Hayden School District
Learning Landscapes

HAYDEN VALLEY ELEMENTARY MASTER PLAN

August 3, 2011
<table>
<thead>
<tr>
<th>Table of Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>section 1</td>
</tr>
<tr>
<td>Executive Summary</td>
</tr>
<tr>
<td>Learning Landscapes - Background</td>
</tr>
<tr>
<td>section 2</td>
</tr>
<tr>
<td>School Background</td>
</tr>
<tr>
<td>Existing Conditions</td>
</tr>
<tr>
<td>Playground Assessment</td>
</tr>
<tr>
<td>section 3</td>
</tr>
<tr>
<td>Design Advisory Team / Vision and Goals</td>
</tr>
<tr>
<td>Design Theme</td>
</tr>
<tr>
<td>Ordering System</td>
</tr>
<tr>
<td>Hayden Valley Elementary - Master Plan</td>
</tr>
<tr>
<td>Ideograms and Precedent Images</td>
</tr>
<tr>
<td>section 4</td>
</tr>
<tr>
<td>Preliminary Cost Estimate</td>
</tr>
<tr>
<td>Phasing Priorities</td>
</tr>
<tr>
<td>Acknowledgements</td>
</tr>
</tbody>
</table>
Introduction

Schoolyards provide an opportunity for the built environment to promote increased physical activity for children and the surrounding community. In addition, studies show that well-planned and equipped schoolyards increase physical activity while also enhancing the learning environment resulting in improved achievement. Such play areas provide physical and mental challenges that translate to improved health and learning attention. Furthermore, with proper design, these areas themselves become outdoor classrooms or learning landscapes and fulfill, a secondary goal for many schools to become a positive focal point of the neighborhood, place to gather and to meet, a place to enjoy, a place that enhances the community’s appearance.

Improving schoolyards is a proactive way to benefit health at the community level. The surge in childhood obesity, in recent years, threatens the future health of Colorado. According to the Colorado Health Report Card published by the Colorado Health Foundation, “Colorado ranks 23rd among the states in the category of childhood obesity dropping in rank from 3rd to 23rd in just four years. The current ranking signals a rapid increase in the prevalence of childhood obesity that negatively impacts the overall health and well-being of Colorado’s children. Preventing and combating the childhood obesity epidemic will require a multi-faceted approach. “It means changing behaviors around food intake, physical activity and our residential community. It means addressing the environment in schools and rethinking our culture to emphasize good health” says James O. Hill Professor of Pediatrics and Medicine at the University of Colorado School of Medicine.
In April 2011 the Routt County School District was awarded an Active Play Areas planning grant from the Colorado Health Foundation. The Colorado Health Foundation believes that if kids are a part of a “healthy school” including but not limited to access to physical activity and healthy foods, then they will be more likely to learn better and maintain a healthy lifestyle throughout life. In addition, The Foundation upholds that thoughtful design of a new or renovated activity space at the children’s school can promote greater levels of moderate or vigorous physical activity and decrease sedentary activity.

The Active Play Areas planning grant provided an opportunity for the school district to partner with Learning Landscapes at the University of Colorado Denver to develop an active play area master plan for the Hayden Valley Elementary School and to suggest recreational and athletic improvements at the Hayden Secondary School.

The Learning Landscape program within the Colorado Center for Community Development at the College of Architecture and Planning seeks to strengthen elementary schools and their surrounding neighborhoods by designing playgrounds to promote physical activity and social interaction. With over ninety schoolyard renovations complete, the success of this program is founded on a mutual respect of aesthetic, maintainability, safety, and recreational issues.

Colorado Health Foundation

Vision:
Colorado will become the healthiest state in the nation.

Mission:
To improve the health and health care of Coloradans by increasing access to quality health care and encouraging healthy lifestyle choices.

