

City of Kootenai, Idaho...

Bicycle and Pedestrian Master Plan



Table of Contents

Kootenai History and Context.....	3
Needs of Walkers and Bikers.....	4
Existing Street Network.....	7
Community Process.....	8
Plan of Action.....	9
Kootenai Priorities.....	18
Network Map.....	19
Implementation.....	20
Changing Policy.....	23
Observations, Resources.....	25

The town of Kootenai was established around 1900 on the shores of Lake Pend Oreille when the Ellersick brothers of St. Paul, MN opened a sawmill near present-day Ponder Point. They sold out to Humbird Lumber Co. in 1903. Humbird also owned a mill in Sandpoint. At its height, Humbird was one of the largest sawmill operations in the region with nearly 1,000 employees.

The two mills and a smelter located between them in Ponderay were connected by two railroad corridors (today's BNSF on the south and UPRR to the north). The railroads were key to the area's development. Kootenai was home to switching yards, a 22 stall roundhouse and many other facilities. Steamers owned by Humbird also moved the logs and mail and sometimes people on Lake Pend Oreille.

Kootenai had two sections. "Old Town" was south of today's BNSF rail line and included the mill, the mill office, houses, a boarding house, and company store. Humbird also established the present day Kootenai town site north of the mill when Northern Pacific Railroad relocated their division office from Hope to Kootenai. They platted "New Town" in a grid north of Railroad Avenue and built many houses serving the rail and mill workers. This area still houses many of Kootenai's residents.

Kootenai incorporated as a village (in 1908) at that time and was thought to be larger than Sandpoint. Commercial buildings spanned more than two blocks of what is now Highway 200 including hardware, furniture, general and drug stores, a butcher shop, a restaurant, saloons and a hotel. Transportation has long been a problem in the region. Most people walked or rode a horse to get around. Workers had to get between the mills, the smelter and the rail yards. Kids had to walk three miles to school in Sandpoint and the Great Northern Depot was a long walk or wagon ride.

In response Kootenai built nearly five miles of wooden sidewalks connecting the community and a streetcar station to get around the region. The coming of the streetcar offered fun and functional travel opportunities, including to school and work, to baseball games and an annual event featuring a horseback rider racing a streetcar from Kootenai to Sandpoint – bets were

placed and many rode the streetcar during the race. That era was short lived, by 1917, the automobile was growing in popularity and by 1931 and the Great Depression all the local mills and the area streetcar were closed.



Sandpoint to Kootenai Streetcar

In 1967 Kootenai changed from village to city. The mill site is now a subdivision, Ponder Point, and most of the commercial area of "New Town" has disappeared, much of it burned in a fire in the 1930s, replaced by a few stores and services that depend on auto traffic on Highway 200. Residential areas are north of the highway on the original gridded streets and in several newly developed subdivisions north and east.

Today, the city of Kootenai is primarily residential, though it still hosts a wood pellet manufacturing facility and the recently closed Coldwater Creek complex. Both rail corridors are still active with freight movement. Kootenai is home to an elementary school drawing students from nearby Ponderay and many residents need access to jobs in other parts of the region. The wooden sidewalks are gone along with the streetcar and boating is recreational – people movement today is primarily by automobile. Yet, recently there has been a recognition that walking, biking and access to transit could improve the quality of life.

Needs of Walkers & Bikers

Human beings require space while walking or bicycling. The space we need is determined by our size and shape as well as our physical ability to move.

As pedestrians, we require buffer space to feel comfortable. We need space above and to our sides to be comfortable and avoid being struck with objects. The speed at which we move greatly differs as much as people do. Runners can run up to 10 miles per hour while mobility-impaired individuals may move at less than 1 mile per hour.



Bicyclists require just as much consideration with regard to width, height, and speed. A child riding a bike will ride at a slower speed and can be less predictable. A mother may choose to use a bicycle chariot to carry a toddler, adding both length and width to her needed space.

Yet despite these normal human tendencies both the walking and bicycling realm are seldom given the depth of thought necessary to accommodate such variability and instead a limited few design options become the default.

The intention of this section is to highlight how humans can differ and why context is such a valuable contributor to planning, design and operation of our communities' transportation infrastructure.

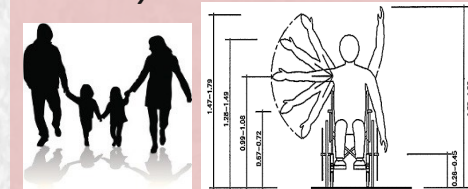
Dimensions of Humans: Pedestrians

Speed: Humans move at different speeds. Federal guidelines for crosswalks require enough time be given for people to walk at a 3.5 feet per second pace or 2.38 miles per hour. In many instances this may be appropriate, but in areas with school zones, population of senior citizens, or those with mobility limitations, additional time may be appropriate given user ability.

Width: The space we occupy also extends to our sides as much as in front or behind our bodies. Generally, an adult is 12-24" wide, but with an additional six inches of comfort space, a person may need up to three feet to feel comfortable walking in a given space. If a person is wheelchair bound, walking with another adult or child, the width demands are greater. Furthermore, if in an environment with opening doors, fences, mail boxes, and street furniture, space can become narrowed and less accommodating.

Height: Though still a factor, height is generally less of an issue for walkers as it may be for bicyclists. The taller of Americans are between 6' and 6'-3". To accommodate the normal height and beyond an 8' vertical minimum should be observed.

Width, height, and occupied space of users can vary



Other Needs: Other common users also need to be accommodated in various ways. A wheelchair user needs facilities to be compliant with ADA so that they are able to safely negotiate sidewalks, curb ramps, crossings and other such facilities. An elderly person using a walker for assistance is also in need of a relatively flat and smooth surface free of trip hazards. Parents pushing strollers, dog owners walking their dogs, and even the physiological changes seen in American populations with the epidemic of obesity, all have concerns and considerations when choosing how to design a pedestrian network.



Pedestrians can embody multiple user types and abilities. Travel speed, buffer spaces, and land uses can all shape the facilities used and the environments where people either flourish or struggle.

Needs of Walkers & Bikers

Though often lumped together in the same category as pedestrians, bicyclists are very much their own category of road user. A bicyclist can be a child on a small bicycle traveling at a slow speed, a novice rider on a beach cruiser bike out for a weekend ride or an expert road rider who may travel at speeds equal to moving traffic for the purposes of commuting. Each type of rider and circumstance is unique and deserving of specific context analysis to determine facility type.

Bicyclist Type- Just as there are a wide variety of pedestrian types, there are also several bicyclist types. The newest way to view population segments was created in 2006 by Roger Geller with the City of Portland. The four types described by Mr. Geller give a more relatable illustration as to the desires of bicyclists ranging from those willing to ride in any conditions or in any traffic scenario to those totally unwilling to ride under any circumstance.

The Strong and Fearless —These are the people who will ride regardless of roadway conditions. They are “bicyclists” and riding is a strong part of their identity and they are generally undeterred by roadway conditions.

The Enthused and the Confident —Those who have been attracted to cycling because of supporting infrastructure. They are comfortable sharing the roadway with automotive traffic, but prefer to operate on their own facilities.

The Interested but Concerned —Curious about bicycling and about the need for people to lead more active lives, they would like to ride more, but are afraid to ride.

No Way, No How —This group is currently not interested in bicycling at all, for reasons of topography, inability, or simply a complete and utter lack of interest.

Sources:

<http://www.portlandoregon.gov/transportation/article/264746>

<http://bikeportland.org/2006/12/07/what-type-of-cyclist-are-you-2650>

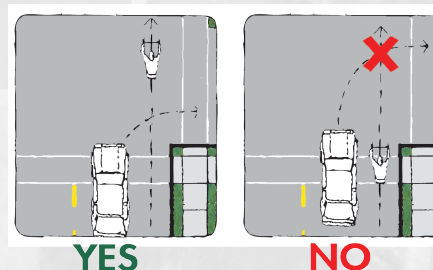
Dimensions of Humans: Bicyclists

Speed: Typically, most bike riders travel between 12-15 miles per hour. However, this can greatly vary as older riders or young children could ride slower than 10 mph while expert, well-conditioned riders move as fast as 25 mph.

Width: Depending on the bicycle and to a degree the rider, width is generally defined as the width of the handlebars plus buffer space of one foot on either side. However this dimension could increase with the use of panniers, a child chariot or unique bicycle.

Height: Often a bicyclist has no greater demands for vertical clearance than does a pedestrian, however that can change for taller individuals or for bike riders riding bikes with frame dimensions outside the normal sizes. Eight feet vertical clearance is regarded as the minimum for objects, signs or landscaping.

