is paved.
- **Colorado River Pathway.** The paved Colorado River Pathway alternates between being a buffered and separated path between the Colorado River and SR 128. It would connect Lions Park to Grandstaff Campground and the Porcupine Rim Trail, except there is a 0.5-mile gap near Icebox Canyon.
- **500 West Side Path.** This attached, paved side path runs on the West side of 500 West between 400 North and Kane Creek Boulevard where it transitions into a sidewalk. Just after the intersection with Mountain View Drive, the sidewalk ends. The side path on 500 West provides a connection to an underpass that allows users to access either Williams Way or Mill Creek Parkway.
- **100 West Sidepath/Emma Boulevard.** This route runs from a HAWK signal on US 191 to the Mill Creek Parkway via a paved side path along 100 West, and a new trail parallel to Emma Boulevard. The facilities allow bicyclists to bypass busy Main Street (US 191).
- **Moab Canyon Pathway.** This paved, shared-use path connects Arches National Park and numerous destinations north of Moab. The trail is separated from traffic by a variety

of methods, including bollards, concrete barriers, and a dirt strip. The trail parallels US 191 north past the entrance to Arches National Park until it terminates at the intersection of US 191 and SR 313. The trail was recently extended further south into Moab to Emma Boulevard.

Image Credit: Kimley-Horn

Bike Lanes

Bike lanes are provided by designating four to seven feet of roadway width for exclusive bicycle use with six-inch striped lanes. There are approximately 4.9 miles of bike lanes in the study area. Bike lanes exist on several streets within Moab including 400 North, 500 West, and 4th East.

Figure 13 shows the bicycle network in the study area.

4.4.3 Pedestrian Infrastructure

Pedestrian infrastructure consists of trails, paths, and sidewalks. Sidewalks through downtown Moab, along Main Street/US 191, are attached and typically 8-12 feet wide to accommodate high pedestrian volumes on weekends and during peak tourism season.

There are 46.5 miles of existing sidewalks in Moab. While the sidewalk network within the city is generally complete, sidewalks are generally lacking throughout other parts of the study area and in Spanish Valley, except for small pockets within newer developments.

Figure 14 shows pedestrian facilities in Grand County and the City of Moab.

Image Credit: Kimley-Horn

4.4.4 Active Transportation Destinations

Figure 15 shows major active transportation destinations within the study area, which can benefit by improved active transportation access.

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

191

279

See Inset

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Sand Flats Rd.

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

State Hwy. 279 - Potash Rd.

Kane Springs Rd

100 West St

100 North St

Center St

100 South St

Kane Creek Blvd

400 East St

Mill Creek Drive

Mill Creek Dr

Murphy Ln

Spanish Trail Rd

Spanish Valley Dr

400 North St

Williams Way

300 South St

0 0.15 0.3 Miles

Legend

- Major Road
- Other Road
- Water
- Park
- Railroads
- Study Area
- Paved Shared Use Trails
- Bike Lanes
- Connecting Bike Routes

0 0.5 1 Miles

CITY OF MOAB UTAH

Figure 13. Bicycle Infrastructure

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

191

279

See Inset

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Sand Flats Rd.

Sand Flats Rd

100 North St
Center St
100 South St

Kane Creek Blvd

400 East St

Mill Creek Drive

Mill Creek Dr

Murphy Ln

Spanish Trail Rd

Spanish Valley Dr

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

State Hwy. 279 - Potash Rd.

Kane Springs Rd

100 West St

400 North St

Williams Way

Center St

100 South St

300 South St

400 East St

0 0.15 0.3 Miles

Legend

- Major Road
- Other Road
- Water
- Park
- Railroads
- Study Area
- Sidewalk
- Hiking and Biking Trail
- Hiking-Only
- Trail Paved
- Shared Use Trails
- Dirt Trails

0 0.5 1 Miles

CITY OF MOAB UTAH

Figure 14. Pedestrian Infrastructure

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

191

Lions Park and Bike Path Trailhead

279

See Inset

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Sand Flats Rd.

Sand Flats Entrance Station

Kane Creek Blvd Recreation Access

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

State Hwy. 279 - Potash Rd.

Kane Springs Rd.

100 West St

100 North St

Center St

100 South St

400 East St

Kane Creek Blvd

Rotary Park

Mill Creek North Fork Trailhead

Mill Creek Dr

Murphy Ln

Old City Park

Spanish Trail Rd

Spanish Valley Dr

191

Red Rock Elementary

Helen M Knight Elementary

400 North St

Moab Recreation & Aquatic Center

Williams W

Moab Information Center

Grand County Public Library

Center Street Ballparks

Main Street

300 South St

Moab Charter School

City Market

Grand County Middle School

Grand County High School

0 0.15 0.3 Miles

Legend

- Major Road
- Other Road
- Water
- Park
- Railroads
- Study Area
- Paved Shared Use Trails
- Bike Lanes
- Connecting Bike Routes

0 0.5 1 Miles

CITY OF MOAB UTAH

Figure 15. Active Transportation Destinations

4.5 Safety

Crash data was obtained from UDOT. During the five-year period (2017-2021) there were 824 crashes within the study area. Of these, 638 (77%) were non-injury crashes, 91 (11%) were possible injury crashes, 64 (8%) were suspected minor injury crashes, 23 (3%) were suspected serious injury crashes, and 8 (1%) were fatal crashes. A summary of crashes by severity type and year is shown in **Table 7** and **Figure 16**.

Table 7. Crash Summary by Year

Year	Fatal	Suspected Serious Injury	Suspected Minor Injury	Possible Injury	Non-Injury	Total
2017	2	4	10	15	140	**171**
2018	1	6	7	23	152	**189**
2019	2	5	13	26	124	**170**
2020	3	5	8	14	110	**140**
2021	0	3	26	13	112	**154**
Total	**8**	**23**	**64**	**91**	**638**	**824**

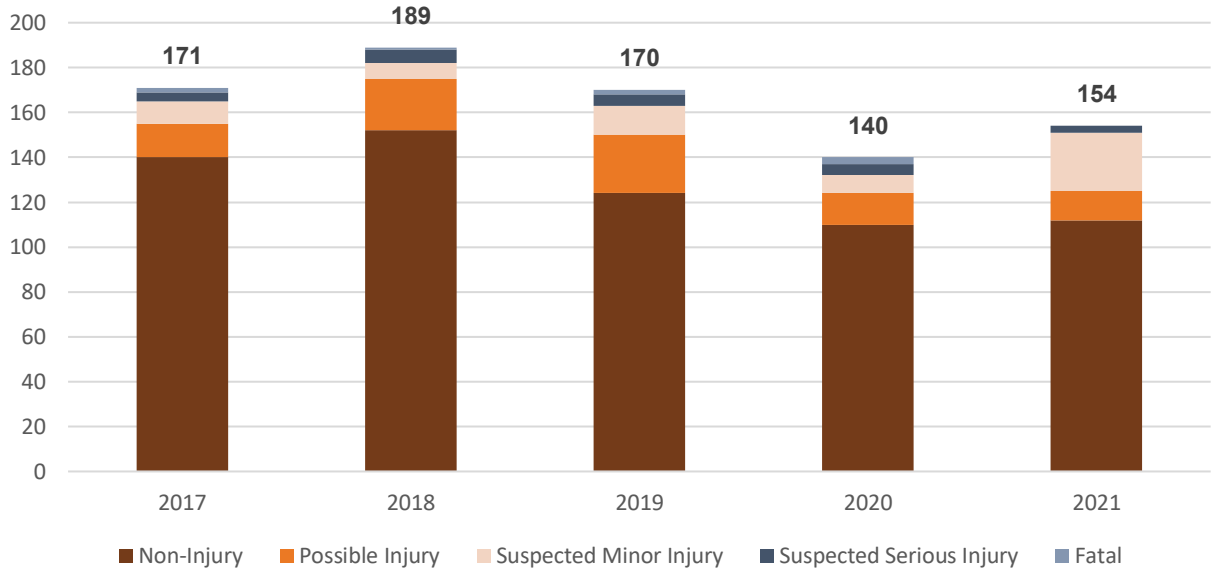


Figure 16. Study Area Crash Summary (2017-2021)

Crash densities are shown in **Figure 18** and crash severity by location is shown in **Figure 19**. The highest density of crashes is located along US 191 in central Moab, extending from 4th East Street to Mivida Drive. A majority of fatal and suspected serious injury crashes occurred on US 191, including four fatal crashes occurred on US 191 in Spanish Valley. Other fatal crashes occurred on US 191 in the vicinity of Arches Scenic Drive and in central Moab. One fatal crash occurred on Kane Creek Boulevard west of Moab.

There were 31 bicycle and pedestrian crashes in the analysis period, representing 3.8% of total crashes. Of the 31 bicycle and pedestrian crashes, two were fatal crashes (6%) and four were suspected serious injury crashes (13%).

Crash severity percentages for pedestrian/bicycle crashes compared with total crashes are shown in **Figure 17**. The comparison shows that a higher proportion of bicycle and pedestrian crashes result in fatalities, as compared to all crashes. **Figure 20** shows the location and severity of bicycle and pedestrian crashes in the study area.

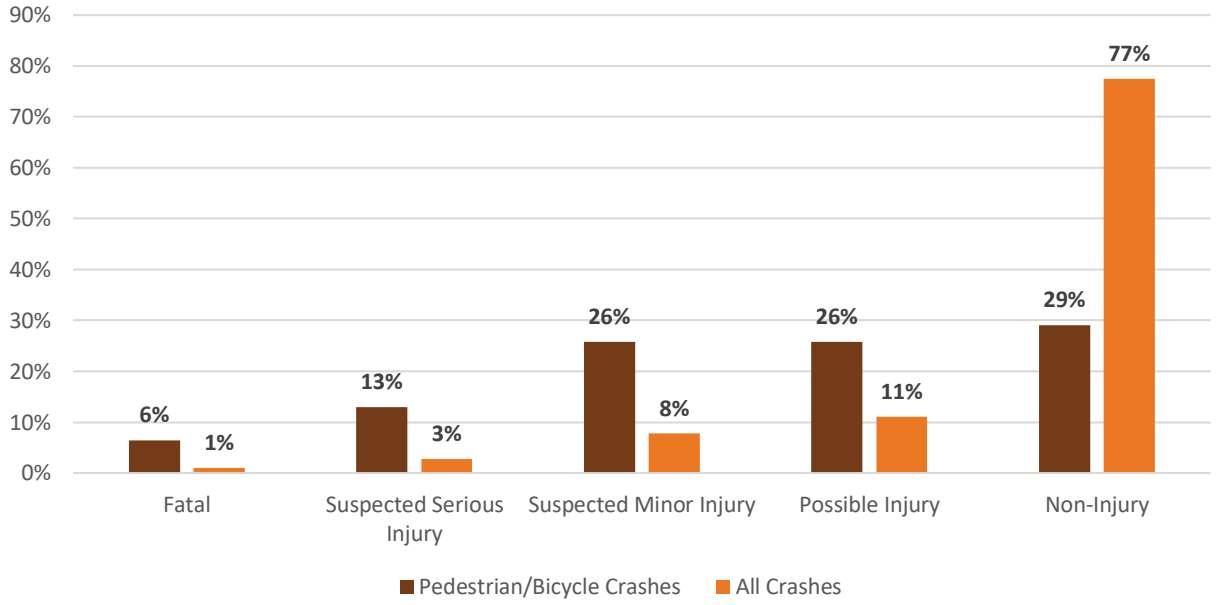
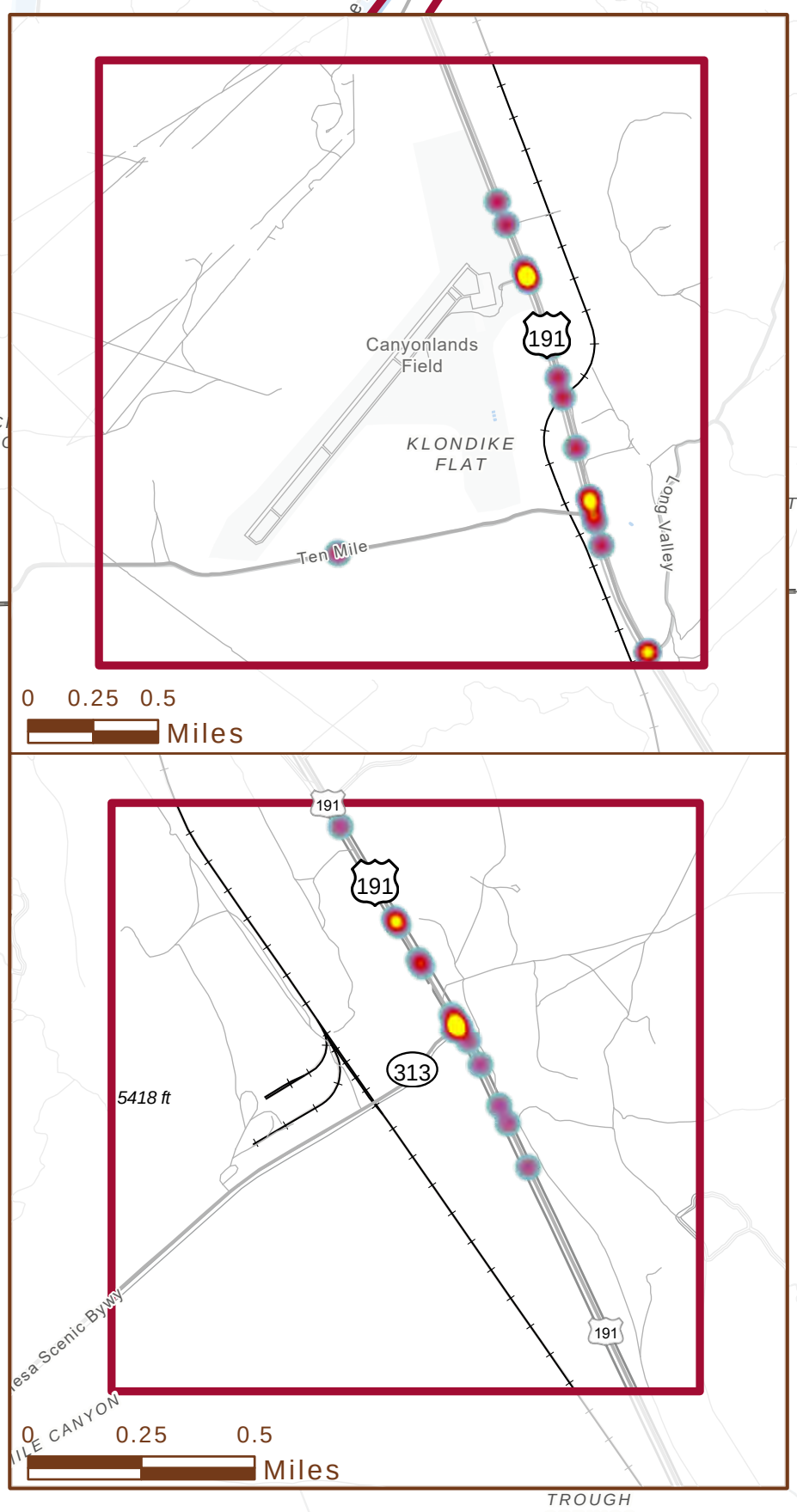


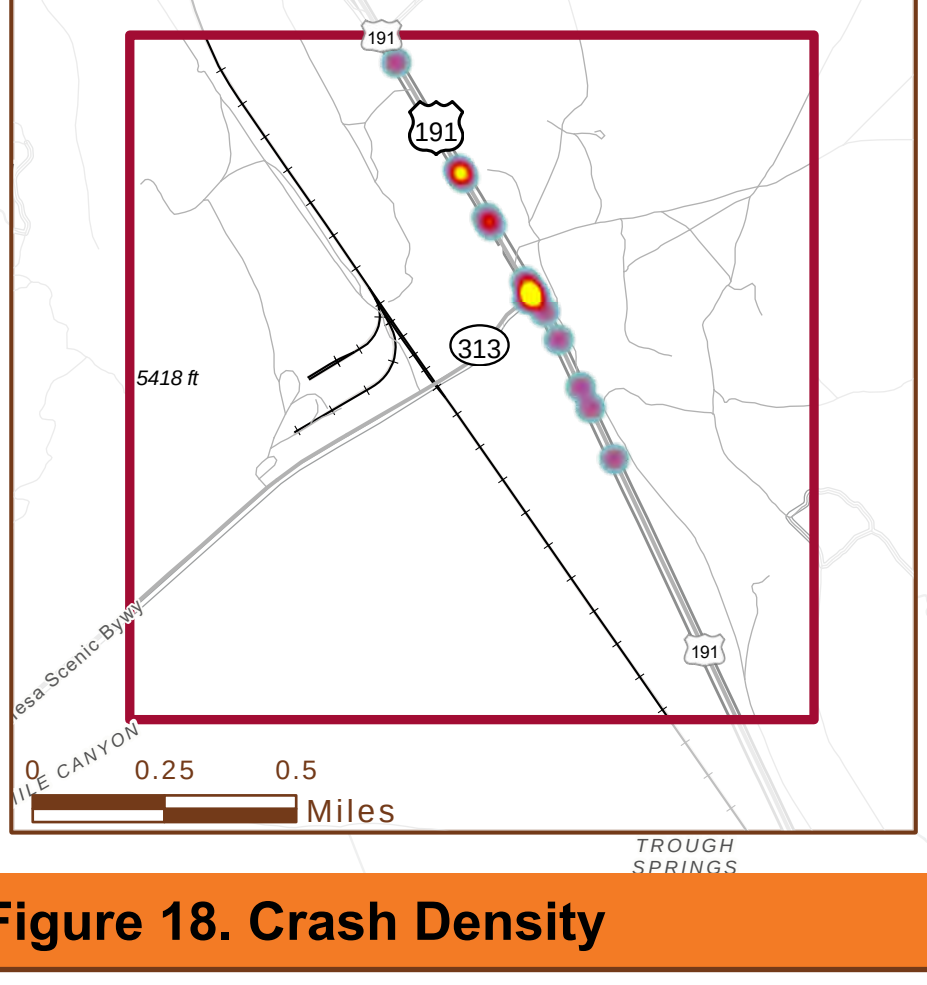
Figure 17. Pedestrian/Bicycle Crash Severities Compared to Total Crashes

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead





Legend

- Major Road
- Other Road
- Railroads
- City of Moab
- Park
- Water
- Study Area
- Crash Density
  - Sparse
  - Dense

0 0.5 1 Miles

Figure 18. Crash Density

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Legend

- Major Road
- Other Road
- Railroads
- City of Moab
- Park
- Water
- Study Area

Crash Severity
- Fatal
- Suspected Serious Injury
- Suspected Minor Injury
- Possible injury
- No injury/PDO

0 0.5 1 Miles

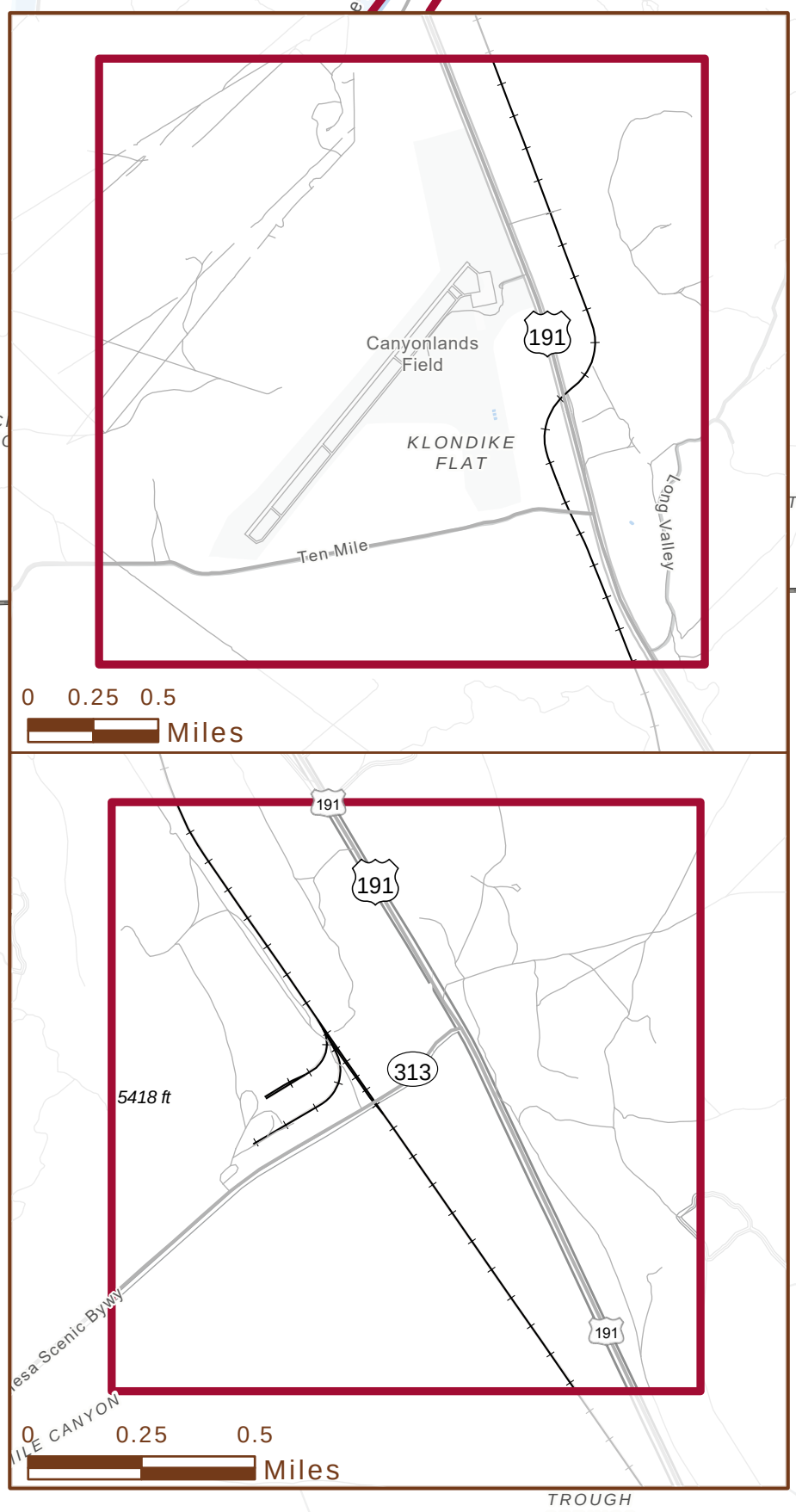
CITY OF MOAB UTAH

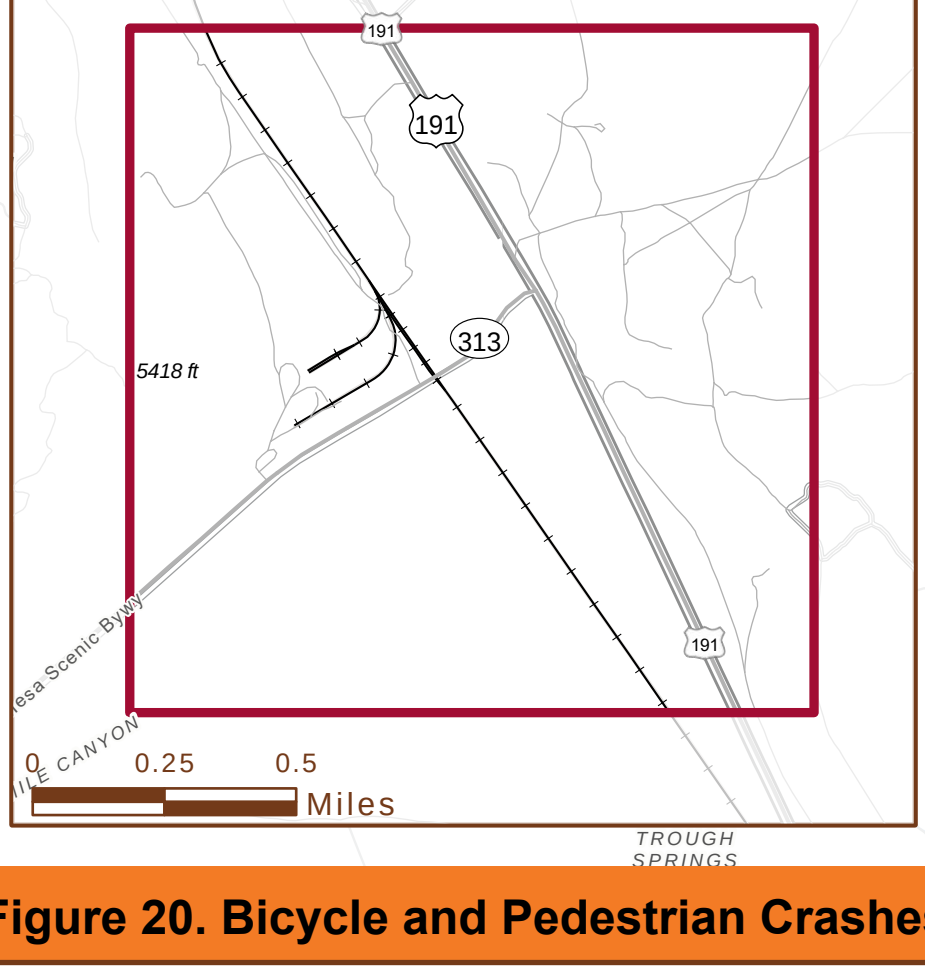
Figure 19. Crash Severity

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead





Legend

- Major Road
- Other Road
- Railroads
- City of Moab
- Park
- Water
- Study Area

Pedestrian Crashes
- Fatal
- Suspected Serious Injury
- Suspected Minor Injury
- Possible injury
- No injury/PDO

Bicycle Crashes
- Suspected Serious Injury
- Suspected Minor Injury
- Possible injury
- No injury

0 0.5 1 Miles

Figure 20. Bicycle and Pedestrian Crashes

4.6 Travel Patterns and Traffic Operations

4.6.1 Traffic Count Data

Daily traffic volumes from 2016-2021 were obtained from the City of Moab on study area functionally classified roadways. All daily traffic volume data was normalized to 2021 using a 2% annual growth rate. Available 2021 daily traffic data is shown in **Figure 21.**

Existing AM and PM peak hour turning movement traffic count data was collected on Tuesday, September 21, 2021 at six intersections throughout the study area. Those intersections include:

1. Spanish Valley Drive and Millcreek Drive
2. Millcreek Drive and Sand Flats Road
3. 4th East Street and Millcreek Drive
4. Millcreek Drive and Murphy Lane
5. 4th East Street and 300 South
6. Spanish Valley Drive and Spanish Trail Road

All six study intersections are either two-way or all-way stop-controlled and represent the intersections understood to have high demand within the street network off US 191. A summary of the count data is provided in **Appendix A**.

4.6.2 Existing Capacity Analysis

A traffic operations LOS analysis was performed for functionally classified roadway segments and the six selected intersections. For roadway segments, the LOS analysis is based on daily traffic volumes and functional classification of the roadway segment. **Table 8** summarizes the LOS thresholds (C or better, D-F) for each functional classification in terms of available capacity. Most agencies consider LOS D or better as acceptable conditions.

Table 8. Roadway LOS Capacity Thresholds

Functional Classification	LOS Thresholds (maximum vehicles per day)		
	LOS C	LOS D	LOS E
Principal Arterial (more than 2 lanes)	27,280	30,690	34,100
Principal Arterial (2 lanes)	12,000	13,500	15,000
Minor Arterial	10,240	11,520	12,800
Major Collector	8,160	9,180	10,200
Minor Collector	7,360	8,280	9,200

Source: Adapted from Maricopa County Department of Transportation Roadway Design Guide

Figure 22 shows the capacity analysis for the existing traffic volumes. All roadway segments operate at acceptable LOS for average daily traffic conditions. Traffic data are collected in different months of the year and represent average conditions, rather than traffic conditions on peak weekends or holidays. Traffic conditions are commonly exasperated beyond the average during peak tourist times including holidays and weekends.

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

191
279
313
500 West St
400 East St
Sand Flats Rd
Mill Creek Dr
Murphy Ln
Spanish Trail Rd
Spanish Valley Dr
Kane Springs Rd
Potash Rd.

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

2021 Average Daily Traffic
- Less than 2,500
- 2,500 to 5,000
- 5,000 to 10,000
- 10,000 to 15,000
- Greater than 15,000

- Major Road
- Other Road
- Railroads
- Water
- Park
- City of Moab
- Study Area

CITY OF MOAB UTAH

Figure 21. Roadway Daily Traffic (2021)

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

191
279
500 West St
100 North St
Center St
100 South St
400 East St
Kane Creek Blvd
Mill Creek Drive
Mill Creek Dr
Sand Flats Rd
Kane Springs Rd
Potash Rd - Hwy. 279
Murphy Ln
Spanish Trail Rd
Spanish Valley Dr
313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

2021 Level of Service
- C or Better
- D
- E
- F
- Major Road
- Other Road
- Railroads
- Water
- Park
- City of Moab
- Study Area

Figure 22. Roadway Level of Service Capacity Analysis (2021)

The intersection analysis reports average total delay at intersections consistent with the *Highway Capacity Manual, 6th Edition* (HCM 6). LOS describes the operating performance of an intersection or roadway and is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst.

LOS for a four-way stop-controlled intersection is defined for all the intersection movements, while LOS for a two-way stop-controlled intersection is defined for only the minor street stop-controlled movements.

Table 9 shows the vehicle delay (in seconds per vehicle) at an unsignalized intersection for each LOS category.

Table 9. Intersection Level of Service Thresholds

Level of Service	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

Source: Highway Capacity Manual, 6th Edition

Synchro Analysis and Optimization Software was used to analyze the intersection delay at the six locations. Synchro is an interactive computer program that enables planners and engineers to estimate traffic operations for various intersections in a network. Synchro utilizes HCM 6 methodology to analyze intersection delay and LOS.

Results indicate that the intersections operate at acceptable LOS (D or better) in both the AM and PM peak hours evaluated. The 2021 intersection analysis results are summarized in **Table 10**. Detailed Synchro analysis reports are in **Appendix B**.

Table 10. Intersection Level of Service Capacity Analysis

Intersection	Level of Service [Total Delay (sec/veh)]	
	AM Peak Hour	PM Peak Hour
Spanish Valley Drive / Millcreek Drive		
Two-Way Stop-Controlled		
Northbound Left	A [7]	A [8]
Eastbound Left/Right	A [9]	B [10]
Millcreek Drive / Sand Flats Road		
All-Way Stop-Controlled		
Total Intersection	A [8]	A [9]
4th East Street / Millcreek Drive		
Two-way Stop-Controlled		
Northbound Left	A [7]	A [7]
Eastbound Left/Through/Right	C [16]	C [16]
Westbound Left	C [17]	D [26]
Westbound Through/Right	B [11]	B [11]
Southbound Left	A [8]	A [8]
Millcreek Drive / Murphy Lane		
Two-Way Stop-Controlled		
Westbound Left/Right	A [10]	B [11]
Southbound Left	A [8]	A [8]
4th East Street / 300 South		
Two-Way Stop-Controlled		
Northbound Left	A [8]	A [8]
Eastbound Left	B [14]	B [14]
Eastbound Right	B [10]	B [11]
Spanish Valley Drive / Spanish Trail Road		
All-Way Stop-Controlled		
Total Intersection	A [8]	A [9]

4.7 Key Findings

- The population of older adults has grown faster than the population as a whole, and the proportion of the population 15 years old and younger has decreased over the last 20 years. Age-friendly planning and mobility improvements are increasingly important.
- The roadway network in the study area is heavily reliant on US 191 and incidents and closures on US 191 have a major impact on regional mobility, which reduces overall reliability and resiliency of the transportation network.
- The pedestrian network is well-connected in central Moab, but the remainder of the study area has isolated, disconnected sidewalks, making walking in many areas a challenge.
- There is an extensive network of bike lanes and trails that provide connectivity for bicyclists; however, there are key gaps in the system that if filled could provide better access to recreational areas and jobs.
- Total crashes in the study area limits increased in 2021 compared to the previous year (140 in 2020 and 154 in 2021).
- Crashes involving pedestrian and bicycle crashes are more likely to result in severe injuries or fatalities, indicating the benefits of additional active transportation facilities and to reduce crashes with motor vehicles.
- The roadway capacities evaluated currently operate at acceptable LOS for daily traffic conditions. Note that peak tourist season, including peak weekends, places additional demand on the transportation system.
- All six intersections analyzed for congestion issues are currently operating at acceptable LOS.

5. Future Conditions

Forecasted growth of the study area for two future horizon years, 2040 and 2050, was analyzed to identify potential deficiencies in the transportation network.

5.1 Future Population and Employment

Based on data from the Wasatch Front Regional Council (WFRC) Statewide TDM, the study area population and employment are anticipated to increase over the coming decades as shown in **Table 11**. The population is expected to increase at a rate higher than over the past 20 years (which has been 0.67% annually for Grand County and 0.52% annually for the City of Moab).

The study area is also anticipated to experience employment growth, drawing employees from surrounding areas. The projected population and employment growth rates are higher between 2020 and 2040 than between 2040 and 2050, though still higher than historic trends.

Table 11. Forecasted Population and Employment Growth

Year	2020	2040	2020-2040 Growth	2020-2040 Growth Rate	2050	2040-2050 Growth	2040-2050 Growth Rate
Population	9,845	11,897	2,052	0.95%	12,787	890	0.72%
Employment	8,311	10,657	2,346	1.25%	11,670	1,013	0.91%

Source: WFRC Statewide TDM

Figure 23 and **Figure 24** show forecasted 2050 population and employment densities of the study area, respectively. General growth trends include:

- Population densities are anticipated to increase in the central area of Moab and along the US 191 corridor in both Spanish Valley and north of Moab to the Colorado River.
- Employment densities are anticipated to increase in downtown Moab and the surrounding central area of the City. Additional employment is also anticipated to occur along the east side of US 191 in the Spanish Valley area on both sides of Spanish Trail Road.

It is also recognized that northern San Juan County is expected to continue growing in the Spanish Valley area. San Juan County growth will contribute to traffic in southern Grand County, particular via US 191 as a connector to the Wasatch Front.

Additionally, recreation visitors and tourism is expected to continue to increase in the area.

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

191
279
500 West St
400 East St
Sand Flats Rd
Mill Creek Dr
Murphy Ln
Spanish Trail Rd
Spanish Valley Dr
Kane Springs Rd
Utah Hwy. 279 - Potash Rd.
313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

2050 Population Density
- Less than 150
- 150 to 500
- 500 to 1,000
- 1,000 to 2,500
- Greater than 2,500

- Major Road
- Other Road
- Water
- Park
- City of Moab
- Railroads
- Study Area

CITY OF MOAB UTAH

Figure 23. Future Population Density (2050)

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

191

279

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Sand Flats Rd

500 West St

400 East St

Sand Flats Rd.

Mill Creek Dr

Murphy Ln

Spanish Trail Rd

Spanish Valley Dr

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

Kane Springs Rd

Potash Rd.

Hwy. 279 -

313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

Legend

2050 Employment Density
- Less than 250
- 250 to 1,000
- 1,000 to 2,500
- 2,500 to 5,000
- Greater than 5,000

- Major Road
- Other Road
- Water
- Park
- City of Moab
- Railroads
- Study Area

0 0.5 1 Miles

CITY OF MOAB UTAH

Figure 24. Future Employment Density (2050)

5.2 Travel Patterns and Traffic Operations

To estimate future traffic volumes on the roadway network, the 2021 daily traffic volumes and turning movement counts were grown at a 2% annual growth rate to future years 2040 and 2050. These future volume projections were used to analyze future capacity needs on study area roadways. The 2040 future daily traffic projections are shown on **Figure 25** and 2050 future daily traffic projections are shown on **Figure 26.**

The 2040 and 2050 daily traffic projections were used to evaluate roadway segment LOS, based on maximum daily volumes for each LOS previously shown in **Table 8.**

Figure 27 and **Figure 28** summarize the 2040 and 2050 segment capacity analysis, respectively. All roadway segments operate at an acceptable LOS (D or better) with the exception of:

- US 191 between the Arches National Park entrance road and SR 313 (2050 only)
- US 191 near the Canyonlands Field Airport (2050 only)
- US 191 between 4th East Street and 100 South (2050 only)
- 100 West between 100 South and 100 North (2050 only)
- 4th East between 300 South and Millcreek Drive (2050 only)
- US 191 south of Spanish Trail Road (2050 only)

The 2040 and 2050 roadway segment and intersection capacity analysis represent average daily traffic volumes. Roadways and intersections may experience unacceptable LOS in peak tourist times or event weekends.

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

191

279

Kane Springs Rd

Potash Rd.

500 West St

400 East St

Sand Flats Rd

Mill Creek Dr

Murphy Ln

Spanish Trail Rd

Spanish Valley Dr

313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

2040 Average Daily Traffic
- Less than 2,500
- 2,500 to 5,000
- 5,000 to 10,000
- 10,000 to 15,000
- Greater than 15,000

- Major Road
- Other Road
- Railroads
- Water
- Park
- City of Moab
- Study Area

CITY OF MOAB UTAH

Figure 25. Future Daily Traffic (2040)

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

191

279

313

Sand Flats Rd

500 West St

400 East St

Mill Creek Dr

Murphy Ln

Spanish Trail Rd

Spanish Valley Dr

Kane Springs Rd

Potash Rd.

0 0.25 0.5 Miles

0 0.25 0.5 Miles

Legend

2050 Average Daily Traffic
- Less than 2,500
- 2,500 to 5,000
- 5,000 to 10,000
- 10,000 to 15,000
- Greater than 15,000

- Major Road
- Other Road
- Railroads
- Water
- Park
- City of Moab
- Study Area

0 0.5 1 Miles

CITY OF MOAB UTAH

Figure 26. Future Daily Traffic (2050)

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

191
279
500 West St
100 North St
Center St
100 South St
400 East St
Kane Creek Blvd
Mill Creek Drive
Mill Creek Dr
Sand Flats Rd
Kane Springs Rd
Potash Rd.
Hwy. 279 -
Murphy Ln
Spanish Trail Rd
Spanish Valley Dr
313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

2040 Level of Service
- C or Better
- D
- E
- F
- Major Road

- Other Road
- Railroads
- Water
- Park
- City of Moab
- Study Area

Figure 27. Future Roadway LOS Capacity Analysis (2040)

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

191
279
500 West St
100 North St
Center St
100 South St
400 East St
Kane Creek Blvd
Mill Creek Drive
Mill Creek Dr
Sand Flats Rd
Kane Springs Rd
Potash Rd.
Hwy. 279 -
Murphy Ln
Spanish Trail Rd
Spanish Valley Dr
313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

2040 Level of Service
- C or Better
- D
- E
- F
- Major Road

- Other Road
- Railroads
- Water
- Park
- City of Moab
- Study Area

Figure 27. Future Roadway LOS Capacity Analysis (2040)

2040 Intersection Capacity Analysis

The 2040 intersection capacity analysis was performed using the methodology and thresholds as described for the 2021 intersection analyses. Results indicate the six study intersections operate at an acceptable LOS in 2040 in both the AM and PM peak hours, with exception of the westbound left stop-controlled movement at 4th East and Millcreek Drive in the PM peak hour. The 2040 conditions analysis results are summarized in **Table 12** and Synchro analysis reports are in **Appendix B**.

Table 12. 2040 Intersection Level of Service Capacity Analysis

Intersection	Level of Service [Total Delay (sec/veh)]	
	AM Peak Hour	PM Peak Hour
Spanish Valley Drive / Millcreek Drive		
Two-Way Stop-Controlled		
Northbound Left	A [7]	A [8]
Eastbound Left/Right	B [10]	B [12]
Millcreek Drive / Sand Flats Road		
All-Way Stop-Controlled		
Total Intersection	A [9]	B [11]
4th East Street / Millcreek Drive		
Two-Way Stop-Controlled		
Northbound Left	A [8]	A [8]
Eastbound Left/Through/Right	D [28]	D [26]
Westbound Left	D [30]	F [92]
Westbound Through/Right	B [13]	B [13]
Southbound Left	A [8]	A [9]
Millcreek Drive / Murphy Lane		
Two-Way Stop-Controlled		
Westbound Left/Right	B [11]	B [13]
Southbound Left	A [8]	A [8]
4th East Street / 300 South		
Two-Way Stop-Controlled		
Northbound Left	A [8]	A [9]
Eastbound Left	C [18]	C [19]
Eastbound Right	B [12]	B [15]
Spanish Valley Drive / Spanish Trail Road		
All-Way Stop-Controlled		
Total Intersection	A [9]	A [10]

2050 Intersection Capacity Analysis

The 2050 analysis indicates the intersections operate at acceptable LOS in both the AM and PM peak hours with exception of the eastbound stop-controlled approach and westbound left stop-controlled movement at 4th East and Millcreek Drive in both the AM and PM peak hour. The 2050 conditions analysis results are summarized in **Table 13** and Synchro analysis reports are in **Appendix B**.

Table 13. 2050 Intersection Level of Service Capacity Analysis

Intersection	Level of Service [Total Delay (sec/veh)]	
	AM Peak Hour	PM Peak Hour
Spanish Valley Drive / Millcreek Drive		
Two-Way Stop-Controlled		
Northbound Left	A [8]	A [8]
Eastbound Left/Right	B [11]	B [14]
Millcreek Drive / Sand Flats Road		
All-Way Stop-Controlled		
Total Intersection	B [11]	B [14]
4th East Street / Millcreek Drive		
Two-Way Stop-Controlled		
Northbound Left	A [8]	A [8]
Eastbound Left/Through/Right	F [56]	E [45]
Westbound Left	F [58]	F [435]
Westbound Through/Right	C [16]	C [16]
Southbound Left	A [9]	B [10]
Millcreek Drive / Murphy Lane		
Two-Way Stop-Controlled		
Westbound Left/Right	B [12]	C [15]
Southbound Left	A [8]	A [8]
4th East Street / 300 South		
Two-Way Stop-Controlled		
Northbound Left	A [9]	A [10]
Eastbound Left	C [23]	C [23]
Eastbound Right	B [13]	C [20]
Millcreek Drive / Sand Flats Road		
All-Way Stop-Controlled		
Total Intersection	A [10]	B [11]

5.3 Key Findings

- Population and employment are anticipated to grow at a rate faster than historically experienced in the study area. Population is expected to grow at a 0.95% annual growth rate while the historic annual growth (from 2000 to 2020) has been 0.67% and 0.52% annually for the County and City, respectively. Central Moab is anticipated to see a substantial increase in both population and employment in the coming decades.
- By 2040, congestion is anticipated to continue to increase on US 191. The intersection of 4th East and Millcreek Drive is projected to be congested during peak hours.
- By 2050, most of US 191 south of 100 South, as well as some surrounding roadway network in downtown Moab, are projected to be heavily congested.
- US 191 south of Spanish Trail Road and north of the Arches National Park entrance is anticipated to be congested.

6. Needs & Deficiencies

Transportation needs were identified from the review of previous plans and studies, stakeholder interviews, and the existing and future conditions technical analyses. They are categorized as safety, capacity, or active transportation needs and deficiencies.

6.1 Stakeholder Group Interviews

Stakeholder groups were identified with input from the project management team. Interviews were conducted to discuss their transportation-related concerns, specific needs, potential solutions, and their vision for transportation in the area. The following stakeholder groups were interviewed:

- Downtown business owners
- River/bicycle/shuttle business owners
- Universities/public schools
- Trails
- Emergency services
- Development (contractor/construction)
- Partner governments
- Citizens at large

Stakeholder interview participants were asked to provide feedback on the following questions regarding transportation in the area:

1. What do you view as the main mobility and transportation issues within Grand County and the City of Moab?
2. Are there specific intersections or roadways of most concern?
3. What is your vision for the future of transportation in Grand County and the City of Moab?
4. What solutions or projects are needed to realize the vision?

Stakeholder responses informed the needs and deficiencies presented in the following sections.

A detailed summary of the stakeholder group interviews is provided in **Appendix C**.

6.2 Safety Needs & Deficiencies

6.2.1 Crash Hot Spots

US 191 in Spanish Valley

The US 191 corridor in Spanish Valley had the highest number of fatal and serious injury crashes during the five-year analysis period, particularly between Spanish Trail Road and Millcreek Drive.

Downtown Moab

US 191 between Kane Creek Boulevard and 400 North is a crash hot spot for crashes of all types. This segment experienced several fatal and serious injury bicycle and pedestrian crashes, indicating a need for improved accommodation for active transportation users to reduce the frequency and severity of crashes involving non-motorists.

