Bitterroot Heights Park
Master Plan

Prepared For:
BRV Development
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Billings, Montana 59102

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**Project Location**

Bitterroot Heights is a new residential subdivision located at the northeast corner of the Heights neighborhood in Billings. The subdivision is bordered by two arterial streets: Bitterroot Drive, Mary Street, and collector street, Hawthorne Lane. The remainder of the property is contained by the railroad bed and Five Mile Creek. Prior to subdividing the property, almost 75% of the property was used as a gravel pit. The south side of the property contains a branch line of the BBWA Canal. Several existing drainages are on site. Ground water appearing at the surface runs constantly through these shallow ditches. The old branch of the BNSF railroad transcends the northwest corner of the site. The City of Billings now owns the right-of-way. It is identified as a bicycle corridor on the Heritage Trail Plan.

**Subdivision Requirements**

The gross area of the subdivision is 127 acres. It is projected that a total of 380-390 lots will be developed. The zoning for the subdivision is R-7000 Restricted, which limits the build-out to single-family homes. Parkland dedication requirements according to The City of Billings Subdivision Regulations require that 11% of the net area of land proposed to be subdivided into parcels of one-half acre or smaller be contributed to the parkland dedication. The total lot area is 77.49 acres. The resulting dedication required equates to 8.52 acres.

According to the Subdivision Master Plan, a total of 18.99 acres of parkland and public open space is proposed. According to this park master plan, approximately 8.33 acres of park land is planned to be fully developed. According to the subdivision improvement agreement (SIA) the proposed improvements described in the master plan is to be implemented at 51 percent of the build-out. It is proposed that the implementation will be funded through a park special improvement district (PSID). The SID will be a developer-initiated SID (private contract) to implement the park system. The proposed PSID coverage is all areas within the Bitterroot Heights subdivision. During the master plan process, it was evaluated to expand the coverage to include property owners outside of the subdivision, however, at this time Daniels Park fulfills the parkland requirements of those adjacent subdivisions. If, however, Daniels Park is liquidated, a reconsideration of the PSID must be considered. Likewise, all property owners within the Bitterroot Heights subdivision will be signing waivers of protest to the creation of a Parks Maintenance District (PMD). It is the policy of the Parks Department to create a PMD with any parkland improvements.

**Parkland and Public Open Space Improvements**

In the Parks 2020 plan, Framework A, “Essential Recreation Park Land,” Diagram 2, identifies this area as a need for a future community park in this area of Billings. The parkland dedication tract was provided in a configuration and acreage that allows for improvements desirable in today’s park systems. According to the diagram, a “Community Park” has a service area of 1-1/2 mile radius, and is typically 10-20 acres. The projected user groups are Community residents, Neighborhood residents and Subdivision residents. The design standards include open lawn areas, landscaping, sport
courts(s) and backstop, youth sports fields, picnic grounds with shelters and special recreation facilities.

The northwest corner of the subdivision is dedicated as parkland. Included in this area is Five Mile Creek and a wetland/storm water detention area. The park has public street access via a small parking lot on the south edge. Pedestrian access is granted on the east and south corners of the parcel. Bicycle access to the park is available via a connection to the proposed Kiwanis segment as identified on the Heritage Trail Plan (2004).

There are over 5.5 acres of linear drainage ways throughout the subdivision. These 50’ right-of-way areas are planned to remain natural, with no irrigation. A 10-foot wide maintenance road made of gravel will provide an access for the drainage ways as well as a public amenity. The drainage ways will have shade tree plantings throughout the corridors as per the City Councils’ recommendation (December 2004). The developers will be installing the gravel maintenance roads as part of their requirements to the subdivision.

A landscape buffer (Tract A & B) is provided along Mary Street. The intent of the buffer is also to remain natural; native grasses will be seeded. Trees will be planted and supported by a temporary drip irrigation system. The initial access to the subdivision is off Bitterroot Drive. Two additional Tracts (C & D) are provided to allow for an entry feature. A landscaped median is planned for the 80’ wide collector streets. The 16-foot median will be bermed with deciduous trees and irrigated lawns. A future connection to Mary Street will have the same treatment. These tracts and medians will have landscape features maintained through the PMD.

**Individual Elements in the Park Development**

Although site-specific design development drawings have not yet been developed, the following are suggestions for project elements that should be considered when implementing this master plan.

**Trees**

Because of the gravel mining operation, there are no existing trees within the original pit limits. However, on the northwest side of the subdivision, existing trees line the drainage areas and along Five Mile Creek. Where practical, these trees shall be saved and protected during construction. When selecting varieties for new shade trees, hardiness, species diversity, adaptability and maintenance should be considered. Trees selected for the drainage ways will need a polymer gel supplemental irrigation system. This system should be utilized for the first 3 to 6 months of establishment.

Ornamental trees are used as accents near buildings and structures. Given the moisture regime of the site, Aspen trees may be well suited for some areas of the park. Evergreen trees will also need to be planted to provide winter interest and buffering capabilities. Shade and ornamental trees are usually measured by their caliper and come in either balled and burlapped (B&B) or container root systems. The minimum recommended size for the shade trees is 1-1/2” caliper, although 2” caliper is desired. These sizes are the
most readily available, are less susceptible to vandalism, and provide a more mature tree. Evergreen trees should have a minimum of 3 feet in height. Wildlife protection will be needed until the plants are established.

**Lawn Areas**
There are proposed irrigated and non-irrigated lawn areas within this subdivision. The irrigated lawn seed mix shall have low-water plant species, due to the fact that the irrigation water will be fed by City lines. The native lawn mix (located around the park edges and in drainage ways) should incorporate various desirable species which will allow for both clump and rhizome species development.

Recommended Irrigated Lawn Mix, proportioned by weight as follows:
- 30 percent Kentucky Bluegrass
- 30 percent Canada Bluegrass
- 25 percent Perennial Ryegrass
- 15 percent Creeping Fescue

Recommended Native Lawn Mix, proportioned by weight as follows:
- 40 percent Ephraim Crested Wheatgrass
- 30 percent Perennial Ryegrass
- 20 percent Canada Bluegrass
- 10 percent Sheep Fescue

**Park Sign**
A sign shall be placed at the front of the parking lot to designate the entrance to Bitterroot Heights Park. The sign will conform to current Park’s Department standards for signage in parks. Designating the park entrance with a sign will help to establish the park and have members of the surrounding neighborhood feel more ownership of it.

**Play Area Surface**
An engineered, shredded wood fiber is suggested in lieu of wood chips or other surfaces for the two play areas (detailed below). Fibar Systems makes a product that is ADA compliant and outperforms wood chips for this use. This will provide a safe, durable surface for all park users. Alternatively, rubber surfacing may be considered for transfer points in and around the equipment.

