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Maintenance Comparison Memo

Date: September 1, 2015

To: Geoff Guthrie, City of Glenwood Springs

CC: Joe Gilpin, Alta Planning + Design

From: Josh Mehlem, Alta Planning + Design

Re: DRAFT Glenwood Springs Long Range Transportation Plan – Maintenance Comparisons

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INTRODUCTION

The City of Glenwood Springs is considering investing further in the construction of bicycle and pedestrian facilities such as on-street bikeways, multi-use pathways, and sidewalks, all of which provide significant, valuable recreational and transportation benefits to local residents and visitors. In addition, this LRTP has recommended significant improvements to the vehicular circulation system that will need to be maintained over time. However, ongoing maintenance of these facilities, and in particular, funding sources to support maintenance, is a topic Glenwood staff is concerned with.

This memo summarizes existing maintenance activities in a number of cities, based on interviews with staff of local agencies. It also identifies challenges to maintaining on-street bike facilities, sidewalks and multi-use paths. The memo includes a description of components of successful maintenance programs in comparable communities.

Importance of Proper Maintenance

Maintaining on-street bike facilities, sidewalks and multi-use paths to a high standard is important for a variety of reasons.

Safety: Public agencies have a duty to protect the public welfare by maintaining facilities to a level that reduces potential safety hazards. This includes repairing damage on paths and sidewalks that may pose a tripping hazard, clearing snow in a timely manner, and preventing ice from forming.

Universal Access: Public agencies are required by federal law to maintain public facilities so that they are accessible to people with disabilities. Small but abrupt vertical changes in level along a path or sidewalk may not pose a safety hazard to able-bodied pedestrians, but may present an obstacle to people who are using wheelchairs or other mobility-assistive devices.

Attracting Use: Well-maintained facilities, with smooth surfaces, well-kept vegetation, and up-to-date signage will attract and sustain use, increasing the livability of the areas served by the network.

Liability: Allowing hazardous conditions to exist along a path or sidewalk exposes a local agency to potential lawsuits.

Protecting the Public Investment: Regular preventative maintenance on an on-street bike facility, path or sidewalk (e.g. periodic overlays on multi-use paths) can extend the lifetime of the existing facility and delay the need for more expensive repairs.

Primary Maintenance Functions

Primary functions of maintaining on-street bike facilities, sidewalks and multi-use paths include:

- Maintaining pavement quality through spot repairs, regular overlays and longer-term repaving (for asphalt surfaces)
- Maintaining trails and sidewalks to ADA standards
- Sweeping and removal of garbage and debris on a weekly basis
- Vegetation trimming to provide clear access on a monthly basis
- Snow removal after storms
- Restriping paths as needed, usually annually
- Landscaping maintenance on a weekly or monthly basis, including irrigation costs
- Lighting feature maintenance, including electricity costs
- Repair of damage due to storms, floods, collisions and other unforeseen events
- Repair and replacement of wayfinding or other signage

RESEARCH METHODOLOGY

The project team used the following strategies to research this topic and identify regional successes and struggles for reference.

- Interviews with Glenwood Springs staff
- Interviews with other city staff
- National research on maintenance issues

Staff from Glenwood Springs and other communities were contacted and asked to share information about maintenance activities in their agency. Staff contacts are listed in Table 1.

Table 1: Agency Staff Contacted Regarding Bicycle and Pedestrian Facility Maintenance

Name	Agency	Most Recent Communication
Charlie Blosten	City of Littleton	Spoke on 1/29/2015
Dave Baskett/John Padon	City of Lakewood	Email on 2/3/2015
Al Laurette	City of Glenwood Springs	Spoke on 7/10/2015
Previous Research Contacts	City of Madison, WI	Previous Research
Dan Raine/Emily Snyder	City and County of Denver	Email on 8/5/2015

RESEARCH FINDINGS

Maintenance policies and procedures varied among the communities contacted. Of the agencies contacted, none had specific money/funding budgeted for bicycle and pedestrian facility maintenance other than Denver, and none regularly require additional maintenance funding to be provided or allocated when a new bike facility was built. Most agencies stated that bicycle and pedestrian facility maintenance was completed not by one department in particular, but was a cross-department collaboration, often without pre-defined assignments or agreements. Table 2 shows a summary of agency responses to questions relating to bicycle and pedestrian facility maintenance.

