

City of North Plains

PARKS & RECREATION FACILITIES MASTER PLAN: APPENDIX A: COMMUNITY TRAILS (DRAFT)

*Produced in Collaboration with:
The North Plains Walking Trail Advisory Committee &
The North Plains Parks & Recreation Advisory Committee*

SPRING 2011

INTRODUCTION

The *North Plains Community Trails Plan*, an appendix of the *North Plains Parks and Recreation Facilities Master Plan*, is intended to be a guide for development of future sidewalk, street, and greenway trails in the City of North Plains, Oregon. North Plains is located approximately 20 miles west of Portland, Oregon in Washington County (Figure 1). In 2011, the population approached 2,000. The town is on the periphery of the Metro regional governing boundary and is approximately 5 miles north of Hillsboro, Oregon, which has a population of approximately 91,000. The community envisions an eventual city-wide (approximately 10 miles) trail network around town that encompasses on-street, sidewalk, and greenway paths.

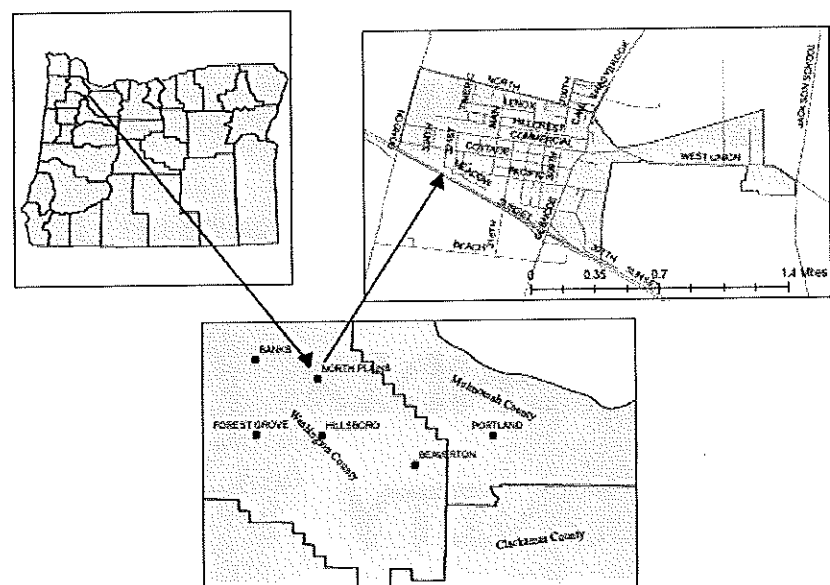


Figure 1: North Plains Vicinity

Street, sidewalk, and greenway trails offer numerous benefits, including:

- Providing recreational opportunities for communities
- Long-term economic benefits resulting from a more attractive, livable community
- Providing safer routes for pedestrians that are separated from vehicular traffic
- Social benefits, including opportunities for neighbors to interact while using trails
- Health benefits associated with increased physical activity
- An overall improvement of a community's quality of life and livability
- The preservation and restoration of riparian greenways to benefit the watershed and overall environmental health
- With proper trail maintenance, native vegetation re-establishment and removal of invasive and noxious vegetation
- Preservation and enhancement of wildlife habitat
- Decreased strain on stormwater infrastructure through bio-retention

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- Improved air quality through carbon sequestration
 - Improved soil conditions and reduced soil erosion
 - Native vegetation re-establishment, thus eventually requiring less upkeep
 - Increasing public environmental stewardship awareness with interpretive signage and providing opportunities to connect with nature

BACKGROUND

Several local plans, created with public input, identify the need for community trails in North Plains, specifically along McKay Creek and its tributaries. In addition, a local nonprofit, the Citizens for Parks Improvements, conducted the *Parks and Recreation Survey*, a citizen opinion survey, in 2008. This survey consistently identifies trails as an unmet and desired addition to the city’s parks and recreation system. Local plans that identify the need for trails include:

- *The North Plains Comprehensive Plan*
- *The North Plains Parks and Recreation Capital Facilities Master Plan*
- *The North Plains Urban Renewal Plan*
- *The North Plains Transportation System Plan*
- Metro’s *Regional Trails & Greenways* document which identifies the McKay Creek Greenway and the Portland-to-the-Coast Trail, both in the North Plains vicinity

This plan was developed with the input of the City of North Plains Walking Trail Advisory Committee and the North Plains Parks Advisory Committee. The Walking Trail Advisory Committee was formed in 2010 with the intent of determining the best placement of street, sidewalk, and greenway trails within the North Plains Urban Growth Boundary. The city also works with the North Plains Parks Advisory Committee and the Walking Trails Committee when making other park improvements, such as selecting park furniture (benches, fountains, trash cans, etc.) designing new parks, and locating new parks.

GREENWAY TRAIL GUIDELINES

The City of North Plains is committed to trail construction and maintenance that minimizes environmental impacts and improves environmental conditions. As best management practices evolve, the city will alter trail and natural area management practices as necessary. Some basic guidelines for sound trail construction include:

- When possible, use recycled and/or local materials; such as locally recycled bark chips; wood from local, sustainably managed sources; and using recycled/recyclable HDPE plastic benches, signs
- Installing recycling containers in addition to a trash cans
- At all times, align the trail above the ordinary high water mark and in a manner that has the least impact on the natural surroundings, minimizes grading/limits erosion, protects water quality, and maintains wildlife habitat

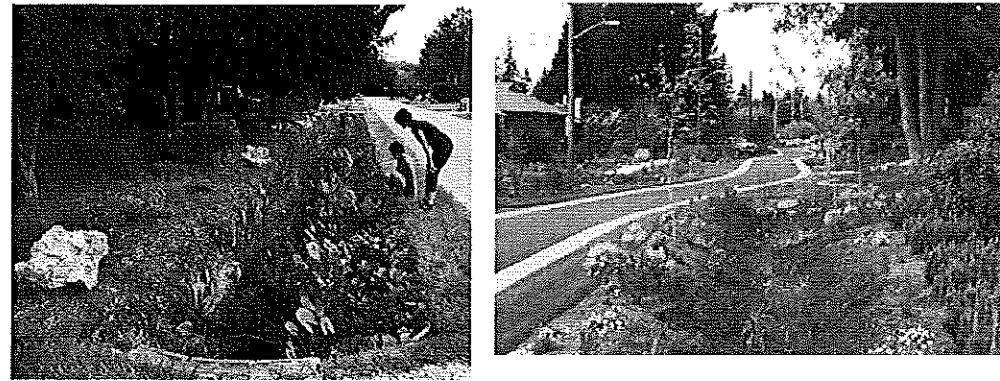
- Avoiding trail construction and maintenance between April 1-July 15 to avoid disturbing nesting birds and other breeding wildlife
- Surrounding the trail with thicker vegetation to encourage users to stay on trail and minimize site disturbance, especially in wetter areas
- All best management grade and outslope designs should be followed, including the incorporation of rolling dips and grade reversals to reduce erosion and sedimentation
- Large brush/dead and standing wood should be retained on the site to provide wildlife habitat, restore nutrients, and minimize site disturbance
- Using trail material/trail break methods that minimize erosion and are ADA compliant
- Keeping all motorized maintenance equipment on trail to reduce site disturbance
- Continuously monitor and modify trail management practices to ensure the highest level of land stewardship and user benefit
- Partner with all stakeholders and receive input on design and alignment in all stages of the project. These stakeholders may include, but are not limited to, transportation agencies, stormwater management agencies, local governments, community organizations, and adjacent property owners
- For more trail construction and management guidelines, refer to the Resources section at the end of this document

FUTURE STREET & SIDEWALK TRAIL GUIDELINES

The North Plains Walking Trail Advisory Committee and city staff determined several on and off-street paths for a future trail network in North Plains. Several factors were considered as the committee determined ideal routes, including:

- Existing & future sidewalk placements, including future sidewalks in the North and East Urban Growth Boundary (UGB) expansion areas
- Existing crosswalks
- Existing and future park locations
- Creek and water body locations
- Vehicular traffic levels and pedestrian safety
- Locations of businesses and other points of interest
- Scenic views

Many of the routes consist of on-street paths. A majority of the streets in North Plains contain open ditches and no sidewalks. Full-scale stormwater piping, curbs, and sidewalks are not financially feasible in the near future, and ditch drainage systems have the potential for improving water-quality and retaining flood waters. Open ditches can also be retro-fitted into bioswales or raingardens for filtration and water purification (Figures 2&3).



Figures 2&3: Sample Bioswales/Raingardens¹²

Due to the above reasons, many of the proposed city trail improvements will be on-street. The plans for street and sidewalk trails include:

- Placing “pedestrian lanes” on shoulders with directional arrows and pedestrian symbols. These lanes will effectively narrow vehicle travel lanes and calm traffic (Figures 4-7)
- Some streets do not have open ditches and may more easily accommodate inexpensive off-street chip or gravel pathways. Refer to the Street and Sidewalk trail section for specific locations of potential off-street pathways

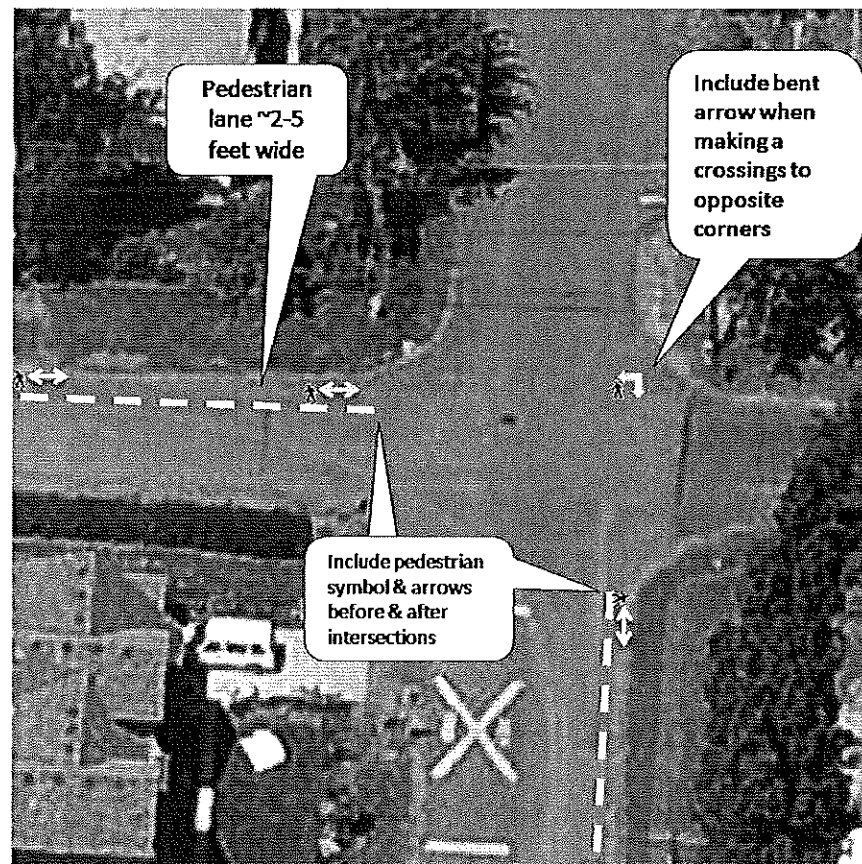


Figure 4: Conceptual Illustration of desired pedestrian paths in North Plains (not to scale).