**Playground**
The main park will include a 5-12 year old playground. The surface will be surrounded by a thickened edge sidewalk, providing ADA accessibility and helping to retain the surfacing. Total square footage for the area will be approximately 2300. Recommended play features would include various slides, bridges, climbers, and different height platforms/stations to provide maximum appeal for the target group. Playworld Systems® offers an option (model 500-0310 PLAYMAKERS) which is suitable for the 5-12 audience, accommodating up to 96 children. It complies with all current safety certifications, as well as requirements under the Accessibility Guidelines for Play Areas. The many components which comprise this system are sure to draw a large user group.
The play area is situated on top of a berm for visibility and aesthetics. Figure 1 shows an example of the recommended play system for this area.

![Figure 1](image1)

**Tot Lot**
Adjacent to the playground, a tot lot will be installed for children under 5. This will be in close proximity to the picnic area and shelters, to provide parents/guardians easy access to the lot. This area will also be surrounded by a sidewalk for accessibility and to contain the Fibar Mulch surface. The play system for the Tot Lot must be scaled down and provide opportunities that appeal more to younger children. Playworld Systems® again manufactures a structure that would be suitable for toddlers. The Mega Fun Center (model ZZPD 5100, shown below) includes numerous slides, low climbing platforms, as well as play telescopes and wheels to spin. This system also meets or exceeds the requirements for access under the Accessibility Guidelines for Play Areas and is current with all safety regulations.

![Figure 2](image2)

**Swing Set**
Located in the same area as the Tot Lot, the swing set will be a part of the play area. It is an arch-style swing, seen below, with two seats; however, the system allows for future add-ons if it is deemed necessary. This structure again meets all current safety requirements.
Basketball Court and Backstop
In the same vicinity as the play areas, a basketball court is proposed. It is a 50’ x 40’ asphalt court with regulation backboards at each end. The court size is regulation half-court; however, striping will provide 2 play areas. Court will meet all grading standards to allow for ample drainage. To the west of the court a chain-link backstop is placed. Although this master plan shows unprogrammed open space in this area, it should be noted that there is spatial availability for a little-league ball field. However, because this area falls within the 100-year floodplain of Five Mile Creek, special requirements will be needed to do any grading or development in this area. If a formal ball field is wanted, a master plan amendment will be needed.

Picnic Shelter
The picnic area will be located between the parking lot and Tot Lot. It will include a lawn space with picnic tables, shade trees, and the picnic shelter. This will provide a covered space in inclement weather or for gatherings. It is estimated to be a basic 20’x 20’ structure on a concrete pad. Additional seating or tables will be offered under the shelter. A sample shelter is pictured in Figure 4.

Restrooms
Adjacent to both the picnic area and the parking lot, a 2-stall flushable restroom will be installed. It will be a precast concrete building providing accessible facilities for up to two people. Earth tone colors will be used, with barn wood-textured exterior walls and either simulated cedar shake or ribbed metal textured roof. This will create an inconspicuous, yet functional, building. Size and materials will be appropriate to the
estimated traffic flow for the park. A suggested model (Cortez, manufactured by CXT Precast Products) is shown in Figure 5.

![Figure 5](image)

**Site Furnishings**

Consistency will be important when choosing the site furnishings for this park (including benches and picnic tables). All furnishings should be both durable and functional, at the same time adding to the overall appearance of the park. Suggested length for benches would be a minimum of 5’, made of a powder-coated metal. An example is shown below. Picnic tables will conform to this standard, offering at least one accessible table. Trash receptacles will be provided by the Parks Department. Possible bench and table ideas are shown in Figures 6 and 7.

![Figure 6](image)  ![Figure 7](image)

**Bike Rack**

A bike rack is suggested for the park entry area to accommodate traffic that will come through the bike trail system. Figure 6 shows a basic metal bike rack, able to accommodate 20 bikes at a time. Finish and color should be consistent with other site furnishings.
Pedestrian Trail Systems
Three types of trail systems will be present in this park, pedestrian walkways, bicycle trails, and maintenance paths. The bicycle trail will be a 10’ wide standard concrete surface, meeting the Design Standards set forth in the Heritage Trail Plan. It will connect the Heritage Trail along the old railroad right-of-way to the parking lot. The Heritage Trail spur will be installed with the PSID improvements and end at the subdivision boundary. The actual trail located in the City Right-of-Way outside of the subdivision will be constructed with trail funds in the future. The end point in the park can serve as a trail head for the system. A 5-foot wide sidewalk will then connect the play areas, picnic shelter, restrooms, and basketball court.

Gravel Maintenance Path
The northern and eastern parts of Bitterroot Park are not as conducive to concrete walkways, nor are they deemed a necessity. Because of the proximity to low-lying wetland areas, gravel paths are recommended so as minimize impact in those areas. These paths will provide access to all areas which may require maintenance, but can also be used by pedestrians and bikers to reach the northern, eastern, and southern extents of the park. This path will also be 10’ wide, and should be between 4 and 6 inches deep. Gravel should be 1/2” minus with a 20% clay binder. The trail should have a crown to provide adequate drainage off the path. It should then be rolled and compacted to 95% density.

Gravel pathways are not common in the park lands within the City of Billings. It is unknown to the Park’s Department of the long-term durability and maintenance requirements of these gravel pathways. As a result, the Park’s Department reserves the right to convert the gravel pathways into asphalt trails during the PSID process. It should also be noted that the gravel pathways will not receive snow removal during the winter months. Concrete sidewalks along the streets will provide an alternative surfacing for those times.

Boulders
Boulders will be placed along the new creek bed that flows past the picnic area and Tot Lot then exits the site along the southern boundary. These boulders will add interest and provide places to sit. Each boulder should be 2’-3’ in diameter and of locally available mineral content.
Parking Lot
A 24-space off-street parking lot is provided to accommodate park users from both inside and outside the subdivision. The parking lot is planned to have an asphalt surfacing and have a curb and gutter edge. The center row of parking shall have curb stops to ensure the one-way flow. Large shade trees should be planted on the west side of the lot to buffer the adjacent private lot. Internal landscape islands should have trees and shrubs with a drip irrigation system. Access control devices will be placed at the park edge to discourage user vehicle traffic in the park, but allow for maintenance vehicles to access the internal park if necessary.

Irrigation System
The required area to be dedicated shall have an automatic irrigation system. The irrigation system shall comply with the City of Billings’ Parks Department requirements for Maxicom Central Controls. A 35 GPM well may be drilled to irrigate the main park. However, domestic, potable water provided by the County Water District of Billings Heights may be a source for irrigation as well. It should be noted that no surface water rights area available for park irrigation.

Maintenance
Weekly maintenance will include mowing and garbage pick-up, as well as restroom cleaning. Irrigated lawn areas will need mowing depending on seasonal moisture. As a rule of thumb native grasses should be mowed 2 to 3 times per year; the first time at the end of May, the second time in mid-July, and the final time occurring in mid-October. The mow height should be a minimum of 4 inches, with 6 inches being preferable.

A noxious weed control program should be established with a local contractor. A yearly property check with spot spraying as required should occur in the month of June. This should be coordinated with the County Weed Supervisor and the NRCS agent. This program can also be used to control the weeds in gravel parking areas and walkways with spot application of a weed control agent as required.

