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TRANSPORTATION MASTER PLAN

Moving Home

Hildale City

2023

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Overview

Hildale City's Transportation Master Plan is a comprehensive document that sets out the city's long-term vision for its transportation infrastructure. The plan is designed to provide a roadmap for improving transportation in the city, while promoting safety, sustainability, and accessibility.

The Transportation Master Plan has been developed through a collaborative process that engages city officials, transportation professionals, and community members. The plan considered a range of transportation modes, including automobiles, bicycles, pedestrians, and public transit, and will address issues such as traffic congestion, safety, and environmental sustainability.

The plan is based on a thorough analysis of existing transportation infrastructure, as well as an assessment of future transportation needs based on population growth, land use changes, and other factors. The plan will also incorporate innovative transportation solutions, such as shared mobility services and autonomous vehicles.

The Transportation Master Plan includes a variety of recommendations and strategies to improve transportation in Hildale City, ranging from enhancements to pedestrian and bicycle infrastructure to improvements in public transit service. The plan also includes a comprehensive implementation strategy to ensure that its recommendations are effectively executed over time.

Overall, the Transportation Master Plan serves as a critical tool for promoting the continued growth and development of Hildale City, while improving transportation options and accessibility for its residents, businesses, and visitors.

Transportation Assessment

Transportation Assessment

Hildale's existing transportation is primarily designed to accommodate motor vehicle traffic. There is one freeway, two rural arterial roads, three collector roads and [##] local roads inside Hildale city. The freeway, arterial, and collector roads are generally fully paved either with asphalt, concrete or well-maintained gravel chip seal while local roads are [##%] unimproved, and [##%] improved.

Resident Transportation

The vast majority of Hildale residents utilize motor vehicle transportation as their primary mode of transportation. This is primarily due to the distance between places of work, recreation, school, services and home.

Active Transportation

There are no active transportation routes in Hildale. There are many residents who walk, ride bikes and utilize OHV/ATV transportation on Hildale's roadways.

Pedestrian Transportation

Hildale has successfully implemented two years of Safe Routes to School and is about to finish a third route which will increase sidewalks on [##%] of Hildale's collector streets. However, due to the rural nature of the city, there was no overall plan to construct sidewalks or pedestrian-friendly infrastructure in the city. The result is a patchwork of sidewalks on various homes.

Highway Access

Access to SR-59 is primarily through the rural arterial road Utah Avenue, while small local roads like Field Avenue as well as some unofficial accesses exist. Currently, Hildale city believes that access to the highway is insufficient and presents serious safety risks primarily due to the high speeds from highway drivers and intersections that were designed for far less traffic than now exists.

Colorado City

Hildale and Colorado City share a Public Works Department which has responsibility for streets & roads maintenance. Additionally, there are two collector streets (Richard & Hildale) which share access between the cities and Central Street is the arterial road which connects both communities. Additionally, Colorado City shares UZONA, a street which moves along the state line and includes both improved and unimproved surfaces. Finally there are [#] local roads which cross between communities, all intersections occur on UZONA.

Recreation Roads and Trails

Hildale City lies south of the Canaan Mountain Wilderness Area, federally protected wilderness, and many of the roadways leading to recreation sites and trails are administered by the Bureau of Land Management. Principally, accessed to Water Canyon in the North East of Hildale is a BLM road.

Roadway Sustainability Assessment

Improved Roads- Tar Surfaced

The Public Works Department estimates that Tar Roadway replacement should be considered anywhere from 15 to 20 years after installation, dependent on road conditions at the time.

Chip-sealed roads should be considered for replacement between 10 to 15 years.

Non-Improved Roads

Nonimproved roadways that are primarily gravel or dirt need regular maintenance and repair especially after inclement weather.

Prescriptive Roads

Within Hildale's municipal boundary, there are multiple prescriptive roads that are maintained by our public works department. These vary in type, and location with many coming as a result of the Short Creek Subdivision. Currently, the City maintains these roads in order to preserve access by the public, but generally does not improve them above their current condition.

