ANNAFELD PARKS MASTER PLAN

-PHASE 1 -

DECEMBER 2017

McCALL HOMES

PARKS AND BILLINGS RECREATION

SANDERSON STEWART

To plan and design enduring communities....

- by providing river access for neighbors and visitors alike.
- by co-existing with nature though increased ecological proximity.
- by fostering family values with safety, vibrance, and human interaction in mind.

TABLE OF CONTENTS

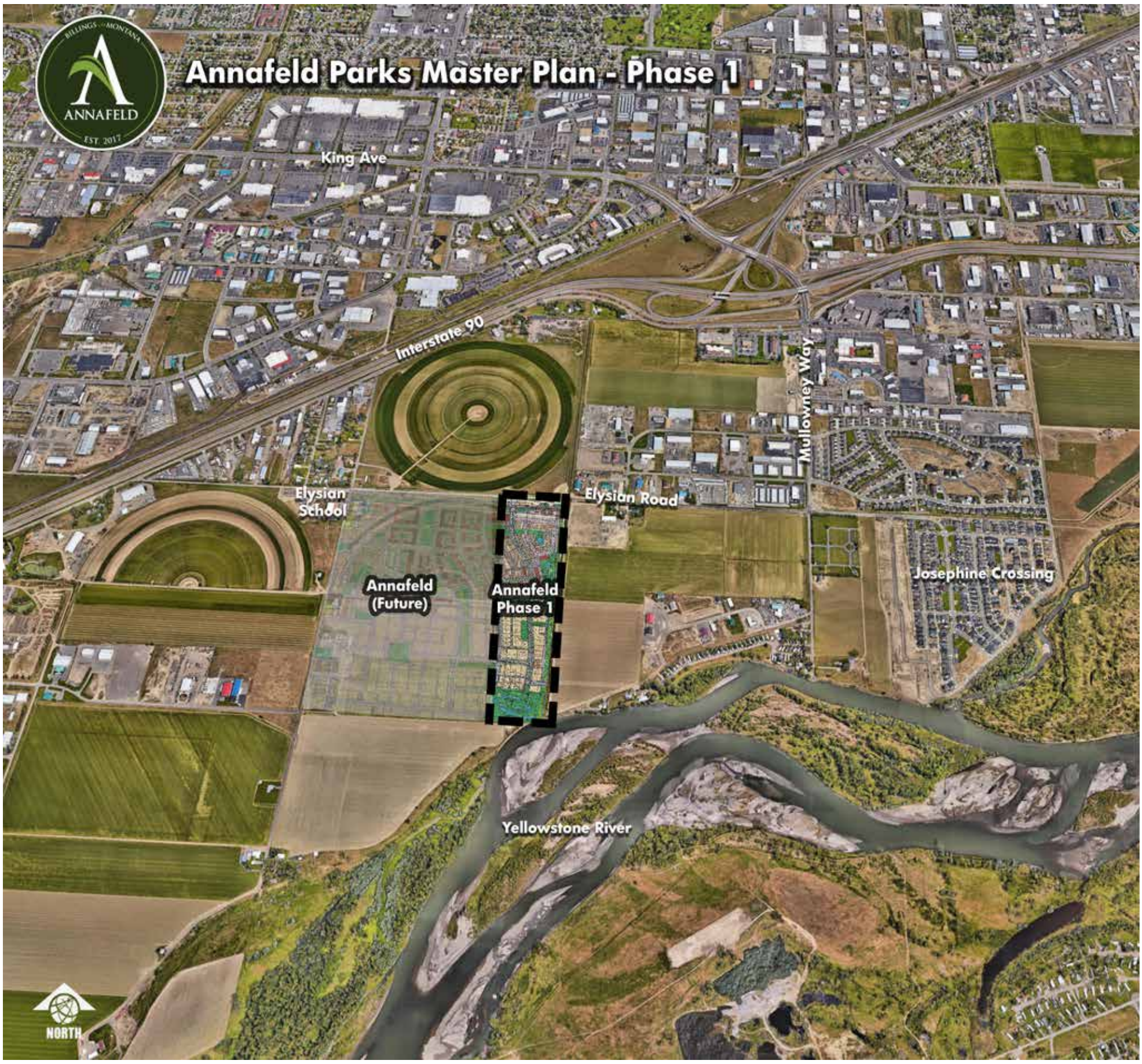
Acknowledgments:

McCall Homes
Greg and Brad McCall
1536 Mullowney Ln.
Billings, MT 59101

City of Billings Park and Recreation Department
Mark Jarvis, ASLA
390 N 23rd St.
Billings, MT 59101

Sanderson Stewart
Carol Sperat, RLA
Megan Terry, PLA
1300 N. Transtech Way
Billings, MT 59102

SITE LOCATION



Located South of Interstate 90 and North of the Yellowstone River, Annafeld Subdivision will be constructed on historically agricultural land. Its northern most boarder runs along Elysian Road, with the Northwestern corner touching Elysian School. This will become an important link for pedestrians coming to and from the school as well as vehicular movements from the Frontage Road to Mullowney Lane.

INTENT

This parks master plan hopes to outline the need for an investment in community public space that will benefit the community. Throughout the entire Annafeld development, these parks will function to give the neighborhood a sense of 'place' to the citizens that live there as well as provide the opportunity to influence the greater Billings community.

According to the Billings Comprehensive Master Plan, the following have been identified as areas of 'need' in this location in Billings:

- **Neighborhood/School Parks (High Level of Need)**
- **Community Parks (High Level of Need)**
- **Special Use Parks (High Level of Need)**
- **Ball Diamond (60 foot bases) (Medium Level of Need)**
- **Ball Diamond (90 foot bases) High Level of Need)**
- **Dog Parks/Off Leash Areas (High Level of Need)**
- **Multi-Purpose Fields (Practice Field) (High Level of Need)**
- **Outdoor Sports Courts (Basketball) (Medium Level of Need)**
- **Skate Parks (High Level of Need)**
- **Tennis Courts (High Level of Need)**
- **Swimming Pool (indoor) (High Level of Need)**
- **Swimming Pool (outdoor) (High Level of Need)**
- **Recreation/Senior Center (High Level of Need)**

Given the location of Annafeld, this area is uniquely positioned to answer some of the areas of need in this portion of Billings - especially considering that in Phase 1 alone, there will be over 8 acres of parks. Once constructed to completion, Annafeld will contain a network of parks dedicated to walkable, highly-utilized community spaces. Phase 1 hopes to sets the framework for this undertaking.

PROJECT GOALS

Cultivate

For decades, this land has been an agricultural home ground for the Walter Family. Laying just outside of the urban city, this vacant ground boasts views of the nearby Beartooth Mountain Range, the impressive Rimrock geologic structure just North of Billings, and the wild Yellowstone River.

Paying tribute to the history of the land is a goal of this design. The park system should stitch together the wild that surrounds the region, the agricultural cultivation that shaped the land, and the urban vibrancy of Billings Montana.

Return

Front porch rockers, children playing in the community park, and neighbors knowing their neighbors; these are elements that are often lost in modern subdivisions. Much care has been taken in the design of the subdivision and homes of Annafeld to build something more - a community.

Family friendly, vibrant, and safe are just some of the core purposes of Annafeld, as well as is sister neighborhood to the East, Josephine Crossing. The parks on this land should reflect the qualities of a vibrant, inviting neighborhood where neighbors are more than just adjacent dwellers.

Connect

A major element that has been lost on this site is the connection to the river. Bank stabilization should occur and access to the river planned to allow neighbors and visitors the opportunity to interact with nature outside their own front doors.

Once this access is established, how do people get there? From within the subdivision, neighboring subdivisions, and from miles away, a strong connection should web together trails and roads for easy access.

SITE ANALYSIS

Because of the location and proximity to the river, Annafeld becomes a bridging element for connectivity. When looking at the overall Billings trail network and the projected regional trail system (see attachments), we see that Annafeld has the potential to have shared use pathways, connection to elementary school, as well as bicycle connections from neighborhoods further East.

Water becomes a unifying element in Phase 1 with both the Slough as well as the Yellowstone River. These elements pose unique safety issues while at the same time providing the opportunity to make a major beneficial impact on the entire community.

Walkability and connections to greenways will be essential in the development of this community. With less land set aside for private use, the parks will play a major role in how the people who live here interact with their surroundings and most importantly - each other.

PARK SCOPE - PHASE 1

When outlining programming for the parks in Annafeld, it will be important to understand the context, size, and relationship of surrounding features. These guidelines have been detailed by the City of Billings within the "Comprehensive Parks and Recreation Master Pla for the (Chapter 6) to guide development of different sized parks:

Pocket Parks

According to the NRPA, a pocket park is a small outdoor space, usually less than 0.25 acres up to 1 acre, most often located in an urban area surrounded by commercial buildings or houses.

Pocket parks are small, urban open spaces that serve a variety of functions, such as: small event space, play areas for children, spaces for relaxing and socializing, taking lunch breaks, etc. Successful pocket parks have four key qualities: they are accessible; allow people to engage in activities; are comfortable spaces that are inviting; and are sociable places. In general, pocket parks offer minimal amenities on site and are not designed to support programmed activities. The service area for pocket parks is usually less than a quarter-mile and they are intended for users within close walking distance of the park.

Greenbelts and Trails

Greenbelts/Trails are recognized for their ability to connect people and place and often include either paved or natural trails.

Trails can also be loop trails in parks. Linking neighborhoods, parks, recreation facilities, attractions, and natural areas with a multi-use trail fulfills two guiding principles simultaneously: protecting natural areas along river and open space areas and providing people with a way to access and enjoy them.

Multi-use trails also offer a safe, alternative form of transportation; provide substantial health benefits, habitat enhancements for plants and wildlife, and unique opportunities for outdoor education and cultural interpretation.

- Site Selection: Located consistent with approved Trails Master Plan
- Amenities: Parking and restrooms at major trailheads. May include small parks along the trail
- Maintenance standards: Demand based maintenance with available funding
- Lighting: Security lighting at trailheads is preferred. Lighting on dual system with 50 percent of lights off at a set time and 50 percent on all night for security
- Signage: Mileage markers at ¼ mile intervals. Interpretive kiosks at all trailheads and where deemed necessary.
- Landscape Design: Coordinated planting scheme in urban areas. Limited or no planting in open space areas
- Other: Connectivity to parks or other City attractions and facilities is desirable
- Size: Typically, at least 30 ft. width of unencumbered land for a Greenbelt. May include a trail to support walk, bike, run, equestrian type activities. Typically, an urban trail is 8-10 feet wide to support pedestrian and bicycle uses. Trails incorporate signage to designate where a user is located and where the trails connect in the City.