Turf grass areas should have a mow height of no less than 3 inches and be allowed to grow to 4 or 4 - 1/2 inches before being mowed again. Bluegrass lawn areas require roughly 12 inches of water between June 1st and September 1st. At peak demand this means roughly 1 inch of precipitation per week in lawn areas. For mature lawn areas, this water should be spread evenly through the week and in less frequent, deeper soakings.

Fertilizing of grass and lawn areas should be done as necessary in should not be overdone to minimize water needs and mowing and to protect sensitive areas. Lawns which have irrigation at head to head coverage should have two applications of fertilizer: The first should be a blend of 17-17-17 in May and then should have an application of 27-8-8 in mid summer. As the lawns are establishing the rate of fertilization should be 40 lbs per 10,000 square feet. An established lawn should be fertilized at a rate of 60 lbs. per 10,000 square feet. Bi-annual soil test should be taken to assess soil nutrient contents and adjust fertilizer rates accordingly.
Any seed mix that has no irrigation or areas within 50 feet of a stream or wetland should not be fertilized and has no plan for regular application of fertilizer. This will minimize excess nutrient run-off that will adversely affect the water ecosystem. Trees and shrubs located within this corridor should be monitored and if deemed that they need fertilization, the use of capsule fertilizer should be utilized.

Shade trees should be fertilized in April with 16-10-9 plus iron and zinc. Once trees and shrubs are established, they should be fertilized with tree food spikes. Do not fertilize trees and shrubs past mid-July. Pruning of evergreens should occur in June. Shade trees should be pruned in April, except maples and birch. Maple and Birch species should be pruned in mid to late July. General monitoring for pests and diseases should be done throughout the year. Trees and shrubs should be deep watered right before the ground freezes.

The irrigation system should be charged in April, after the frost has left the ground and plant material begins to grow. All of the manual drain valves should be turned to the closed position. Program or adjust the controller for the current month’s watering needs. Check all heads to ensure that there is no breakage and that proper coverage is attained. Each month the heads and controller should be checked and adjusted for the weather.

When repairing the sprinkler heads do not mix different brands or nozzles. This ensures that the coverage is efficient for the working pressure and disperses at an equal precipitation rate. Ensure that the heads seated at a level which it is not damaged from mowing or maintenance equipment. Be sure to periodically check the drip emitters around the trees to ensure they are functioning properly.

Winterization of the irrigation system typically occurs during the last week of October. All manual drain valves should be opened. Use a high-powered air pump to connect to many of the quick coupler valves around the system. Run air through the system, opening and closing each valve zone, until all of the water is completely out of the system. Turn off the controller and leave the water off until spring. If winter time watering is necessary, this should be done manually from a tank to avoid damage to the system.

The restrooms will need weekly cleaning as well as seasonal start up and winterization. The parking lot should be street-swept on a regular basis as a part of the street maintenance program. The sidewalks in the main park may need sweeping and/or snow removal depending on use. The gravel trails will not have snow removal, but may need to be bladed or have weed maintenance.

**Cost Estimates**
Attached is the budgetary cost estimate for the subdivision’s parks and public lands. The estimate is at $1.2 Million. Quick calculations of a PSID for all lots within the subdivision show the average 7000 SF lot will pay about $2488 in this SID. Based upon a 15-year rate, this is about $166 per year for implementation. City CIP and grant money may be sought after to help offset the costs of some of the amenities of value to a community park.
APPENDIX A

SUBDIVISION IMPROVEMENTS AGREEMENT

BITTERROOT HEIGHTS SUBDIVISION, 1st FILING

This agreement is made and entered into this ____ day of ____________, 200__, by and between BRV DEVELOPMENT, LLC, whose address for the purpose of this agreement is 1925 Grand Avenue, Suite 126, Billings, Montana, 59102, hereinafter referred to as “Subdivider,” and the CITY OF BILLINGS, Billings, Montana, hereinafter referred to as “City.”

WITNESSETH:

WHEREAS, at a regular meeting conducted on 11th day of October, 2004, the Board of Planning recommended conditional approval of a preliminary plat of Bitterroot Heights Subdivision, 1st Filing; and

WHEREAS, at a regular meeting conducted on 22nd day of November, 2004, the City Council conditionally approved a preliminary plat of Bitterroot Heights Subdivision, 1st Filing; and

WHEREAS, a Subdivision Improvements Agreement is required by the City prior to the approval of the final plat.

WHEREAS, the provisions of this agreement shall be effective and applicable to Bitterroot Heights Subdivision, 1st Filing upon the filing of the final plat thereof in the office of the Clerk and Recorder of Yellowstone County, Montana. The Subdivision shall comply with all requirements of the City of Billings Subdivision Regulations, the rules, regulations, policies, and resolutions of the City of Billings, and the laws and administrative rules of the State of Montana.

THEREFORE, THE PARTIES TO THIS AGREEMENT, for and in consideration of the mutual promises herein contained and for other good and valuable consideration, do hereby agree as follows:

I. VARIANCES

A. Subdivider has requested, and the City hereby grants, the following variances by the City Council from the strict interpretation of the City’s Subdivision Regulations (Section 23.1401, BMCC):

1. 23-601(k) requiring a local residential street right-of-way width of 60 feet, to provide a 50-foot width (Pinto Drive).
2. 23-601(k) requiring a local residential street width of 37 feet from back of curb to back of curb, to provide a 33-foot back of curb to back of curb width. This variance will be conditional with the understanding that four (4) off-street vehicle parking spaces will be provided where the 33-foot back of curb to back of curb width is utilized. Off-street areas that qualify for parking include the garage and driveway apron area.

3. 23-605(d) recommending that double frontage lots be avoided, to provide for same due to collector street entry road configuration (Reiter Drive), provided that a 1-foot no-access strip be included on the Reiter Drive frontage to prevent vehicular access from Reiter Drive, and provided that a 1-foot no-access strip be included on the Bitterroot Drive frontage to prevent vehicular access from Bitterroot Drive.

II. CONDITIONS THAT RUN WITH THE LAND

A. Lot owners will be required to construct that segment of the required sidewalk that fronts their property at the time of lot development.

B. Lot owners should be aware that this subdivision is being built in close proximity to prime deer and antelope habitat and it is likely that homeowners will experience problems with damage to landscaped shrubs, flowers, and gardens.

C. Lot owners should be aware that soil characteristics within the area of this subdivision, as described in the 1972 Yellowstone County Soil Survey, indicate that there could be potential limitations for proposed construction on the lots, which may require a geotechnical survey prior to construction.

D. No water rights have been transferred to the lot owners. Irrigation ditches that exist on the perimeter of this development are for the benefit of other properties. Perimeter ditches and drains shall remain in place and shall not be altered by the Subdivider or subsequent owners.

E. There is attached hereto a Waiver waiving the right to protest the creation of the special improvement district or districts which by this reference is expressly incorporated herein and made as much a part herof as though fully and completely set forth herein at this point. The Waiver will be filed with the plat, shall run with the land, and shall constitute the guarantee by the Subdivider and property owner or owners of the developments described herein. Said Waiver is effective upon filing and is not conditioned on the completion of the conditions set forth in this Agreement. The Subdivider and owner specifically agree that they are waiving valuable rights and do so voluntarily.