¹ <http://ecosrq.com/bioswale%20after.jpg>

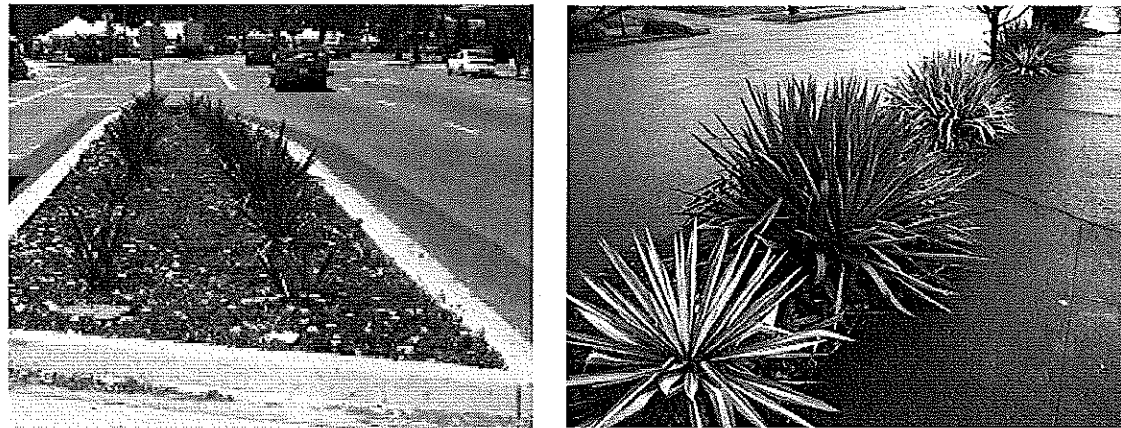
² <http://brooklyncountrylane.files.wordpress.com/2009/04/bioswale.jpg>



Figures 5,6,&7 (Bottom): Sample pictures of on-street pedestrian lanes³⁴⁵

Other possible plans for North Plains street and sidewalk trails include:

- Placement of trail marker posts, directional signage, and/or other amenities such as benches, trash cans, and dog waste receptacles in the network
- In addition, if funding allows, the following amenities may be an option in the future:
 - Adding planting strips to form a buffer between the pedestrian and traffic (Figures 8 &9).
 - Placing bollards, rumble strips, curbs, or reflectors along pedestrian path boundaries to delineate a separation from pedestrian and vehicular traffic. Many options are available for bike lanes that could be adjusted for pedestrian use (Figures 10-14)



Figures 8&9: Sample planting strips that could be incorporated into the street to serve as a buffer between the vehicle and pedestrian traffic⁶⁷

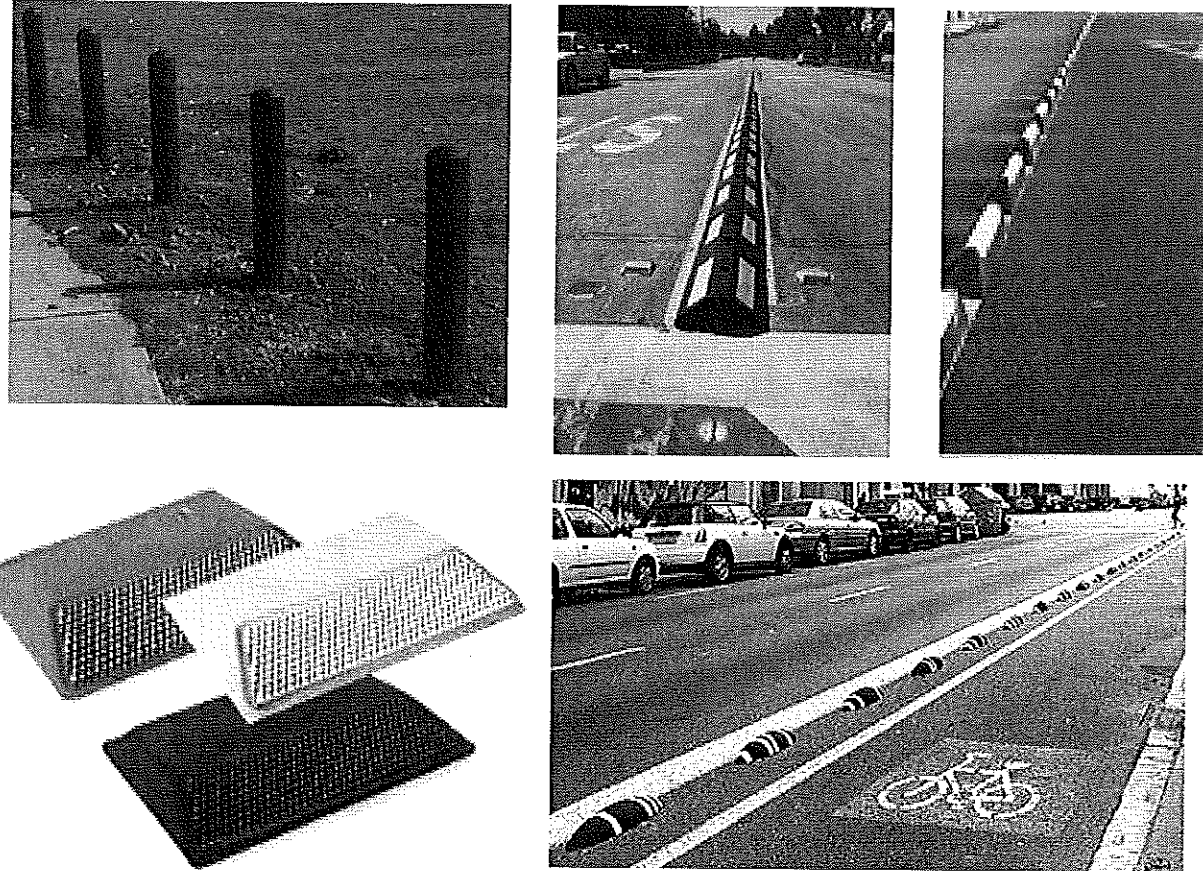
³ <http://us.123rf.com/168nwm/fintastique/fintastique0702/fintastique070200209/757947-pedestrian-lane-sign-painted-on-tarmac.jpg>

⁴ <http://brooklynimbecile.files.wordpress.com/2011/06/bike-lane-vs-pedestrian-lane.jpg>

⁵ <http://swni.org/bridlemile/hspi>

⁶ http://www.caactivecommunities.org/wp-content/gallery/engineering/normal_cr-lb-oakland-2004-planting-strip-median-near-park_4.jpg

⁷ http://4.bp.blogspot.com/_r4Klv8u2tgU/S14ZQCqv5PI/AAAAAAAAAEq8/e0WWPntDIdE/s400/Yucca+parking+strip.jpg



Figures 10-14: Bollards, curbs, and street reflectors may be used to delineate on-street pedestrian lanes. Many lane separator products are available for bicycles that could be altered for pedestrian lanes⁸⁹¹⁰¹¹¹²

⁸ http://www.plasticrecyclers.com.au/images/lightbox/bollards-135mm_large.jpg
⁹ http://www.trafficlogix.com/Images/classic%20tl%20separators/sunnyvale%20ca_resize.JPG
¹⁰ http://www.trafficlogix.com/Images/bike%20sensitive%20separators/09-2785%2009-3082%2009-3099%2009-3115%203.2%20BSAK%20E_resize.jpg
¹¹ http://lh5.ggpht.com/_jBNDd8VC61Y/Sk0dU0awXrI/AAAAAAAAABwE/BXf4MQXMJNM/zebra.jpg
¹² <http://secure.mycart.net/catalogs/catalog.asp?prodid=5106035&showprevnext=1>

STREET & SIDEWALK TRAIL ROUTES

Below are the desired street and sidewalk walking/jogging routes for the City of North Plains. Each section specifies the length, notable features, ownership, issues such as hazardous sidewalk conditions or traffic, desired improvements to the trail, and implementation actions.