Neighborhood Parks

A neighborhood park should be three to 10 acres; however, some Neighborhood Parks are determined by use and facilities offered and not by size alone.

The service radius for a neighborhood park is one half mile or six blocks.

Neighborhood Parks should have safe pedestrian access for surrounding residents; parking may or may not be included but if included accounts for less than ten cars and provides for ADA access.

Neighborhood Parks serve the recreational and social focus of the adjoining neighborhoods and contribute to a distinct neighborhood identity.

- Service radius: 0.5-mile radius
- Site Selection: On a local or collector street. If near an arterial street, provide natural or artificial barrier. Where possible, next to a school. Encourage location to link subdivisions and linked by trails to other parks
- Length of stay: One-hour experience or less
- Amenities: One signature amenity (e.g. playground, spray ground park, sport court, gazebo); no restrooms unless necessary for signature amenity; may include one non-programmed sports field; playgrounds for ages 2-5 and 5-12 with some shaded elements; no re-servable shelters; loop trails; one type of sport court; no non-producing/unused amenities; benches, small picnic shelters next to play areas. Amenities are ADA compliant
- Landscape Design: Appropriate design to enhance the park theme/use/experience
- Revenue facilities: none
- Land usage: 85 percent active/15 percent passive
- Programming: Typically, none, but a signature amenity may be included which is programmed
- Maintenance Standards: Provide the highest-level maintenance with available funding. Seek a goal of Level 2 maintenance standards. Some amenities may require Level 1 maintenance
- Signage: Directional signage and facility/amenity regulations to enhance user experience
- Parking: Design should include widened on-street parking area adjacent to park. Goal is to maximize usable park space. As necessary, provide 5-10 spaces within park including handicap spaces. Traffic calming devices encouraged next to park
- Lighting: Security only. Lighting on all night for security
- Naming: Consistent with the City's ordinances for naming of parks, or may be named after a prominent or historic person, event, or natural landmark
- Other: Customized to demographics of neighborhood; safety design meets established Crime prevention through environmental design (CPTED) standards; integrated color scheme throughout.
- Size of park: Typically, Three to 10 acres

PARK DEFINITION AND BUDGETS

After defining the spaces, we are able to divide the parks into their ideal scope: Mini Parks and Neighborhood Parks. This establishes a basis of design and outlines park uses, improvements, benefits, and ideal qualities.

Mini (Pocket, Parkette, Vesty) Parks

Neighborhood Parks

RECREATION PARK - .60 Acres

LINEAR POCKET PARKS - .46 Acres

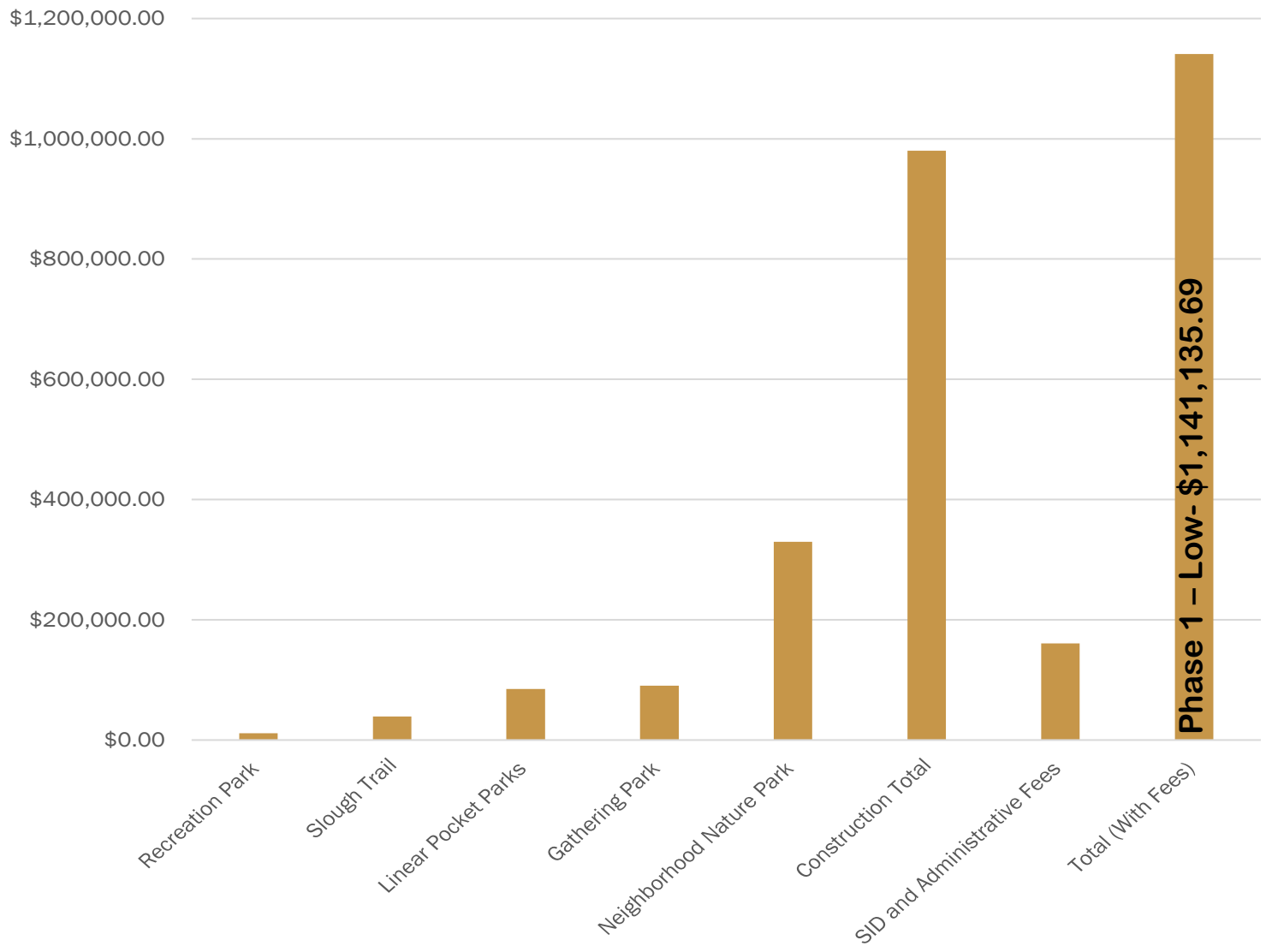
GATHERING PARK - .46 Acres

SLOUGH TRAIL - 2.68 Acres

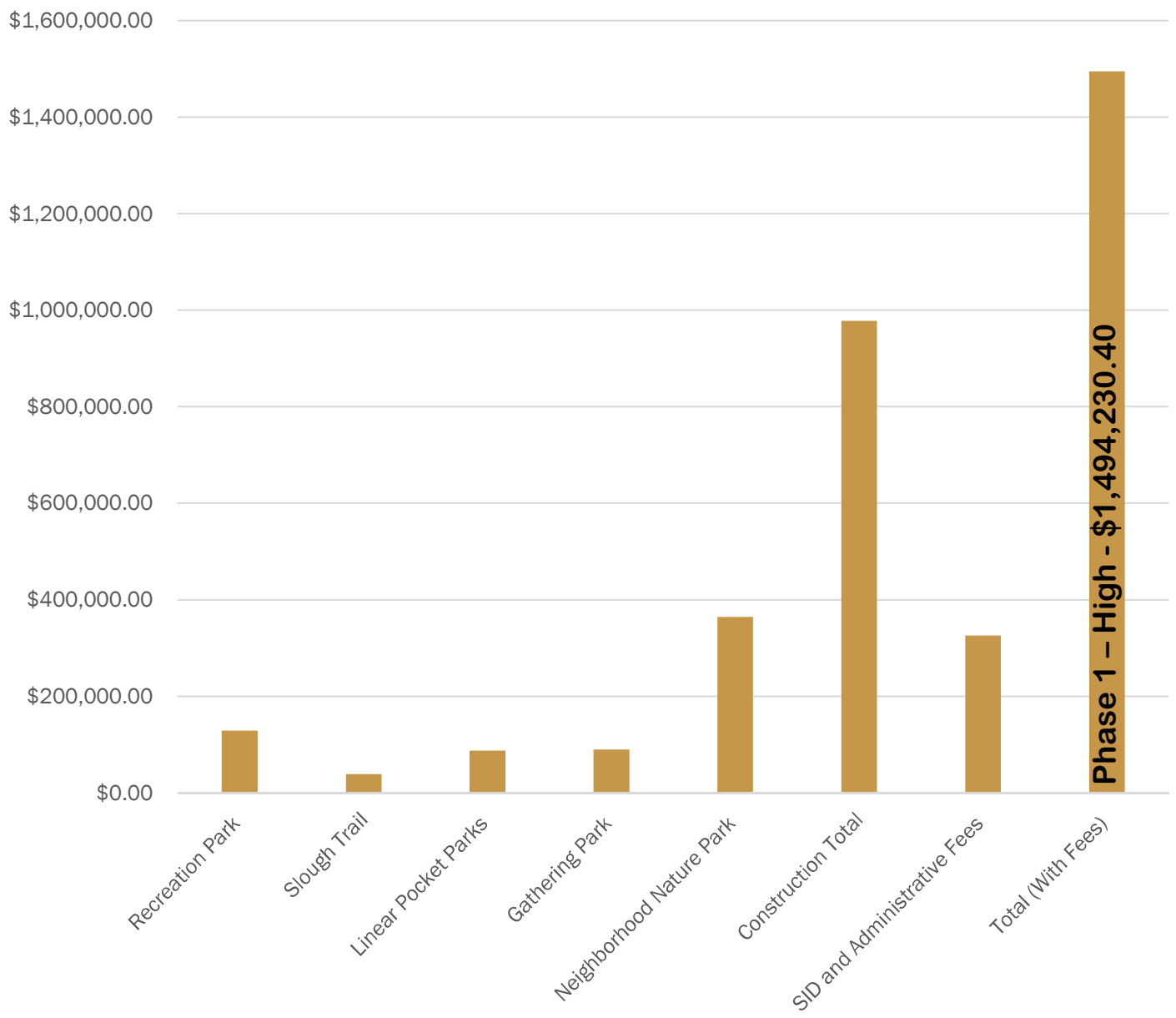
NEIGHBORHOOD NATURE PARK - 5.82 Acres

To finance the construction of the Phase 1 parks, Annafeld will be applying for SID (Special Improvement District Funds) Funds. Based on the sizes of the parks, ideal improvements, and construction, administrations, and SID fees, the following are projected as potential preliminary costs associate with the construction of the parks:

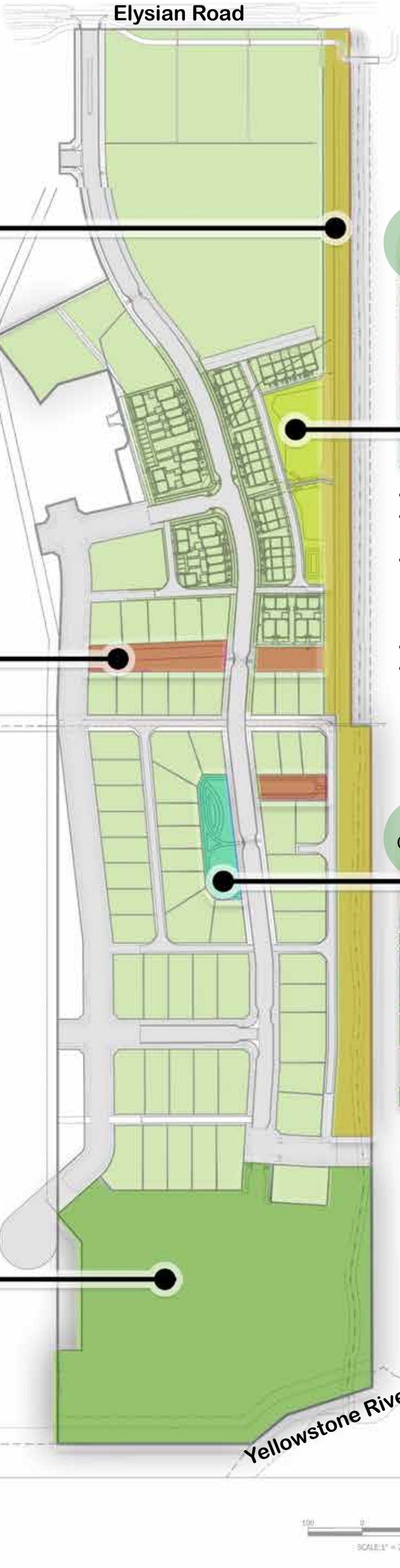
Potential Costs (PHASE 1) LOW Estimate



Potential Costs (PHASE 1) HIGH Estimate



PARK PROGRAMMING



SLOUGH TRAIL

- 10’ Wide Soft Surface Trail
- Pedestrian/Bike Connection
- Ensure Safety Near Slough
- Natural Vegetation
- Grass and Perennial Species
- Scattered Native Trees

RECREATION PARK

- Focal Point at Entry
- Separation from Adjacent Townhomes
- Potential amenities include cornhole, bocce ball, horseshoe, or other recreation activities
- Shade Trees
- Turf Grass, Gravel, and Concrete surfacing to accommodate programming requirements

LINEAR POCKET PARKS

- Turf Grass
- Dispersed Trees for Separation
- Predominantly for Homeowners Directly Adjacent to the Park
- Possible Entry Feature at Street
- Connection Parks

GATHERING PARK

- Turf Grass
- Possible Playground or Shade Structure
- Shade Trees
- Gathering area for soccer games, throwing a frisbee, or meeting with friends.

NEIGHBORHOOD NATURE PARK

- Connection to Yellowstone River
- Safety of River Bank and Slough Channel
- Access to River
- Natural Landscape Near River, Transitioning to More Maintained Landscape Closer to Homes

SLOUGH TRAIL - 117,062 SQ. FT. (2.68 AC.)

MAP KEY

The Slough Trail runs the entire length of the subdivision, connecting Elysian Road to the Yellowstone River. The trail will be located in the 20’ utility (sanitary sewer) access easement and double as a maintenance access for utilities along the easement. The intention is be clear of manhole covers and other hazards were possible. This trail is visualized to be a soft surface trail with naturally maintained vegetation on either side.

Along the length of the trail, some native tree species should be added for intermittent shade for users. Boulders should also be placed for informal seating as well as aesthetics.

This trail will help provide access to trail networks both inside and outside of the subdivision.

For maintenance, the trail should be easily accessible should drain properly to discourage water from collecting on the trail.

NEIGHBORHOOD NATURE PARK - 5.82 AC.

MAP KEY

NEIGHBORHOOD NATURE PARK - 5.82 AC.

The centerpiece of the community is the Neighborhood Nature Park. The park is divided between open grass spaces for unprogammed play and native areas. The park will contain a space for picnicking as well as defined areas for children to play and open space for recreational opportunities.

The picnic shelter will have tables, charcoal grills and an all weather surface to accommodate gatherings throughout the year. The playground is intend to be an active site for a variety of ages and will be ADA accessible and inclusive for all children to access and play regardless of their abilities. Playground equipment will offer a full range of natural structures, playhouses, swings, and more. Selected playground equipment will create a natural play environment encouraging children to interact with natural materials and structures.

An information kiosk will include a map of the trail network and distances to amenities along with other park information. Trails connect various entry points and provide movement across the park -- to the river and the City's trail network. The loop trail will be a popular amenity for exercise and socialization. Unprogrammed open space will be used a variety of activities such as team sport practice and neighborhood events. Other program elements such as a expanded playground, court games and additional picnic shelters can be identified for future development.

Native areas within the park will reintroduce native plants and habitat and will provide beauty and interest to the community. Native areas can be for people – a place to sit, walk, watch or listen to wildlife. Natural areas can provide a home to pollinators such as bees and butterflies, wildflowers, and native shrubs and trees. Our goal is to continue to nurture natural areas and manage them, as well as, enhace people's experience in the Annafeld community. Final plant selections have not been made, but the intention is to use native species of the Yellowstone River basin.

Trees are an important part of every community. Streets, parks, playgrounds and backyards are lined with trees that create a peaceful, aesthetically pleasing environment. Trees increase the quality of life by bringing natural elements and wildlife habitats into urban settings. The park will incorporate a variety of tree species for shade and aesthetic value. Park designers will work the City Forester to help select appropriate species.

SID funds will be used for park grading, installed amenities, irrigation, grass, trees and trails. Funds will also be required to create manage the district.

Altering the riverbank is a complex undertaking for this park and various alternatives have been studied. (See attachments for potential riverbank cross sections, river movement and an expansion of potential impacts).

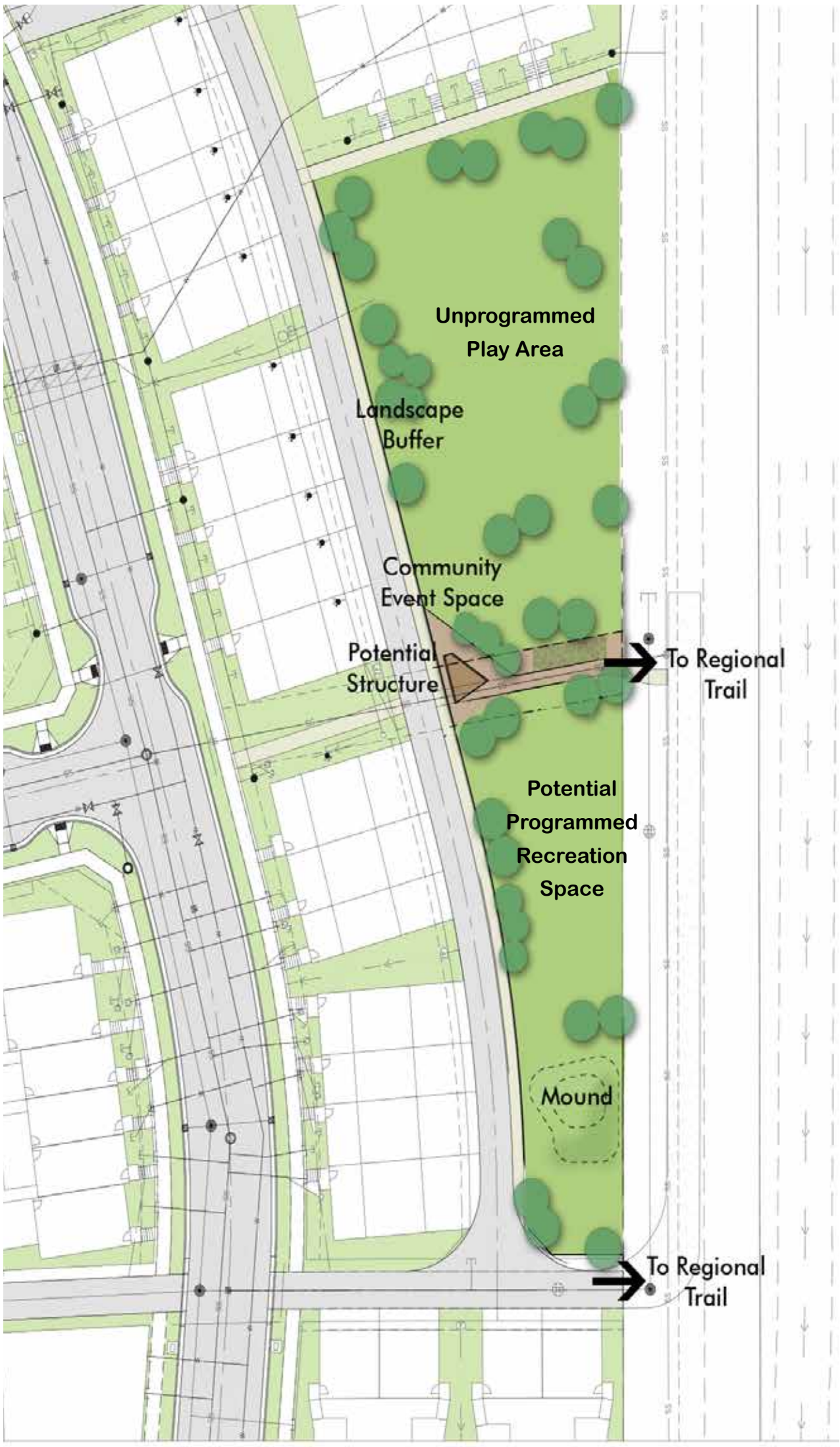
RECREATION PARK - 26,400 SQ. FT. (.60 AC.)