Other Needs: Often overlooked when thinking about bicyclists and their needs are other features not always synonymous with “infrastructure.” System elements such as safe, stable, and usable bike racks, space free of debris and obstruction, and a driver awareness of poor etiquette such as “right hooks” and overtaking without giving bicyclists at least a 3-foot buffer, are all critical to making community’s investment into bicycle infrastructure successful and valued.



“Right Hook” Source:

<http://www.mybikeadvocate.com.html>



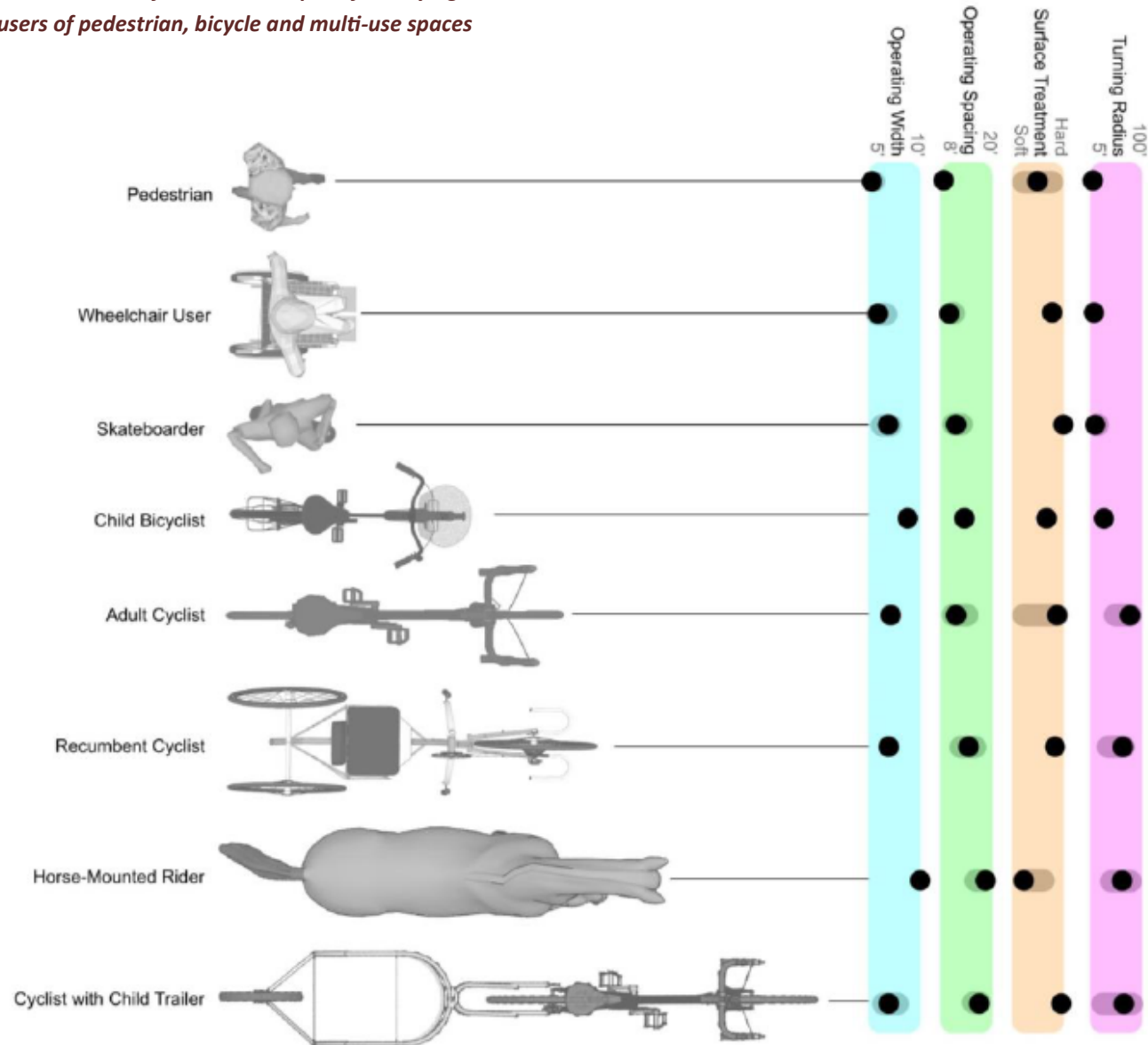
“3 Foot Rule” Source:

<http://onespeedgo.blogspot.com>

NEEDS OF WALKERS & BIKERS

Walking and biking for utilitarian trips is called active transportation and it has many community benefits. It can improve individuals and community health and well-being by encouraging a minimum amount of physical activity through routine activities. It can save money on transportation—money that can then be spent in the community on other needs. It can promote social and civic health through spontaneous interactions. Finally the cost of the facilities are low compared to other transportation improvement costs.

An illustration of dimensional space for varying users of pedestrian, bicycle and multi-use spaces



Typical operating widths, spacing requirements and turning radii depend on forward velocity as well as the experience of the operator. Skilled skateboarders frequently turn in less than the length of their own skateboards, for example. The preferred surface treatment for an adult cyclist will also depend on the type of bicycle (e.g., road or mountain or hybrid) that is being ridden as well as the purpose of the ride, for example, commuting as opposed to recreation.

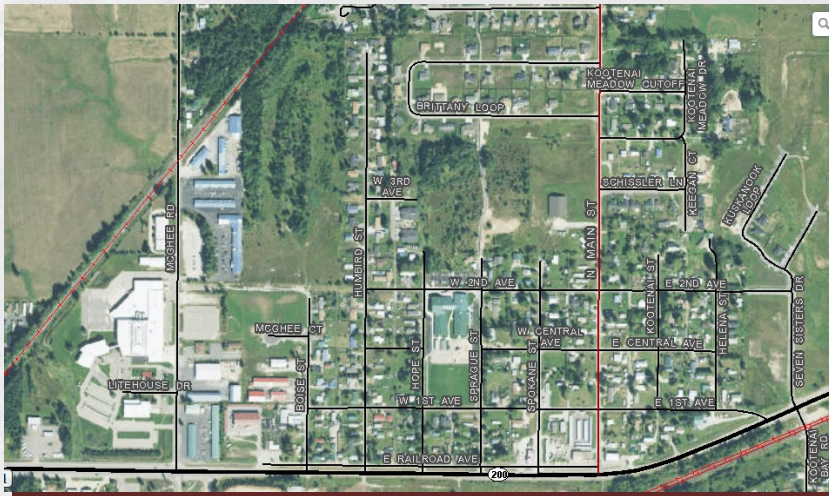
Illustration: J. Scott Lane

Kootenai Existing Conditions

Not unlike the early 1900s, transportation is still a problem in Kootenai. There are few connecting roadways outside the original grid and few sidewalks or facilities serving bicyclists. Many students are either driven or bussed to school, which creates congestion and safety concerns around the school site. Though most workers drive a fixed route transit service, The Spot Bus has recently been established with two stops near Highway 200. The nearest full service grocery store and other retail services are in Ponderay about 1 ½ miles away, a multi-use pathway has been established alongside the highway and roadway on the route leading to them.

Destinations

In addition to the school, service retail on Highway 200 and employment sites, Kootenai has a city hall and park. Access to the lake is limited by the BNSF rail line that runs parallel to the lakeshore south of town. The Ponder Point subdivision is south of the rail. There is a marked crossing of Highway 200 on the eastern edge of town at Kootenai Bay Road which leads to Ponder Point where the lakeshore is lined by privately owned lots. There are informal pathways crossing the highway and rail corridor and connecting to a dedicated platted beach site at the western end of Ponder Point Lane.



An overview of Kootenai's street network

The Pend Oreille Bay Trail concept plan shows an extension to Kootenai connecting under the rail corridor south of Highway 200. The city has recently adopted a “downtown commercial zone” and applied it to a triangular area south of Highway 200 and north of the BNSF rail line from approximately Kootenai Street on the east to Boise Street on the west, hoping to spur a revival of the lively downtown area of early 20th century. This is the same area where the proposed trail extension will connect.

Barriers

There are few connections in Kootenai outside the original grid. North Main Street on the east and McGhee Road on the west travel north-south and connect to Highway 200. There are no continuous connections between the two roadways either in town or north of town where they both terminate. There are no connections from McGhee into town to the east except at Highway 200. Kootenai Cutoff travels west from Highway 200 through Ponderay to Highway 95 beginning at the western edge of Kootenai at the Highway 200 intersection. The school district has completed a section of trail aligning with Sprague Street that travels north of the school through a wetland to Britaney Loop and continues to Rebecca Way as a homeowner-maintained gravel surface.