GREEN TRAIL: 4 MILE CITY-WIDE LOOP

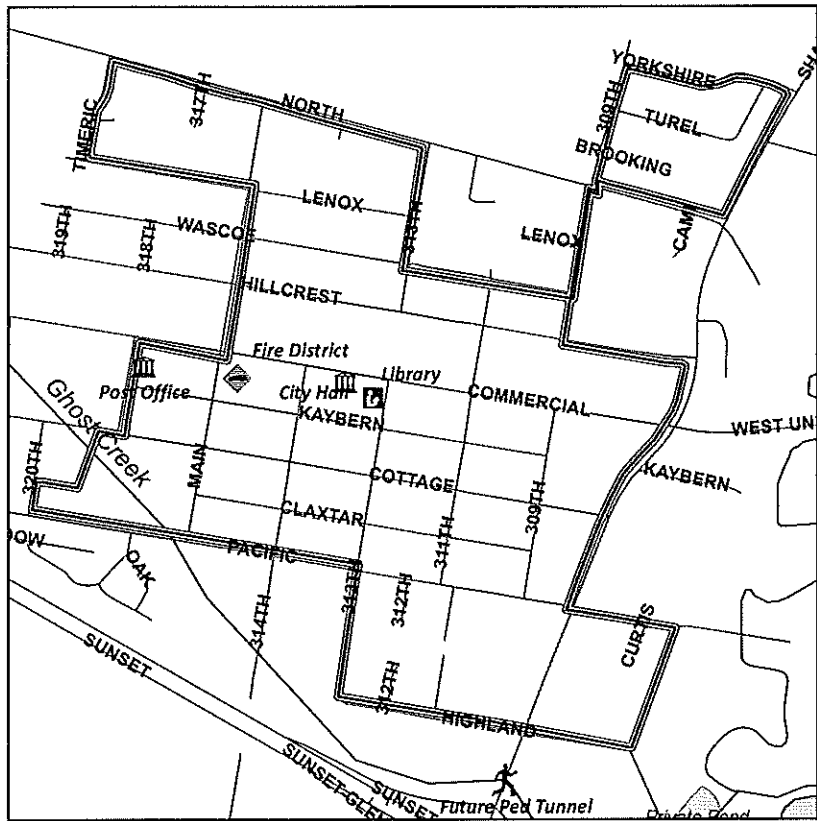


Figure 15: 4 Mile City-wide loop

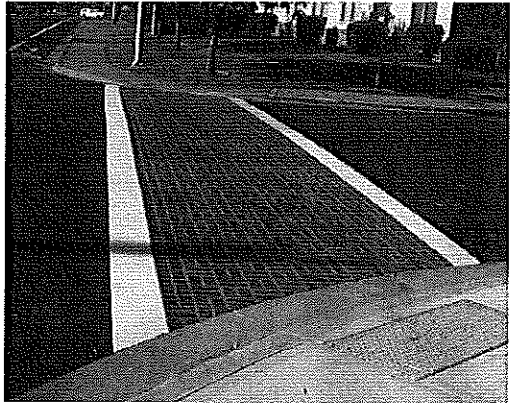
LENGTH: Approximately 4 miles
OWNERSHIP: City & Washington County owned streets, Cottage Point greenway area is privately owned by the subdivision developer
NOTABLE FEATURES: <ul style="list-style-type: none">■ Loop is a good length for runners■ Loop passes most city parks and future parks■ Loop can connect with future greenway trails along McKay and Ghost Creeks■ Loop can connect to future sidewalks and trails in the north and east expansion areas■ Portions along North Ave. have scenic views of farmland, the Tualatin Hills, & Mt. Hood

NOTABLE FEATURES (CONTINUED):

- New sidewalks established on Main from Commercial to North (Figure 16)
- New sidewalks established in Westridge (North @ 309th), Vanrodison Heritage Estates (North @ Main), & Cottage Point East (Cottage @ 320th) subdivisions
- Crosswalks available on Main @ Commercial, Lenox @ Commercial, 309th @ North, Cottage @ Glencoe, and Pacific @ Glencoe
- New thermoplastic brick pavement marking at Cottage @ Glencoe, and Pacific @ Glencoe



Figure 16: New sidewalks along Main street



(Figure 17)

Figure 17: New thermoplastic brick pavement marking, Cottage @ Glencoe

- Loop passes the Cottage Point natural area along Ghost Creek, which has the potential for wildlife and bird-watching opportunities and environmental education opportunities
- Bicyclists use Commercial and Glencoe, and often stop at local businesses for refreshments; bicycle tourism remains an under-utilized economic development opportunity in North Plains (Figure 18)



Figure 18:
Bicycle patrons
of a local café

ISSUES:

- Fast-moving traffic along North portion from North between Main & 313th (Figure 19) contains a widened shoulder for pedestrians. This shoulder has no vehicle/pedestrian separation and is an ideal location for bollards, curbs, and/or street reflectors as depicted in Figures 10-14
- Glencoe is generally unpleasant for pedestrians because of traffic volume, speed, and several driveways that cut into sidewalks
- Crossing Glencoe at Pacific and Highland is unpleasant (Figure 20)
- Vehicles often do not stop for pedestrians at crosswalks, particularly the Main @ Commercial and 309th @ North crosswalks
- Paths crisscross at 309th/North, which may be confusing for the user
- Much of the vegetation along the Cottage Point natural area is non-native and invasive

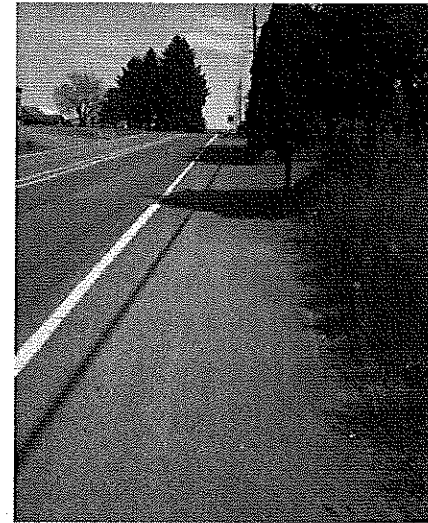


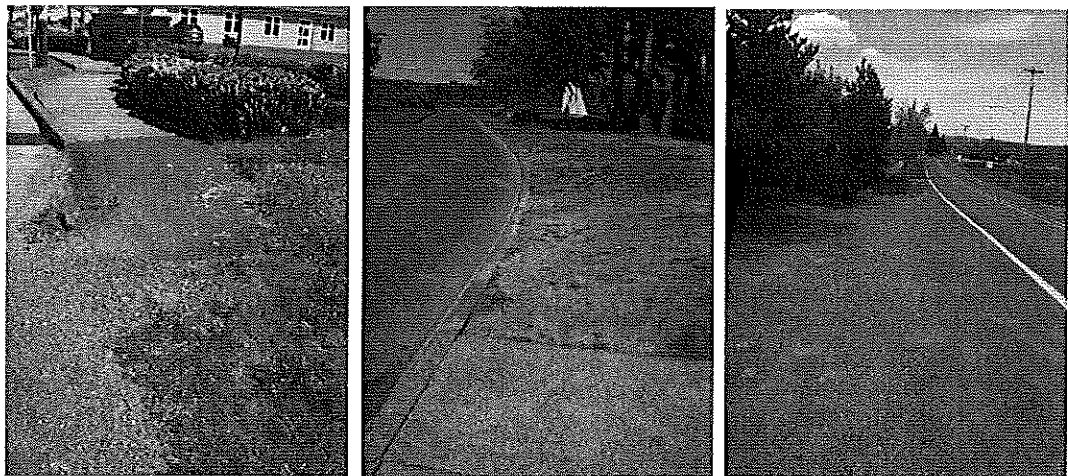
Figure 19: Ideal road shoulder used by pedestrians where bollards, curbs, and/or street reflectors could be installed.

- *Sidewalk issues:*
 - Sidewalk gap on Commercial from 318th to Post Office (~100 feet) (Figure 21)
 - Lot near North/Timeric is missing a sidewalk (Figure 22)
 - Sidewalks on North from Timeric to Main, North between Main and 313th, 313th from North to Lenox, Highland between 312th and 313th, and Pacific from Main to 320th, are made of lower-quality asphalt and are starting to deteriorate
 - Unpleasant to cross Chevron's driveway while walking on sidewalks on Highland @ Glencoe
 - Future sidewalks on Pacific are pending completion of the Cottage Point East subdivision
 - No sidewalks surrounding the PGE station on the corner of North and Shadybrook (Figure 23)
 - Hazardous on-street segment with no sidewalks on Glencoe between Hillcrest & Commercial
 - Intermittent or no sidewalks on Pacific from Glencoe to 307th and 307th from Pacific to Highland, sidewalks that do exist are isolated to frontages of newer townhomes
 - Intermittent and/or sub-standard sidewalks on Highland from Glencoe to 313th
 - No sidewalks on corner of Highland @ 313th; limited sight distance for pedestrians



Figure 20: Onerous crossing for pedestrians, Glencoe @ Highland

4 MILE CITY-WIDE LOOP (CONTINUED)



Figures 21 & 22: Gaps in otherwise continuous stretches of sidewalks, Commercial @ 318th (Left), Timeric @ Main (Right)

Figure 23: No sidewalks surround the PGE station on the corner of North and Shadybrook

DESIRED IMPROVEMENTS:

- Crosswalks, street furniture, water fountains, mile-markers, trail signs
- Traffic calming
- On and off-street pedestrian paths
- Wildlife amenities such as bird houses, bat houses, and bird feeders
- Habitat restoration along the Cottage Point natural area with native vegetation
- Wildlife amenities such as bird houses, bat houses, bird feeders, and educational signage along the Cottage Point natural area

IMPLEMENTATION ACTIONS ✓

- ☐ Place double-sided arrows/pedestrian stencils along the entire trail and before/after all intersection crossings and before/after all driveway cuts. (Figure 4, page 5)
- ☐ Install and improve crosswalks, (especially at Glencoe @ Pacific and Glencoe @ Highland), street furniture, mile-markers, and trail signs. Mile markers should be color-coded to designate different loops/trails



Figure 24: City-owned right-of-way (a vacated street) where amenities for a pocket park could be installed

IMPLEMENTATION ACTIONS (CONTINUED)

