



Technical Memorandum

To: Ogden City Transportation Master Plan Steering Committee

From: Ogden City Transportation Master Plan Steering Committee Consulting Team

Date: August 2018

Subject: Transit Recommendations Technical Memorandum

Purpose of this Memorandum

This memorandum addresses transit investment opportunities and concepts that Ogden City can pursue. These recommendations are focused on concentrating capital transit investments into key “core route” corridors in the city as well as identifying alternative mobility services to areas that are more difficult to serve through traditional local bus service. Pursuing these recommendations requires close coordination with the Utah Transit Authority (UTA) as well as key employment areas like Business Depot Ogden (BDO).

Core Routes

While providing different mobility options throughout the city will continue to be a need, focusing transit investments in key corridors is a crucial component in developing a high-quality reliable transit network. These ‘Core Routes’ create a network of backbone transit routes that are fast, reliable, and easy to navigate for residents and visitors. UTA does not currently define what a core route is, but in other transit systems that have implemented this concept these routes are generally defined in areas that have transit supportive land uses, higher household and employment densities, and connect major destinations. They are typically implemented on higher-ridership routes and have the following characteristics:

- Frequent service that provides 10 minute headways or less;
- All-day service that is provided seven days a week and that operates in the early morning and into the late evening;
- Permanent service that does not change alignment or schedules frequently;
- Easy to understand for all users, meaning that the route is relatively straight with few, if any, deviations; and
- Fast and reliable, with strategic investments focused on bypassing congestion and consolidated bus stops so that buses make fewer stops.

There are several examples of other transit agencies across the country that have implemented a core routes approach. In 2015, Houston’s Metro transit system redesigned their local bus network. This redesign included developing a grid-like bus network and doubling the number of routes that provided service every 15 minutes or better. Service hours were also expanded for many routes to provide evening and weekend service¹.

¹ National Association of Transportation Officials. Metro Bus Network Redesign, Houston. Retrieved from NACTO: <https://nacto.org/case-study/metro-bus-network-redesign-houston/>

Maryland Transit Administration (MTA) also recently redesigned the Baltimore transit system. This effort, dubbed BaltimoreLink, focused on creating a grid of high-frequency routes. The most frequent core service is called CityLink and provides high frequency service 24 hours a day in high-density areas and around downtown.²

Santa Clara Valley Transportation Authority (VTA) established core routes in 2008, defining them as routes or shared corridors that feature weekday frequencies of 15 minutes or less with operating hours of 18 hours or more. These routes operate seven days a week and travel long distance corridors, connecting major trip generators like universities, shopping malls, and high density housing and employment sites. These typically operate on large arterial streets.³

These are just a few examples of agencies and systems that have taken a core routes approach. While UTA does not currently have designated core routes, the agency anticipates kicking off a Core Routes study in 2018. This effort will set specific performance metrics and thresholds for establishing a Core Route and define what kind of service the agency will provide for these routes. While the agency plans on establishing consistent service standards and metrics, they will likely look to local municipalities to assist with funding capital improvements that support their implementation. Capital investments can include a combination of the following components:

- Improved stops with shelters that provide seating, protection from weather, and branding to highlight that the stop receives enhanced service
- Queue jump lanes that provide a short dedicated transit lane that allow buses to bypass traffic at congested intersections
- Transit Signal Priority (TSP) that allows transit vehicles to communicate with traffic signals to provide or hold a green signal longer and allow the vehicle to go through the intersection without stopping
- Real-time travel and next bus information at station areas through electronic displays
- Off-board ticketing through Ticket Vending Machines (TVMs) or other off-board payment systems
- Boarding islands, where bus stops are placed on raised islands within the roadway. These can



Figure 1: Enhanced Bus Stop with Real-time Information (Los Angeles)



Figure 2: Boarding Island (San Francisco)



Figure 3: Branded Bus with Shelter (Walnut Creek, CA)

² MTA. BaltimoreLink. Retrieved from MTA <https://www.baltimorelink.com/>

³ VTA. Transit Operations Performance Report: FY 2018 Second Quarter Report. Retrieved from VTA <http://www.vta.org/sfc/servlet.shepherd/document/download/069A0000001ePEJIAM>

be configured to allow for level boardings for low-floor vehicles. This design also allows the vehicle to remain in the traffic lane at a stop so that it does not have to merge back into traffic

- Secure bicycle parking at stops to allow easy first and last mile active transportation connections to the core route network.