The newly developed subdivisions also have few connections. Humbird Street has essentially a 1400 foot cul-de-sac north of 2nd Avenue. No other street except North Main Street continues north of 2nd Avenue. Seven Sisters subdivision was required to have one connection to the west at 2nd Avenue but was not required to construct the connecting roadway section. The lack of connections make it difficult to provide the short direct routes that are favored by pedestrians and bicyclists and create significant emergency service concerns.

There are no marked crossings of Highway 200 except at each edge of town. The crossing on the east at Kootenai Bay Road has a pedestrian activated Rectangular Rapid Flashing Beacon, however the geometry of the crossing, the speed limit and site distance continue to create safety concerns. The crossing at Kootenai Cutoff, which may someday lead to a trail connection on the lake is signalized, but requires a three-leg/three minute journey for pedestrians and bicyclists to cross.

Existing Pedestrian and Bicycle Facilities

In general there are few sidewalks and no bike lanes in Kootenai. However the school district did construct sidewalks around the perimeter of Kootenai Elementary as part of a school remodel and built the aforementioned pathway to the north. There is a multi-use pathway along Highway 200 connecting Boise Street to Kootenai Cutoff, where it continues into the city of Ponderay. From Boise Street to the east, the path connects with Railroad Avenue which is a low volume frontage road of Highway 200.

Older subdivisions in Kootenai do not have sidewalks or sidepaths, though recent subdivisions like Seven Sisters development were required to include such facilities. In the historic gird area there is no pedestrian infrastructure except around the school due in part to difficult soil and water table conditions. Drainage swales directly abut narrow pavement sections on nearly every street limiting usable right of way and placement of sidewalks or sidepaths. Low traffic volumes and high costs of retrofitting a storm drain system make improvements prohibitive.

Existing Plans

Kootenai participated in the Bonner County Area Transportation Plan which references a Bike and Pedestrian Master Plan Report that was developed by the Planning Committee of the North Idaho Bikeways. The multi-use paths that have been completed on Kootenai Cutoff and Highway 200 are part of the master plan. A concept plan to extend the Pend Oreille Bay Trail beyond Ponderay to Kootenai, which is also part of the plan, has been completed. The city is interested in working to refine that concept and connection across the BNSF rail corridor to the new downtown commercial zone area.

The city has recently completed a new comprehensive plan which calls for the development of better bicycle and pedestrian facilities (*Goal 3: Transportation*). It also recognizes the need for better connections in the transportation system and the need for transit service which was recently realized. The plan calls for maintaining the rural character while offering a range of housing opportunities and new locally focused small commercial and retail uses. While these are not directly pedestrian and bicycle related there are clear positive impacts and demands that will occur if the vision can be met.

The team has provided specific comments on the policy framework and enhancements that might increase the chance of success. The school district also has plans and policies that impact walking and biking access to schools. These policies for the most part are supportive of the vision of the city, the team will comment briefly on suggested ways to strengthen those.

Typical conditions found in Kootenai including limited signage, asphalt pathways and informal walking trails.



This plan is designed to be implemented. As such it includes recommendations of low cost options that the city may construct itself. In some cases these solutions are intended to be temporary while funding is pursued for more engineering intensive and expensive solutions. In other cases these solutions can last over time and also reduce maintenance costs. More expensive treatments are identified as such where they are recommended as the final solution. In all cases a less expensive approach can suffice in the meantime.

It is important to understand community needs and desires when designing improvements. Pedestrian and bicycle improvements are fine scale with a need to identify many details. As such the process included community members and a first-hand look at conditions in Kootenai.

Existing facilities are also limited due in large part to the historically difficult drainage issues and rural small town nature of Kootenai. Slow and light traffic meant that constructing sidewalks after the boardwalks disappeared was unnecessary. Our visit and outreach discovered a growing chorus of voices who think the time is right to make strategic improvements to serve pedestrians and bicyclists. Nowhere is this more true than the streets abutting and linking with Kootenai Elementary School. However, other streets and intersections were discussed through the course of the initial site visit as is herein described.

Stakeholder Meeting— a preliminary kickoff meeting was held with city staff, leadership and the public to discuss the desires of the residents. The discussion yielded many results and gave significant context to decisions, perspectives and desires.

School Observations— During the initial site visit a walk audit and site assessment was conducted during the morning drop off and afternoon pick-up activities at Kootenai Elementary. The more significant issues witnessed were:

1. The changes to walking and traffic behavior with the construction of the new pedestrian pathway;
2. Congestion and safety issues at the north part of the school with motorists dropping off or picking up as close to the school doors as possible; and
3. The under-utilized space in the bus bays.

Art Contest/ Public Meeting— At the conclusion of the initial Kootenai site visit, an art contest and open house was held. The purpose of the event was to gain further insight from residents of varying ages and abilities. The event was attended by city leadership and school staff, however no general citizens attended the meeting. The event was used to summarize the initial findings made by the planning team and to hold a robust dialogue of potential solutions. Some of the key desires or infor-

mation gleaned from the event include:

- A potential to make a walking and activity loop using the former Coldwater Creek site and local streets;
- Reworking the circulation plan at Kootenai Elementary to improve safety and efficiency for all street users;
- Reconstructing Railroad Avenue to bolster its use as a frontage road to Highway 200; and
- Specific recommendations for pedestrian and bicyclist use along and crossing Highway 200.

Draft Action Plan and Community Review— The last step in the process was to draft this plan and have a review with community leaders and the public to ensure that nothing was missed and that the desires of the community were met. This included a second visit to Kootenai to have that discussion in person and to allow the opportunity to see any proposed changes. After review the plan was adjusted to reflect the community comment.

Community desires can be expressed beyond words or in meetings. In Kootenai distinct “goat trails” (A) can be found in numerous places indicating a desire to access a property or span a route. Art can also be a useful medium to express desire. Children from the local elementary school drew their experiences including a street design (B) that doesn’t exist in Kootenai.

A.



B.



Pedestrian Realm

A quality pedestrian realm is highly connected and shortens distances by providing numerous route choices, offers safe facilities for all users and provides access to key destinations. Pedestrians need sidewalks, sidepaths, other defined pedestrian space and enhancements at intersections to allow safe convenient crossing of high traffic roadways. Improving the pedestrian realm in Kootenai will require a mix of lower impact, low cost facilities and more complex, higher cost tools.

Corridor Types: The future network is described within this plan according to existing routes and future routes, as well as primary and secondary corridors. Improving route choice is one goal of a pedestrian and bicycle plan.

Primary corridors are those with higher volumes of motorized and non motorized users and are connected to land uses that are sought by or generate pedestrians. Typically, these are arterials or collectors in the Functional Classification system, but they may be local roads based on conditions and context. a city would focus resources primary corridors first.

Secondary corridors have lower volumes of users and typically fewer land use attractions. A secondary corridor may be a local street or street with less demand within the citywide network. Because such corridors are less contentious for pedestrians they are generally safer and lower priority. Improvements can be made, especially as demand changes, but priority should be with primary routes.



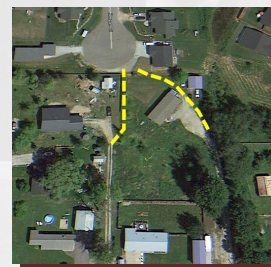
Future Routes

Lack of street connectivity makes it difficult to provide short direct routes favored by pedestrians and bicyclists in Kootenai, It also creates significant emergency service concerns (see policy section). Options for enhanced connectivity are limited. The city should act on three new pedestrian/bicycle connections listed in the comprehensive plan; **Humbird Street to Jeffrey Drive, Seven Sisters Drive to Kootenai Meadows Loop and extending Central Ave east of Helena Street.**



The team also recommends a connection be made by **extending 2nd Avenue west to McGhee** to complete a primary low volume east/west route connecting the employment center on the west to civic uses on the east and providing access to the former Coldwater Creek perimeter trail loop.

Additional connections from the new trail traveling north of the school should be explored. Extending the pathway **east to Kootenai Road, west to W. 3rd Avenue and north to Jeffrey** would connect the northern part of the city. Wetland mitigation will be required on the east/west extensions.



A final pedestrian connection should also be made when possible **linking either the northern terminus of Helena Street or the parallel alleyway with the Keegan Court cul-de-sac.** This could be pursued through an agreement with existing homeowners but may be more easily developed with future land use changes.