- ☐ Install amenities for a potential pocket park on Cottage @ 318th (trash cans, water fountain, benches, tables, dog waste receptacles, exercise stations) (Figure 24)
- ☐ Explore funding options to replace asphalt sidewalks in the next 10-15 years
- ☐ Work with North Plains Police Department to better enforce vehicular pedestrian yields
- ☐ Explore options to improve existing crosswalks to make pedestrians more visible to vehicles
- ☐ Explore options to install smaller-scale crosswalks across driveways on Glencoe and driveways along Highland
- ☐ Lot near North @ Timeric is missing a sidewalk. A makeshift gravel path could be installed to fill gap in sidewalk. In the long term, work with the landowner to install a sidewalk. (Figure 22)
- ☐ Install off-street path to fill in gap on Commercial from 318th to the Post Office (Figure 21)
- ☐ Work with PGE to install off-street paths surrounding their utility station on North @ Shadybrook (Figure 23)
- ☐ Install off-street path surrounding Jessie Mays Community Center
- ☐ Install other off-street gravel or bark paths where feasible: 313th-Lenox to Wascoe, Wascoe-313th to 309th, Glencoe-Hillcrest to Commercial, 313th-Highland to Pacific, all along Pacific, and 318th from Cottage to Commercial
- ☐ Work with property owner of Cottage point greenway to install wildlife amenities and conduct volunteer planting work parties to re-establish native vegetation
- ☐ Work with Washington County to install crosswalks across Glencoe @ Pacific and Glencoe @ Highland
- ☐ Work with Washington County to explore traffic calming along North Ave. and Glencoe Rd.
- ☐ Work with Washington County to install bollards, curbs, and/or street reflectors on the widened shoulder on North between Main & 313th (Figure 19)

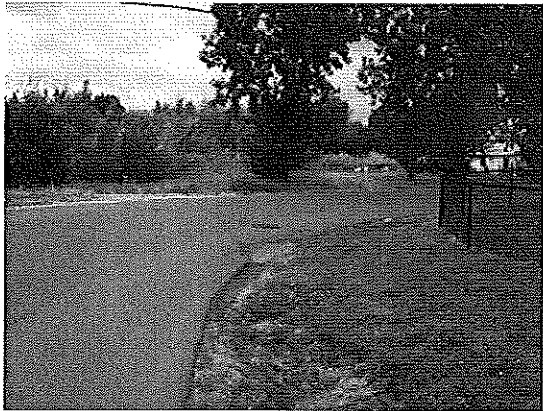


Figure 25: Limited site distance, corner of 313th & Highland

RED TRAIL: 1.5 MILE DOWNTOWN LOOP

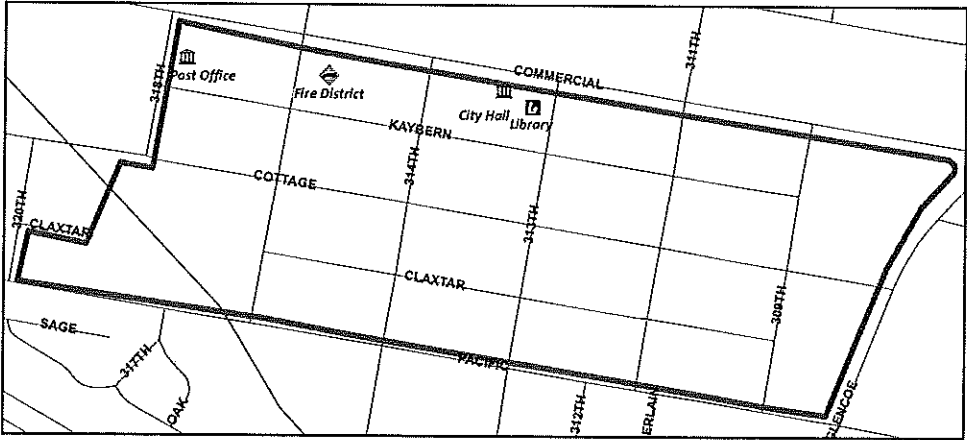


Figure 26: 1.5 Mile Downtown Loop

LENGTH: Approximately 1.5 Miles

NOTABLE FEATURES:

- Trail passes Downtown businesses, businesses along Glencoe, City Hall, Library, Senior Center, Post Office, and the Fire Station
- Loop is a good length for short-distance runners and walkers
- Trail passes bus stops along Commercial
- Bicyclists frequently use Commercial and Glencoe, and often stop at local businesses for refreshments; bicycle tourism remains an under-utilized economic development opportunity in North Plains (Figures 18,27)
- Loop passes the Cottage Point natural area along Ghost Creek, which has the potential for wildlife and bird-watching opportunities and environmental education opportunities
- Trail passes Louie Wence Park
- New thermoplastic brick pavement marking at Cottage @ Glencoe, and Pacific @ Glencoe (Figure 17)
- Crosswalks available on Main@ Commercial, Cottage @ Glencoe, Pacific @ Glencoe

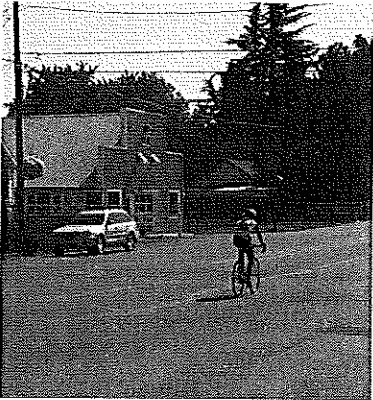


Figure 27: Bicyclist passing through downtown North Plains

OWNERSHIP: City & Washington County streets, Cottage Point greenway area is privately owned by the subdivision developer

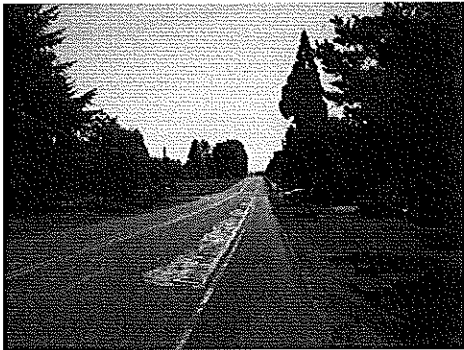
ISSUES:

- Commercial between 313th and 309th (Figure 28) contains a widened shoulder for pedestrians. This shoulder has no vehicle/pedestrian separation and is an ideal location for bollards, curbs, and/or street reflectors as depicted in Figures 10-14
- Vehicles often do not stop for pedestrians at crosswalks

ISSUES (CONTINUED):

- Glencoe is generally unpleasant for pedestrians because of traffic volume, speed, and several driveways that cut into sidewalks
- Sidewalks on Pacific from Main to 320th are made of lower-quality asphalt and are starting to deteriorate
- Future sidewalks on Pacific that are part of the Cottage Point East Subdivision are pending completion of subdivision construction
- No sidewalk on Commercial from 318th to Post Office (~100 feet)
- Intermittent or no sidewalks on Pacific
- Much of the vegetation along the Cottage Point greenway is non-native and invasive

Figure 28: This shoulder on Commercial between 313th and 309th has no vehicle/pedestrian separation and is an ideal location for bollards, curbs, and/or street reflectors



DESIRED IMPROVEMENTS:

- Crosswalks, street furniture, water fountains, mile-markers, trail signs
- Traffic calming
- On and off-street pedestrian paths
- Wildlife amenities such as bird houses, bat houses, and bird feeders
- Habitat restoration along the Cottage Point natural area with native vegetation
- Wildlife amenities such as bird houses, bat houses, bird feeders, and educational signage

IMPLEMENTATION ACTIONS ✓

- ☐ Place double-sided arrows/pedestrian stencils along the entire trail and before/after all intersection crossings and before/after all driveway cuts (Figure 4, page 5)
- ☐ Install crosswalks, street furniture, mile-markers, trail signs. Mile markers should be color-coded to designate different loops/trails
- ☐ Install amenities for pocket park on Cottage @ 318th (trash cans, drinking fountain, benches, tables, dog waste receptacles, exercise stations)
- ☐ Explore funding options to replace asphalt sidewalks in the next 10-15 years
- ☐ Install off-street path to fill in gap on Commercial from 318th to the Post Office
- ☐ Install other off-street gravel or bark paths where feasible along Pacific
- ☐ Work with Washington County to explore traffic calming along Glencoe

IMPLEMENTATION ACTIONS (CONTINUED):

- ☐ Work with Washington County to install bollards, curbs, and/or street reflectors on the widened shoulder on Commercial between 313th and 309th (Figures 10-14, 28)
- ☐ Work with North Plains Police Department to better enforce vehicles yielding to pedestrians
- ☐ Explore options to improve existing crosswalks to make more visible to vehicles, especially along Commercial
- ☐ Explore options to install smaller-scale crosswalks across driveways on Glencoe
- ☐ Work with property owner of Cottage point greenway to install wildlife amenities and conduct volunteer planting work parties to re-establish native vegetation

ORANGE TRAIL: 0.9 MILE LOOP

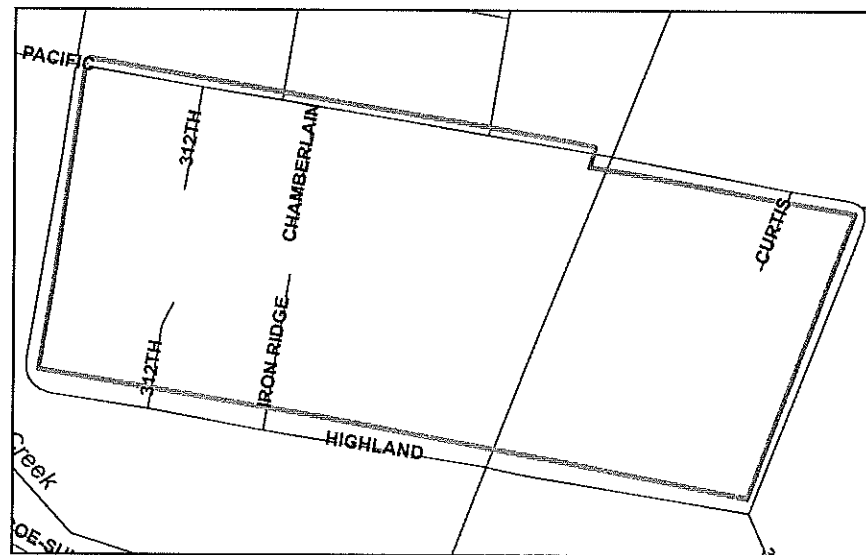


Figure 29: 0.9 Mile Loop

LENGTH: Approximately 0.9 mile

NOTABLE FEATURES:

- Loop is a good length for short-distance runners and walkers
- Loop can connect with future parks and greenway trails along McKay and Ghost Creeks

OWNERSHIP: City & County streets

ISSUES:

- Crossing Glencoe at Pacific and Highland is hazardous for pedestrians (Figure 17, page 8)
- Glencoe is generally unpleasant for pedestrians because of traffic volume, speed, and several driveways that cut into sidewalks
- Unpleasant to cross Chevron's driveway while walking on sidewalks on Highland @ Glencoe

ISSUES (CONTINUED):

- *Sidewalk issues:*
 - Intermittent or no sidewalks on Pacific from 307th to Highland , new sidewalks are isolated to frontages of newer townhomes
 - Intermittent and/or sub-standard asphalt sidewalks on Highland from Glencoe to 313th
 - No sidewalks on corner of Highland @ 313th; limited sight distance for pedestrians (Figure 21, page 9)

DESIRED IMPROVEMENTS:

- Crosswalks, street furniture, water fountains, mile-markers, trail signs
- Traffic calming
- On and off-street pedestrian paths

IMPLEMENTATION ACTIONS ✓

- ☐ Place double-sided arrows/pedestrian stencils along the entire trail and before/after all intersection crossings and before/after all driveway cuts. (Figure 4, page 5)
- ☐ Install crosswalks, street furniture, mile-markers, trail signs. Mile markers should be color-coded to designate different loops/trails.
- ☐ Install makeshift off-street paths where possible: 313th-Highland to Pacific, Highland-307th to Glencoe, and Pacific-313th to Glencoe
- ☐ Work with Washington County to Install crosswalks on Glencoe @ Pacific and Glencoe @ Highland
- ☐ Work with Washington County to explore traffic calming options along Glencoe

GREENWAY TRAILS

GHOST CREEK GREENWAY TRAIL

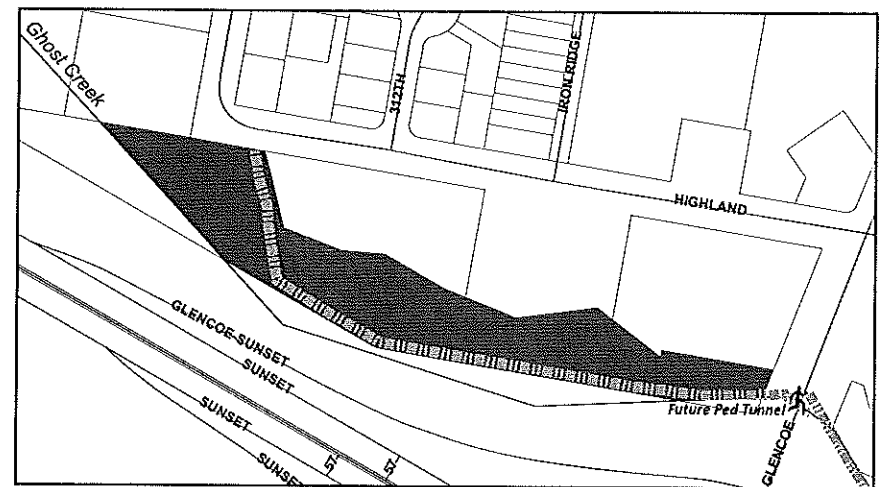


Figure 30: Ghost Creek Greenway Trail; the property in purple will be donated to the City by the current owners

LENGTH: Approximately 0.2 Miles

NOTABLE FEATURES:

- Follows Ghost Creek natural area
- Wildlife and bird-watching opportunities
- Environmental education opportunities
- Trail ties into the City's street and sidewalk trails
- The City has recently installed a picnic table, trash can, and dog waste receptacles on Highland @ 313th



Figure 31: Ghost Creek natural area, facing south

OWNERSHIP:

- 3.09 acre property (Figure 30, above in purple) is currently in the process of being donated to the City of North Plains by the owners. Clean Water Services currently has a sewer trunk line easement on the property.

ISSUES:

- Many portions of the trail are flooded during many months of the year
- Much of the vegetation along the creek is non-native and invasive
- There may be security and safety concerns if the trail is developed, particularly concerning the pedestrian tunnel
- Privacy concerns for adjacent landowners to the trail

DESIRED IMPROVEMENTS:

- Five foot path, benches, water fountains, waste and recycling receptacles, and information kiosks. The path should be designed in a manner that permits year-round use. This may entail the installation of a boardwalk on some or all portions of the trail, such as the boardwalk along Willow Creek in Beaverton (Figure 32, right).
- Wildlife amenities such as bird houses, bat houses, and bird feeders
- Habitat restoration along the creek with native vegetation

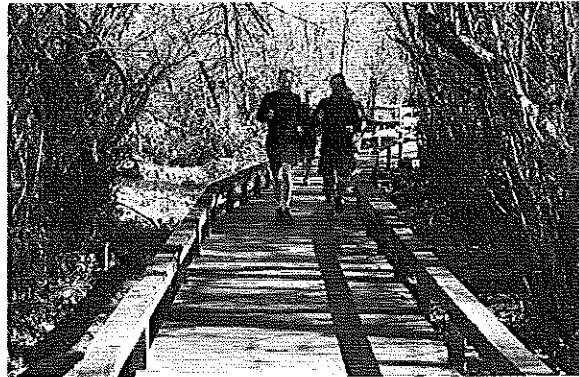


Figure 32, Boardwalk along Willow Creek Trail, Beaverton, OR

IMPLEMENTATION ACTIONS ✓

- ☐ Refer to the Appendix B for a map of the lot-by-lot breakdown of necessary tasks to complete the Ghost Creek and McKay Creek Greenway Trail.
- ☐ Work with property owners to get the land donation of the 3.09 acre property along Ghost Creek finalized

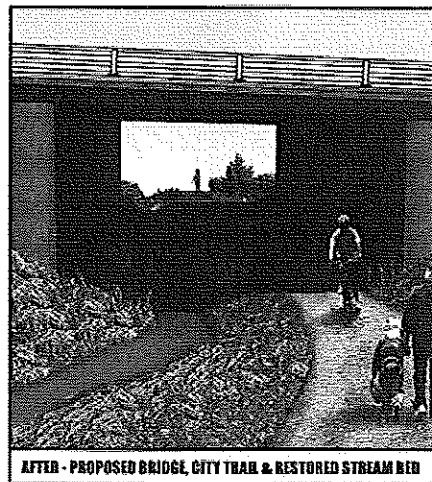
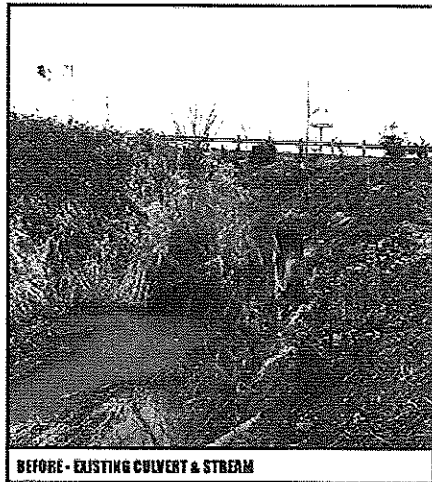


Figure 33: ODOT rendering of the future pedestrian tunnel under Glencoe, following Ghost Creek

- ☐ Continue partnering with the Oregon Department of Transportation (ODOT) to design and construct the pedestrian tunnel beneath Glencoe Road. This will be a part of ODOT's Glencoe Interchange project (Figure 33, above)
- ☐ Consult with other area jurisdictions (Oregon Parks & Recreation, Oregon Department of Environmental Quality, Clean Water Services, ODOT) to determine best trail designs, including options to ensure adjacent landowner privacy
- ☐ Consult with North Plains Police to ensure trail designs meet safety concerns

IMPLEMENTATION ACTIONS (CONTINUED)

- ☐ Continue to partner with residents, Clean Water Services, and ODOT to plan, construct, and maintain trail, including invasive plant removal and native tree and shrub planting work parties
- ☐ Explore grant and other funding options to construct the trail and purchase signage kiosks, trash cans, and other trail or boardwalk materials

MCKAY CREEK GREENWAY TRAIL



Figure 34: McKay Creek Greenway Trail, areas in purple are future parks

LENGTH/WIDTH: Approximately 1.2 Miles

NOTABLE FEATURES:

- Follows the McKay Creek natural area
- Wildlife and bird-watching opportunities
- Environmental education opportunities
- Trail ties into the City's street and sidewalk trails
- The City will open a new park with a path, benches, and fencing at Pacific & 307th

OWNERSHIP:

- Desired trail pathway is owned by multiple private owners and public agencies. The trail will require multiple easements, dedications in lieu of park system development charges, grant acquisitions for improvements, and pedestrian crossings across city and county roads