While the UTA Core Route study will define which routes should be considered a Core Route, there are several corridors that already receive a high amount of transit service and are among the higher ridership routes in the city. These include:

- Route 612
 - Route 612 provides 15-minute headway service on the Washington Boulevard corridor from 2600 North in North Ogden to the IHC Clinic in South Ogden. This is the most frequent level of service currently provided by UTA. Boarding/alighting data from UTA also shows high ridership along this corridor, carrying an average of 2,200 riders per day.
- Route 603
 - Route 603 also provides 15-minute headway service, providing a connection between the FrontRunner commuter rail station and Weber State University, primarily traversing the Harrison Boulevard corridor. The Ogden Bus Rapid Transit project is planned for this corridor, and an environmental assessment is currently underway, although funding for construction has not yet been secured.

Next Steps:

- The City should continue to collaborate with UTA and work closely with the agency to make capital improvements on these key transit corridors.
- The City should coordinate with UTA and UDOT to assess the possibility of providing temporary pop-up transit improvements on key corridors. Pop-up transit improvements refer to treatments like bus boarding island and shelters that are temporary. For example, rather than adding a permanent concrete boarding island, a rubber island could potentially be used (see inset photo of temporary transit platforms in Utica, New York; photo courtesy of



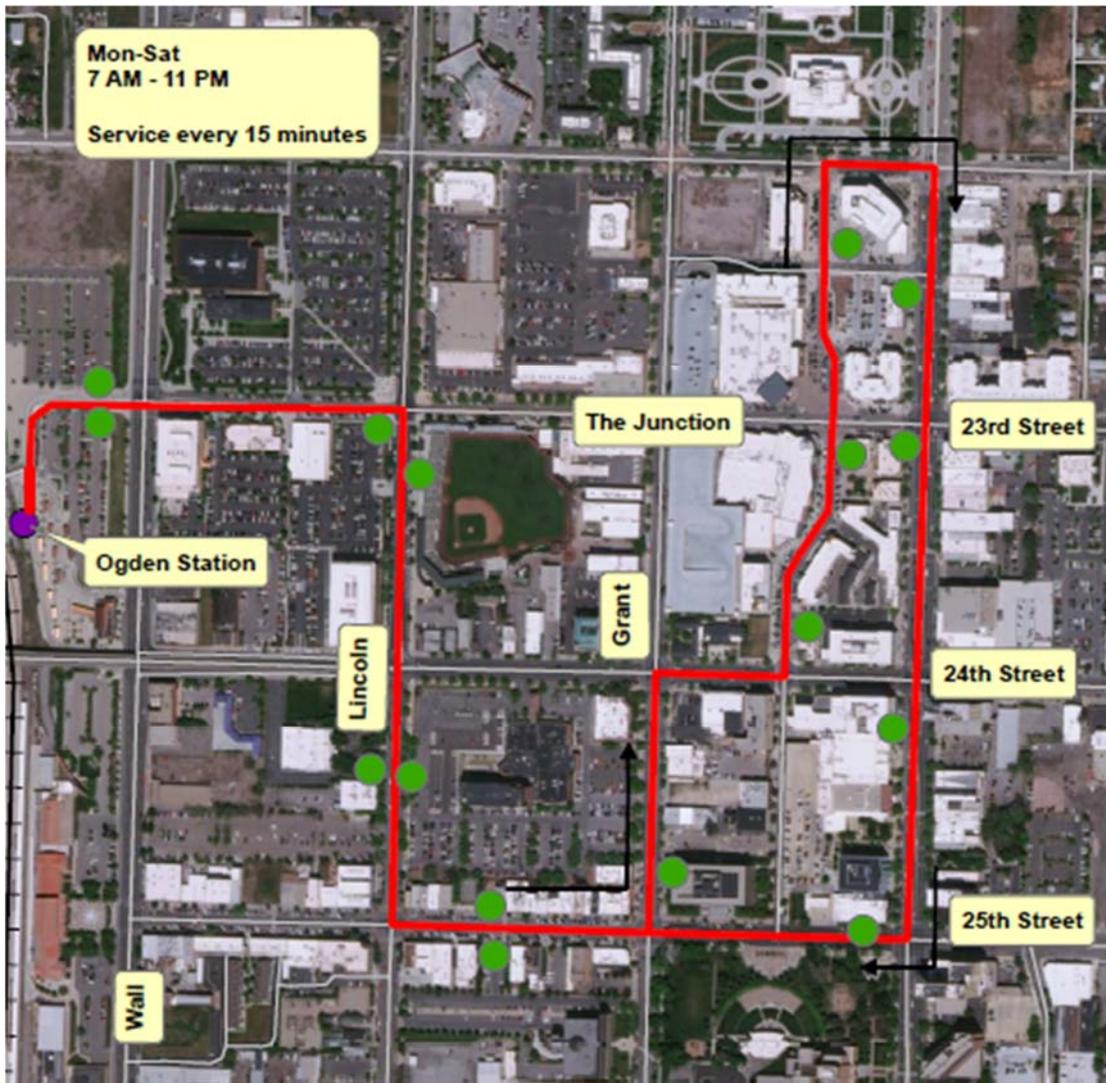
transitcenter.org). This would make implementation faster and allow the treatment to change locations or be removed based on feedback from the public and transit drivers.