Transportation Master Plan

The Transportation Master Plan is the overall policy and prescription of how Hildale City intends to develop its street, and roadway infrastructure to serve our residents and visitors alike. The TMP will consist of the following projects and/or policies:

1. Roadway Refurbish and Replacement Plan
2. Active Transportation Development Policy
3. Highway Expansion and Development
4. Active Transportation and Improvement Block Plan
5. Highway Redevelopment and Rerouting

Roadway Refurbish and Replacement Plan

Hildale City's roadway refurbish and replacement plan is a comprehensive strategy aimed at improving the quality and longevity of the city's roads. This plan involves dedicating annual financial resources to maintaining and replacing the existing road network to ensure the safe and efficient movement of people and goods within the city.

The first step in this plan is to compile the data of the existing road network to identify areas that require refurbishment or replacement. This assessment will take into account factors such as traffic volumes, road condition, and the expected lifespan of the road surface.

To ensure that the plan is executed successfully, the city will dedicate annual financial resources towards maintaining and replacing roads. This funding will be included in the city's annual budget and will be used to cover the costs of road repairs, resurfacing, and reconstruction.

The city will continue its proactive maintenance program aimed at preventing road deterioration and extending the life of existing roads. This program includes activities such as crack sealing, pothole repairs, and regular pavement inspections.

Finally, the city will continue to work with contractors and engineers to ensure that all road refurbishment and replacement projects are completed on time and within budget. This will involve regular monitoring and oversight to ensure that work is progressing according to plan and that quality standards are being met.

Overall, Hildale City's roadway refurbish and replacement plan is a proactive and comprehensive strategy aimed at ensuring the safety, efficiency, and longevity of the city's road network. By dedicating annual financial resources to this plan, the city is making a long-term investment in the well-being of its citizens and the future of the city.

Dirt Roadways

Streets	Sum of Square Feet	Maintenance Cost
E GOVERNMENT AVE	9895.896	$ 989.59
E WILLIAMS AVE	8269.776	$ 826.98
N 620 EAST	6956.208	$ 695.62
N BOX ELDER ST	37441.7	$ 3,744.17
N COTTONWOOD ST	23781.114	$ 2,378.11
N ELM ST	24857.74	$ 2,485.77
N MAPLE ST	12699.76	$ 1,269.98
N MULBERRY ST	4335.98	$ 433.60
N PINION ST	7639.428	$ 763.94
N REDWOOD ST	7669.464	$ 766.95
N WATER CANYON RD	78935.968	$ 7,893.60
W JESSOP AVE	79215.7	$ 7,921.57
W NEWEL AVE	26144.98	$ 2,614.50
W UTAH AVE	12813.34	$ 1,281.33
Total		$ 34,065.71

Gravel Roadways

Streets	Sum of Square Feet	Replacement Cost	Annualized Cost
N BOX ELDER ST	12900.36	$ 6,450.18	$ 2,150.06
N ELM ST	12760.4	$ 6,380.20	$ 2,126.73
N HAMMON ST	10851.86	$ 5,425.93	$ 1,808.64
N HOMESTEAD ST	12121.22	$ 6,060.61	$ 2,020.20
N JUNIPER ST	12498.98	$ 6,249.49	$ 2,083.16
N LOUIS ST	4016.752	$ 2,008.38	$ 669.46
N REDWOOD ST	7986.492	$ 3,993.25	$ 1,331.08
N WILLOW ST	24829.72	$ 12,414.86	$ 4,138.29
W FIELD AVE	41829	$ 20,914.50	$ 6,971.50
W NEWEL AVE	75120.96	$ 37,560.48	$ 12,520.16
Total		$ 107,457.87	$ 35,819.29

Asphalt Roadways

Streets	Sum of Square Feet	Replacement Cost	Annualized Cost
N CARLING ST	25,088.40	$ 200,707.20	$ 8,028.29
W UZONA AVE	11,090.32	$ 88,722.56	$ 3,548.90
Total		$ 289,429.76	$ 11,577.19