MAP KEY

This park is situated as a connection park between the slough trail and the interior of the subdivision. This park will act as a pocket park off of the trail, as well as a recreation area for residents to play in the open field, lay on a grassy mound, or play a game of bocce, cornhole, horseshoes, or other recreational activity.

A potential structure acts as a visual entry node to the site. This structure could function as a picnic shelter with tables for community activities, a shade structure with seating, or a pavilion for aesthetics. Adjacent to the shade structure is an open area that acts as a community event space for extra shade tents, party inflatables, or tables.

Elements are grouped for easy maintenance as well as definition of space.



LINEAR POCKET PARK - 19,964 SQ. FT. (.46 AC.)

The Linear Pocket Parks are connective greenways between the trail system and interior subdivision.

Shrub areas are seen as low maintenance pops of color and could be massings of shrubs, combinations of perennials, or native seed mixes.

A mound acts to separate the fronts of the houses as well as provides definition. These elements are grouped for ease of maintenance and functionality.

GATHERING PARK - 20,195 SQ. FT. (.46 AC.)

MAP KEY

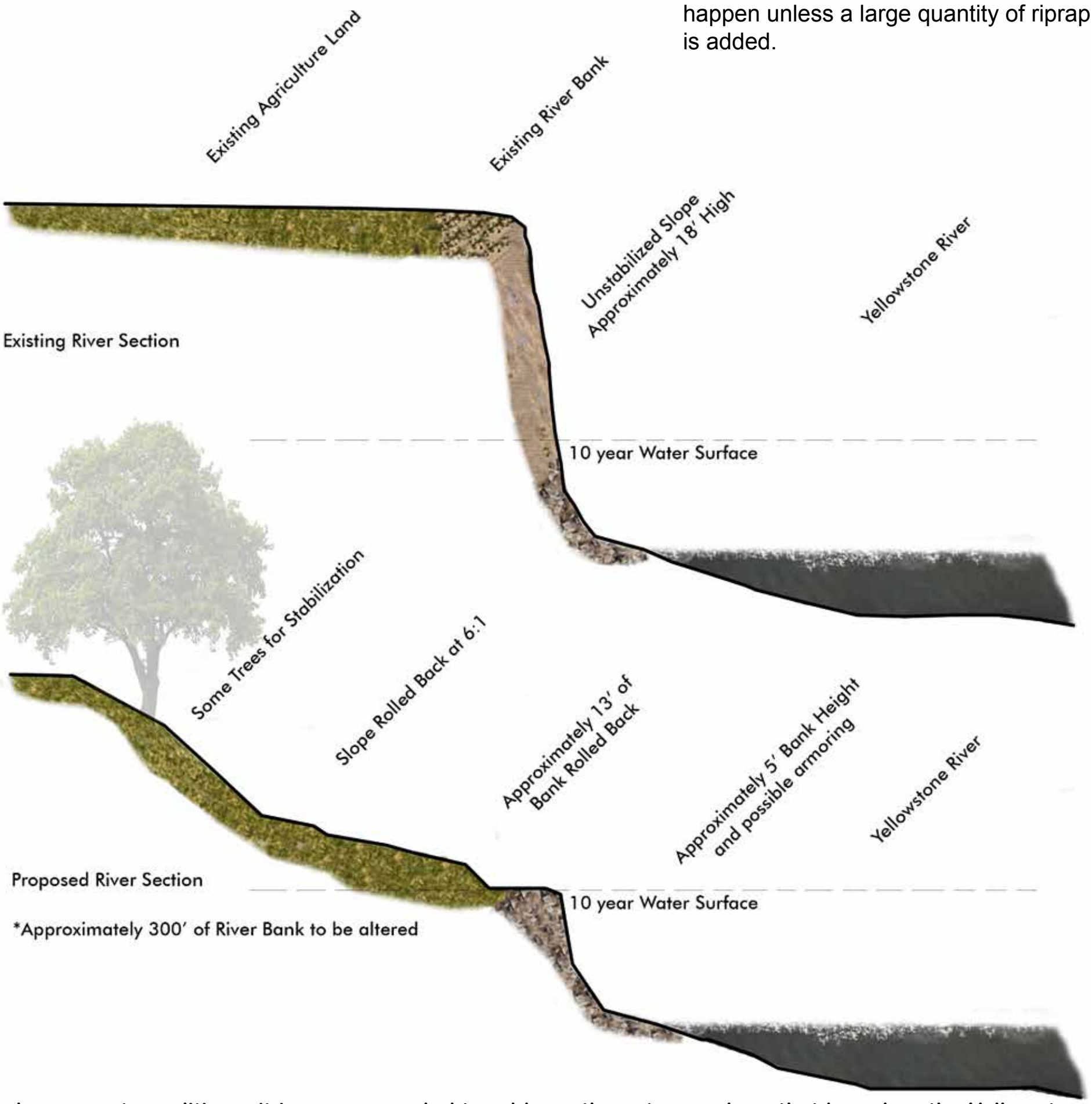
The Gathering Park is a larger pocket park which has room for running, rolling, or playing frisbee. Topography helps define the park from the surrounding houses as well as provide an area for children to play. The sidewalk forms a ‘figure 8’ throughout the park for play.

A shrub bed is seen as a massing of shrubs or perennials that are low maintenance in nature and provide passive areas for viewing insects and other small fauna.

POTENTIAL RIVER BANK CROSS SECTION

Existing Aerial

Altering the riverbank is a complex undertaking. If the change in the base flood elevation (BFE) is minimal (approx. around 0.1 foot decrease), the project wouldn't require a LOMR (Letter of Map Amendment) revision with FEMA (Federal Emergency Management Agency) to change the flood map. If it ends up being closer to 1 foot decrease, then a LOMR will be required. Regardless, an increase in the BFE would require a LOMR (and CLOMR, Conditional Letter of Map Revision, before the project starts), it is unlikely an increase in the BFE would happen unless a large quantity of riprap is added.



