ACTIVE TRANSPORTATION IN UTAH

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Presentation Outline

1. What is going on with Active Transportation?



2. What is the state of AT planning and design?

3. What can I do for my community?

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Thomas McMurtry

TRANSPORTATION PLANNER & PROJECT MANAGER

20 years of Experience

22 successful Active Transportation Plans

MHTN ARCHITECTS



Ryan Wallace

PLANNER & LANDSCAPE ARCHITECT

17 years of Experience

Urban Design focus on connecting Transportation and Land Use

We should prioritize convenient walking, biking, and public transportation in many town centers

Strongly Agree

Somewhat Agree

Neither Agree nor Disagree

Somewhat Disagree

Strongly Disagree

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

We should prioritize convenient walking, biking, and public transportation in many town centers Strongly Agree 0% Somewhat Agree 0% Neither Agree nor Disagree 0% Somewhat Disagree 0% Strongly Disagree 0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

We should prioritize convenient walking, biking, and public transportation in many town centers

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Somewhat Agree	006
	0%
Neither Agree nor Disagree	
	0%
Somewhat Disagree	
	0%
Strongly Disagroo	
Scongly Disagree	0%
Start the presentation to see live content. For screen share software, share the	antioneeroon Cothola staallau aamlaan







A STATEWIDE CONVERSATION ABOUT UTAH'S FUTURE

OPTION 1 - Prioritize convenient walking, biking, and public transportation in many town centers

	_		-				11279 Responses
6%	6%	13%		31%		44%	
• Stro	ngly disagre	e • So	mewhat disagree	Neither agree nor d	lisagree 0	Somewhat agree	Strongly agree

Utahns want more active transportation





Benefits of Active Transportation



Health Benefits:

- Improved cardiovascular health & weight management
- Enhanced mental well-being and reduced stress

Environmental Benefits:

- Lower carbon emissions and air pollution
- Preservation of natural resources and ecosystems

Economic Benefits:

- Cost savings for individuals (fuel, parking, maintenance)
- Boosts local economies through increased foot traffic for businesses
- Decreases healthcare costs associated with sedentary lifestyles

Benefits of Active Transportation



Community Well-being:

- Fosters a sense of community and social interaction
- Safer streets contribute to increased community security

Reduced Dependence on Cars:

- Mitigates traffic congestion and associated time savings
- Lessens dependence on fossil fuels, promoting energy sustainability

Challenges of Active Transportation



Safety:

- 69 pedestrians/cyclists killed in 2022.
- Speeds on roads
- Driveway conflicts

Infrastructure:

- Not enough space on roadways
- Could have drainage issues
- Don't understand maintenance

Perception:

- Don't have data on users Don't know if people will use it
- People walking and biking could be undesirables

Policy:

- Tradeoffs with parking/shoulders
- Old policies may not allow for some new facilities

VRU Fatal and Serious Crashes & Injuries



Fatal and Serious Crashes by Year

225

Fatal and Serious Injuries by Year





Pedestrian Involved Crashes







Average Shoulder Width (state routes)



LIDO

Active Transportation Facility Types



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Current State of AT in Utah

UDOT in partnership with UGRC is constantly updating the roadway network GIS dataset to reflect existing active transportation facilities across the state of Utah. UGRC also maintains a trails and pathways dataset which includes shared-use paths.

Bike Feature Type

PP - Paved Path
1A - Cycle Track, at-grade, protected with parking
1B - Cycle Track, protected with barrier
1C - Cycle Track, raised and curb separated
2A - Buffered Bike Lane
2B - Bike Lane
3A - Shoulder Bikeway
3B - Marked Shared Roadway
3C - Signed Shared Roadway

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Current State of AT in Utah

Summary of Utah's existing AT facilities:
970 miles of Paved Trails
111 miles of Paved Parallel Paths
4.8 miles of Cycle Tracks
43 miles of Buffered Bike Lanes
486 miles of Bike Lanes
2,551 miles of Shoulder Bikeways
40 miles of Shared Roadways

Future Plans



Many jurisdictions have completed active transportation plans in Utah.