Arches National Park Entrance

There were three fatal crashes near the intersection of US 191 and the Arches National Park entrance. This area has a high number of tourists who are unfamiliar with the area, which may factor in these crashes.

6.2.2 Safety Needs Identified by Stakeholders

Stakeholders identified both general and location-specific safety needs. These are summarized in this section and shown in **Figure 29**.

Pedestrian Safety Throughout Downtown Moab

The downtown area is busy with pedestrians crossing US 191 to access destinations and businesses on both sides of the highway. Many are tourists who may be unfamiliar with the area. Stakeholder groups expressed the following concerns:

- Limited separation of users: trucks, vehicles, bicycles, and pedestrians
- Speed of motorists entering downtown north and south of downtown Moab, as there is no real “transition zone” for motorists to slow down
- Parking congestion and parking inhibiting sight distances in downtown

Pedestrian Crossings on US 191

Stakeholders identified a need to improve pedestrian crossing locations along US 191 (see **Figure 29**), including crossings utilized to access schools and parks.

Access Control on US 191

Stakeholders commented that driveway access locations along US 191 need to be managed, or specific movements prohibited. There are locations along US 191 where driveways create conflicts for motorists and other users.

Other Specific Location Concerns

Other concerns identified by stakeholders include:

- Left turns at signalized intersections downtown need to be protected movements.
- Provide designated routes for school children to walk or bike, including Spanish Valley Drive, 500 West, and 100 West.
- Evaluate/improve intersection control (traffic signals or roundabouts) at the following intersections:
    - Intersections on 500 West, from US 191 to Kane Creek Boulevard
    - 100 West and 400 North
    - Sand Flats Road and Millcreek Drive
    - 300 South and 4th East
    - 4th East and Millcreek Drive
    - 200 North and US 191
    - 400 North and US 191
- Kane Creek Boulevard, west of the Kane Creek Boulevard and 500 West intersection, is a high pedestrian use area with no pedestrian infrastructure.

- Additional crash hot spot locations:
  - US 191 and Spanish Trail Road intersection
  - US 191 and Dogwood Avenue area
- Deceleration turning and/or acceleration lanes to facilitate turning off and onto US 191 south of Moab in Spanish Valley.

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

191

279

Confusing intersection

General intersection safety concerns

Roundabout intersection control

Bike path confusion and children crossing

Potential traffic signal

Lighting and potential traffic signal

Left-turns at downtown signals

Roundabout intersection control

Roundabout intersection control

Turns and roundabout intersection control

Need safe crossing

Access control

Need safe crossing or traffic signal

School route needs path or sidewalks

Signal for emergency vehicles

Need safe crossing

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

500 West St

100 North St

400 East St

Sand Flats Rd

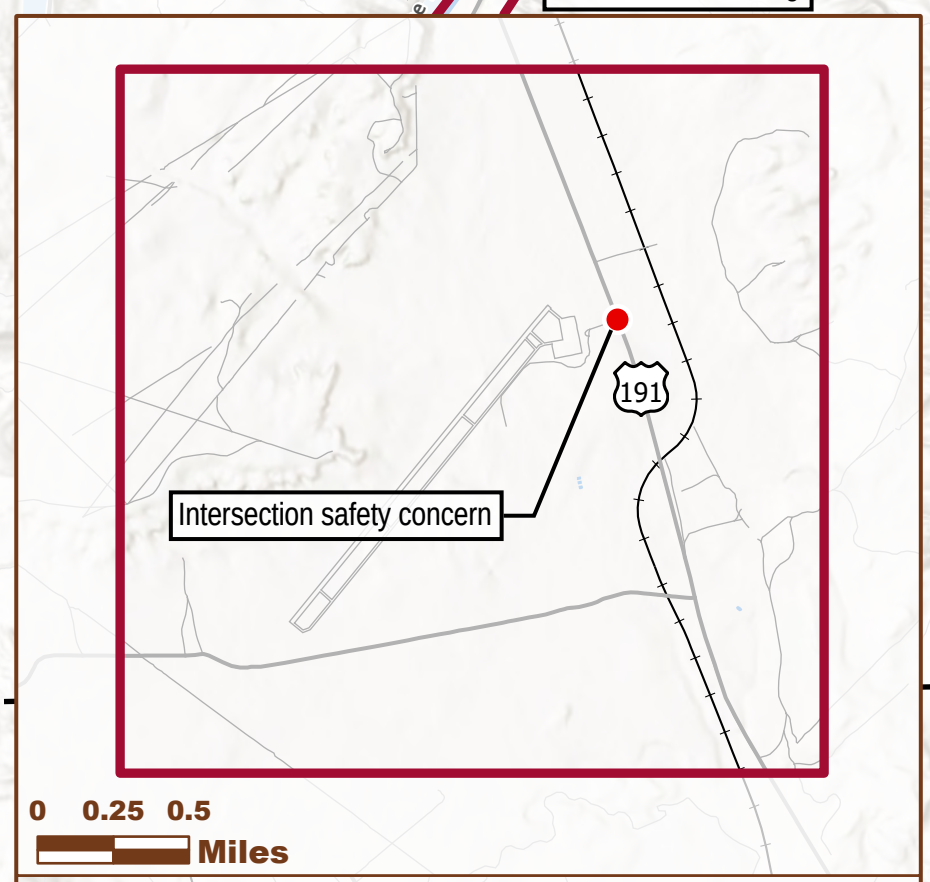
Kane Springs Rd

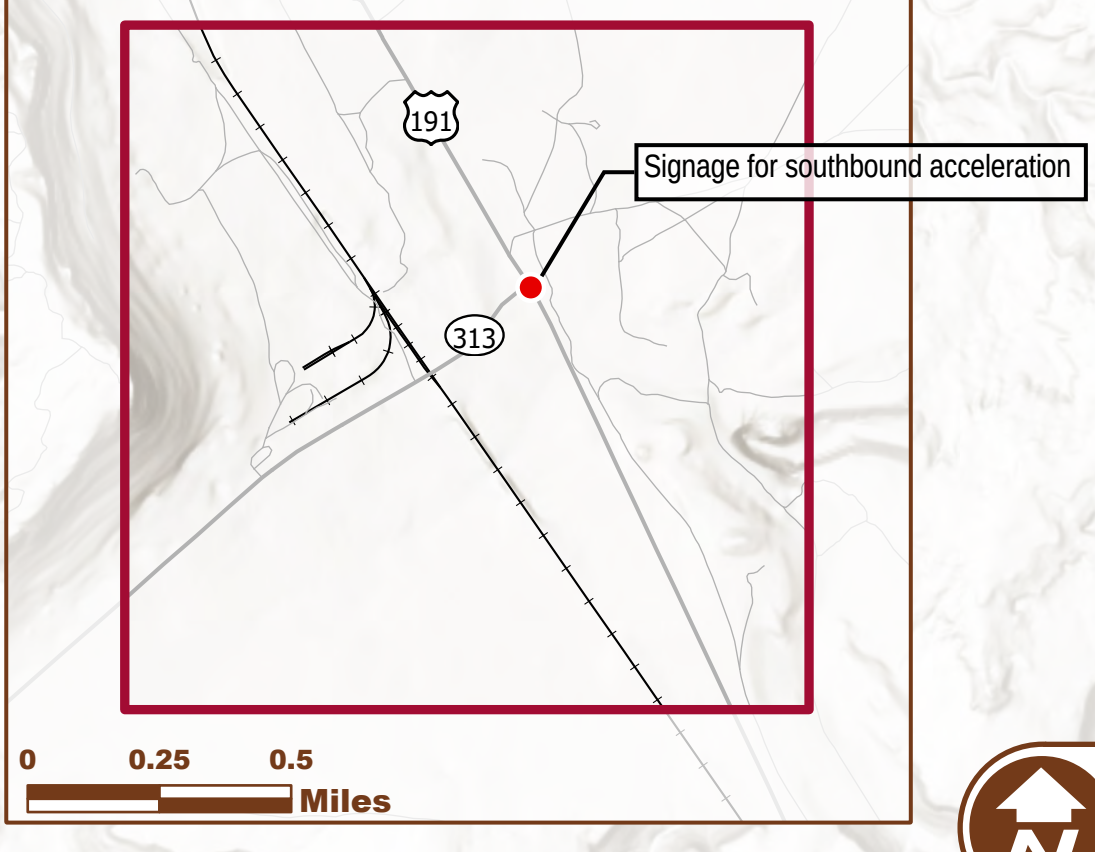
Hwy. 279 - Potash Rd.

Mill Creek Dr

Murphy Ln

Spanish Valley Dr





Legend

- Spot Safety Need
- Corridor Safety Need
- Major Road
- Other Road
- Railroads
- Water
- Park
- City of Moab
- Study Area

0 0.5 1 Miles

CITY OF MOAB UTAH

Figure 29. Safety Needs and Deficiencies Identified by Stakeholders

6.3 Capacity Needs & Deficiencies

6.3.1 Capacity Analysis Needs

Existing (2021) Capacity Needs

Technical analysis results indicate that the roadway and specified intersections within the study area operate at acceptable LOS in average daily traffic conditions. Note that intersections operate under more congested conditions during peak tourism season.

Future (2040) Capacity Needs

All roadway segments operate at LOS C or better, with exception of the following segments which operate at LOS D, based on 2040 daily traffic volumes.

- US 191 between the Arches National Park entrance road and SR 313
- US 191 near the Canyonlands Field Airport
- US 191 between 4th East Street and 100 South
- 100 West between 100 South and 100 North
- 4th East between 300 South and Millcreek Drive

Technical analysis results indicate the six study intersections operate at acceptable LOS in 2040 in both the AM and PM peak hours with exception of the westbound left stop-controlled movement at 4th East and Millcreek Drive in the PM peak hour.

Future (2050) Capacity Needs

All roadway segments operate at LOS D or better, with exception of the following segments which operate at either LOS E or LOS F, based on 2050 daily traffic volumes.

- US 191 between the Arches National Park entrance road and SR 313
- US 191 near the Canyonlands Field Airport
- US 191 between 4th East and 100 South
- 100 West between 100 South and 100 North
- 4th East between 300 South and Millcreek Drive
- US 191 south of Spanish Trail Road

Technical analysis results indicate the six study intersections operate at acceptable LOS in both the AM and PM peak hours with exception of the eastbound stop-controlled approach and westbound left stop-controlled movement at 4th East and Millcreek Drive in both the AM and PM peak hours.

6.3.2 Capacity Needs Identified by Stakeholders

Both general and location-specific capacity needs were identified by stakeholders and are summarized in this section and shown in **Figure 30.**

US 191 Capacity

Stakeholders suggested a need to widen US 191 to five lanes (two lanes in each direction and a center two-way left-turn lane) south of the City of Moab from approximately Sage Drive to Spanish Trail Road.

Stakeholders expressed concern about shifting congestion to side streets off US 191 in the downtown area. For instance, 100 East, 100 West, or 500 West may not be able to accommodate large amounts of detoured traffic from US 191.

Recreation Destinations

Recreation destinations such as Arches National Park, Sand Flats Recreation Area, Colorado River, regional destinations such as Canyonlands National Park, Dead Horse Point State Park, soon to be opened Utahraptor State Park, and world-class mountain biking, hiking, and utility terrain vehicle trails create heavy visitor traffic in the study area during peak periods. Stakeholders expressed concern with congestion during peak tourism and visitor times.

Off-Highway Vehicles (OHVs)

Street-legal OHVs are allowed on Moab streets to access trailheads and recreation areas. Access to popular OHV destinations is primarily on residential streets. Typically, OHVs are transported via trailers and trailer parking becomes a concern at trailheads, in public spaces, and in residential areas. Noise from OHVs is a significant concern to study area residents.

Truck Traffic

Stakeholders expressed concern regarding the truck traffic utilizing US 191 through downtown Moab, including impacts from congestion and noise.

Corridor Design and Integration

Corridor design limitations include the need for managed access improvements and integrated multimodal uses, particularly with the addition of frontage roads along US 191. Multimodal integration with corridors such as Spanish Valley Drive and Kane Creek Boulevard require design solutions to avoid conflicts. Safe alternative routes to US 191 need attention especially should the roadway become blocked.

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River Rd.

191

279

Congestion

Congestion and increased traffic

Speed control

Street connection

Street connection

Separated downtown crossing

Separated downtown crossing

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Sand Flats Rd

400 North St

500 West St

Center St

Kane Creek Blvd

Mill Creek Drive

400 East St

Mill Creek Dr

Congestion

Improve capacity. Add a bike lane or path and widen road

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

Potash Rd. - Hwy. 279

Kane Springs Rd

Access control

Access control

Access control

Murphy Ln

Spanish Trail Rd

Spanish Valley Dr

Widen road to four lanes

Congestion and increased traffic

191

313

0 0.25 0.5 Miles

0 0.25 0.5 Miles

0 0.5 1 Miles

Legend

- Spot Capacity Need
- Corridor Capacity Need
- Major Road
- Other Road
- Railroads
- Water
- Park
- City of Moab
- Study Area

CITY OF MOAB UTAH

Figure 30. Capacity Needs and Deficiencies Identified by Stakeholders

6.4 Active Transportation Needs & Deficiencies

Active transportation needs were identified by stakeholders and are summarized in this section and shown in **Figure 31**.

Residents and tourists are interested in connecting to recreational facilities and trailheads, with destinations distributed throughout the region.

While farms, floodways, and dead-end streets create challenges to a well-connected street grid, there are multiple opportunities to connect routes for active transportation. In addition, several streets that connect residential and commercial areas have sufficient width to accommodate facilities for bicycles and pedestrians.

6.4.1 Active Transportation Challenges

US 191

US 191 is an obstacle for pedestrians and bicyclists in Grand County and the City of Moab. With traffic volumes and freight traffic, it is a difficult roadway to cross and travel along. In many areas, long distances exist between crossings (signalized or grade-separated), as shown in **Figure 32**. The Spanish Valley area lacks any signalized crossings for over four miles to the boundary of the study area and beyond. As development increases in this part of Grand County and destinations develop on both sides of US 191, the need for protected pedestrian crossings will increase. Even downtown, where there are more frequent signalized crossings, residents report difficulty crossing US 191.

Limited Street Connectivity

The study area is separated into two clusters of development, north and south, by a swath of development that contains many dead-end roads, large parcels, and few through streets. This area is bounded by 300 South and Millcreek Drive on its north edge, and US 191 and Holyoak Lane on its south edge. This lack of street grid or alternatives, forces many to use US 191 to reach their destination.

6.4.2 Bikeway Needs

North-South Bikeways

High traffic volumes, heavy freight traffic, and lack of dedicated bicycle facilities along US 191 through downtown make for a stressful bicycling experience. With the Moab Canyon Pathway paralleling US 191 from the north and major destinations such as the Utah State University (USU) in the south of town, there is a need to better accommodate north-south bicycle traffic through Moab. While improvements to US 191 are an option, it would require impacts to on-street parking and vehicle throughput in downtown. Parallel corridors such as 500 West, 100 West, and 100 East can potentially accommodate north-south connectivity but may require detours to overcome inconsistent street connectivity.

East-West Bikeways

Mill Creek Parkway, and its underpass, are the only locations along the bikeway network where bike facilities and a safe crossing of US 191 align to permit east-west travel. 300 South has a traffic signal, but the street grid ends on the west side of US 191. 200 North lacks a signal to cross US 191, and there is a gap in the bike lane network between US 191 and 100 West.

Kane Creek Boulevard between 500 West and US 191

High traffic volumes and speeds, as well as the lack of sidewalks or bicycle facilities, on Kane Creek Boulevard deter pedestrians and bicyclists from using this road. For bicyclists using 500 West to bypass downtown and avoid US 191, the stretch on Kane Creek Boulevard presents an obstacle to connecting to destinations on the south side of town.

6.4.3 Pedestrian Needs

Pedestrian Crossings of US 191

Destinations and residences on both sides of US 191 at 400 North and 200 North require additional crossings.

USU is constructing a 40-acre campus on the west side of US 191. Aggie Boulevard connects at the intersection of US 191 and Millcreek Drive. Considering the number of people that will travel to and from the campus, a signalized crossing would allow students to more comfortably reach Millcreek Drive to access downtown.

Many people cross between the signalized crossings at Kane Creek Boulevard and 4th East Street (a 0.5-mile distance) to reach commercial destinations. Higher speed traffic and the curve in the road lead to discomfort.

6.4.4 Trail and Pathway Needs

Colorado River Pathway Gap

The Colorado River Pathway is an important shared-use path connection between destinations along SR 128 and Moab, including campgrounds, river put-in sites, and the Porcupine Rim Trail. While the pathway was mostly completed in 2015, a gap forces pathway user onto the SR 128 shoulder between Grandstaff Canyon and the Goose Island campground.

Pathway Connectivity between the USU Campus and Downtown Moab

With the USU campus under construction, pedestrians and bicyclists will need facilities connecting the campus and the commercial destinations along US 191 south of downtown (City Market or the Moab Brewery, for example).

Sand Flats Road Connectivity

The Sand Flats Recreation Area has seen increases in traffic due to the recreational opportunities for hikers, mountain bikers, and OHVs. This growth has created conflicts between users on Sand Flats Road that are likely to increase once the proposed Lions Back Resort development is constructed. To mitigate these conflicts, accommodations for pedestrians and bicyclists should be considered to connect to the trailheads and recreational destinations at the top of the hill.

Mill Creek Parkway Improvements and Extension

West of 100 West, the shared-use path along Mill Creek turns from paved to sand. Despite bridges across the creek, the path surface is too soft to allow use by bicyclists, who must dismount and walk through heavy sand. Additional development in this area presents an opportunity to extend this pathway network to the west and south.

Millcreek Drive and Spanish Valley Drive

While sidewalks are present throughout Moab, they are absent in Spanish Valley. Two critical streets provide connections for residents of Spanish Valley to the destinations in Moab – Millcreek

Drive and Spanish Valley Drive. Together, these roads could provide a low-stress, parallel route to US 191. While a previous National Park Service study evaluated this corridor and recommended a side path along Spanish Valley Drive, a solution will require a long-term commitment to acquire the necessary right-of-way (ROW).

6.4.5 Supporting Infrastructure Needs

Comprehensive Bicycle Parking

Increasing tourism numbers and bike theft issues necessitate installation of bike parking throughout the downtown area. Parking solutions must consider fat bikes and e-bikes. Racks styles should accommodate a variety of frames, styles, and tire sizes. Given the cost of e-bikes and mountain bikes visitors bring to Moab, secure bike parking is vital to encourage recreational rides to seamlessly transition to post-ride dining and shopping.

Wayfinding Signage

Due to the area's tourism draw, many pedestrians and bicyclists in Moab are unfamiliar with the active transportation network. Wayfinding signage is needed to promote the available trails, connections to nearby trailheads, and designated bicycling routes including alternatives to US 191.

Speed Management along US 191 (Main Street)

Stakeholders expressed a desire for speed management elements on US 191 at the entrances to downtown. These elements would communicate to motorists that they are transitioning from a high-speed highway to a small-town Main Street. These improvements could take the form of landscaped medians, signage, speed-feedback signs, or curb extensions but would need to be carefully designed to accommodate the traffic volumes and freight functions of the corridor.

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Traffic calming elements for Main Street

Safe pedestrian crossing needed

East-west bikeway options needed

Millcreek Parkway Trail connectivity

Study Area extends southwest on Kane Creek Boulevard to Pritchett

Kane Creek Blvd connection needed

Traffic calming elements for Main Street

Colorado River Pathway Gap

North-south bikeway options needed

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Sand Flats Road connectivity

Limited street connectivity area

US 191 active transportation challenges

Millcreek and Spanish Valley Drive connectivity

Legend

- General Area Needs
- Corridor-specific Needs
- Obstacles / Challenges
- Bikeway Needs
- Pedestrian Needs
- Trail & Pathway Needs
- Supporting Infrastructure Need

* Refer to section 6.4 for more information on active transportation needs and deficiencies.

0 0.25 0.5 Miles

N

0 0.5 1 Miles

Grand County Utah

CITY OF MOAB UTAH

Figure 31. Active Transportation Needs and Deficiencies Identified by Stakeholders

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Arches National Park

Utah Hwy. 128 - River R

191

279

ate Hwy-279 - Potash Rd

Kane Springs Rd

1.2 Miles

.59 Miles

See Inset

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

Sand Flats Rd

400 North St

500 West St

Williams Way

100 North St

Center St

100 South St

400 East St

Kane Creek Blvd

Sand Flats Rd

DOGWOOD AVE

Study Area extends southwest on Kane Creek Boulevard to Pritchett Canyon Trailhead

.56 Miles

3.0 Miles

Mill Creek Dr

MILL CREEK DR/
AGGIE BLVD

Spanish Trail Rd

SPANISH TRAIL DR.

Spanish Valley Dr

2.4 Miles

191

Old Airport Rd

400 North St

400 N

191

200 N

100 West St

100 North St

Williams Way

Center St

100 South St

300 South St

400 East St

Mill Creek Drive

Kane Creek Blvd

0 0.15 0.3 Miles

LEGEND

- Traffic Signal
- HAWK
- Roundabout
- CROSSING NEEDED

0 0.5 1 Miles

Grand County Utah

CITY OF MOAB UTAH

Figure 32. Crossing Distances

7. Stakeholder & Community Outreach

Community involvement is an important part of successful transportation planning. Community outreach is critical to identify community goals and context, and gain insight on desired and appropriate transportation solutions.

The UTMP effort engaged the community early in the process. Early engagement best enables input provided by stakeholders to influence decisions. Stakeholders represented government and elected officials, businesses, contractors, transportation advocates, conservation, surrounding governments, agencies, and USU.

Outreach for this project was accomplished through:

- **UTMP TAC**: Representatives of the UTMP TAC met regularly to discuss progress and issues, as well as to provide guidance for the plan.
- **Board of Supervisors/City Council Briefings**: Presentations on the UTMP were made to City of Moab and Grand County in July and August 2021 and the final plan will be presented in July 2022.
- **Stakeholder Interviews**: Information was gathered through discussions with various contacts representing different interests in Grand County and City of Moab related to transportation issues.
- **Stakeholder Survey**: An online stakeholder survey was conducted in late 2021 to obtain input on transportation needs in the community.
- **Community Meetings**: Community meetings were held to present findings of analysis, review potential projects and prioritization methodology, and review the UTMP report.

7.1 November 2021 Community Meeting

A community meeting to present findings and potential strategies and improvements was held November 10, 2021. Key findings from Working Paper #1, including needs and deficiencies and potential strategies were presented, followed by an open discussion with community members.

In addition, an online survey and comment form was distributed to stakeholders and the community. Responses provided valuable input that was considered by the project team in developing strategies and solutions moving.

Note that while the study team reviewed all comments submitted, several were not directly addressed as they pertain to issues outside of the scope, goals, or objectives of the UTMP.

Community and stakeholder feedback was recorded and is provided in **Appendix D**.

7.2 December 2021 Community and TAC Meeting

A TAC and community meeting were held December 16, 2021 to review proposed draft strategies and projects. The projects were based on the current and future conditions analysis, input from the November 2021 community meeting and survey, and project team and TAC input.

The community meeting served to solicit public and stakeholder perspectives on potential project solutions and strategies. The information gathered from the community meeting, stakeholders, and the project TAC and study team helped refine the UTMP project list.

Community and stakeholder feedback was recorded and is provided in **Appendix D**.

7.3 June 2022 Community Meeting

A community meeting will be held in June 2022 to solicit community and feedback on the draft UTMP final report including project prioritization results. The information and comments received from the community meeting will assist the study team in refining the draft UTMP final report and in preparing a final UTMP report for presentation to the community and local jurisdictions.

7.4 Grand County Commission and Moab City Council

The final UTMP report will be presented for adoption to the Grand County Commission and City of Moab City Council in summer 2022.

8. Transportation Strategies

This section presents an overview of proposed transportation policies, strategies, and improvements to make it more convenient, comfortable, and safe to walk, bicycle, and drive within and throughout Grand County and the City of Moab.

Implementing changes requires a combination of guiding policies, network-wide strategies, and specific improvement projects.

8.1 Guiding Policies

Recommended policies to be considered by Grand County and the City of Moab are listed in **Table 14**.

Table 14. Recommended Transportation Policies

Policy Name	Description
Complete Streets Policy	Develop a Complete Streets Policy to guide future design of multimodal streets. The policy will emphasize County and City goals to accommodate all users and modes of the transportation system, particularly downtown (e.g., trucks, vehicles, pedestrians, bicycles).
Downtown Bicycle Parking Facilities	Develop a policy to require bicycle parking facilities with new or re-development throughout the downtown area.
Future Trail Acquisition	Formalize policy and code to require a review of potential trail easements in conjunction with new development or redevelopment reviews.
UDOT Frontage Road Study	Support implementation of UDOT Frontage Study in future development plans and consider streetscape improvements that enhance a multimodal environment and safety.

8.1.1 Complete Streets Policy Information

Complete Streets is an approach to planning, designing, building, operating and maintaining streets that enable safety for all users, including pedestrians, bicyclists, and motorists of all ages and ability. A goal of a complete street is to reduce speeds on roadways to improve safety.

Complete Streets are a process and approach to street design or redesign – there is no singular design for Complete Streets. A complete street may look different in different community settings or areas. A complete street may include sidewalks, bike lanes (or wide shoulders), frequent and safe crosswalks, median islands, curb extensions, narrower travel lanes, roundabout, and more. Other streets should be designed to focus on freight and mobility needs. Not all streets can accommodate all users. Successful communities provide a network of streets that serve different users.

The Smart Growth America National Complete Streets Coalition provides resources for communities in drafting a complete streets policy. The National Complete Streets Coalition (NCSC) identified 10 elements of a comprehensive Complete Streets policy that serve as a model in developing Complete Streets, including the following:

1. **Vision and intent**: Includes an equitable vision for how and why the community wants to complete its streets. Specifies need to create complete, connected network and specifies at least four modes, two of which must be biking or walking.
2. **Diverse users**: Benefits all users equitably, particularly vulnerable users and the most underinvested and underserved communities.
3. **Commitment in all projects and phases**: Applies to new, retrofit/reconstruction, maintenance, and ongoing projects.
4. **Clear, accountable exceptions**: Makes any exceptions specific and sets a clear procedure that requires high-level approval and public notice prior to exceptions being granted.
5. **Jurisdiction**: Requires interagency coordination between government departments and partner agencies on Complete Streets.
6. **Design**: Directs the use of the latest and best design criteria and guidelines and sets a time frame for their implementation.
7. **Land use and context sensitivity**: Considers the surrounding community's current and expected land use and transportation needs.
8. **Performance measures**: Establishes performance standards that are specific, equitable, and available to the public.
9. **Project selection criteria**: Provides specific criteria to encourage funding prioritization for Complete Streets implementation.
10. **Implementation steps**: Includes specific next steps for implementation of the policy.

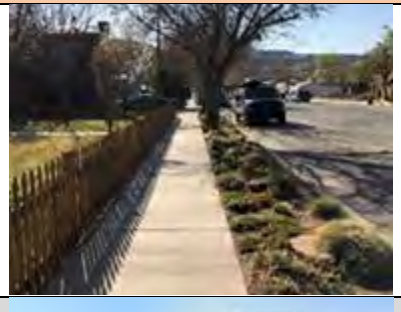
Source: https://smartgrowthamerica.org/resources/elements-complete-streets-policy/

8.2 Transportation Improvement Strategies

Transportation improvement strategies are separated into three categories:

1. Active transportation improvement strategies refer to those that improve conditions for walking and bicycling. Examples of active transportation strategies and their benefits and considerations are summarized in **Table 15**.
2. Roadway improvement strategies focus on those that improve connectivity and safety for those driving in and around the Moab area. Examples of roadway-focused improvements and their benefits and considerations are reported in **Table 16**.
3. Parking and transit improvement strategies, and their benefits and considerations are reported in **Table 17**.

Table 15. Active Transportation Strategies

Active Transportation Strategy		Purpose/Benefit	Considerations
Pedestrian Facilities			
Sidewalks		• Provide dedicated space for people to walk, run, skate, bike, etc. to help improve pedestrian safety • Improve transportation network connectivity	• Prioritize locations near transit stops, schools, parks, public buildings, and other areas with high concentration of pedestrians • Street furniture should not restrict pedestrian flow
PHB / HAWK Signal		• Improve pedestrian safety crossing at mid-block or uncontrolled intersections • Improve transportation network connectivity	• Three-lane or greater roadways with speed limits above 40 mph and annual average daily traffic (AADT) greater than 9,000 • Install with high-visibility crosswalks, advance yield/stop signage and pavement markings • The Manual on Uniform Traffic Control Devices (MUTCD) provides guidance on pedestrian volume warrants, design features, and restrictions associated with a PHB
Rectangular Rapid Flashing Beacons (RRFBs)		• For use at uncontrolled pedestrian and school crosswalk locations to improve pedestrian safety and increase motorist awareness	• Two-lane or greater roadways with speeds greater than 30 mph and daily traffic less than 15,000 or speeds less than 40 mph for daily traffic greater than 15,000 • Three-lane roadways with speeds less than 40 mph • Four-lane or greater roadways with speeds less than 40 mph and daily traffic less than 15,000 or speeds less than 30 mph for daily traffic greater than 15,000

Active Transportation Strategy		Purpose/Benefit	Considerations
In-Street Pedestrian Crossing Sign		• Remind roadways users of laws regarding ROW	• Recommended for multi-lane roadways where AADT is greater than 10,000 or on two- to three-lane roads where speed limits are 30 mph or less • Cannot be implemented at signalized locations • Other crossing improvements are required to prevent an increase in pedestrian crashes
Yield/Stop Here to Pedestrian Sign		• Provide advance warning to drivers of a marked crosswalk	• Implement along with Advance Yield/Stop pavement markings
Pedestrian Refuge Island		• Breaks up walking distance and allows pedestrians to focus on one direction at a time	• Recommended for roadways with raised median, especially for roadways with more than two lanes in each direction
Advance Yield/Stop Pavement Markings		• Improves pedestrian visibility by providing advance warning to drivers of marked crosswalk	• Recommended at uncontrolled crossings for three-lane roadways with speeds less than 30 mph, and daily traffic less than 9,000 • Implement with Advance Yield/Stop signage, RRFB, and PHB • Restrict parking between yield line and crosswalk to allow for better visibly • Effectiveness depends on motorist compliance with marked yield lines

Active Transportation Strategy		Purpose/Benefit	Considerations
High-Visibility Crosswalks		• Improves pedestrian visibility by providing advance warning to drivers	• Recommended for two- to three-lane roadways, with speeds less than 30 mph, and AADT less than 9,000 • Can be considered for two- to four-lane roadways with speed less than 40 mph, and AADT less than 15,000 with combination with other improvements such as advance yield/stop signage and pavement markings, pedestrian refuge islands, RRFB, and PHB
Raised Pedestrian Crossings		• Improves safety for pedestrians by increasing visibility for drivers and reduces speed of vehicles	• Recommended as an uncontrolled crossing for two- to three-lane roadways with speeds less than 30 mph and AADT less than 9,000 • Attention should be paid to impacts on drainage • May be inappropriate on curves or steep roadway grades
Curb Extension		• Improves safety for pedestrians at an intersection • Shortens required crossing distances • Increases visibility and reduces speed of turning vehicles	• Appropriate where there is an on-street parking lane and transit and bicyclist would travel outside curb edge • Curb extension should not extend more than six feet from curb • Consider turning needs for larger vehicles such as school buses or emergency vehicles • Consider impacts to drainage
Pedestrian Overpasses/ Underpasses (Tunnel)		• Provides physically separated crossings from vehicular traffic • Provide safe crossing over/under challenging corridors such as highways, railways, and natural barriers • Improves transportation network connectivity	• Use sparingly and as a measure of last resort • Pedestrian will not use if there is a more direct route • Lighting, drainage, graffiti removal, and security are major concern with underpasses • Long ramps may be necessary to accommodate wheelchairs

Active Transportation Strategy		Purpose/Benefit	Considerations
Separated Shared-Use Path		• Provides separated space for multimodal users • Creates additional transportation network connections	• Paths should be designed to ensure safety among all path users caused by high use and differences speeds. • Typical widths of 10-14 feet are desirable
Bicycle Facilities			
Bicycle Signage and Pavement Markings		• Increase motorist awareness • Create designated space for bicyclists • Provide warning and/or regulatory information to all road users	• Signage may include bicycle lane, share the road, bicycle guide information, etc. • Intersection markings may include dashed lines, color (green) pavement or bicycle box • Avoid overuse of signs, which may contribute to non-compliance or visual clutter
Bicycle Lanes		• Provides dedicated portion of the roadway for preferential use by bicyclist • May visually narrow the roadway to encourage reduced vehicle speeds	• Provide adequate bicycle lane width: o Five feet from face of curb o Six to seven feet for locations with higher bicycle traffic, higher vehicles speed, volume, or percentage large vehicles • Provide additional space between bicycle lane and on-street parking • Minimize paving joints in bicycle lanes • Marked crosswalk should extend across bicycle lanes

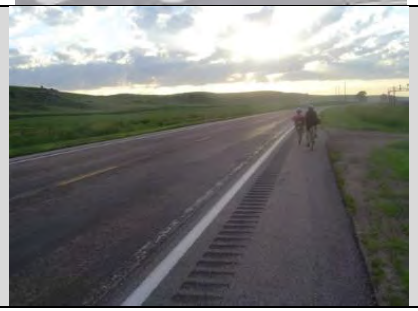
Active Transportation Strategy		Purpose/Benefit	Considerations
Separated Bicycle Lanes (Cycle Tracks or Protected Bicycle Lanes)		• Increases safety by physically separating bicyclists from vehicle traffic	• Minimum width of separated bicycle lane is five feet, with a minimum three-foot buffer • At intersections, make sure to have signage and pavement markings to improve awareness and provide guidance through the intersection • Consider separation such as jersey barriers or knock-down posts
Paved Shoulders		• Creates separated space for bicyclists	• Minimum width of shoulder is five feet • Provide rideable space if rumble strips are present • Create accommodations for bicycles through intersections

Table 16. Roadway Improvement Strategies

Roadway Improvement Strategy		Purpose/Benefit	Considerations
Traffic Signals		• Provides gaps in traffic flow for pedestrians to cross roadways	• A pedestrian phase should be automatically active for locations where pedestrian traffic is regular and frequent
System/Network Connectivity		• Increase multimodal usability for a transportation network system	• Consider connections for all users (roadway, sidewalks, transit, etc.)
Install Red Curb Markings		• Install red curb to increase corner sight distance at intersections.	• Red curb should be installed 10-25 feet from corner; additional length may be needed to accommodate corner sight distance

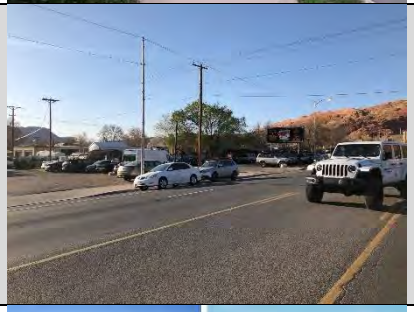
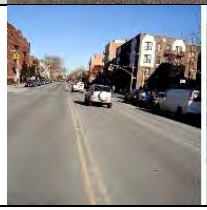
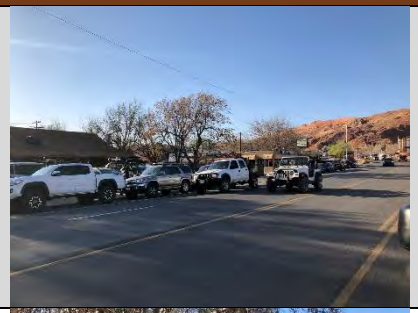
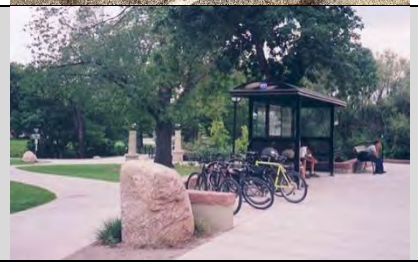
Roadway Improvement Strategy		Purpose/Benefit	Considerations
Roundabouts		• Help reduce vehicle speeds • Improve safety by eliminating left-turns and angled collisions	• Consider bicycle/pedestrian volumes, design vehicle, available ROW • Best where traffic flows are balanced on all approaches or at intersections with more than four approaches • Not suitable for high-speed roadways or for intersection of two multi-lane roads • Consider mini-traffic circles or smaller-scale roundabouts on low-speed and volume roadways
Sight Distance Improvements		• Improve visibility and awareness of all users by removing sight distance obstructions (e.g., overgrown vegetation, on-street parking)	• If there is on-street parking, should determine whether on-street parking is necessary or what is the most appropriate kind of parking • Determine if skewed intersection should be realigned
Access Management		• Increase safety by reducing the number of potential conflict points between pedestrians/bicyclists and motorists	• May assist to determine closing/consolidating or restricting movements at driveways
Road Diet/Lane Reductions	 	• Reconfigure roadway cross-section to optimize street space to benefit all users	• Four to three-lane conversation should be considered for roadways with documented safety concerns or prioritizes bicycling and walking routes • Community outreach is helpful to educate and gather input • Consider how roadway diet/lane reduction may affect alternative and neighboring routes

Table 17. Parking and Transit Strategies

Parking/Transit Strategy		Purpose/Benefit	Considerations
Parking Restriction		• Parking restriction may remove parked vehicles that can obstruct sightlines • Can increase visibility of pedestrian crossing the road	• Communicate with community stakeholders about removing parking spaces • Important to enforce parking restriction with signage, paint, and pavement markings
On-Street Parking Enhancements		• May serve as traffic calming (lane narrowing) to reduce vehicle speeds • Provides a buffer between sidewalk edge and motorist traffic, creating a safer environment	• May take up roadway space desired for other uses such as bicycle lanes • Can be combined with curb extensions (or bulb-outs) to increase safety
Transit Stop Improvements		• Increase usability of the transportation system • Provides safe and convenient access for people to wait	• Provide comfort items such as shelter, places to site, trash bins, and schedule information • Ensure a clear and visible path for pedestrians

Parking/Transit Strategy		Purpose/Benefit	Considerations
Access to Transit		• Provide safe and convenient access for all transportation network users	• Ensure stops are connected to sidewalks • Locate stops on the far side of the intersection where possible • Review Americans with Disabilities Access
Wayfinding		• Direct pedestrians and bicyclists to the best routes connecting destinations or circumventing obstacles	• Evaluate use of both regulatory and warning signs • Avoid overuse of signs, which may contribute to non-compliance or visual clutter
Freight Shuttles/ Loading and Unloading Areas		• Reduce truck traffic in congested and heavy pedestrian areas (downtown)	• Location with access for large trucks and ability to store/warehouse items before final destination

.

9. Recommended Improvements

Dozens of potential transportation improvements were evaluated considering existing and future conditions needs analysis, TAC, community and stakeholder input, and transportation strategies. The evaluation yielded 38 transportation improvement projects categorized as follows:

- 19 active transportation
- 14 roadway
- 3 parking
- 2 transit

A project information summary sheet was prepared for each improvement that provides the following information:

- Project Name
- Project Category
- Project Description
- Project Length
- Jurisdiction
- Planning Horizon: Near (1-6 years), Mid (7-12 years), and Long (13+ years)
- Cost Estimate (planning level)
- Priority (TAC and/or community input)
- Other Notes and Considerations

Transportation project information summary sheets are provided in **Appendix E** for active transportation improvement projects and **Appendix F** for roadway improvement projects.

9.1 Planning-Level Cost Estimates

Planning-level cost estimates for each project were prepared utilizing the following sources:

- UDOT's project cost estimator tool
- Moab and Spanish Valley 2050 Regional Transportation Plan (Completed 2021)
- Moab City Roadway Evaluation and Facilities Plan (Completed 2020)
- Recently completed construction projects in the State of Utah
- Input from the project team

Cost estimates account for inflation, preliminary engineering, ROW (when applicable), a contingency, and represent a future estimated cost for the designated horizon year.

9.2 Active Transportation Improvement Projects and Assessments

A total of 16 active transportation projects and 3 planning assessments were identified. Projects include pedestrian and bicycle facilities, shared-use paths, and planning assessments to improve connectivity, safety, and mobility for all users.

The active transportation improvement projects and assessments are shown in **Table 18**. The project number corresponds to the active transportation projects shown in **Figure 33**.

Table 18. Active Transportation Improvement Projects and Assessments

Project Number	Project Name	Project Category	Project Description	Project Length	Jurisdiction(s)	Planning Horizon	Cost Estimate	Priority	Other Notes (Issues, Concerns, ROW Considerations, etc.)
AT1	US 191 Sidewalk Improvements: Fourth East to Bittle Lane	Pedestrian Facilities	Construct sidewalk to connect existing gap along US 191 from Fourth East to Bittle Lane	425 ft.	City; UDOT	Near (1-6 years)	$70,000	Low	Will require coordination with UDOT
AT2	Dogwood Avenue and US 191 Area Crossing	Pedestrian Facilities	Construct enhanced pedestrian crossing on US 191 near Dogwood Avenue (PHB/HAWK crossing)	N/A	City; UDOT	Near (1-6 years)	$300,000	High	Will require coordination with UDOT
AT3	Millcreek Drive Sidewalk Improvements	Pedestrian Facilities	Construct sidewalk where missing on Millcreek Drive, Spanish Valley Drive to bridge north of Lasal Road	0.93 mi	City; County	Mid (7-12 years)	$800,000	High	
AT4	Holyoak Sidewalk Connection	Pedestrian Facilities	Construct sidewalk along Holyoak Lane from Mill Creek Drive to Wagner Avenue	0.47 mi	City	Mid (7-12 years)	$400,000	Low	
AT5	US 191 at Millcreek Drive/Aggie Boulevard Crossing	Pedestrian Facilities	Construct tunnel at US 191 and Millcreek Drive/Aggie Boulevard intersection to cross US 191	N/A	City	Long (13+ years)	$1,600,000	Medium	Will require coordination with UDOT
AT6	100 East Bicycle Lanes	Bicycle Facilities	Install bicycle lane pavement markings on 100 East from 200 North to Millcreek Trail and on to City Market	0.68 mi	City	Near (1-6 years)	$60,000	High	Recommended in Moab Downtown Plan (2019)
AT7	Kane Creek Boulevard Paved Shoulders (Bicycle) Improvements	Bicycle Facilities	Construct paved shoulders (for use by bicyclists) on Kane Creek Boulevard from 500 West to Kane Creek Recreation Parking (end of pavement)	3.87 mi	City; County	Long (13+ years)	$2,860,000	High	Similar recommendation in Moab and Spanish Valley 2050 Regional Transportation Plan (2021)
AT8	Kane Creek Boulevard Bicycle Lanes Improvements	Bicycle Facilities	Stripe bicycle lanes and construct paved shoulders (if needed) on Kane Creek Boulevard from US 191 to 500 West	0.77 mi	City	Mid (7-12 years)	$590,000	Medium	Similar recommendation in Moab and Spanish Valley 2050 Regional Transportation Plan (2021)
AT9	Murphy Lane Paved Shoulders (Bicycle) Improvements	Bicycle Facilities	Construct paved shoulders (for use by bicyclists) on Murphy Lane from Millcreek Drive to Spanish Trail Road	2.51 mi	County	Mid (7-12 years)	$1,860,000	Low	

Project Number	Project Name	Project Category	Project Description	Project Length	Jurisdiction(s)	Planning Horizon	Cost Estimate	Priority	Other Notes (Issues, Concerns, ROW Considerations, etc.)
AT10	Shared-Use Path Construction and Connections; Pack Creek and Mill Creek	Shared-Use Paths	Construct a shared-use path that connects the pedestrian hybrid beacon on US 191 at City Market crossing Pack Creek to Kane Creek Boulevard and north to 300 South; also connect to 100 West	0.40 mi	City	Mid (7-12 years)	$630,000	High	
AT11	Colorado River Shared-Use Path Gap	Shared-Use Paths	Construct shared-use path along Colorado River between Grandstaff Canyon and Goose Island (existing gap)	0.66 mi	County	Off the shelf	$4,530,000	High	Will require coordination with UDOT
AT12	Spanish Valley Drive Shared-Use Path	Shared-Use Paths	Construct a shared-use path on Spanish Valley Drive from Millcreek Drive to South County line	5.10 mi	County	Off the shelf	$8,500,000	High	Partially funded; to be implemented as development continues; recommended in Moab and Spanish Valley 2050 Regional Transportation Plan (2021)
AT13	Mill Creek Canyon Trailhead Connections	Shared-Use Paths	Construct trail connections to Mill Creek Canyon Trailhead (Powerhouse Lane) to Pack Creek and/or Millcreek pathways	1.11 mi	City; County	Long (13+ years)	$1,025,000	Low	
AT14	Sand Flats Recreation Area Bicycle and Pedestrian Access	Shared-Use Paths	Construct pedestrian and bicycle facilities to connect Sand Flats Recreation to downtown.	2.18 mi	City; County	Near (1-6 years)	$2,000,000	Low	May be completed concurrently with developments in the area
AT15	Sand Flats Road Shared-Use Path	Shared-Use Paths	Construct shared-use path from Sand Flats Road Access to Porcupine Rim Trailhead	7.0 mi	County	Long (13+ years)	$6,500,000	Low	
AT16	San Miguel Connection	Shared-Use Paths	Construct a connection between San Miguel north to path over Pack Creek, eventually connecting to Millcreek Drive	350 ft.	City	Mid (7-12 years)	$475,000	Medium	
AT Plan 1	500 West Safe Routes to School Improvements	Active Transportation Planning Assessment	Evaluate bike lane and parking needs on 500 West from 400 North to US 191 to provide a "Safe Route to School"	N/A	City	Off the shelf	$75,000	Medium	

Project Number	Project Name	Project Category	Project Description	Project Length	Jurisdiction(s)	Planning Horizon	Cost Estimate	Priority	Other Notes (Issues, Concerns, ROW Considerations, etc.)
AT Plan 2	100 West Corridor Assessment	Active Transportation Planning Assessment	Complete a corridor assessment for 100 West from Swanny City Park to 100 South including pedestrian and bicycle crossings, sidewalks, capacity improvements, and bike lane needs	N/A	City	Off the shelf	$75,000	Medium	
AT Plan 3	Pack Creek Drainage Assessment	Active Transportation Planning Assessment	Complete an assessment/feasibility study for improvements to the Pack Creek drainage including a bike trail, fire break, access, and floodway considerations	N/A	City; County	Off the shelf	$300,000	High	

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead

See Inset Map Below

Inset Map

Legend
- Railroads
- Water
- Park
- City of Moab
- Study Area
- Proposed Projects
- Proposed Projects

0 0.2 0.4 Miles

0 0.5 1 Miles

Figure 33. Active Transportation Improvement Projects

9.3 Roadway Improvement Projects and Assessments

A total of 10 roadway projects and 4 roadway planning assessments were identified. Roadway projects include roadway connections, intersection control, roadway improvements, and planning assessments to improve connectivity, safety, and mobility for all users.