F. Lot owners should be aware that portion(s) of this property lie within the floodplain/floodway, as depicted on the FEMA maps for this area. Please be advised that special development restrictions may apply within these specified areas.

G. With the filing of the plat, a Park Maintenance District will be created for the maintenance of the boulevard improvements, maintenance of drainage channels and detention facilities, and future park development and maintenance. The maintenance of the park, drainage, and boulevard improvements will be performed by the City, but paid
for by funds received through the Park Maintenance District. The overall master plan for Bitterroot Heights Subdivision anticipates that approximately 380 lots will be created at full build-out. Development (construction) of the subdivision park will be required when at least 51% of proposed lots are sold.

H. Owners of lots within this subdivision are advised of maintenance responsibility of adjacent public utility rights-of-way.

III. TRANSPORTATION

A. Streets
Subdivider will execute a private contract to construct public streets, curb & gutter, and some sidewalks within the Subdivision. The improvements will consist of 37-foot from back of curb to back of curb residential streets on Rainbow Loop, Rainbow Drive, and Trout Haven Lane. Streets constructed with a 37-foot back of curb to back of curb section will be contained within 60-foot wide dedicated rights-of-way.

The improvements will also consist of a 33-foot from back of curb to back of curb section on Pinto Drive within a 50-foot right-of-way width, and a 58-foot back to back collector street on Reiter Drive from its intersection with Rainbow Drive/Rainbow Loop to Bitterroot Drive. The section of Reiter Drive will be contained within an 80-foot wide right-of-way.

Drive-over curb and gutter will be installed on all of the interior streets being constructed in the First Filing with the exception of Reiter Drive from the intersection of Bitterroot Drive and Reiter Drive to west of the intersection of Reiter Drive with Rainbow Drive/Rainbow Loop, and along the 16-foot wide median strip where standard full-height curb and gutter will be installed.

All streets will be provided with an asphalt concrete riding surface.

B. Sidewalks
Subdivider will install a boulevard-style 5-foot wide sidewalks along both sides of Reiter Drive from its intersection with Bitterroot Drive to the beginning of the curb radius on Lot 1, Block 6 (on the north side) and to the beginning of the curb radius on Lot 1, Block 3 (on the south side).

Sidewalks adjacent to all other interior subdivision streets shall be 5-foot curb walk style and shall have the walks installed at the time that housing units are constructed on the lot and shall be included in each building permit.

Subdivider will install, within the private contract, corner intersection handicap ramps and aprons and will grade all street frontages for sidewalk finished grades.

C. Street Lighting
Construction or installation of streetlights within the Subdivision will not be required at this time, but streetlights shall be included in the Waiver for construction of the same in the future. Said Waiver shall also include a maintenance district for streetlight energy and maintenance of streetlights. Conduits and pull boxes will be installed, if required, at intersections.
D. Traffic Control Devices
Subdivider will furnish necessary traffic control devices within or adjacent to the Subdivision in conformance with the City of Billings standards and shall include ten (10) nine button delineators and “Road Closed” signs at the west end of Reiter Drive, the north end of Rainbow Loop (two locations), south end of Rainbow Drive, and the south end of Trout Haven Lane.

Stop signs shall be installed by the subdivider adjacent to Rainbow Loop at its intersection with Reiter Drive, adjacent to Rainbow Drive at its intersection with Reiter Drive, and adjacent to Reiter Drive at its intersection with Bitterroot Drive.

Street name signs for streets within the Subdivision, or located immediately adjacent thereto, shall be furnished and installed by the subdivider in accordance with the specifications of the City Engineer.

E. Access
Subdivision access is limited to a single access to Bitterroot Drive via a public street (Reiter Drive) to be located approximately 1,500 feet north of Mary Street.

Direct lot access is limited to interior streets. Lot access to adjacent arterial streets (Bitterroot Drive) and collector streets (Reiter Drive) is prohibited. Lot access to these facilities will be controlled through dedication of a 1-foot no-access strip.

The Traffic Accessibility Study submitted with Bitterroot Heights Subdivision, 1st Filing must be updated with each subsequent filing of plats within Bitterroot Heights Subdivision.

F. Heritage Trail Plan
The Bitterroot Heights Subdivision, 1st Filing is within the planning area for the Heritage Trail. The Heritage Trail Plan indicates a proposed multi-use trail along the south side of Five Mile Creek with a connection to Mary Street within the old railroad right-of-way. The Plan designates Mary Street as a “primary bikeway” and designates Bitterroot Drive as an “arterial bikeway”.

Park lands being dedicated with Bitterroot Heights Subdivision, 1st Filing will be master-planned to include provisions for necessary connections through subdivision property. Construction of the multi-use path through park lands within Bitterroot Heights Subdivision, 1st Filing will be undertaken with development of the park and will commence when 51% of the total planned lots are platted.

Ownership of trail corridor through Bitterroot Heights Subdivision, 1st Filing will be by the City of Billings Parks Department.

IV. EMERGENCY SERVICES
An emergency access road is not required for Bitterroot Heights Subdivision, 1st Filing.
With future filings where no additional access to exterior roads is provided, the subdivider will be responsible to construct, at a minimum, a secondary emergency access that confirms to the requirements of the City Fire Marshall’s Office.

**V. STORM DRAINAGE**

All drainage improvements shall comply with the provisions of the *Stormwater Management Manual* and Section 23-706, BMCC, a stormwater management plan shall be submitted to and approved by the Engineering Division.

In accordance with the Stormwater Management Plan developed for Bitterroot Heights Subdivision, a stormwater detention facility for Bitterroot Heights Subdivision is proposed in the north-central portion of the property. The detention facility is located on lands proposed for dedication as parks and will be maintained by a Park Maintenance District. The detention facility will have the ability to temporarily impound up to 6.88 acre-feet of stormwater runoff.

Existing natural drainages that traverse the Bitterroot Heights Subdivision will be retained and improved for conveyance of storm runoff to the detention facility.

Where not contained within street rights-of-way, storm drainage facilities will be located within dedicated rights-of-way or on public property. Where storm drain outfalls run between residential lots, a 20-foot wide right-of-way will be provided and a 5-foot concrete pathway will be constructed within the right-of-way.

**VI. UTILITIES**

Water and sanitary sewer lines shall be sized and installed in conformance with the City design standards and specifications, and the rules and regulations of the City of Billings.

The Subdivision Improvements Agreement does not constitute an approval of extension or connection to water mains or sanitary sewers. The property owner shall make application to the County Water District of Billings Heights (District) for the extension/connection to water and shall make a similar application for sanitary sewer to the City Public Works Department. The extension/connection to water and sanitary sewer is subject to the approval of the applications and conditions of approval. Applications will need to be submitted for processing prior to the start of any construction. The appropriate water and wastewater interior and local mains construction fees and franchise fee in effect shall be submitted with the applications.

Where construction of water and sanitary sewer outside of this subdivision is required, 60-foot wide temporary easements will be granted to the City. Said temporary easements will convert to dedicated right-of-way upon platting.