In the Wasatch Front, Bike Utah works with WFRC and MAG, along with other regional partners, so every Wasatch Front municipality can develop and adopt bicycle and pedestrian master plans.

Throughout Utah **78 cities and 17 counties** have active transportation plans.



Future Plans

Summary of Utah's Proposed AT facilities: 305 miles of **Paved Trails** 336 miles of **Paved Parallel Paths** 89 miles of **Cycle Tracks** 275 miles of **Buffered Bike Lanes** 649 miles of **Bike Lanes** 11 miles of **Shoulder Bikeways** 333 miles of **Shared Roadways**

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Presentation

2. What is the state of AT planning and design?



Hurricane - Harmonization Process



Studies and Maps Analyzed

- 1. 600 N Trail Alignment/Three-Rivers Trail (2020)
- 2. SR-9 SES (2020)
- 3. SR-7 Active Transportation Plan (2020)
- 4. Hurricane Transportation Master Plan Map (2019)
- 5. Hurricane Trails Master Plan Map (2019)
- 6. Hurricane Transportation Master Plan (2018)
- 7. Washington City Active Transportation Plan (2017)
- 8. Dixie MPO Regional Active Transportation Plan (2015)
- 9. Hurricane Trails Master Plan Map (2011)





Very High

----- Very High

Existing Conditions - Strava Origin Destination





DAVIS COUNTY

Strava Origins & Destinations by City





COUNTS







Existing Conditions – Pedestrian Actuations





Existing Conditions – Transit





■ Bus ■ TRAX ■ FrontRunner

Featured AT Plan

Washington County Active Transportation Plan

Done in conjunction with the County's Transportation Master Plan, it proposes:

129 miles of **Paved Paths**

40 miles of **Buffered Bike Lanes**

26 miles of **Bike Lanes**

72 miles of **Shoulder Bikeways**

5 Trailhead Improvements

www.washcoplan.com



Featured AT Plan

Davis County Active Transportation Plan

County and jurisdictions are working together to determine the top most important facilities to **advance through design.**

www.activedaviscounty.com



Featured AT Plan

Mid-Valley Active Transportation Plan

The cities of Taylorsville, Midvale, Murray, Millcreek, Holladay, and Cottonwood Heights came together under this plan:

A total of **240 active transportation projects** proposed across the 6 municipalities.

www.midvalleyatp.com



CONCEPTUAL DESIGN INTERACTIVE MAP

Click on each bookmark to see the design. Zoom in and out, and pan around to see the details throughout the entire extent of each design.

Ø 4100 S	
Port Union Blvd	
Center St	



MHTN





VERNAL DOWNTOWN Connecting the Region to Downtown

Active Transportation Connections to regional uses requires thinking outside the box

Main Street in Downtown Vernal is also a busy UDOT highway. To encourage active transportation use, parallel corridors and high comfort facilities were crucial



VERNAL DOWNTOWN Connecting the Region to Downtown

VERNAL AVENUE SOUTH OF MAIN 100 S TO 500 S

From 100 South to 500 South, Vernal Avenue will serve as a multimodal connection from Downtown to South Vernal. Improvements will include the addition of parking, bike lanes, and ample pedestrian space.



Parking buffered bike lanes

> Wider pedestrian facilities

Add median and

reduce lane widths

Designated parallel parking spaces



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Planned AT Facilities & Functional Classification



Hurricane - Cross-Sections | Minor Collectors









600/700 North SLC



URBAN OASIS characterized by denser tree canopy with public art and small plazas with seating





Improved bus shelter, landscaping, and potential small plaza for food truck





www.600NorthSLC.org



AT Design Best Practices

It is not just about **where** these facilities are located, but **how** they are constructed. Here are a few design best practices for AT facilities:

- Appropriate facility width & buffer zones
- Markings and signage
- Reducing Points of Conflict
- Accessibility & Intersection Design



AT Design Best Practices

Appropriate Facility Width & Buffer Zones

It is important to place the right AT facility for each type of roadway. Higher separation from traffic is need as the roadways get busier and faster.