The roadway improvement projects and assessments are shown in **Table 19**. The project number corresponds to the projects shown in **Figure 34**.

Table 19. Roadway Improvement Projects and Assessments

Project Number	Project Name	Project Category	Project Description	Project Length	Jurisdiction(s)	Planning Horizon	Cost Estimate	Priority	Other Notes (Issues, Concerns, ROW Considerations, etc.)
R1	Park Drive Connection	Roadway Connection	Construct street connection and sidewalk of Park Drive, Opal Avenue to Park Road	300 ft.	City	Mid (7-12 years)	$180,000	Low	
R2	Walnut Lane Street Connection	Roadway Connection	Construct street connection and sidewalk of Walnut Lane to Orchard Park Lane (Hospital Road)	100 ft.	City	Mid (7-12 years)	$60,000	Medium	
R3	US 191 to Spanish Valley Drive Connection near Beeman Road	Roadway Connection	Construct new east-west street connection between Spanish Valley Drive and US 191 near Beeman Road	0.5 mi	County	Near (1-6 years)	$2,560,000	Medium	Similar recommendation in Spanish Valley Transportation Plan (2008); requires coordination with UDOT
R4	Millcreek Drive/Aggie Boulevard and US 191 Traffic Signal	Intersection Control	Construct traffic signal at Millcreek Drive and US 191 intersection	N/A	City; UDOT	Near (1-6 years)	$650,000	Medium	Requires coordination with UDOT
R5	Meador Drive and US 191 Traffic Signal	Intersection Control	Construct traffic signal at US 191/Meador Drive	N/A	County	Mid (7-12 years)	$775,000	Medium	Similar recommendation in US 191 Corridor Preservation Study (2015); requires coordination with UDOT
R6	200 North and US 191 Traffic Signal	Intersection Control	Construct traffic signal at US 191 at 200 North intersection	N/A	City; UDOT	Near (1-6 years)	$650,000	High	Recommended in Moab and Spanish Valley 2050 Regional Transportation Plan (2021); requires coordination with UDOT
R7	West Moab Boat Dock Road and US 191 Improvements	Roadway Improvement	Identify and construct safety improvements to Moab Boat Dock Road intersection at US 191	N/A	County; UDOT	Long (13+ years)	$50,000-$200,000	Low	Requires coordination with UDOT

Project Number	Project Name	Project Category	Project Description	Project Length	Jurisdiction(s)	Planning Horizon	Cost Estimate	Priority	Other Notes (Issues, Concerns, ROW Considerations, etc.)
R8	US 191 Gemini Bridges and Bar M Access Improvements	Roadway Improvement	Realignment of access roads on US 191 at Gemini Bridges and Bar M (AKA Old Highway, Moab Canyon)	500 ft.	County; UDOT	Mid (7-12 years)	$325,000	Low	Requires coordination with UDOT
R9	Sand Flats Road Improvement	Roadway Improvement	Roadway improvement (paving) on Sand Flats Road from Sand Flats Road Access to Porcupine Rim Trailhead	7.0 mi	County	Mid (7-12 years)	$30,000,000	Low	See Section 10.3, RAISE and FLAP grant opportunities
R10	Kane Creek Boulevard	Roadway Improvement	Reconstruct and widen Kane Creek Boulevard from US 191 to Kane Creek Recreation Parking; include intersection improvements to Kane Creek Boulevard and 500 West	4.64 mi	City; County	Long (13+ years)	$20,000,000	High	Similar recommendation in Moab and Spanish Valley 2050 Regional Transportation Plan (2021)
Roadway Plan 1	Millcreek Drive Corridor Assessment and Preliminary Plan	Roadway Planning Assessment	Prepare preliminary plans for the Millcreek Drive from Spanish Valley Drive to Fourth East, including the Fourth East/300 South intersection. Plans may identify improvements to the following: • Millcreek Drive / Spanish Valley Drive • Millcreek Drive / Murphy Lane • Millcreek Drive / Sand Flats Road • Millcreek Drive / Fourth East • Fourth East / 300 South	1.65 mi	City; County	Off the shelf	$250,000	High	
Roadway Plan 2	Fourth East Improvements	Roadway Planning Assessment	Conduct an assessment of capacity and multimodal improvements (intersection and segment) to Fourth E. Street between 100 North and US 191	1.18 mi	City	Off the shelf	$100,000	Medium	
Roadway Plan 3	Spanish Valley Drive	Roadway Planning Assessment	Conduct multimodal assessment to Spanish Valley Drive from Millcreek Drive to County Line; Spanish Valley Drive is alternative route to US 191 during incidents	5.10 mi	County	Off the shelf	$100,000	High	Similar recommendation in Spanish Valley Transportation Plan (2008)
Roadway Plan 4	Spanish Trail Road	Roadway Planning Assessment	Conduct multimodal assessment to Spanish Trail Road from US 191 to Murphy Lane	0.95 mi	County	Off the shelf	$100,000	Medium	

Grand County & City of Moab
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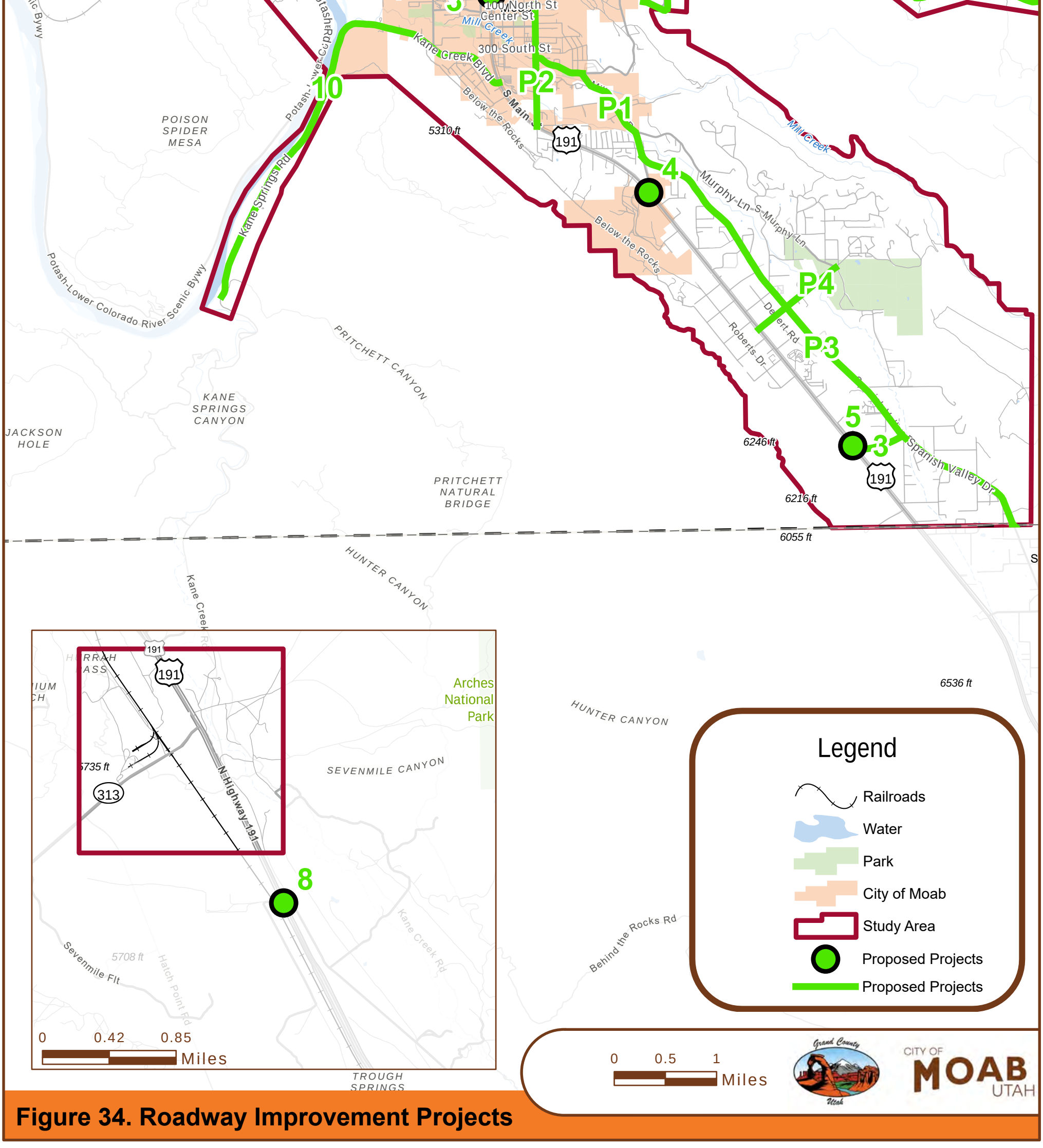
Study Area extends east on Sand Flats Road to the East Porcupine Rim Trailhead



Legend

- Railroads
- Water
- Park
- City of Moab
- Study Area
- Proposed Projects
- Proposed Projects

0 0.5 1 Miles

CITY OF MOAB UTAH

Figure 34. Roadway Improvement Projects

9.4 Parking and Transit Improvement Projects

A total of 3 parking and 2 transit-related projects were identified. Projects include improvements to parking and transit facilities that improve parking, access management, multimodal options, and overall mobility.

The parking and transit improvement projects are shown in **Table 20**.

Table 20. Parking and Transit Improvement Projects

Project Number	Project Name	Project Category	Project Description	Project Length	Jurisdiction(s)	Planning Horizon	Cost Estimate	Priority	Other Notes (Issues, Concerns, ROW Considerations, etc.)
P1	Oversized Lot Parking Improvements	Parking	Construct oversized parking lots north and south of downtown Moab	N/A	City; County	Mid (7-12 years)	$660,000	Medium	Requires ROW acquisition; recommended in Moab Parking Management Study (2019)
P2	Arches National Park Overflow Parking Area	Parking	Parking at UMTRA site for Arches National Park/City Shuttles/etc.	N/A	County	Long (13+ years)	$3,300,000	Low	Environmental clearance and coordination with National Parks Service
P3	US 191 Parking	Parking	Evaluate no parking zones on US 191 to limit parking inhibiting sight distances; include freight parking	N/A	City; UDOT	Off the shelf	$50,000	Medium	Evaluation for future potential improvements; will require coordination with UDOT
T1	Multimodal Transfer Center	Transit	Construct a multimodal transfer center near Canyonlands Regional Airport, connecting Moab Canyon Pathway, SR 128 Trail, SR 313, and shuttle services	N/A	County	Long (13+ years)	$8,000,000	Low	Recommended in Moab and Spanish Valley 2050 Regional Transportation Plan (2021)
T2	Grand County Shuttle System	Transit	Implement shuttles (transit, medical, retail, etc.) to serve key destinations including Arches, Airport, Hospital, USU, Spanish Valley/Spanish Trail Road, Rocky Mountaineer Hub, etc.	N/A	City; County	Mid (7-12 years)	$230,000 (annually)	Medium	

9.5 Network-Wide Strategies

The UTMP identifies network-wide projects that requiring further scoping. General network-wide strategies to be considered by Grand County and the City of Moab are listed in **Table 21**.

Table 21. Recommended General Strategies

Strategy Name	Project Description
Bicycle and Pedestrian Safety Awareness Campaign	Prepare education materials relating to safe practices by motorists, pedestrians, and bicyclists when using County or City streets. The materials can be distributed at hotels and visitor centers.
Downtown Wayfinding Signage Plan	Prepare a downtown signage wayfinding plan. The plan would identify the destinations, and locations for wayfinding signage. Destinations could include trails, trailheads, and on-street cycling routes alternatives to US 191 in downtown Moab.
Wayfinding Signage (Parking) Plan	Prepare a wayfinding plan to city-owned parking lots and available spaces.
Transportation Technology Plan	Identify opportunities to implement technology-based infrastructure to improve traffic operations and safety. These could include vehicle detection, communication, and travel information signs.
Multimodal Nodes	Consider future opportunities for multimodal interaction at key public/private spaces and include shuttles, bicycles, pedestrians, and links to trail heads. Also consider a conflict management strategy that recognizes different users (vehicles, pedestrians, bicyclists, OHVs, etc.), common corridors, traffic patterns, loading/transfer areas, trailheads, and potential mode conflicts.
Rail Service Feasibility Study	Conduct a feasibility study to evaluate short rail kickouts/spurs connecting the future parking at UMTRA project site to the airport that may include passenger rail service.
East-West Spanish Valley Connectivity	Conduct a study to identify needed future east-west connections in Spanish Valley, particularly to/from US 191.
Freight Transfer Plan	Conduct a feasibility study to evaluate need for and location outside of downtown Moab for a freight, goods, and cargo transfer station. The facility would facilitate transfer of freight, goods, and cargo from large trucks to local delivery vehicles, easing congestion on US 191.
Pavement Maintenance and Preservation Program (Grand County)	Establish a comprehensive pavement maintenance program.
Intelligent Transportation System (ITS)	Consider ITS in all project development. ITS components include technologies that improve safety, efficiency, or sustainability of the transportation network (cameras, communication, fiber, message signs, etc.).
Shared Use Path Design Standards	Evaluate and update standards, guidelines, and criteria for shared use path construction to reflect best practices. The standards will reflect a range of users including bicycles, pedestrians, scooters, e-bikes and road separation.

10. Prioritization & Implementation

10.1 Prioritization Methodology

A project prioritization methodology was developed for the UTMP to quantitatively score and rank recommended active transportation and roadway projects. The process considers the impacts of improvements on the transportation network for six categories: safety, livability and economic growth, traffic congestion and operations, implementation, preservation and resiliency, and community and stakeholder input.

A summary of the prioritization structure for roadway and active transportation projects is provided in **Figure 35**. Detailed information on each element's scoring and weighting used in the prioritization process is provided in **Appendix F**.

Figure 35. Roadway and Active Transportation Prioritization Elements

10.2 Project Prioritizations

10.2.1 Active Transportation Project Prioritization

Active transportation projects are shown in **Table 22** in prioritized order. The detailed project inputs to the project prioritization categories used in the project prioritization process for active transportation projects is provided in **Appendix F**.

Table 22. Prioritized Active Transportation Projects

Project Number	Project Name	Project Category	Project Description	Prioritized Ranking
AT10	Shared Use Path Construction and Connections; Pack Creek and Mill Creek	Shared-Use Paths	Construct a shared use path that connects the pedestrian hybrid beacon on US 191 at City Market crossing Pack Creek to Kane Creek Boulevard and north to 300 South. Also a connection to 100 West.	1
AT2	Dogwood Avenue and US 191 Area Crossing	Pedestrian Facilities	Construct enhanced pedestrian crossing on US 191 near Dogwood Avenue (Pedestrian Hybrid Beacon/"HAWK" crossing)	2
AT5	US 191 at Millcreek Drive/Aggie Boulevard Bicycle and Pedestrian Crossing	Pedestrian Facilities	Construct tunnel at US 191 and Millcreek Drive/Aggie Boulevard intersection to cross US 191	3
AT1	US 191 Sidewalk Improvements: Fourth East to Bittle Lane	Pedestrian Facilities	Construct sidewalk to connect existing gap along US 191 from Fourth East to Bittle Lane	4
AT12	Spanish Valley Drive Shared-Use Path	Shared-Use Paths	Construct a shared use path on Spanish Valley Drive from Millcreek Drive to South County line	5
AT4	Holyoak Sidewalk Connection	Pedestrian Facilities	Construct sidewalk along Holyoak Lane from Mill Creek Drive to Wagner Avenue	6
AT8	Kane Creek Boulevard Bicycle Lanes Improvements	Bicycle Facilities	Stripe bicycle lanes and construct paved shoulders (if needed) on Kane Creek Boulevard from US 191 to 500 West	7
AT11	Colorado River Shared-Use Path Gap	Shared-Use Paths	Construct shared use path along Colorado River between Grandstaff Canyon and Goose Island (existing gap)	8
AT14	Sand Flats Recreation Area Bicycle and Pedestrian Access	Shared-Use Paths	Construct pedestrian and bicycle facilities to connect Sand Flats Recreation to downtown.	9
AT3	Millcreek Drive Sidewalk Improvements	Pedestrian Facilities	Construct sidewalk where missing on Millcreek Drive, Spanish Valley Drive to bridge north of Lasal Road	10
AT6	100 East Bicycle Lanes	Bicycle Facilities	Install bicycle lane pavement markings on 100 East from 200 North to Millcreek Trail and on to City Market	11
AT16	San Miguel Connection	Shared-Use Paths	Construct a connection between San Miguel north to path over Pack Creek, eventually connecting to Millcreek Drive	12
AT9	Murphy Lane Paved Shoulders (Bicycle) Improvements	Bicycle Facilities	Construct paved shoulders (for use by bicyclists) on Murphy Lane from Millcreek Drive to Spanish Trail Road	13
AT7	Kane Creek Boulevard Paved Shoulders (Bicycle) Improvements	Bicycle Facilities	Construct paved shoulders (for use by bicyclists) on Kane Creek Boulevard from 500 West to Kane Creek Recreation Parking (end of pavement)	14
AT13	Mill Creek Canyon Trailhead Connections	Shared-Use Paths	Construct trail connections to Mill Creek Canyon Trailhead (Powerhouse Lane) to Pack Creek and/or Millcreek pathways	15
AT15	Sand Flats Road Shared-Use Path	Shared-Use Paths	Construct shared-use path from Sand Flats Road Access to Porcupine Rim Trailhead	16

10.2.2 Roadway Project Prioritization

Roadway projects are shown in **Table 23** in prioritized order. The detailed project inputs to the project prioritization categories used in the project prioritization process for roadway projects is provided in **Appendix F.**

Table 23. Prioritized Roadway Projects

Project Number	Project Name	Project Category	Project Description	Prioritized Ranking
R6	200 North and US 191 Traffic Signal	Intersection Control	Construct traffic signal at US 191 at 200 North intersection	1
R10	Kane Creek Boulevard	Roadway Improvement	Reconstruct and widen Kane Creek Boulevard from US 191 to Kane Creek Recreation Parking; include intersection improvements to Kane Creek Boulevard and 500 West	2
R4	Millcreek Drive/Aggie Blvd and US 191 Traffic Signal	Intersection Control	Construct traffic signal at Millcreek Drive and US 191 intersection	3
R3	US 191 to Spanish Valley Drive Connection near Beeman Road	Roadway Connection	Construct new east-west street connection between Spanish Valley Drive and US 191 near Beeman Road	4
R2	Walnut Lane Street Connection	Roadway Connection	Construct street connection and sidewalk of Walnut Lane to Orchard Park Lane (Hospital Road)	5
R5	Meador Drive and US 191 Traffic Signal	Intersection Control	Construct traffic signal at US 191/Meador Drive	6
R8	US 191 Gemini Bridges and Bar M Access Improvements	Roadway Improvement	Realignment of access roads on US 191 at Gemini Bridges and Bar M (AKA Old Highway, Moab Canyon)	7
R7	West Moab Boat Dock Road and US 191 Improvements	Roadway Improvement	Identify and construct safety improvements to Moab Boat Dock Road intersection at US 191	8
R1	Park Drive Connection	Roadway Connection	Construct street connection and sidewalk of Park Drive, Opal Avenue to Park Road	9
R9	Sand Flats Road Improvement	Roadway Improvement	Roadway improvement (paving) on Sand Flats Road from Sand Flats Road Access to Porcupine Rim Trailhead	10

10.2.3 Parking and Transit Project Prioritization

Parking and transit project improvements are shown in **Table 24** and were prioritized by the project team and TAC.

Table 24. Prioritized Parking and Transit Projects

Project Number	Project Name	Project Category	Project Description	Prioritized Ranking
P1	Oversized Lot Parking Improvements	Parking	Construct oversized parking lots north and south of downtown Moab	1
P3	US 191 Parking	Parking	Evaluate no parking zones on US 191 to limit parking inhibiting sight distances; include freight parking	2
T1	Multimodal Transfer Center	Transit	Construct a multimodal transfer center near Canyonlands Regional Airport, connecting Moab Canyon Pathway, SR 128 Trail, SR 313, and shuttle services	3
P2	Arches National Park Overflow Parking Area	Parking	Construct parking at UMTRA project site for Arches National Park/City Shuttles/etc.	4
T2	Grand County Shuttle System	Transit	Implement shuttles (transit, medical, retail, etc.) to serve key destinations including Arches, Airport, Hospital, USU, Spanish Valley/Spanish Trail Road, Rocky Mountaineer Hub, etc.	5

10.2.4 Planning Assessments Prioritization

Roadway and active transportation planning assessments were prioritized based on input from the project team and TAC. The planning assessments should be completed as funds are available. These projects will inform future project scoping and development. The County and City can coordinate efforts to complete planning assessments that span multiple jurisdictions.

The planning assessments were prioritized by the project team and TAC. Active transportation assessments are prioritized in **Table 25** and roadway assessments are prioritized in **Table 26**.

Table 25. Prioritized Active Transportation Planning Assessments

Project Number	Project Name	Project Category	Project Description	Prioritized Ranking
AT Plan 3	Pack Creek Drainage Assessment	Active Transportation Planning Assessment	Complete an assessment/feasibility study for improvements to the Pack Creek drainage including a bike trail, fire break, access, and floodway considerations	1
AT Plan 1	500 West Safe Routes to School Improvements	Active Transportation Planning Assessment	Evaluate bike lane and parking needs on 500 West from 400 North to US 191 to provide a "Safe Route to School"	2
AT Plan 2	100 West Corridor Assessment	Active Transportation Planning Assessment	Complete a corridor assessment for 100 West from Swanny City Park to 100 South including pedestrian and bicycle crossings, sidewalks, capacity improvements, and bike lane needs	3

Table 26. Prioritized Roadway Planning Assessments

Project Number	Project Name	Project Category	Project Description	Prioritized Ranking
Roadway Plan 1	Millcreek Drive Corridor Assessment and Preliminary Plan	Roadway Assessment	Prepare preliminary plans for the Millcreek Drive corridor from Spanish Valley Drive to Fourth East, including the Fourth East/300 South intersection. Plans may identify intersection improvements to the following: • Millcreek Drive / Spanish Valley Drive • Millcreek Drive / Murphy Lane • Millcreek Drive / Sand Flats Road • Millcreek Drive / Fourth East • Fourth East / 300 South	1
Roadway Plan 3	Spanish Valley Drive	Roadway Assessment	Conduct an assessment of capacity and multimodal improvements to Spanish Valley Drive from Millcreek Drive to County Line; Spanish Valley Drive to be an alternative route to US 191 during incidents	2
Roadway Plan 4	Spanish Trail Road	Roadway Assessment	Conduct an assessment of capacity and multimodal improvements to Spanish Trail Road from US 191 to Murphy Lane	3
Roadway Plan 2	Fourth East Improvements	Roadway Assessment	Conduct an assessment of capacity and multimodal improvements (intersection and segment) to Fourth E. Street between 100 North and US 191	4

10.3 Potential Funding Sources

Funding for transportation needs can come from a variety of federal, state, and local sources. The following sections explore different funding sources that may be leveraged during planning and implementation efforts.

Information in this section is summarized from the UDOT Local Public Agency (LPA) Guide[2].

10.3.1 Federal Funding Sources

Highway Safety Improvement Program Funds

The Highway Safety Improvement Program (HSIP) implements the FHWA Highway Safety Improvement Program. HSIP is a core Federal-Aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-state-owned roads. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance. UDOT accomplishes these objectives by identifying high crash locations and developing a program of roadway safety improvement projects for those locations. The UDOT Traffic and Safety Division maintains a three-year program of statewide HSIP projects. A local match of 6.77% is required.

American Rescue Plan Act – Travel, Tourism, and Outdoor Recreation Funds

As part of the American Rescue Plan Act (ARPA), passed in March of 2021, funding was authorized to help communities and regions devise and implement sustainable economic recovery strategies through a variety of non-construction and construction projects to respond to damage to the travel, tourism, and outdoor recreation sectors from the COVID-19 pandemic and to promote the economic resilience of regions dependent on those industries.

Funds are allocated in two buckets:

1. State Tourism Grants: $510 million in non-competitive awards to help states quickly invest in marketing, infrastructure, workforce, and other projects to rejuvenate safe leisure, business, and international travel.
2. Competitive Grants: $240 million to help communities that have been hardest hit by challenges facing the travel, tourism, and outdoor recreation sectors to invest in infrastructure, workforce, or other projects to support the recovery of the industry and economic resilience of the community in the future.

Rebuilding American Infrastructure with Sustainability and Equity Grant Program

The Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant program provides opportunities for investment in road, rail, transit, and port projects. The RAISE grant program replaced the Transportation Investment Generating Economic Recovery (TIGER) grant program. Raise can provide capital funding directly to any public entity, including municipalities and counties.

Surface Transportation Block Grant Program

The Surface Transportation Block Grant (STBG) program is a federal-aid highway flexible funding program that funds a broad range of surface transportation capital improvements including roads,

[2] https://www.udot.utah.gov/connect/business/public-entities/local-government-program-assistance/

transit, airport access, and bicycle and pedestrian facilities. Planning, research, and development activities are also eligible for the use of STBG funds, within specifically defined types of projects.

Federal Lands Access Program

The Federal Lands Access Program (FLAP) awards funding to improve transportation facilities that provide access to, are adjacent to, or are located within federal lands. The Access Program is funded by contract authority from the Highway Trust Fund.

Federal Transit Administration Funds – Section 5311 Formula Grants for Rural Areas

This program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations less than 50,000. Eligible activities include planning, capital, operating, job access, and reverse commute projects (low income) and the acquisition of public transportation services. Federal/local share for capital projects is 80/20 percent and 50/50 percent for operating assistance.

Federal Transit Administration Funds – Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities

This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-depended populations beyond traditional public transportation services and Americans with Disabilities Act (ADA) complementary para-transit services. Program funds are to be used on capital projects that are public transportation projects or alternatives to public transportation that assist seniors and individuals with disabilities. Federal/local share for capital projects is 80/20 percent and 50/50 percent for operating assistance.

10.3.2 State Funding Sources

UDOT Statewide Transportation Improvement Program

UDOT administers federal Surface Transportation Program (STP) funds for projects listed on the Statewide Transportation Improvement Program (STIP). The STIP is a six-year plan of state and local highway and transit projects for the State of Utah. The STIP list is updated and published annually and includes transportation projects on state, city, and county highway systems as well as projects in national parks, national forests, and on Indian reservations. These projects use various federal and state funding programs.

Class B and C Road Funds

Class B and C roads are public highways, roads, or streets maintained by and under the jurisdiction of an incorporated municipality. Class B roads are county roads and Class C roads are city or town roads. These funds differ from ordinary local revenues in that they are subject to administrative direction by the state – UDOT is the administrative authority for the State of Utah.

UDOT Transportation Alternatives Program

Transportation Alternatives Program (TAP) provides funding for transportation alternatives including on- and off-road pedestrian and bicycle facilities, enhanced mobility, community improvements, environmental mitigations, recreational trails, safe routes to schools, etc.

UDOT grants each UDOT Region TAP funds for use on the state highway system.

UDOT Technical Planning Assistance Program

UDOT offers funding for technical planning assistance to local governments in Utah, especially to those that are experiencing rapid growth and/or lack sufficient resources to carry out planning projects on their own. These funds are awarded on a competitive basis and calls for projects are issued at least once per year.

UDOT Solutions Development Program

The UDOT Solutions Development is a planning process developed to capture the unique context of an area or corridor and develop a set of solutions to meet its transportation needs. Solution sets could include elements such as roadway improvements, transit and/or active transportation; travel demand management; ITS improvements; land use changes, etc.

The Solutions Development process integrates with the work of other UDOT divisions, such as Environmental, Operations, and Performance Management to help ensure holistic solutions that match the area's unique context and needs.

UDOT Safe Routes Grants Program

The main goal of the Safe Routes Grants program is to encourage and assist students living within 1.5-2 miles to safely walk or bike to school. Available grant funding can be used for projects that include non-infrastructure (such as education and encouragement) and infrastructure physical improvements (sidewalks, pavement markings, signage, bicycle parking, etc.). State funds are used for Safe Routes Grants (also known as Safe Routes to School [SRTS]) projects. Local matching funds are not required. UDOT requires infrastructure grant applicants to be submitted by the agency that owns the ROW where the project will be constructed.

UDOT Safe Sidewalk Program

State policy declares that "pedestrian safety" considerations shall be included in all state highway engineering and planning for all projects where pedestrian traffic would be a significant factor. The Safe Sidewalks Program provides a legislative funding source for construction of new sidewalks adjacent to state routes where sidewalks do not currently exist and where major construction or reconstruction of the route, at that location, is not planned for 10 or more years.

For a proposed sidewalk location to be considered for the Safe Sidewalks Program, it must first meet the following criteria:

- Located adjacent to a state highway
- Located within an urban area or an area where the immediate environment of the project is of an urban nature
- Significant pedestrian traffic
- 25% local government match (cash or ROW)

UDOT Road Usage Charge Local Overlay

UDOT has been awarded a federal grant through the Surface Transportation System Funding Alternatives (STSFA) program to further explore Road Usage Charge (RUC). A portion of the grant is to further explore the RUC Local Overlay to test the feasibility of local government agencies (cities and counties) to use Utah's RUC platform as a means to generate user-based revenue to pay for their transportation needs. Technologies, processes, and customer communication will be tested. This a program the County or City may be able to explore in the future.

10.3.3 Local and Other Funding Source

City and County General Funds

Projects may be funded through City and County general funds or capital improvement budgets.

Joint Highway Committee Non-Urban Funds

Utah's Joint Highway Committee (JHC) recommends projects to the Utah Transportation Commission (UTC) with a primary focus on areas of the State of Utah outside of the currently designated metropolitan planning organization (MPO) planning areas.

The JHC Non-Urban Program (NURB) provides federal funding for roadway safety and condition improvements in small cities. Eligible roads must be classified as a Major Collector or above and located outside MPO urban boundaries. The required local match is 6.77% and the maximum amount of federal aid per project is $2,000,000.

Joint Highway Committee Small Urban Funds

The JHC Small Urban Program (SMURB) provides federal funding for roadway safety and condition improvements in small cities. Eligible roads must be designated as a Collector or above and located outside the current MPO boundaries and within a designated small urban city with a population between 5,000 and 50,000. The required local match is 6.77% and the maximum amount of federal aid per project is $1,500,000.

Joint Highway Committee State Park Access Funds

The JHC State Park Access Funds (SPA) are available to make necessary improvements and repairs to roads leading to State Parks. Utah Code sections 72-3-201 to 72-3-206 list the roads that are eligible for this program. The required local match is 50% and the maximum amount of state aid per project is $500,000. A flexible match may be allowed.

Private Funding or Development

Sources of private funding may include private organizations that offer innovative ways to provide transportation infrastructure or services or public-private partnerships that leverage private funding for public infrastructure. The County and City may explore these options when the opportunities arise.

Development or Transportation Impact Fees

There is a direct correlation between development activity and vehicle trips added to the roadway network. Transportation or traffic impact fees are one way to obtain funds for transportation infrastructure projects resulting from and needed to serve new growth. State statutes govern how these types of impact fees may be used; impact fees can only be used to fund growth related system improvements. Adopting impact fees can leverage needed improvements serving growth areas.

Regional Sales Tax

An increase in the local sales tax to fund transportation improvements could drastically increase the amount of transportation improvements that can be funded in the future. Sales taxes also provide a revenue source that allow visitors and seasonal residents to contribute towards the region's transportation system that provides their travel needs to visit recreational sites, international destinations, or other locations.

Property Tax Increase

An option is available to raise property taxes and dedicate some, or all, to increase roadway and mobility improvements, which could help fill the gap in transportation funding.

10.3.4 Other Considerations

The County and City are responsible for the maintenance and operations of the existing and planned transportation infrastructure in the area, even if the construction funds were provided by state or federal grant funds. UDOT maintains and operates US 191 in the area and all state highways. Expanded or new transportation facilities will need to be factored into local jurisdictions' standard maintenance programs to ensure they are properly maintained over time. Typical maintenance and operating activities include, but are not limited to:

- Adverse weather response – closing flooded roads, de-icing bridges, removing wind-blown debris, removing rockfalls
- Clearing sight distance encroachments
- Signing, striping, and pavement markings
- Pavement management – everything from filling potholes to full pavement overlays

With limited transportation dollars, proactive maintenance of existing infrastructure is a cost-effective strategy to extend the functional life of transportation facilities. Preventative maintenance activities performed while pavement is still in good condition is a relatively inexpensive way to extend the life of pavement and reduce the frequency of needed major rehabilitation or reconstruction, which is significantly more expensive.

11. Next Steps

The UTMP identifies and prioritizes transportation improvement strategies, projects, and policies through a process that considered input from the community, stakeholders, and TAC members, along with a review of previous studies, current and future conditions analysis, and identification of needs and deficiencies.

Given the current challenges of increasing costs and limited potential for new funding sources to be implemented quickly, most new or improved roadways, pedestrian, bicycle, and transit facilities will likely rely on outside funding and will have to proactively seek grant or private funding sources.

Similar to any plan, this UTMP provides perspective from a specific point in time. The UTMP should be regularly updated to reflect work accomplished, identify new needs or deficiencies that arise, and update funding resources and cost estimates.

As vehicle technology matures, future updates should consider how to integrate automated vehicles, alternative fuel vehicles requiring different sources of recharging, electronic bicycles, transit options, and other new modes of mobility.

As population, employment, and tourism continue to increase in the region, the County and City must collaborate to improve the transportation system to accommodate all users.

Ultimately, implementation of the UTMP recommendations requires identification of funding for the proposed prioritized projects.

Appendices

Appendix A. Traffic Count Data

Appendix B. Capacity Analysis Results

Appendix C. Summary Memorandum of Stakeholder Group Interviews

Appendix D. Stakeholder and Community Outreach Summary

Appendix E. Active Transportation Improvement Project Summaries

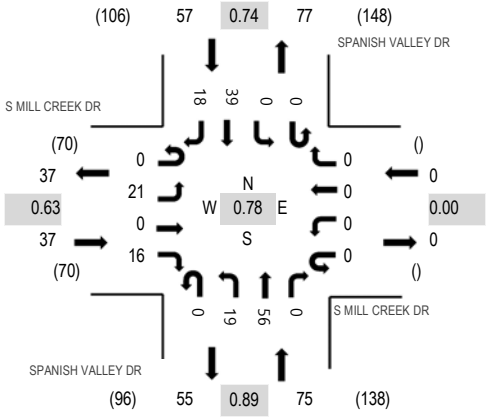
Appendix F. Roadway Improvement Project Summaries

Appendix A. Traffic Count Data

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

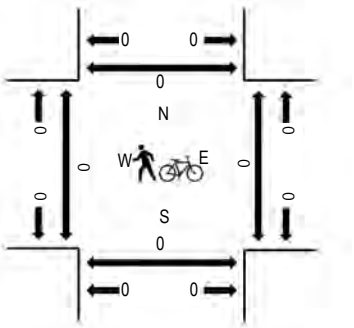
Location: 1 SPANISH VALLEY DR & S MILL CREEK DR AM
Date: Tuesday, September 21, 2021
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	S MILL CREEK DR Eastbound				S MILL CREEK DR Westbound				SPANISH VALLEY DR Northbound				SPANISH VALLEY DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	3	0	2	0	0	0	0	0	4	7	0	0	0	5	6	27	153	0	0	0	0
7:15 AM	0	10	0	2	0	0	0	0	0	3	12	0	0	0	4	2	33	161	0	0	0	0
7:30 AM	0	4	0	3	0	0	0	0	0	4	17	0	0	0	7	4	39	169	0	0	0	0
7:45 AM	0	9	0	7	0	0	0	0	0	5	14	0	0	0	13	6	54	168	0	0	0	0
8:00 AM	0	2	0	3	0	0	0	0	0	5	11	0	0	0	9	5	35	161	0	0	0	0
8:15 AM	0	6	0	3	0	0	0	0	0	5	14	0	0	0	10	3	41		0	0	0	0
8:30 AM	0	3	0	3	0	0	0	0	0	5	15	0	0	0	7	5	38		0	0	0	0
8:45 AM	0	6	0	4	0	0	0	0	0	2	15	0	0	0	14	6	47		0	0	0	0
Count Total	0	43	0	27	0	0	0	0	0	33	105	0	0	0	69	37	314		0	0	0	0
Peak Hour	0	21	0	16	0	0	0	0	0	19	56	0	0	0	39	18	169		0	0	0	0

ALL TRAFFIC DATA SERVICES
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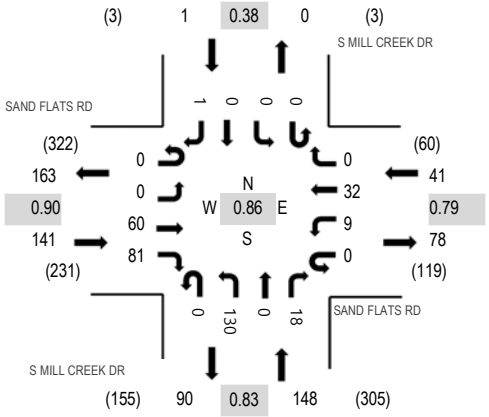
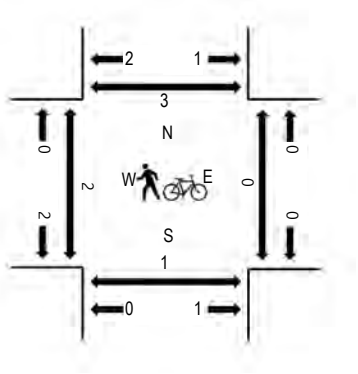
Location: 2 S MILL CREEK DR & SAND FLATS RD AM
Date: Tuesday, September 21, 2021
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	SAND FLATS RD Eastbound				SAND FLATS RD Westbound				S MILL CREEK DR Northbound				S MILL CREEK DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	7	10	0	2	2	0	0	15	1	2	0	0	0	0	39	268	0	0	0	0
7:15 AM	0	0	7	6	0	1	2	0	0	38	0	4	0	0	0	0	58	308	0	0	0	0
7:30 AM	0	1	5	24	0	0	5	0	0	39	0	4	0	0	0	0	78	326	1	0	0	0
7:45 AM	0	0	9	21	0	1	6	0	0	50	1	3	0	0	0	2	93	328	0	0	0	0
8:00 AM	0	0	12	15	0	3	7	0	0	39	0	2	0	0	0	1	79	331	1	0	0	0
8:15 AM	0	0	18	21	0	1	9	0	0	21	0	6	0	0	0	0	76		0	0	0	2
8:30 AM	0	0	17	21	0	4	4	0	0	29	0	5	0	0	0	0	80		0	0	0	1
8:45 AM	0	0	13	24	0	1	12	0	0	41	0	5	0	0	0	0	96		1	0	1	0
Count Total	0	1	88	142	0	13	47	0	0	272	2	31	0	0	0	3	599		3	0	1	3
Peak Hour	0	0	60	81	0	9	32	0	0	130	0	18	0	0	0	1	331		2	0	1	3

ALL TRAFFIC DATA SERVICES
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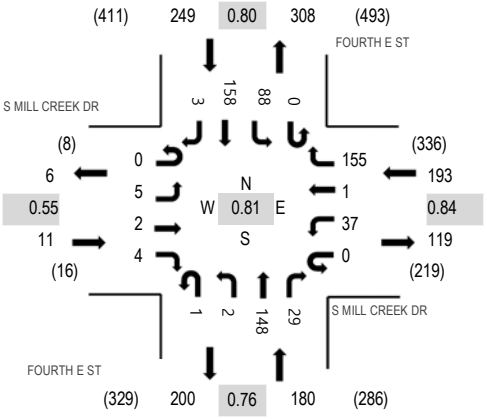
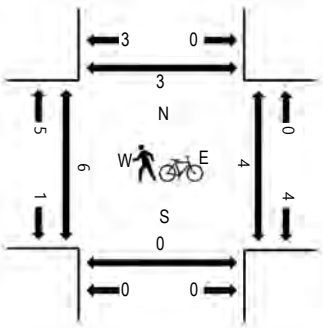
Location: 3 FOURTH E ST & S MILL CREEK DR AM
Date: Tuesday, September 21, 2021
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	S MILL CREEK DR Eastbound				S MILL CREEK DR Westbound				FOURTH E ST Northbound				FOURTH E ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	0	0	0	8	0	11	0	0	10	5	0	8	14	0	57	520	0	1	0	0
7:15 AM	0	0	0	0	0	8	0	29	0	0	14	5	0	8	29	0	93	602	1	1	0	0
7:30 AM	0	3	1	1	0	21	0	32	0	0	47	12	0	17	60	1	195	633	1	4	0	0
7:45 AM	0	0	0	0	0	8	1	50	0	0	53	6	0	20	37	0	175	560	2	0	0	0
8:00 AM	0	2	1	1	0	5	0	44	1	0	27	4	0	20	34	0	139	529	1	0	0	2
8:15 AM	0	0	0	2	0	3	0	29	0	2	21	7	0	31	27	2	124		2	0	0	1
8:30 AM	0	0	0	3	0	8	0	30	0	0	19	12	0	28	22	0	122		13	4	0	0
8:45 AM	0	1	0	0	0	8	0	41	0	2	29	10	0	24	29	0	144		0	0	0	0
Count Total	0	7	2	7	0	69	1	266	1	4	220	61	0	156	252	3	1,049		20	10	0	3
Peak Hour	0	5	2	4	0	37	1	155	1	2	148	29	0	88	158	3	633		6	4	0	3