Chip Sealed Roadways

Streets	Sum of Square Feet	Replacement Cost	Annual Cost of Replacement
E JESSOP AVE	40,434.22	$ 161,736.88	$ 10,782.46
E NEWEL AVE	26,896.84	$ 107,587.36	$ 7,172.49
E UTAH AVE	59,601.94	$ 238,407.76	$ 15,893.85
N CANYON ST	71,555.04	$ 286,220.16	$ 19,081.34
N CARLING ST	42,391.44	$ 169,565.76	$ 11,304.38
N CENTRAL ST	23,516.70	$ 94,066.80	$ 6,271.12
N ELM ST	13,325.04	$ 53,300.16	$ 3,553.34
N HILDALE ST	38,098.70	$ 152,394.80	$ 10,159.65
N JUNIPER ST	38,227.66	$ 152,910.64	$ 10,194.04
N LAURITZEN ST	24,806.92	$ 99,227.68	$ 6,615.18
N MAPLE ST	25,969.80	$ 103,879.20	$ 6,925.28
N MAXWELL PKWY	50,210.52	$ 200,842.08	$ 13,389.47
N MEMORIAL ST	26,956.02	$ 107,824.08	$ 7,188.27
N MULBERRY ST	37,590.84	$ 150,363.36	$ 10,024.22
N PINION ST	24,454.62	$ 97,818.48	$ 6,521.23
N RICHARD ST	24,776.48	$ 99,105.92	$ 6,607.06
N WESTERN PRECISION PKWY	13,352.78	$ 53,411.12	$ 3,560.74
W FIELD AVE	143,112.78	$ 572,451.12	$ 38,163.41
W UTAH AVE	100,068.90	$ 400,275.60	$ 26,685.04
W UZONA AVE	37,046.74	$ 148,186.96	$ 9,879.13
Total		$ 3,449,575.92	$ 229,971.73

[insert appendix roadway plan]

Active Transportation Plan

Active transportation refers to any form of human-powered transportation, such as walking, cycling, or using a wheelchair, as a means of getting from one place to another. This type of transportation is increasingly being recognized as a key component of sustainable and healthy transportation systems, as it can provide numerous benefits to individuals, communities, and the environment.

The following are some key concepts related to active transportation:

1. Accessibility: Active transportation can help to improve accessibility for people who may not have access to a car or public transit, or for those who prefer not to use them. This can include people with disabilities, seniors, and children.
2. Health and Wellness: Active transportation can have significant health benefits, including improving cardiovascular health, reducing the risk of chronic diseases such as diabetes and obesity, and reducing stress and anxiety.
3. Sustainability: Active transportation is considered to be a sustainable mode of transportation as it does not rely on fossil fuels, which reduces greenhouse gas emissions and air pollution. This can help to mitigate the negative effects of climate change.
4. Economic Health: Active transportation can help to promote economic health by providing affordable and accessible transportation options to everyone, regardless of income, age, or ability. This can help to reduce transportation-related disparities and improve social inclusion.
5. Land Use and Urban Design: Active transportation can influence the design and development of cities and communities, as it promotes compact, walkable, and bikeable environments that support a range of land uses and activities.
6. Safety: Active transportation can sometimes be associated with safety concerns, such as accidents involving pedestrians or cyclists. However, there are many strategies that can be implemented to

improve safety, such as improving infrastructure, reducing speeds, and increasing awareness and education.

Overall, active transportation can provide many benefits to individuals and communities, and is an important component of sustainable and healthy transportation systems.

Hildale's Active Transportation

Hildale plans to adopt ordinances, and policies which will encourage the development of active transportation. Specifically based on is street classifications.

Sidewalks

Sidewalks that are compliant with the Americans with Disabilities Act (ADA) will be installed on ALL improved streets, and roads.

Improved Streets & Roads	Sum of Length (ft)	Average of S_SURFWIDT
N CARLING ST	1254.42	20
W UZONA AVE	693.145	16
E JESSOP AVE	2021.711	20
E NEWEL AVE	1344.842	20
E UTAH AVE	2980.097	20
N CANYON ST	3577.752	20
N CARLING ST	2119.572	20
N CENTRAL ST	1175.835	20
N ELM ST	666.252	20
N HILDALE ST	1904.935	20
N JUNIPER ST	1911.383	20
N LAURITZEN ST	1240.346	20
N MAPLE ST	1298.49	20
N MAXWELL PKWY	3962.786	14.6
N MEMORIAL ST	1347.801	20
N MULBERRY ST	1879.542	20
N PINION ST	1222.731	20
N RICHARD ST	1238.824	20
N WESTERN PRECISION PKWY	667.639	20
W FIELD AVE	7155.639	20
W UTAH AVE	5003.445	20
W UZONA AVE	1852.337	20
TOTAL	**46,519.524**	**19.5**

Bicycle and OHV Lanes

Dedicated bicycle and OHV lanes will be installed on all **collector** and **arterial** streets.