Existing River Section

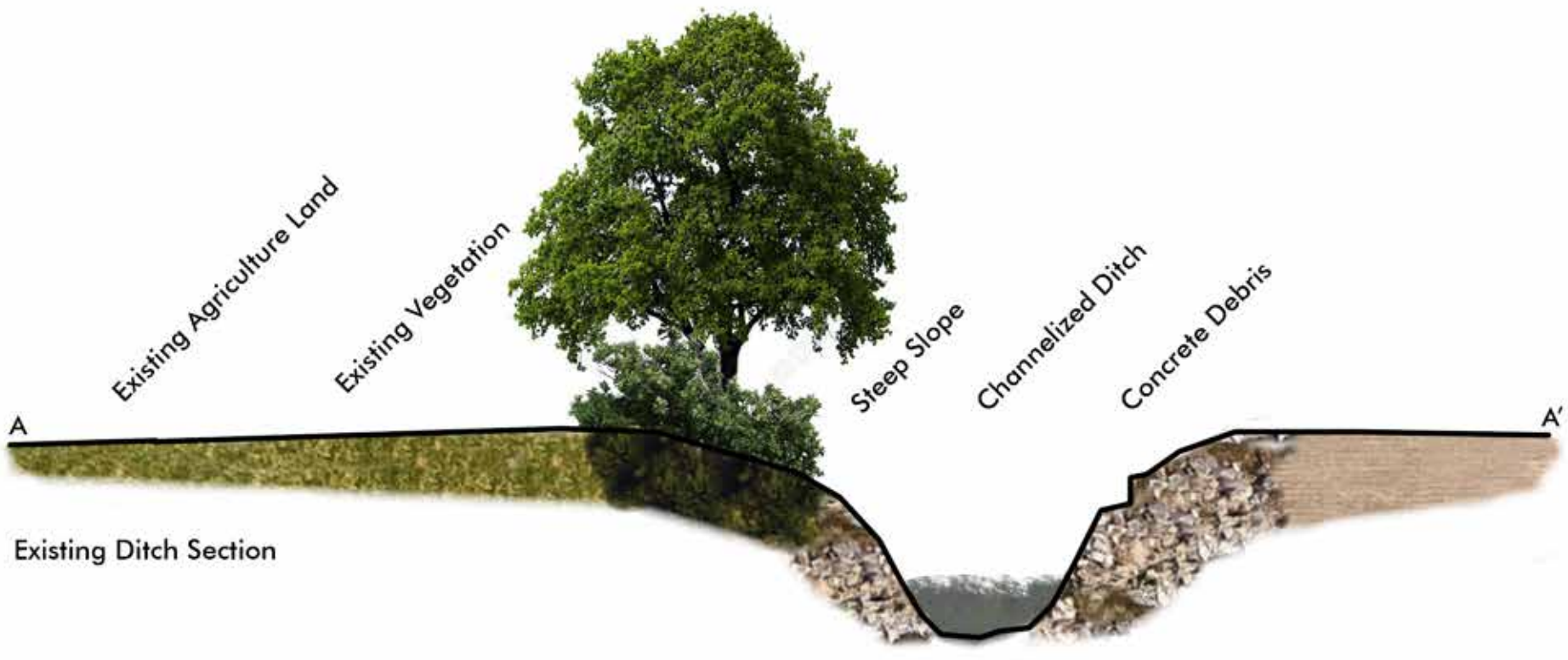
Proposed River Section

*Approximately 300' of River Bank to be altered

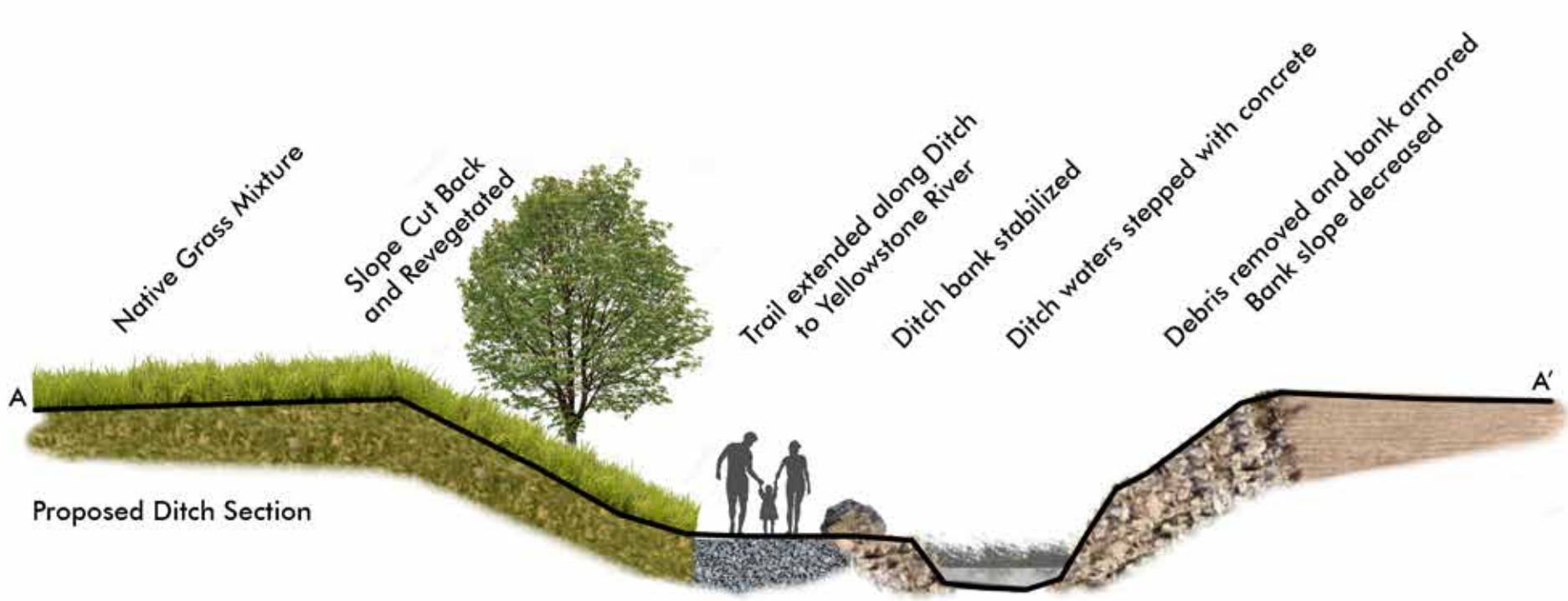
Under current conditions, it is recommended to address the extreme slope that boarders the Yellowstone River. One potential solution would be to lay the slope back at a 6:1 slope. Because of unique characteristics associated with the river, one potential solution is to remove the bank above the 10 year water surface.

POTENTIAL DITCH CROSS SECTION

Existing Aerial

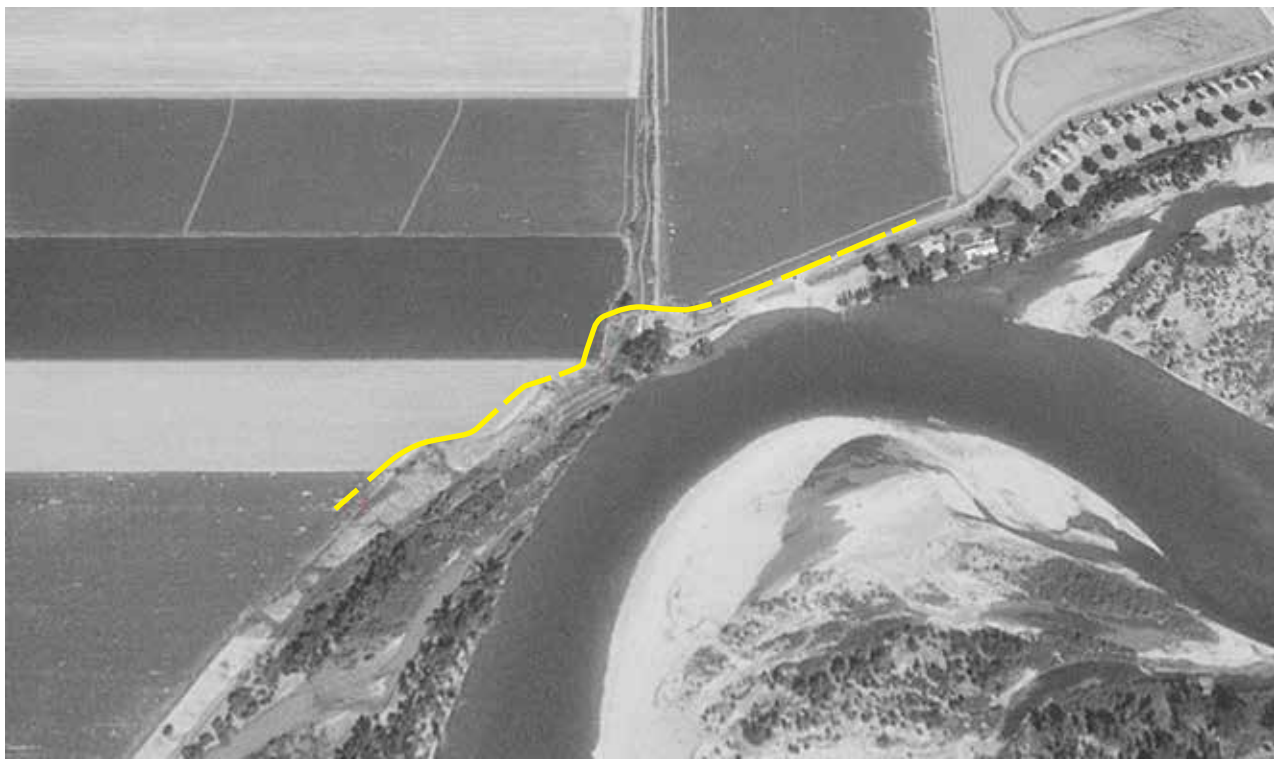


Existing Ditch Section



Proposed Ditch Section

Another area with existing steep banks is the area around the slough. One potential solution would be to lay the slope back and re-vegetate the slope.



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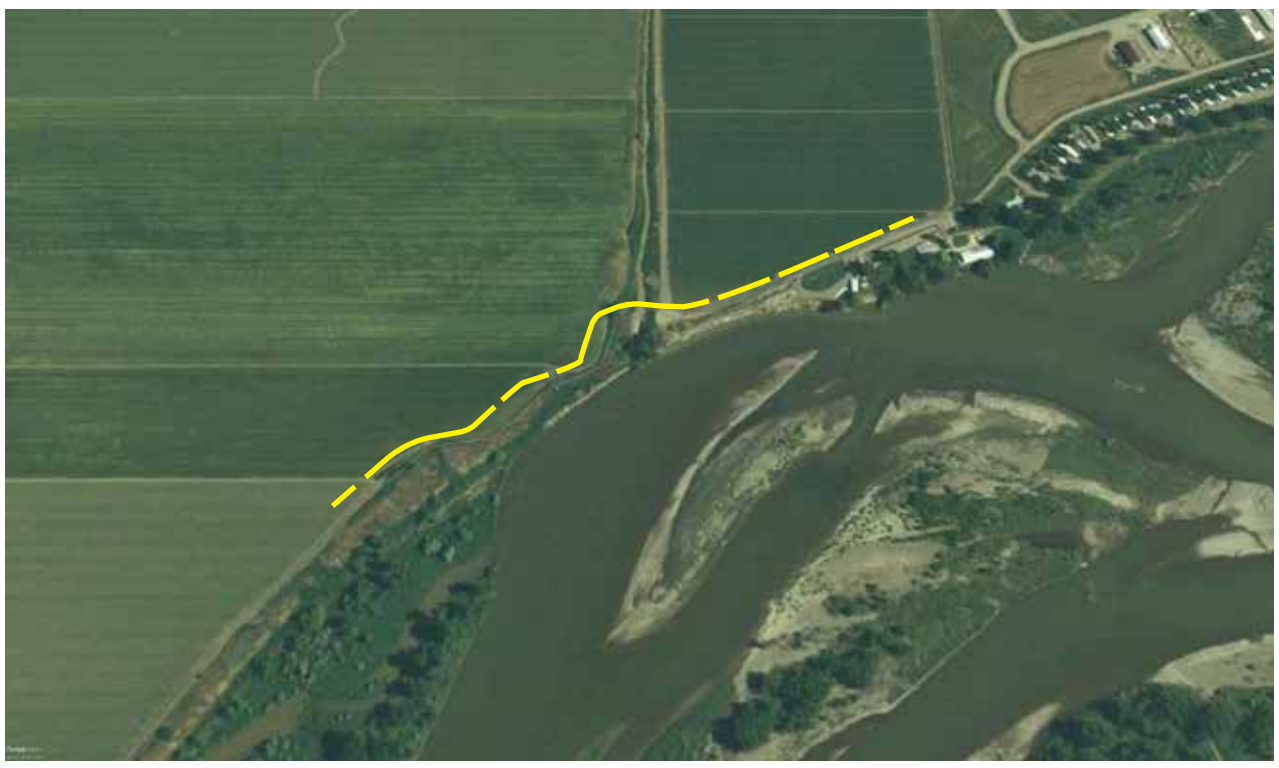


2005

2015

A major consideration with all design components is the Yellowstone River. Currently, the river is cutting North into the property. Future design considerations should acknowledge and address this.

OVERALL PARK ELEMENTS

Vegetation

Vegetation defines the spaces and suggests various uses. Tree species should be selected based on longevity and safety.

When designing, crime prevention through environmental design (CPTED) standards should be considered to increase safety and deter criminal activity.

When possible, there should be an effort to conserve water and choose plant materials that are native or suited to the dry climate. The goal of this is to improve sustainability within Billings parks as well as decrease the need for costly routine maintenance.

Trails/Walks

Concrete sidewalks should be constructed per City of Billings standards. Width will vary based on hierarchy of use but should take into consideration different users, such as children on bikes, runners, strollers, dog walkers, and others.

Trails should be a sturdy, soft surface and accommodate large varieties of users. Long term maintenance should be considered as well as safety and year-round use.