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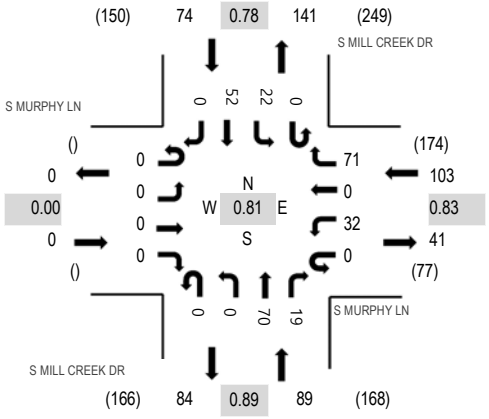
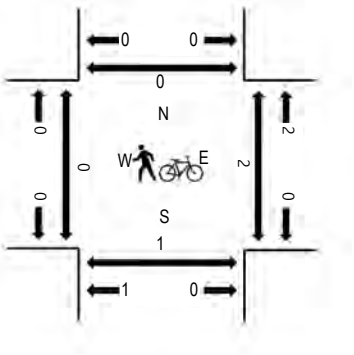
Location: 4 S MILL CREEK DR & S MURPHY LN AM
Date: Tuesday, September 21, 2021
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	S MURPHY LN Eastbound				S MURPHY LN Westbound				S MILL CREEK DR Northbound				S MILL CREEK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
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7:15 AM	0	0	0	0	0	11	0	16	0	0	16	5	0	4	9	0	61	266	0	0	0	0
7:30 AM	0	0	0	0	0	8	0	14	0	0	19	5	0	5	15	0	66	264	0	0	0	0
7:45 AM	0	0	0	0	0	9	0	22	0	0	24	2	0	9	16	0	82	258	0	0	0	0
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8:15 AM	0	0	0	0	0	8	0	8	0	0	21	4	0	4	14	0	59		0	0	0	0
8:30 AM	0	0	0	0	0	7	0	12	0	0	17	3	0	8	13	0	60		0	0	0	0
8:45 AM	0	0	0	0	0	7	0	15	0	0	21	4	0	8	18	0	73		0	2	0	0
Count Total	0	0	0	0	0	62	0	112	0	0	137	31	0	46	104	0	492		0	2	1	0
Peak Hour	0	0	0	0	0	32	0	71	0	0	70	19	0	22	52	0	266		0	0	0	0

ALL TRAFFIC DATA SERVICES
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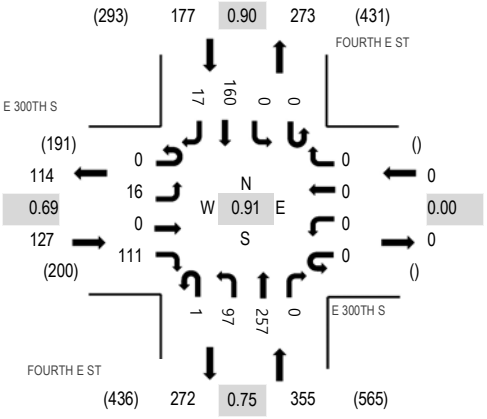
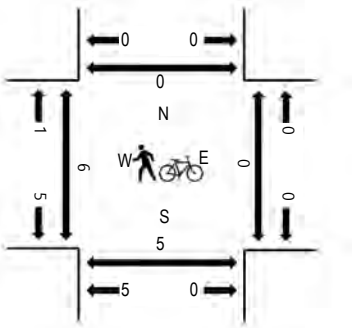
Location: 5 FOURTH E ST & E 300TH S AM
Date: Tuesday, September 21, 2021
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	E 300TH S Eastbound				E 300TH S Westbound				FOURTH E ST Northbound				FOURTH E ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	0	6	0	0	0	0	0	10	16	0	0	0	14	3	51	503	0	0	0	0
7:15 AM	0	1	0	14	0	0	0	0	0	15	33	0	0	0	22	4	89	615	1	0	0	0
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8:00 AM	0	6	0	22	0	0	0	0	0	23	66	0	0	0	40	6	163	555	0	0	0	0
8:15 AM	0	5	0	26	0	0	0	0	1	12	40	0	0	0	43	6	133		1	0	4	0
8:30 AM	0	4	0	18	0	0	0	0	0	17	38	0	0	0	29	3	109		1	0	0	0
8:45 AM	1	3	0	24	0	0	0	0	0	20	61	0	0	0	37	4	150		0	0	0	0
Count Total	1	26	0	173	0	0	0	0	1	159	405	0	0	0	262	31	1,058		4	0	4	0
Peak Hour	0	16	0	111	0	0	0	0	1	97	257	0	0	0	160	17	659		2	0	4	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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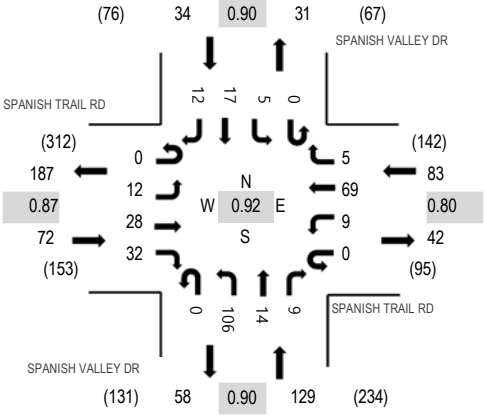
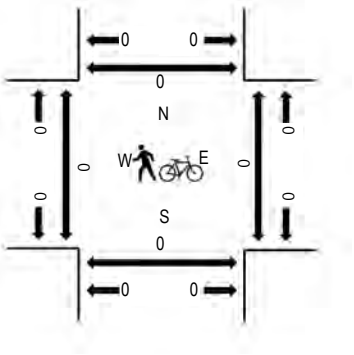
Location: 6 SPANISH VALLEY DR & SPANISH TRAIL RD AM
Date: Tuesday, September 21, 2021
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	SPANISH TRAIL RD Eastbound				SPANISH TRAIL RD Westbound				SPANISH VALLEY DR Northbound				SPANISH VALLEY DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	11	11	0	1	6	0	0	15	7	2	0	0	5	2	60	297	0	0	0	0
7:15 AM	0	1	8	8	0	5	18	3	0	31	2	2	0	2	4	2	86	318	0	0	0	0
7:30 AM	0	1	8	11	0	2	16	0	0	21	2	2	0	0	2	4	69	306	0	0	0	0
7:45 AM	0	6	5	5	0	1	19	2	0	29	5	2	0	2	4	2	82	313	0	0	0	0
8:00 AM	0	4	7	8	0	1	16	0	0	25	5	3	0	1	7	4	81	308	0	0	0	0
8:15 AM	0	1	10	12	0	3	11	3	0	15	5	1	0	1	8	4	74		0	0	0	0
8:30 AM	0	2	13	7	0	0	12	1	0	23	5	4	0	0	5	4	76		0	0	0	0
8:45 AM	0	3	3	8	0	5	16	1	0	14	8	6	0	2	8	3	77		0	0	0	0
Count Total	0	18	65	70	0	18	114	10	0	173	39	22	0	8	43	25	605		0	0	0	0
Peak Hour	0	12	28	32	0	9	69	5	0	106	14	9	0	5	17	12	318		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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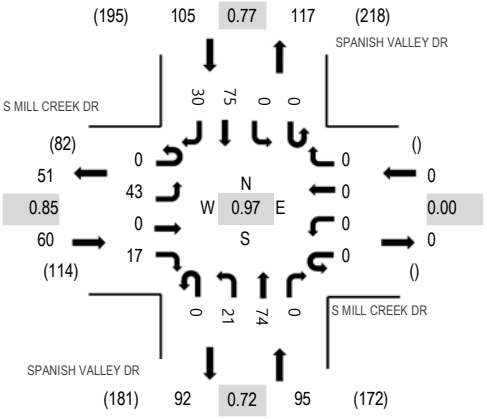
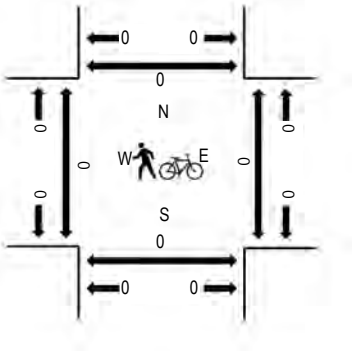
Location: 1 SPANISH VALLEY DR & S MILL CREEK DR PM
Date: Tuesday, September 21, 2021
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



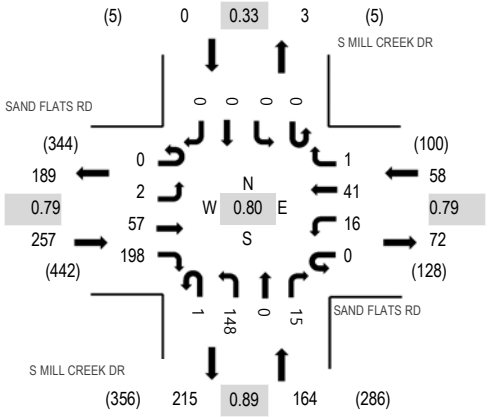
Traffic Counts

Interval Start Time	S MILL CREEK DR Eastbound				S MILL CREEK DR Westbound				SPANISH VALLEY DR Northbound				SPANISH VALLEY DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	4	0	7	0	0	0	0	0	10	23	0	0	0	15	8	67	260	0	0	0	0
4:15 PM	0	16	0	4	0	0	0	0	0	3	19	0	0	0	12	7	61	257	0	0	0	0
4:30 PM	0	15	0	3	0	0	0	0	0	1	18	0	0	0	22	6	65	252	0	0	0	0
4:45 PM	0	8	0	3	0	0	0	0	0	7	14	0	0	0	26	9	67	237	0	0	0	0
5:00 PM	0	12	0	7	0	0	0	0	0	2	26	0	0	0	15	2	64	221	0	0	0	0
5:15 PM	0	7	0	3	0	0	0	0	0	4	14	0	0	0	20	8	56		0	0	0	0
5:30 PM	0	10	0	6	0	0	0	0	0	3	11	0	0	0	16	4	50		0	0	0	0
5:45 PM	0	5	0	4	0	0	0	0	0	1	16	0	0	0	18	7	51		0	0	0	0
Count Total	0	77	0	37	0	0	0	0	0	31	141	0	0	0	144	51	481		0	0	0	0
Peak Hour	0	43	0	17	0	0	0	0	0	21	74	0	0	0	75	30	260		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

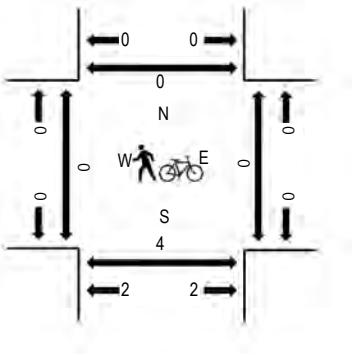
Location: 2 S MILL CREEK DR & SAND FLATS RD PM
Date: Tuesday, September 21, 2021
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	SAND FLATS RD Eastbound				SAND FLATS RD Westbound				S MILL CREEK DR Northbound				S MILL CREEK DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	1	7	40	0	2	15	1	0	30	0	1	0	0	0	3	100	448	0	0	1	0
4:15 PM	0	0	12	31	0	0	12	0	0	29	0	2	0	0	0	1	87	468	0	0	0	0
4:30 PM	0	1	15	41	0	4	15	1	0	32	0	2	0	0	0	0	111	479	0	0	0	0
4:45 PM	0	0	20	61	0	7	16	0	0	45	0	1	0	0	0	0	150	456	0	0	2	0
5:00 PM	0	1	12	55	0	2	6	0	1	37	0	6	0	0	0	0	120	385	0	0	2	0
5:15 PM	0	0	10	41	0	3	4	0	0	34	0	6	0	0	0	0	98		0	0	0	0
5:30 PM	0	0	17	36	0	0	8	0	0	24	0	2	0	0	0	1	88		0	0	0	0
5:45 PM	0	0	11	30	0	2	2	0	0	30	0	4	0	0	0	0	79		0	0	0	0
Count Total	0	3	104	335	0	20	78	2	1	261	0	24	0	0	0	5	833		0	0	5	0
Peak Hour	0	2	57	198	0	16	41	1	1	148	0	15	0	0	0	0	479		0	0	4	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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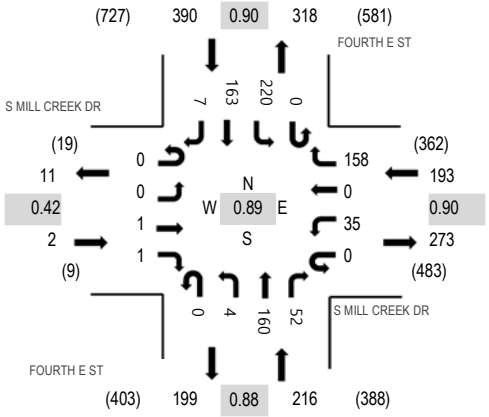
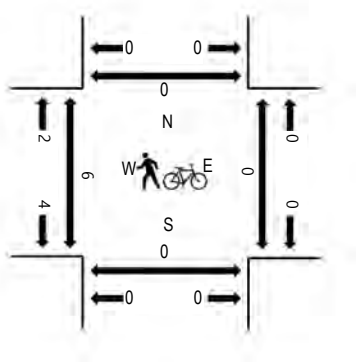
Location: 3 FOURTH E ST & S MILL CREEK DR PM
Date: Tuesday, September 21, 2021
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	S MILL CREEK DR Eastbound				S MILL CREEK DR Westbound				FOURTH E ST Northbound				FOURTH E ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	2	0	12	0	44	0	0	25	10	0	40	48	1	182	749	0	0	0	0
4:15 PM	0	0	0	0	0	4	0	41	0	0	29	6	0	39	40	1	160	779	0	0	0	0
4:30 PM	0	0	1	1	0	9	0	40	0	0	27	13	0	54	37	0	182	801	5	0	0	0
4:45 PM	0	0	0	0	0	13	0	45	0	2	48	13	0	67	37	0	225	796	0	0	0	0
5:00 PM	0	0	0	0	0	5	0	34	0	2	48	14	0	52	51	6	212	737	0	0	0	0
5:15 PM	0	0	0	0	0	8	0	39	0	0	37	12	0	47	38	1	182		1	0	0	0
5:30 PM	0	1	0	2	0	8	1	22	0	2	30	18	0	44	49	0	177		0	0	0	0
5:45 PM	0	0	2	0	0	5	1	31	0	0	40	12	0	39	34	2	166		0	0	0	0
Count Total	0	1	3	5	0	64	2	296	0	6	284	98	0	382	334	11	1,486		6	0	0	0
Peak Hour	0	0	1	1	0	35	0	158	0	4	160	52	0	220	163	7	801		6	0	0	0

ALL TRAFFIC DATA SERVICES
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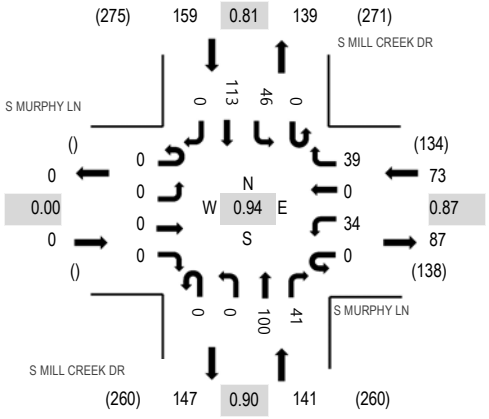
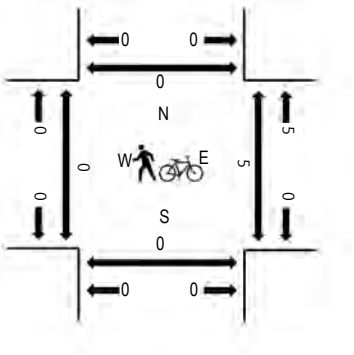
Location: 4 S MILL CREEK DR & S MURPHY LN PM
Date: Tuesday, September 21, 2021
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	S MURPHY LN Eastbound				S MURPHY LN Westbound				S MILL CREEK DR Northbound				S MILL CREEK DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	5	0	7	0	0	22	8	0	10	28	0	80	352	0	2	0	0
4:15 PM	0	0	0	0	0	9	0	9	0	0	34	9	0	4	18	0	83	370	0	0	2	0
4:30 PM	0	0	0	0	0	10	0	7	0	0	21	18	0	4	30	0	90	373	0	0	0	0
4:45 PM	0	0	0	0	0	8	0	12	0	0	26	4	0	14	35	0	99	343	0	1	0	0
5:00 PM	0	0	0	0	0	5	0	10	0	0	32	11	0	15	25	0	98	317	0	0	0	0
5:15 PM	0	0	0	0	0	11	0	10	0	0	21	8	0	13	23	0	86		0	0	0	0
5:30 PM	0	0	0	0	0	5	0	8	0	0	17	4	0	8	18	0	60		0	1	0	0
5:45 PM	0	0	0	0	0	5	0	13	0	0	22	3	0	5	25	0	73		0	0	0	0
Count Total	0	0	0	0	0	58	0	76	0	0	195	65	0	73	202	0	669		0	4	2	0
Peak Hour	0	0	0	0	0	34	0	39	0	0	100	41	0	46	113	0	373		0	1	0	0

ALL TRAFFIC DATA SERVICES

(303) 216-2439
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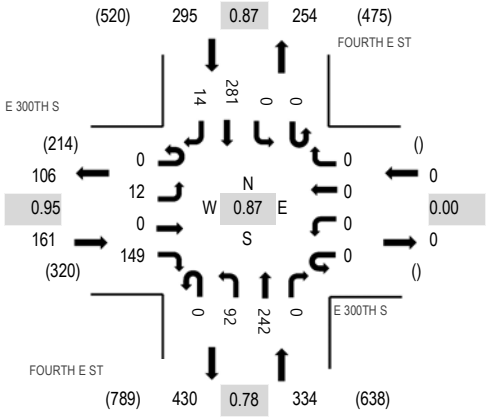
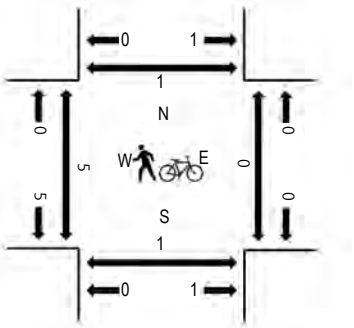
Location: 5 FOURTH E ST & E 300TH S PM
Date: Tuesday, September 21, 2021
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



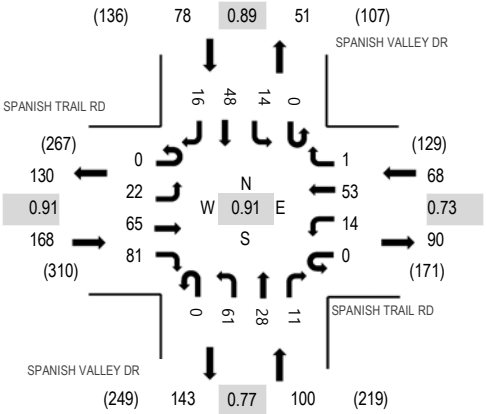
Traffic Counts

Interval Start Time	E 300TH S Eastbound				E 300TH S Westbound				FOURTH E ST Northbound				FOURTH E ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	3	0	42	0	0	0	0	0	32	46	0	0	0	53	0	176	747	6	0	0	0
4:15 PM	0	2	0	35	0	0	0	0	0	19	61	0	0	0	58	3	178	782	0	0	0	0
4:30 PM	0	4	0	36	0	0	0	0	0	23	47	0	0	0	49	8	167	786	2	0	1	1
4:45 PM	0	1	0	34	0	0	0	0	0	34	76	0	0	0	78	3	226	790	0	0	0	0
5:00 PM	0	2	0	40	0	0	0	0	0	21	63	0	0	0	79	6	211	731	0	0	0	0
5:15 PM	0	6	0	37	0	0	0	0	0	22	58	0	0	0	55	4	182		0	0	0	0
5:30 PM	0	3	0	38	0	0	0	0	0	15	45	0	0	0	69	1	171		0	0	0	0
5:45 PM	0	4	0	33	0	0	0	0	1	21	54	0	0	0	52	2	167		0	0	0	0
Count Total	0	25	0	295	0	0	0	0	1	187	450	0	0	0	493	27	1,478		8	0	1	1
Peak Hour	0	12	0	149	0	0	0	0	0	92	242	0	0	0	281	14	790		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

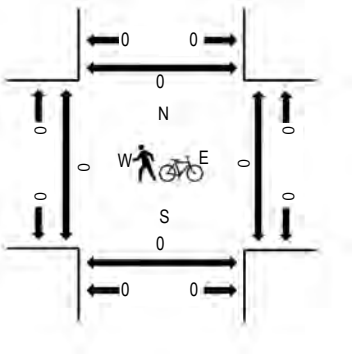
Location: 6 SPANISH VALLEY DR & SPANISH TRAIL RD PM
Date: Tuesday, September 21, 2021
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	SPANISH TRAIL RD Eastbound				SPANISH TRAIL RD Westbound				SPANISH VALLEY DR Northbound				SPANISH VALLEY DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	9	16	24	0	2	12	2	0	19	6	5	0	0	6	3	104	397	0	0	0	0
4:15 PM	0	2	16	13	0	3	13	0	0	15	9	1	0	1	15	6	94	407	0	0	0	0
4:30 PM	0	5	13	20	0	2	8	0	0	16	10	2	0	2	11	4	93	414	0	0	0	0
4:45 PM	0	7	19	20	0	4	11	1	0	12	7	3	0	4	13	5	106	396	0	0	0	0
5:00 PM	0	5	20	21	0	7	18	0	0	17	6	3	0	3	12	2	114	397	0	0	0	0
5:15 PM	0	5	13	20	0	1	16	0	0	16	5	3	0	5	12	5	101		0	0	0	0
5:30 PM	0	2	11	10	0	4	11	0	0	14	11	2	0	0	8	2	75		0	0	0	0
5:45 PM	0	3	25	11	0	2	11	1	0	24	11	2	0	2	8	7	107		0	0	0	0
Count Total	0	38	133	139	0	25	100	4	0	133	65	21	0	17	85	34	794		0	0	0	0
Peak Hour	0	22	65	81	0	14	53	1	0	61	28	11	0	14	48	16	414		0	0	0	0

Appendix B. Capacity Analysis Results

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	16	19	56	39	18
Future Vol, veh/h	21	16	19	56	39	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	58	58	89	89	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	28	21	63	52	24

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	169	64	76	0	-	0
Stage 1	64	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	821	1000	1523	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	810	1000	1523	-	-	-
Mov Cap-2 Maneuver	810	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	919	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1523	-	883	-	-
HCM Lane V/C Ratio	0.014	-	0.072	-	-
HCM Control Delay (s)	7.4	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	60	81	9	32	0	130	0	18	0	0	1
Future Vol, veh/h	0	60	81	9	32	0	130	0	18	0	0	1
Peak Hour Factor	0.90	0.90	0.90	0.79	0.79	0.79	0.80	0.80	0.80	0.25	0.25	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	67	90	11	41	0	163	0	23	0	0	4
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	7.9	8.1	8.9	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	88%	0%	0%	22%	0%
Vol Thru, %	0%	100%	0%	78%	0%
Vol Right, %	12%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	148	60	81	41	1
LT Vol	130	0	0	9	0
Through Vol	0	60	0	32	0
RT Vol	18	0	81	0	1
Lane Flow Rate	185	67	90	52	4
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.232	0.093	0.108	0.068	0.004
Departure Headway (Hd)	4.52	5.031	4.327	4.702	4.025
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	797	714	830	763	890
Service Time	2.534	2.747	2.044	2.721	2.047
HCM Lane V/C Ratio	0.232	0.094	0.108	0.068	0.004
HCM Control Delay	8.9	8.3	7.6	8.1	7.1
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.9	0.3	0.4	0.2	0

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	4	37	1	155	3	148	29	88	158	3
Future Vol, veh/h	5	2	4	37	1	155	3	148	29	88	158	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	55	-	-	-	-	-	65	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	55	55	55	82	82	82	76	76	76	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	4	7	45	1	189	4	195	38	110	198	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	737	661	200	648	644	214	202	0	0	233	0	0
Stage 1	420	420	-	222	222	-	-	-	-	-	-	-
Stage 2	317	241	-	426	422	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	334	383	841	383	391	826	1370	-	-	1335	-	-
Stage 1	611	589	-	780	720	-	-	-	-	-	-	-
Stage 2	694	706	-	606	588	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	240	350	841	352	358	826	1370	-	-	1335	-	-
Mov Cap-2 Maneuver	240	350	-	352	358	-	-	-	-	-	-	-
Stage 1	609	541	-	778	718	-	-	-	-	-	-	-
Stage 2	533	704	-	548	540	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.9	11.9	0.1	2.8
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1370	-	-	351	352	819	1335	-	-
HCM Lane V/C Ratio	0.003	-	-	0.057	0.128	0.232	0.082	-	-
HCM Control Delay (s)	7.6	0	-	15.9	16.7	10.7	7.9	-	-
HCM Lane LOS	A	A	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0.9	0.3	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	71	70	19	22	52
Future Vol, veh/h	32	71	70	19	22	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	86	86	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	86	81	22	30	70

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	222	92	0	0	103	0
Stage 1	92	-	-	-	-	-
Stage 2	130	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	766	965	-	-	1489	-
Stage 1	932	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	750	965	-	-	1489	-
Mov Cap-2 Maneuver	750	-	-	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	877	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	2.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	886	1489	-
HCM Lane V/C Ratio	-	-	0.14	0.02	-
HCM Control Delay (s)	-	-	9.7	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	111	98	257	160	17
Future Vol, veh/h	16	111	98	257	160	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	45	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	75	75	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	161	131	343	178	19

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	783	178	197	0	-	0
Stage 1	178	-	-	-	-	-
Stage 2	605	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	362	865	1376	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	328	865	1376	-	-	-
Mov Cap-2 Maneuver	432	-	-	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	545	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	2.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1376	-	432	865	-	-
HCM Lane V/C Ratio	0.095	-	0.054	0.186	-	-
HCM Control Delay (s)	7.9	-	13.8	10.1	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	0.7	-	-

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	28	32	9	69	5	106	14	9	5	17	12
Future Vol, veh/h	12	28	32	9	69	5	106	14	9	5	17	12
Peak Hour Factor	0.90	0.90	0.90	0.80	0.80	0.80	0.90	0.90	0.90	0.71	0.71	0.71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	31	36	11	86	6	118	16	10	7	24	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	8.1	8.5	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	82%	17%	11%	15%
Vol Thru, %	11%	39%	83%	50%
Vol Right, %	7%	44%	6%	35%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	72	83	34
LT Vol	106	12	9	5
Through Vol	14	28	69	17
RT Vol	9	32	5	12
Lane Flow Rate	143	80	104	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0.18	0.095	0.128	0.058
Departure Headway (Hd)	4.523	4.264	4.453	4.329
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	795	842	807	828
Service Time	2.54	2.28	2.469	2.349
HCM Lane V/C Ratio	0.18	0.095	0.129	0.058
HCM Control Delay	8.5	7.7	8.1	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.3	0.4	0.2

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	17	21	74	75	30
Future Vol, veh/h	43	17	21	74	75	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	72	72	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	23	29	103	100	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	281	120	140	0	-	0
Stage 1	120	-	-	-	-	-
Stage 2	161	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	709	931	1443	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	694	931	1443	-	-	-
Mov Cap-2 Maneuver	694	-	-	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	868	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1443	-	748	-	-
HCM Lane V/C Ratio	0.02	-	0.107	-	-
HCM Control Delay (s)	7.5	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	57	198	16	41	1	149	0	15	0	0	0
Future Vol, veh/h	2	57	198	16	41	1	149	0	15	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.63	0.63	0.63	0.89	0.89	0.89	0.25	0.25	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	72	251	25	65	2	167	0	17	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9	8.6	9.7	0
HCM LOS	A	A	A	-

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	91%	3%	0%	28%	0%
Vol Thru, %	0%	97%	0%	71%	100%
Vol Right, %	9%	0%	100%	2%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	164	59	198	58	0
LT Vol	149	2	0	16	0
Through Vol	0	57	0	41	0
RT Vol	15	0	198	1	0
Lane Flow Rate	184	75	251	92	0
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.254	0.106	0.306	0.125	0
Departure Headway (Hd)	4.968	5.116	4.395	4.899	5.108
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	722	701	817	730	0
Service Time	3.005	2.845	2.124	2.939	3.162
HCM Lane V/C Ratio	0.255	0.107	0.307	0.126	0
HCM Control Delay	9.7	8.5	9.1	8.6	8.2
HCM Lane LOS	A	A	A	A	N
HCM 95th-tile Q	1	0.4	1.3	0.4	0

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↰	↱			↕		↰	↱	
Traffic Vol, veh/h	0	1	1	35	0	158	4	160	52	220	163	7
Future Vol, veh/h	0	1	1	35	0	158	4	160	52	220	163	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	55	-	-	-	-	-	65	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	83	83	83	84	84	84	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	4	42	0	190	5	190	62	247	183	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1007	943	187	916	916	221	191	0	0	252	0	0
Stage 1	681	681	-	231	231	-	-	-	-	-	-	-
Stage 2	326	262	-	685	685	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	219	263	855	253	272	819	1383	-	-	1313	-	-
Stage 1	440	450	-	772	713	-	-	-	-	-	-	-
Stage 2	687	691	-	438	448	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	143	213	855	212	220	819	1383	-	-	1313	-	-
Mov Cap-2 Maneuver	143	213	-	212	220	-	-	-	-	-	-	-
Stage 1	438	365	-	769	710	-	-	-	-	-	-	-
Stage 2	525	688	-	350	364	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.8	13.5	0.1	4.7
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1383	-	-	341	212	819	1313	-	-
HCM Lane V/C Ratio	0.003	-	-	0.023	0.199	0.232	0.188	-	-
HCM Control Delay (s)	7.6	0	-	15.8	26.1	10.7	8.4	-	-
HCM Lane LOS	A	A	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0.9	0.7	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	39	100	41	46	113
Future Vol, veh/h	34	39	100	41	46	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	82	82	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	45	122	50	57	140

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	401	147	0	0	172	0
Stage 1	147	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	605	900	-	-	1405	-
Stage 1	880	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	578	900	-	-	1405	-
Mov Cap-2 Maneuver	578	-	-	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	2.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	715	1405	-
HCM Lane V/C Ratio	-	-	0.117	0.04	-
HCM Control Delay (s)	-	-	10.7	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	149	92	242	281	14
Future Vol, veh/h	12	149	92	242	281	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	45	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	76	76	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	159	121	318	323	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	883	323	339	0	-	0
Stage 1	323	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	316	718	1220	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	572	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	285	718	1220	-	-	-
Mov Cap-2 Maneuver	409	-	-	-	-	-
Stage 1	661	-	-	-	-	-
Stage 2	572	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	2.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1220	-	409	718	-	-
HCM Lane V/C Ratio	0.099	-	0.031	0.221	-	-
HCM Control Delay (s)	8.3	-	14.1	11.4	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	0.8	-	-

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	65	81	14	53	1	61	28	11	14	48	16
Future Vol, veh/h	22	65	81	14	53	1	61	28	11	14	48	16
Peak Hour Factor	0.91	0.91	0.91	0.68	0.68	0.68	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	71	89	21	78	1	69	31	12	16	54	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.4	8.6	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	61%	13%	21%	18%
Vol Thru, %	28%	39%	78%	62%
Vol Right, %	11%	48%	1%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	168	68	78
LT Vol	61	22	14	14
Through Vol	28	65	53	48
RT Vol	11	81	1	16
Lane Flow Rate	112	185	100	88
Geometry Grp	1	1	1	1
Degree of Util (X)	0.148	0.219	0.129	0.113
Departure Headway (Hd)	4.736	4.268	4.647	4.626
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	756	842	771	774
Service Time	2.768	2.294	2.678	2.659
HCM Lane V/C Ratio	0.148	0.22	0.13	0.114
HCM Control Delay	8.6	8.5	8.4	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.8	0.4	0.4

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	31	23	28	82	57	26
Future Vol, veh/h	31	23	28	82	57	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	58	58	89	89	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	40	31	92	76	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	248	94	111	0	-	0
Stage 1	94	-	-	-	-	-
Stage 2	154	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	740	963	1479	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	724	963	1479	-	-	-
Mov Cap-2 Maneuver	724	-	-	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	874	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1479	-	810	-	-
HCM Lane V/C Ratio	0.021	-	0.115	-	-
HCM Control Delay (s)	7.5	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	87	118	13	47	0	189	0	26	0	0	1
Future Vol, veh/h	0	87	118	13	47	0	189	0	26	0	0	1
Peak Hour Factor	0.90	0.90	0.90	0.79	0.79	0.79	0.80	0.80	0.80	0.25	0.25	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	97	131	16	59	0	236	0	33	0	0	4
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	8.5	8.7	10.4	7.5
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	88%	0%	0%	22%	0%
Vol Thru, %	0%	100%	0%	78%	0%
Vol Right, %	12%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	215	87	118	60	1
LT Vol	189	0	0	13	0
Through Vol	0	87	0	47	0
RT Vol	26	0	118	0	1
Lane Flow Rate	269	97	131	76	4
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.354	0.142	0.167	0.106	0.005
Departure Headway (Hd)	4.748	5.29	4.585	5.024	4.383
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	758	678	781	712	812
Service Time	2.781	3.025	2.32	3.067	2.434
HCM Lane V/C Ratio	0.355	0.143	0.168	0.107	0.005
HCM Control Delay	10.4	8.9	8.2	8.7	7.5
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.6	0.5	0.6	0.4	0

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	3	6	54	1	226	4	216	42	128	230	4
Future Vol, veh/h	7	3	6	54	1	226	4	216	42	128	230	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	55	-	-	-	-	-	65	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	55	55	55	82	82	82	76	76	76	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	5	11	66	1	276	5	284	55	160	288	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1071	960	291	941	935	312	293	0	0	339	0	0
Stage 1	611	611	-	322	322	-	-	-	-	-	-	-
Stage 2	460	349	-	619	613	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	198	257	748	243	265	728	1269	-	-	1220	-	-
Stage 1	481	484	-	690	651	-	-	-	-	-	-	-
Stage 2	581	633	-	476	483	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	110	222	748	211	229	728	1269	-	-	1220	-	-
Mov Cap-2 Maneuver	110	222	-	211	229	-	-	-	-	-	-	-
Stage 1	479	421	-	687	648	-	-	-	-	-	-	-
Stage 2	359	630	-	402	420	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.6	16.3	0.1	3
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1269	-	-	188	211	721	1220	-	-
HCM Lane V/C Ratio	0.004	-	-	0.155	0.312	0.384	0.131	-	-
HCM Control Delay (s)	7.8	0	-	27.6	29.6	13.1	8.4	-	-
HCM Lane LOS	A	A	-	D	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	1.3	1.8	0.5	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	47	103	102	28	32	76
Future Vol, veh/h	47	103	102	28	32	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	86	86	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	124	119	33	43	103

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	325	136	0	0	152	0
Stage 1	136	-	-	-	-	-
Stage 2	189	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	669	913	-	-	1429	-
Stage 1	890	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	648	913	-	-	1429	-
Mov Cap-2 Maneuver	648	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	816	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	809	1429	-
HCM Lane V/C Ratio	-	-	0.223	0.03	-
HCM Control Delay (s)	-	-	10.7	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	162	143	374	233	25
Future Vol, veh/h	23	162	143	374	233	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	45	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	75	75	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	235	191	499	259	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1140	259	287	0	-	0
Stage 1	259	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	222	780	1275	-	-	-
Stage 1	784	-	-	-	-	-
Stage 2	405	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	189	780	1275	-	-	-
Mov Cap-2 Maneuver	308	-	-	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	405	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	2.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1275	-	308	780	-	-
HCM Lane V/C Ratio	0.15	-	0.108	0.301	-	-
HCM Control Delay (s)	8.3	-	18.1	11.6	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.4	1.3	-	-

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	41	47	13	101	7	154	20	13	7	25	17
Future Vol, veh/h	17	41	47	13	101	7	154	20	13	7	25	17
Peak Hour Factor	0.90	0.90	0.90	0.80	0.80	0.80	0.90	0.90	0.90	0.71	0.71	0.71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	46	52	16	126	9	171	22	14	10	35	24
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.9	9.6	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	82%	16%	11%	14%
Vol Thru, %	11%	39%	83%	51%
Vol Right, %	7%	45%	6%	35%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	187	105	121	49
LT Vol	154	17	13	7
Through Vol	20	41	101	25
RT Vol	13	47	7	17
Lane Flow Rate	208	117	151	69
Geometry Grp	1	1	1	1
Degree of Util (X)	0.275	0.148	0.199	0.089
Departure Headway (Hd)	4.767	4.553	4.727	4.642
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	752	785	758	768
Service Time	2.808	2.595	2.768	2.691
HCM Lane V/C Ratio	0.277	0.149	0.199	0.09
HCM Control Delay	9.6	8.4	8.9	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.5	0.7	0.3

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	63	25	31	108	109	44
Future Vol, veh/h	63	25	31	108	109	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	72	72	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	33	43	150	145	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	411	175	204	0	-	0
Stage 1	175	-	-	-	-	-
Stage 2	236	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	597	868	1368	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	577	868	1368	-	-	-
Mov Cap-2 Maneuver	577	-	-	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	803	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1368	-	638	-	-
HCM Lane V/C Ratio	0.031	-	0.184	-	-
HCM Control Delay (s)	7.7	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	83	288	23	60	1	217	0	22	0	0	0
Future Vol, veh/h	3	83	288	23	60	1	217	0	22	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.63	0.63	0.63	0.89	0.89	0.89	0.25	0.25	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	105	365	37	95	2	244	0	25	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	11.2	9.8	12.1	0
HCM LOS	B	A	B	-

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	91%	3%	0%	27%	0%
Vol Thru, %	0%	97%	0%	71%	100%
Vol Right, %	9%	0%	100%	1%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	239	86	288	84	0
LT Vol	217	3	0	23	0
Through Vol	0	83	0	60	0
RT Vol	22	0	288	1	0
Lane Flow Rate	269	109	365	133	0
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.401	0.165	0.478	0.198	0
Departure Headway (Hd)	5.374	5.441	4.717	5.35	5.853
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	663	654	758	663	0
Service Time	3.461	3.212	2.487	3.444	3.853
HCM Lane V/C Ratio	0.406	0.167	0.482	0.201	0
HCM Control Delay	12.1	9.3	11.8	9.8	8.9
HCM Lane LOS	B	A	B	A	N
HCM 95th-tile Q	1.9	0.6	2.6	0.7	0

Intersection	
Int Delay, s/veh	9.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1	1	51	0	230	6	233	76	320	237	10
Future Vol, veh/h	0	1	1	51	0	230	6	233	76	320	237	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	55	-	-	-	-	-	65	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	83	83	83	84	84	84	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	4	61	0	277	7	277	90	360	266	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1467	1373	272	1332	1333	322	277	0	0	367	0	0
Stage 1	992	992	-	336	336	-	-	-	-	-	-	-
Stage 2	475	381	-	996	997	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	106	146	767	131	154	719	1286	-	-	1192	-	-
Stage 1	296	324	-	678	642	-	-	-	-	-	-	-
Stage 2	570	613	-	294	322	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	50	101	767	97	107	719	1286	-	-	1192	-	-
Mov Cap-2 Maneuver	50	101	-	97	107	-	-	-	-	-	-	-
Stage 1	294	226	-	673	638	-	-	-	-	-	-	-
Stage 2	348	609	-	201	225	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	26.2	27.3	0.1	5.3
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1286	-	-	178	97	719	1192	-	-
HCM Lane V/C Ratio	0.006	-	-	0.045	0.633	0.385	0.302	-	-
HCM Control Delay (s)	7.8	0	-	26.2	91.5	13.1	9.3	-	-
HCM Lane LOS	A	A	-	D	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	3.1	1.8	1.3	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	57	146	60	67	165
Future Vol, veh/h	50	57	146	60	67	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	82	82	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	66	178	73	83	204

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	585	215	0	0	251	0
Stage 1	215	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	473	825	-	-	1314	-
Stage 1	821	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	439	825	-	-	1314	-
Mov Cap-2 Maneuver	439	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	649	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	585	1314	-
HCM Lane V/C Ratio	-	-	0.21	0.063	-
HCM Control Delay (s)	-	-	12.8	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.2	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	217	134	353	409	20
Future Vol, veh/h	17	217	134	353	409	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	45	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	76	76	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	231	176	464	470	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1286	470	493	0	-	0
Stage 1	470	-	-	-	-	-
Stage 2	816	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	181	594	1071	-	-	-
Stage 1	629	-	-	-	-	-
Stage 2	435	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	151	594	1071	-	-	-
Mov Cap-2 Maneuver	285	-	-	-	-	-
Stage 1	526	-	-	-	-	-
Stage 2	435	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.2	2.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1071	-	285	594	-	-
HCM Lane V/C Ratio	0.165	-	0.063	0.389	-	-
HCM Control Delay (s)	9	-	18.5	14.9	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.6	-	0.2	1.8	-	-

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	95	118	20	77	1	89	41	16	20	70	23
Future Vol, veh/h	32	95	118	20	77	1	89	41	16	20	70	23
Peak Hour Factor	0.91	0.91	0.91	0.68	0.68	0.68	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	104	130	29	113	1	100	46	18	22	79	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.1	9.4	9.8	9.2
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	61%	13%	20%	18%
Vol Thru, %	28%	39%	79%	62%
Vol Right, %	11%	48%	1%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	146	245	98	113
LT Vol	89	32	20	20
Through Vol	41	95	77	70
RT Vol	16	118	1	23
Lane Flow Rate	164	269	144	127
Geometry Grp	1	1	1	1
Degree of Util (X)	0.234	0.343	0.201	0.178
Departure Headway (Hd)	5.132	4.593	5.031	5.046
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	694	778	706	703
Service Time	3.212	2.659	3.109	3.131
HCM Lane V/C Ratio	0.236	0.346	0.204	0.181
HCM Control Delay	9.8	10.1	9.4	9.2
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.9	1.5	0.7	0.6

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	28	34	99	69	32
Future Vol, veh/h	37	28	34	99	69	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	58	58	89	89	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	48	38	111	92	43

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	301	114	135	0	-	0
Stage 1	114	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	691	939	1449	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	672	939	1449	-	-	-
Mov Cap-2 Maneuver	672	-	-	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	845	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1449	-	766	-	-
HCM Lane V/C Ratio	0.026	-	0.146	-	-
HCM Control Delay (s)	7.6	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	107	144	16	57	0	231	0	32	0	0	2
Future Vol, veh/h	0	107	144	16	57	0	231	0	32	0	0	2
Peak Hour Factor	0.90	0.90	0.90	0.79	0.79	0.79	0.80	0.80	0.80	0.25	0.25	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	119	160	20	72	0	289	0	40	0	0	8
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9.2	9.2	12	7.8
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	88%	0%	0%	22%	0%
Vol Thru, %	0%	100%	0%	78%	0%
Vol Right, %	12%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	263	107	144	73	2
LT Vol	231	0	0	16	0
Through Vol	0	107	0	57	0
RT Vol	32	0	144	0	2
Lane Flow Rate	329	119	160	92	8
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.449	0.181	0.213	0.135	0.01
Departure Headway (Hd)	4.914	5.493	4.787	5.274	4.654
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	730	650	746	675	760
Service Time	2.967	3.254	2.547	3.349	2.74
HCM Lane V/C Ratio	0.451	0.183	0.214	0.136	0.011
HCM Control Delay	12	9.5	8.9	9.2	7.8
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	2.3	0.7	0.8	0.5	0

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	4	7	66	2	275	5	263	51	156	281	5
Future Vol, veh/h	9	4	7	66	2	275	5	263	51	156	281	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	55	-	-	-	-	-	65	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	55	55	55	82	82	82	76	76	76	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	7	13	80	2	335	7	346	67	195	351	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1306	1171	354	1148	1141	380	357	0	0	413	0	0
Stage 1	744	744	-	394	394	-	-	-	-	-	-	-
Stage 2	562	427	-	754	747	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	137	193	690	176	201	667	1202	-	-	1146	-	-
Stage 1	407	421	-	631	605	-	-	-	-	-	-	-
Stage 2	512	585	-	401	420	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	58	159	690	144	165	667	1202	-	-	1146	-	-
Mov Cap-2 Maneuver	58	159	-	144	165	-	-	-	-	-	-	-
Stage 1	404	349	-	626	600	-	-	-	-	-	-	-
Stage 2	252	580	-	320	349	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	56.4	24.3	0.1	3.1
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1202	-	-	105	144	653	1146	-	-
HCM Lane V/C Ratio	0.005	-	-	0.346	0.559	0.517	0.17	-	-
HCM Control Delay (s)	8	0	-	56.4	57.8	16.3	8.8	-	-
HCM Lane LOS	A	A	-	F	F	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.4	2.8	3	0.6	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	126	124	34	39	92
Future Vol, veh/h	57	126	124	34	39	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	86	86	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	69	152	144	40	53	124