To support the goal of Healthy Schools and Healthy Communities, the Foundation seeks to fund active play spaces for schools designed to promote play and other forms of physical activity. This includes field/ground designs or markings that facilitate games and other forms of movement. Healthy Schools & Healthy Communities

The Active Play Areas Plan supports the foundations following funding strategies:
1. Develop healthy schools -- Expand the number of public schools and preschools that provide health care services, have health and nutrition education, physical education, healthy food in cafeterias and vending machines, and opportunities for physical activity.
2. Promote healthy communities -- Expand access to healthy and affordable foods; provide safe options for physical activity; teach individuals how to manage their chronic disease; and engage parents in raising healthy kids.

Implementation of the Active Play Areas Master Plan can be measured by the foundation’s following measurable results:
1. Increase the number of children and adults who engage in moderate or vigorous physical activity.
2. Increase the number of children and adults who eat adequate amounts of fruits and vegetables daily.
3. Increase the number of under-served Coloradans who have convenient access to recreational exercise and fruits and vegetables.
Hayden School District

The Hayden School District is one of three school districts serving Routt County in scenic northwestern Colorado. The district is comprised of two facilities both located in the rural town of Hayden, CO. The schools are about ¼ mile apart. Both schools operate under the mission “achieving excellence in learning,” have the tiger as their mascot and sport orange and black as their school colors.

In 2011 The Hayden Public School District had a total of 378 students enrolled. The following are a few district-wide statistics:

- Free/Reduced Lunch: Appx 40% of students
- Racial Make-up of Students: White: 96%, Hispanic: 4%
- English is not primary language: <1% of students

Surrounding Area Demographics:

According to the 2010 U.S. Census there were 1,925 people living in the census tract that contains the town of Hayden. Of these 88% were White and 9% were Hispanic. The remaining 3% of the population is primarily Asian or Native American. A good portion of school district falls into large rural tracts that overlap other districts. These tracts tend to have a slightly higher percentage of Whites.

LiveWell Northwest Colorado states that the 2007 median income in Routt County was $63,797 and the self-sufficiency standard for a family of four was $65,791 (one of the highest in Colorado). The town of Hayden’s "Parks, Recreation, Trails and Open Space Master Plan" notes that in 2007 the Median household income in Hayden was $53,467. This is significantly lower than the county as a whole and well below the self-sufficiency threshold.
**Existing Challenges:**
The Hayden School District is a rural school district that is facing a number of challenges due to its location about 20 miles west of the resort community of Steamboat Springs.

According to LiveWell Northwest Colorado, because of the resort nature of Steamboat Springs the area appeals to an affluent population for leisure and recreational uses, creating many service related jobs that are typically low pay, part time and lack benefits. This, in turn, results in a large low-income population in the area. Given the distance from the resort, land values in Hayden are somewhat lower and therefore many lower-income families choose to reside in Hayden. This evidenced by the town’s significantly lower median income and the high percentage of free or reduced lunches now offered to students at the district’s two schools. Studies have consistently shown that children of lower-income families are more likely to suffer from health issues caused by lack of exercise, inadequate health care and poor diet. Increasing access to active recreation at the public schools is therefore a high priority.

Lower property values also mean less revenue for school operations and maintenance. The district’s current facilities were constructed in the late 70’s and early 80’s and are in need increasing maintenance. These general maintenance issues squeeze out funds for improving the play areas and equipment that are needed to keep kids active.

The Elementary School has a large school yard with a decent amount of equipment and play surfaces, but there are several issues that should be addressed. First, much of the equipment is outdated and is in need of replacement. Second, safety, drainage and ADA accessibility concerns need to be addressed. Third, much of the school yard is under utilized. The physical education instructor indicated that she’d like to incorporate more outdoor activities, such as bicycle safety skills, soccer and running, but does not have adequate spaces for such programs. Most importantly, however, the play ground lacks a fun and energetic aesthetic that is vital to keeping kids engaged, imaginative and entertained.