Topography

Where possible, topography should be used to define spaces. By placing varied topography, open play fields can be defined, playground areas can be placed for safe viewing, aesthetic variation can be added, and multiple users can occupy the same park, doing multiple activities, without feeling encroaching.

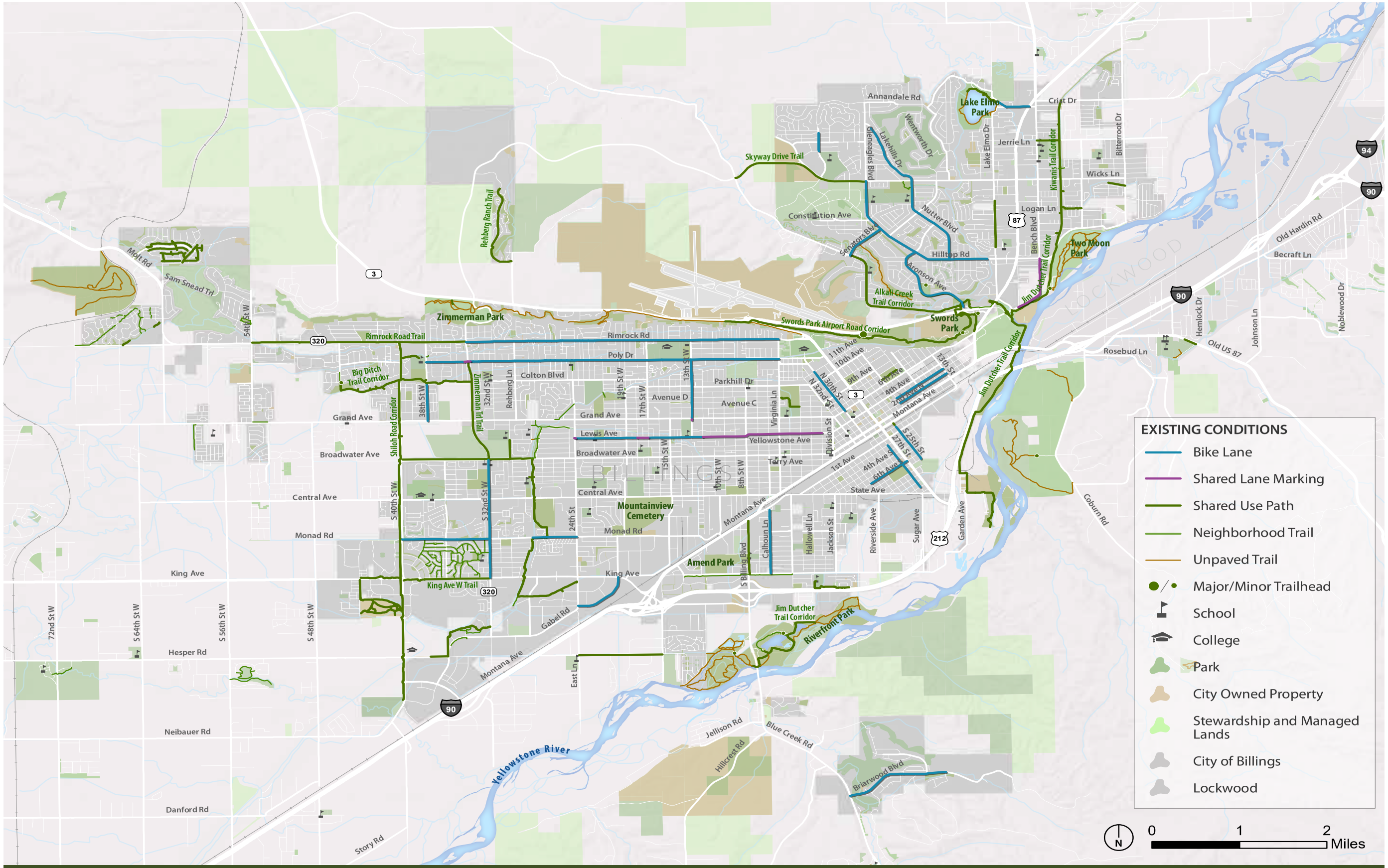
Maintenance should be a main consideration - slopes should be easily mowable, drain well, and provide a higher use for the user without compromising accessibility.

Seating

When the opportunity arises, boulders should be used for informal seating areas and placed in groupings to encourage gathering. These boulders serve multiple functions - seating, aesthetics, longevity - as well as being less vulnerable to vandalism than traditional bench seating.

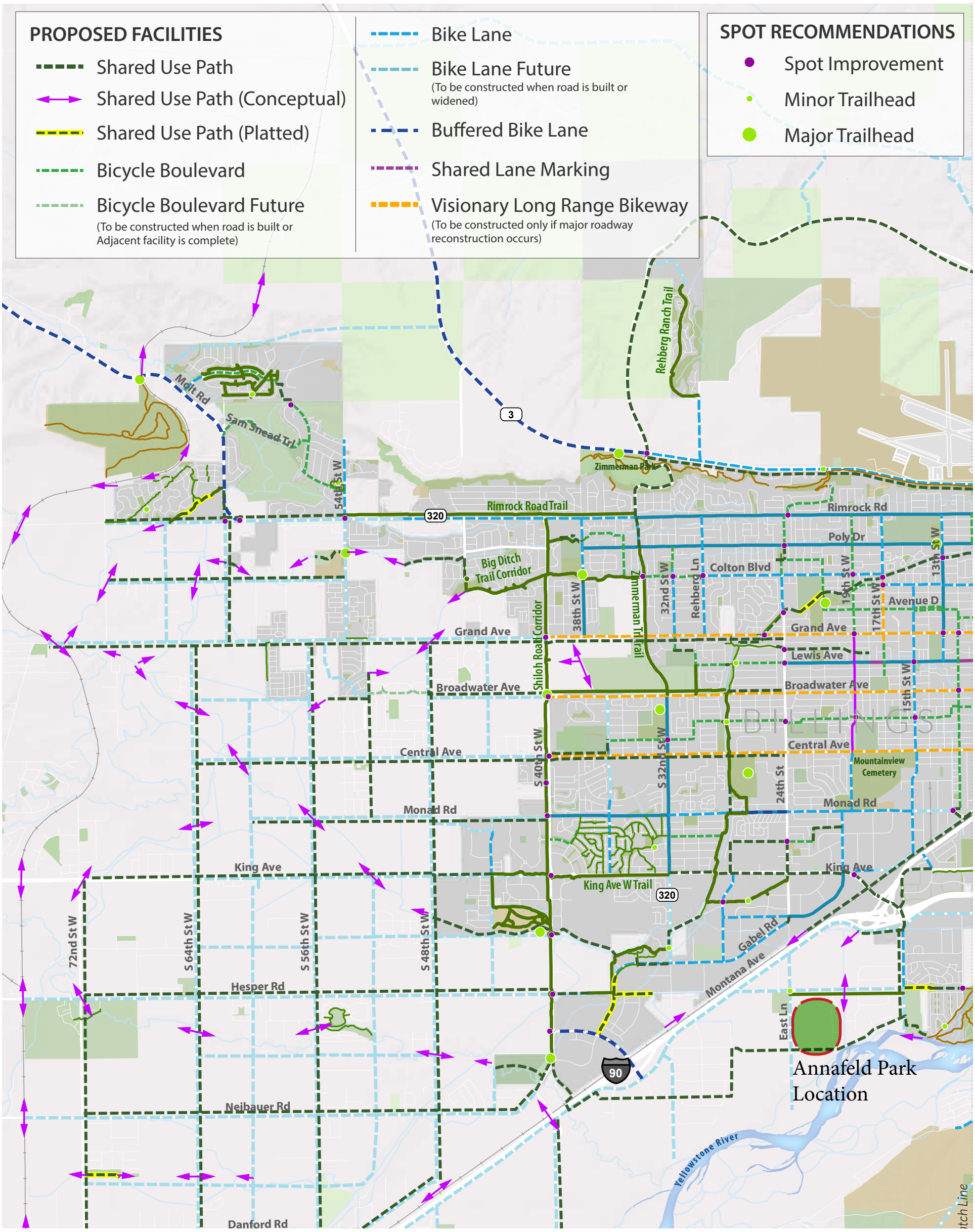
In a time when children have less opportunity to connect to nature, these boulders also offer an opportunity for exploring the natural world when implemented to US Consumer Product Safety Commission playground standards.

ATTACHMENTS



MAP 2.9: EXISTING BIKEWAY AND TRAIL FACILITIES

PROPOSED REGIONAL TRAILS SYSTEM



*From the Billings Area Bikeway + Trail Master Plan Update Spring 2017

PLAT OF

ANNAFELD SUBDIVISION, FIRST FILING

BEING LOT 1, BLOCK 1 OF ADAM AND MOLLIE WALTER SUBDIVISION, FIRST FILING & TRACT 1 OF CERTIFICATE OF SURVEY No. 3594 SITUATED IN THE NW1/4 OF SECTION 19, T. 1 S., R. 26 E., P.M.M., IN THE CITY OF BILLINGS, YELLOWSTONE COUNTY, MONTANA

PREPARED FOR : McCALL DEVELOPMENT, INC.

JULY, 2016

PREPARED BY : SANDERSON STEWART

BILLINGS, MONTANA

NOTICE OF APPROVAL

STATE OF MONTANA)
:ss
County of Yellowstone)

This plat has been approved for filing by the Yellowstone County Board of Planning and conforms to the recommendations of this board.

9-22-17 _____
Date President

_____
Executive Secretary

CERTIFICATE OF CITY ENGINEER'S OFFICE

I hereby certify that annexed and foregoing plat conforms with Section 76-4-125(2)(d), M.C.A., for the removal of sanitary restrictions since the plat is inside a master planning area and said lots will be provided with municipal facilities for the supply of water and the disposal of sewage and solid waste.

IN WITNESS WHEREOF, I have executed this CERTIFICATE OF APPROVAL this 26th day of SEPTEMBER, 2017.

_____
City Engineer's Office

ERRORS AND OMISSIONS REVIEW

I hereby certify that I have examined the annexed and foregoing plat for errors and omissions in computations and drafting and find that said plat conforms with the requirements of the laws of the State of Montana, and that said plat conforms to the adjoining additions and plats of the City of Billings already platted as nearly as circumstances will permit.

_____ 17513 LS 09/26/2017
Examining Land Surveyor Date

CERTIFICATE OF CITY ATTORNEY

This document has been reviewed by the City Attorney's office and is acceptable as to form.