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	394	164	0	0	184	0
Stage 1	164	-	-	-	-	-
Stage 2	230	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	611	881	-	-	1391	-
Stage 1	865	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	586	881	-	-	1391	-
Mov Cap-2 Maneuver	586	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	775	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	762	1391	-
HCM Lane V/C Ratio	-	-	0.289	0.038	-
HCM Control Delay (s)	-	-	11.6	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.1	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	197	174	456	284	30
Future Vol, veh/h	28	197	174	456	284	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	45	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	75	75	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	286	232	608	316	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1388	316	349	0	-	0
Stage 1	316	-	-	-	-	-
Stage 2	1072	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	157	724	1210	-	-	-
Stage 1	739	-	-	-	-	-
Stage 2	329	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	127	724	1210	-	-	-
Mov Cap-2 Maneuver	245	-	-	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	329	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	2.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1210	-	245	724	-	-
HCM Lane V/C Ratio	0.192	-	0.166	0.394	-	-
HCM Control Delay (s)	8.7	-	22.6	13.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.7	-	0.6	1.9	-	-

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	50	57	16	123	9	188	25	16	9	30	21
Future Vol, veh/h	21	50	57	16	123	9	188	25	16	9	30	21
Peak Hour Factor	0.90	0.90	0.90	0.80	0.80	0.80	0.90	0.90	0.90	0.71	0.71	0.71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	56	63	20	154	11	209	28	18	13	42	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	9.7	10.7	8.6
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	82%	16%	11%	15%
Vol Thru, %	11%	39%	83%	50%
Vol Right, %	7%	45%	6%	35%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	229	128	148	60
LT Vol	188	21	16	9
Through Vol	25	50	123	30
RT Vol	16	57	9	21
Lane Flow Rate	254	142	185	85
Geometry Grp	1	1	1	1
Degree of Util (X)	0.35	0.189	0.254	0.115
Departure Headway (Hd)	4.948	4.78	4.937	4.88
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	723	744	722	727
Service Time	3.016	2.854	3.006	2.963
HCM Lane V/C Ratio	0.351	0.191	0.256	0.117
HCM Control Delay	10.7	9	9.7	8.6
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.6	0.7	1	0.4

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	30	37	131	133	53
Future Vol, veh/h	76	30	37	131	133	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	72	72	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	40	51	182	177	71

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	497	213	248	0	-	0
Stage 1	213	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	532	827	1318	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	509	827	1318	-	-	-
Mov Cap-2 Maneuver	509	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	764	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1318	-	571	-	-
HCM Lane V/C Ratio	0.039	-	0.248	-	-
HCM Control Delay (s)	7.8	0	13.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	101	352	28	73	2	265	0	27	0	0	0
Future Vol, veh/h	4	101	352	28	73	2	265	0	27	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.63	0.63	0.63	0.89	0.89	0.89	0.25	0.25	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	128	446	44	116	3	298	0	30	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	14.7	11	15.1	0
HCM LOS	B	B	C	-

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	91%	4%	0%	27%	0%
Vol Thru, %	0%	96%	0%	71%	100%
Vol Right, %	9%	0%	100%	2%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	292	105	352	103	0
LT Vol	265	4	0	28	0
Through Vol	0	101	0	73	0
RT Vol	27	0	352	2	0
Lane Flow Rate	328	133	446	163	0
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.527	0.215	0.629	0.265	0
Departure Headway (Hd)	5.788	5.813	5.085	5.835	6.406
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	623	618	708	615	0
Service Time	3.821	3.543	2.815	3.874	4.464
HCM Lane V/C Ratio	0.526	0.215	0.63	0.265	0
HCM Control Delay	15.1	10.1	16.1	11	9.5
HCM Lane LOS	C	B	C	B	N
HCM 95th-tile Q	3.1	0.8	4.5	1.1	0

Intersection	
Int Delay, s/veh	26

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2	2	62	0	281	7	284	92	391	289	12
Future Vol, veh/h	0	2	2	62	0	281	7	284	92	391	289	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	55	-	-	-	-	-	65	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	83	83	83	84	84	84	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	8	75	0	339	8	338	110	439	325	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1789	1674	332	1627	1625	393	338	0	0	448	0	0
Stage 1	1210	1210	-	409	409	-	-	-	-	-	-	-
Stage 2	579	464	-	1218	1216	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	63	95	710	82	102	656	1221	-	-	1112	-	-
Stage 1	223	255	-	619	596	-	-	-	-	-	-	-
Stage 2	501	564	-	221	254	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	21	57	710	~ 50	61	656	1221	-	-	1112	-	-
Mov Cap-2 Maneuver	21	57	-	~ 50	61	-	-	-	-	-	-	-
Stage 1	221	154	-	613	591	-	-	-	-	-	-	-
Stage 2	240	559	-	125	154	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	44.9	91.8	0.1	5.8
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1221	-	-	106	50	656	1112	-	-
HCM Lane V/C Ratio	0.007	-	-	0.151	1.494	0.516	0.395	-	-
HCM Control Delay (s)	8	0	-	44.9	$ 434.6	16.2	10.3	-	-
HCM Lane LOS	A	A	-	E	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	7.1	3	1.9	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	69	178	73	82	201
Future Vol, veh/h	60	69	178	73	82	201
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	82	82	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	69	79	217	89	101	248

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	712	262	0	0	306	0
Stage 1	262	-	-	-	-	-
Stage 2	450	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	399	777	-	-	1255	-
Stage 1	782	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	362	777	-	-	1255	-
Mov Cap-2 Maneuver	362	-	-	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	582	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15	0	2.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	507	1255	-
HCM Lane V/C Ratio	-	-	0.292	0.081	-
HCM Control Delay (s)	-	-	15	8.1	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.3	-

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	265	163	430	499	25
Future Vol, veh/h	21	265	163	430	499	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	45	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	76	76	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	282	214	566	574	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1568	574	603	0	-	0
Stage 1	574	-	-	-	-	-
Stage 2	994	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	122	518	975	-	-	-
Stage 1	563	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	95	518	975	-	-	-
Mov Cap-2 Maneuver	223	-	-	-	-	-
Stage 1	440	-	-	-	-	-
Stage 2	358	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.1	2.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	975	-	223	518	-	-
HCM Lane V/C Ratio	0.22	-	0.1	0.544	-	-
HCM Control Delay (s)	9.7	-	22.9	19.9	-	-
HCM Lane LOS	A	-	C	C	-	-
HCM 95th %tile Q(veh)	0.8	-	0.3	3.2	-	-

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	115	144	25	94	2	108	50	20	25	85	28
Future Vol, veh/h	39	115	144	25	94	2	108	50	20	25	85	28
Peak Hour Factor	0.91	0.91	0.91	0.68	0.68	0.68	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	126	158	37	138	3	121	56	22	28	96	31
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.1	10.5	11.1	10.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	61%	13%	21%	18%
Vol Thru, %	28%	39%	78%	62%
Vol Right, %	11%	48%	2%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	178	298	121	138
LT Vol	108	39	25	25
Through Vol	50	115	94	85
RT Vol	20	144	2	28
Lane Flow Rate	200	327	178	155
Geometry Grp	1	1	1	1
Degree of Util (X)	0.31	0.452	0.27	0.238
Departure Headway (Hd)	5.579	4.964	5.464	5.525
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	644	724	657	648
Service Time	3.621	2.999	3.506	3.571
HCM Lane V/C Ratio	0.311	0.452	0.271	0.239
HCM Control Delay	11.1	12.1	10.5	10.3
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.3	2.4	1.1	0.9

Appendix C. Summary Memorandum of Stakeholder Group Interviews

MEMORANDUM

Re: Stakeholder Group Interviews Summary

Date: October 1, 2021

The purpose of this memorandum is to provide a summary of stakeholder interviews completed with various groups for the Grand County and City of Moab Unified Transportation Master Plan (UTMP). Stakeholder groups representing various interests in the region were identified with the input from the project management team. The summary helps to identify general concerns/issues, specific needs, potential solutions, and the vision of stakeholders, to inform Draft Working Paper #1 – Current and Future Conditions of the UTMP. This memorandum will be presented to the project Technical Advisory Committee (TAC) as part of Draft Working Paper #1.

The following stakeholder groups were interviewed:

- Downtown Business Owners
- River/Bicycle/Shuttle Business Owners
- Universities/Public Schools
- Trails
- Emergency Services
- Development (Contractor/Construction)
- Partner Governments
- Citizens at Large

Stakeholder group participants were asked to provide feedback and comment on the following questions regarding transportation in the area:

1. What do you view as the main mobility and transportation issues within Grand County and the City of Moab?
2. Are there specific intersections or roadways of most concern?
3. What is your vision for the future of transportation in Grand County and the City of Moab?
4. What solutions or projects are needed to realize the Vision?

Relevant discussions and comments were identified and have been organized first by stakeholder group and then by topic.

Downtown Business Owners

General Concerns/Issues:

- The amount of traffic, especially truck traffic, going through downtown Moab
- Truck traffic on US 191 produces excess pollution and noise
- Hard to create a safe pedestrian area with US 191 cutting through downtown Moab

Specific Needs/Potential Solutions:

- Lighting is poor at 200 North and US 191
- 400 North and 100 West is confusing for all users
- Access control on US 191
    - US 191 and Sage Drive requires a sharp southbound left-turn
    - US 191 and Bowling Alley Lane, and the surrounding area
    - Mivida Drive and US 191 has poor sight distance
- US 191 and SR 313 needs additional signage for the southbound acceleration lane
- Landscaped median islands on US 191 from 100 North to 300 South with green space to help slow traffic and provide a better experience
- Either better bicycle infrastructure along US 191 in downtown or route all bicycles to 100 West as an alternative route
- Eliminate parking on US 191 downtown from 100 North to 300 South
- Left-turns at the signals in downtown should be protected

Vision:

- Alternative modes of transportation for sustainable communities
- Be able to ride around the City more safely via bike paths and trails

River/Bicycle/Shuttle Business Owners

General Concerns/Issues:

- The number of trucks and through traffic traveling through downtown makes active transportation unsafe
- Sidewalks are lacking and children can't walk to school on sidewalks
- Major roads don't have bike paths or shoulders, large gaps in the bicycle network
- Too difficult to cross US 191 in downtown area; lack of pedestrian crossings
- Difficult and unsafe to cross US 191 south of downtown as there is no "transition zone" for people to slow down (unsafe for active transportation or vehicles)
- Need to have a route for active transportation to/from downtown and the USU campus
- Need sidewalks downtown
- Sand Flat Roads is experiencing a large increase in UTV traffic
    - Unpleasant for cyclists to get to Slick Rock Trail from downtown
    - Alternative route for UTVs to get to Sand Flats without utilizing Sand Flats Road
- Noise pollution from OHVs and trucks
- Not enough room to bicycle downtown and not a lot of walking room
- Need a parking facility for bikes around the area
    - Extra wide slots for e-bikes, pay slots for visitors, etc.)
- Wayfinding in the City to access Sand Flats

Specific Needs/Potential Solutions:

- Kane Creek Boulevard from 500 West to the river is dangerous for pedestrians
    - Bike paths or shoulders on Kane Creek Boulevard
- Fill in the bicycle path gap on SR 128
- US 191 south of the City of Moab to be widened to four lanes, to at least Spanish Trail Road
    - Left turns both from and to US 191 in this section are difficult
- Remove parking from one side of US 191 in the downtown area and create a cycle track or protected bicycle lane
- Fourth East and Millcreek Drive is a busy intersection and difficult to turn left
- Parking on US 191 in downtown needs to be behind buildings, not on US 191
- Need bicycle access coming from Poison Spider Trail or The Portal to downtown (a potential bicycle path on the south side of the tailing pond)

Vision:

- Have the downtown area more bicycle and pedestrian friendly and less vehicle-centric
- Remove trucks from US 191
- New solutions for people to get to downtown Moab
- Plan to accommodate a growing number of e-bikes in the area

Universities/Public Schools

General Concerns/Issues:

- The impact of OHVs on the streets
  - Their overall traffic behavior
  - Noise
- Equity in transportation
- Safety for children by connecting sidewalks and improving bus stop locations
- People on the east side of US 191 have difficulty reaching the west side of US 191, and vice-versa, particularly school children who aren't eligible for bussing
- Lack of safe crossings along US 191 in downtown
- Kids walk a long way without sidewalks
- Need to provide a connection for pedestrians from Aggie Boulevard to downtown Moab
- Limit pollution, idling, and dust
  - Air quality spikes on busy weekends
- Noise pollution and conserving quiet spaces
  - Engine braking along US 191 is loud
- Dangerous to bike along US 191
- Faded or non-existing bike lanes
- Need green infrastructure to diminish urban heat island effect
  - Traffic calming islands with greenery
  - Protected bike lanes with green medians
  - May help with stormwater and flooding
- No crossing guard program for school children
- Cycling along Spanish Valley Drive is scary

Specific Needs/Potential Solutions:

- A separated crossing (over?) US 191
  - 100 North
  - 100 South
- Frontage roads on US 191 to help get buses on/off the road safely
- Sidewalk gap on Holyoak Lane
- Road condition on 100 South, from Main Street to 400 East (a main route to the bus barn)
- A lot of the tourism industry employees live in San Juan County and walk on Spanish Valley or US 191 to get to work or appointments
  - Plan for a paved trail system
- Bike infrastructure in the City is dismal
  - US 191 and 100 North
  - US 191 and Center Street
  - US 191 and 100 South

Vision:

- Encourage alternative modes of transportation for sustainable communities
- Equity in transportation

- Be able to reach the southern part of the valley easily on a trail
- Have shuttles that can easily be accessed by both residents and tourists
- Insert bicycle and walking infrastructure as development grows and continues in new places
- Decrease exposed pavement and increase the shade canopy in the City
- Protect bicyclists and calm traffic

Trails

General Concerns/Issues:

- Lack of pedestrian infrastructure, separated bicycle lanes, and too much traffic
- Lack of secure bicycle infrastructure (storage/racks)
    - Increase in bicycle theft
    - With so many visitors, need to make sure there are areas people can find information and leave their bikes securely
- Need information about bicycle routes/wayfinding
- Connectivity to USU Campus once open
- Gaps in the sidewalk network and lack of sidewalk space
- General lack of connectivity

Specific Needs/Potential Solutions:

- A bicycle lane on Spanish Valley Drive
- Complete the gap on the trail along SR 128
- More safe crossings on US 191 in the City of Moab
- A bicycle lane on US 191 south of the City to Spanish Trail Road
- Provide maps and wayfinding at transportation hubs
- Connectivity issues for the Mountain View neighborhood
- Need safe crossings on US 191 at/near the following:
    - North of downtown in the new four-lane section
    - Aggie Boulevard
    - Spanish Trail Drive
    - Dogwood Avenue (a HAWK crossing)
- Bicycle path north of the USU Campus to downtown so those on the northwest side of the City do not have to cross US 191 to get to the campus
- A route for equestrians from Spanish Valley Arena to Ken's Lake

Vision:

- Any active transportation infrastructure should be tied into a future shuttle system
- Advertise a car-free vacation to Moab
- Have more electric powered mobility (electric scooters, bikes, motorcycles, eventually vehicles and OHVs)
- Have a community where people walk or bike to where they are going
- Secure bicycle parking at major hubs (MIT, aquatic center, grocery store, etc.)
- Facilities accommodating visitors that want to ride to/from the Spanish Valley Arena without crossing or riding on US 191
- Access to and linking of existing trails for equestrians

Emergency Services

General Concerns/Issues:

- Emergency response vehicles often get stuck in traffic or congestion
  - Emergency response vehicles are not marked
- Left-turns downtown are unsafe
  - Many unfamiliar users (tourists and children)
  - Need left-hand turn signals for traffic signals on US 191 downtown
- Crossing US 191 is difficult in downtown
- Deceleration lanes off of US 191 south of the City of Moab
- Noise pollution in downtown Moab
- Need public transportation between Spanish Valley and City of Moab
  - Key locations in Moab: hospital, downtown, village market, etc.
- The need for transportation to/from bedroom communities servicing Moab is going to increase (LaSal, Thompson, Green River)

Specific Needs/Potential Solutions:

- US 191 and 100 South, Center Street, and 100 North have unsafe left-turns as people get impatient and the amount of pedestrians
- Potential traffic signal locations:
  - US 191 and 200 North
  - US 191 and 400 North
- Potential roundabout locations:
  - Millcreek Drive and Sand Flats Road
  - 500 West and Kane Creek Boulevard
  - 300 South and 400 East
  - 400 East and Millcreek Drive
- Congestion at Sand Flats recreation booth on Sand Flats Road
- Congestion at US 191 and 500 West
- Widen US 191 south of the City of Moab downtown to four lanes
- Crash hot spots:
  - US 191 and Spanish Trail Road
  - US 191 and Dogwood Avenue
- Williams Way and 100 West – the bike path puts children headed to school onto the wrong side of the street northbound
- Need a bicycle path that brings bicycles down from Sand Flats Road and routes them to the Potatoe Salad Road to the Power Dam parking lot (down Powerhouse Lane to Millcreek Drive)
- Kane Creek Boulevard from 500 West to the river is dangerous for pedestrians and cyclists – drivers going too fast and too many bicyclists
- Bicycle lanes on Spanish Valley Drive from Moab City to County Line (and beyond)
- A user-initiated stoplight for getting emergency vehicles out of the emergency center onto US 191 in Spanish Valley (across from San Jose)

Vision:

- Safe movement of public and first responders

- Plan now for all the expected growth
- A bicycle commuter network for mobility, not only for recreation

Development (Contractor/Construction)

General Concerns/Issues:

- Too much traffic and congestion downtown
- Need a new solution beyond a bypass to get truck and pass-through traffic off of US 191 downtown
- Rural development in the south end of the County continues to increase
- Lack of parking for trailers (for OHVs) at trailheads
- OHV and OHV trailer traffic on Fourth East at Millcreek Drive, 300 South, 100 South, and 100 North
- No “transition zone” coming into the City from the South on US 191 (high speeds)
- Separated crossing (under) US 191 is the best type of east-west connection
- Get local and tourist traffic into a public transportation system, essentially leaving the trucks on US 191
- Don’t designate a UTV route in the City, leave them dispersed.

Specific Needs/Potential Solutions:

- Shuttle service to/from downtown Moab and Arches National Park
- Shuttle service utilizing US 191 and Spanish Valley Drive to remove vehicles from US 191
- Connect Utah State University Campus to other parts of the City
- Crossing US 191 at Aggie Boulevard is challenging
- Crossing US 191 in the downtown area
- Sand Flats Road and Millcreek Drive intersection is dangerous
- Southern curve of US 191 in Moab is dangerous for pedestrians and bicycles (Dogwood)
- Sidewalk gap on US 191 between Fourth East and Kane Creek Boulevard
- Bike path gap along Pack Creek near Chevron
- Need crossing improvements on US 191 at the following locations:
    - Pack Creek
    - Aggie Boulevard
    - Spanish Trail Road
- Path gap on SR 128
- Potential bypass along SR 279 south to the Hole in the Rock to eliminate truck traffic out of the valley
- Improve Spanish Valley Drive with a bicycle lane and/or widening

Vision:

- Want to be innovative, maybe something with electric vehicles
- Implement a public transportation system
- Reduce reliance on single vehicles
- More bicycle paths

Partner Governments

General Concerns/Issues:

- Need to understand the relationship of visitors and land use of surrounding areas
- 100 West is redeveloping
    - 100 West and Williams Way is a busy intersection with many children crossing
- Need an alternative to US 191 in downtown – potentially 100 West
- A parking area of 12-20 acres would be required for a mandatory shuttle parking hub for Arches National Park
- Coordination with the City and County on a shuttle system for Arches National Park
- Visitors to Sand Flats Road is increasing and getting busier
- Evaluate trailer parking areas to get them out of the City

Specific Needs/Potential Solutions:

- US 191 widened to four lanes south of the City of Moab
- Additional traffic signals on US 191 south of the City of Moab at:
    - Spanish Trail Road
    - Aggie Boulevard
- More people using 500 West as a “bypass” to Main Street
    - Concerns over intersection safety with the increased traffic on 500 West. Intersections of 400 North, Bartlett Avenue, Williams Way, and Kane Creek Boulevard
- Access control needed on US 191, specifically from Kane Creek Boulevard through the bend south on US 191 (many near misses in the two-way left-turn lane)
- Lack of shoulder or bicycle lane on Spanish Valley Drive, particularly for children going to school
- 100 South as a one-way south street and Main Street as a one-way north street to combat downtown traffic issues
- Left turns on US 191 in downtown are an issue (short times, long delays, and dangerous)
- Emergency Vehicle Bypass needed at the entrance of Arches National Park
- Parking along US 191 create sight problems, specifically in the Dogwood Avenue/US 191 area
- Street parking on US 191 in downtown Moab creates a hazard for through traffic, truck traffic, and truck traffic with trailers
- Potentially pay to park trailers outside of the City
- Complete the missing segment of pathway on SR 128

Vision:

- A shuttle system and parking at trailheads/hubs
    - Parking hubs at Airport, SR 313, Arches National Park, Willow Springs, etc.
- Get the through traffic off of US 191 in the City of Moab
- A transit system within the City to move people within downtown

Citizens at Large

General Concerns/Issues:

- Traveling along US 191 for vehicles and bicyclists is difficult
- US 191 splitting the community and the division of east versus west
- Need better east-west connectors
- There is a lot of emphasis on bicycle trails and trailheads, but not on bicycle commuting to schools, work, etc.
- People do not know about alternative bicycle routes; or, they know but still decide to stay on the road regardless
- Many unfamiliar bicycle riders (tourists, children, families, etc.)
- Navigating downtown is troublesome on a bicycle. Narrow riding lanes, minimal bike lanes, etc.
- Increased growth and development along Spanish Valley Drive, need to focus on additional transportation options in the area
- Unsafe and/or completely disconnected non-motorized travel routes
- Too much focus on keeping downtown business activity isolated to Main Street, which creates parking and congestion issues
- Make it harder and more inconvenient to drive in downtown Moab
- Lack of green painted bike lanes in critical areas with right turn lanes and at intersections crossing US 191
- Kane Creek private property along Pack Creek (currently closed with fencing); general failure to secure easements through private property along Pack Creek/Mill Creek trail systems

Specific Needs/Potential Solutions:

- Crossing US 191, particularly for bicyclists and pedestrians, is difficult in the downtown area
- Traffic signals downtown are chaotic and not efficient to move people
- Gaps in the multimodal network that force users back to US 191:
    - 5/8ths of a mile on the path along SR 128 at the east end near Grand Staff Canyon
    - 100 South to City Market, no parallel bike lane off US 191
    - Going north on 100 East beyond 200 North
    - Connect Millcreek Bicycle path to Kane Creek (200 South to the west)
        - Currently dirt trails that people can bike through but there is a major gap from the US 191/Market Place are to Kane Creek Boulevard
    - Uranium Avenue has a pedestrian crossing but needs a connection from Uranium Avenue to the Green Belt west of US 191 and connect to the Skunk Alley Bridge to the north over Pack Creek.
- 400 north and 100 West area is confusing for all users (bicyclists, pedestrians, and vehicles)
- Install sidewalks along US 191 from 400 East to Aggie Boulevard
- Install sidewalks along Millcreek Drive from the residential to US 191/Aggie Boulevard
- Potential trail underpass at US 191/Aggie Boulevard; or some type of protected crossing

- The area of Beeman Road and Stocks Drive is getting a lot of traffic and development in the area.
    - No acceleration on US 191 north from Stocks Drive
- US 191 and Kane Creek Boulevard: vehicles are utilizing the northbound left-turn lane to exit McDonalds.
- Many pedestrians and cyclists crossing mid-block on US 191 from Kane Creek Boulevard to Fourth East
- 300 South and 400 East is a difficult left-turn due to heavy traffic
- Trimming trees on Mill Creek parkway near high school/YGP (bad sightlines)
- Bullicks Cross Creek Park gravel (pave gravel section)
- Connect 300 South to Kane Creek Blvd via skunk alley; pave gravel path behind retaining wall and secure easement from Zions Bank
- Crossing into northbound bike lane from Mill Creek path at 100 South
- Connect 200 South to Mill Creek Pathway from Virginian Hotel
- Figure out bike roads and pave/stripe smooth bike lanes (200 Sout between Mill Creek parkway and 400 East; 400 North from 100 West to 500 West; 200 South from Main St. to Bullicks Park)
- Angle parking that would allow for bike lanes throughout downtown
- Mill Creek Drive and Spanish Valley Drive intersection
- Through streets/connectors at W Park Drive and Walnut Lane
- Support business development on 100 West, 100 East, and the streets that cross Main Street downtown to support integrating land uses
- Implement best practices for designing a bike and pedestrian friendly community while acknowledging that visitors to Moab have to arrive by plane, train, or automobile
- Utilize best practices identified in the transportation and mobility study commissioned by the Colorado Association of Ski Towns
- Think of Moab and Grand County as a destination with land use, economic, transportation, and mobility issues (and opportunities) more akin to an urban/urbanizing environment or college town, rather than an isolated community
- Support and encourage the City's and County's continued utilization of planning experiments (i.e. low-cost, short-term, innovative changes that can be tested, iterated, and scaled when successful)

Vision:

- More transit options that allow living further away from the City center
- Alternative transportation friendly community
- More bicycle friendly and walking around the City center
- Less cars and congestion and more people traveling by foot and bicycle
- Eliminate parking issues
- Have a bicycle friendly community
- Reduce crowding and congestion on streets, particularly US 191 in downtown Moab
- Have a safe bicycle and walking commute
- Safe bicycle and pedestrian infrastructure for children
- Prioritize non-motorized travel

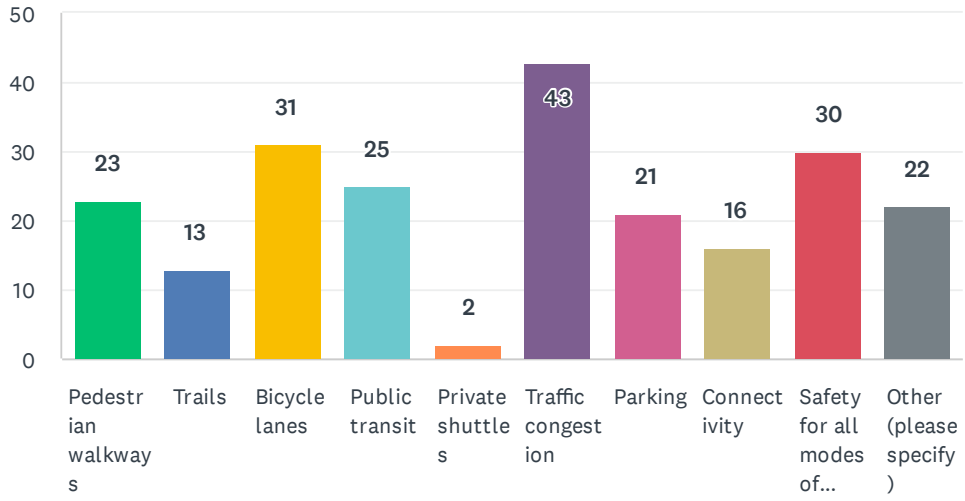
- Within 2 years, it should always be easier and faster to bike commute than auto commute
- Within 5 years, visitors should be able to have a car-free trip to Moab if they so choose.
- Within 5 years, visitors should be able to arrive in Moab by commuter train and/or air and transfer to a shuttle in terms of accessing downtown Moab
- In whatever timeline is possible given NEPA and other federal lands regulations, Moab's local transportation infrastructure is integrated with Arches National Park

Appendix D. Stakeholder and Community Outreach Summary

Results from the online survey distributed to the public and stakeholders:

Q1 What do you view as the main mobility and transportation issues within Grand County and the City of Moab? (select all that apply)

Answered: 65 Skipped: 0



ANSWER CHOICES	RESPONSES	
Pedestrian walkways	35.38%	23
Trails	20.00%	13
Bicycle lanes	47.69%	31
Public transit	38.46%	25
Private shuttles	3.08%	2
Traffic congestion	66.15%	43
Parking	32.31%	21
Connectivity	24.62%	16
Safety for all modes of travel	46.15%	30
Other (please specify)	33.85%	22
Total Respondents: 65		

#	OTHER (PLEASE SPECIFY)	DATE
1	Off Highway vehicles on the highway, trailers on side streets	11/22/2021 8:56 AM
2	no enforcement of existing laws, jay walkers, speeding, running red lights and bicyclists doing whatever they want	11/20/2021 11:13 AM
3	we have limited sidewalks, no upkeep of striping of bike lanes	11/12/2021 9:54 AM
4	Not enough police to monitor traffic problems. I feel like the state ignores our dangerous situation.	11/10/2021 7:12 PM
5	Too many noisy ATVs and no train to SLC	11/10/2021 6:51 PM

6	GHG contribution of transportation sector, noise of ATVs and some motorcycles	11/10/2021 9:33 AM
7	UTVs on the streets and for those of us on road bikes (skinny tires), the driveways are a hazard to bike tires and a hassle to negotiate sometimes. There is no reason I can see to make them with a 2" (sometimes greater) vertical rise. I avoid them and that can create problems for getting onto or exiting the existing bike paths.	11/9/2021 11:10 PM
8	OHVs clogging and slowing traffic	11/8/2021 1:55 PM
9	Spanish Valley commuter bike paths	11/7/2021 10:51 PM
10	allowing vehicles that do not meet federal motor vehicle safety standards on public roads	11/7/2021 3:09 PM
11	Need a bypass for Semi's, UTVs, Jeeps. Downtown could be so fabulous without the horrible traffic	11/6/2021 3:14 PM
12	Moab is bisected by UDOT's desire to push more traffic through on 191.	11/5/2021 12:53 PM
13	Left turn light signals on Main St.	11/5/2021 12:07 PM
14	SPEEDING AND PEOPLE RUNNING RED LIGHTS! Major issue!	11/4/2021 9:15 AM
15	Not just bike lanes - separated bike pathways and active transporation network infrastructure and connectivity. There are so many places to provide connectivity for bikes even if connectivity for vehicles is not desired. Examples: Park Rd, Walnut Ln to Hospital Rd, "Skunk Alley" to 300 S via Zions Bank parking lot, etc etc etc. Even the low hanging fruit would make a world of difference for bike commuters.	11/4/2021 9:06 AM
16	Lack of a bypass for trucks	11/3/2021 2:29 PM
17	Moab needs a bypass	11/2/2021 6:25 AM
18	Left turn signals	10/31/2021 6:50 PM
19	It's past time; commit to the bypass along the western rim.	10/31/2021 8:43 AM
20	Shared carpools, company vand	10/29/2021 7:41 PM
21	OHV !	10/29/2021 3:51 PM
22	speed limits	10/29/2021 9:31 AM

Q2 Are there specific intersections or roadways within Grand County and/or Moab of most concern?

Answered: 59 Skipped: 6

#	RESPONSES	DATE
1	every intersection on 191 need a stop light at this point	11/22/2021 8:56 AM
2	Anything on main street	11/20/2021 11:13 AM
3	kane creek blvd	11/19/2021 5:56 AM
4	main street	11/17/2021 7:00 PM
5	Please build Sp Valley pathway!	11/13/2021 9:18 PM
6	Main Street, Kane Creek, 400 East and Spanish Valley Drive	11/12/2021 2:26 PM
7	Millcreek Drive fast and unsafe for cyclists. Millcreek Dr and 191 almost impossible to make a left hand turn onto the highway. Millcreek Dr and 400 impossible to make a left hand turn onto 400. Making left hand turns in the downtown core of Main Street. Dangerous for pedestrians and for vehicles. 200 N and 400 N on Main is dangerous for pedestrian crossing. The speeds on the new expanded 5 Lanes from the Colorado bridge to 400 North. There is no reason (medians, ped refuge islands, trees, enforcement) for drivers to adhere to speed limits.	11/12/2021 9:54 AM
8	The intersection near the South Maverick is busy and I often see semis speeding through that intersection. There is also no sidewalk headed north. Another place I find concerning is the area near the Blu Pig. I see pedestrians crossing the highway at night on a regular basis.	11/11/2021 8:52 AM
9	100 West — from the 3-way stop (super awkward intersection for vehicles an pedestrians) to where it crosses Main Street. Bike lane is awkward and has several dangerous curb cuts. Williams Way turning onto 100 West has bad sight lines.	11/11/2021 7:20 AM
10	500 west is a mess when tourists are leaving town as google maps sends them there as a bypass and it turns to a gridlock as they wait for the light by denny's backing traffic sometimes all the way to can creek. The McDonalds and the brew pub is very dangerous as people charge in and out and create traffic accidents. Maybe mcdonalds needs to have everyone enter their business from cane creek so they are not blocking the left turn lane for traffic trying to go left at light onto cane creek, very dangerous situation. Really we need a by pass with bridge over river cane creek to potash. I just do not get the people complaining in neighborhoods that are not even on cane creek. Moab needs to figure this out, it a deal breaker with the semi trucks and through traffic clogging up downtown with traffic noise and pollution. Every other growing town in US eventually figures out a bypass, so why is this seemly impossible here?	11/10/2021 8:11 PM
11	southbound on Main Street, trying to turn left.	11/10/2021 7:18 PM
12	Four way stop signs, light running, and speeding. There is also inadequate signage and speeding south of town.	11/10/2021 7:12 PM
13	Yes, Westwatwr Road where we live has become noisy and dangerous due to ATVs rising by even as late as midnight. Main St. is a disaster with trucks, cars, jaywalkers. Why no overpass route? Now there is talk of scooters downtown too. Please don't do that.	11/10/2021 6:51 PM
14	400E at Millcreek	11/10/2021 5:44 PM
15	Main Street, Murphy Lane and Spanish Valley Dr. are quite dangerous for bicyclists.	11/9/2021 11:10 PM
16	191 & Spanish Trail Rd. (Shell Gas Station)	11/9/2021 8:22 PM
17	Main and Center Kane Creek Road	11/9/2021 2:22 PM
18	all of 191	11/8/2021 7:37 PM
19	West side 100 S, Center, and 100 N at Main Street	11/8/2021 4:03 PM

20	Crossing main street on a bike at any cross-section between 100N and 300S is scary, especially with children. 100N and streets like it are so wide - really lend themselves well to green infrastructure (traffic-calming inlets with curb cuts, indented basins, growing shade to reduce heat stress and urban heat-island effect...)	11/8/2021 1:55 PM
21	For bikes: Millcreek/Hwy 191 at S. Maverick. We need a safe, paved way to stay on the East side of the road, where all the businesses are! Also, the area around McDonalds is terrifying on a bike, too many entrances and exits. PLEASE close the entrance to McDonalds and make them enter from Kane Creek Blvd!	11/7/2021 10:51 PM
22	Spanish Valley Drive needs a multi use wide lane for bikes and pedestrians. We desperately need left lane green arrows on Main St.! I have been nearly run over 4 times because of inattentive drivers. This, even after watching carefully and hoping to catch the eye of drivers. Left lane signals would allow safe left turns for drivers and pedestrians. I know this is UDOT jurisdiction, but hopefully new leadership will get this on the table if it isn't already.	11/7/2021 6:46 PM
23	Most roads are in terrible shape with potholes as they were never designed for this much traffic that currently occurs Sand Flats Road and Mill Creek Drive is a bad intersection Also Dogwood and Main Street with the number of tractor trailers parked on the shoulders	11/7/2021 3:09 PM
24	Everything along US 191/Main Street.	11/6/2021 9:16 PM
25	Hwy 191 through town	11/6/2021 9:10 PM
26	Spanish Valley Drive is dangerous for pedestrians and cyclists without a dedicated pathway. It would also reduce congestion.	11/6/2021 6:15 PM
27	191 fron 100 North to 400 South. Too congested, too busy, too dangerous. Need a bypass.	11/6/2021 3:14 PM
28	Main Street (US 191), obviously. It is unsafe for pedestrians to cross even when they have a walk signal. It is unsafe for cars, because of people making illegal U-turns and people illegally jaywalking. It is unsafe for bicyclists to travel along, or even to cross from one side of town to the other. The effect spills over onto other streets (e.g. 400E, 500W) because of the number of cars/trucks using them as a way to avoid Main Street.	11/6/2021 11:16 AM
29	191 and Spanish Trail	11/6/2021 9:39 AM
30	Main St.	11/6/2021 9:34 AM
31	Spanish Valley Drive needs a bike lane for safety. Same for Arches NP. Intersection of Spanish Valley Drive and S Mill Creek Drive needs widening improvement. Center and Main OR 100N and Main OR 100S and Main should have a dedicated left turn signal so there is one place locals know they can go to get on or off of Main (191) when traffic is heavy.	11/6/2021 8:58 AM
32	Yes, 191 will worsen and become more difficult to cross as UDOT is motivated to do so. UDOT is perversely motivated when considering livable communities.	11/5/2021 12:53 PM
33	Main Street	11/5/2021 12:07 PM
34	no sidewalk that connects from 400 east to dogwood or moab valley inn, 4th east and millcreek congestion, 3 way stop to sand flats will only get worse with new development at lions back, safety of crossing hwy 191 south with speed of traffic. need a frontage road. speeds of traffic approaching town from either end is not enforced. people drive WAY TOO FAST.	11/4/2021 9:15 AM
35	Main Street and left turns thereon and 300 south	11/3/2021 4:34 PM
36	Mill creek drive Spanish trail	11/3/2021 3:45 PM
37	Spanish Valley Drive. Plan to improve as continued development happens.	11/3/2021 2:29 PM
38	all left turns on Main Street	11/3/2021 2:28 PM
39	Main Street	11/2/2021 6:25 AM
40	No	11/1/2021 4:39 PM
41	highway 101 and south shell gas station, city maket intersection	10/31/2021 6:50 PM
42	IF you asking "do we need round abouts?" the answer is no.	10/31/2021 8:43 AM
43	4th East, 5th West, no left hand turn lights	10/30/2021 8:46 PM

44	• 191 & Kane creek, specifically related to the north 191 entrance of McDonald's • 100 S & 191 northbound should have a left turn arrow • Shell station- traffic going from 2 lanes to 1 in southbound direction	10/30/2021 1:32 PM
45	Down near the Shell station and most often turning left off of hwy 191	10/30/2021 10:08 AM
46	100 west, 500 west, 400 east, sand flats rd	10/30/2021 10:03 AM
47	191 at Spanish trail	10/30/2021 5:55 AM
48	Intersection on 191 and the shell station	10/29/2021 11:53 PM
49	400 East Hwy 191, 400 East Millcreek Drive	10/29/2021 7:41 PM
50	Main Street, especially at the south (400 East intersection) and north (500 West intersection) entrances to town. High speed traffic, especially semi trucks, drive through red lights on a daily, if not hourly, basis.	10/29/2021 7:37 PM
51	The intersection and lane merge at hwy 191 and Spanish Trail.	10/29/2021 6:49 PM
52	191 from Crescent Junction rye entrance of town as it's missing a lane in each side and people drive dangerously through it. 191 in the town Center is hectic and it's hard to turn left.	10/29/2021 4:09 PM
53	Need the pathway built along Spanish Valley Dr for bike, pedestrian & horse use. Please work with San Juan to continue this path out to Pack Creek turnoff.	10/29/2021 3:51 PM
54	NA	10/29/2021 3:28 PM
55	all	10/29/2021 2:57 PM
56	Highway 191 and Spanish Valley	10/29/2021 1:58 PM
57	400 East. Spanish Valley Dr.	10/29/2021 9:31 AM
58	All of downtown Main Street. Also the exit onto 191 from City Market; also the turn into the Shell station from 191 south	10/25/2021 6:34 PM
59	main street	10/20/2021 1:58 PM

Q3 What is your vision for the future of transportation in Grand County and Moab?

