

DESIGN GUIDELINES

This section of the Garden City River Master Plan deals with the design guidelines of the system on a comprehensive basis. It will speak to the general design of the bike and pedestrian paths, the configuration of signs, and the treatment of wildlife areas. Detail suggestions for specific sections of the river will be addressed in the Development Patterns section of the Master Plan.

PATH DESIGNS

Three types of paths are contemplated for the project: (1) paved bike paths, (2) pedestrian/nature paths, and (3) an equestrian path west of the Western Idaho Fair Grounds.

BIKE PATH: It is important to remember that the bike path is a separate distinct use from that of the greenbelt. Though it is contemplated the bike path will follow the river, it may not always be within the greenbelt. For example, the path should not infringe into Class A habitat areas unless absolutely necessary. It may also go around existing land uses that prevent it from being located along the river.

It is suggested that the bike path standards follow those formally adopted in the "Bicycle Pedestrian Design Manual for Ada County". The path would be considered a Class A system. The paved section of the path should be 10 feet in width. The underlying base should be 4 inches of compacted crushed gravel. Pavement thickness should be 1-1/2 inches to 2 inches of asphaltic concrete. Appropriate treatments should be undertaken to inhibit root growth from coming up through the pavement. Where the bike path will be used as service access for fire lanes or for heavy equipment, construction standards should be a minimum of 6 inches of compacted gravel with 2-1/2 to 3 inches of asphalt.

The bike path can be paved with other hard surface material such as concrete or brick pavers. Typical application for alternative surfaces would be in urban areas where it is desirable to integrate the bike path into abutting projects.

The path should be sloped to provide proper drainage. Low spots should be avoided where water may accumulate. This is very important during the winter months to prevent ice accumulation.

Bicycle graphics should be painted on the pavement at intersections and crossings as warnings.

The path should be a minimum of 25 feet from the edge of the river wherever possible.

Grades should not exceed those recommended in the Bicycle Manual.

Railings should be provided on any stretches that have a steep bank, under major bridges, or in areas immediately adjacent to the river.

Though the path should meander, it should not do so in a manner that would cause hazardous site distance problems. Site distance should not be less than 75 feet.

PEDESTRIAN AND NATURE PATHS: The intent behind pedestrian and nature paths is to provide facilities that discourage bicycle or other more intensive uses from entering into sensitive riparian areas in order to keep areas for wildlife habitat intact.

Path designs can vary depending upon the area. Primary paths should be no wider than 6 to 8 feet and be constructed of 4 inches of compacted road mix. Unlike the bike path, they can meander at sharp angles. Bridge construction should be designed with the environment in mind and should be constructed out of wood or native materials at a minimum of 10 feet in width.

Secondary paths can be very informal and should provide more of a feeling of exploration. They may not involve any bridges. Construction standards would be a maximum of 4 feet wide with 4 inches of compact road mix. Minor paths may be as small as two feet and unimproved. In some areas the pedestrian path will run near the bike path.

Both forms of pedestrian paths can be constructed below the 6,500 cfs line, though care should be taken to assure that high flows will not cause severe erosion or damage to any structures.

EQUESTRIAN PATHS: Equestrian use will be permitted west of the Fair Grounds on a trial basis. No formal path will be created. The equestrian trail should be located between the major trail and the river. Care should be taken to provide 10 feet of separation from any bike path facility and equestrian use. The equestrian trail should not be located in the 25 foot natural riparian zone along the river's banks.

SIGN DESIGN

Signs should be modeled after the Boise Park system program. This will provide consistency along the greenbelt.

Milage markers should be established from a stationary point or as an extension of Boise's system.

Greenbelt information and route maps are encouraged. They would include "you are here" designations, and identify points of interest. They should be located at major access points to the greenbelt.

Safety signing should follow the designs addressed in the Bicycle Pedestrian manual for Ada County.

Interpretive signs should be developed to educate people about unique features along the path. These could include:

- * Natural phenomena such as wildlife areas, special plants and unique ecosystems such as wetlands.
- * Manmade phenomena, such as irrigation diversions, and bridges.

- * Historic sites such as ferry crossings, the old meat packing facilities, and historic buildings.