Table 2: Maintenance Policy and Funding Summary by Agency Interviewed

City	Existing Maintenance Budget for Bike/Ped from Capital Budget?	Add funding to Maintenance Budget when new bike facilities are built?	Funding Sources Used	Maintenance Staff	Maintenance Prioritization	Citizen Reporting?	Existing Maintenance Programs	Maintenance Budget 2015	Current Capital Budget (overall)	Capital Budget Include Bike/ Ped Improvements?
Glenwood Springs	Overall Parks maintenance budget that is $2,137,252 for all open space facilities	No	General fund and open space fund, street tax fund, and Acquisitions & Improvements Sales Tax. Funding is added incrementally.	Parks and Cemetery, Public Works, Streets, and SWAT. Some help from DDA	Safety first, then as needed; vegetation and trash are scheduled	Generic form on the website for citizens to ask questions. Or phone call or email to the department.	None - City usually reactst to citizen request	8 FTE - They maintain on an as needed budget. Total Parks and Cemetery Budget is $227,000 (8 FTE annual salaries)	$6.7 million	None
Littleton	No	No	General fund and open space fund (20% of open space fund). Funding is added incrementally	Grounds maintenance, streets	Some scheduled (graffiti removal), but primarily as needed.	Pothole reporting app	Adopt a Trail, Adopt a Street	$1,950,000 (resurfacing - not only bike/ped)	$8.2 million	Sometimes, but not this year because of recent completions
Lakewood	No	No	Operational budget and General fund for street resurfacing	Pubclic Works and Community Resources	As needed. Funding is just absorbed highest risk areas addressed first. Policy is unwritten - sweep trails once a month.	Yes, highly used	Adopt a Street	$11,287,230 (Public Works - not only bike/ped)	$22 million	$300,000 (plus one-time $2,000,000)
Denver	Bike-Ped Bridges Maintenance Program ($50k); no separate fund for general maintenance	No	TIP Funds; Capital one-time transfers from developers and from General fund; Parks and Rec maintenance and management; Department of Public Works; Public Safety Special Revenue Funds; Grants; Bonds	Parks and Recreation (including on-call staff); City roadway crews; Currently adding 7 employees dedicated to bikeways	Safety first. Then focused on snow removal and general maintenance.	Denver's online service center	Roadway and sidewalk maintenance programs, bike-ped bridge maintenance programs, trails maintenance program	$50k for bike-ped bridges specifically; $63million one-time transfer from General fund for deferred capital infrastructure (not only bike/ped)	$297million	$8million for multi-modal improvements; $10million for curb ramp improvements; $900k for bike boulevards and protected bike lanes; $2.8million in funding for Denver Moves through CIP annual maintenance and discretionary funds. Recent additions for 2016
Madison	No	No	Among others, sidewalks - property owner assessment	Crosses departments (parks and city engineering). Added 1 FTE – 1/2 year striping and 1/2 year bus stop snow removal	Prioritizes higher-use trails. Documents for maintenance practices: (among others) city owned sidewalks and school/handicap crosswalks are maintained during regular business hours during a storm. Main bike routes are maintained starting at 4AM on weekdays in order to be traversable on morning commute.	Website reporting		$500,000 for bikeways program (capital budget); includes some resurfacing, etc		

Notes: All information provided for Littleton, Lakewood, and Englewood is for FY 2015

Obstacles to Proper Maintenance

There are three main obstacles to successful bicycle and pedestrian facility maintenance programs, according to the other city interviews completed for this and other projects:

1) The first, and most common issue in the cities examined, is a lack of dedicated funding. There are fewer grants available for maintenance activities than are available for construction of new facilities.
2) Second, proper equipment, trained, or allocated personnel may not be available. For example, shared-use trails require narrow snow-blowers for snow removal, but these machines may not be owned by the jurisdiction.
3) Third, coordination between different departments regarding whose responsibility it is to maintain bicycle and pedestrian facilities is a challenge, and the exact duties that are required of the responsible party or department are often not well defined.