It is acknowledged that all properties subject to the Subdivision Improvements Agreement are not subject to the trunk sanitary sewer connection fees. It is further acknowledged that all properties within the Subdivision are not subject to
the Water Transmission Fees for the reason that water is supplied to the Subdivision by the County Water District of Billings Heights.

A. Water
The water mains, appurtenances extensions, and connections shall be sized and installed as approved by the District Manager and shall be installed in conformance with District design standards and specifications and the rules and regulations of the District and the Montana State Department of Environmental Quality.

Water mains, water service lines to the curb stop and sanitary sewer mains and lateral sanitary sewer service lines to the nearest property line will be installed by the Subdivider under private contract.

The Subdivider acknowledges that the Subdivision shall be responsible for the payment of buy-in fees to the District prior to water being supplied to the Subdivision.

All fees and billings are subject to the franchise fee in effect at the time of payment.

B. Sanitary Sewer
Sewer Mains and appurtenances shall be sized and installed as approved City Public Works Director and shall be installed in conformance with City design standards and specifications and the rules and regulations of the City and the Montana State Department of Environmental Quality.

The Subdivider acknowledges that the Subdivision shall be subject to applicable sanitary sewer system development and franchise fees in effect at the time new sewer service connections are made.

All fees and billings are subject to the franchise fee in effect at the time of payment.

C. Power, Telephone, Gas, and Cable Television
All telephone, gas, electrical power, and cable television lines within the public right-of-way shall be installed prior to surface improvements. The location of all such facilities within the public right-of-way shall be subject to the approval of the City Engineer.

8-foot utility easements are provided along the side, rear, or side lot lines of selected lots for utility services as shown on the plat of Bitterroot Heights, 1st Filing.
VII. PARKS/OPEN SPACE
The parkland requirement for the Bitterroot Heights Subdivision, 1st Filing is 1.02 acres (11% of net area). The parkland requirement for the anticipated build-out of Bitterroot Heights Subdivision (all filings) is 7.96 acres (11% of net area). Slightly more than 11 acres of parkland will be dedicated to the City with Bitterroot Heights Subdivision, 1st Filing. Additional parklands will be dedicated with future filings.

The City and the Subdivider agree that the requirement for park dedication is satisfied by the conveyance of park lands to the City. The subdivider will develop the stormwater detention facility and associated maintenance road, and drainageway and it associated maintenance road in park lands. Park lands at the subdivision entrance to Bitterroot Drive and the median separator on Reiter Drive will be developed as landscaped boulevard entry features by the subdivider. The level of boulevard landscaping will generally include berming, irrigated turf grass, and the planting of shrubs and trees. A landscape plan for the boulevard improvements will be prepared and submitted to the City Parks and Recreation Department prior to final plat approval.

With the filing of the plat, a Park Maintenance District will be created for the maintenance of the boulevard improvements, maintenance of drainage channels and detention facilities, and future park development and maintenance. The maintenance of the park, drainage, and boulevard improvements will be performed by the City, but paid for by funds received through the Park Maintenance District.

The overall master plan for Bitterroot Heights Subdivision anticipates that approximately 380 lots will be created at full build-out. Development of the subdivision park will be required when at least 51% of proposed lots are sold.

VIII. IRRIGATION
No irrigation facilities are affected by the development of Bitterroot Heights Subdivision, 1st Filing.

No water rights have been transferred to the lot owners. Irrigation ditches that exist near this development are for the benefit of other properties. Ditches and drains shall remain in place and shall not be altered by the Subdivider or subsequent owners.

IX. SOILS/GEOTECHNICAL STUDY
A geotechnical investigation was performed for the area of Bitterroot Heights Subdivision, 1st Filing. The investigation found subsoils generally consist of lean clay that contains varying amounts of silt, sand, and gravel, with occasional discontinuous layers of silt, sand, and gravel. Subsurface groundwater was encountered in borings at depths ranging from 4.3 to 11.0 feet.

The geotechnical investigation found that residential construction can be supported on spread footings placed below frost depth, and at least 2 feet above groundwater depth, on natural lean clay. The investigation report cautions against construction of crawl spaces or basements on any of the lots without conducting a more thorough groundwater study.

Much of the area of this subdivision was previously mined for gravel and has since been reclaimed. There exists the potential for variable soils conditions and groundwater levels within this Subdivision Area. Assessment and mitigation of these conditions, if
necessary, shall be the responsibility of the lot owner. Additional geotechnical studies may be necessary at the time of individual lot development.

X. **FINANCIAL GUARANTEES**

Except as otherwise provided, Subdivider shall install and construct said required improvements with cash or by utilizing the mechanics of a special improvement district or private contracts secured by letters of credit or a letter of commitment to lend funds from a commercial lender. All engineering and legal work in connection with such improvements shall be paid by the contracting parties pursuant to said special improvement district or private contract, and the improvements shall be installed as approved by the City Engineer and Utility Department Manager.

No building permits shall be issued until a private contract has been executed and approved security guarantees are in place for construction and installation of public improvements to serve all lots. Occupancy permits shall be issued only when improvements are found to be substantially complete. The improvements shall be guaranteed and installed in one private contract.

XI. **LEGAL PROVISIONS**

A. Subdivider agrees to guarantee all public improvements for a period of one year from the date of final acceptance by the City of Billings.

B. The owners of the properties involved in this proposed Subdivision by signature subscribed herein below agree, consent, and shall be bound by the provisions of this Agreement.

C. The covenants, agreements, and all statements in this Agreement apply to and shall be binding on the heirs, personal representatives, successors and assigns of the respective parties.

D. In the event it becomes necessary for either party to this Agreement to retain an attorney to enforce any of the terms or conditions of this Agreement or to give any notice required herein, then the prevailing party or the party giving notice shall be entitled to reasonable attorney fees and costs.

E. Any amendments or modifications of this Agreement or any provisions herein shall be made in writing and executed in the same manner as this original document and shall after execution become a part of this Agreement.

F. Subdivider shall comply with all applicable federal, state, and local statutes, ordinances, and administrative regulations during the performance and discharge of its obligations. Subdivider acknowledges and agrees that nothing contained herein shall relieve or exempt it from such compliance.
IN WITNESS WHEREOF, the parties hereto have set their hands and official seals on the date first above written.

“SUBDIVIDER”

BRV Development, LLC

By: ____________________________
    Eugene Brosovich
    President

By: ____________________________
    George Rosenfeld
    Secretary-Treasurer

By: ____________________________
    John B. Van Heuvelen, Trustee
    Van Heuvelen Family Trust

By: ____________________________
    Linda Van Heuvelen
    Van Heuvelen Family Trust

STATE OF MONTANA  )
County of Yellowstone  )

On this _____ day of ____________, 2005, before me, a Notary Public in and for the State of Montana, personally appeared ______________________, known to me to be the __________________ of BRV Development, LLC, who executed the foregoing instrument and acknowledged to me that he/she executed the same.