**Wellness Initiatives:**
In 2009 Routt County became a LiveWell Colorado grantee. Known formally as LiveWell Northwest Colorado, the organization has been working toward making sure that Routt County is a healthy community for all to live in. LiveWell has been actively working with the Hayden school district in order to achieve the following goals.

- Increase physical activity in children ages 0-18 by 10 percent by creating sustainable and affordable physical activity opportunities throughout the day.
- Develop and create infrastructure that allows for safe, affordable alternative transportation and recreation for all ages within each community.

This master plan is an effort to achieve both of these goals and build on the success of the “safe routes to school” grant that the district received and implemented in 2010. Currently LiveWell is also working with the school to develop a nutrition education campaign.
The Hayden School District Master Plan is intended to serve as a roadmap for proactively developing strategies and tactics needed to develop sound, safe and active play areas that are proven to increase activity for its students and surrounding community members. The purpose of the master plan is for the Hayden School District to be strategically poised to capture opportunities to improve and expand play areas as they become available. It is also intended as a tool for schools, parents, and district administration to seek funding for future schoolyard renovations and wellness initiatives.

The master plan is a written report and plan that sets forth the structure for future campus improvements. The school has a general vision that is delineated into goals identifying the major components for implementation. These goals are defined through the use of text and imagery. A programmatic list of uses is also developed. Lastly, each master plan sets forth the aesthetic ordering system suggested for use during the design phase to organize the programmatic uses. This plan will provide a framework for fund raising and future construction.

Vision:
The Vision for the Hayden School District Master Plan is to redesign, revitalize and enhance the existing school facilities in order to improve safety and encourage physical activity in an educational environment.

Planning Process
The Master Plan process took place from April to July 2011. While much of the master planning process was headed up by the elementary school principal and the district superintendant, Learning Landscape staff obtained information and design ideas from a wide segment of people associated with the Hayden School District. These included:

- A group of 12 teachers, staff and parents from the elementary school who helped establish the visions and goals for the elementary school grounds.
- The elementary school students, who took part in a visual preference survey,
- The district’s chief of maintenance,
- The elementary school PE instructor,
- The secondary school principal
- The secondary school track coach and activities director
- Members of the school board and the public to whom we presented our working drawings on June 15, 2011.

The planning process consisted of the following tasks:
- Meetings with staff and advisory groups
- Site inventory and analysis
- Play equipment assessment
- Schoolyard use assessment
- Student photo survey
- Master plan recommendations
- Cost estimates and prioritization
Recommendations
Improved play facilities will serve multiple purposes in not only engaging Hayden’s students, but also the entire community. The following are recommendations for implementation of the Active Play Areas Master Plan throughout the district.

- Install new age appropriate play equipment
  - To increase physical activity for all ages and to provide a variety of safe, challenging activities for all students.
- Install running tracks and walking paths
  - To provide opportunities for students, teachers, staff and community to track their distance and encourage each other to get moving.
- Install climbing structures
  - To increase upper body strength and coordination.
- Address safety issues
  - To prevent injury to students
- Improve ADA accessibility
  - Each play area should be accessible to all the students in the school. It is important for all students and community members regardless of mobility, to be able to interact and be active with one another.
- Provide more hard surface games with educational interactive elements
  - Colorful interactive landscapes spark childrens’ creativity during play and keep the play environment fresh and fun.
- Develop outdoor learning environments
  - Spaces for teachers to bring students outside and to practice inquiry and to interact with the landscape as an educational system
  - When not used as classrooms these spaces may provide places for group socialization for students as well as community members.
- Develop community gathering spaces
  - Welcoming the neighborhood to gather, play, and exercise in these public areas will help build support stewardship of the community.
  - It is important for the students to have a safe place to be active not just during recess but also after school and on the weekends.
- Increase opportunities for shade
  - To protect students and visitors from the intense Colorado sun and to provide additional gathering spaces for community members.
Learning Landscapes Background

**LEARNING LANDSCAPE HISTORY**
The first Learning Landscape was built at Bromwell elementary school in 1998 as a result of a six-year collaboration of parents, elementary students, staff, faculty, neighbors, local businesses and University of Colorado Denver (UCD) landscape architecture graduate students. The vast expanse of asphalt and pea gravel on the Bromwell playground resembled a prison yard, not an environment encouraging activity and child development. Bromwell parents and community members took action to transform the schoolyard into an active and aesthetically pleasing place for learning and physical activity.