Collector & Arterial Streets	Sum of Length (ft)	Average of S_SURFWIDT
W UTAH AVE	9627.313	20
N CANYON ST	4241.486	20
N CENTRAL ST	1175.835	20
N HILDALE FROM UTAH TO UZONA	1247.07	20
W FIELD AVE	9247.089	20
N CARLING ST	3373.992	20
N HILDALE ST	3152.007	20
E NEWEL AVE	1973.279	20
TOTAL	**34038.07**	**20**

Bicycle lanes will be roughly six (6) feet in width and demarcated by street markings and signs to alert both pedestrians and drivers.

These additions will rapidly improve the safety of riders of OHVs, ATVS and bicyclists alike, which should improve the accessibility of active transportations in these areas.

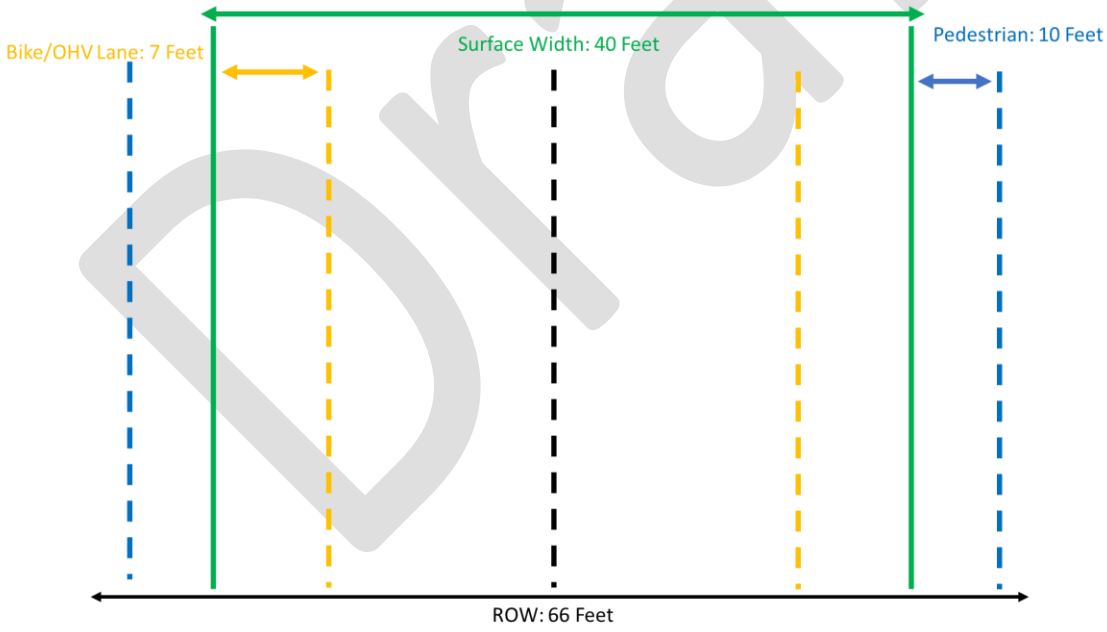


Figure 1 Active Transportation Street Design

Highway Expansion at State Route 59

As the number of vehicles on SR-59 and Utah Avenue increases, the need for wider passing lanes also increases. This is because more cars on the road mean more opportunities for slower-moving vehicles to impede the flow of traffic. When passing lanes are too narrow, it can increase the likelihood of accidents, particularly when vehicles are trying to pass one another. By widening the passing lanes, drivers have more room to maneuver, which can reduce the likelihood of collisions.

Narrow passing lanes can also lead to traffic backups, as slower-moving vehicles may be unable to move over to let faster-moving vehicles pass. By widening the passing lanes, traffic can flow more smoothly, reducing the risk of congestion and gridlock. Utah Avenue's intersection may also be a factor in the decision to widen SR-59's passing lanes. If vehicles are backing up at the intersection, it may be difficult for drivers to safely change lanes, increasing the risk of accidents. Widening the passing lanes can help alleviate congestion at the intersection and improve traffic flow overall.