Key Intersections

- | | |
|------------------------------|------------------------------|
| ⇒ HWY 200 & McGhee Rd | ⇒ W. 2nd Ave. & Sprague St. |
| ⇒ HWY 200 & E. 1st Ave. | ⇒ W/E 2nd Ave. & N. Main St. |
| ⇒ HWY 200 & Seven Sisters Rd | ⇒ W/E 1st Ave. & N. Main St. |
| ⇒ HWY 200 & N. Main St. | ⇒ HWY 200 & Kootenai Cutoff |

Primary Corridors

- McGhee Road
- Highway 200
- North Main Street
- 2nd Avenue
- Sprague Street
- Central Avenue

Secondary Corridors

- East 1st Avenue
- Humbird Street
- Seven Sisters Drive

Pedestrian Realm

McGhee Road

Most employment in Kootenai is located along McGhee Road. The now defunct Coldwater Creek headquarters will eventually be reoccupied and additional businesses and attractions are located on the east side of the street. There is a formal connection with the Kootenai Cutoff sidepath at Highway 200 and if the 2nd Avenue pedestrian/bicycle connection is completed there will be high quality access for pedestrians and bikes to the east. Long-term **improvements should include curb, gutter and 5' sidewalks on both sides of the road from Highway 200 to the UPRR rail corridor.** Use curbing to further define driveway access for the businesses located on the east side to provide safety for pedestrians and bicyclists. Narrow right-of-way may require negotiations with the property owners for easements. Though higher cost, such a treatment is warranted due to the presence of heavy vehicles, intense land uses and pathway connections. An interim solution could be achieved with an extruded curb pathway on the west side of the street.

Highway 200

The principal need on Highway 200 is **an extension of the existing pathway east of McGhee.** The pathway between McGhee and Boise Street needs an overlay and use control. Railroad Avenue from Boise St. to Main St. should be signed and marked for shared use as a pedestrian/bicycle route and stop markings should be enhanced at all of the side street intersections. Bus stops should be improved with shelters, benches and bike racks as planned.

This north side facility should be continued with a **10' wide asphalt pathway** east of Main Street where Railroad Ave ends similar to the one

on the west. This is ITD right-of-way and has grade challenges and will need cooperation from ITD.

The south side of Highway 200 will require pedestrian improvements with future development (see page 16).



North Main Street

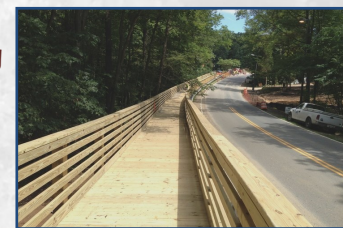
A vital north-south corridor and network connection, North Main Street connects Highway 200 to the south with Jeffrey Drive and potential new development north. Established desire lines worn into the shoulder demonstrate existing demand from pedestrians. The roadway is paved 22' - 23' wide with no other improvements.



From Highway 200 to 2nd Ave. facilities on both sides of Main. Consider two possibilities to add facilities on the east side:

1. Build French drains where bioswales exist. In the short term this can be constructed as a rock fines (fine gravel) surface..
2. Construct a boardwalk over the bioswales to provide safe walking space without reconstructing the existing drainage system. *This solution could also be signed to reflect the historic use of boardwalks in Kootenai.*

On the west side there is sufficient right-of-way to construct a 5' walking surface designed block by block to determine whether separated from roadway or road edge. Use strategy above where bioswales exist.



Boardwalks can be constructed of fabricated deck material

2nd Ave. to Jeffrey Drive Build a sidepath on the **west side of North Main Street** separated from the roadway where possible. Initially this can be built as a rock fines surface 5' wide. Ultimately it should be constructed and paved similar to the Kootenai Trail north of Sprague. Require any new development to the north to continue the pathway as development occurs.

A French drain is a trench filled with gravel or rock and containing a perforated pipe to direct groundwater drainage. Its use would be an inexpensive approach to building a system of pervious walking trails on top of the deep drainage swales at the road edges. The city should engage someone experienced in designing and building French drains.



Pedestrian Realm

2nd Avenue

Second Avenue is the only street that spans the width of Kootenai east to west, assuming a connection to McGhee is achieved. It provides a connection between Kootenai Elementary and most residential areas in Kootenai and potentially to the employment hub on McGhee. The narrow pavement with intermittent bioswales on either side should be improved as a primary east/west pedestrian and bike route. It can also connect to a citywide recreational loop (discussed in next section). **Pervious pathways should be constructed where there are dirt shoulders and bioswales should be filled using a French drain and pathway constructed with a rock fines surface.** The walking space should be at least 5' wide given user groups. Complete the gap and connect the section to Seven Sisters Drive on the east.



Pervious materials minimize storm-water runoff and yet maintain a viable walking surface for pedestrians.

Sprague Street

Sprague Street has existing sidewalk at the school site and the newly constructed pathway at the north providing a high quality north/south connection, even better if the proposed pathway extensions are achieved. Sprague should be completed as one of the primary north/south corridors for pedestrians and bicyclists by constructing **continuous walking space on the west side from 1st Avenue to Railroad Avenue** with a treatment such as described for 2nd Avenue short term. **Consider a concrete at grade sidewalk long term which is less expensive to build and maintain than curb and gutter.**



The 1st Avenue intersection with Sprague will require a crosswalk and new ADA compliant landing. Sprague is also a potential location for a new pedestrian and bicycle crossing of Highway 200 to the new downtown zone (see page 16).

Central Avenue East

There are two east/west segments of Central Avenue on each side of Kootenai Elementary grounds. The eastern segment runs from Sprague to Helena Street and past the park. Central Ave. has an 80' right-of-way that has been encroached on for many years by adjacent land owners. It does not have the severe bioswales found along other roads. Given the low volume of motorists, rather than reclaiming the right-of-way, walking paths should provide for safe pedestrian travel. In the short term build a 5' rock fines walking surface, separated from the roadway where possible, on the south side where there are fewer existing obstacles. Due to expense and drainage impacts consider concrete sidewalks or a multi-use facility only if demand dictates.

Extending Central Ave. east to Seven Sisters Drive provides a safe route for students coming from Ponder Point to the school. A planned drainage project on vacant land near the highway 200 crossing at Seven Sisters connecting to the Central Ave. right-of-way east of Helena and should be pursued. This pathway could be rock fines to avoid conflicts with the wetland.

Central Avenue West

The one block segment west provides a secondary access to the back side of the school grounds. Given the low volume of motorists, lack of front-on housing, and the lack of bioswales add a pedestrian space with paint striping and prohibiting on-street parking or by constructing rock fines walking surfaces on both shoulder edges.

East 1st Avenue

This 20' wide street is without a defined edge and parallels Railroad Avenue and Highway 200, and connects with City Hall and Kootenai Elementary School. Because of the important destinations and likely higher use by motorists when other pedestrian and bicycle routes are completed, **paving an additional 4' shoulder on the north side of the street and painting a pedestrian walkway is recommended with priority from Hope to North Main Street**. Painted "zebra" or continental design crosswalks should be added at Spokane Street due to the City Hall and post office, and both Sprague and Hope streets due to the school and student

Humbird Street

No street in Kootenai has more direct residential access than Humbird Street with roughly 60 houses fronting it and home to nearly 25% of the city population. If a pathway connection is established to Jeffrey Drive it will become another important north/south connection. The pavement today is 25' wide with on-street parking. Adding dedicated pedestrian space and keeping the on-street parking will require a minimum of 10' additional paved width. The street may become more significant in function and adding improvements are equally significant as that occurs. As with other locations bioswales will need solutions. Strategies include:

1. **Widen the existing shoulder with asphalt and use paint to define the pedestrian realm (above).** Parked cars might encroach on the space making it less useful.
2. **Widen the shoulder on both sides of the street, and pave concrete at-grade sidewalks.** This provides dedicated space to users but without the elevation and protection that a curb/sidewalk provides. Parked cars might encroach on the space making it less useful.
3. **Adding curb, gutter, and sidewalk** along the existing street edge. This will give pedestrians and younger bicyclists a dedicated space, elevated from moving vehicles, however it is quite expensive. Such a design will narrow the drive space due to on-street parking, this will slow cars.

Seven Sisters Drive

Given the connection made to E. 2nd Avenue and the Seven Sisters subdivision, no improvements are needed at this time. However, with future development there **should be a requirement to construct curb, gutter and sidewalk** from the intersection at E. 2nd Avenue south to Highway 200.

Kootenai has already utilized the pedestrian walkway stencil approach in other areas of the city and adding more would be appropriate and cost effective.



Key Intersections

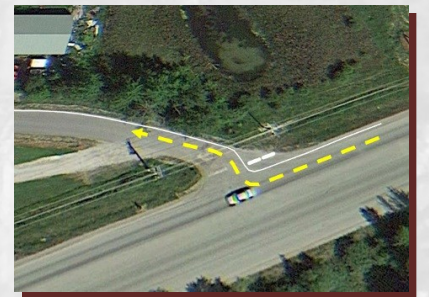
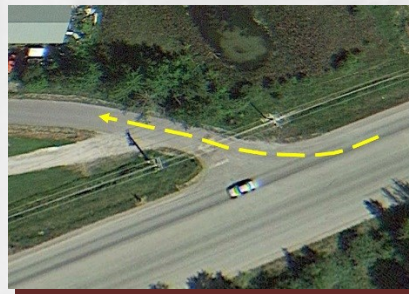
⇒ **Highway 200 & McGhee Road**

The west side of the intersection crosswalk should be made ADA compliant with the pedestrian push button head made accessible from the pathway (see photo), a pathway landing platform with truncated domes and lowering the stop sign to pedestrian/bicycle height. If destinations are built on the south side of the highway a pedestrian signal and crosswalk markings across Highway 200 should be added.