Date: 10-17-17

Reviewed by: _____

CERTIFICATE OF COUNTY TREASURER

I hereby certify that all real property taxes and special assessments have been paid per 76-3-611(1)(b) / 76-3-207(3), M.C.A.

Date: 25 October 2017

Yellowstone County Treasurer

By: _____
Deputy

CERTIFICATE OF DEDICATION

STATE OF MONTANA)
:ss
County of Yellowstone)

KNOW ALL MEN BY THESE PRESENTS: That McCall Development, Inc., the owner of the following described tract of land, does hereby certify that it has caused to be surveyed, subdivided and platted into lots, blocks and streets as shown on the annexed plat, said tract being situated in the NW1/4 of Section 19, T. 1 S., R. 26 E., P.M.M., in the City of Billings, Yellowstone County, Montana, said tract being more particularly described as follows, to-wit:

Lot 1, Block 1 of Adam and Mollie Walter Subdivision, First Filing, according to the official plat on file in the office of the Clerk & Recorder of Yellowstone County, Montana, under Document No. 3769605 and Tract 1 of Certificate of Survey No. 3594, as recorded under Document No. 3748158.

Pursuant to Section 76-3-621(1)(a) M.C.A. and the creation of Lots 24 & 25 of Block 1, Lot 13 of Block 2, and Lots 35 & 36 of Block 3 as PUBLIC PARK, the parkland dedication requirement for this subdivision has been met.

The undersigned hereby grants unto all utility companies, as such are defined and established by Montana Law, and cable television companies, an easement for the location, maintenance, repair and removal of their lines over, under and across the areas designated on the plat as "UTILITY EASEMENT" to have and hold forever. Said tract to be known and designated as ANNAFELD SUBDIVISION, FIRST FILING, and the lands included in all streets, and avenues as shown on the annexed plat are hereby granted and donated to the use of the public forever.

McCALL DEVELOPMENT, INC., a Montana Corporation

By: _____
Title: Vice President

STATE OF MONTANA)
:ss
County of Yellowstone)

On this 19th day of September, 2017, before me, the undersigned Notary Public for the State of Montana, personally appeared Greg McCall, known to me to be the person who signed the foregoing instrument as Vice President of McCALL DEVELOPMENT, INC., a Montana Corporation, and acknowledged to me that said corporation executed the same. Witness my hand and seal the day and year herein above written.

_____
Notary Public in and for the State of Montana

CHARLOTTE R. GREENWOOD NOTARY PUBLIC for the State of Montana Residing at Billings, Montana My Commission Expires August 24, 2021

CERTIFICATE OF CITY COUNCIL APPROVAL

STATE OF MONTANA)
:ss
County of Yellowstone)

We hereby certify that we have examined the annexed and foregoing PLAT OF ANNAFELD SUBDIVISION, FIRST FILING, and find that said plat conforms with the requirements of the laws of the State of Montana, and the requirements of The Yellowstone County Board of Planning. It is therefore approved and the dedication to public use of any and all lands shown on this plat as being dedicated to such use are accepted.

IN WITNESS WHEREOF, we have set our hands and the seal of the CITY OF BILLINGS, MONTANA, this 10th day of October, 2017.

CITY OF BILLINGS, MONTANA

By: _____
Mayor

Attest: _____
City Clerk

CERTIFICATE OF SURVEYOR

STATE OF MONTANA)
:ss
County of Yellowstone)

The undersigned, a Land Surveyor licensed in the State of Montana, states that during the months of March & May, 2016, a survey was performed under his supervision of a tract of land to be known as ANNAFELD SUBDIVISION, FIRST FILING, in accordance with the request of the owner thereof and in conformance with the Montana Subdivision and Platting Act; said subdivision, description of boundaries and dimensions being in accordance with the Certificate of Dedication and as shown on the annexed plat; that the monuments found and set are of the character and occupy the positions shown hereon and that the gross area is 32.770 acres and the net area is 15.685 acres.

SANDERSON STEWART

By: _____
Montana License No. 18972LS
Date: September 15, 2017

MONTANA MICHAEL DEAN BERTRAM 18972LS PROFESSIONAL LAND SURVEYOR

PLAT OF

ANNAFELD SUBDIVISION, FIRST FILING

BEING LOT 1, BLOCK 1 OF ADAM AND MOLLIE WALTER SUBDIVISION, FIRST FILING & TRACT 1 OF CERTIFICATE OF SURVEY No. 3594

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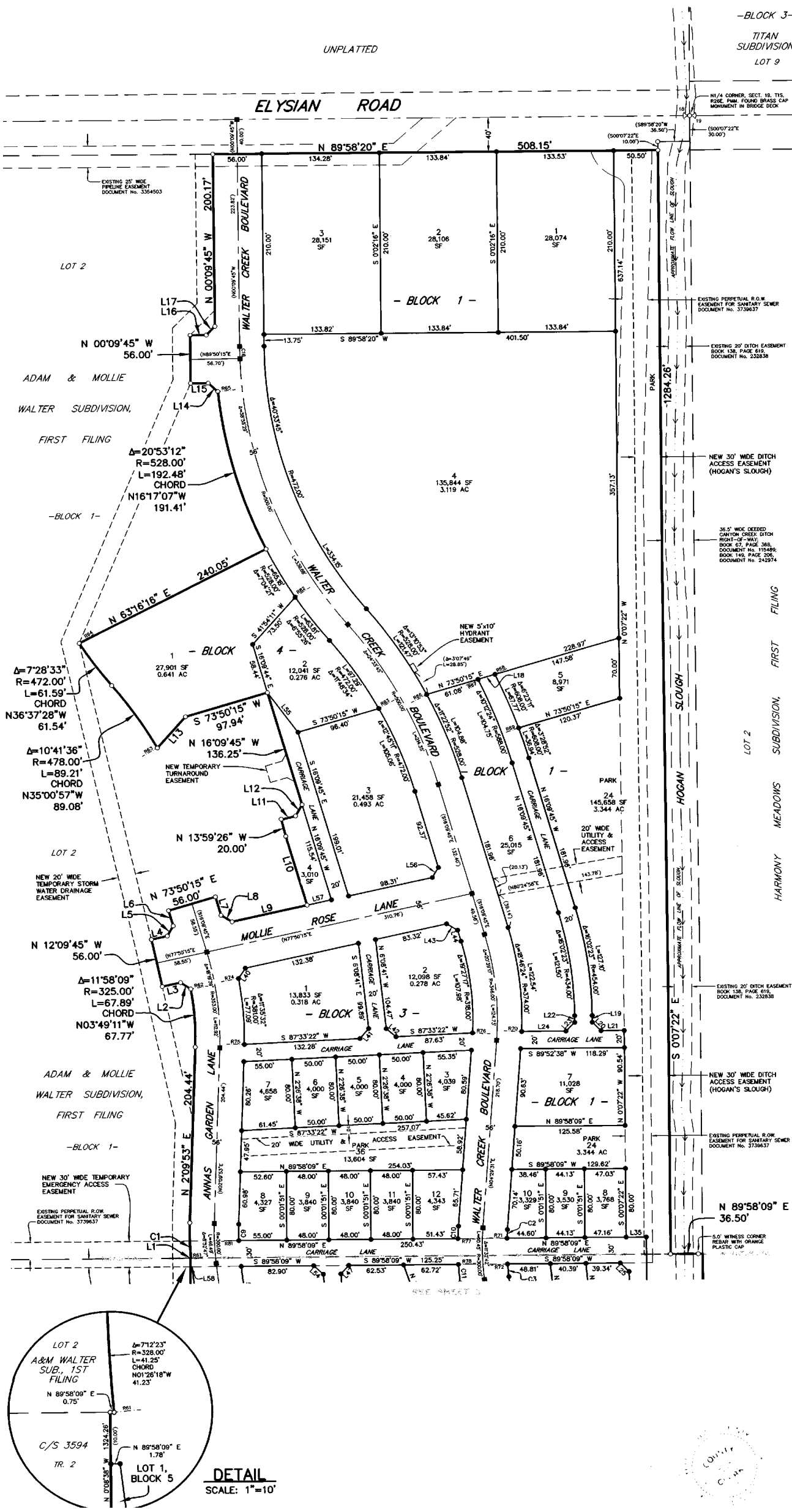
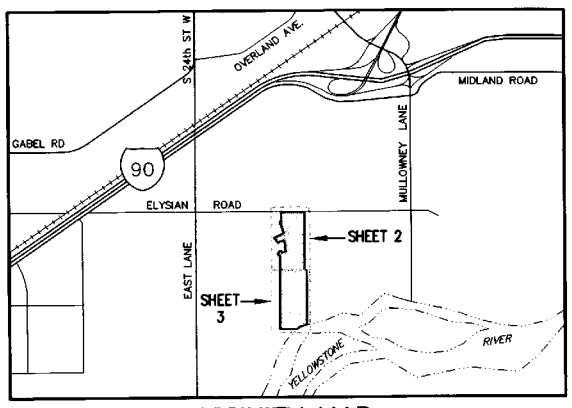
PREPARED FOR : McCALL DEVELOPMENT, INC.

JULY, 2016

PREPARED BY : SANDERSON STEWART

BILLINGS, MONTANA





VICINITY MAP

NOT TO SCALE

NORTH

60 30 0 60 120

SCALE:1" = 60'

BASIS OF BEARING: THE BASIS OF BEARINGS FOR THIS SURVEY HAS BEEN DERIVED FROM GPS OBSERVATIONS AND IS BASED ON A NAD 83, LAMBERT CONFORMAL CONIC, SINGLE PARALLEL, LOW DISTORTION PROJECTION FOR THE CITY OF BILLINGS; HAVING A POINT OF ORIGIN AT 45°47'00"N LATITUDE AND 108°25'00"W LONGITUDE WITH A SCALE FACTOR OF 1.0001515. DISTANCES ARE GRID, INTERNATIONAL FEET. THE GRID TO GROUND COMBINED SCALE FACTOR AT THE N1/4 CORNER, SECT. 19, T1S, R26E, PMM, IS 1.00000198; THE CONVERGENCE ANGLE IS -0°06'27".