Hildale intends to pursue the following process:

1. Hildale's engineering design will be provided to the Utah Department of Transportation who may require conducting traffic studies, and analyzing existing road conditions to determining the most effective and efficient design for the new lanes.
2. Applications for grant funding will be supplied to the Utah Department of Transportation's Commission for their approvals.
3. Construction: Once the planning and design phase is complete, construction can begin. This may involve widening the existing road, adding new lanes, and installing additional signage and markings.

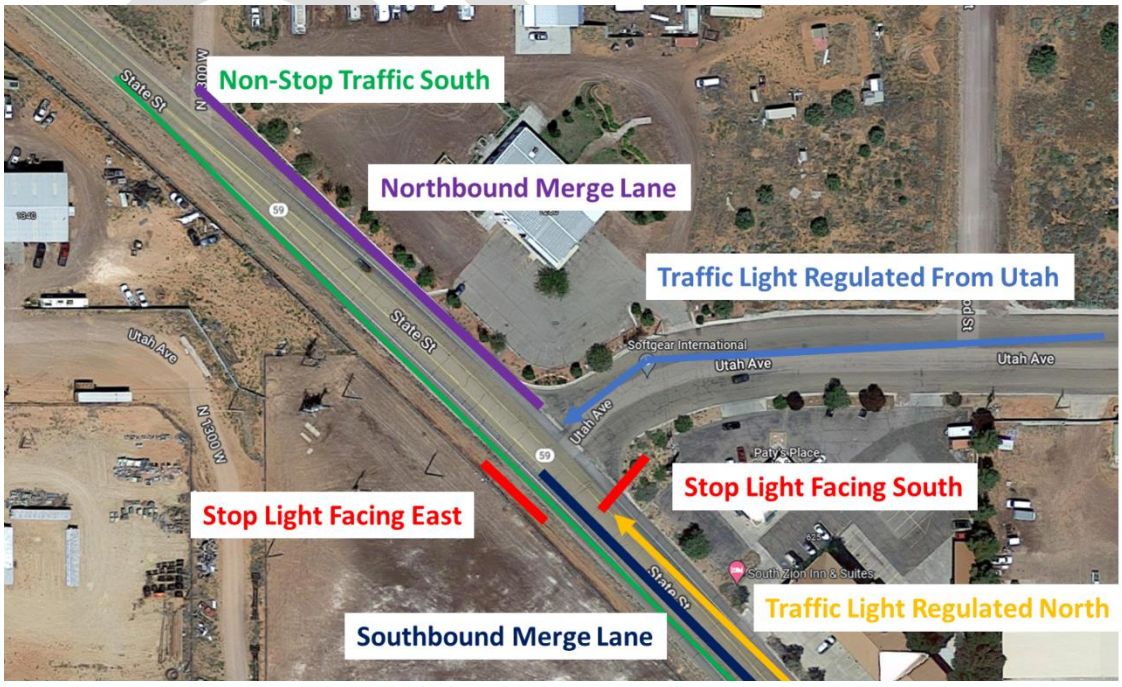


Figure 2 Concept of Intersection Widening

Highway Round-Abouts

Preferring the use of round abouts as a passive speed calming measure may be a cost-effective and community oriented solution. The following benefits are found through the installation of round-abouts:

1. Improved traffic flow: Roundabouts can help to reduce congestion and improve traffic flow by eliminating the need for traffic lights and stop signs. Vehicles can enter and exit the roundabout without stopping, which can help to reduce delays and improve travel times.
2. Increased safety: Roundabouts can also improve safety by reducing the likelihood of severe accidents. Studies have shown that roundabouts can reduce the number of accidents by up to 75% and the number of serious accidents by up to 90% compared to traditional intersections.
3. Reduced emissions and fuel consumption: Roundabouts can also help to reduce emissions and fuel consumption by reducing the amount of time vehicles spend idling at intersections. This can help to improve air quality and reduce carbon emissions.
4. Aesthetically pleasing: Roundabouts can be designed with landscaping and other aesthetic features, which can help to enhance the appearance of the surrounding area.
5. Pedestrian and bicycle-friendly: Roundabouts can also be designed to accommodate pedestrians and bicycles, which can help to improve safety and accessibility for non-motorized transportation users.