Answered: 60 Skipped: 5

#	RESPONSES	DATE
1	it being improved for the visitors fuck the locals	11/22/2021 8:56 AM
2	Kids being able to cross main street safely while getting to the middle school and high school. Not having to worry about hitting someone while driving down main street.	11/20/2021 11:13 AM
3	Traffic bypass around moab	11/19/2021 5:56 AM
4	a by pass would alleviate most issues we face from congestion to safety concerns	11/17/2021 7:00 PM
5	more bicycle - what would it be like to be a truly bicycle based community. of course it doens't work for everyone. but it is such a small town, we should be able to make it work for more of us!	11/16/2021 6:32 PM
6	Spanish valley pathway; county-wide shuttle (Crested Butte painted buses = ideal model)	11/13/2021 9:18 PM
7	More public transit that serves the locals, a REAL bypass, not a bad concept developed to appease a few loud voices, responsible users of developed transportation and safety services. IE no jaywalking, cyclists wearing black clothing and riding in travel lanes in the dark.	11/12/2021 2:26 PM
8	That we have a bypass for all of the freight trucks and thru-traffic and the State allows us to implement the trailering of OHV's. Safe, protected pedestrian/bike lanes throughout the valley especially in our downtown core. More quiet experience downtown, increase our air quality by reducing carbon emissions. Safe reliable transit options for cost burdened households. Rail service from our most dominant regional markets; SLC and DEN. Increase opportunities for visitors to come and visit Moab without a car.	11/12/2021 9:54 AM
9	I think Moab needs a shuttle system connected to the national parks and other points of interest around Moab.	11/11/2021 8:52 AM
10	More connectivity with pathways for bikes/pedestrians, especially between neighborhoods, parks, Cury Market, schools. A way to move through your day without have to contend with Main Street and Tourists.	11/11/2021 7:20 AM
11	Good public transportation system, buses or vans, free of cheap subsidized passes for locals, especially those in need. With the north to south character of Moab, this is a no brainer. Loops connecting 500 west and 400 east. And a 2nd one that goes back and forth on 191 that provides a way for all the people now living or renting short term to get from spanish valley to moab. That would reall help with traffic and parking. But need to make it work by short waits, free or cheap and easy to access with predictable schedule, nobody wants to wait for a bus that never comes.	11/10/2021 8:11 PM
12	small shuttle buses for locals. ban OHV's and Razrs on local roads. build a bypass for trucks and other thru traffic.	11/10/2021 7:18 PM
13	Bussing from areas in town to the National Parks. Some way to free up roadways.	11/10/2021 7:12 PM
14	Rail to SLC and Denver Bypass for trucks so they don’t have to be on Main Shuttles at parks and no private cars No scooters etc downtown Ban ATVs un Grand County as Telluride has done Left turn lane on 191 and Spanish Valley Dr Bike Lanes	11/10/2021 6:51 PM
15	Public transportation!! Parking permits for downtown. Pedestrian only zones.	11/10/2021 5:44 PM
16	Keep the cars on only a very few streets and enforce speed limits. More, and more bike-friendly, bicycle lanes and trails with continuity the full length of Moab and Spanish Valley.	11/9/2021 11:10 PM
17	Trolley with hop on/ off locations.	11/9/2021 8:22 PM
18	Town shuttle. Shuttle service in Arches. Airport shuttle	11/9/2021 2:22 PM

19	We need a bypass, more bike routes, public transit/ public shuttles, and more leadership to stand up for the people of Moab.	11/8/2021 7:37 PM
20	Centralized parking (i.e. parking garages), public transit systems, and safer pathways for non-motorized transportation Amending zoning codes to require less off-street parking, redesigning wide ROWs downtown to allow more on-street parking	11/8/2021 4:03 PM
21	Much more green infrastructure with better bike lanes and pedestrian crossings. As a world-destination mountain biking town, the town infrastructure is not at all bike friendly (aside from the Millcreek parkway)	11/8/2021 1:55 PM
22	A bike path through Spanish Valley from Old Spanish Trail to town, with off shoots to S. Moab, the high school, and joining the Mill Creek Parkway. A connection (that is legally there) from Cinema Court to the Holyoak subdivision, a paved section from end of Holyoak to the hwy for bikes. Make it EASIER and quicker to bike or walk than to drive short distances. David Olsen started this and should be re-hired to complete the work!	11/7/2021 10:51 PM
23	Small electric buses that travel Main Street and other main arteries. Connect to shuttles in the parks, perhaps Sand Flats and spits along Sand flats Road.	11/7/2021 6:46 PM
24	Fix the roads and sidewalks, actual enforcement of speed limits and stop signs and lights at intersections	11/7/2021 3:09 PM
25	A shuttle connecting Moab town (hotels/restaurants) and Arches Park	11/7/2021 7:05 AM
26	A year ago, I sketched out a conceptual bus system for Moab, Green River, and Arches National Park, which can be downloaded here: https://www.dropbox.com/s/8rjuracx5w5v7ra/working.pdf?dl=0 There are also plans in the works to connect Moab to Salt Lake City by rail: https://utahrpa.org/link-utah	11/6/2021 9:16 PM
27	Main Street will always be busy. It just gets really scary when pedestrians jay walk or when drivers are aggressive. Not sure there is a way to legislate that.	11/6/2021 9:10 PM
28	A pedestrian/cyclist pathway from the county line to downtown. Perhaps a shuttle system from the county line to downtown for local residents not tourists. The BEST scenario would be a bypass for all trucks and through traffic. Get those damned trucks off Main Street. Oh…and NO parking on Main St from 100 North to 300 South.	11/6/2021 6:15 PM
29	Need a bypass and make downtown Moab bike, pedestrian and shuttle friendly with lots of parking on sides streets. Increase bus and Uber access to strategic drop off points. Make Spanish Valley bike trail friendly (thought that was already on the books). Increase bus and shuttle routes on Spanish Valley. At least to Millcreek. A bike/shuttle/bus loop would be great between the new USU, downtown Moab, Spanish Valley.	11/6/2021 3:14 PM
30	A future where we can shop and dine out downtown without fearing for our lives.	11/6/2021 11:16 AM
31	bike lanes and hopefully shuttles are needed from Spanish Valley to town	11/6/2021 9:39 AM
32	By pass	11/6/2021 9:34 AM
33	Some kind of public transportation system that can get workers from Spanish Valley into town for work or shopping. A transit system that would take visitors from Moab into Arches NP. More bike lanes for locals to safely bike to work or shopping. Ideally for the ?@&$!?$ Utah legislature to allow Moab to require OHVS be trailered to trailheads (maybe an exception for Sand Flats area and Steelbender since they're so close to town and would be a trailer parking nightmare?). Or as soon as electric OHVS are on the market require all rental companies in the area to transition to these vehicles.	11/6/2021 8:58 AM
34	Land Planning is inseparable from transportation planning. To plan for transportation alone is to guarantee excessive spending on transportation. This is where DOT's are perversely motivated. The DOT is pressured to push more traffic through at higher speeds and adding lanes for convenience. It's a popular way of treating a symptom rather than the disease. Convenient roads perpetuate spending on roads and affects behavior of people. When a convenient road exists, people choose to live further from where they work. It's like chasing your tail while hemorrhaging tax money.	11/5/2021 12:53 PM
35	Rerouting Highway 191 around Main Street	11/5/2021 12:07 PM
36	get the semi-trucks off of main street. the downtown needs to be more pedestrian friendly and less vehicle-centric. bike lane along spanish valley drive for a safe mode of travel for	11/4/2021 9:15 AM

	commuters. connectivity for bike lanes in town. separate bikes from traffic. parking structures to get parking off of main street between 100 north and 100 south.	
37	Moab should be "car-optional." Vehicles should be accommodated, but not required. My vision: Active transportation infrastructure and public transit makes vehicular travel far less desirable and convenient.	11/4/2021 9:06 AM
38	public transportation, including to Arches National Park	11/3/2021 4:34 PM
39	Bypass Moab Valley	11/3/2021 3:45 PM
40	Hopeful for a local shuttle/bus system to Spanish Valley and shuttle system to arches for the tourons.	11/3/2021 2:29 PM
41	less traffic	11/3/2021 2:28 PM
42	Let people decide on their own	11/2/2021 6:25 AM
43	Free shuttle along 191	11/1/2021 4:39 PM
44	Left turn signals. More bicycle lines. No ohvs allowed on city roads	10/31/2021 6:50 PM
45	Let the users define what mode of transportation they will use, don't waste resources and time trying to coerce people into conforming to your vision. Provide a bypass option for the thousands of vehicles per day who have demonstrated that they are just trying to pass through Moab to get where they are hoping to go.	10/31/2021 8:43 AM
46	Left hand turn lights, bridge over the river on Potash then down Kane creek to main by McDonalds. This would take big trucks off Main Street without impacting neighborhoods	10/30/2021 8:46 PM
47	BUSSES, BUSSES, BUSSES! Bus running from Springhill Suites to Windgate with stops along the way. Encourage folks to leave their vehicle at their hotel and take the bus into town. Will reduce number of vehicles, alleviate parking, climate friendly, reduce drunk driving. Eventually adding routes to residential areas encouraging locals, employees, and vacation renters to leave their cars at their houses and take the bus. When the tailings pile is moved put a massive parking area there and turn arches into a bus situation as well. Park city, telluride and I'm sure other resort towns already have this, I used to live in park city and I loved the bus	10/30/2021 1:32 PM
48	A safe nice bike path that connects Spanish valley to town. Shuttle service from the airport to town and to the National Parks.	10/30/2021 10:08 AM
49	More walkable only areas downtown by creating pedestrian only areas, i.e 100 west and 100 east from center st. to 100 north, shuttles service to downtown, shuttle service to Arches and within the park.	10/30/2021 10:03 AM
50	Bike paths from San Juan county that connects to the bike path down town, a rail system through the city and a bypass around main street	10/29/2021 11:53 PM
51	Figure 8 shuttle 3 times per day for locals, shuttles up & down Main St for tourists hourly from 7AM to 10PM	10/29/2021 7:41 PM
52	Better connectivity of hiking and bike trails leading from town to surrounding public lands.	10/29/2021 7:37 PM
53	Be able to take a left hand turn safely.	10/29/2021 6:49 PM
54	Some public transportation might help. Maybe some areas should be reserved to local residents only. More shuttle service for tourists. A lot more parking in town.	10/29/2021 4:09 PM
55	Find some way to get a bypass for truck traffic downtown, Moab will never have a vibrant successful downtown until this happens.	10/29/2021 3:51 PM
56	An extensive urban trail network allowing e-bikes on ALL paved pathways in the area (canyon, river-road, etc) and through town and SV	10/29/2021 3:28 PM
57	Bypass Road	10/29/2021 2:57 PM
58	The town needs a free shuttle bus to run from Arches to Spanish Valley Road.	10/29/2021 1:58 PM
59	Possible shuttles from the valley to town for employees.	10/29/2021 9:31 AM
60	improved bikeability and safety	10/20/2021 1:58 PM

Q4 What solutions or projects are needed to realize your Vision?

Answered: 58 Skipped: 7

#	RESPONSES	DATE
1	no semi rigs or atv's, utv's on county paved roads and city streets	11/22/2021 8:56 AM
2	enforcement of traffic laws on main street	11/20/2021 11:13 AM
3	udot proposed bypass on Kane Creek blvd	11/19/2021 5:56 AM
4	A by pass the city has had options for for over 50 years I have been here for	11/17/2021 7:00 PM
5	more designated bike paths and bike lanes. more parking for bikes. Perhaps local business incentives for riding your bike, other community encouragement and participation for chaining the culture.	11/16/2021 6:32 PM
6	Money!	11/13/2021 9:18 PM
7	All of them! So little has been done in past decades whatever is done in the near and mid future will get us barely caught up to the 21st Century. Traffic calming in the down town core, clustered parking lots or structures, oversized parking for oversized vehicles, reliable and user friendly shuttles that don't just stop at hotels and restaurants, they need to serve folks need to travel to their place of business.	11/12/2021 2:26 PM
8	Cooperation with the State and UDOT to prioritize a future that doesn't keep focusing on building more bigger, wider, faster roadways. If the State continues on its projected path of growth we will need to think about moving more people more efficiently and rail, biking and walking are possible options. Bike share programs, safe protected infrastructure (which includes lighting on paths), transit. More housing density downtown to allow for more mobility and less car dependence. Planning and engineering staff that can be creative in retrofitting our public spaces-streets.	11/12/2021 9:54 AM
9	Working with the parks to set up a shuttle from Moab to popular trailheads. We also would need to purchase buses and establish routes	11/11/2021 8:52 AM
10	I would like bike paths that dead end to be linked up — maybe all the way to Millcreek/Powerhouse trailhead and Old City Park on the south — and more linkages from west side neighborhood (Mountain View, Westwood/Palisade, etc. to schools, parks, City Market, etc. (the east side of town).	11/11/2021 7:20 AM
11	Already said bridge across river to potash. The people on cane creek can have berms installed with nice landscaping and engineer it to minimize impact and make it easy for these people to get around peak traffic if they need to get in or out of their homes. There are not too many of these people really. The hillside people can also have a dedicated mitigation plan to engineer sound mitigation and easy access to their homes. The rest of us are suffering because a few of these people are whining, lets look at what can we do for the good of the whole community instead of focusing on a tiny group of vocal opponents	11/10/2021 8:11 PM
12	spend tourist dollars on buses. major approval from DOT and state dollars for bypass. laws and law enforcement.	11/10/2021 7:18 PM
13	We will have to have a bypass with the best sound barriers made.	11/10/2021 7:12 PM
14	Leaders who care more about the people who actually live here than businesses who make money on renting ATVs	11/10/2021 6:51 PM
15	Get people out of their cars by inspiring a change of behavior	11/10/2021 5:44 PM
16	Acquisition of properties to connect different segments of non-motorized trails and lanes.	11/9/2021 11:10 PM
17	City & county working with the businesses to allow for trolley parking and for areas for people to wait.	11/9/2021 8:22 PM
18	Institute shuttles asap!	11/9/2021 2:22 PM

19	- amend parking code to require fewer spaces for affordable/workforce/deed restricted housing - create street designs to allow for on-street parking in 100ft ROWs in downtown, especially in residential areas (R-3 specifically) - build a parking structure/central transportation hub - create/require more sidewalks and bike paths along heavily used streets - designated routes for UTVs - eventually implement public transportation? with consideration of connections to regional communities? this seems to be a challenge and a lower priority before others listed.	11/8/2021 4:03 PM
20	Bike lanes that also are part of a larger green infrastructure plan on all new road projects	11/8/2021 1:55 PM
21	We need to gain right of way on about 30 properties in Spanish Valley along Pack Creek. Liens should be placed on each property asap and when it is next sold, the land should be bought from the current owner by the county to complete a bike trail/fire break/access/and floodway through the entire Pack Creek drainage.	11/7/2021 10:51 PM
22	Lots of money, determination to ask for a lot to get some, focus, affordable housing, because if this is for the community, the community needs to be able to actually live here. This IS for us, right?	11/7/2021 6:46 PM
23	Local government should work with the manufacturers of UTV's to lobby state government to get non compliant vehicles off of public roads	11/7/2021 3:09 PM
24	Transit hub	11/7/2021 7:05 AM
25	Funding for studies is a necessity to move the process along. UDOT also needs to see state-wide public transit as a necessity.	11/6/2021 9:16 PM
26	Take the OHV element out of the mix. It will reduce the number of vehicles, reduce conflicts, reduce the noise that causes so much irritation to locals.	11/6/2021 9:10 PM
27	A bypass. A bike/pedestrian trail from the south county line to downtown.	11/6/2021 6:15 PM
28	It doesn't seem like, in the overall scheme of things, it would cost that much $$ to put in bike lanes on Spanish Valley especially now with the new hospital going in and all the new housing out that way. See above. At least extend the bike paths on Spanish Valley to the new housing project that was supposed to start this summer...	11/6/2021 3:14 PM
29	Enforcement. Stand at the corner of Center and Main, and just count the number of pedestrians jaywalking or crossing against the walk signal, and the number of cars that don't allow pedestrians to cross. If each and every single one of them got a $100 ticket, the situation would improve.	11/6/2021 11:16 AM
30	Bike lanes or trails down Spanish Valley to Ken's Lake	11/6/2021 9:39 AM
31	UDOT needs to get with it!! How many surveys??	11/6/2021 9:34 AM
32	Money! Yes funding for public transportation systems and bike lanes. What Springdale and Zion did is a good example except Moab and Arches will be more complicated and costly due to a larger town and park. Plus making sure to see what low income locals need and would use to get them to work and shopping (including bus passes they can afford). And the Utah Legislature to practice what it preaches about letting counties determine their needs (regarding OHVs).	11/6/2021 8:58 AM
33	Plan for multiple small commercial cores approximately 1/2 mile apart to allow for non-auto commuting. Allow congestion on roads between residential(only) areas and commercial cores. This is a planning problem more than a traffic problem. To think that we can simply build bigger wider roads to accommodate traffic is just not true. Planning and inconvenient roads are necessary. This takes significant public education and much of the public will not want to hear it. It is however a reality.	11/5/2021 12:53 PM
34	bridge across Colorado River, excavate tunnel in Moab Rim	11/5/2021 12:07 PM
35	major financial investment in our community to create a more liveable town for locals. make travel in and around town safer for pedestrians and cyclists. public transport options to move people from the valley into town and back	11/4/2021 9:15 AM
36	Invest in bike infrastructure and network connectivity. Eliminate parking on main st and expand the sidewalks.	11/4/2021 9:06 AM
37	buses or large vans	11/3/2021 4:34 PM

38	Additional Colorado river bridge Connection from US 279 to US 191 via Kane Creek canyon.	11/3/2021 3:45 PM
39	See above	11/3/2021 2:29 PM
40	less tourism advertising	11/3/2021 2:28 PM
41	A bypass for 191	11/2/2021 6:25 AM
42	Funding	11/1/2021 4:39 PM
43	100,000	10/31/2021 6:50 PM
44	We need to stop pretending that the country is not continuing to grow and the bypass is not going to happen. Excuses like "it's too late", "it's too complicated" or "it's too expensive" belie a lack of leadership on the part of those who should be making decisions. Of course it is too late, expensive and complicated, but that's not really any different than the challenges faced by any community throughout the country. Moab needs to evolve beyond the us against them mentality and accept that it will be more helpful to embrace reality and focus on how to make the best of the inevitable.	10/31/2021 8:43 AM
45	Bridge over Kane and left hand turn lights. Better roads and sidewalks everywhere in the city and county Main Streets and subdivision	10/30/2021 8:46 PM
46	BUSSES, BUSSES, BUSSES	10/30/2021 1:32 PM
47	Closing 100 west, 100 east to center st. and 100 north to all traffic - pedestrians only.	10/30/2021 10:03 AM
48	On connected bike path from the river to Spanish valley would be a great start	10/29/2021 11:53 PM
49	Purchase shuttles, hire & train drivers, educate public Provide bus, train options into Moab Establish a system of Link- On-Utah & Link-On-USA	10/29/2021 7:41 PM
50	Designated and separated bike lanes along Spanish Valley Drive to Kens Lake, Kane Creek Blvd to end of pavement, Potash Road, Colorado River road to Castle Valley, and along highway 313. Better traffic lights along highway 191 leading into town. But, I bet there will eventually be more traffic lights between Denny’s and the river due to all the new hotels, so that will help. And south of town at the University intersection.	10/29/2021 7:37 PM
51	Extending 4 lanes to all of 191.	10/29/2021 6:49 PM
52	Adding lanes to 191 all the way to town. Limiting none local driving in some areas. More parking. Bike lanes. Public transportation.	10/29/2021 4:09 PM
53	The State, County and City need to make a bypass a priority, not ignore the need.	10/29/2021 3:51 PM
54	Dedicated bike paths to all reasonably spaced destinations (bar-m, sand flats, river road, potash, kens lake, etc)	10/29/2021 3:28 PM
55	Bypass Road	10/29/2021 2:57 PM
56	Free shuttle buses and bicycle lanes.	10/29/2021 1:58 PM
57	Change the speed limits in town to what the road design allows for. There is no reason other than some squeaky wheels why entire streets that are 50 feet wide and straight should be 20 mph. (300S). 400 E is 70 feet wide and straight. It has a speed limit of 25 mph. It is ridiculous.	10/29/2021 9:31 AM
58	More clear bike lanes and less on street parking	10/20/2021 1:58 PM

Q5 Contact Information

Answered: 24 Skipped: 41

ANSWER CHOICES	RESPONSES	
Name	100.00%	24
Company	0.00%	0
Address	91.67%	22
Address 2	25.00%	6
City/Town	100.00%	24
State/Province	95.83%	23
ZIP/Postal Code	91.67%	22
Country	0.00%	0
Email Address	83.33%	20
Phone Number	66.67%	16

#	NAME	DATE
1	Susie Harrington	11/16/2021 6:33 PM
2	Karen Guzman Newton	11/12/2021 9:54 AM
3	Christy Calvin	11/11/2021 7:21 AM
4	Marcia Ewell	11/10/2021 8:11 PM
5	Tom Edwards	11/10/2021 7:19 PM
6	Marsha	11/10/2021 7:13 PM
7	Colleen	11/10/2021 6:54 PM
8	Linda Mattick	11/9/2021 2:23 PM
9	Audrey and Tim Graham	11/7/2021 10:52 PM
10	Linn DeNesti	11/7/2021 6:47 PM
11	Pete	11/7/2021 3:10 PM
12	Mike Christensen	11/6/2021 9:17 PM
13	Janet Landon	11/6/2021 3:14 PM
14	LuDean Merritt	11/6/2021 9:35 AM
15	Jeff Pillus (Office)	11/5/2021 12:55 PM
16	Joe Kingsley	11/3/2021 4:34 PM
17	Shane	11/2/2021 6:26 AM
18	Crystal muzik	10/31/2021 6:51 PM
19	Samantha Derbyshire	10/30/2021 1:32 PM
20	Joette Langianese	10/30/2021 10:05 AM

21	Carter Lloyd	10/29/2021 11:54 PM
22	Charlotte Mates	10/29/2021 7:43 PM
23	Matt Slawson	10/29/2021 3:30 PM
24	Alison Ling	10/29/2021 2:00 PM

#	COMPANY	DATE
	There are no responses.	

#	ADDRESS	DATE
1	Box 264	11/16/2021 6:33 PM
2	804 Pear Tree Lane	11/12/2021 9:54 AM
3	187 Park Drive	11/11/2021 7:21 AM
4	639 N 500 W	11/10/2021 8:11 PM
5	4300 Easy St	11/10/2021 7:19 PM
6	Marshall	11/10/2021 7:13 PM
7	Kennedy	11/10/2021 6:54 PM
8	380 Park Drive	11/9/2021 2:23 PM
9	1701 Murphy	11/7/2021 10:52 PM
10	575 Jonny Way	11/7/2021 6:47 PM
11	150 S State St Ste 100 Box 50	11/6/2021 9:17 PM
12	1612 Rocky Rd	11/6/2021 3:14 PM
13	505 N Main St	11/6/2021 9:35 AM
14	301 4th East	11/5/2021 12:55 PM
15	324 E 300S	11/3/2021 4:34 PM
16	1870 desert hills dr	11/2/2021 6:26 AM
17	po box 1262	10/31/2021 6:51 PM
18	729 Bartlett cr.	10/30/2021 10:05 AM
19	3373 Watchman Trail	10/29/2021 11:54 PM
20	375 East Pueblo Court	10/29/2021 7:43 PM
21	517 Winesap	10/29/2021 3:30 PM
22	4191 E Lipizzan Jump	10/29/2021 2:00 PM

#	ADDRESS 2	DATE
1	900 Kane Creek Blvd	11/16/2021 6:33 PM
2	668 N. 500 W.	11/10/2021 7:13 PM
3	3439 Westwater Road	11/10/2021 6:54 PM
4	Apt 304	11/9/2021 2:23 PM
5	PO Box 1029	11/7/2021 6:47 PM
6	Unit 207	11/5/2021 12:55 PM

#	CITY/TOWN	DATE
1	Moab	11/16/2021 6:33 PM
2	Moab	11/12/2021 9:54 AM

3	Moab	11/11/2021 7:21 AM
4	Moab	11/10/2021 8:11 PM
5	Moab	11/10/2021 7:19 PM
6	Moab	11/10/2021 7:13 PM
7	Moab	11/10/2021 6:54 PM
8	Moab	11/9/2021 2:23 PM
9	Moab	11/7/2021 10:52 PM
10	Moab	11/7/2021 6:47 PM
11	Moab	11/7/2021 3:10 PM
12	Salt Lake City	11/6/2021 9:17 PM
13	Moab	11/6/2021 3:14 PM
14	Moab	11/6/2021 9:35 AM
15	Moab	11/5/2021 12:55 PM
16	Moab	11/3/2021 4:34 PM
17	Moab	11/2/2021 6:26 AM
18	moab	10/31/2021 6:51 PM
19	Moab	10/30/2021 1:32 PM
20	Moab	10/30/2021 10:05 AM
21	Moab	10/29/2021 11:54 PM
22	Moab	10/29/2021 7:43 PM
23	Moab	10/29/2021 3:30 PM
24	Moab	10/29/2021 2:00 PM
#	**STATE/PROVINCE**	**DATE**
1	UT	11/16/2021 6:33 PM
2	utah	11/12/2021 9:54 AM
3	Ut	11/11/2021 7:21 AM
4	UT	11/10/2021 8:11 PM
5	UT	11/10/2021 7:19 PM
6	Utah	11/10/2021 7:13 PM
7	UT	11/10/2021 6:54 PM
8	Utah	11/9/2021 2:23 PM
9	UT	11/7/2021 10:52 PM
10	UT	11/7/2021 6:47 PM
11	Utah	11/6/2021 9:17 PM
12	UT	11/6/2021 3:14 PM
13	UT	11/6/2021 9:35 AM
14	Utah	11/5/2021 12:55 PM
15	UT	11/3/2021 4:34 PM

16	Utah	11/2/2021 6:26 AM
17	ut	10/31/2021 6:51 PM
18	UT	10/30/2021 1:32 PM
19	Utah	10/30/2021 10:05 AM
20	UT	10/29/2021 11:54 PM
21	UTah	10/29/2021 7:43 PM
22	UT	10/29/2021 3:30 PM
23	Utah	10/29/2021 2:00 PM
#	**ZIP/POSTAL CODE**	**DATE**
1	84532	11/16/2021 6:33 PM
2	84532	11/12/2021 9:54 AM
3	84532	11/11/2021 7:21 AM
4	84532	11/10/2021 8:11 PM
5	84532	11/10/2021 7:19 PM
6	84532	11/10/2021 7:13 PM
7	84532	11/10/2021 6:54 PM
8	84532	11/9/2021 2:23 PM
9	84532	11/7/2021 10:52 PM
10	84532	11/7/2021 6:47 PM
11	84111	11/6/2021 9:17 PM
12	84532	11/6/2021 3:14 PM
13	84532	11/6/2021 9:35 AM
14	84532	11/5/2021 12:55 PM
15	84532	11/3/2021 4:34 PM
16	84532	11/2/2021 6:26 AM
17	84532	10/31/2021 6:51 PM
18	84532	10/30/2021 10:05 AM
19	84532	10/29/2021 11:54 PM
20	84532	10/29/2021 7:43 PM
21	84532	10/29/2021 3:30 PM
22	84632	10/29/2021 2:00 PM
#	**COUNTRY**	**DATE**
	There are no responses.	
#	**EMAIL ADDRESS**	**DATE**
1	susie@withgaia.com	11/16/2021 6:33 PM
2	condomoab@gmail.com	11/12/2021 9:54 AM
3	christycalvin@xmission.com	11/11/2021 7:21 AM
4	marciablues@gmail.com	11/10/2021 8:11 PM
5	mash52@yshoo.com	11/10/2021 7:13 PM

6	linda.mattick@att.net	11/9/2021 2:23 PM
7	graham4grand@yahoo.com	11/7/2021 10:52 PM
8	linndenesti@gmail.com	11/7/2021 6:47 PM
9	Mike@UtahRPA.org	11/6/2021 9:17 PM
10	jlandon@xmission.com	11/6/2021 3:14 PM
11	Platformx02@gmail.com	11/6/2021 9:35 AM
12	moabking@gmail.com	11/3/2021 4:34 PM
13	shane@lynkage.net	11/2/2021 6:26 AM
14	muzik311@yahoo.com	10/31/2021 6:51 PM
15	samanthaderbyshire@gmail.com	10/30/2021 1:32 PM
16	joettel@frontiernet.net	10/30/2021 10:05 AM
17	carter.lloyd.cl@gmail.com	10/29/2021 11:54 PM
18	char.mates@yahoo.com	10/29/2021 7:43 PM
19	mhslawson@icloud.com	10/29/2021 3:30 PM
20	alisonling53@gmail.com	10/29/2021 2:00 PM

#	PHONE NUMBER	DATE
1	4352600222	11/16/2021 6:33 PM
2	4352609889	11/12/2021 9:54 AM
3	8015189182	11/11/2021 7:21 AM
4	9707084843	11/10/2021 8:11 PM
5	4352596037	11/10/2021 7:19 PM
6	3104655653	11/9/2021 2:23 PM
7	435-220-0185	11/7/2021 10:52 PM
8	2062266995	11/7/2021 6:47 PM
9	385-355-4567	11/6/2021 9:17 PM
10	4352607642	11/6/2021 3:14 PM
11	9704035088	11/5/2021 12:55 PM
12	14352601824	11/3/2021 4:34 PM
13	220-0172	10/30/2021 10:05 AM
14	8016471227	10/29/2021 11:54 PM
15	8018704062	10/29/2021 7:43 PM
16	7039095837	10/29/2021 2:00 PM

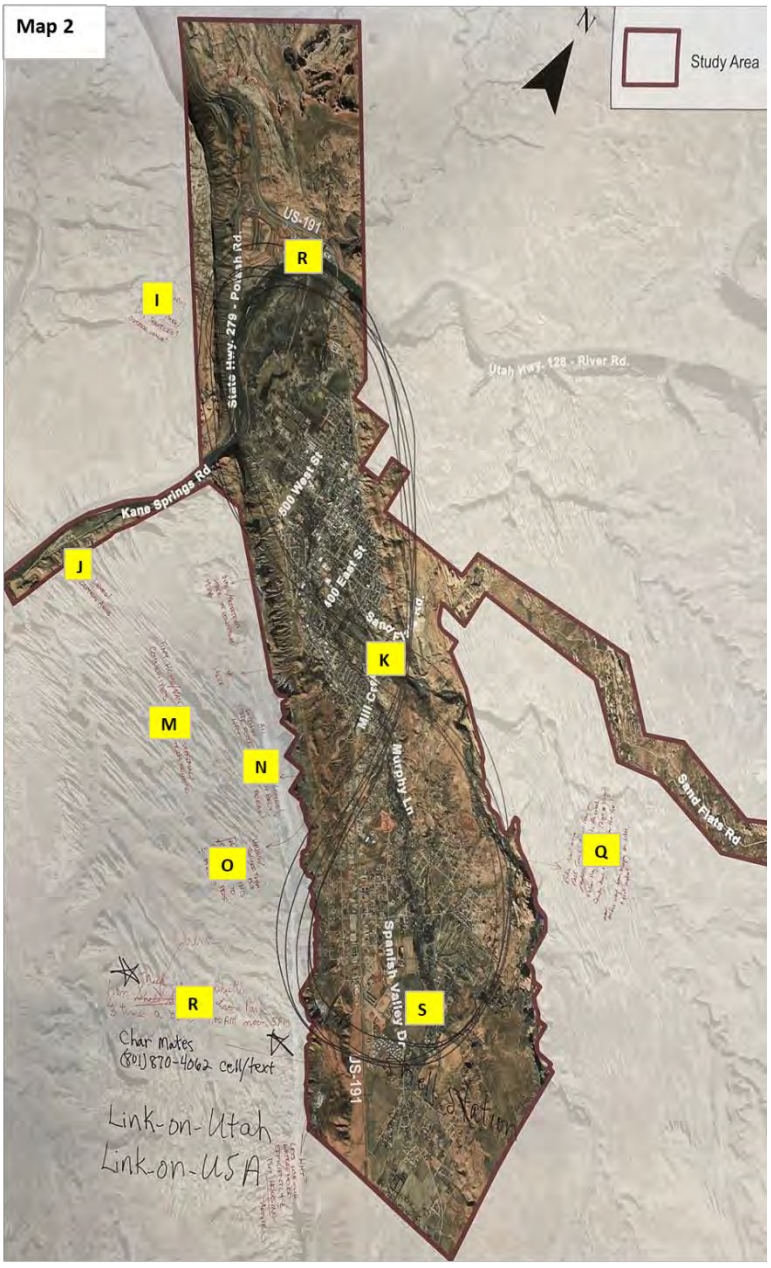
Comments received during the November 2021 community meeting via comment cards available at the meeting:

Source	Comment
November Public Meeting	Consider using a local geotechnical firm for local projects.
November Public Meeting	Consideration of growth rates based on other factors of growth. For example, the airport breaking the 10 year growth projection in 3 years. Car rental growth, shuttles, taxi, rail, rocky mountaineer. VTOL (vertical takeoff) UAV (unmanned air vehicles) are coming in time. Where would they take off and land? These will be electric vehicles. There is a rumor about an industrial park out near the airport. Blue Hills Road could get much busier. Road widening near the airport likely needed in the next 10 years.
November Public Meeting	Close center from Williams Way to 191, or beyond. Maybe a pedestrian plaza. - Tammy Taylor
November Public Meeting	I'm wondering how Kane Creek Road around past the portal can accommodate the proposed 500 residential units the new landowner wants to build down there. It is a narrow, winding road & it seems like it would be a huge expensive undertaking to expand it to accommodate that, and I don't think local taxpayers should be paying for that, especially because many of us do not want to see 500 units down KC Road.
November Public Meeting	Needed Bike/ pedestrian connections between 300 South & Kane Creek via pedestrian bridge (existing) and bike to school route from the hawk near city market across pack creek to kane creek (off highway route behind businesses)
November Public Meeting	Ranna suggests no signal at 200 North and Main but add some sort of HAWK device. Something to help the pedestrians get across. Perhaps a RRFB.
November Public Meeting	Ranna - Tunnel or bridge at Aggie Blvd or perhaps at end of proposed trail into Moab. Try not to have to stop 191 for pedestrians.
November Public Meeting	The manual on uniform traffic control devices outlines warrants that must be met in order to install traffic control signs. What warrants are being considered with regards to when to implement protected left turns? What other mitigation strategies are on the table, and what metrics are we using to determine when they become necessary? - Kaya Woodall
November Public Meeting	300 South. Need radar / cameras to address speeding in the area. People speed through the area, more patrols.
November Public Meeting	Look at Figure 8 shuttle from Lions Park to Arena - 3 times a day 7 am noon 5 pm. Eventually add short buses feeding into Figure 8 from neighborhoods. Shuttles need to have bike racks. Ask UDOT / UTA about van. Advertise / advertise / advertise Salt Lake Express / Airplanes / Medical Apptmt. Mileage PD SEUTC. - Charlotte Mates 801-870-4062 (cell/text)
November Public Meeting	Front of comment card: South of town 400 South / 191 Roundabout Back of comment card: see image below for diagram they drew on the back of the comment card.

Comments received during the November 2021 community meeting via maps available for comment at the meeting (See Map 1 and Map 2 on the following page):

Source	Comment Location on Map	Comment
Map 1	A	Repave (pave?) bike trail
Map 1	B	Deadly
Map 1	C	Bike Access / Sidewalk
Map 1	D	Bike Trail / Flood Control / Fire Control Access along all of Pack Creek
Map 1	E	Open this!! (Connection between San Miguel north to path over Pack Creek eventually to 400 West)
Map 1	F	Better bike access please and trail improvements
Map 1	G	Protected Left Turn
Map 2	I	Solar Farm Parking for National Park / City Shuttles? Outdoor Venue?
Map 2	J	Bike Lanes! To Captain Ahab (on Kane Creek Blvd)
Map 2	K	Infill / Pedestrian space in downtown Moab (Near Sand Flats/Millcreek Dr)
Map 2	M	Tiny home / van communities Can be seasonal / long-term housing
Map 2	N	All within the flood way! Bike lanes! Green Belt! Fire break!
Map 2	O	Housing! (near USU) Sooner than later please! How will this connect to the city for peds and bikes?
Map 2	Q	Bike trail along Pack Creek: Place liens on properties adjacent to the creek and when they change hands (2 years of 30 years) county buys right of way for the trail. Many access ways from Murphy for bikes & fire control
Map 2	R	Need figure 8 shuttle from Shell Station to Lions Park 3 times a day (7 am, Noon, 5 pm) Char Mates (801) 870-4062 cell / text Link-On-Utah Link-On-USA
Map 2	S	Why? Lets use our water more efficiently & put housing - Arnie (Circling the farm land)

Letters listed in the "Comment Location on Map" column in the previous table correspond to the yellow icons on the maps, providing context for comments left in specific locations.



The following comments were received from the December Public Outreach meeting regarding proposed projects.

Project Name	Project Description	Public Meeting (12/17) Notes	Public Priority
Active Transportation			
US 191 Sidewalk Improvements #1: Fourth East to Bittle Lane	Construct new sidewalk to connect existing gap along US 191 from Fourth East to Bittle Lane		
200 North and US 191 Traffic Signal	Construct traffic signal at US 191 at 200 North intersection	Additional lighting needed Anything to make 191 more friendly Safety enhancements	
Dogwood Avenue and US 191 Area Crossing	Construct enhanced pedestrian crossing on US 191 near Dogwood Avenue (Pedestrian Hybrid Beacon/"HAWK" crossing)	Very scary for kids to cross via bike This would be nice Additional lighting needed Please. Dangerous.	1 (High)
Millcreek Drive Sidewalk Improvements	Construct sidewalk where missing on Millcreek Drive, Spanish Valley Drive to bridge north of Lasal Road		
Holyoak Sidewalk Connection	Construct sidewalk along Holyoak Lane from Mill Creek Drive to Wagner Avenue		
100 East Bicycle Lanes	Install bicycle lane pavement markings on 100 East from 200 North to Millcreek Trail and on to City Market	Yes	
Shared Use Path Construction and Connections; Pack Creek and Mill Creek	Construct a shared use path that connects the pedestrian hybrid beacon on US 191 at City Market crossing Pack Creek to Kane Creek Boulevard and north to 300 South. Also a connection to 100 West.	Important local transit route Yes please! Connects to Zions Bank as well as Skunk Alley bridge	1 (High)
US 191 at Aggie Boulevard Bicycle and Pedestrian Crossing	Construct tunnel at US 191 and Aggie Boulevard intersection to cross US 191	I am a USU employee who bikes to work daily Very useful	
Kane Creek Boulevard Paved Shoulders (Bicycle) Improvements	Construct paved shoulders (for use by bicyclists) on Kane Creek Boulevard from 500 West to Kane Creek Recreation Parking (end of pavement)	Good idea, this road is rough to bike.	
Kane Creek Boulevard Bicycle Lanes Improvements	Stripe bicycle lanes and construct paved shoulders (if needed) on Kane Creek Boulevard from US 191 to 500 West		
Murphy Lane Paved Shoulders (Bicycle) Improvements	Construct paved shoulders (for use by bicyclists) on Murphy Lane from Millcreek Drive to Spanish Trail Road	Great!	
Colorado River Shared-Use Path Gap	Construct shared use path along Colorado River between Grandstaff Canyon and Goose Island (existing gap)	Safety risk without this Great idea Love it! Good idea Forestry, Fire, and State Lands permitting is in place and ammendable if needed	

Project Name	Project Description	Public Meeting (12/17) Notes	Public Priority
Spanish Valley Drive Shared-Use Path	Construct a shared use path on Spanish Valley Drive from Millcreek Drive to South County line	Yes! (Already happening) Yes! Support kids and families with dedicated paths to county line, not just shoulders	1 (High)
Mill Creek Canyon Trailhead Connections	Construct trail connections to Mill Creek Canyon Trailhead (Powerhouse Lane) to Pack Creek and/or Millcreek pathways		
Sand Flats Recreation Area Bicycle and Pedestrian Access	Construct pedestrian and bicycle facilities to connect Sand Flats Recreation to downtown.	Could this be done on the pipeline easement paralleling pipedream?	
Sand Flats Road Shared-Use Path	Construct shared-use path from Sand Flats Road Access to Porcupine Rim Trailhead	recreation focus not needed I think unnecessary, sand flats is kind of all about the recreation/dirt roads	3 (Low)
San Miguel Connection	Construct a connection between San Miguel north to path over Pack Creek, eventually connecting to Millcreek Drive		
500 West Safe Routes to School Improvements	Evaluate bike lane and parking needs on 500 West from 400 North to US 191 to provide a "Safe Route to School".	Bike lane please Protected bike lane	1 (High)
100 West Corridor Assessment	Complete a corridor assessment for 100 West from Swanny City Park to 100 South including pedestrian and bicycle crossings, sidewalks, capacity improvements, and bike lane needs.		
Pack Creek Drainage Assessment	Complete an assessment/feasibility study for improvements to the Pack Creek drainage including a bike trail, fire break, access, and floodway considerations.	This would be a huge disturbance in an important wildlife corridor Worry for loss of wildlife corridor if completely developed. Note, fire break Pack Creek often clogged with tumbleweeds	
Roadway Improvements			
Park Drive Connection	Construct street connection and sidewalk of Park Drive, Opal Avenue to Park Road	This is great, it has been a barrier for our city ambulances. Easy fix. Needed Yes!	
Walnut Lane Street Connection	Construct street connection and sidewalk of Walnut Lane to Orchard Park Lane (Hospital Road)	Needed	
US 191 to Spanish Valley Drive Connection near Beeman Road	Construct new east-west street connection between Spanish Valley Drive and US 191 near Beeman Road	I would love to see a stop light Should include an acceleration lane Yes!	
Millcreek Drive/Aggie Blvd and US 191 Intersection Improvements	Construct traffic signal at Millcreek Drive and US 191 intersection	Tunnel/bridge for pedestrians/bikes, please Poorly labeled shoulder. Operates as a turn lane on N. 191 on to 4th E.	

Project Name	Project Description	Public Meeting (12/17) Notes	Public Priority
US 191 / Meador Drive Traffic Signal Improvements	Construct traffic signal at US 191/Meador Drive	Not supportive	
US 191 and West Moab Boat Dock Road Improvements	Identify and construct safety improvements to Moab Boat Dock Road intersection at US 191	Strongly support High use and dangerous - If nothing else add mirrors for right turns Eliminate right turn. Implement "left hand turn" only. Move bike path to under bridge and have bikes cross back over at court house wash bridge. The reason for this is to put acceleration lane coming out of boat dock.	1 (High)
US 191 Gemini Bridges and Bar M Access Improvements	Realignment of access roads on US 191 at Gemini Bridges and Bar M (AKA Old Highway, Moab Canyon)	Yes! This would be great	
Sand Flats Road Improvement	Roadway improvement (paving) on Sand Flats Road from Sand Flats Road Access to Porcupine Rim Trailhead	It is in pretty rough shape	
Millcreek Drive Corridor Assessment and Preliminary Plan	Prepare preliminary plans for the Millcreek Drive corridor from Spanish Valley Drive to Fourth East, including the Fourth East/300 South intersection. Plans may identify intersection improvements to the following: -Millcreek Drive / Spanish Valley Drive -Millcreek Drive / Murphy Lane -Millcreek Drive / Sand Flats Road -Millcreek Drive / Fourth East -Fourth East / 300 South		
Fourth East Improvements	Conduct an assessment of capacity and multimodal improvements (intersection and segment) to Fourth E. Street between 100 North and US 191	Southbound 4 E left turn lane onto Kiva seems slightly undersized Including green infrastructure! Protected bike lanes? Encourage students to ride bikes. Fix pot poles and add sidewalks. Overdue Capacity seems fine, pavement could be smoother. Repaint lines. Remove stop sign at 100 N. the dip is too deep. Particularly around GCHS, balance capacity with speed and safety Balance increased capacity with risk for increased speed; most needed by highschool and youth garden.	
Spanish Valley Drive	Conduct an assessment of capacity and multimodal improvements to Spanish Valley Drive from Millcreek Drive to County Line	Not accommodating more vehicles, yes to bike lanes Pedestrian access , driveway safety and speed is more important than capacity	
Kane Creek Boulevard	Conduct an assessment of capacity and multimodal improvements to Kane Creek Boulevard from US 191 to Kane Creek Recreation Parking; Including the intersection of Kane Creek Boulevard and 500 West		

Project Name	Project Description	Public Meeting (12/17) Notes	Public Priority
Spanish Trail Road	Conduct an assessment of capacity and multimodal improvements to Spanish Trail Road from US 191 to Murphy Lane		
Parking			
Oversized Lot Parking Improvements	Construct over-sized parking lots north and south of downtown Moab	Leave to private sector Much needed Please do not block views or develop natural areas for this, maybe revamp trash ed development sites? ON USU campus, allow USU to asses small fee	
Arches National Park Overflow Parking Area	Parking at UMTRA site for Arches NP/City Shuttles/etc	Yes Much needed Not doable in realistic time scales per DOE	
US 191 Parking	Evaluate no parking zones on US 191 to limit parking inhibiting sight distances; including freight parking	In conjunction with relocation of parking to pedestrian use, and to improve safety and reduce travel time through downtown Prohibit trailer parking and reduce speed limit Leave parking on Main Street!! Reduce speed on Main	
Multimodal Transfer Center	Construct a multi-modal transfer center near Canyonlands Regional Airport, connecting Moab Canyon Pathway, SR 128 Trail, and shuttle services		
Grand County Shuttle System	Implement shuttles (transit, medical, retail, etc.) to serve key destinations including Arches, Airport, Hospital, USU, Spanish Valley/Spanish Trail Road, Rocky Mountaineer Hub, etc.	Needed Library, grocery store, courthouse and other essentials for residents (please not tourist-centric!!	
General Strategies / Policies / Future Considerations			
Shared Use Path Design Standards	Updating standards, guidelines, and criteria for shared use path construction.	Yes	1 (High)
Complete Streets Policy	Develop a Complete Streets Policy to guide future design of streets in the City and County.	Green infrastructure as focus and critical need, yes! Why not on a maintenance plan Great!	
Downtown Bicycle Parking Facilities	Include bicycle parking facilities with new or re-development throughout the downtown area.		
Active Transportation Design Guidelines	Incorporate design guidelines/polices to separate users of the transportation system whenever possible, particularly downtown (trucks, vehicles, pedestrians, bicycles), with active transportation facilities	A bypass would remove trucks	
Pavement Maintenance and Preservation Program	Establish a comprehensive pavement maintenance program	Yes, yes, yes	
E-Bike Consideration	Develop policies concerning use of e-bikes on all paved pathways	Yes! Make friendly for older residents	

Project Name	Project Description	Public Meeting (12/17) Notes	Public Priority
Downtown Wayfinding Signage	Implement wayfinding signage to trails, trailheads, and on street cycling routes alternatives to US 191 in downtown Moab	This would be nice! Could be good	
Wayfinding Signage (Parking)	Add parking signs to encourage parking in the city-owned lots and available spaces	Sure	
Bicycle and Pedestrian Safety Awareness Campaign	Develop education campaign and materials encouraging safe practices by motorists, pedestrians, and bicyclists.		
UDOT Frontage Road Study	Adopt UDOT Frontage Study once completed	Much needed on South 191	
East-West Spanish Valley Connections	Consider future east-west connections, particularly from US 191		
Car-Free Moab Travel	Incorporate goals to provide mobility choices to enable visitors and residents to be car-free.	This would be AMAZING	
Future Trail Acquisition	City and County to acquire easements when possible to connect different segments of trails and shared-use paths		
OHV Noise Pollution Abatement	OHV noise mitigation strategies	Highest priority of all Slower speed limits helped, but larger parking areas needed at trailheads Ban OHVs in town!	1 (High)
ITS Policy and Strategies	Identify opportunities to implement ITS to improve traffic operations and safety		
Multimodal Node	Consider future opportunities for multimodal interaction at key public/private spaces		
Rail Service Feasibility Study	Feasibility Study to evaluate short rail kickouts/spurs connecting the future parking at UMTRA site to the airport.		