- o FOUND SURVEY MONUMENT, REBAR & CAP MARKED "SANDERSON STEWART", OR AS NOTED
- ● SET 5/8" X 18" REBAR WITH CAP MARKED WITH THE LICENSE NUMBER OF THE UNDERSIGNED LAND SURVEYOR AND "SANDERSON STEWART"
- ■ SET INTERSECTION MONUMENT, 5/8"x18" REBAR WITH CAP MARKED WITH THE LICENSE NUMBER OF THE UNDERSIGNED LAND SURVEYOR AND "SANDERSON STEWART BILLINGS MT" WILL BE REPLACED WITH BRASS CAP MONUMENT BOX UPON COMPLETION OF STREET IMPROVEMENTS.

NOTE: ALL CURVES ARE TANGENT AND ALL PROPERTY LINES INTERSECTING CURVES ARE RADIAL UNLESS OTHERWISE NOTED.

BOUNDARY CURVE TABLE					
Curve #	Delta	Radius	Length	Chord Bearing	Chord Distance
C1	7°12'23"	328.00'	41.25'	N 01°26'18" W	41.23'

BOUNDARY LINE TABLE					
Line #	Bearing	Distance	Line #	Bearing	Distance
L1	N 89°58'09" E	0.75'	L10	N 16°09'45" W	83.62'
L2	N 56°25'27" W	13.96'	L11	N 76°00'34" E	16.68'
L3	S 77°50'15" W	21.39'	L12	N 29°55'24" E	15.26'
L4	N 77°50'15" E	18.52'	L13	S 42°06'35" W	48.48'
L5	N 30°50'15" E	13.64'	L14	N 47°43'52" W	14.78'
L6	N 16°09'45" W	18.52'	L15	S 89°50'15" W	20.20'
L7	S 16°09'45" E	22.44'	L16	N 89°50'15" E	18.50'
L8	S 59°09'45" E	14.63'	L17	N 44°50'15" E	14.14'
L9	N 77°50'15" E	87.78'			

LOT LINE TABLE								
Line #	Bearing	Distance	Line #	Bearing	Distance	Line #	Bearing	Distance
L18	N 73°50'15" E	20.31'	L38	S 00°07'22" E	15.42'	L58	N 89°58'09" E	1.78'
L19	N 00°07'22" W	7.84'	L39	S 89°52'38" W	19.40'	L59	S 44°43'03" W	14.10'
L20	N 45°07'22" W	14.14'	L40	N 33°28'02" E	14.30'	L60	S 45°16'57" E	14.18'
L21	S 89°52'38" W	26.45'	L41	S 40°42'20" W	15.29'			
L22	N 00°07'22" W	7.84'	L42	N 49°17'40" W	14.59'			
L23	N 44°52'38" E	14.14'	L43	S 59°09'45" E	14.63'			
L24	N 89°52'38" E	50.43'	L44	S 16°09'45" E	13.45'			
L25	S 45°04'37" E	14.15'	L45	S 89°58'09" W	44.11'			
L26	S 44°52'38" W	14.14'	L46	S 26°14'33" W	24.92'			
L27	S 89°52'38" W	46.33'	L47	N 42°28'30" E	13.51'			
L28	S 45°07'22" E	14.14'	L48	N 47°34'15" W	14.73'			
L29	S 44°52'38" W	14.14'	L49	S 38°18'05" E	28.54'			
L30	S 45°07'22" E	14.14'	L50	N 89°52'38" E	49.64'			
L31	N 00°07'22" W	21.75'	L51	S 44°52'38" W	14.14'			
L32	S 03°46'19" W	23.69'	L52	N 45°16'57" W	14.18'			
L33	N 41°13'41" W	14.14'	L53	S 42°25'45" W	16.23'			
L34	S 89°52'38" W	3.17'	L54	S 47°31'30" E	14.74'			
L35	S 89°58'09" W	23.00'	L55	S 36°25'23" E	57.76'			
L36	N 44°43'03" E	14.10'	L56	S 30°50'15" W	13.64'			
L37	S 45°07'22" E	14.14'	L57	S 77°50'15" W	28.48'			

RADIAL TABLE	
Radial #	Bearing
R61	S 84°57'31" W
R62	N 80°11'44" E
R63	N 60°19'51" E
R64	S 57°06'48" W
R65	S 84°09'29" W
R66	N 62°27'22" E
R67	N 63°37'51" E
R68	N 63°58'12" E
R69	N 70°21'22" E
R70	S 87°23'21" E
R71	N 87°38'05" W
R72	S 86°02'32" W
R73	N 83°53'02" E
R74	N 79°50'56" E
R75	S 88°33'32" E
R76	S 86°42'28" E
R77	N 88°02'38" W
R78	S 86°42'49" W
R79	N 82°38'39" E
R80	N 87°13'56" E
R81	S 88°08'50" W
R82	S 56°11'55" W
R83	N 61°05'03" E

LOT CURVE TABLE			
Curve #	Delta	Radius	Length
C2	2°07'36"	272.00'	10.10'
C3	3°06'23"	272.01'	14.75'
C4	5°59'36"	328.00'	34.31'
C5	3°53'41"	228.00'	15.50'
C6	3°53'41"	272.00'	18.49'
C7	3°53'41"	172.00'	11.69'
C8	3°53'41"	328.00'	22.30'
C9	4°01'03"	272.00'	19.07'
C10	2°32'10"	328.00'	14.52'
C11	3°46'01"	328.00'	21.56'
C12	7°13'59"	272.00'	34.34'
C13	3°56'49"	328.00'	22.60'
C14	6°16'23"	272.00'	29.78'
C15	49°22'58"	22.00'	18.96'

CENTERLINE CURVE TABLE			
Curve #	Delta	Radius	Length
C16	1°38'17"	500.00'	14.29'
C17	6°55'49"	300.00'	36.29'
C18	3°53'41"	200.00'	13.60'
C19	3°53'41"	300.00'	20.39'
C20	6°16'23"	300.00'	32.85'
C21	49°19'09"	50.00'	43.04'

DETAIL

SCALE: 1"=10'

SP 3831829

10/27/2017 03:37 PM Pages: 2 of 3 Fees: 62.50

Jeff Martin Clerk & Recorder, Yellowstone MT

SHEET 2 OF

PLAT OF

ANNAFELD SUBDIVISION, FIRST FILING

BEING LOT 1, BLOCK 1 OF ADAM AND MOLLIE WALTER SUBDIVISION, FIRST FILING & TRACT 1 OF CERTIFICATE OF SURVEY No. 3594

SITUATED IN THE NW1/4 OF SECTION 19, T. 1 S., R. 26 E., P.M.M., IN THE CITY OF BILLINGS, YELLOWSTONE COUNTY, MONTANA

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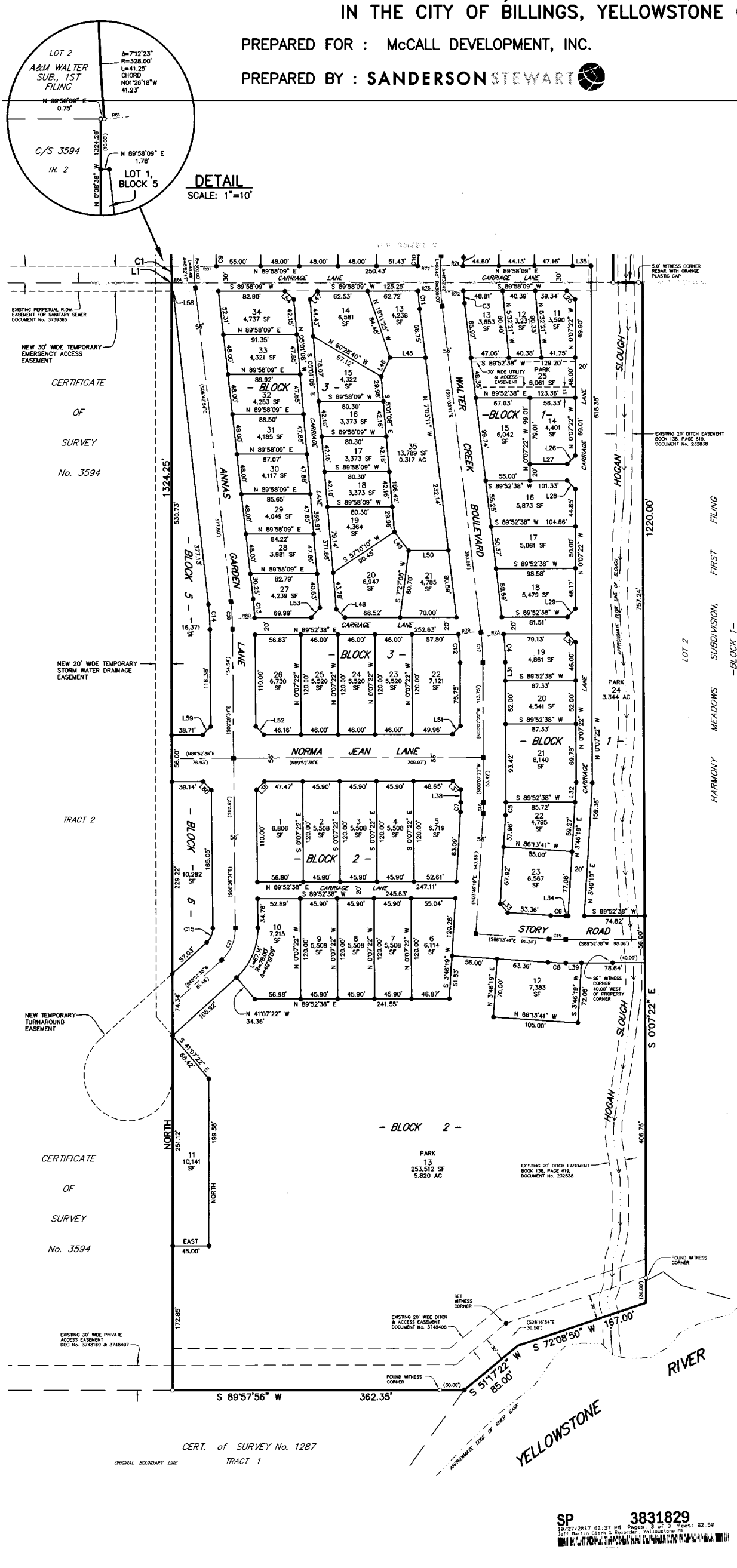

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