- This would also allow improvements to occur earlier, since the capital expenditures for pop-up projects are lower than for permanent installations.
- The City should look at key congested intersections along Routes 603 and 612 and determine right-of-way needs to provide queue jump lanes at these locations, in addition to evaluating the possibility for transit signal priority.
 - The City should continue to enhance its zoning codes to encourage transit supportive land uses. The zoning districts along Route 612 are already largely transit supportive. Additional zoning code changes that Ogden City might wish to consider include:
 - Prohibiting drive-through restaurants in transit-oriented zones, to reduce conflicts with pedestrians and cyclists
 - Establishing a “streetwall” of urban development by allowing 0’ building setbacks on front and side yards
 - Set floor-area-ratio (FAR) requirements
 - Require at least 50% of street-level building frontage to be transparent with pedestrian-oriented uses, and incorporating ground-floor retail space
 - Prohibit parking in street-facing yards
 - Establish parking maximums rather than minimums
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Downtown Trolley

Stakeholders and Steering Committee members for this Transportation Master Plan suggested the creation of a downtown Ogden trolley to serve businesses, civic destinations, and tourists in the downtown area. Ogden City and UTA have been collaborating to develop a conceptual plan for this trolley, which would run 6 days a week on 15 minute headways. A conceptual route for this trolley is shown below (graphic courtesy of UTA).



This trolley concept would complement a multi-modal priority zone in the downtown Ogden central business district, where modes other than single occupant vehicles could be emphasized. This could include concepts such as:

- Transit signal priority and queue jumps
- Increased pedestrian time at signalized intersections
- Pedestrian scale lighting
- Streetscape amenities
- ADA accessibility improvements
- Additional bicycle racks
- Bike share stations
- Pedestrian scale wayfinding



Preliminary testing of ridership for the trolley indicate estimated weekday ridership of 750-850, although the route is still getting refined prior to an anticipated service start of August 2019. UTA intends to operate the route using Weber County's Proposition 1 funds. The agency has also discussed cost sharing options with Ogden City, with the possibility of making the service free of charge.