Appendix E. Active Transportation Improvement Project Summaries

UTMP Project Information Sheet

US 191 Sidewalk Improvements: Fourth East to Bittle Lane

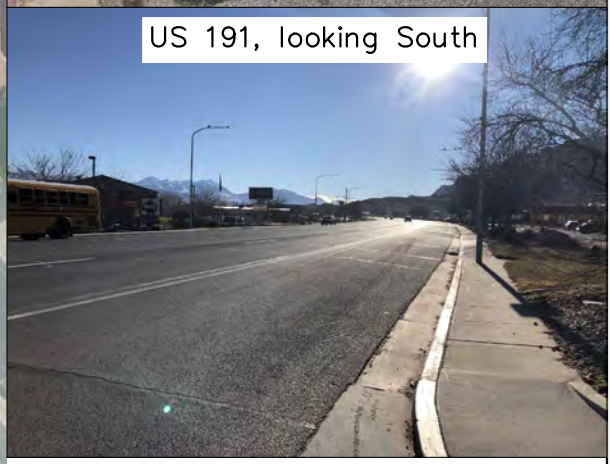
Project Name	US 191 Sidewalk Improvements: Fourth East to Bittle Lane
Project Category	Active Transportation - Pedestrian Facilities
Project Description	Construct sidewalk to connect existing gap along US 191 from Fourth East to Bittle Lane
Project Length	425 ft.
Jurisdiction	City; UDOT
Planning Horizon	Near (1-6 years)
Cost Estimate	$70,000
Priority	Low
Other Notes	Will require coordination with UDOT

Project Number: AT1

UTMP Project Information Sheet

Dogwood Avenue and US 191 Area Crossing

Project Name	Dogwood Avenue and US 191 Area Crossing
Project Category	Active Transportation - Pedestrian Facilities
Project Description	Construct enhanced pedestrian crossing on US 191 near Dogwood Avenue (Pedestrian Hybrid Beacon/"HAWK" crossing)
Project Length	N/A
Jurisdiction	City; UDOT
Planning Horizon	Near (1-6 years)
Cost Estimate	$300,000
Priority	High
Other Notes	Will require coordination with UDOT



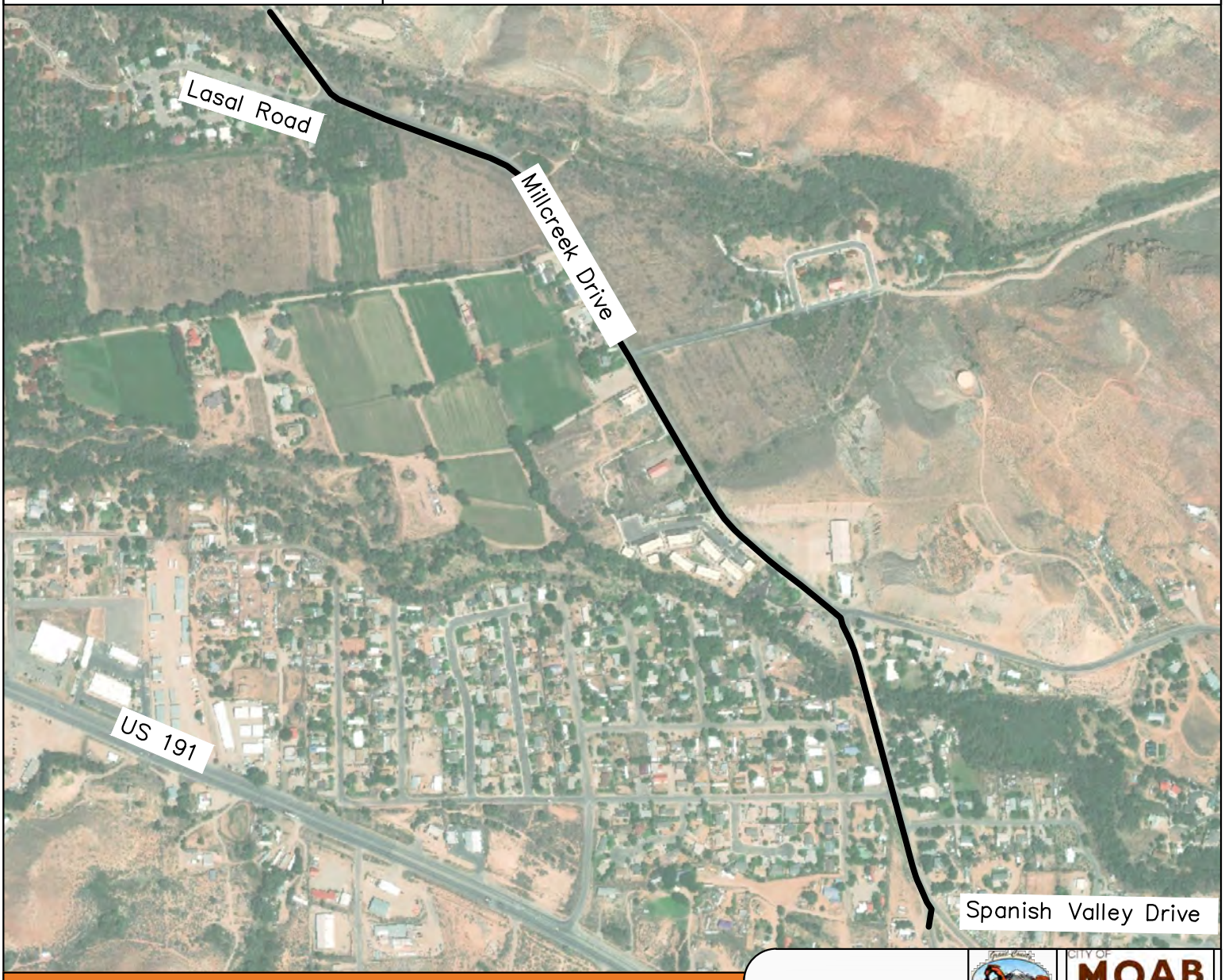
Project Number: AT2

Grand County & City of Moab
UNIFIED TRANSPORTATION MASTER PLAN

UTMP Project Information Sheet

Millcreek Drive Sidewalk Improvements

Project Name	Millcreek Drive Sidewalk Improvements
Project Category	Active Transportation - Pedestrian Facilities
Project Description	Construct sidewalk where missing on Millcreek Drive from Spanish Valley Drive to bridge north of Lasal Road
Project Length	0.93 mi.
Jurisdiction	City; County
Planning Horizon	Mid (7-12 years)
Cost Estimate	$800,000
Priority	High
Other Notes	

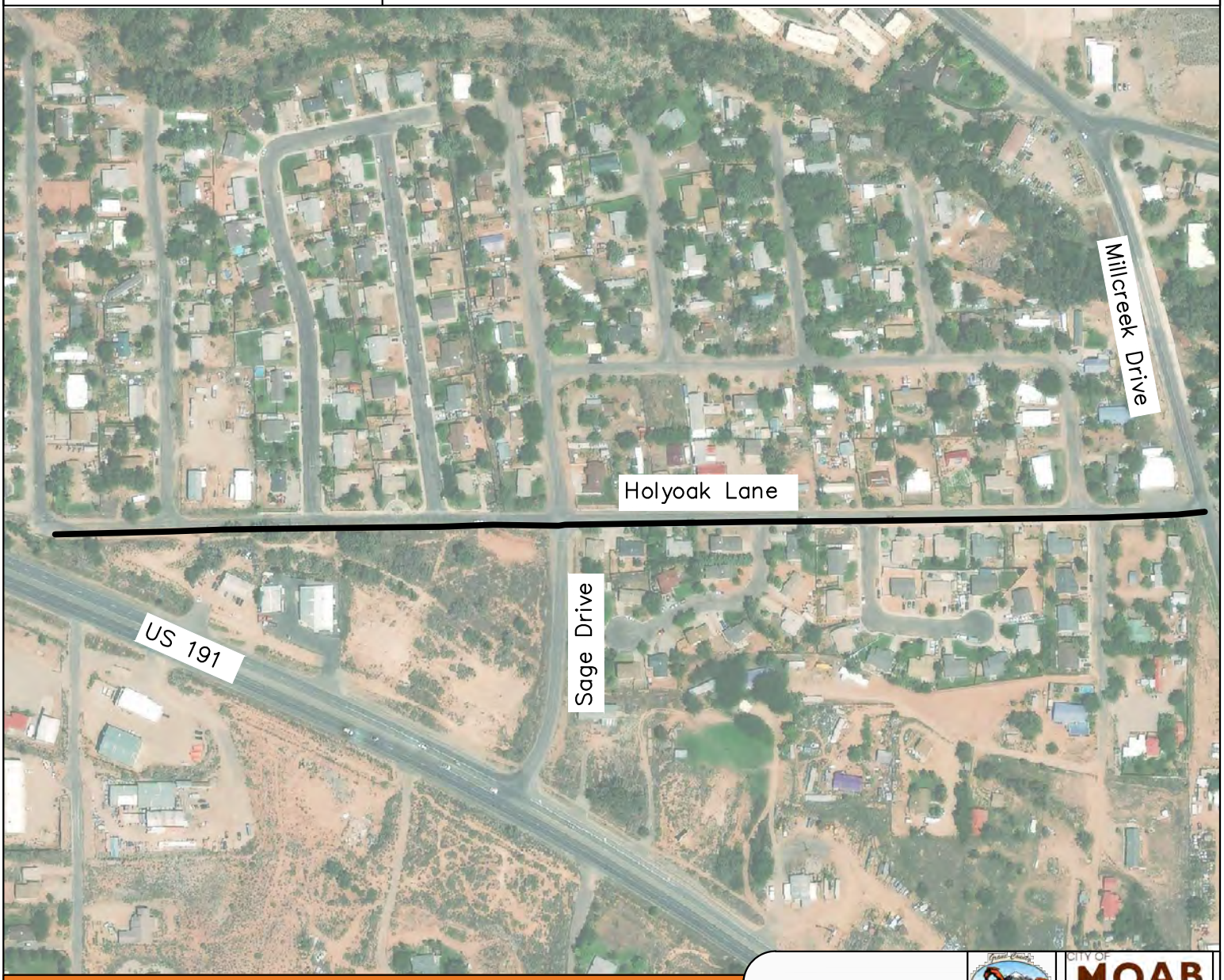


Project Number: AT3

UTMP Project Information Sheet

Holyoak Sidewalk Connection

Project Name	Holyoak Sidewalk Connection
Project Category	Active Transportation - Pedestrian Facilities
Project Description	Construct sidewalk along Holyoak Lane from Mill Creek Drive to Wagner Avenue
Project Length	0.47 mi.
Jurisdiction	City
Planning Horizon	Mid (7-12 years)
Cost Estimate	$400,000
Priority	Low
Other Notes	

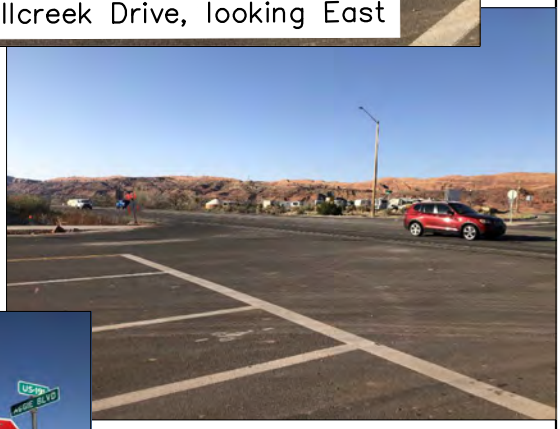


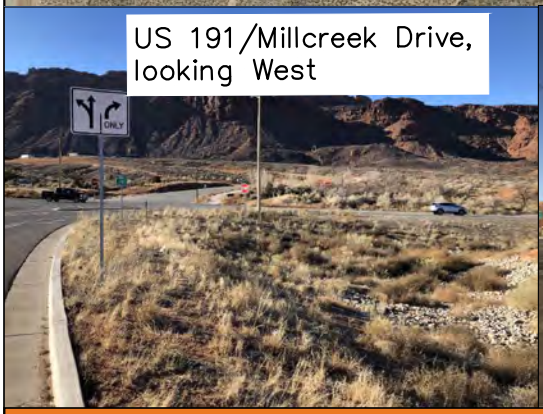
Project Number: AT4

UTMP Project Information Sheet

US 191 at Millcreek Drive/Aggie Boulevard Bicycle and Pedestrian Crossing

Project Name	US 191 at Millcreek Drive/Aggie Boulevard Bicycle and Pedestrian Crossing
Project Category	Active Transportation - Pedestrian and Bicycle Facilities
Project Description	Construct tunnel at US 191 and Millcreek Drive/Aggie Boulevard intersection to cross US 191
Project Length	N/A
Jurisdiction	City
Planning Horizon	Long (13+ years)
Cost Estimate	$1,600,000
Priority	Medium
Other Notes	





Project Number: AT5

UTMP Project Information Sheet

100 East Bicycle Lanes

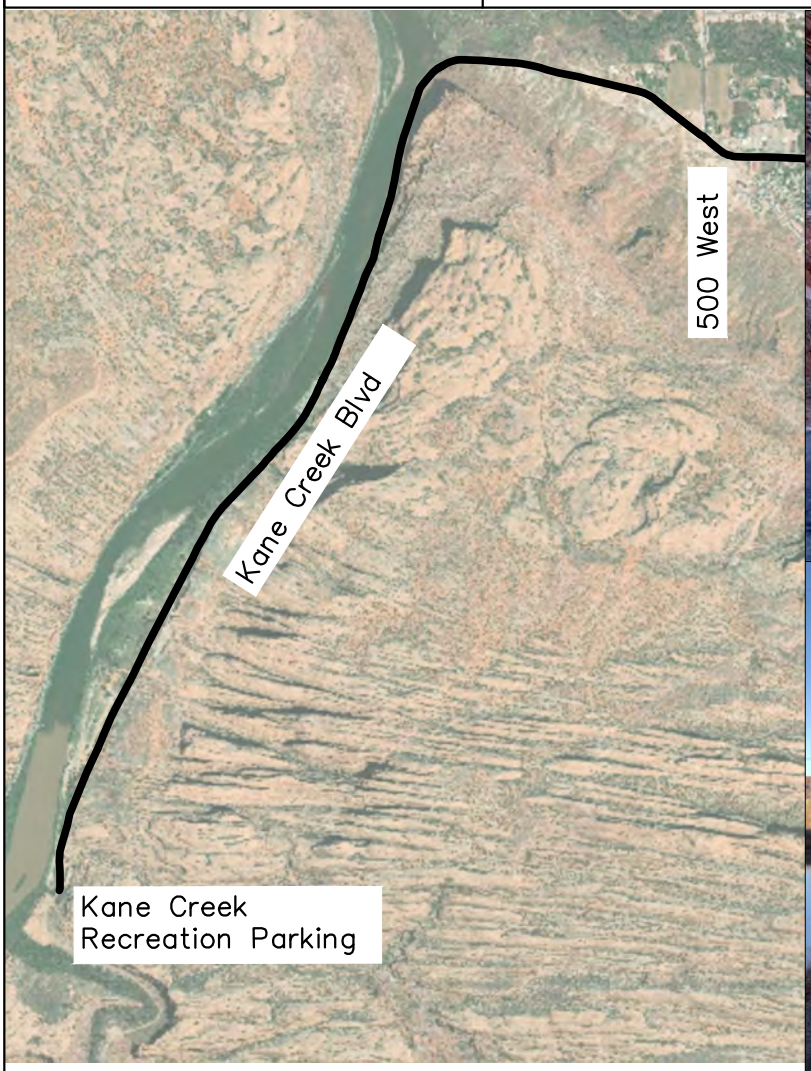
Project Name	100 East Bicycle Lanes
Project Category	Active Transportation - Bicycle Facilities
Project Description	Install bicycle lane pavement markings on 100 East from 200 North to Millcreek Trail and on to City Market
Project Length	0.68 mi.
Jurisdiction	City
Planning Horizon	Near (1-6 years)
Cost Estimate	$60,000
Priority	High
Other Notes	Recommended in Moab Downtown Plan (2019)

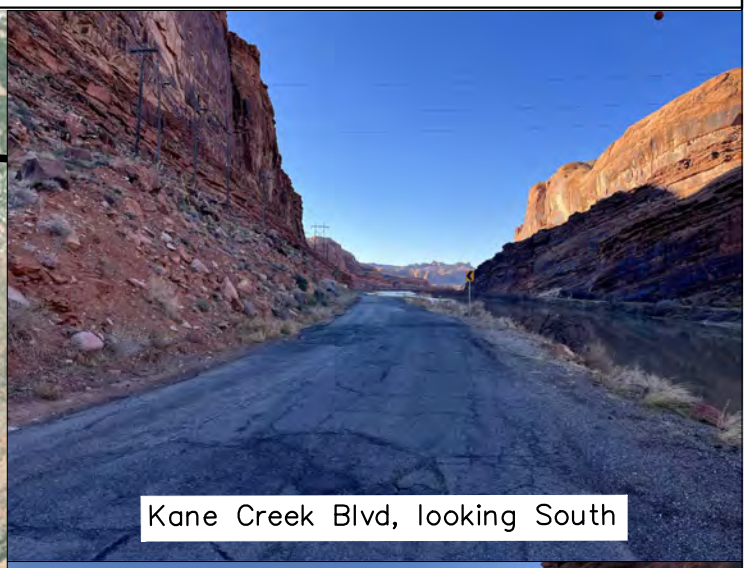
Project Number: AT6

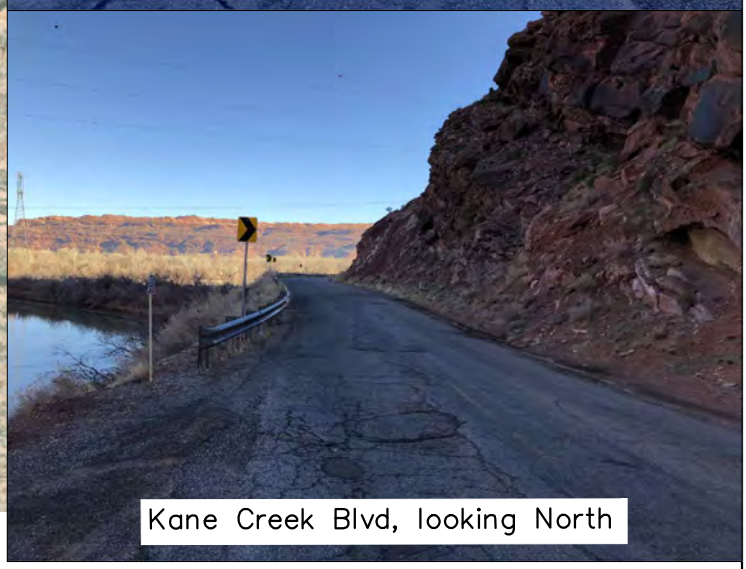
UTMP Project Information Sheet

Kane Creek Boulevard Paved Shoulders (Bicycle) Improvements

Project Name	Kane Creek Boulevard Paved Shoulders (Bicycle) Improvements
Project Category	Active Transportation - Bicycle Facilities
Project Description	Construct paved shoulders (for use by bicyclists) on Kane Creek Boulevard from 500 West to Kane Creek Recreation Parking (end of pavement)
Project Length	3.87 mi.
Jurisdiction	City; County
Planning Horizon	Long (13+ years)
Cost Estimate	$2,860,000
Priority	High
Other Notes	Similar recommendation in Moab and Spanish Valley 2050 Regional Transportation Plan (2021)







Project Number: AT7

UTMP Project Information Sheet

Kane Creek Boulevard Bicycle Lanes Improvements

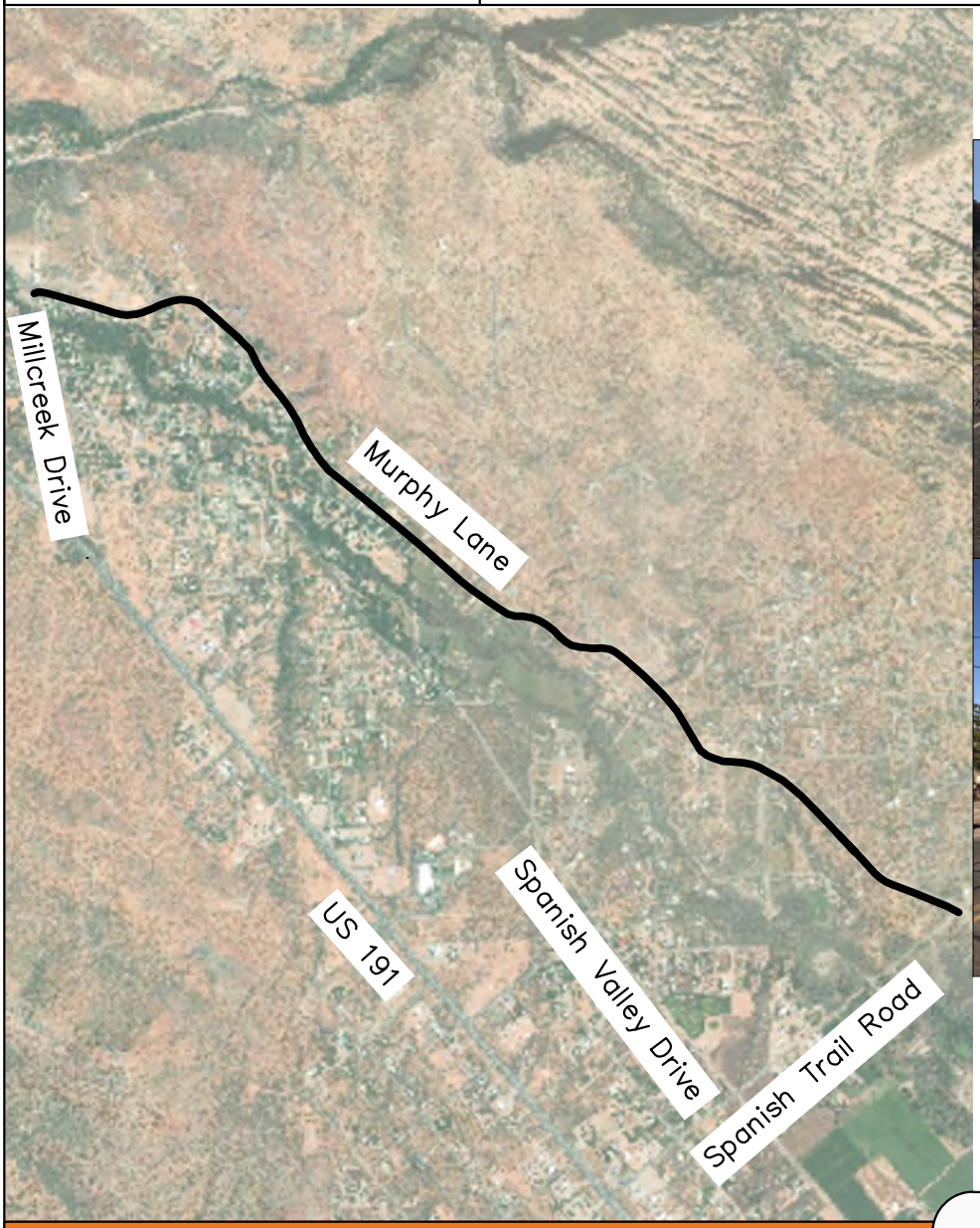
Project Name	Kane Creek Boulevard Bicycle Lanes Improvements
Project Category	Active Transportation - Bicycle Facilities
Project Description	Stripe bicycle lanes and construct paved shoulders (if needed) on Kane Creek Boulevard from US 191 to 500 West
Project Length	0.77 mi.
Jurisdiction	City
Planning Horizon	Mid (7-12 years)
Cost Estimate	$590,000
Priority	Medium
Other Notes	Similar recommendation in Moab and Spanish Valley 2050 Regional Transportation Plan (2021)

Project Number: AT8

UTMP Project Information Sheet

Murphy Lane Paved Shoulders (Bicycle) Improvements

Project Name	Murphy Lane Paved Shoulders (Bicycle) Improvements
Project Category	Active Transportation - Bicycle Facilities
Project Description	Construct paved shoulders (for use by bicyclists) on Murphy Lane from Millcreek Drive to Spanish Trail Road.
Project Length	2.51 mi.
Jurisdiction	County
Planning Horizon	Mid (7-12 years)
Cost Estimate	$1,860,000
Priority	Low
Other Notes	



Project Number: AT9

UTMP Project Information Sheet

Shared Use Path Construction and Connections; Pack Creek and Mill Creek

Project Name	Shared Use Path Construction and Connections; Pack Creek and Mill Creek
Project Category	Active Transportation - Shared-Use Paths
Project Description	Construct a shared use path that connects the pedestrian hybrid beacon on US191 at City Market crossing Pack Creek to Kane Creek Boulevard and north to 300 South. Also a connection to 100 West.
Project Length	0.40 mi
Jurisdiction	City
Planning Horizon	Mid (7-12 years)
Cost Estimate	$630,000
Priority	High
Other Notes	

Project Number: AT10

UTMP Project Information Sheet

Colorado River Shared-Use Path Gap

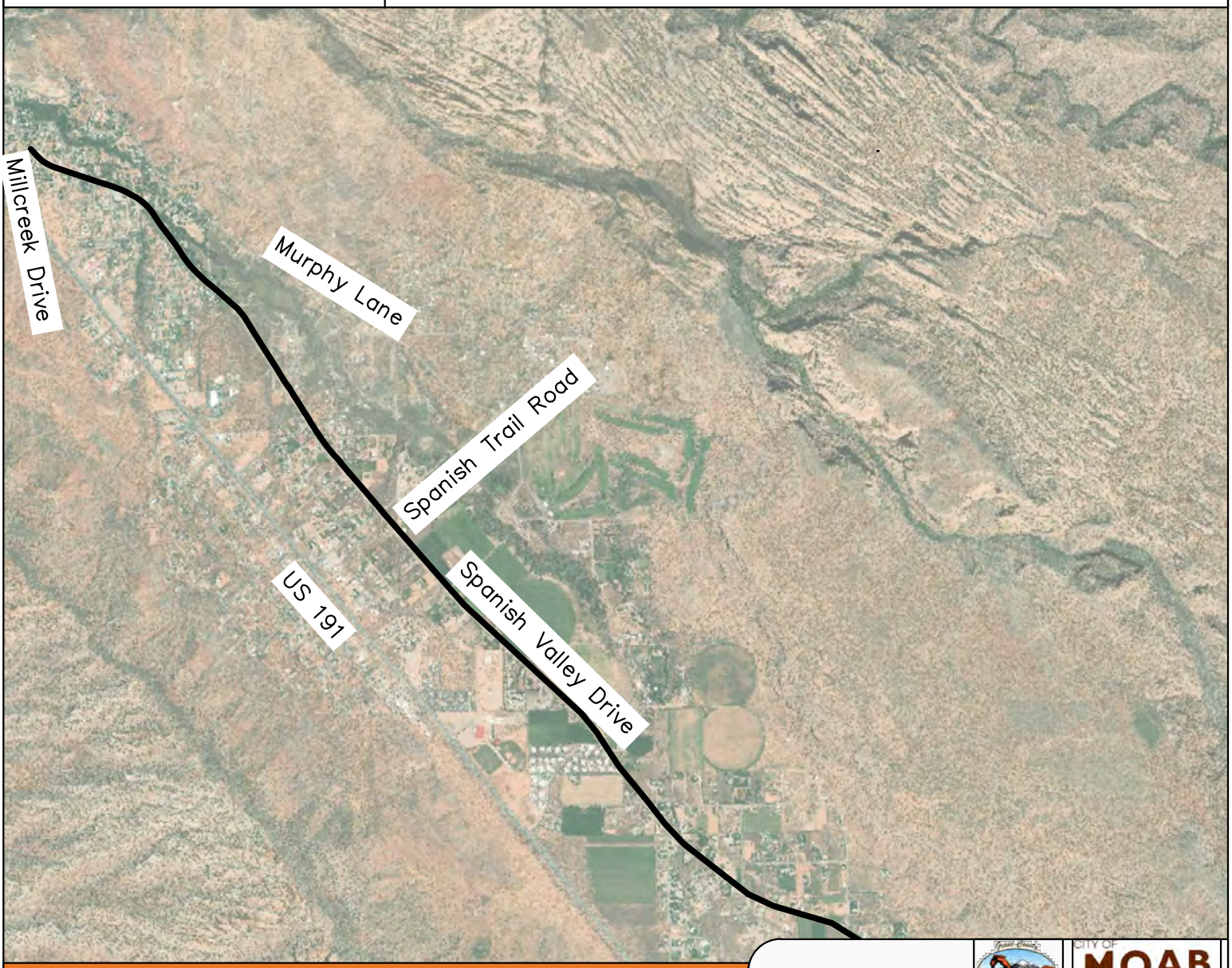
Project Name	Colorado River Shared-Use Path Gap
Project Category	Active Transportation - Shared-Use Paths
Project Description	Construct a shared use path along Colorado River between Grandstaff Canyon and Goose Island (existing gap)
Project Length	0.66 mi.
Jurisdiction	County
Planning Horizon	Off the shelf
Cost Estimate	$4,530,000
Priority	High
Other Notes	Will require coordination with UDOT

Project Number: AT11

UTMP Project Information Sheet

Spanish Valley Drive Shared-Use Path

Project Name	Spanish Valley Drive Shared-Use Path
Project Category	Active Transportation - Shared-Use Paths
Project Description	Construct a shared use path on Spanish Valley Drive from Millcreek Drive to South County Line
Project Length	5.10 mi.
Jurisdiction	County
Planning Horizon	Off the shelf
Cost Estimate	$8,500,000
Priority	High
Other Notes	Partially funded; To be implemented as development continues; Recommended in Moab and Spanish Valley 2050 Regional Transportation Plan (2021)



Project Number: AT12

UTMP Project Information Sheet

Mill Creek Canyon Trailhead Connections

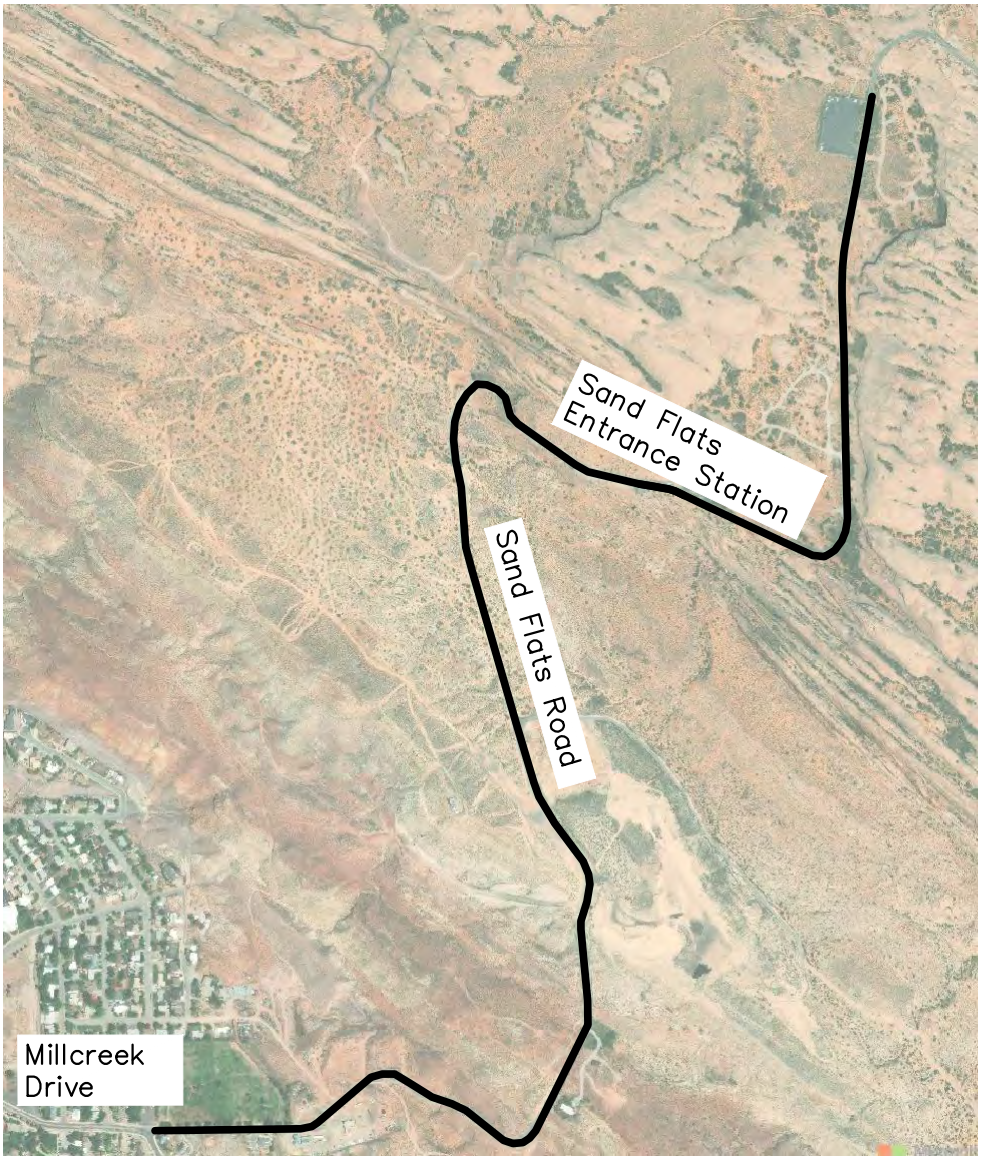
Project Name	Mill Creek Canyon Trailhead Connections
Project Category	Active Transportation - Shared-Use Paths
Project Description	Construct trail connections to Mill Creek Canyon Trailhead (Powerhouse Lane) to Pack Creek and/or Millcreek pathways
Project Length	1.11 mi.
Jurisdiction	City; County
Planning Horizon	Long (13+ years)
Cost Estimate	$1,025,000
Priority	Low
Other Notes	

Project Number: AT13

UTMP Project Information Sheet

Sand Flats Recreation Area Bicycle and Pedestrian Access

Project Name	Sand Flats Recreation Area Bicycle and Pedestrian Access
Project Category	Active Transportation - Shared-Use Paths
Project Description	Construct pedestrian and bicycle facilities to connect Sand Flats Recreation to downtown
Project Length	2.18 mi.
Jurisdiction	City; County
Planning Horizon	Near (1-6 years)
Cost Estimate	$2,000,000
Priority	Low
Other Notes	May be completed concurrently with developments in the area



Project Number: AT14

UTMP Project Information Sheet

Sand Flats Road Shared-Use Path

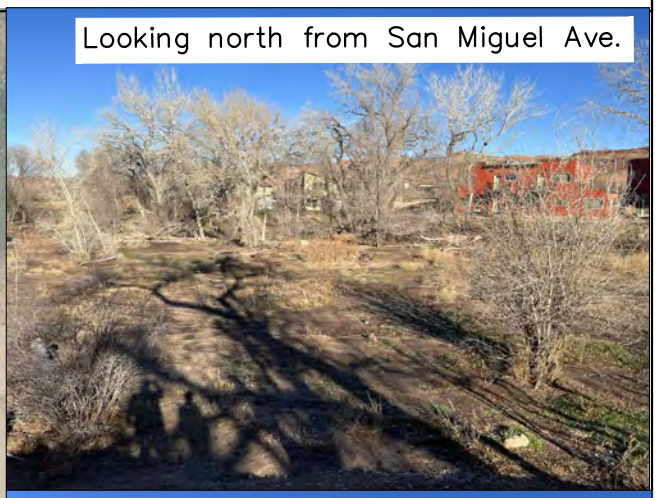
Project Name	Sand Flats Road Shared-Use Path
Project Category	Active Transportation - Shared-Use Paths
Project Description	Construct shared-use path from Sand Flats Road Access to Porcupine Rim Trailhead
Project Length	7.0 mi.
Jurisdiction	County
Planning Horizon	Long (13+ years)
Cost Estimate	$6,500,000
Priority	Low
Other Notes	

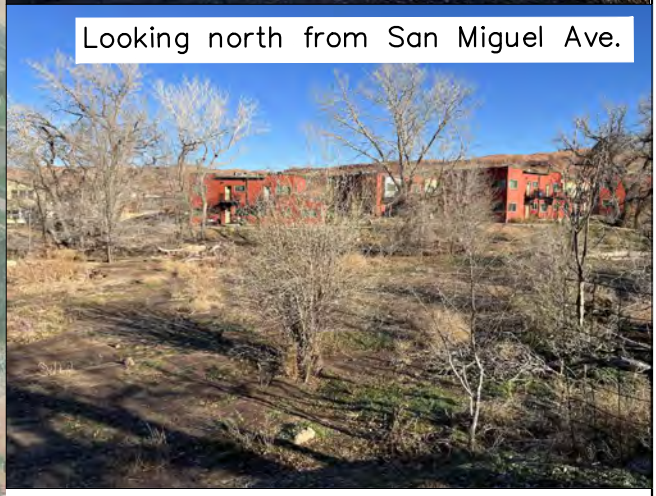
Project Number: AT15

UTMP Project Information Sheet

San Miguel Connection

Project Name	San Miguel Connection
Project Category	Active Transportation - Shared-Use Paths
Project Description	Construct a connection between San Miguel north to path over Pack Creek, eventually connecting to Millcreek Drive
Project Length	350 ft.
Jurisdiction	City
Planning Horizon	Mid (7-12 years)
Cost Estimate	$475,000
Priority	Medium
Other Notes	





Project Number: AT16

UTMP Project Information Sheet

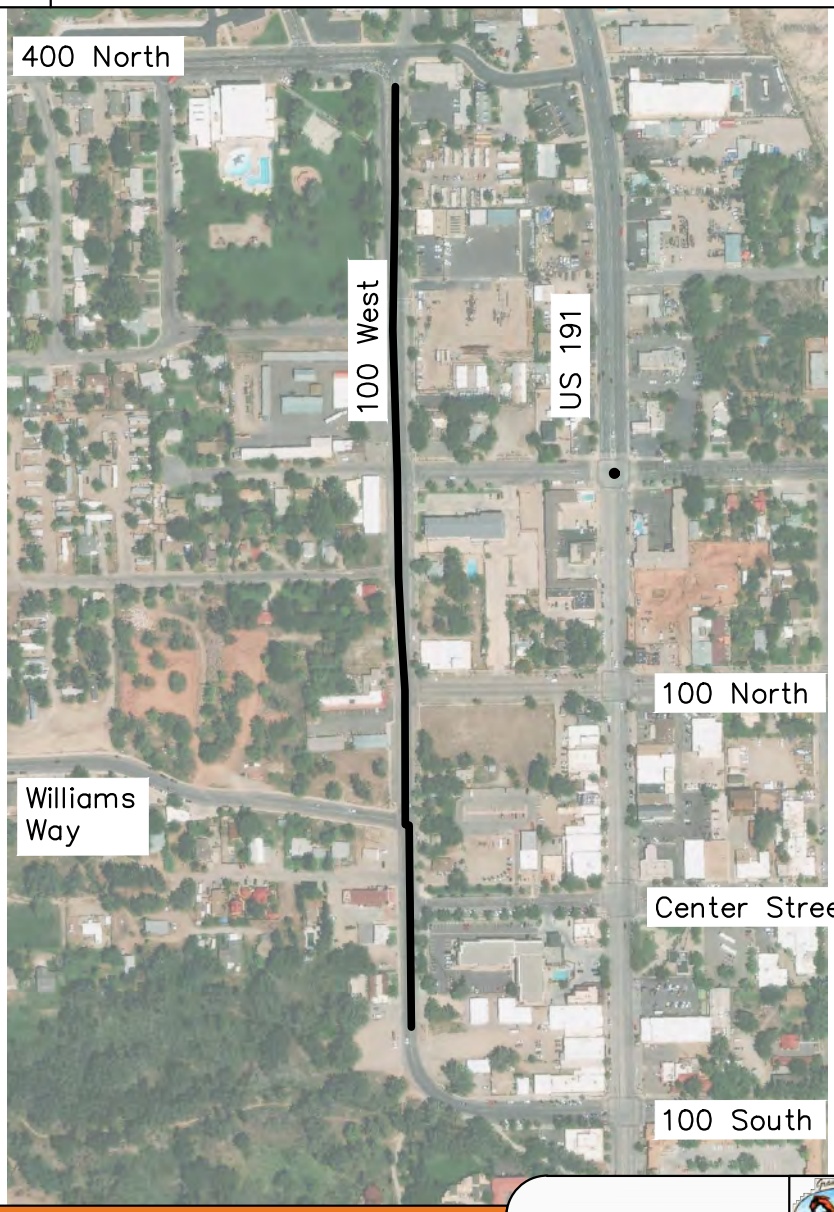
500 West Safe Routes to School Improvements

Project Name	500 West Safe Routes to School Improvements
Project Category	Active Transportation Planning Assessment
Project Description	Evaluate bike lane and parking needs on 500 West from 400 North to US 191 to provide a "Safe Route to School".
Project Length	N/A
Jurisdiction	City
Planning Horizon	Off the shelf
Cost Estimate	$75,000
Priority	Medium
Other Notes	

UTMP Project Information Sheet

100 West Corridor Assessment

Project Name	100 West Corridor Assessment
Project Category	Active Transportation Planning Assessment
Project Description	Complete a corridor assessment for 100 West from Swanny City Park to 100 South including pedestrian and bicycle crossings, sidewalks, capacity improvements, and bike lane needs.
Project Length	N/A
Jurisdiction	City
Planning Horizon	Off the shelf
Cost Estimate	$75,000
Priority	Medium
Other Notes	



Project Number: AT Plan 2

UTMP Project Information Sheet

Pack Creek Drainage Assessment

Project Name	Pack Creek Drainage Assessment
Project Category	Active Transportation Planning Assessment
Project Description	Complete an assessment / feasibility study for improvements to the Pack Creek Drainage including a bike trail, fire break, access and floodway considerations.
Project Length	N/A
Jurisdiction	City; County
Planning Horizon	Off the shelf
Cost Estimate	$300,000
Priority	High
Other Notes	

Project Number: AT Plan 3

Appendix F. Roadway Improvement Project Summaries

UTMP Project Information Sheet

Park Drive Connection

Project Name	Park Drive Connection
Project Category	Roadway Connection
Project Description	Construct street and sidewalk connection of Park Drive, Opal Avenue to Park Road
Project Length	300 ft.
Jurisdiction	City
Planning Horizon	Mid (7-12 years)
Cost Estimate	$180,000
Priority	Low
Other Notes	

Project Number: R1

UTMP Project Information Sheet

Walnut Lane Street Connection

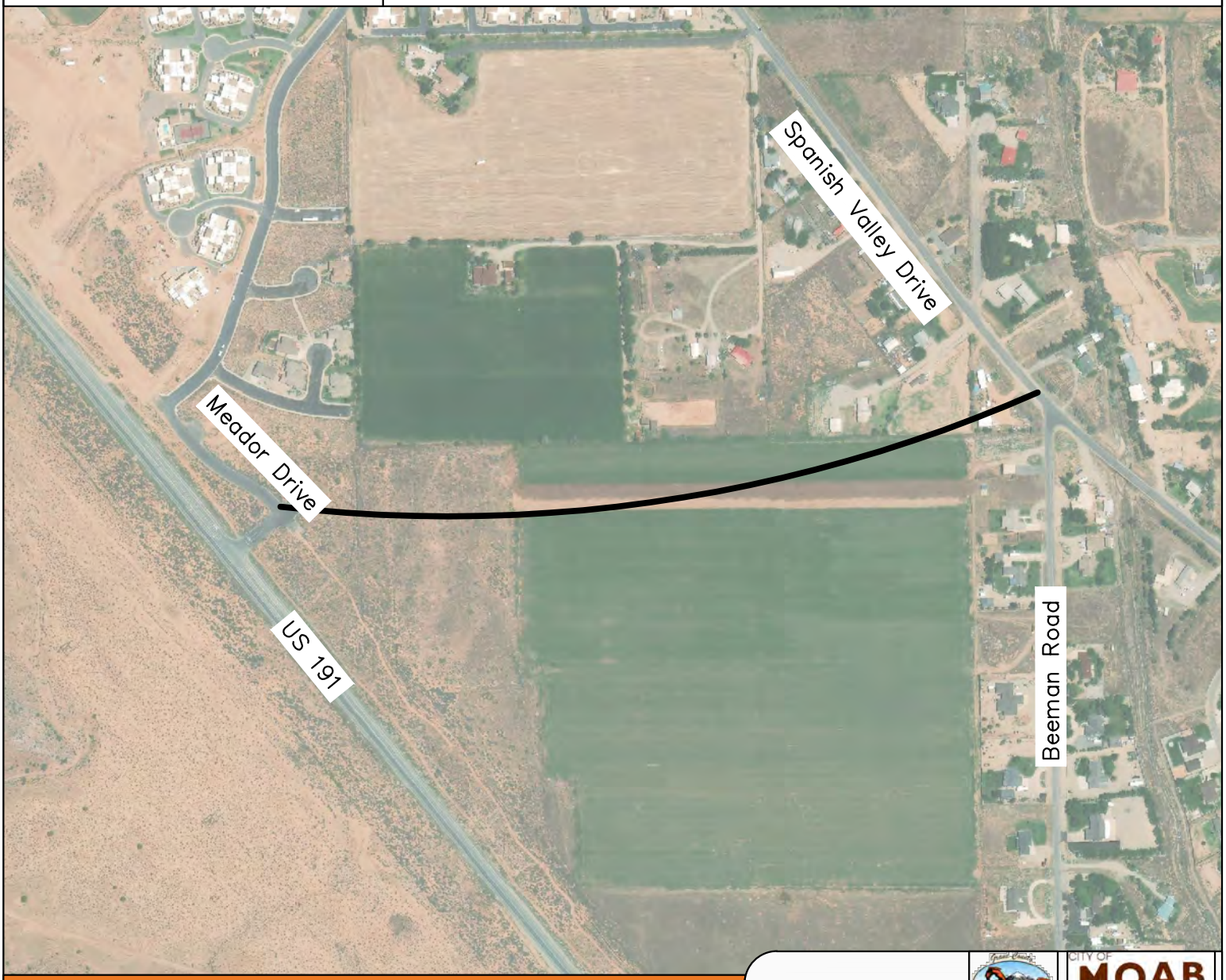
Project Name	Walnut Lane Street Connection
Project Category	Roadway Connection
Project Description	Construct street and sidewalk connection of Walnut Lane to Orchard Park Lane (Hospital Road)
Project Length	100 ft.
Jurisdiction	City
Planning Horizon	Mid (7-12 years)
Cost Estimate	$60,000
Priority	Medium
Other Notes	