DECKING

A variety of decking concepts should be used along the greenbelt utilizing natural materials wherever possible. Major decking projects should be adequately engineered to provide a safe facility. Areas where decking should be considered are:

- * Wildlife observation platforms.
- * Elevated decks over wetlands and side channels.
- * Fishing platforms.
- * River vista observation platforms.
- * Decking around or over hazardous areas or steep river banks.

The size of the decks will vary depending upon use and location. Where decking is used as walkways or as the bike path, they should be built to the width standards of the adjoining path.

Construction material should be primarily of pressure treated wood. Metal parts should be painted a neutral color such as flat brown or black.

BRIDGES

Bridges will also vary greatly depending upon their function. Major bridges crossing the river are expensive and should be designed to pass the 100 year flood flows.

Widths should be as wide as the adjoining path system with adequate railings to prevent accidents. Bridges should be designed for loadings as specified by the American Association of State Highway and Transportation Officials (AASHTO).

Major river crossings should be made of steel or concrete with low maintenance requirements. Long term maintenance characteristics are very important. Short term savings may not be a good trade-off.

Design should take into account the aesthetics of the river environment. If used structures are contemplated, they should be assessed by an engineer for their structural integrity and appropriateness for the system.

RAILINGS

Railings will be required where the bike or pedestrian paths rise above surrounding grade creating a potential hazard. These areas would include bridges, ramps, and areas close to the river's edge.

Railings should be constructed of steel and designed to be compatible with those currently located along the Boise system. There should be no sharp corners or protrusions from the railings that could pose a hazard to bicyclists.

6,500 CFS DESIGNATION

A key element to the Garden City River Master Plan is the establishment of a line for the purposes of a setback from the river. The standard currently used in Garden City and other cities in Ada County is 6,500 cubic feet per second, measured at the Glenwood Bridge. This is considered the bank full stage of the river. This will prevent formal facilities from being flooded in a normal years high water condition.

The determination of the location of this line is fairly simple in areas where the river has been extensively leveed. It is much more difficult to ascertain the location where the river system has not been substantially altered. The river banks are harder to define. Another problem arises in areas where side channels exist. Some side channels may be hundreds of feet away from the main channel. They may only contain water during short periods of time. Thus, it is hard to delineate the exact location of the 6,500 cfs line.

The Garden City River Master Plan map does not depict the location of the 6,500 cfs line.

Each development proposal should accurately define this line with the final determination being made by the City Engineer, subject to approval of the City Council, with consultation from the Greenbelt Committee.

70 FOOT SETBACK FOR GREENBELT

The standard setback used in both the Garden City and the Boise City greenbelt systems is 70 feet from the 6,500 cfs line. This standard has been incorporated into the Garden City River Master Plan. This should be considered the minimum setback from the river. It would be greater in areas of Class A habitat, which are delineated in the Garden City River Ordinance, and addressed further in this report.

It is contemplated that the formal bike path facility would be located in the 70 foot setback, except in areas of Class A habitat where it should skirt the edge. Development proposals should take this standard into account when developing concepts.

REFINED LANDSCAPE DEVELOPMENT

Refined landscape development are those areas that require formal planting and maintenance. They are irrigated with sprinklers and contain ornamental plantings. The landscaping around the Red Lion Hotel Riverside or office buildings are examples of refined landscaping.

Refined landscaping is expensive to install and maintain and should only be used in selected areas along the river. These areas could include portions of the 70 foot greenbelt area adjacent to office or commercial developments and in formal parks adjacent to the greenbelt.

Refined landscaping should not be extensively used along the greenbelt. Not only is it expensive to maintain, but it will negatively effect the river environment. Extensive

removal of willows and native vegetation will have a definite negative effect on fish and wildlife. Refined areas typically require fertilizers, herbicides and pesticides that can also affect the river environment. Refined landscaping is discouraged in residential developments where native species can work well. In all cases a 25 foot strip of native vegetation should be maintained along the channel bank. Where existing homes are already in place, this vegetation should be allowed to reestablish itself.

NATURAL LANDSCAPING

Natural landscaping uses indigenous riparian plant materials. They are typically not irrigated, though irrigation may be needed to reestablish some areas if disturbed.