2.2.1.2 BIKE LANE

2.2.1.3 BUFFERED BIKE LANE





Refer to sections 2.1.4, 2.1.5 and 2.1.6.

These treatments relate to bike lanes, buffered bike lanes and at-grade cycle tracks.

ATDesign **Best Practices**

Appropriate Facility Width & Buffer Zones

It is important to place the right AT facility for each type of roadway. Higher separation from traffic is need as the roadways get busier and faster.



2.2.1.4 AT-GRADE CYCLE TRACK



AT Design Best Practices

Marking and Signage

Consistent marking and signage placement is crucial for safe active transportation facilities. Pavement markings need to follow AASHTO guidance while signage is regulated by the MUTCD.

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AT Design Best Practices

Reducing Points of Conflict

Consolidate points of access (i.e. driveways) and make the bikeway visible at points of conflict whenever possible. A good way to accomplish that is painting key areas green.

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AT Design Best Practices

Accessibility and Intersection Design

Several design elements such as bike boxes, curb cuts, curb bulbouts, pedestrian refuge islands, signage and high-visibility markings can increase the accessibility and safety of intersections.



AT Best Practices Enhancing the Experience

Encouraging Use Through Placemaking & Identity Elements

Urban Design amenities can dramatically enhance the experience for people walking and biking our communities to make the experience safer, intuitive, and more enjoyable.

RYAN WALLACE



PROGRAMS & POLICIES

Improving circulation and connectivity in the study area will require a variety of improvements. In addition to project or capital improvements, there must be programs and policies that support the new big ideas proposed.

Programs should be overarching, coordinated and span multiple jurisdictions. They will likely require dedicated staff and budgets for startup and maintenance,

Policies will require city ordinances to change or be created to enable the implementation of new ideas.

The eight program and policy recommendations highlighted on the right will help enhance the pedestrian and cycling environment and improve overall circulation in the study area.



Creative placemaking in Sugar House Business District, especially along Highland Drive, will improve walkability and

vibrancy.

4 Additional bike parking throughout the study area will make it more accessible and inviting to cyclists.



7 Develop mobility hubs at key locations where Frequent Transit Network (FTN) Interfaces with major destinations or where FTN routes intersect.



2 Green conflict markings on regionally significant bikeways can help

highlight conflict zones and raise awareness of people on bicycles.



5 Trail Oriented Development Guidelines that detail ways trails can activate and enrich urban environments.

enrich urban environments.

3 Comprehensive wayfinding and signage eases navigation.

enriches our experience, enhances branding, and reinforces key destinations.



6 Traffic calming policies can reintroduce City measures to help encourage slower speeds on roadways.



Best Practices
Programs &
Policies

Encouraging regional use through consistent design, safety & identity



Urban design acts as the 'stitch' between transportation & land use

MHTN

Cities work when we make the journey as desirable as the destinations

HARDSCAPE

LANDSCAPE/ TREES

AMENITIES

LIGHTING

SIGNAGE/ WAYFINDING

ARTS/ CULTURE

HIGHLAND DRIVE CHARACTER ASSESSMENT PRESERVE AND ENHANCE EXISTING CHARACTER



HARDSCAPE	LANDSCAPE/TREES	AMENITIES	Ato	
Accessible	Tree Canopy	Street Furniture		
Comfort and Safety	Planters	1 55 1 55 Multi-Modal	90 H	
LIGHTING	SIGNAGE/WAYFINDIN	ARTS/CULTURE	6	
Decorative	Visual Guides	Cafe Dining	ž2	
B Pedestrian-Scale	Pavers	Public Art	Tree Canopy	ा ा Street Furnitur िउर्फि िउर्फि Multi-Modal



Pedestrian-Scale

Pavers

Public Art

Presentation

3. What can I do for my community?



Cost Estimates

- Excavation
- 6 inches of untreated base course (3/8" aggregate)
- 3 inches of asphalt
- Other items in contingency