Bromwell’s schoolyard renovation project coincided with the end of mandatory busing at Denver Public Schools (DPS). Cessation of mandatory busing meant a renewed interest in Denver neighborhood schools and soon the Bromwell Learning Landscape project evolved into a citywide urban initiative evoking social change and physical transformation of public grounds.

UCD encourages faculty to connect the campus to the community. Landscape Architecture Professor, Lois Brink’s Learning Landscapes course proved a tremendous opportunity for civic engagement. Through Learning Landscapes, UCD graduate students are able to stretch the boundaries of landscape design, engage the community and gain real-world design experience. In 1999 (UCD) College of Architecture and Planning entered into a formal agreement to plan, design, and help build Learning Landscapes at DPS elementary schools throughout the district. The partnership between UCD and DPS has resulted in the transformation of 81 neglected public elementary schoolyards into Learning Landscape Playgrounds.

In 2008 Denver voters expressed satisfaction with the program by passing a multi-million dollar bond initiative to fund the redevelopment of every DPS elementary schoolyard into a learning landscape by 2013.

**WHAT WE DO**
With a budget of approximately $450,000 per playground, Learning Landscapes leads UCD students, elementary schools and community members in the redesign of schoolyards into fun multi-use parks designed to reflect the culture of the surrounding community. The Learning Landscapes project helps reconnect communities with neighborhood schools. The graduate students get meaningful, hands-on experience working with the community to create master plans and designs for a Learning Landscapes schoolyard.

**HOW WE DO IT**
By listening and actively involving the school community throughout the planning, design, construction, and maintenance of the Learning Landscape schoolyard. Each school is asked to form a Learning Landscape team to help inform design and programming decisions as well as keep a watchful eye for vandalism and maintenance issues after construction is complete. The Learning Landscapes team recruits students, parents and surrounding community help to build, maintain and improve the Learning Landscape. Each new learning landscapes has a volunteer build day where the school and community volunteers develop a sense of ownership and civic pride by creating outdoor artwork planting gardens, laying sod or building play equipment.

We document and distribute site-specific resources for educators and community members on the outdoor educational elements unique to each Learning Landscape schoolyard. Promoting the programmatic use of the Learning Landscape is critical for the long-term viability and sustainability of these projects.

**COMMUNITY INVOLVEMENT**
Inevitably each site is used by the community when the schools are not in session. As such we feel it is important to work with community leaders to get feed back on the communities needs and desires to determine how the communities use the site and what other organizations help maintain the site - like the Parks and Recreation, softball leagues, soccer leagues, gardening clubs, etc.
Learning Landscapes Background

Examples of Learning Landscape components

Outdoor Art
Community Gateways
Climbing Structures

Shade Structures
Grass Fields
Outdoor Classrooms

Habitat and Vegetable Gardens
Age Appropriate Play Equipment
Maps & Hard Surface Games

What is a Learning Landscape?

A learning landscape is a multi-use park for outdoor learning, discovery, creativity and play that celebrates the unique character of the school and community.

Learning Landscapes are comprised of grass playing fields, age-appropriate play equipment, trees, shade structures, gateways, artwork, class room gardens, traditional play elements and non-traditional play elements among other things.

Learning Landscapes function as local public parks providing much needed open space and social gathering places while fostering neighborhood pride for local communities.