Alternative Mobility Services

Backbone transit in the form of local bus and regional rail service plays a pivotal role in dense areas with concentrated trip origins and destinations. However, these services are less cost effective in other settings. Microtransit shuttle service, which is often a missing component of existing transit networks, can play a key role in providing shared rides in areas that may be more challenging or cost prohibitive than traditional transit offerings, but that still have a high concentration of trips. Microtransit is defined by the Federal Transit Administration as:

"IT-enabled private multi-passenger transportation services such as Bridj, Chariot, Split, and Via, that serve passengers using dynamically generated routes, and may expect passengers to make their way to and from common pick-up or drop-off points. Vehicles can range from large SUVs to vans to shuttle buses. Because they provide transit-like services but on a smaller, more flexible scale, these services have been referred to as micro-transit."⁴

Microtransit is still an evolving mobility service, but has the potential to help bridge first and last mile connections to backbone transit systems by pooling shared rides to fixed route transit service. Currently, many microtransit providers like Chariot or Lyft Shuttle have set schedules and/or routes. However, they can be flexible in adjusting these routes and schedules to meet demand or new user requests. Using big data, microtransit services allow riders to set up pick up and drop off locations at the time of their trip, using a mobile app. This technology is also used for on-demand carpooling services like Lyft Line and Uber Pool, which allows users to enter their pick up and drop off location and then match them to riders heading in the same direction. However, unlike regular Uber and Lyft services, this service may require the user to walk a few blocks at either end of the trip, rather than providing door-to-door service.

Microtransit service options could be a more effective way to connect important areas like Business Depot Ogden and the Ogden Airport to the downtown area and backbone transit service like FrontRunner, Route 603, and Route 612. Serving these areas through traditional transit offerings such as a local bus route is costly and produces little ridership. In addition, these services often do not meet the needs of those traveling to or from these areas. For example, in public outreach conducted for this Transportation Master Plan, members of the public indicated that Business Depot Ogden workers frequently work shifts that do not line up with traditional transit operating hours. The public also indicated a similar issue for workers at the Ogden Hinckley Airport.

An alternative to providing underutilized fixed route bus could be to subsidize microtransit service. Subsidies could be provided by the city, UTA, or even large private employers. Chariot, which provides microtransit services in San Francisco, Austin, Seattle, New York, and Columbus,

⁴ FTA. Shared Mobility Definitions. Retrieved from FTA <https://www.transit.dot.gov/regulations-and-guidance/shared-mobility-definitions>



often start their services in a new market by partnering with a public agency or large employer to develop a subsidized system and then expand their services once they have an established presence.

In 2016, the Kansas City Area Transit Authority (KCATA) developed a pilot program with Bridj. The agency put up \$5.1 million to fund the pilot, which provided 14-passenger shuttles that picked up users using Bridj's software. The price for a ride was set at \$1.50, the same as a local bus fare.⁵ While this pilot is no longer operating, it serves as a good example of a public private partnership to provide microtransit services. Similar pilots were developed by the Santa Clara Valley Transportation Authority and the Alameda and Contra Costa Counties District (AC Transit). Both Park City and Salt Lake City have also considered subsidizing new mobility services as well. Salt Lake City recently sent out a Request for Information for individuals or organization to provide on-demand ground transportation from locations within designated areas of Salt Lake City to nearby transit stations that may potentially be partially or fully subsidized by the city. In Ogden, a shuttle system operated by Intermountain Health Care transports McKay-Dee hospital employees from a satellite parking lot at the old hospital building near 39th Street to their jobs at McKay-Dee. The shuttle operates all day, every day, and accommodates off-peak shifts. While this shuttle does not necessarily serve employees without access to their own vehicle, it does preserve hospital parking for patients and allows for an efficient use of off-site parking elsewhere.

UTA recently announced the creation of the Innovative Mobility Solutions (IMS) division to identify, research, and evaluate new mobility services, including microtransit. While a transit agency does not have to have a role in analyzing and developing these kinds of services, involving the agency can help develop services that better integrate with backbone transit routes and rail stations.

Next Steps:

- Ogden should collaborate with UTA to study alternative mobility solutions to connect Business Depot Ogden and the Ogden Airport to downtown and the Ogden Intermodal Transit Center. This collaboration should include identifying potential private operating partner options and funding sources. In addition, the City should engage large employers at Business Depot Ogden to gauge their interest in microtransit service and their willingness to help fund such service.
- City staff should set up a knowledge sharing forum with Salt Lake City and Park City to learn about their efforts to provide new mobility service types and share lessons learned.

⁵ Eno Center for Transportation (2018). UpRouted: Exploring Microtransit in the United States. Los Angeles: Eno Center for Public Transportation.