Most Cities "Make it Work"

Each of the communities that were surveyed outside of Denver (and many other small to mid-sized communities that have been contacted through other studies) take an enthusiastic "make it work" approach to maintenance of bicycle and pedestrian facilities because the benefits of improved livability and desirability outweigh the additional money/time these facilities may require. It is worth noting that both Lakewood and Littleton have significantly higher lane miles of on-street and off-street bicycle facilities than Glenwood, and they have continued to maintain them as necessary through alternate, combined, and shared funding and responsible agencies.

Case Studies - Why Other Communities are Successful

Additional information was gathered from case study cities (cities with readily available maintenance information) with successful maintenance programs or policies to aid in comparing with Glenwood's current policies and concerns. These case study cities (as well as peer cities) build and maintain bicycling and walking facilities **because they are a priority for the community**. As a result, they are privy to the economic benefits and quality of life benefits these types of facilities bestow on the community. For instance, Madison, Wisconsin staff note, "We treat bicycling infrastructure no different from other infrastructure we have. We don't ask that [about maintenance cost concerns] about other development. We don't stop building housing because of the cost of trash pick-up and sewers."

A few examples of information provided by these cities and national averages of calculated continuing maintenance costs are listed below:

- Milwaukee County: The County maintains about 130 miles of paved and natural surface trails. The County spends $2,525 per mile to maintain existing asphalt paths and between $24.13 to $154.13 per mile for snow plowing, depending on the trail and surface type, width, and amount of snowfall. Trimming back vegetation and removing storm-damaged material for approximately 16 weeks out of the year costs $150,000. Landscaping on new trails and replacing landscaping on existing trails totals $110,000 while drainage installation, asphalt and washout repair for two weeks of the year costs $20,000.
- Michigan Trails and Greenways Alliance: High maintenance trails, which include hardscaped trails that run near of through cities and densely populated areas that also see high usage (178,000 users per year for the Pere Marquette Trail and 80,000 to 90,000 on the Kal-Haven Trail) have an estimated cost of $2,275 to $3,500 per mile. These costs cover weekly trash removal and toilet maintenance, tree removal, pruning, picnic table cleaning, graffiti removal, and pesticide spraying and invasive species removal.
- Iowa Department of Transportation: IDOT builds and maintains trails and paths of a variety of surface types. Total annual maintenance costs are estimated at approximately $1,500 per mile.

- Rails to Trails Conservancy: According to the Conservancy's Rail Trail Maintenance & Operation Manual, a minimum of $1,200 per mile for privately owned trails and approximately $2,077 per mile for government-maintained trails is spent on maintenance.
- The national average annual maintenance cost per paved mile of trail is $5,000. This includes trails in urban and rural areas, but is specific to off-street trail infrastructure. On-street and sidewalk facilities annual maintenance costs are harder to define, but can be expected to be significantly lower than the $5,000 per mile noted above. This is because maintenance for on-street facilities and sidewalks often takes place in conjunction with roadway maintenance, and fewer auxiliary costs such as restroom and trash facility maintenance specific to these facilities is required.

CONCLUSIONS

In relative terms, Glenwood is doing well in utilizing available funding and 8 FTE (Parks and Cemetery maintenance budget) and in at least considering prioritization of maintenance items; however it is unknown at this time the success of coordination across agencies in Glenwood.

In order for Glenwood staff to move forward with a maintenance program for area walk and wheel facilities, the following steps are recommended:

- Actively pursue funding commitments from varying sources such as City capital budget or general fund, grants, development funds, and private donations.
- Establishing an overall bicycle and pedestrian coordinating group to manage inter- and intra-department maintenance efforts
- Develop a Maintenance Capital Fund
- Develop a list of immediate and future trail, sidewalk, and on-street bicycle and pedestrian maintenance project needs, such as specific overlay projects or trail segment replacements repairing known current issues
- Develop a regular maintenance schedule for items such as trimming, sweeping/snow clearing, and path/trail overlay
- Provide citizens with an efficient method of input/feedback to allow for additional "citizen inspectors" such as trail inspection forms or a maintenance issue reporting app
- Study and create maintenance guidelines and best practices