Cost Estimates

- \$60/linear ft for a 10 ft trail
- 30% contingency= \$78/linear ft
- 1 mile 10 ft trail= \$412,300
- 1 mile 12 ft trail=\$494,900
- Does not include any ROW



AT Funding

	2020	2021	2022	2023
TIF Active	\$20,100,000		\$40,400,000	\$45,000,000
Regionally Important				
(Utah Trail Network)		\$36,800,000	\$41,900,000	\$45,000,000
TTIF First Mile & Last				
Mile	\$1,600,000		\$30,600,000	\$22,600,000

TRAIL NETWORK

UTAH TRAIL NETWORK & UDOT FUNDING FOR CAPACITY PROJECTS





Phase 1 - Ranked Project List

Scores based on:

As of August 2023, the Transportation Commission adopted the following weights for each criteria included in the TIF Active Capacity model.

Safety and Access Composite	Active Transportation Demand	Mode Shift Potential	Network Connectivity Composite	
20%	30%	20%	30%	

RAIL	UTAH TRAIL Ran Febru	NETWORK - A1 ked List Jary, 2024	1F	4	
Rank	Project	UDOT Region	MPO Area	Project Type	Total Score
1	West Valley to Millcreek: 39th/41st South Shared Use Path	2	WFRC	Off-Street Network	94.8
2	Bingham Creek Trail: Bingham Creek Regional Park to Jordan River	2	WFRC	Off-Street Network	94.3
3	Hill Airforce Base Three Gate Trail	1	WFRC	Off-Street Network	88.3
4	US 89: Davis County Sidepath, Woods Cross to North Salt Lake	1	WFRC	Off-Street Network	81.1
5	SR 130 Trail: Enoch to Cedar City	4	Rural	Off-Street Network	75.0
6	SR 108: 2050 North Trail Pedestrian Crossing	1	WFRC	Crossing Improvement	73.6
7	Surplus Canal Trail: Phase One	2	WFRC	Off-Street Network	70.3
8	Sand Hollow Wash Trail Extension South	4	Dixie MPO	Off-Street Network	68.8
9	US 89; Beck Street Shared Use Path	2	WFRC	Off-Street Network	66.8
10	SR 36 Trail: Tooele to Stansbury Park	2	Rural	Off-Street Network	65.1
11	Vinevard Connector / 800 North Trail	3	MAG	Off-Street Network	65.0
12	Mill Creek Trail: Boilers Park to Telegraph Street	4	Dixie MPO	Off-Street Network	64.7
13	I-215 Trail at Knudsen's Corner	2	WFRC	Off-Street Network	64.3
14	Provo Reservnir (Welhy, Jacobs) Canal North	2	WERC	Off-Street Network	63.8
15	Steinsker Senice Canal Trail Phase One	3	Rural	Off-Street Network	63.5
16	Rim Rock Trail	4	Dixie MPO	Off-Street Network	61.7
17	Carbonville Rd Trail: Helper to Price	4	Rural	Off-Street Network	61.2
40	Diver to Dance Trail at Paint of the Mountain	7	WEDC	Crossing Improvement	01.2
19	Jordan Bivar Barkway Trail Connection in Bluffdale	2	WERC	Off-Street Network	67.9
10	Users Valley, Dellerad (UVDD) Deil Teril	2	Bued	Off-Street Network	57.3
20	Reber Valley Railroad (RVRR) Rail Trail	3	Rural	Off-Street Network	50.7
21	Salem Canal Connector Trail	3	MAG	Off-Street Network	56.7
22	US 89 Trail: Mt Carmel to Kanab	4	Rural	UTT-Street Network	36.6
23	Bingham Creek Trail: Bingham Creek Regional Park to Copperton	2	WFRC	Off-Street Network	56.1
24	SR 127: West Davis Corridor to Antelope Island Causeway Toll Booth	1	WFRC	Off-Street Network	55.8
25	Santa Clara River Trail: Mathis Park to Cottonwood Cove Park	4	Dixie MPO	Off-Street Network	55.6
26	SR 118 Trail: Richfield to Elsinore	4	Rural	Off-Street Network	55.2
27	SR 7 (Southern Parkway) Trail: Airport Parkway to SR 9	4	Dixie MPO	Off-Street Network	55.0
28	Silver Summit Pedestrian Overpass	2	Rural	Crossing Improvement	53.7
29	Phoston Spur. Connection from US 40 to Park City	2	Rural	Off-Street Network	51.5
30	US 89: Mt. Carmel Jct to Orderville Trail (MP 81.4 to MP 86.4)	4	Rural	Off-Street Network	50.7
31	SR 39: Ogden Canyon Trail	1	WFRC	Off-Street Network	50.6
32	Rail Trail / SR-248 Overcrossing and Paving	2	Rural	Crossing Improvement	50.5
33	Utah Lakeshore Trail: Lehi to Vineyard	3	MAG	Off-Street Network	50.2
34	Mapleton Lateral Canal Trail	3	MAG	Crossing Improvement	50.1
35	SR 162 Trail: Bluff to Montezuma Creek	4	Rural	Off-Street Network	48.3
36	US 163: Monument Valley to Bluff	4	Rural	Off-Street Network	47.8
37	Provo Reservoir (Welby Jacobs) Canal South	2	WFRC	Off-Street Network	47.8
38	Parley's Canyon Trail: Mountain Dell to Summit Park	2	Rural	Off-Street Network	46.8
39	SK 9: Zion National Park to Mt Carmel Jot	4	Rural	Off-Street Network	44.9
40	Meak Caster Balance Establish to Dester Otate Dest	3	Rural	Off-Street Network	40.2
41	Related a River Trail Gap	4	Rural	Off-Street Network	33.7
42	Colorado River Trail Gap	4	Rural	Off-Street Network	37.0