⇒ **Highway 200 & East 1st Avenue**

If Highway 200 improvements suggested in the previous section are made, a formal crosswalk will be needed across East 1st Ave for the new pathway. Regardless of when a new pathway may be constructed, the wide turn radius on the east side of the intersection creates unsafe conditions. As currently designed turning from Highway 200 onto East 1st Avenue from the east requires minimal slowing from the posted speed of 45 miles per hour despite entering a residential area. This is dangerous for all users, especially pedestrians. A narrowing of the turn radius will improve safety for pedestrians, whose presence is indicated by the beaten path. **Slow turning traffic by using design features such as signs, candles and extruded curbs to narrow the turn radius and realign traffic in a safer manner.** Such a change will require ITD cooperation and involvement. Other considerations include lowering the speed limit prior to the Kootenai Bay Drive/Seven Sisters Drive intersection (see page 14).



A before/after image depicting the drive angle realignment change

⇒ Highway 200 & Seven Sisters Drive/Kootenai Bay Road

This intersection was recently improved with the installation of a rapid flash beacon. It will likely see increased use as the Seven Sisters subdivision is built out and as development on the south side of Highway 200 evolves into uses attracting pedestrians and bicyclists. **Paving the existing shoulders to make the landings ADA compliant is needed when the highway is next maintained.** Additionally, though the flasher complies with federal requirements for adequate crossing time, the configuration and condition of the highway suggests additional time is warranted. When a person actuates the button and the walk indicator illuminates, users do not immediately proceed because they want to confirm that any oncoming traffic in fact sees them, and begins to slow. **This natural human reaction between user and motorists suggests that adding five additional seconds to the crossing phase is appropriate.**

With the evolution from rural highway to a new Kootenai “Main Street,” travel behavior will change on Highway 200. Such changes may present an opportunity to further enhance this intersection. Specifically, if motorists are traveling slower near the Seven Sisters subdivision, the need for deceleration and/or acceleration lanes may no longer be needed and the **space could be reallocated by slightly realigning the travel lane and inserting a pedestrian refuge island. This would further enhance safety by allowing pedestrians to negotiate one direction of traffic at a time, and elevating their profile for drivers.** Such a treatment also introduces an element of traffic calming that will cue traffic to slow down. Such a treatment will require ITD cooperation and approval.



⇒ Highway 200 & North Main Street

Railroad Avenue which is recommended to be signed and marked as a shared use street begins at this intersection. Increased pedestrian and bicyclist use will require **new paint for the stop bars and signage to heighten awareness of the presence of pedestrians.** Extension of the existing planter strips on both sides would improve the intersection’s alignment, slow turning movements, and enhance safety for active users.

⇒ West 2nd Avenue & Sprague Street

This intersection has the most pedestrian and bicycle use of any intersection in the city by the school children and parents who walk to Kootenai Elementary. Continental crosswalk styles are used, lighting is adequate, and ADA compliance is generally met. **Though no significant improvements are necessary adding in-pavement crossing pedestals would further raise awareness and enhance safety** for little cost.



**Example of
In-pavement pedestals**

⇒ W/E 2nd Avenue & North Main Street

With the addition of suggestions made on North Main Street, **additional north/south crosswalks will be needed including the continental or ladder paint design and ADA compliant curb ramps or landings.**

⇒ W/E 1st Avenue & North Main Street

This intersection is a two-way stop with an existing crosswalk on the north side of the street oriented east/west. However, the current stop is oriented on the east/west legs. To further enhance the effectiveness of the crosswalk coincident with 1st Street recommendations, **consider making the intersection a four-way stop.** By doing so, motorists will be accustomed to the stop motion in front of the crosswalk thus improving visibility and the profile of users while maintaining the stop that slows vehicles entering from Highway 200.

⇒ Highway 200 & Kootenai Cutoff

Though officially in Ponderay, this is an important intersection for Kootenai residents to reach destinations to the west. When the Pend Oreille Bay Trail is extended it may well provide Kootenai residents access to Lake Pend Oreille. **Improvements have been recommended in the Ponderay action plan to shorten the crossing time to the south and make it safer for all users** by adding a fourth side crosswalk marking and pedestrian signal cycle. Support from Kootenai would help ITD recognize the importance of these improvements.

Bicycle Realm

On-street bicycle facilities can range from a shared lane markings to a dedicated cycle track. Many characteristics of a street are used to determine the appropriate bike facility to match conditions including; bicyclist volumes, vehicles volumes, road width, motorist speed, number of street access points and land uses adjacent to the roadway.

Kootenai's streets are relatively low volume, low speed and narrower than typical. The addition of bike lanes or other facilities would require widening on most streets beyond the space recommended in this plan to meet pedestrian needs. Besides taking nearly 10+ feet of additional right of way, such widening would alter the look and feel of Kootenai and be prohibitively expensive to build and maintain. Luckily, current and future traffic patterns do not justify such significant projects.

Considering the current configuration, and given existing and future traffic conditions, shared lane markings or "sharrows" are recommended. Sharrows would be applied in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) The manual prescribes how far into the street sharrow stencils are applied when considering on-street parking, curbs or edge of pavement. Sharrows require no additional right of way and are appropriate and cost effective. Sharrows indicate to drivers the likelihood of bicyclist presence to raise awareness and are placed to align riders in the appropriate position away from either on-street parking or the edge of the shoulder. To accompany the new roadway treatment, a public education campaign may be needed to educate residents as to sharrows intent and purpose. The following streets are recommended bicycle priority corridors for shared lane markings:

Primary Corridors

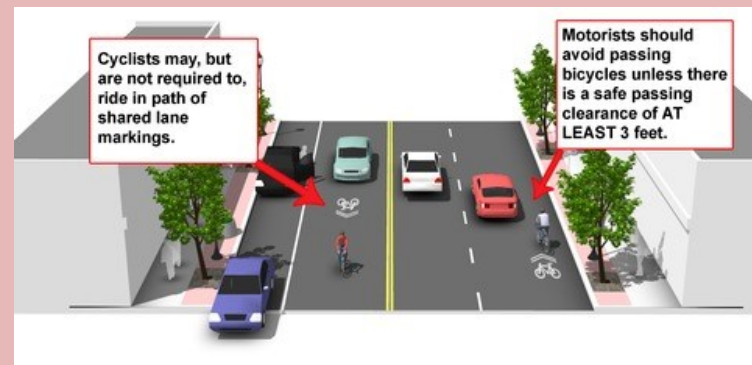
- ◇ *McGhee Road*
- ◇ *North Main Street*
- ◇ *2nd Avenue*

Secondary Corridors

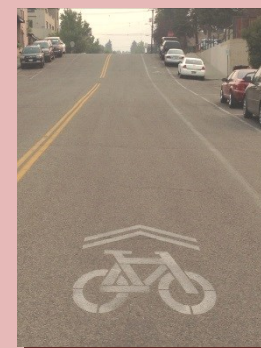
- ◇ *Sprague Street*
- ◇ *Central Avenue*

Shared Lane Markings Explained

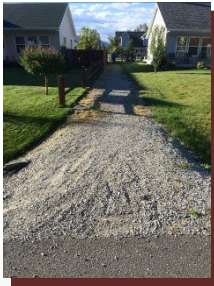
Graphic: City of Bloomington, Indiana



There are multiple examples of "sharrow" usage within and beyond Idaho. Sharrows can be used in concert with on-street parking or without, and raise awareness and the profile of bicyclists. Following MUTCD guidelines sharrows should be aligned where the bicycle wheel can safely track.



Community Assets



Kootenai Trail

The recently completed Kootenai Trail is a welcomed addition to the city's overall network and gives users a non motorized experience in an open space environment. The direct connection with Kootenai Elementary also shortens the travel distance and bypasses local streets and intersections. The trail is a start to what could be an even more effective facility

with additional investment. **Recommendations beyond adding the east/west/north extension legs described previously, are to:**

1. **Pave the current gravel sections** to minimize maintenance and give a better surface for bicyclists,
2. **Stripe crosswalks** at the two pathway intersections crossing Brittany Loop and at Rebecca Way if the trail is extended.