________________________________________
Notary Public in and for the State of Montana
Printed name: ______________________________________
Residing at Billings, Montana
My commission expires: __________________________
ENVIRONMENT AND EFFECT ON THE NATURAL ENVIRONMENT

Surface water: Five Mile Creek surface waters flow across the northeast corner of the subdivision. In addition, two man-made drainages traverse the subdivision from south to north, and an irrigation ditch exists along the southern boundary of the property. Development of this property has been designed to preserve the function, value and aesthetic properties of on-site surface waters, and to protect water quality downstream of the development.

1. The natural water system of Five Mile Creek crosses the property in the extreme northwest corner. Five Mile Creek flows all year. A study recently completed by Allied Engineering (October 2002) to establish flooding limits is currently under review by the Federal Emergency Management Agency (FEMA). The 100-year floodplain and floodway limits of Five Mile Creek, as they impact the subject property, are shown on the Preliminary Plat. No construction or grading activities are proposed with this plat that would impact the 100-year floodplain of Five Mile Creek. No stream bank modifications or alterations are proposed. The portion of this property containing Five Mile Creek and its floodplain is proposed for dedication as park land.

2. Three artificial water systems exist on the property. The property (1st Filing and future filings) is incised by two drainageways created as part of reclamation efforts of a former gravel extraction operation that took place on southern portions of the property. The two drainageways are about 12 feet deep when compared to the surrounding lands and are generally trapezoidal shaped. The drainageways discharge to Five Mile Creek to the north. The drainageways carry a year-round base flow due to shallow groundwater levels and support wetland vegetation along the channel flowline. The drainageways will be maintained to preserve their wetland characteristics and to provide an amenity for subdivision residents. The drainageways will also be utilized to convey stormwater runoff to an on-site detention facility located in the northern portion of the property, adjacent to the Five Mile Creek floodplain. The photo in Figure 1 shows a typical section of one of the on-site drainageways. The Draft Stormwater Management Study (published separately) provides additional details.
An irrigation ditch flows easterly along the north side of Mary Street along the property’s southern boundary. The ditch turns north at the intersection with Bitterroot Drive and crosses under Bitterroot Drive about 500 feet north of its intersection with Mary Street. The irrigation ditch will not be altered or impacted by development of Bitterroot Heights, and ditch flows will not be interrupted.

**Groundwater:** Please see separate geotechnical investigation by Maxim Technologies, Inc. for information regarding groundwater.

1. The geotechnical investigation revealed depths to groundwater varied from 4.5 to 15 feet (measured from existing ground elevation). Observations of the on-site drainageways indicate that groundwater elevations change seasonally, likely tied to flows in the adjacent irrigation ditch. The irrigation ditch is a likely source of groundwater recharge and will not be impacted by this development.

2. To avoid depletion or degradation of groundwater, restrictions have already been filed prohibiting the development of individual wells for subdivision residents. Water will be supplied by the County Water District of Billings Heights, eliminating the need to tap groundwater resources for domestic or agricultural uses.

**Geology; soils; slopes:** A site investigation of the subject property shows no evidence of rock falls, slides or other geologic hazards. The reader is directed to the geotechnical investigation by Maxim Technologies, Inc. for detailed information regarding soil types, water tables, and geologic hazards.
Vegetation: Vegetation on the property consists of mostly dryland grasses and sage. Shrubs and trees are evident in the northern part of the property (adjacent to Five Mile Creek) and along the man-made drainageways that traverse the property.

1. Vegetation adjacent to Five Mile Creek in the extreme northern portion of the property consists mainly of grasses, willows and Russian olive trees and will be preserved by virtue of this area being dedicated as park land. Portions of the proposed park tract have wetland-type vegetation consisting of cattails and other wetlands grasses. Some small trees also exist along the man-made drainageways that traverse the property and wetland vegetation exists along the channel of these drainageways. Figure 2 shows vegetation present in the Five Mile Creek floodplain area. Vegetation typical of the man-made drainageways was shown in Figure 1.

Figure 2 – Vegetation Along Five Mile Creek

2. The steepest slopes on the property consist of the banks of Five Mile Creek where slopes can reach near vertical with heights of 5-8 feet. Except where vertical banks exist, vegetation on the steeper slopes adjacent to Five Mile Creek consists of grasses and trees. Existing vegetation works to stabilize these steep slopes. Disturbance of vegetation on the stream bank is not proposed. Typical vegetation on stream bank slopes can be seen in Figure 2.

3. Slopes on the property are susceptible to wind and/or water erosion if vegetative cover is lost and not replaced. Development of the property will be accompanied by an erosion control plan that will address measures to prevent/reduce erosion losses due to wind and water.
Wildlife: Wildlife and waterfowl habitat exists along the Five Mile Creek. Five Mile Creek functions as a wildlife corridor as well as home to many species. Deer, fox, pheasants, turkeys and numerous species of waterfowl have been observed on the property. This wildlife corridor and habitat will be preserved through dedication of this area as a park tract. The developer is also pursuing encumbering of a portion of the park tract with a conservation easement to further preserve critical habitat.

Historical features: No known historic, archaeological or cultural sites, structures or objects exist on the property.

Visual impact: The property mostly lies below the level of surrounding streets (Bitterroot Drive and Mary Street) and existing development. Along the adjacent streets, the property is about 20 feet below the level of the streets. Since the topography of the property will remain largely unchanged, residences constructed with this development will be below the level of surrounding residences. The preservation of the Five Mile Creek corridor will also serve as a visual buffer for properties to the north.

COMMUNITY IMPACT AND CRITERIA FOR PUBLIC INTEREST

Basis of need for the subdivision:

1. Bitterroot Heights Subdivision is proposed to be a single-family residential subdivision with lot sizes varying from just over 7,000 square feet, up to more than 12,000 square feet. Development character will include a significant quantity of single family homes priced and targeted towards first-time home buyers. Also included will be a section of the subdivision developed with a “bungalow” style, utilizing alleys for rear garage access, and developed with front (street side) porches. Portions of the subdivision will also offer “premium” lots adjacent to drainage or natural area amenities. The intent is to build a development with a stronger sense of community. The development will fill a need for entry-priced single family housing.

2. Homes within the Bitterroot Heights Subdivision are anticipated to be sold for prices over a wide range, beginning from the mid -$100,000’s. With the exception of large lot residential areas to the north and east, homes in developed areas near the Bitterroot Heights Subdivision are comparable to that proposed.

3. The Bitterroot Heights Subdivision is anticipated to appeal to first-time buyers and buyers wanting the unique development character offered by the “bungalow” style of front porches and rear alley garage access. Large tracts of habitat preserved within the subdivision, as well as the preservation of the open channel drainages throughout the subdivision will also offer unique characteristics and special qualities for this subdivision. These characteristics make Bitterroot Heights Subdivision unique for this part of the City.