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Capacity Project Prioritization TIF Active Transportation Decision Support Tool December 21, 2023

Off-Street Network Projects	UDOT Region	Total Score
Surplus Canal Trail - Phase 1 (Salt Lake City)	Region Two	55
Virgin River South Trail - Bloomington Park to I-15	Region Four	.54
Salem Canal Connector Trail	Region Three	52
Weiby Jacob Canal Trali (11800-12600 South) (Riverton)	Region Two	52
Welby Jacob Canal Trail (13400-13800 South) (Riverton)	Region Two	52
Uintah County Trails	Region Three	50
Virgin River South Trail - Springs Park to Mall Drive (St. George)	Region Four	47
Rim Rock Trail (St. George)	Region Four	46
Pine View Park Trail (Washington City)	Region Four	46
Washington Parkway Trail (Washington City)	Region Four	42
East Pony Express Regional Connection Trail (Eagle Mountain)	Region Three	42
Heber Valley Railroad Trail	Region Three	41
Utah Lakeshore Trail (north Utah County)	Region Three	39
Canal Trail Phase 1 (Washington City)	Region Four	36
Mill Creek Trail Expansion Phase 1 (Washington City)	Region Four	35
Jordan River Parkway Trail Connection (Bluffdale)	Region Two	32
Mapleton Lateral Canal Trail Phase 3 (Spanish Fork)	Region Three	26
On-Street Network Projects	UDOT Region	Total Score
Main St. High Comfort Bikeway (Life on State Network) (Salt Lake City)	Region Two	83
3900 South Bike Lanes (West Valley City/Taylorsville)	Region Two	.78
700 East Cycle Track and Pedestrian Improvements (St. George)	Region Four	73
Industrial Road Project (Cedar City)	Region Four	63
8000 West Widening - Bike Laries (Magna, Salt Lake County)	Region Two	61
Bike Lane addition on 100 North between Gateway Drive and 400 East (Providence)	Region One	56
US-89 Orderville South Active Transport Pathway Part II	Region Four	53
900 East Sidewalk and Bike Lanes, Vine Street to 5600 South	Region Two	52
Morgan County Active Transportation Hate	Region One	51
Emigration Canyon Road Widening - Bike Lane	Region Two	50
5600 West - International Center Connector Path (Sait Lake City)	Region Two	46
Pedestrian and Crossing Improvement Projects	UDOT Region	Total Score
SR-209 Quarry Bend Pedestrian Bridge (Sandy)	Region Two	75
3100 West Sidewalk Project (Roy)	Region One	72
7000 South - Pedestrian bridge construction (West Jordan)	Region Two	68
5400 South Sidewalk; 1300 West to Walden Glen (Murray)	Region Two	62
2700 North Pedestrian Overpass (Fair West)	Region One	55
SR-108 2050 North Trail Pedestrian Crossing (Clinton)	Region One	52
Park Avenue Pathways Project (Park City)	Region Two	50
Silver Summit Pedestrian Overpass (Summit County)	Region Two	45
1st Dam Trail Crossing Improvements (Logan)	Region One	45