Kootenai Loop

By using a combination of the recommendations made in the plan, adding signage and by working with the property owners of the former Coldwater Creek site, the city could create a new Kootenai Loop. The 2.4 mile looping trail would be a combination of sidewalk, pathway, and shared street system and give users access to the outdoor exercise equipment on the campus trail. Similar to the approach taken in other communities such as Sandpoint and Bend, Oregon (pictured), residents of all ages and abilities could enjoy a unique and health-promoting asset.

Pictured right are three elements of the loop (left) existing outdoor exercise equipment; (center) Bend, Oregon trail monument; (right) potential 2.4 mile route.

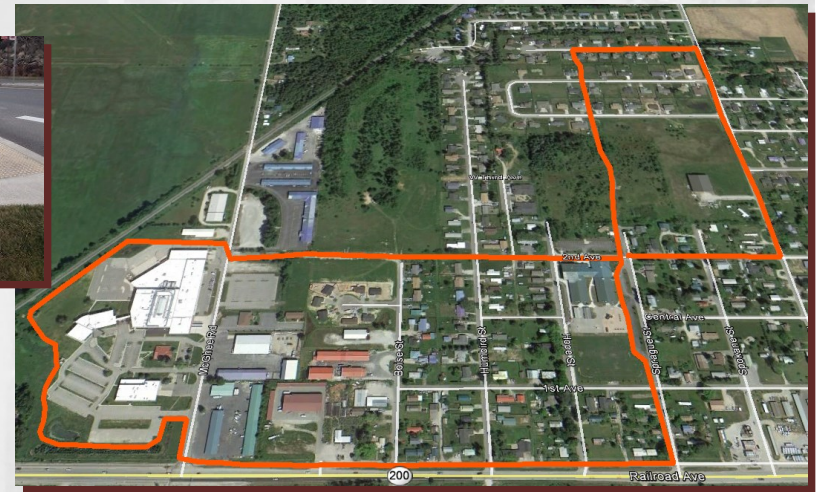


Kootenai Downtown Zone

Kootenai has created a new zone south of Highway 200 on the eastern side of town with hopes of attracting new business that is interested in serving the proposed Pend Oreille Bay Trail connection. If successful this will create a downtown more like what existed historically in Kootenai and bring many visitors. The south side of the highway will need pedestrian improvements with these future development projects.

These significant gateway properties should be developed with a detached 12' sidepath/sidewalk with amenities and a 6-8' landscape area. This recommendation should be required through development and codified in city ordinance in the new downtown zone.

This will also spur a need for new crossings of Highway 200. **Sprague is the recommended location for a pedestrian/bicycle crossing of Highway 200 to the new downtown commercial zone** as it serves the north-south pathway. With more improvements crossings at Humbird and Main should be explored.



Kootenai Elementary School

A principal reason for this plan is to address concerns with child safety around the Kootenai Elementary campus during the morning drop-off and afternoon pick-up times. The team observed both movements and found several factors contributing to the safety concerns expressed.

- Children are required to enter the building in one location (Sprague/2nd Ave. entrance) despite numerous access points. Instead of dispersing foot and vehicular traffic it is concentrated at one location mixing walkers, bicyclists, buses and motorists attempting to drop-off at the location closest to the front door. In the afternoon many exits are used, and traffic of all types are dispersed to three main areas.
- The bus bay off Hope St. is underutilized and the bay off Sprague St. is over capacity for typical daily school bus need.
- Lax enforcement of current parking and drop-off procedures results in parking and drop-off/pick-up violations that conflict with intended street operations.

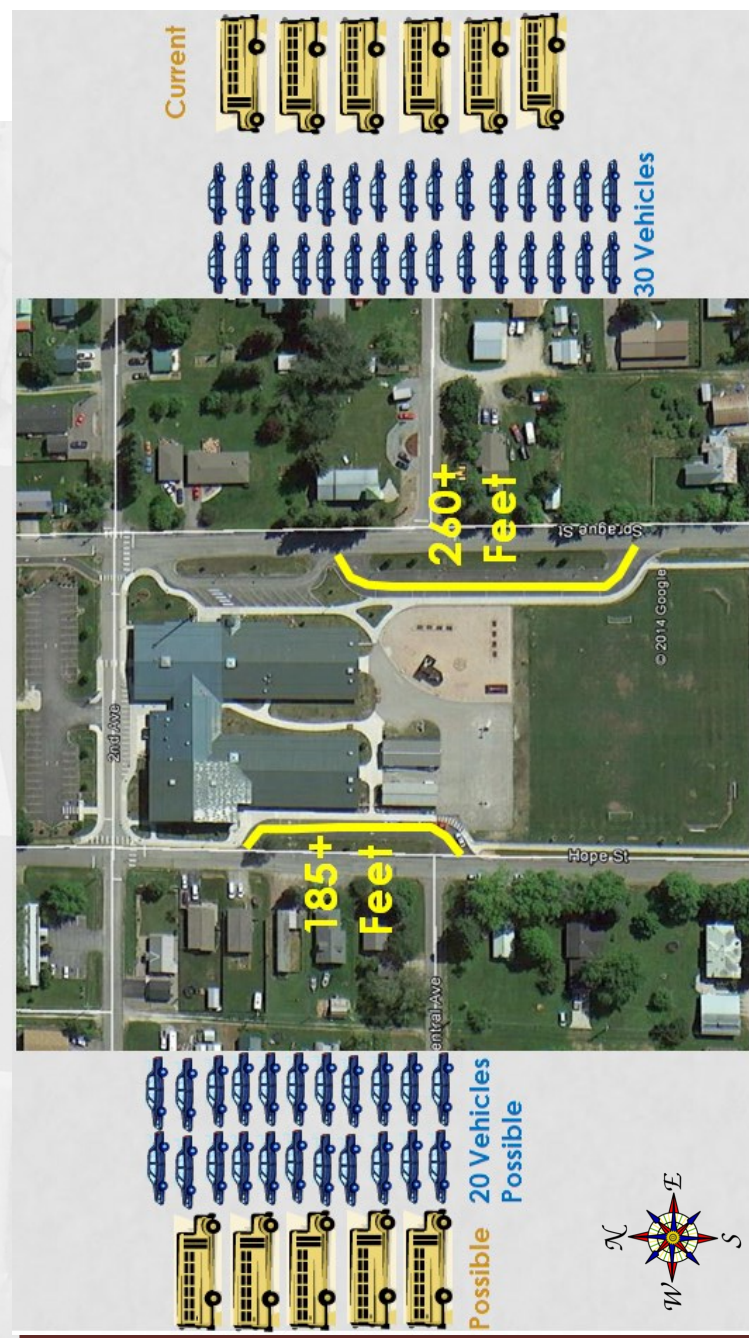
These factors can be solved with policy changes that will change student access points and use of the existing space. There is not a need for additional infrastructure as there is more than adequate space available for all street users. The following recommendations can be implemented are presented as a menu of viable options.

Immediate Considerations

1. Allow walkers and bicyclists to be dismissed 5 minutes earlier.
2. Revise AM drop-off policy to include multiple access points.
3. Begin a student "valet" ambassador program to further help expedite vehicular traffic and promote safer driver behavior in this newly designate area.

Future Considerations

4. Stripe the front bus bay with two one-way lanes on both sides allowing a middle travel lane. Require drivers to use the space for drop-off and pick-up. The inside lane nearest the sidewalk should be for K-3rd grades, the outside lanes for 4th-6th grades.
5. Reroute 4-5 busses to the back of the school for morning drop off and after-noon pick up movements. Additional core heater plugins may be necessary



Kootenai Elementary School could accommodate more personal vehicles at drop-off and pick-up by moving buses to west (back) of school.

Implementation Priorities

Completing full routes north-south and east-west will begin to provide route choice for walking and biking. Work to complete connections identified. Complete crosswalk enhancements with maintenance projects.

East-West Routes

- ❶ Extend 2nd Ave. at both ends, construct rock fines walkways over French drains.
- ❷ Complete improvements on Hwy 200 pathway and Railroad Ave. including intersection enhancements.

North-South Routes:

- ❸ Construct walkways as described on North Main Street, start with the west (easiest) side.
- ❹ Complete walkway on Sprague, 1st Ave. to Highway 200 to finish north-south route.

Intersections:

- ❺ Four-way stop and crosswalk enhancements at North Main & 1st Ave., crosswalk enhancements at Sprague & 1st Ave.