<p>OWNERSHIP (CONTINUED)</p> <ul style="list-style-type: none"> ■ City owns future park at Pacific & 307th and city streets (307th, Pacific, <u>Old West Union</u>, Kaybern. Washington County owns West Union, and trail crosses Pacific Railroad right-of-way.
<p>ISSUES:</p> <ul style="list-style-type: none"> ■ Pedestrian safety issues crossing West Union ■ Pedestrian safety issues crossing railroad ■ Many portions of the trail are flooded during many months of the year ■ Much of the vegetation along the creek is non-native and invasive ■ There may be security and safety concerns if the trail is developed, particularly concerning the pedestrian tunnel ■ Trail construction may require DEQ permits ■ Most of the McKay Creek Greenway Trail runs through private properties with multiple owners. Some owner's have expressed willingness to donate trail portions when they subdivide their properties for residential development. However, this approach is likely to take many years ■ Privacy concerns for adjacent landowners to the trail
<p>DESIRED IMPROVEMENTS:</p> <ul style="list-style-type: none"> ■ Five foot path, benches, drinking fountains, waste and recycling receptacles, and information kiosks. The path should be designed in a manner that permits year-round use. This may entail the installation of a boardwalk on some or all portions of the trail, such as the boardwalk along Willow Creek in Beaverton (Figure 32) ■ Wildlife amenities such as bird houses, bat houses, and bird feeders ■ Habitat restoration along the creek with native vegetation
<p>IMPLEMENTATION ACTIONS ✓</p> <ul style="list-style-type: none"> <input type="checkbox"/> Refer to the Appendix B for a map of the lot-by-lot breakdown of necessary tasks to complete the Ghost Creek and McKay Creek Greenway trails <input type="checkbox"/> Continue partnering with the Oregon Department of Transportation (ODOT) to design and construct the pedestrian tunnel beneath Glencoe Road. This will be a part of ODOT's Glencoe Interchange project (Figure 33, above) <input type="checkbox"/> Consult with other area jurisdictions (Oregon Parks & Recreation, Oregon Department of Environmental Quality, Clean Water Services, ODOT) to determine best trail designs, including options to ensure adjacent landowner privacy <input type="checkbox"/> Consult with North Plains Police to ensure trail designs meet their safety concerns <input type="checkbox"/> Continue to partner with residents, Clean Water Services, SOLV, and ODOT to plan, construct, and maintain trail, including invasive plant removal and native tree and shrub planting work parties

IMPLEMENTATION ACTIONS (CONTINUED)

- ☐ Explore grant and other funding options to construct the trail and purchase signage kiosks, trash cans, and other trail or boardwalk materials
- ☐ Work with Washington County to install a pedestrian refuge island where the trail crosses West Union (Figure 35)
- ☐ Work with property owners to explore easement options in the near future

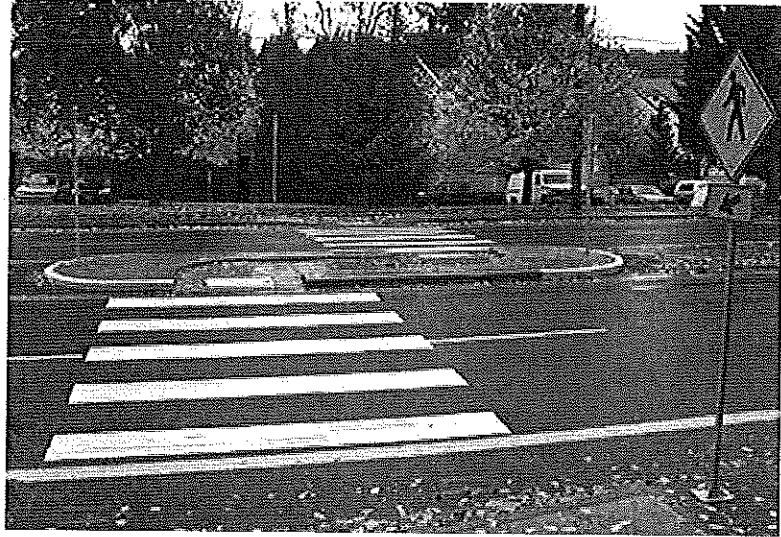


Figure 35: Sample pedestrian refuge island¹³

¹³ <http://swni.org/CMS-Uploads/BNACRWS977VVS.jpg>

EXPANSION AREA SIDEWALKS & TRAILS

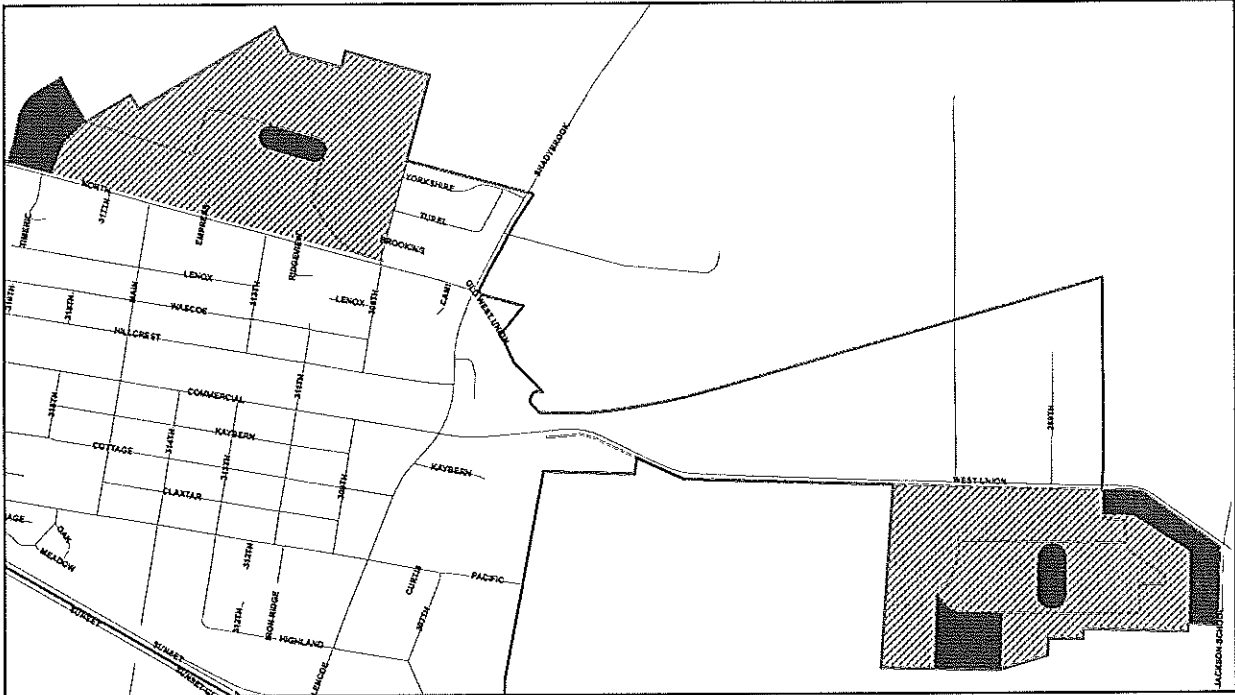


Figure 36: North Plains growth expansion areas are hatched above, purple areas are potential park lands, and dashed lines are potentially future sidewalks

LENGTH: Approximately 2.5 Miles, however exact length and design will be determined during future development
NOTABLE FEATURES: <ul style="list-style-type: none">■ Area has not been developed■ Many opportunities are available to incorporate trails into future commercial and residential developments
OWNERSHIP: <ul style="list-style-type: none">■ Privately owned farmland slated for future residential and commercial development■ West Union, Jackson School, and North Ave are owned and maintained by Washington County■ Future land for streets may be dedicated to the City
ISSUES: <ul style="list-style-type: none">■ Area is undeveloped, so incorporation of trails in future development will require extensive coordination among landowners, developers, the City, and Washington County■ West Union, North, and Glencoe are unpleasant for pedestrians because of high-speed vehicular traffic

<p>DESIRED IMPROVEMENTS:</p> <ul style="list-style-type: none"> ▪ Sidewalks and trails that bypass future parks and connect to existing street, sidewalk, and greenway trails and readily provide pedestrian access to future businesses, parks, and residences ▪ Crosswalks, street furniture, water fountains, mile-markers, trail signs ▪ Traffic calming
<p>IMPLEMENTATION ACTIONS:</p> <ul style="list-style-type: none"> ▪ City coordination with existing and future landowners, developers, and Washington County to ensure incorporation of sidewalks and trails into future developments

CONCLUSION

IMPLEMENTATION TIMELINE

Implementation of the *Community Trails Plan* is expected to take several years. It is important to begin immediate implementation to keep the community’s vision alive and the momentum going. Accordingly, the trails advisory committee classified an implementation order of the street and sidewalk trails. The committee and city staff wish to start with small, but continuous, trail improvements to learn, adapt, and alter trail construction/creation methods as necessary. Specific implementation actions for each trail are listed under their respective descriptions in this document. The order of implementation is recommended as follows:

- #1 Red Loop/Downtown Loop (Within 1-2 years)
- #2 Orange Loop (Within 2-5 years)
- #3 Green Loop (Within 2-5 years)
- ONGOING:** Implement Ghost Creek & McKay Creek Trails (See below)

The Walking Trails Advisory Committee, the Parks Advisory Committee, and city staff recommend that the Ghost Creek and McKay Creek Trails be implemented on an immediate, on-going time frame. Specific implementation actions for each trail are listed under their respective descriptions in this document, but the following actions should be immediately pursued:

- Work with the property owners of the 3.09 acre lot along Ghost Creek to finalize the land donation to the city.
- Continue working closely with ODOT to design and construct the pedestrian tunnel under Glencoe in conjunction with ODOT’s Glencoe Interchange project.
- Work with the property owners along the proposed McKay Creek Trail to obtain more immediate easements and land donations. It is recommended to start with the property owners that are adjacent to the future pedestrian tunnel and the trail’s intermediary access points at Pacific and at 307th in order to spearhead the trail’s development.

-
- Consult with other area jurisdictions (Oregon Parks & Recreation, Oregon Department of Environmental Quality, Clean Water Services, ODOT) to determine best trail designs, including options to ensure adjacent landowner privacy.
 - Explore grant and other funding options to construct the trail and purchase signage kiosks, trash cans, and other trail materials.

FUNDING

Cost estimates for trails vary widely, but the following are some rough estimates available from the Rails to Trails Conservancy and other resources listed at the end of this document.