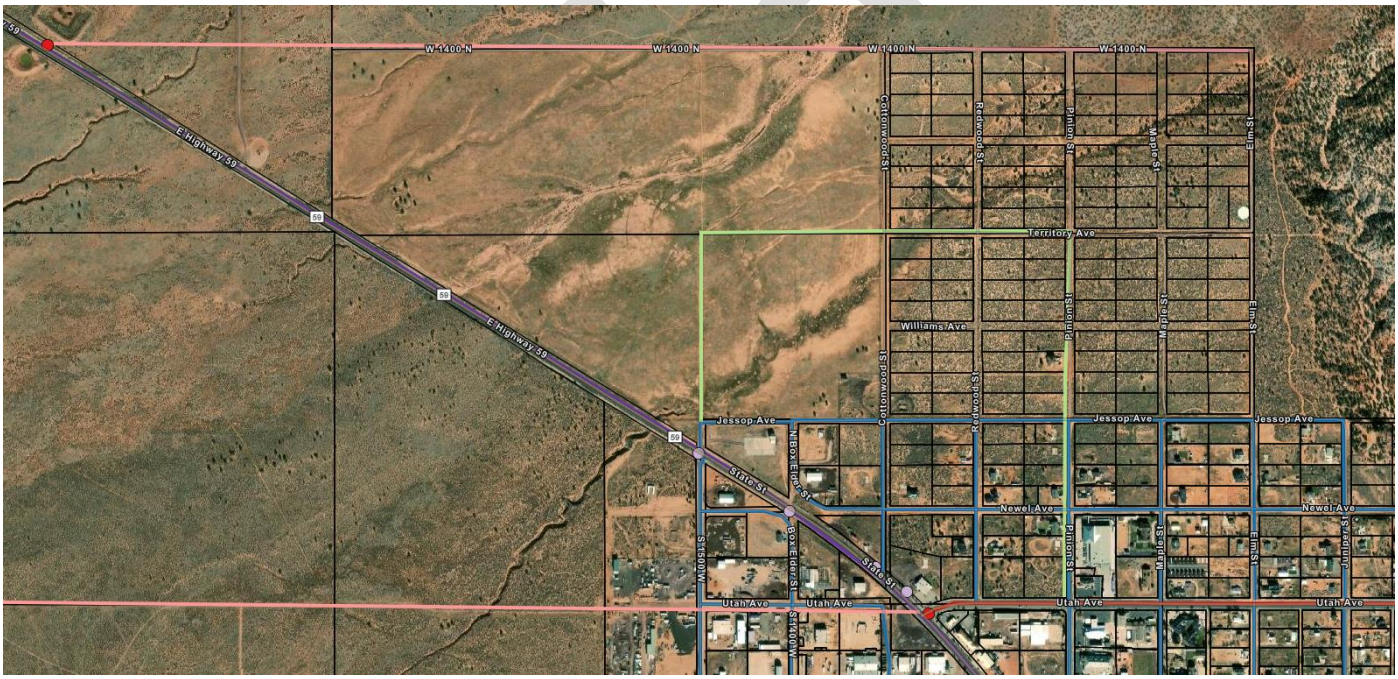


Figure 3 Round-Abouts Installation

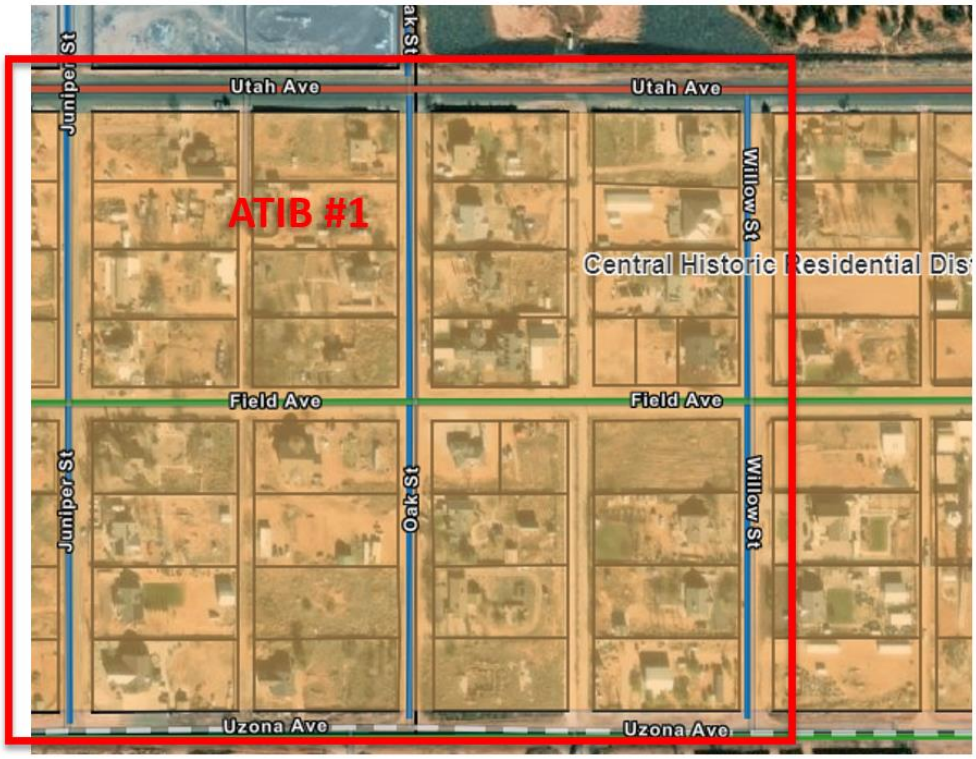
Active Transportation and Improvements Blocks (ATIB)