Connections:

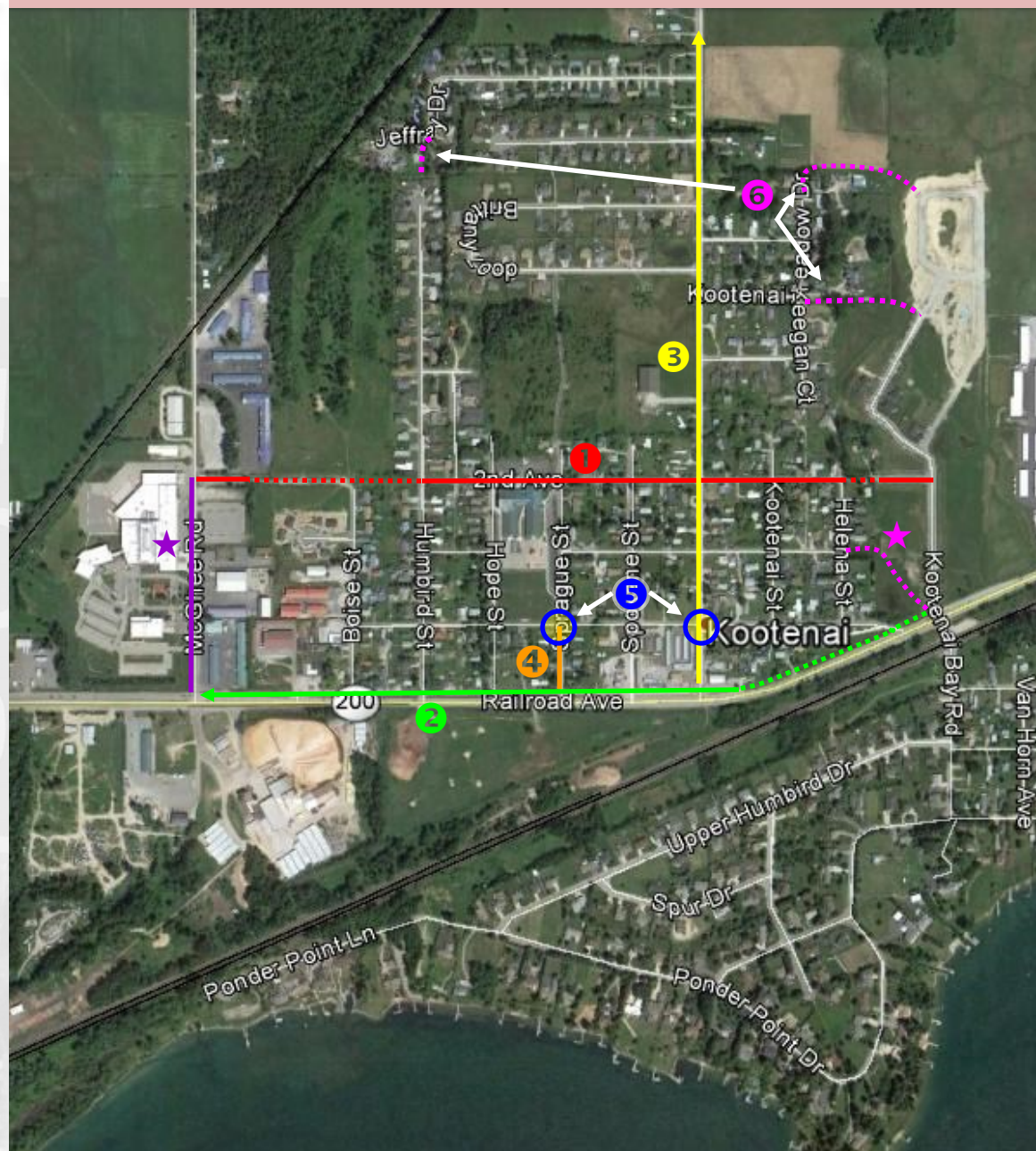
- ❻ Humbrid and Jeffrey Drive and Seven Sisters Drive to Kootenai Meadows Loop.

Special Consideration: *These projects may get increased priority if conditions merit*

★ If the Coldwater campus reactivates improvements on McGhee, starting with an extruded curb path on the west are vital.

★ If the drainage project at Seven Sisters and Highway 200 is imminent begin now to see if a pathway can be added to the project.

Legend: Lines and numbers are color coded to match the numbered descriptions at left. The lines and circles represent the project location; solid line is an existing facility that needs improvements, dashed lines are new connections that will need to be made.



NETWORK MAP

This map shows the entire network that is recommended for improvements



Implementation of the recommendations made in this plan will require a menu of options ranging from typical maintenance level improvements to special projects which will require partnerships and additional non-traditional funding sources.

Maintenance— projects falling under “maintenance” generally consist of paint, smaller improvement projects like shoulder paving and in some instances, adding facilities such as sidewalks or paths. Many of the improvements suggested can be completed with little cost as work is done on other maintenance or operations projects. Bike lanes, shared lane markings, crosswalks, or newly defined pedestrian walkways can be done at any time using a small crew and paint truck or paint equipment. Such equipment will likely need to be attained from the city of Sandpoint, ITD, the highway district or privately contracted when funds are available.



Paint applications can be applied using a variety of tools including by hand.



Development— new development in the city should be required to contribute to the public transportation realm when appropriate. Future sidewalks, pathway connections, bike parking, and lighting are examples of elements vital to the system and ripe for private investment and that should be required at the time of development. These systemic characteristics are common in most communities and if not constructed by the private sector will be borne by the Kootenai taxpayers.

Reconstruction— streets are often reconstructed due to damage, wear, or for significant underground utility projects. When these regularly scheduled projects are known, review of recommendations from this plan should be completed and coordination considered. After review, insert possible improvements into construction plans. Improvements may take longer than anticipated and be more costly with a standalone construction project, constructing new elements while reconstructing existing facilities can be financially advantageous.

Future Roadways— In the event of new streets being constructed in Kootenai, sidewalks should be required at time of construction. Sidewalks with a planting strip between the street and walking space (detached) are safer and more comfortable and are particularly important on collectors and arterials, such as the highway. Bicycle facilities should also be added if the street provides collector like functions, has above average traffic volumes, or serves land uses which will be connected with or directly access those that have an expectation of attracting or generating bicyclists. If the street is to carry local traffic only, bicycle facilities are likely not needed unless special circumstances are present.

Special Projects— These kinds of projects occur outside the realm of normal operations, development, or even reconstruction. Special projects will include joint partnerships with the railroad, pathway connections with ITD facilities, pathways in conjunction with state parks, or other such arrangements. These types of projects will take additional planning, dialogue and agreements as well as funding sources that may be grant related, endowment funds, or general purpose tax dollars.



As described on the previous page, projects can be delivered through a number of methods using a variety of funding sources or procedures. To illustrate how the recommended projects may fit within the described implementation processes, the following table is presented. The table is for illustration purposes to demonstrate the more likely means by which recommendations for each corridor or intersection may be made. Each corresponding “X” is inserted into each of the potential implementation methods. Several projects are possible through a number of methods while others may be more limited due to their complexity, land ownership or jurisdiction.

Pedestrian Realm					
Street/Intersection	Maintenance	Development	Reconstruction	Future Roadway	Special Projects
McGhee Road			X		X
Highway 200	X	X		X	X
North Main Street		X	X		X
2nd Avenue			X		X
Humbird Street	X		X		
Sprague Street			X		X
1st Avenue	X		X		
Central Avenue	X				
Seven Sisters Road		X			
Highway 200 & McGhee Road	X				X
Highway 200 & 1st Avenue	X		X		X
Highway 200 & Seven Sisters Road	X	X			X
Highway 200 & North Main Street	X				X
2nd Avenue & Sprague Street	X				
2nd Avenue & North Main Street	X		X		
1st Avenue & North Main Street	X				

Pedestrian Realm					
Street/Intersection	Maintenance	Development	Reconstruction	Future Roadway	Special Projects
Helena Extension		X		X	X
2nd Avenue Extension				X	X
Community Trail Extension				X	
Kootenai Elementary	X				X
Kootenai Loop	X	X	X	X	X
Bicycle Realm					
Bicycle Shared Lane Arrows	X		X		X

Policy Recommendations

Policy requirements and walkable and bikeable community designs are key components of creating desirable places. A community's capacity to serve walkers and bikers comes from three factors.

- ⇒ **First:** destinations (such as housing, retails, jobs, transportation, schools, and libraries) are located within an easy and safe walking and biking distance of each other.
- ⇒ **Second:** walkable communities make pedestrian and bicycle activity possible, thus expanding transportation options by providing safe and inviting facilities (such as sidewalks, side paths, multi-use paths, signage, pavement markings, bike lanes, intersection crossing enhancements and more) to create a network that serves a range of users .
- ⇒ **Third:** regular maintenance (such as sweeping, shoveling and plowing) is provided to ensure that those facilities are in safe and inviting condition.

Below is a table of the policy review including recommendations for improvement.