*Projects shaded in gray are within the boundaries of et least one entity that was not compliant with moderats income housing reporting requirements as of 12/13/2023. Depending on project type and specific elements, the project may not be eligible for TIF funding per Utah Code sections 10-58-408 and 17-278-408

* Updated 12/21/23



Capacity Project Prioritization TTIF First/Last Mile Decision Support Tool December 21, 2023

Off-Street Network Projects	UDOT Region	Total Score
Frontrunner Bridge to Jordan River Trail (South Jordan)	Region Two	77
Big Cottonwood Creek Trail (Milcreek)	Region Two	74
Midvale Trax Station to Maple Street Multi-Use Path	Region Two	66
Lehi Frontrunner Trail	Region Three	66
Salt Lake Canal and East Jordan Canal Trails (Sandy)	Region Two	65
Millennium Pathway (SR 224) (Summit County)	Region Two	54
The Other Side Village to Orange Street Transit Hub (Salt Lake City)	Region Two	44
Redwood Road / 9-Line Trail Connection (Salt Lake City)	Region Two	36
Madison Avenue/Gold Star Shared Use Path (Ogden)	Region One	34
200 South Regional Trail Connection (American Fork)	Region Three	31
On-Street Network Projects	UDOT Region	Total Score
200 East / Green Loop (Phase 1: 100 South to 500 South) (Salt Lake City)	Region Two	90
Cottonwood Street Buffered Bike Lane (Midvale)	Region Two	72
Kensington Neighborhood Byway (Bus Routes 205 & 209) (Salt Lake City)	Region Two	68
800 East Neighborhood Byway - Phase 2 (400 South to 1300 South) (Sall Lake City)	Region Two	66
Midvale Center Street Protected Bike Lane	Region Two	64
Main Street and Holden Street Buffered Bike Lanes (Midvale)	Region Two	60
Depot Street Bike Lanes to Clearfield Station	Region One	59
Cottonwood Street Bike Lanes (Murray)	Region Two	53
4800 West Bike Lanes and Sidewalks (West Valley City)	Region Two	52
2200 West Bike Lanes and Sidewalk (West Valley City)	Region Two	50
Main Street / West Temple Bike Lane (South Salt Lake City)	Region Two	50
1300 West Bike Lanes (West Valley City)	Region Two	46
Pedestrian and Crossing Improvement Projects	UDOT Region	Total Score
Fireclay Avenue Sidewalk - Track Crossing (Murray)	Region Two	68
Roy FrontRunner Underground or Aboveground Pedestrian / Bike Crossing	Region One	64
Brian Head Commercial Corridor Shuttle Stops and Crosswalks	Region Four	51
400 S / Jordan River Bridge - Ped/Bike Additions (Salt Lake City)	Region Two	49
Magna Downtown Revitalization	Region Two	48
Vernal Avenue Bus Stop Connector Route	Region Three	45
North Logan Priority Bus Stop Improvements	Region One	39
High Valley Transit Bus Stop Improvements (Summit County)	Region Two	38

*Projects shaded in gray are within the boundaries of at least one entity that was not compliant with moderate income housing reporting requirements as of 12/13/2023. Depending on project type and specific elements, the project may not be eligible for TTLF funding per Utah Code sections 10-9a-408 and 17-27a-408.



THANK YOU