Street & Sidewalk Trails

The proposed street and sidewalk trails will cost considerably less than the proposed greenway trails. It is recommended that the city begin with smaller, less expensive improvements to the street and sidewalk trails prioritized above. The city can also pursue local business and citizens for donations and/or for volunteers for tasks such as bench and water fountain purchase/installation. Below are estimates for the proposed components of the street and sidewalk trails:

- Mile marker posts: \$50 each
- Pavement markers/reflectors: \$4 each
- Bollards: \$150 each
- Road striping: \$1.50/foot
- Pedestrian stencils: \$150 each
- Dog station: \$350 each
- Trash/recycling cans: \$500 each
- Benches: \$500 each
- Picnic tables: \$700 each
- Water Fountains: \$1500 each
- Brick melt-down crosswalks: \$5,000 per crossing

Greenway Trails

Price estimates for greenway trails vary widely because of the spectrum of costs associated with environmental permits, engineering, trail materials, and labor. The Rails to Trails Conservancy estimates the following all-encompassing project and maintenance costs associated with the following types of greenway pathway designs:

- Asphalt pathways: \$200K-\$300K per mile
- Concrete pathways: \$300K-\$500K per mile
- Crushed stone pathways: \$80K-\$120K per mile
- Boardwalk pathways: \$1.5mil-\$2mil per mile
- Greenway trail maintenance costs: \$1, 000-\$3,000 per mile

System Development Fees (SDCs) can be used for new parks and recreation facilities, and other grant options are listed in Appendix C. SDC funds may also be used for grant matches. Community support and involvement is an essential component of most grant applications, and it is important that citizens stay involved with implementation. With significant community support, sound planning, and persistence projects can and do happen, regardless of limited funding pools.

RESOURCES FOR MORE INFORMATION

Clean Water Services. *West North Plains Trunk Line Natural Resource Assessment and Mitigation and Enhancement Plan*. February 2002.

Minnesota, State of. Department of Natural Resources. *Parks and Trails of State and Regional Significance: A 25-year long-range plan for Minnesota*. February 2011.

New Hampshire Bureau of Trails. *Best Management Practices For Erosion Control During Trail Maintenance and Construction*. 1994/2004.

Oregon Department of Transportation. *Oregon Bicycle and Pedestrian Plan*. 1995.

Oregon Metro. *Regional Trails & Greenways: Connecting neighborhoods to nature*.

Oregon Parks and Recreation Department. *The Oregon Recreational Trails How-To Manual*. May 2004.

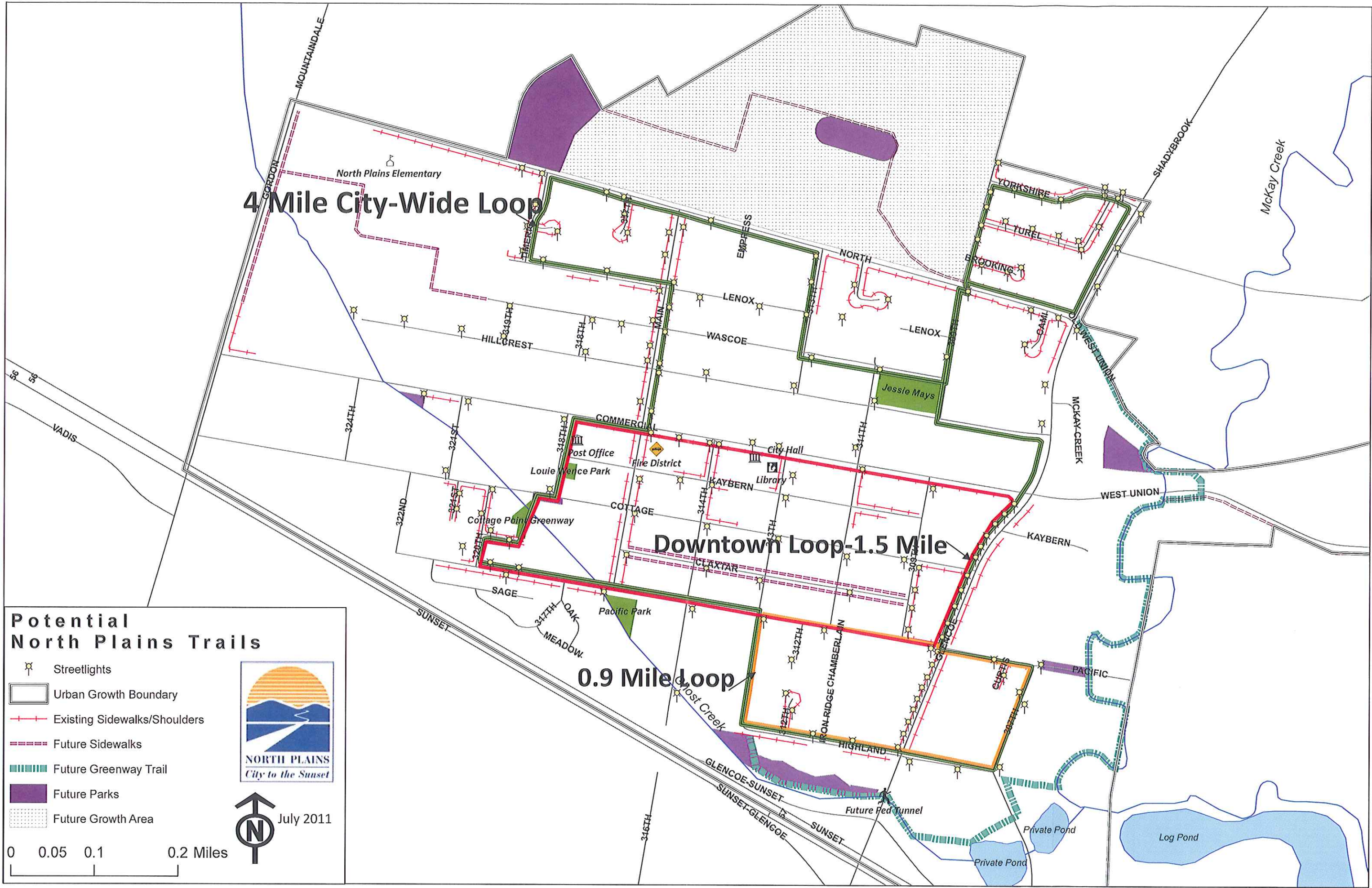
Rails to Trails Conservancy. *Trails for the 21st Century*, 2nd Edition. Island Press. 2001.

Rails to Trails Conservancy. railstotrails.org

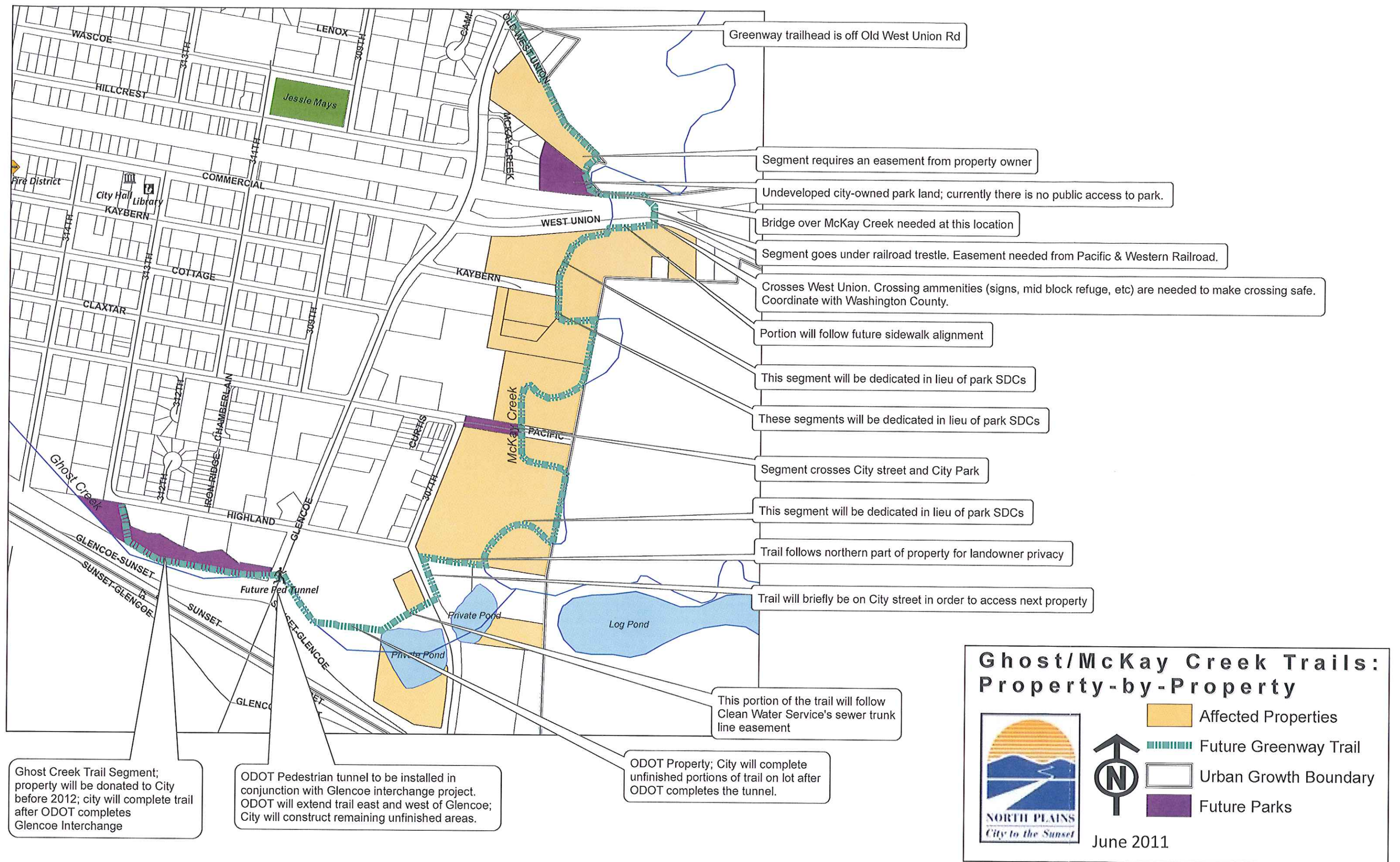
Tualatin Hills Park & recreation District. *Trails plan for the Tualatin Hills Park & Recreation District*. October 2006.