LPOSD Board Policies

What	Existing Policy	Recommendations	Actions/Tools
8200: Healthy Lifestyle/ Physical Activity	No recognition of active transportation as part of meeting physical activity goals.	Adding policies to this section of board policy make it more likely the school board and school will support walking and biking.	Encourage active transportation by adding Goal A2/A3 to 8200 in section on physical activity before and after school. Consider adding all of the transportation goals to transportation plan and/or handbook.
Transportation Plan and Student Handbook	Detailed regulations and plans to move students by bus, no mention of walking and biking.	Local school transportation policies are another important opportunity to support and encourage active transportation whenever possible.	See Model School Policies at: http://www.idahosmartgrowth.org/app/uploads/2014/05/Model-School-Policies.pdf

City of Kootenai Comprehensive Plan

What	Existing Policy	Recommendations	Actions/Tools
II-D-3c: Pedestrian Traffic Concerns	Assess current [conditions] to assure the safety of all vehicular and pedestrian traffic.	This plan serves as a part of that assessment, adopting this plan would begin to meet this goal.	Prioritize actions outlined in this plan and develop an implementation schedule and funding opportunities plan.
2. III-B: Land Use	GOAL 2: Develop land use ordinances and regulations consistent with the community's vision, and designed to meet the goals of this plan, the policies as listed below.	There are competing visions in the plan, for low density and yet desiring walkability, affordable housing and transit access. Zoning changes in select area could help reconcile these visions.	Consider broadening the allowances for: 1. Accessory dwelling units by considering larger units and smaller lot sizes in select subareas of the city. 2. Consider a neighborhood marketplace zoning, one block north of Highway 200 – Boise to Kootenai streets, to broaden allowances for mixed use in this area. See model ADU ordinance and Neighborhood marketplace ordinances at http://www.idahosmartgrowth.org/best-practices/ . Scroll to code reform. The comments sections will prompt the questions that must be asked and answered for these changes to be successful.

What	Existing Policy	Recommendations	Actions/Tools
III-J: Economic Development	GOAL 1: Maintain, promote and enhance a healthy business environment to attract...new businesses, while minimizing...vacant commercial structures. No mention of bike tourism.	Consider adding new Policy 3 to Chapter III-J such as; The city will develop strategies to promote bicycle tourism, especially by promoting and providing access to services for users of the regional trails and national bike route.	Partner with business community to promote bike tourism; support the northern tier bike route in Comp Plan Chapter III-F; and continue to collaborate to extend Pend Oreille Bay Trail and BNSF crossing.
III- F: Transportation, III-H: School Facilities	Allow for safety, adequate transportation capacity around Kootenai Elementary School. Ensure Kootenai is a safe place for children to walk and bike to and from school.	Infrastructure is adequate, what is needed now are policy changes for drop-off and pick-up procedures.	The school officials should implement the steps outlined on Page 16 of the plan as one action. There should also be a renewed effort to encourage walking and biking as facilities get completed.
III- F: Transportation	Policies 1 through 8	See plan sections on pedestrian and Bicycle Realm	Prioritize actions in this plan, develop an implementation and funding schedule/plan.
III- F: Transportation	Encourage the development of a bus connection to Ponderay, Dover & Sandpoint.	Support for the bus should include maintenance of and good access to bus stops.	Work with transit agency to determine maintenance responsibilities and develop a schedule for any improvements needed.
III- E: Public Services, III- F: Transportation	Ensure convenient, efficient and economical public services [including emergency services] Obtain right-of-way [at three locations] for bicycle/pedestrian access and connectivity.	We strongly support these policies. Adding secondary access points (even pathways) can provide encouragement for pedestrians and bicyclists, and more importantly serve a vital public safety function.	Work with emergency providers to prioritize secondary access points and develop implementation plan.
III- F: Transportation	GOAL 3: Provide infrastructure to ensure ped/bicycle safety and connectivity throughout the community.	Develop a connectivity measurement to use in analyzing new development applications and planned improvements to the existing system.	See Connectivity Standards at: http://www.idahosmartgrowth.org/best-practices/ . Scroll to code reform.
III-L: Special Areas or Sites	Create historical markers and/or centralized historical map with way-finding information.	Using boardwalks as a sidewalk solution in select areas could prove to be practical due to drainage challenges and fun attractive additions to the community that might attract visitors.	Work with Bonner County Historical Society to develop information about historic boardwalks. Consider constructing new boardwalks as per these recommendations and signing them with historic markers.
Zoning/Subdivision codes and Public Works standards	Requirements for sidewalks and design of pedestrian facilities is case by case and discretionary.	Sidewalks should be clearly required, implementation may be required with roadway construction or on individual lots at the time of development depending on the size and location of the subdivision	In order to avoid disconnected sidewalks it is generally recommended to require sidewalk construction at the same time that roadways are being constructed.
Public Works standards	Requirements for sidewalks and design of pedestrian facilities is case by case and discretionary.	Develop a local street section(s) with pedestrian facilities, whether sidewalk, side path or extruded curb walkway.	These sections may be a more rural design without curb and gutter and incorporate new storm water drainage requirements through bioswale filtration or boardwalks.

Observations

- Permitting new development without adequate pedestrian and bicycle facilities are missed opportunities to improve the pedestrian and bike network and will ultimately become a tax liability when the community is asked to provide retrofits.
- The lack of connectivity in Kootenai presents discouragement for pedestrians and bicyclists. Perhaps more importantly it presents very real life-threatening challenges for emergency responders if the only access route is blocked, for instance by a downed tree, and they are unable to reach a fire or medical emergency timely. The comprehensive plan recognizes the deficit, this plan recommends adding urgency to retrofitting secondary access points.
- Acknowledging that Kootenai has goals to continue lower density single family development, there are also goals that support pedestrian and bicycle use, safe affordable housing for all socio-economic groups, and a wish for transit service. More compact, higher intensity development generally helps meet the latter goals. Allowing a few accessory dwellings and/or smaller lot single family or duplex and four-plex buildings in select areas are small but significant policy and ordinance changes that could begin to reconcile those competing visions.
- Kootenai historically had a robust network of sidewalks that were constructed boardwalks. Resurrecting that idea could be a fun and practical way to reintroduce sidewalks, and could prove attractive to tourists and other visitors for their unique character.

Resources

School Policies

Find model policies for school wellness and transportation at: <http://www.idahosmartgrowth.org/best-practices/> Scroll to Safe Routes to School or go to: <http://www.idahosmartgrowth.org/app/uploads/2014/05/Model-School-Policies.pdf>

Neighborhood Marketplace District/ Accessory Dwelling Units

See Model Mixed Use ordinances at <http://www.idahosmartgrowth.org/best-practices/> Scroll to code reform, or go to: <http://www.idahosmartgrowth.org/app/uploads/2014/10/Z2-Neighborhood-Market-Place-District-final.pdf> and <http://www.idahosmartgrowth.org/app/uploads/2014/10/Z3-Accessory-Dwelling-Units-final.pdf>

Connectivity Standards

See Connectivity Standards at: <http://www.idahosmartgrowth.org/best-practices/>. Scroll to code reform or <http://www.idahosmartgrowth.org/app/uploads/2014/10/Z4-Connectivity-Standards-final.pdf>

Street Design

Find an overview of National Association of City Transportation Organizations guidelines at: <http://www.nyc.gov/html/dot/downloads/pdf/2012-nacto-urban-street-design-guide.pdf> and at: <http://www.ssti.us/wp/wp-content/uploads/2013/11/NACTO-SSTI-webinar-Nov19-20131.pdf>

City of Hailey Idaho Municipal Code, Title 18-Mobility Design, Chapter 6 Street Design Guidelines and Standards: http://www.haileycityhall.org/Codes_Plans/documents/Title18MobilityDesignOrd1131binder.pdf

MORE: Mixed Use Zoning

See Model Mixed Use ordinances at <http://www.idahosmartgrowth.org/best-practices/> Scroll to code reform, or go to: <http://www.idahosmartgrowth.org/app/uploads/2014/10/Z1-Mixed-Use-Activity-Center-Zone-final.pdf>

Bike Parking

Overview of bike parking standards, VPTI on-line encyclopedia: <http://www.vtpi.org/tdm/tdm85.htm> City of Emmett, Idaho Design Manual, Page 34 has concise standards for bike parking. <http://www.co.gem.id.us/development-services/ordinances-amendments/DesignReviewManual.pdf>

Bike/Bike/Pedestrian Counts

Find a toolkit for conducting manual pedestrian and bicycle counts at <http://www.idahosmartgrowth.org/category/resource/>, scroll to Workshop Presentation and Materials or find .pdf at : <http://www.idahosmartgrowth.org/app/uploads/2014/04/BikePed-Toolbox-FINAL-8-30-13.pdf>

City of Kootenai, Idaho
Bicycle and Pedestrian Master Plan

ITD Technical
Assistance Grant
project