Expressed public opinion:

1. Names and addresses of property owners of record immediately adjoining or surrounding the land are shown on sheet 3 of the Preliminary Plat. The
subdivider met with interested property owners in the vicinity of the proposed subdivision as part of the re-zoning process. Through that meeting, concerns of the adjacent property owners were identified and appropriate modifications were made to preliminary development plans. Notable are restrictions that have been filed with the County Clerk and Recorders office that prohibit construction of individual water wells and provide for larger lot sizes along the Bitterroot Drive and Mary Street frontage of the property. Additionally, duplex or multi-family structures (allowed by zoning) are prohibited for the property. A copy of the declaration of covenants, conditions, and restrictions is attached for reference.

**Effects on agriculture:**
1. The southern portion of the property was previously used for gravel mining activity and has since been reclaimed. The current use of the property is livestock grazing. No part of the property is currently used for production of crops.
2. The property is currently used for grazing of horses. About 6-8 animals are currently on the property.
3. The property was purchased by the subdivider specifically for development as a residential subdivision.
4. Other properties in the general vicinity of the property are mostly utilized for residential purposes. Located at the edge of the Billings urban area, some properties in the general vicinity are currently utilized for agriculture, most for livestock grazing or hay production. New, large lot residential construction is ongoing to the north of the property.

**Effects on local services and on the public health and safety:**
1. Water:
   a. Water for domestic use and fire protection will be provided by the County Water District of Billings Heights (District).
   b. It is estimated that 212,903 gallons per day will be required upon build-out of the proposed subdivision (381 residential lots). The District has indicated that water supply is sufficient to meet the needs of the anticipated final population of the subdivision (see commitment letter, attached).
   c. Water facility plans will be developed per the requirements of the District and the state department of health and environmental sciences.
   d. Water for the proposed subdivision will be obtained by connecting to the existing water main located in Mary Street adjacent to the proposed subdivision. Water mains will be extended east in Mary Street and north within Bitterroot Drive along the property frontage. The District has indicated that permission will be granted to connect to this system.
   e. No separate central water system is anticipated.
   f. Individual water systems are not anticipated for domestic use or fire protection. Individual wells are specifically prohibited by restrictions filed with the Yellowstone County Clerk and Recorders Office.
g. Individual water systems are not anticipated for domestic use or fire protection. Individual wells are specifically prohibited by restrictions filed with the Yellowstone County Clerk and Recorders Office.

h. Use of cisterns is not anticipated for the proposed subdivision.

i. The water system for the subdivision will be owned and maintained by the District.

2. Sewage disposal:
   a. It is estimated the subdivision (at build-out) will produce about 96,774 gallons of effluent per day. The City of Billings Public Utilities Department has indicated that capacity is available to meet the anticipated final needs of the subdivision in accordance with the standards of the state department of health and environmental sciences.
   b. The development will connect to an existing sewer system. The connection will be made at an existing pump station located adjacent to the northeast corner of the subdivision.
   c. The existing sewer system adjacent to the subdivision consists of a force main. The pump station for the force main is located adjacent to the northeast corner of the subdivision.
   d. The City of Billings Public Utilities Department has indicated permission to connect to the existing system will be granted.
   e. No extensions or improvements to existing sewer system will be required by this subdivision.
   f. A separate (community) sewer system is not anticipated.
   g. A separate (community) sewer system is not anticipated.

3. Solid waste disposal:
   a. The subdivision is located within the City Limits. Solid waste disposal will be provided by the City of Billings.
   b. The subdivision will utilize the existing City of Billings collection system and disposal facility. The City collection system and disposal facility has the necessary capacity to accept solid waste from the proposed subdivision.
   c. N/A
   d. On-site solid waste disposal is not anticipated.
   e. The City of Billings solid waste disposal system and site meets the standards of the state department of health and environmental sciences.

4. Roads:
   a. The subdivision will require construction of new public roads to serve as access to subdivision lots. Substantial improvements to existing roads are not required to meet the needs of this subdivision. The subdivider will be dedicating right-of-way for both Bitterroot Drive and Mary Street along the property frontage to total 60 feet from centerline (section line). Road improvements necessary to accommodate subdivision impacts are more thoroughly documented in the separate Traffic Accessibility Study document.
   b. No existing roads will be closed due to the proposed subdivision.
   c. All subdivision roads will be paved to control fugitive dust.
d. All subdivision roads will be constructed with approval by the City of Billings Public Works Department and will be designed with sufficient stormwater management provisions to meet the state department of health and environmental sciences guidelines for prevention of water pollution and erosion.

e. When fully developed, this subdivision is expected to generate approximately 3,972 daily vehicle trips. Traffic will be directed to adjacent principle arterial streets (Mary Street and/or Bitterroot Drive). No existing local or neighborhood streets will be impacted by subdivision traffic. The reader is referred to the Traffic Accessibility Study developed for this subdivision for additional detail.

f. Capacity of existing and proposed streets and intersections is fully documented in the Traffic Accessibility Study developed for this subdivision.

g. A Traffic Accessibility Study has been developed for the proposed subdivision as required by section 23-702(a) as a separate document.

5. Utilities:

a. The subdivision concept plan has been submitted to affected utilities for review. Affected utilities have responded by indicating their needs for easements. Necessary utility easements are shown on the Preliminary Plat.

b. On-site services for electric, natural gas, telephone and cable will be installed coincident with construction of roads and other utilities (water and sewer). The subdivider will pay for installation of utilities where required.

c. All new on-site utilities will be placed underground. The existing overhead electric utility currently located adjacent to the property along Bitterroot Drive and Mary Street will remain.

d. Utility completion will be coincident with completion of road construction, anticipated by the winter of 2004.

6. Emergency services:

a. Fire protection services will be provided by the City of Billings Fire Department. The proposed subdivision is within the City Limits and within the urban fire district.

b. Police protection services will be provided by the City of Billings Police Department as the subdivision is located within the City Limits.

c. Ambulance services are available for the subdivision and can be provided by American Medical Response.

d. Medical services are available within the City of Billings, provided by St. Vincent or Deaconess Hospitals, or one of their satellite clinics.

e. The emergency service needs of subdivision residents can be provided by present personnel and facilities.

f. N/A

g. N/A
7. Schools:
   a. The proposed subdivision is located within the City Limits of the City of Billings. Elementary, middle and high schools are available to meet the needs of school children added due to development of the subdivision. Elementary school services will be provided by Bench Elementary, while middle school children will attend Castle Rock Middle School. High school children will mostly likely attend Skyview High School.
   b. It is estimated that about 200-250 school children will be added by the proposed subdivision at build-out (based on 2000 Census data for Billings Heights). It is well known that the high school system in the City of Billings (District 2) is currently over-crowded. Measures are being undertaken to ease overcrowding by the School District.