U.S. Forest Service. *Wetland Trail Design and Construction*, 2007 Edition.

APPENDIX A: OVERALL STREET,
SIDEWALK, & GREENWAY TRAILS



APPENDIX B: LOT-BY-LOT
MCKAY CREEK TRAIL MAP



APPENDIX C: FUNDING SOURCES

POTENTIAL TRAIL FUNDING SOURCES IN OREGON (SOURCE: OREGON PARKS & RECREATION)

Funding Source	Program Name	Web Site	Eligible Uses					Eligible Applications							
			Plan	Program	Develop	Property Acquisition	Education	Equipment	Non Profit	School	City	County	State	Federal	Other
American Canoe Assoc.	Club Fostered Stewardship	http://www.acanet.org/conservation/cfs.htm			X	X									Clubs
American Hiking Society	National Trails Endowment	www.americanhiking.org			X	X									
Americorps		http://www.americorps.org/joining/direct_or.html			X		X	X		X	X	X	X	X	
Avista Foundation	Avista Foundation Grants	http://www.avistafoundation.org/application.asp			X				X						
Barnes & Nobles	Affiliates Program	www.barnesandnoble.com		X					X						
Bikes Belong Coalition	Bikes Belong Grants Program	http://bikesbelong.org/site/page.cfm?pageID=21			X				X	X	X	X	X	X	
Boeing Charitable Foundation	Civic and Environmental Contributions	http://www.boeing.com/company/offices/aboutus/community/charitable.htm	X	X	X	X			X						
Center for Disease Control (CDC)	Preventive Health & Health Services Block Grant Program	http://www.cdc.gov/nccdbhp/aag/aag_blockgrant.htm		X	X							X	X		
Coors Brewing Company	Coors Pure Water 2000 Grants	http://www.coors.com/community/philanthropy.asp			X	X			X						
Eastman Kodak Company	Kodak American Greenways Program	www.conservationsund.org	X										X	X	
Federal Dept. of	Healthy People	www.health.gov/healthy-people	X	X									X	X	

Funding Source	Program Name	Web Site	Eligible Uses						Eligible Applications						
			Plan	Program	Develop	Property Acquisition	Education	Equipment	Non Profit	School	City	County	State	Federal	Other
Health & Human Services	2010 Implementation Grants	altnypeople													
Federal Highway Admin.	Recreational Trails Program National Program	www.fhwa.dot.gov/environment/rectrail.htm			X	X			X		X	X	X		
Ford Family Foundation	Rural Civic and Community Enhancement Program	http://www.tfff.org/main/guidelines.html#a			X				X						
Honda Motor Company	American Honda Foundation	http://www.hondacorporate.com/community/index.html?subsection=foundation		X					X						
Kongsgaard Goldman Foundation	Environmental Protection and Conservation Program	http://www.kongsgaard-goldman.org/program.html	X		X				X						
M.J. Murdock Charitable Trust	Programs to Strengthen the Contemporary American Family	http://www.murdock-trust.org/		X					X						Universities
Metro	Parks & Greenspaces Grants Program	www.metro-region.org							X	X	X				
Meyer Memorial Trust	General Purpose Grants	http://www.mmt.org/gl		X	X			X	X	X	X	X	X		
National Endowment for the Arts	Challenge America Fast Track Grants	www.arts.gov		X											

Funding Source	Program Name	Web Site	Eligible Uses						Eligible Applications						
			Plan	Program	Develop	Property Acquisition	Education	Equipment	Non Profit	School	City	County	State	Federal	Other
National Fish & Wildlife Foundation		www.nfwf.org													
National Park Service	Challenge Cost-Share Program (CCSP)	http://www.nps.gov/chal/sp/chalapp.htm		X	X			X							
National Park Service	River Trails & Conservation Assistance Program	http://www.nps.gov/ccso/rtca/application.html	X	X					X					X	
National Park Service	Disposal of Federal Surplus Real Property for Parks and Recreation and Historic Monuments	http://www.cfda.gov/public/viewprogram.asp?progid=471				X			X						
National Tree Trust	Multiple Programs	www.nationaltreetrust.org		X	X									X	
New England Foundation for the Arts	Art and Community Landscapes Program	http://www.nefa.org/grantprog/acl/	Trail side Art						X						
Nike - Community Investment	Community Investment Program	http://www.nike.com/nikebiz/nikebiz.html?page=26&item=giving		X											
Oregon Dept. of Trans.	Transportation Enhancement Program	http://www.odot.state.or.us/techserv/engineer/pdu													
Oregon Dept. of Trans. / Oregon Dept. of Land Conservation & Development	Transportation and Growth Management Program	http://www.lcd.state.or.us/tgm/grants.htm	X												
Oregon	Needs and	http://www.econ.st			X										

Funding Source	Program Name	Web Site	Eligible Uses						Eligible Applications						
			Plan	Program	Develop	Property Acquisition	Education	Equipment	Non Profit	School	City	County	State	Federal	Other
Economic and Community Development Dept.	Issues Inventory	ate.or.us/needs_issue.htm													
Oregon Parks & Recreation Dept.	ATV Fund	http://atv.prd.state.or.us/grant	X	X	X	X	X	X	X	X	X	X	X	X	
Oregon Parks & Recreation Dept.	Recreation Trails Program	www.prd.state.or.us/grants-recretrails.php		X	X	X	X	X	X	X	X	X	X	X	X
Oregon Parks & Recreation Dept.	Land & Water Conservation Fund	www.prd.state.or.us/grants_lwcf.php			X	X				X	X	X			X
Oregon Parks & Recreation Dept.	Local Government Grant Programs	www.prd.state.or.us/grants-localgov.php			X	X				X	X	X			X
Oregon Watershed Enhancement Board	Small Grant Program	http://www.oweb.state.or.us/SmallGrant/smallgrant.shtml		X	X				X	X	X	X	X		
Patagonia	Environmental Grants Program	www.patagonia.com	X	X					X	X	X				
Polaris Industries	Trail Safety and Grants	http://www.polarisindustries.com		X					X			X	X		
Power Bar	Direct impact on Rivers and Trails (DIRT) Program	www.powerbar.com		X											
Recreation Equipment Inc. (REI)	Recreation and Conservation Grants	www.rei.com		X					X						
Robert Wood Johnson Foundation		www.rwjf.org													
Rockefeller Family Fund		www.rfund.org	X	X	X										
SOLV	Project Oregon	http://www.solv.org	X	X	X				X	X	X	X	X	X	

Funding Source	Program Name	Web Site	Eligible Uses						Eligible Applications					
			Plan	Program	Develop	Property Acquisition	Education	Equipment	Non Profit	School	City	County	State	Federal
		/programs/project_oregon.asp												
Surdna Foundation		www.surdna.org		X	X				X	X	X	X	X	
The Collins Foundation		http://www.collinsfoundation.org/		X			X			X				
The Conservation Alliance		http://www.conservationalalliance.com/grants.m			X	X			X					
The Hugh & Jane Ferguson Foundation	Foundation Grant Fund	http://foincenter.org/grantmaker/ferguson/guide.html	X		X				X					
The Kresge Foundation	Bricks & Mortar Program	http://www.kresge.org/programs/index.htm		X	X				X	X	X	X	X	
The Mountaineers Foundation		www.mountaineersfoundation.org						X	X					X
The Oregon Community Foundation	Oregon Historic Trails Fund	http://www.ocf1.org/grant_programs/grant_programs_fr.htm		X	X	X			X	X	X	X	X	
The Oregon Community Foundation	Community Grants Fund	http://www.ocf1.org/grant_programs/community_grant_fr.htm		X	X		X		X					
The Trust for Public Land		http://www.tpl.org/tier2_sa.cfm?folder_id=1825							X	X	X	X	X	
Tom's of Maine/National Park Foundation	River Conservation Grants	http://www.tomsomaine.com/toms/community/rivers2004/frameset_overview.asp		X	X	X		X						
Tread Lightly!	Restoration For Recreation	http://www.treadlightly.org/restore.mv		X				X	X	X	X	X	X	X

Funding Source	Program Name	Web Site	Eligible Uses								Eligible Applications				
			Plan	Program	Develop	Property Acquisition	Education	Equipment	Non Profit	School	City	County	State	Federal	Other
U.S. Dept. of Agriculture	The Conservation Reserve Program	www.fsa.usda.gov													
U.S. Dept. of Commerce Economic Development Administration	Various Grant Programs	http://www.eda.gov/InvestmentsGrants/Pgmguide.xml	X		X					X	X				
U.S. Dept. of Health & Human Services	Steps to a Healthier U.S. Initiative (STEPS)	http://www.healthierus.gov/steps/	X	X			X			X				Tribes	
U.S. Dept. of Transportation	Transportation & Community & System Preservation Pilot Program	http://www.fhwa.dot.gov/tcsp/	X		X					X	X	X			
U.S. Fish & Wildlife Service	Partnership for Wildlife	http://federalaid.fws.gov/pw/partwid.html			X							X			
U.S. Fish & Wildlife Service	Jobs in the Woods Program	http://pacific.fws.gov/							X	X	X	X			
U.S. Forest Service	Cooperative Programs - Rural Community Assistance: Economic Recovery Program	http://www.fs.fed.us/r6/coop/Oregon%20State%20Coordinators			X				X		X	X			
U.S. Forest Service	Cooperative Programs - Rural Development	http://www.fs.fed.us/r6/coop/Oregon%20State%20Coordinators			X				X	X	X	X			