Hildale's ATIBs are marked areas within Hildale's existing Short Creek Subdivision that will be eligible to complete sidewalk, road and curb improvements in blocks. Using both grant funds and bonding through Special Assessment Areas, projects will be funded and completed in blocks.

[insert block developments]

Hildale will develop a blocked map for improvements based on economy of scale, financial ability of the city and the residents. With the aim to make annual payments by property owners reasonable.

ATIB Example



ATIB #1 Improvements:

- 21,120 feet of Curb, Gutter & Sidewalk: $168,960
- 10,560 feet of Asphalt Roadway: $563,200

Total Improvement Cost: $732,160

Financing

Hildale would seek a Special Assessment Area Municipal Bond with a term of 20 years at roughly 2.5% annual interest.

The annual cost to the residents: $46,965.96

Estimated annual cost to the individual resident: $1,341.

With improved density, that individual cost decreases dramatically.

ATIB Initiation

The City Council, the residents or the Planning Commission could instigate the process by either majority vote the said body or the property owners in the identified ATIB. The boundaries of the ATIB could be changed depending on the potential support within blocks of residents.

SR-59 & Highway 389 Re-route

An ambitious plan to re-route State Route-59 and Highway 389 to provide a business and express loop around the cities is possible within a 30 year timeline. One of the most significant benefits of rerouting a highway around a city is that it can reduce traffic congestion within the city. Traffic can flow more freely on the bypass, which can help reduce congestion and improve travel times. Additionally, rerouting a highway around a city can also improve safety. By taking traffic away from the city center, there are fewer chances for accidents and fewer opportunities for pedestrians and vehicles to collide.

Reducing traffic congestion can also have environmental benefits. When traffic flows more freely, there are fewer instances of idling vehicles, which can reduce air pollution and greenhouse gas emissions. Rerouting a highway around a city can also provide economic benefits. It can improve transportation links, making it easier for people and goods to move in and out of the city. This can attract businesses and boost the local economy. By rerouting a highway, city planners can also take the opportunity to rethink how the city is designed. The old highway route can be repurposed for other uses, such as a park or green space, improving the quality of life for city residents.

1. Conduct a feasibility study: The first step in re-routing State Route-59 around Hildale and Colorado City is to conduct a feasibility study. This study should identify potential alternative routes for the highway, assess the costs and benefits of each option, and evaluate the environmental impacts.
2. Engage with stakeholders: It is important to engage with local residents, businesses, and community organizations throughout the planning process. This will help to identify their needs and concerns and ensure that the new route accommodates their needs.
3. Secure funding: Re-routing State Route-59 will require significant funding. The project should be included in state and federal transportation budgets and grant proposals should be submitted to secure additional funding.
4. Design the new route: Once funding is secured, the new route should be designed with input from the community. The design should prioritize safety, accessibility, and convenience for residents and visitors.
5. Build the new route: Construction of the new route will likely take several years. The construction process should be managed carefully to minimize disruption to local residents and businesses.
6. Coordinate with local agencies: Coordination with local agencies, such as emergency services and utility companies, will be necessary throughout the planning and construction process. This will ensure that the new route is fully integrated with the existing infrastructure.