Project Number: R2

UTMP Project Information Sheet

US 191 to Spanish Valley Drive Connection at Beeman Road

Project Name	US 191 to Spanish Valley Drive Connection near Beeman Road
Project Category	Roadway Connection
Project Description	Construct new east-west street connection between Spanish Valley Drive and US 191 near Beeman Road
Project Length	0.5 mi.
Jurisdiction	County
Planning Horizon	Mid (7-12 years)
Cost Estimate	$2,560,000
Priority	Medium
Other Notes	Similar recommendation in Spanish Valley Transportation Plan (2008)



Project Number: R3

UTMP Project Information Sheet

Millcreek Drive/Aggie Blvd and US 191 Traffic Signal

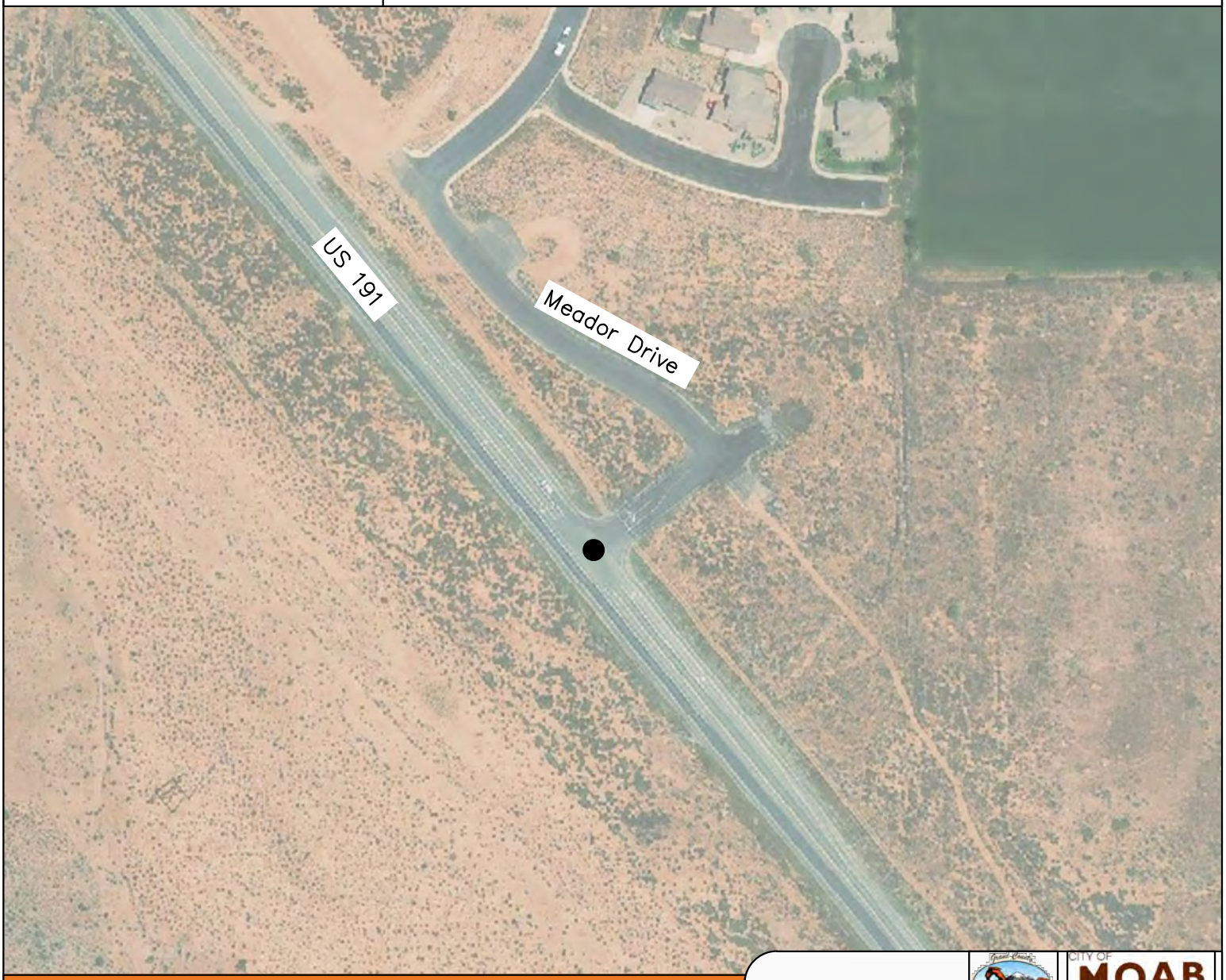
Project Name	Millcreek Drive/Aggie Blvd and US 191 Traffic Signal
Project Category	Intersection Control
Project Description	Construct traffic signal at Millcreek Drive and US 191 intersection
Project Length	N/A
Jurisdiction	City; UDOT
Planning Horizon	Near (1-6 years)
Cost Estimate	$650,000
Priority	Medium
Other Notes	Will require coordination with UDOT

Project Number: R4

UTMP Project Information Sheet

Meador Drive and US 191 Traffic Signal

Project Name	Meador Drive and US 191 Traffic Signal
Project Category	Intersection Control
Project Description	Construct traffic signal at US 191 and Meador Drive
Project Length	N/A
Jurisdiction	County
Planning Horizon	Mid (7-12 years)
Cost Estimate	$775,000
Priority	Medium
Other Notes	Will require coordination with UDOT; Similar recommendation in US 191 Corridor Preservation Study (2015)

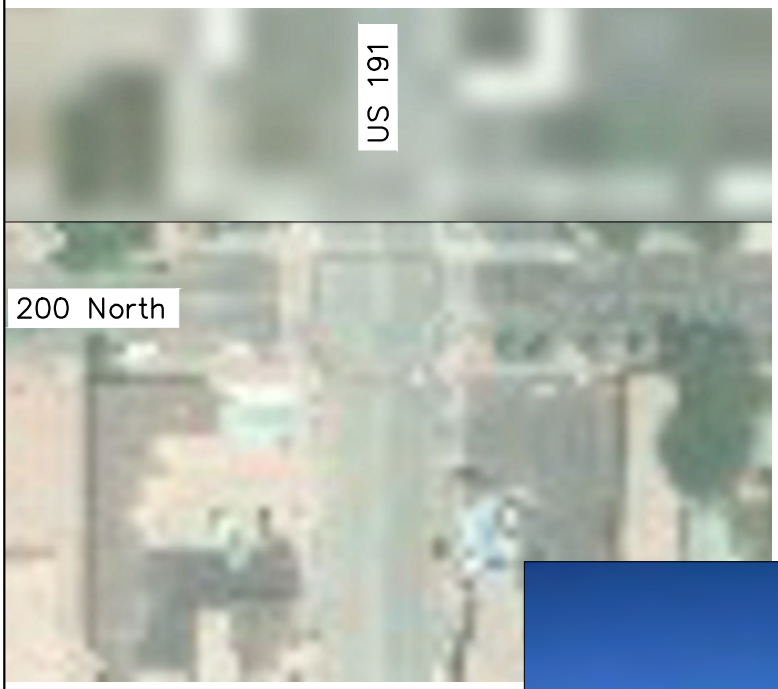


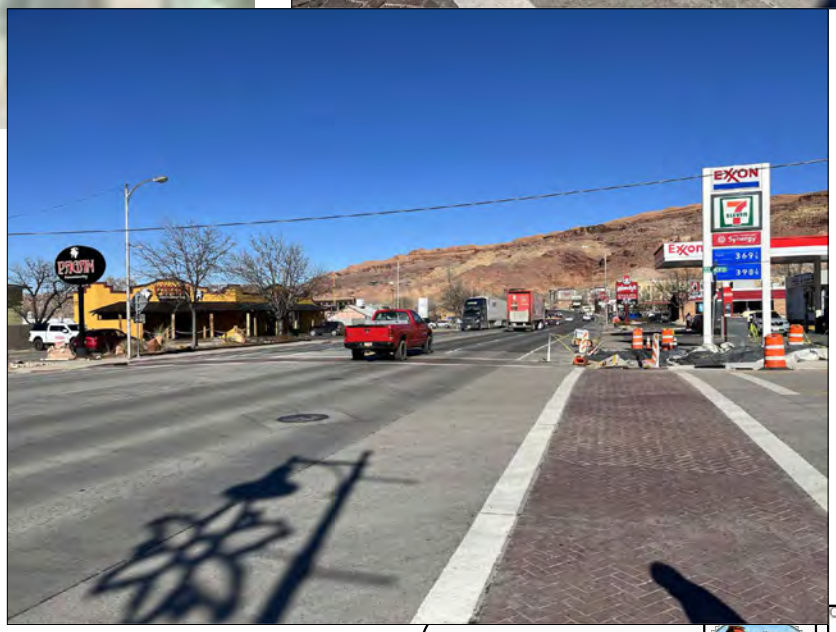
Project Number: R5

UTMP Project Information Sheet

200 North and US 191 Traffic Signal

Project Name	200 North and US 191 Traffic Signal
Project Category	Intersection Control
Project Description	Construct traffic signal at US 191 at 200 North intersection
Project Length	N/A
Jurisdiction	City; UDOT
Planning Horizon	Near (1-6 years)
Cost Estimate	$650,000
Priority	High
Other Notes	Will require coordination with UDOT; also recommended in Moab and Spanish Valley 2050 Regional Transportation Plan (2021)



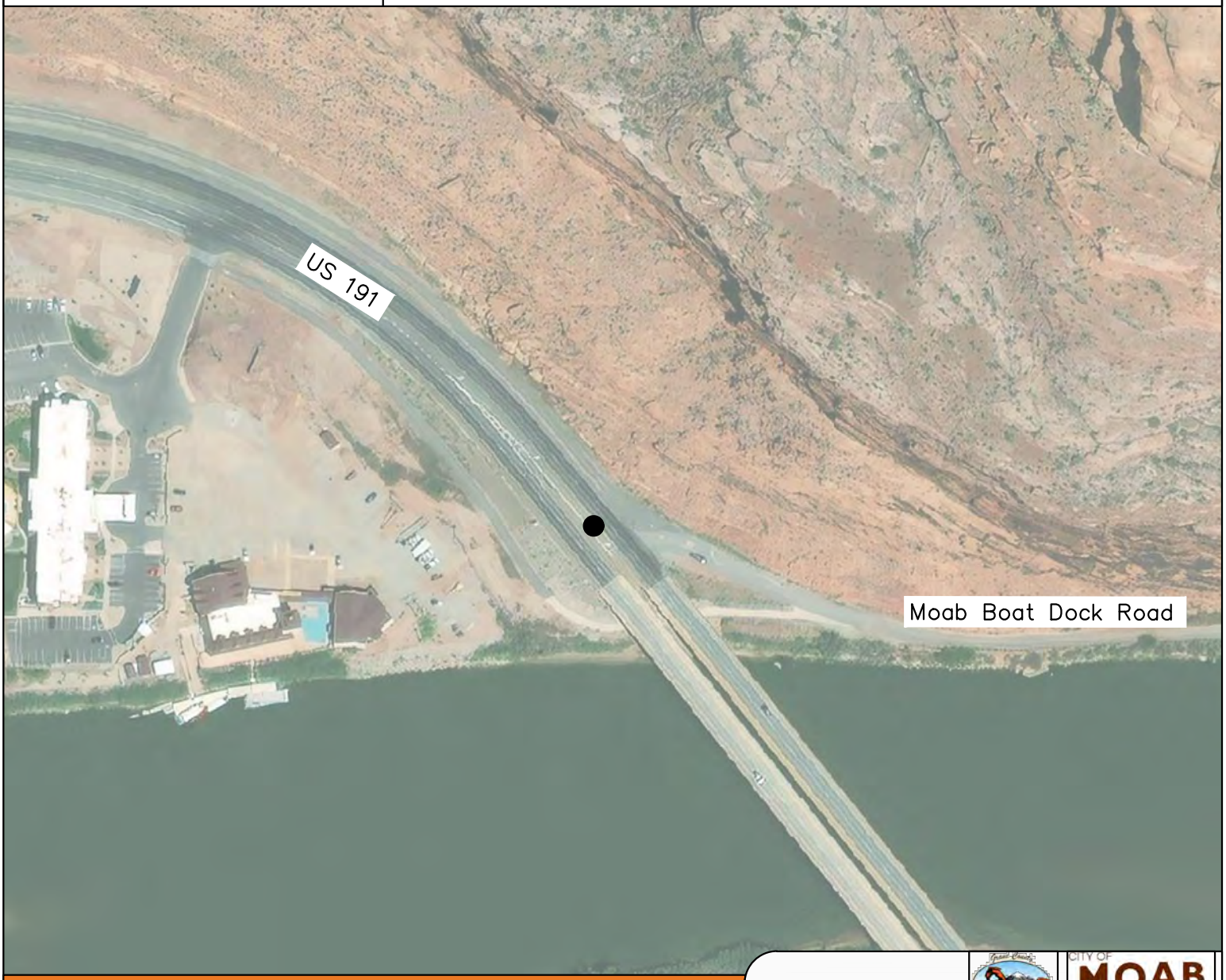


Project Number: R6

UTMP Project Information Sheet

West Moab Boat Dock Road and US 191 Improvements

Project Name	West Moab Boat Dock Road and US 191 Improvements
Project Category	Roadway Improvement
Project Description	Identify and construct safety improvements to Moab Boat Dock Road intersection at US 191
Project Length	N/A
Jurisdiction	County
Planning Horizon	Near (1-6 years)
Cost Estimate	$50,000 - $200,000
Priority	High
Other Notes	May require coordination with UDOT



Project Number: R7

UTMP Project Information Sheet

US 191 Gemini Bridges and Bar M Access Improvements

Project Name	US 191 Gemini Bridges and Bar M Access Improvements
Project Category	Roadway Improvement
Project Description	Realignment of access roads on US 191 at Gemini Bridges and Bar M (AKA Old Highway, Moab Canyon)
Project Length	500 ft
Jurisdiction	County
Planning Horizon	Mid (7-12 years)
Cost Estimate	$325,000
Priority	Medium
Other Notes	

Project Number: R8

UTMP Project Information Sheet

Sand Flats Road Improvement

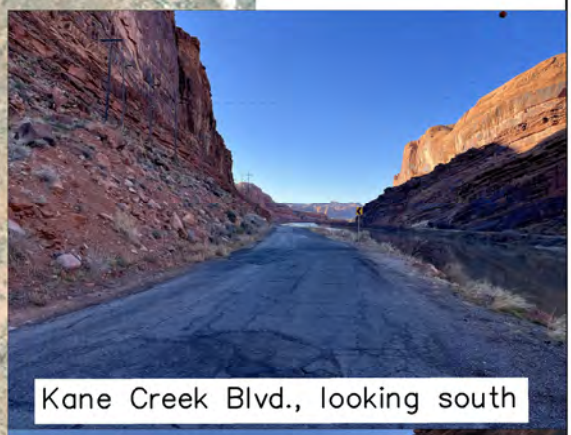
Project Name	Sand Flats Road Improvement
Project Category	Roadway Improvement
Project Description	Roadway improvement (paving) on Sand Flats Road from Sand Flats Road Access to Porcupine Rim Trailhead
Project Length	7.0 mi.
Jurisdiction	County
Planning Horizon	Long (13+ years)
Cost Estimate	$30,000,000
Priority	Low
Other Notes	

Project Number: R9

UTMP Project Information Sheet

Kane Creek Boulevard

Project Name	Kane Creek Boulevard
Project Category	Roadway Assessment
Project Description	Reconstruct and widen Kane Creek Boulevard from US 191 to Kane Creek Recreation Parking; Including intersection improvements to Kane Creek Boulevard and 500 West
Project Length	4.64 mi.
Jurisdiction	City; County
Planning Horizon	Long (13+ years)
Cost Estimate	$20,000,000
Priority	High
Other Notes	Similar recommendation in Moab and Spanish Valley 2050 Regional Transportation Plan (2021)



Kane Creek Blvd., looking south

Kane Creek Blvd., looking north

Project Number: R10

UTMP Project Information Sheet
Millcreek Drive Corridor Assessment and Preliminary Plan

Project Name	Millcreek Drive Corridor Assessment and Preliminary Plan
Project Category	Roadway Planning Assessment
Project Description	Prepare preliminary plans for the Millcreek Drive corridor from Spanish Valley Drive to Fourth East, including the Fourth East/300 South intersection. Plans may identify intersection improvements to the following: -Millcreek Drive / Spanish Valley Drive -Millcreek Drive / Murphy Lane -Millcreek Drive / Sand Flats Road -Millcreek Drive / Fourth East -Fourth East / 300 South
Project Length	1.65 mi.
Jurisdiction	City; County
Planning Horizon	Off the shelf
Cost Estimate	$250,000
Priority	High
Other Notes	

Project Number: R Plan 1

UTMP Project Information Sheet

Fourth East Improvements

Project Name	Fourth East Improvements
Project Category	Roadway Planning Assessment
Project Description	Conduct an assessment of capacity and multimodal improvements (intersection and segment) to Fourth E. Street between 100 North and US 191
Project Length	1.18 mi.
Jurisdiction	City
Planning Horizon	Off the shelf
Cost Estimate	$100,000
Priority	Medium
Other Notes	

Project Number: R Plan 2

UTMP Project Information Sheet

Spanish Valley Drive

Project Name	Spanish Valley Drive
Project Category	Roadway Planning Assessment
Project Description	Conduct an assessment of capacity and multimodal improvements to Spanish Valley Drive from Millcreek Drive to County Line; Spanish Valley Drive to be an alternative route to US 191 during incidents
Project Length	5.10 mi.
Jurisdiction	County
Planning Horizon	Off the shelf
Cost Estimate	$100,000
Priority	High
Other Notes	Similar recommendation in Spanish Valley Transportation Plan (2008)

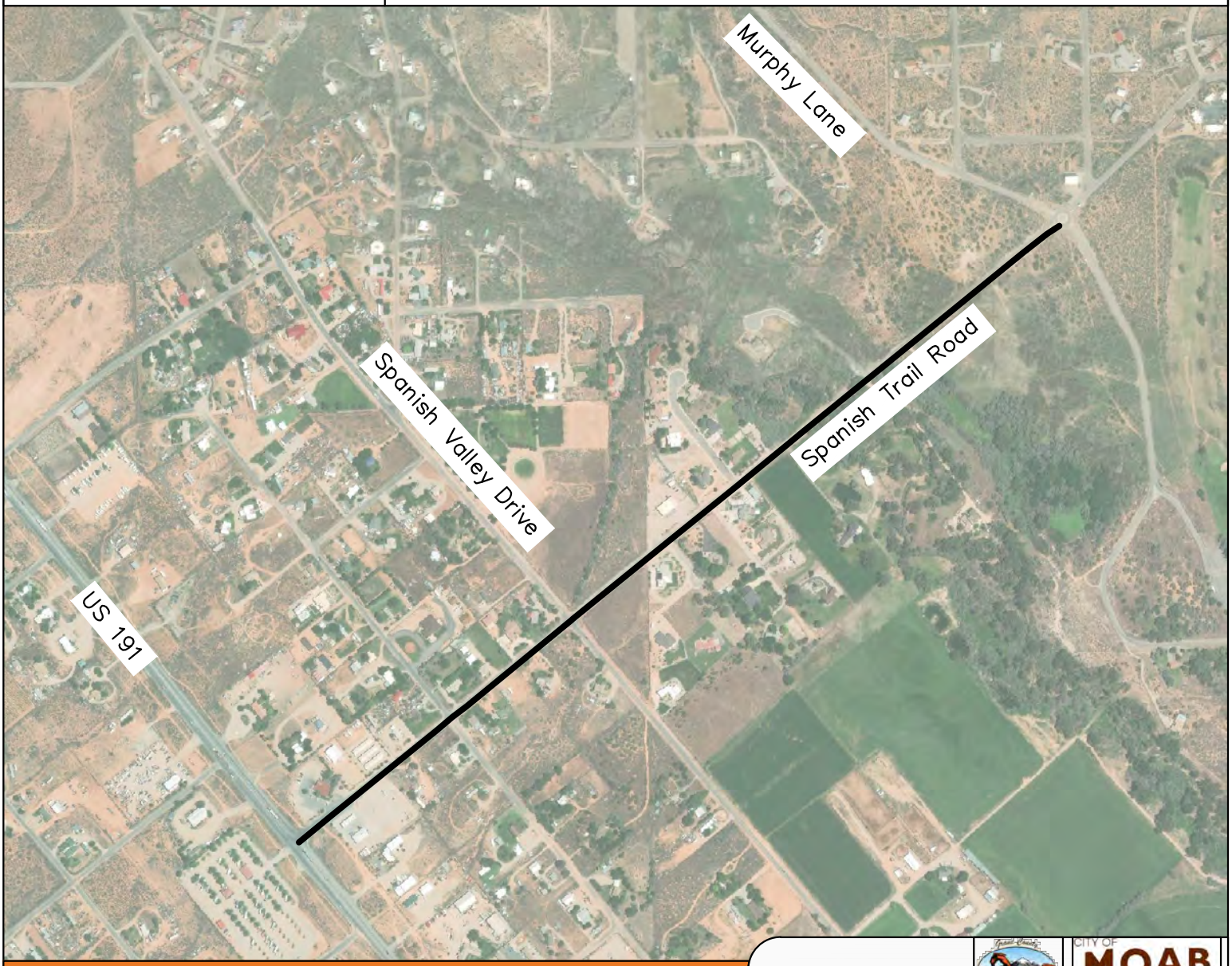
CITY OF MOAB UTAH

Project Number: R Plan 3

UTMP Project Information Sheet

Spanish Trail Road

Project Name	Spanish Trail Road
Project Category	Roadway Planning Assessment
Project Description	Conduct an assessment of capacity and multimodal improvements to Spanish Trail Road from US 191 to Murphy Lane
Project Length	0.95 mi.
Jurisdiction	County
Planning Horizon	Off the shelf
Cost Estimate	$100,000
Priority	Medium
Other Notes	



Project Number: R Plan 4

Appendix G. Project Prioritization Information

Category Weighting	
Prioritization Category	**Percentage**
Safety	28.0%
Livability and Economic Growth	15.0%
Operational Efficiency	17.5%
Implementation	17.5%
Preservation and Resiliency	10.0%
Public and TAC Input	12.0%
Total	**100%**

Safety Weighting		Roadway Projects	Active Transportation
Fatal/Serious Injury Crash Weight		Number of crashes, normalized to 0-1	*REMOVED FOR AT PROJECT EVALUATION*
Minor/Possible Injury Crash Weight		Number of crashes, normalized to 0-1	*REMOVED FOR AT PROJECT EVALUATION*
Property Damage/Unknown Crash Weight		Number of crashes, normalized to 0-1	*REMOVED FOR AT PROJECT EVALUATION*
Bicycle Crash Weight		*REMOVED FOR ROADWAY PROJECT EVALUTION*	Number of crashes, normalized to 0-1
Pedestrian Crash Weight		*REMOVED FOR ROADWAY PROJECT EVALUTION*	Number of crashes, normalized to 0-1
Proactive Perceived Safety Benefit		Mixed-Traffic (1), Designated (2), Protected (3): Normalized to 1	Mixed-Traffic (1), Designated (2), Protected (3): Normalized to 1

Livability and Economic Growth Weighting			
Mixed-Use Connectivity		Yes (1), No (0)	Yes (1), No (0)
Primarily Serves Commuters		Yes (1), No (0)	Yes (1), No (0)
Transit-Supportive		Yes (1), No (0)	Yes (1), No (0)

Operational Efficiency Weighting			
Connectivity (Gap, Multimodal)		Yes (1), No (0)	Yes (1), No (0)
Current ADT		ADT, normalized to 0-1	ADT, normalized to 0-1
Future ADT		ADT, normalized to 0-1	ADT, normalized to 0-1
Functional Classification		1 (local) - 5 (arterial), normalized	*REMOVED FOR AT PROJECT EVALUATION*

Implementation Weighting			
Funding		None (0), Known Funding Partners (1), Funded (2) : Normalized to 1	None (0), Known Funding Partners (1), Funded (2) : Normalized to 1
Project Implementation Readiness		Off the Shelf (3), Near (1-6 years) 2, Mid (7-12 years) 1, Long (13+ years) (0): Normalized to 1	Off the Shelf (3), Near (1-6 years) 2, Mid (7-12 years) 1, Long (13+ years) (0): Normalized to 1

Preservation and Resiliency Weighting			
Known High-Maintenance Intensity Area		Yes (1), No (0)	Yes (1), No (0)
Green Infrastructure		Yes (1), No (0)	Yes (1), No (0)

Community and TAC Priority Weighting			
Public Priority		Low (1), Medium (2), High (3); Normalized to 1	Low (1), Medium (2), High (3); Normalized to 1
TAC/Stakeholder Priority		Low (1), Medium (2), High (3); Normalized to 1	Low (1), Medium (2), High (3); Normalized to 1

Project Number						Safety			Livability and Economic Growth			Operational Efficiency		
Project Number	Project Type	Primary Route	From	To	Project Description	Bicycle Crashes	Pedestrian Crashes	Proactive Perceived Safety Benefit	Mixed-Use Connectivity	Primarily Serves Commuters	Transit-Supportive	Connectivity (gap, multimodal)	Current ADT	Forecasted (2040) ADT
Instructions:	Choose from Dropdown					# of crashes (total of the most recent 5-years, currently	# of crashes (total of the most recent 5-years, currently	Choose from Dropdown	Choose from Dropdown	Choose from Dropdown	Choose from Dropdown	Choose from Dropdown	Enter ADT	Enter Future ADT
AT1	Pedestrian Facilities	US 191	Fourth East	Bittle Lane	Construct new sidewalk to connect existing gap along US 191 from Fourth East to Bittle Lane	0	0	Designated (i.e. Bike Lane, Sidewalk, etc.)	Yes	Yes	Yes	Yes	16646	24251
AT2	Pedestrian Facilities	US 191/Dogwood	-	-	Construct enhanced pedestrian crossing on US 191 near Dogwood Avenue (Pedestrian Hybrid Beacon/"HAWK" crossing)	1	1	Designated (i.e. Bike Lane, Sidewalk, etc.)	Yes	Yes	Yes	Yes	19768	28798
AT3	Pedestrian Facilities	Millcreek Drive	Spanish Valley Drive	Lasal Road	Construct sidewalk where missing on Millcreek Drive, Spanish Valley Drive to bridge north of Lasal Road	0	0	Designated (i.e. Bike Lane, Sidewalk, etc.)	Yes	Yes	No	Yes	4013	5846
AT4	Pedestrian Facilities	Holyoak	Millcreek Drive	Wagner Avenue	Construct sidewalk along Holyoak Lane from Mill Creek Drive to Wagner Avenue	1	0	Designated (i.e. Bike Lane, Sidewalk, etc.)	Yes	Yes	No	Yes	1500	2142
AT5	Pedestrian Facilities	US 191/Millcreek Drive/Aggie Boulevard	-	-	Construct tunnel at US 191 and Millcreek Drive/Aggie Boulevard intersection to cross US 191	0	0	Protected (Separated Facility)	Yes	Yes	Yes	Yes	16646	24251
AT6	Bicycle Facilities	100 E	200 North	Uranium Avenue	Install bicycle lane pavement markings on 100 East from 200 North to Millcreek Trail and on to City Market	0	0	Designated (i.e. Bike Lane, Sidewalk, etc.)	Yes	Yes	Yes	Yes	2081	3032
AT7	Bicycle Facilities	Kane Creek Boulevard	500 West	e Creek Recreation Par	Construct paved shoulders (for use by bicyclists) on Kane Creek Boulevard from 500 West to Kane Creek Recreation Parking (end of pavement)	0	0	Designated (i.e. Bike Lane, Sidewalk, etc.)	No	No	No	No	1393	2030
AT8	Bicycle Facilities	Kane Creek Boulevard	US 191	500 West	Stripe bicycle lanes and construct paved shoulders (if needed) on Kane Creek Boulevard from US 191 to 500 West	0	0	Designated (i.e. Bike Lane, Sidewalk, etc.)	Yes	Yes	Yes	Yes	4654	6780
AT9	Bicycle Facilities	Murphy Lane	Millcreek Drive	Spanish Trail Road	Construct paved shoulders (for use by bicyclists) on Murphy Lane from Millcreek Drive to Spanish Trail Road	0	0	Designated (i.e. Bike Lane, Sidewalk, etc.)	Yes	Yes	No	No	1970	2870
AT10	Shared-Use Paths	Pack Creek	US 191	Kane Creek Boulevard	Construct a shared use path that connects the pedestrian hybrid beacon on US 191 at City Market crossing Pack Creek to Kane Creek Boulevard and north to 300 South. Also a connection to 100 West.	1	1	Protected (Separated Facility)	Yes	Yes	Yes	Yes	19768	28798
AT11	Shared-Use Paths	Colorado River	Grandstaff Canyon	Goose Island	Construct shared use path along Colorado River between Grandstaff Canyon and Goose Island (existing gap)	0	0	Protected (Separated Facility)	No	No	No	Yes	1144	1667
AT12	Shared-Use Paths	Spanish Valley Drive	Millcreek Drive	South County Line	Construct a shared use path on Spanish Valley Drive from Millcreek Drive to South County line	0	0	Protected (Separated Facility)	Yes	Yes	No	No	2047	2982
AT13	Shared-Use Paths	Millcreek Canyon	Area connections		Construct trail connections to Mill Creek Canyon Trailhead (Powerhouse Lane) to Pack Creek and/or Millcreek pathways	0	0	Protected (Separated Facility)	No	No	No	Yes	4013	5846
AT14	Shared-Use Paths	Sand Flats Road	Lionshead development	400 East	Construct pedestrian and bicycle facilities to connect Sand Flats Recreation to downtown.	0	1	Protected (Separated Facility)	Yes	No	No	No	2256	3287
AT15	Shared-Use Paths	Sand Flats Road	Fee Booth	Porcupine Rim Trailhead	Construct shared-use path from Sand Flats Road Access to Porcupine Rim Trailhead	0	0	Protected (Separated Facility)	No	No	No	No	1176	1713
AT16	Shared-Use Paths	San Miguel	San Miguel	Millcreek Drive	Construct a connection between San Miguel north to path over Pack Creek, eventually connecting to Millcreek Drive	0	0	Protected (Separated Facility)	No	Yes	No	Yes	4013	5846

Project Number						Implementation		Preservation and Resiliency		ommunity and TAC Priorit		*Project Prioritization Score*	*Rank*
Project Number	**Project Type**	**Primary Route**	**From**	**To**	**Project Description**	**Funding**	**Project Implementation Readiness**	**Known High-Maintenance Intensity Area**	**Green Infrastructure**	**Public Priority**	**TAC Priority**		
Instructions:	**Choose from Dropdown**					**Choose from Dropdown**	**Choose from Dropdown**	**Choose from Dropdown**	**Choose from Dropdown**	**Choose from Dropdown**	**Choose from Dropdown**	*Formula Only - Don't Edit*	*Formula Only - Don't Edit*
AT1	Pedestrian Facilities	US 191	Fourth East	Bittle Lane	Construct new sidewalk to connect existing gap along US 191 from Fourth East to Bittle Lane	Known Funding Partners	Near (1-6 years)	No	Yes	Low	Low	***0.55***	4
AT2	Pedestrian Facilities	US 191/Dogwood	-	-	Construct enhanced pedestrian crossing on US 191 near Dogwood Avenue (Pedestrian Hybrid Beacon/"HAWK" crossing)	Known Funding Partners	Near (1-6 years)	No	No	High	High	***0.78***	2
AT3	Pedestrian Facilities	Millcreek Drive	Spanish Valley Drive	Lasal Road	Construct sidewalk where missing on Millcreek Drive, Spanish Valley Drive to bridge north of Lasal Road	Known Funding Partners	Mid (7-12 years)	No	Yes	Low	High	***0.43***	9
AT4	Pedestrian Facilities	Holyoak	Millcreek Drive	Wagner Avenue	Construct sidewalk along Holyoak Lane from Mill Creek Drive to Wagner Avenue	Known Funding Partners	Mid (7-12 years)	No	Yes	Low	Low	***0.47***	6
AT5	Pedestrian Facilities	US 191/Millcreek Drive/Aggie Boulevard	-	-	Construct tunnel at US 191 and Millcreek Drive/Aggie Boulevard intersection to cross US 191	Known Funding Partners	Long (13+ years)	No	Yes	Low	Medium	***0.55***	3
AT6	Bicycle Facilities	100 E	200 North	Uranium Avenue	Install bicycle lane pavement markings on 100 East from 200 North to Millcreek Trail and on to City Market	None	Near (1-6 years)	No	No	Low	High	***0.41***	10
AT7	Bicycle Facilities	Kane Creek Boulevard	500 West	e Creek Recreation Parl	Construct paved shoulders (for use by bicyclists) on Kane Creek Boulevard from 500 West to Kane Creek Recreation Parking (end of pavement)	Known Funding Partners	Long (13+ years)	Yes	No	Low	High	***0.23***	14
AT8	Bicycle Facilities	Kane Creek Boulevard	US 191	500 West	Stripe bicycle lanes and construct paved shoulders (if needed) on Kane Creek Boulevard from US 191 to 500 West	Known Funding Partners	Mid (7-12 years)	Yes	No	Low	Medium	***0.47***	7
AT9	Bicycle Facilities	Murphy Lane	Millcreek Drive	Spanish Trail Road	Construct paved shoulders (for use by bicyclists) on Murphy Lane from Millcreek Drive to Spanish Trail Road	None	Mid (7-12 years)	No	Yes	Low	Low	***0.28***	13
AT10	Shared-Use Paths	Pack Creek	US 191	Kane Creek Boulevard	Construct a shared use path that connects the pedestrian hybrid beacon on US 191 at City Market crossing Pack Creek to Kane Creek Boulevard and north to 300 South. Also a connection to 100 West.	Known Funding Partners	Mid (7-12 years)	No	No	High	High	***0.80***	1
AT11	Shared-Use Paths	Colorado River	Grandstaff Canyon	Goose Island	Construct shared use path along Colorado River between Grandstaff Canyon and Goose Island (existing gap)	Known Funding Partners	Off the Shelf	No	No	Low	High	***0.37***	11
AT12	Shared-Use Paths	Spanish Valley Drive	Millcreek Drive	South County Line	Construct a shared use path on Spanish Valley Drive from Millcreek Drive to South County line	Known Funding Partners	Off the Shelf	No	Yes	High	High	***0.51***	5
AT13	Shared-Use Paths	Millcreek Canyon	Area connections		Construct trail connections to Mill Creek Canyon Trailhead (Powerhouse Lane) to Pack Creek and/or Millcreek pathways	None	Long (13+ years)	No	No	Low	Low	***0.22***	15
AT14	Shared-Use Paths	Sand Flats Road	Lionshead development	400 East	Construct pedestrian and bicycle facilities to connect Sand Flats Recreation to downtown.	Known Funding Partners	Near (1-6 years)	No	Yes	Low	Low	***0.44***	8
AT15	Shared-Use Paths	Sand Flats Road	Fee Booth	Porcupine Rim Trailhead	Construct shared-use path from Sand Flats Road Access to Porcupine Rim Trailhead	Known Funding Partners	Long (13+ years)	No	No	Low	Low	***0.18***	16
AT16	Shared-Use Paths	San Miguel	San Miguel	Millcreek Drive	Construct a connection between San Miguel north to path over Pack Creek, eventually connecting to Millcreek Drive	None	Mid (7-12 years)	No	Yes	Low	Medium	***0.36***	12

Project Number							Safety				Livability and Economic Growth			Operational Efficiency			
Project Number	Project Type	Primary Route	From	To	Project Description	Planning Level Cost (2022)	Fatal Crashes	Injury Crashes	PDO Crashes	Proactive Perceived Safety Benefit	Mixed-Use Connectivity	Primarily Serves Commuters	Transit-Supportive	Connectivity (gap, multimodal)	Current ADT	Forecasted (2040) ADT	Functional Classification
Instructions:	Choose from Dropdown					Estimate	# of crashes (total of the most recent 5-years, currently 2017-2021)	# of crashes (total of the most recent 5-years, currently 2017-2021)	# of crashes (total of the most recent 5-years, currently 2017-2021)	Choose from Dropdown	Choose from Dropdown	Choose from Dropdown	Choose from Dropdown	Choose from Dropdown	Enter ADT	Enter Future ADT	Choose from Dropdown
R1	Roadway Connection	Park Drive	Opal Avenue	Park Road	Construct street connection and sidewalk of Park Drive, Opal Avenue to Park Road	$ 180,000	0	1	2	Designated (i.e. Bike Lane, Sidewalk, etc.)	No	Yes	No	Yes	203	290	Local/Other
R2	Roadway Connection	Walnut Lane	Walnut Lane	ard Park Lane (Hospital	Construct street connection and sidewalk of Walnut Lane to Orchard Park Lane (Hospital Road)	$ 60,000	0	0	2	Designated (i.e. Bike Lane, Sidewalk, etc.)	Yes	Yes	No	Yes	769	1098	Local/Other
R3	Roadway Connection	New Route	Spanish Valley Drive	US 191	Construct new east-west street connection between Spanish Valley Drive and US 191 near Beeman Road	$ 2,560,000	0	2	7	Designated (i.e. Bike Lane, Sidewalk, etc.)	No	Yes	No	Yes	2000	2856	Minor Collector
R4	Intersection Control	Millcreek Drive/Aggie Boulevard and US 191	-	-	Construct traffic signal at Aggie Boulevard/Millcreek Drive and US 191 intersection	$ 650,000	0	2	5	Mixed-Traffic (i.e. Sharrows, etc.)	No	Yes	No	No	16646	24251	Principal Arterial
R5	Intersection Control	Meador Drive and US 191	-	-	Construct traffic signal at Meador Drive and US 191 intersection	$ 775,000	0	1	3	Mixed-Traffic (i.e. Sharrows, etc.)	No	Yes	No	No	8115	11822	Principal Arterial
R6	Intersection Control	200 North and US 191	-	-	Construct traffic signal at US 191 at 200 North intersection	$ 650,000	0	3	7	Mixed-Traffic (i.e. Sharrows, etc.)	Yes	Yes	Yes	Yes	15606	22735	Principal Arterial
R7	Roadway Improvement	Moab Boat Dock Road and US 191	-	-	Identify and construct safety improvements to Moab Boat Dock Road intersection at US 191	$50,000-$200,0	0	1	2	Designated (i.e. Bike Lane, Sidewalk, etc.)	No	No	No	No	14566	21219	Principal Arterial
R8	Roadway Improvement	Gemini Bridges Access and US 191	-	-	Realignment of access roads on US 191 at Gemini Bridges and Bar M (AKA Old Highway, Moab Canyon)	$ 325,000	0	0	0	Mixed-Traffic (i.e. Sharrows, etc.)	No	Yes	No	No	9260	13489	Principal Arterial
R9	Roadway Improvement	Sand Flats Road	Sand Flats Road Access	Porcupine Rim Trailhead	Roadway improvement (paving) on Sand Flats Road from Sand Flats Road Access to Porcupine Rim Trailhead	$ 30,000,000	0	4	2	Designated (i.e. Bike Lane, Sidewalk, etc.)	No	No	No	No	1176	1713	Minor Collector
R10	Roadway Improvement	Kane Creek Boulevard	US 191	e Creek Recreation Par	Reconstruct and widen Kane Creek Boulevard from US 191 to Kane Creek Recreation Parking; Including intersection improvements to Kane Creek Boulevard and 500 West	$ 100,000	1	7	11	Designated (i.e. Bike Lane, Sidewalk, etc.)	Yes	No	No	No	4654	6780	Major Collector

Project Number							Implementation		Preservation and Resiliency		Community and TAC Priorit			
Project Number	**Project Type**	**Primary Route**	**From**	**To**	**Project Description**	**Planning Level Cost (2022)**	**Funding**	**Project Implementation Readiness**	**Known High-Maintenance Intensity Area**	**Green Infrastructure**	**Public Priority**	**TAC Priority**	***Project Prioritization Score***	***Rank***
Instructions:	**Choose from Dropdown**					**Estimate**	**Choose from Dropdown**	**Choose from Dropdown**	**Choose from Dropdown**	**Choose from Dropdown**	**Choose from Dropdown**	**Choose from Dropdown**	*Formula Only - Don't Edit*	*Formula Only - Don't Edit*
R1	Roadway Connection	Park Drive	Opal Avenue	Park Road	Construct street connection and sidewalk of Park Drive, Opal Avenue to Park Road	$ 180,000	None	Mid (7-12 years)	No	No	Low	Low	***0.2004***	***9***
R2	Roadway Connection	Walnut Lane	Walnut Lane	ard Park Lane (Hospital	Construct street connection and sidewalk of Walnut Lane to Orchard Park Lane (Hospital Road)	$ 60,000	None	Mid (7-12 years)	No	No	Low	Medium	***0.2720***	***6***
R3	Roadway Connection	New Route	Spanish Valley Drive	US 191	Construct new east-west street connection between Spanish Valley Drive and US 191 near Beeman Road	$ 2,560,000	None	Mid (7-12 years)	No	No	Medium	Medium	***0.2622***	***8***
R4	Intersection Control	Millcreek Drive/Aggie Boulevard and US 191	-	-	Construct traffic signal at Aggie Boulevard/Millcreek Drive and US 191 intersection	$ 650,000	Known Funding Partners	Near (1-6 years)	No	No	Low	Medium	***0.3462***	***4***
R5	Intersection Control	Meador Drive and US 191	-	-	Construct traffic signal at Meador Drive and US 191 intersection	$ 775,000	Known Funding Partners	Mid (7-12 years)	No	No	Low	Medium	***0.2708***	***7***
R6	Intersection Control	200 North and US 191	-	-	Construct traffic signal at US 191 at 200 North intersection	$ 650,000	Known Funding Partners	Near (1-6 years)	No	No	High	Medium	***0.5259***	***1***
R7	Roadway Improvement	Moab Boat Dock Road and US 191	-	-	Identify and construct safety improvements to Moab Boat Dock Road intersection at US 191	$50,000-$200,0	Known Funding Partners	Near (1-6 years)	No	No	High	High	***0.3788***	***3***
R8	Roadway Improvement	Gemini Bridges Access and US 191	-	-	Realignment of access roads on US 191 at Gemini Bridges and Bar M (AKA Old Highway, Moab Canyon)	$ 325,000	Known Funding Partners	Mid (7-12 years)	No	No	Low	Medium	***0.2753***	***5***
R9	Roadway Improvement	Sand Flats Road	Sand Flats Road Access	Porcupine Rim Trailhead	Roadway improvement (paving) on Sand Flats Road from Sand Flats Road Access to Porcupine Rim Trailhead	$ 30,000,000	None	Long (13+ years)	No	No	Low	Low	***0.0976***	***10***
R10	Roadway Improvement	Kane Creek Boulevard	US 191	e Creek Recreation Par	Reconstruct and widen Kane Creek Boulevard from US 191 to Kane Creek Recreation Parking; Including intersection improvements to Kane Creek Boulevard and 500 West	$ 20,000,000	Known Funding Partners	Long (13+ years)	Yes	No	Low	High	***0.5151***	***2***