Natural and native plantings should be the predominant landscaping along the greenbelt. It requires low maintenance, provides good fish and wildlife habitat, and most importantly, represents the natural river environment. Less than 2 percent of Ada County can be considered native riparian habitat, and 80 percent of that habitat is associated with the Boise River. It should be protected and enhanced where possible.

SENSITIVE WILDLIFE AREAS

The River Master Plan, which is part of the Garden City Comprehensive Plan, designates areas of Class A habitat. These areas correspond to the Class A areas adopted as part of the Garden City River Plan. Class A areas are targeted as major public or private open space and are not contemplated for development. The major bike path facility is designed to be located outside of these areas wherever possible. If the bike path must be located in Class A areas, it should be done in a manner that causes the least intrusion.

Pedestrian and nature paths are conceptually shown in these areas. Actual location and design will be subject to detail site planning. Fish and wildlife should be given top priority in these areas. Paths should provide the opportunity to view significant wildlife features but not adversely impact them. An example would be the blue heron rookery on the western end of the study area. Paths should provide the opportunity for viewing, but not provide intrusion that would affect this area.

BEAVER PROTECTION

The beaver population along the river has caused some major problems in existing sections of the greenbelt. Beaver have been harvesting major cottonwood trees and willows. The narrowing of the riparian zone has limited their food base and natural predators. The problem is not as severe in areas where a substantial amount of riparian lands exist.

The beaver problem can be mitigated by surrounding selected trees with wire mesh. This prevents the beaver from harvesting the trees. The other major mitigation measure is harvesting the beaver population. This must be coordinated with the Idaho Department of Fish and Game.

FISHING OPPORTUNITIES

The Boise River provides an excellent sports fishing resource for Garden City. The nutrient load in this stretch of the river is such that it will produce very large brown trout. The middle and western end of the study area provides very good habitat for trout. The

side channels, cut banks, and overhanging vegetation provides the needed habitat for a quality fishery.

As development continues in this area, pressures will increase for sports fishing. Sportsman access points should be established at the points designated for vehicular access to the greenbelt. Locations should also be provided to the Idaho Department of Fish and Game as areas for fish planting.

Development proposals that may affect side channels should take into consideration the opportunity to improve fish habitat. This not only improves the quality of the river environment but also is an attractive selling point for the development.

BOAT LAUNCHING AND TAKE OUT FACILITIES

Though the study area is not currently used extensively for tubing or floating, it has the potential for excellent floating opportunities. Launching and take-out facilities have been contemplated in the Garden City River Master Plan. They should be located at points where parking is available. Thus, access points are designated at major vehicular access points along the river. This may require the acquisition of additional parking facilities in the future if tubing and floating become as popular in the study area as they are up river. The location of these access points will help regulate the amount of river activity. If the goal is to limit river use to protect wildlife, then access should be restricted.

Any modification to diversion structures along the river should take into account potential tubing and floating opportunities. Design of these facilities should take into consideration safe access over or around diversion structures.

ACTIVITY NODES

Activity nodes are areas along the river with a special sense of place, or that provide formal activities such as parks. Examples of activity nodes that are designated on the Garden City River Master Plan are:

- * Parks.
- * View points.
- * Beaches.
- * Water falls and diversions.
- * Clearings in woodland areas and marshes.
- * Historic sites.
- * Fishing and launching areas.

Development at these sites is minimal. Examples of structures are benches, picnic tables, trash receptacles, and informative signing.

PARKING LOTS

Parking lots have been designated at major access points to the river. Parking lots should not be located in the 70 foot setback area. They should be screened by 3 to 4 feet of vegetation.

When development applications are approved along the river, the city should try to negotiate an agreement that office parking areas can be used in off hours as parking for greenbelt users. The city should consider the acquisition of land for parking at key access points to the system.

TRASH RECEPTACLES

Trash receptacles should be placed at all activity nodes along the system. They should also be interspersed along the greenbelt and at key access points. Other areas would include path junctions.

Trash receptacles should have lids to prevent animals from accessing them, and should be painted a neutral color or made of native material. Garden City will need to establish routine maintenance.

PUBLIC PARKS

Opportunities for public parks and open space should be actively pursued and should be taken into account when development is proposed. With development of the river, public open space will become a premium, and undoubtedly, will become more expensive. Examples of areas for potential public open space are areas in the floodway, Class A riparian habitat, and existing publicly owned lands.