8. Land use:
   a. The area proposed for this subdivision is not part of a planned development but is addressed by the comprehensive plan for the Billings urban area. A land use neighborhood plan is currently being developed for the area. The property is currently within the Billings City Limits.
   b. No public lands are adjacent to the subdivision. Subdivision development will not impact access to public lands. Dedication of park lands will occur with this subdivision. Adequate access to park lands is also planned with this subdivision.
   c. Development of the subdivision will not impact adjacent land uses. Adjacent land uses are currently residential or agricultural. Development of the subdivision will not interfere with access to, or use of adjacent property.
   d. The southern portion of the property was once used as a gravel mine. The mine pits have since been filled and the land reclaimed. Discussions with persons knowledgeable of reclamation activities indicate that reclamation of the former gravel pits did involve fill containing asphalt and concrete, but did not involve burying of any hazardous materials. In 1993 and 1994 Morrison-Maierle conducted and reported on a remedial investigation for the Mary Street gravel pit. As reported by the Montana Department of Environmental Quality (letter attached), “The only contamination found in the Mary Street gravel pit area was some hydrocarbon contaminated surface soil where a debris pile had been resting. Based on results of the water sampling from both canals and test pits, there was no indication of adverse impacts to the water system resulting from hazardous and/or deleterious substances possibly associated with mining and reclamation or with equipment operations.” Figure 3 shows the approximate extent of gravel mining operations on the property. The geotechnical investigation provides additional information regarding subsurface conditions in the area of the 1st Filing and also shows no deleterious materials were encountered in test holes drilled on the property. Overhead electric power

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1 Pat Hayden
2 Montana Department of Environmental Quality, May 23, 2000 letter from Mark Carlstrom to Al Thompson
lines are present within the rights-of-way of Bitterroot Drive and Mary Street adjacent to this subdivision. The location of the overhead electric line is shown on the Preliminary Plat. High pressure gas lines and other buried utilities are located within the street rights-of-way adjacent to the property and will not be affected by the subdivision.

e. No current or proposed on or off-site uses are anticipated that create unpleasant odors, unusual noise, dust or smoke.

Figure 3 – Extent of Previous Gravel Mining Activity

9. Housing:
   a. At build-out of the subdivision, it is anticipated that 381 single family residential dwellings will exist. No multi-family dwellings or mobile homes are proposed.
   b. The type of structures anticipated for this subdivision does not include recreational or second homes.
   c. It is estimated that the subdivision will be developed in six (6) to eight (8) phases over the next 6-8 years. It is estimated the subdivision will be 50% developed in the year 2009, and 100% developed by the year 2013.
   d. It is projected that the subdivision will develop with a total of 381 lots on a gross area of 127 acres, resulting with a density of about 3.0 dwelling units per acre.
10. Park and recreation facilities:
   a. Approximately 15 acres of land will be dedicated with the subdivision as park lands upon build-out of all filings. 11.06 acres of park land dedication occur with the 1st Filing. It is anticipated that the park lands dedicated with this subdivision will enable recreation activities typical of natural, undeveloped parks as well as recreation typical of developed urban parks. Within the subdivision, maintenance roads adjacent to the man-made drainageways and around the stormwater detention facility will provide walking and biking recreation opportunities. Maintenance roads will be connected to public streets at numerous locations throughout the subdivision to increase access opportunities. Land for development of an urban-style park area is being dedicated in the northwest corner of the subdivision. Pedestrian and bicycle trails constructed within the developed park can provide connections to planned elements of the Heritage Trail network.

11. Effects on taxation:
   a. The property is currently zoned R-7000 for all property in the 1st Filing. Portions of the ultimate subdivision project are currently located in unincorporated Yellowstone County and, when annexed, will also be zoned R-7000.
   b. Annual property tax revenue generated by the land of the proposed subdivision (ultimate build-out) is $4,877.95 (2003). It is estimated that $571,500 will be generated by the property subsequent to subdivision and build-out (381 lots at +/-$1,500 per lot).
   c. No special assessments currently exist for the subdivision property.

12. Effects on Wildlife, wildlife habitat and areas of rare, endangered or unique plant species:
   a. The area along Five Mile Creek serves as valuable wildlife habitat and supports a variety of species, including waterfowl and upland birds. Deer, fox, pheasants, turkeys and numerous species of waterfowl have been observed on the property. This wildlife corridor and habitat will be preserved through dedication of this area as a park tract. The developer is also pursuing encumbering of a portion of the park tract with a conservation easement to further preserve critical habitat in its natural condition.
# BUDGETARY COST ESTIMATE

**Project:** Bitterroot Heights Parks  
**Park Dedication Required:** 8.52 acres  
**Phase:** Master Plan Budget  
**Park Dedication Given:** 18.99 acres  
**Date:** March 2, 2005  
**Park Dedication Full Developed:** 8.33 acres  
**Prepared By:** Peaks to Plains Design  
**Open Space/Public Land (Undeveloped):** 10.66 acres

### ITEM DESCRIPTION

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<td>Bike Trail Stds - Alternate Link</td>
<td>440</td>
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<td>Concrete Sidewalks - 10' Width</td>
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<td>Playground Surfacing</td>
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<td>Playground Drainage</td>
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<td>50x40 Court 3 backboards - asphalt surface</td>
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<td>Picnic Shelter</td>
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*Page 1 of 2*
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<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit</th>
<th>Cost</th>
<th>Total</th>
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<tbody>
<tr>
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<td><strong>ENTRY MEDIANS/ROW - 0.33 ACRES</strong></td>
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<td>Topsoil For Medians 4:1 slope</td>
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<td>Shrub Beds at east entry</td>
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<td><strong>BUFFER ZONE AND DRAINAGE WAYS - 8.3 ACRES</strong></td>
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<td>Gravel Trails - Asphalt Topping 10' Width - at PRPL</td>
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<td>MOBILIZATION &amp; INSURANCE</td>
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<td>PROFESSIONAL FEES</td>
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<td>CONTINGENCY</td>
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<td>5-YEAR BUILD-OUT INFLATION</td>
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<td>VARIABLE Assume 4-5% per year</td>
<td>20%</td>
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</table>

**ESTIMATED PROJECT COST** $1,199,129

10/29/2013 Master Plan
BITTERROOT HEIGHTS PARK MASTER PLAN
Bitterroot Heights Subdivision  -  Billings, Montana
March 2005

Project Location Key

Mary Street

Future Subdivision Entry from Mary Street

Nathan Lane

Bitterrow Heights Park (main park)

Hawthorne Lane

Bitterroot Drive

Landscaped Entry Feature

Landscaped Median

Main Entry into the Subdivision

Surface Water Drainage Corridors & Gravel Maintenance Paths (non-irrigated corridors)

Surface Water Drainage Corridors & Gravel Maintenance Paths (non-irrigated corridors)

Future Subdivision Entry from Mary Street

Continue Turn and for screening, no permanent dry irrigation

Landscaped Entry Feature

Mary Street

Surface Water Drainage Corridors & Gravel Maintenance Paths (non-irrigated corridors)

Surface Water Drainage Corridors & Gravel Maintenance Paths (non-irrigated corridors)

0 50 100 150 200

Scale: 1" = 100'

Plan Notes*

Zoning:  R-7000-Restricted

Parkland Dedication Requirement:  8.52 Acres

Total Parkland and Open Space Dedication: 10.72 Acres

Developed Parkland: 8 Acres

Undeveloped Open Space:

Public Lands: 5.72 Acres

*Neighborhood: Area project areas are segregated into bands along main road and sites.

Plan Notes:

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Actual acreages determined at final plat for each phase.