Educational Elements tend to be focused on the unique aspects of each school and/or the surrounding community. Educational elements may be derived from the school’s theme, mascot, motto, history, etc. These educational elements come in the form of games that are superimposed on the hard court surfaces, words, poems, mathematical formulas, etc. These learning components can simply be whimsical items that inspire kids to use their imaginations while playing hopscotch, tether ball or what have you; they may also be tied to the school’s curriculum when teachers choose to take their classes outside in order to take advantage of these learning opportunities.
Section Two

- School Background
- Existing conditions
- Playground Assessment
Hayden Valley Elementary School houses a pre-school program and grades K-5. The school is located off of Breeze Basin Boulevard and South Poplar St., a few blocks south of US Hwy. 40, the town’s main street. The school was built in 1979 and sits on 20.9 acres of land. A sizable portion of the site contains 2 baseball fields used by the secondary school and the town of Hayden. Another large portion is undeveloped due to its steep slope. In 2011 there were 166 students enrolled. The school has a maximum capacity of about 200.

With the existence of the adjacent Dry Creek Park to the east, undeveloped farmland to the north and undeveloped river bluffs to the southwest, the Hayden Valley Elementary School has an “edge-of-town” feel. The city’s fire station adjoins the school property to the east and a small residential housing development is located immediately uphill to the south. The adjacent streets like those of many rural communities lack curb and gutter. A “Safe Routes to School Grant,” however, recently paid for the construction of sidewalks to allow children to safely walk to school. One other defining feature of the site is an irrigation ditch and pond along the south side of the property that carry water intermittently.

**Location History and Neighborhood Context**

**Demographics**

**Hayden Public Schools:**

In 2011, the Hayden Public School District had a total of 378 students enrolled, 166 of these are at the Elementary School. The following are a few district-wide statistics:

- Free/Reduced Lunch: Appx 40% of students
- Racial Make-up of Students:
  - White: 96%
  - Hispanic: 4%
- English is not primary language: <1% of students

**Surrounding Area Demographics:**

According to the 2010 U.S. Census, there were 1,925 people living in the census tract that contains the town of Hayden. Of these, 88% were White and 9% were Hispanic. The remaining 3% of the population is primarily Asian or Native American. A good portion of the school district falls into large rural tracts that overlap other districts. These tracts tend to have a slightly higher percentage of Whites. The town of Hayden’s “Parks, Recreation, Trails and Open Space Master Plan” notes that in 2007, the median household income in Hayden was $53,467. This according to the plan is lower than both the state and the county as a whole, but slightly higher than the U.S. overall.
Existing Conditions - Hayden Valley Elementary

Equipment and Materials:
The elementary school sits in the middle of a large open site surrounded by open grass fields on the north and east and more structured play areas to the south and west. Immediately adjacent to the main entrance, on the west side of the building, is a fenced playground for the early childhood education programs (see page 16). At the southwest corner of the building is the main play area consisting of three basic components. The first is a small open grass field west of the school. The second component is a large structured play area (see page 17). The third component of the main play area is a deteriorating asphalt play area with basketball courts. South of these play areas are more grassy fields containing a city owned batting cage, three pads for tether ball, a set of balance beams, a volleyball court and movable picnic tables. Also on site are two baseball fields, and a natural area that contains an irrigation ditch and a small, seasonally-flooded pond.

ADA Accessibility
Due to the school’s flat site and lack of level changes, the school building itself is very accessible. A concrete walkway surrounds the building on the east, south and west sides giving access to the primary play areas. An additional concrete path gives some access to the main play structure although the play pit lacks concrete ramps for accessibility and the pea-gravel is a non-ADA compliant surface. One area of concern is the north side of the gym, where emergency egress doors exit right onto the lawn.

Existing Use Diagram
Existing Conditions Continued:

Drainage
Given Hayden’s significant winter snowfall and the school’s flat site, drainage is a significant issue. The problems are most acute in the spring after the snow melt. When we visited in April 2011 after a winter of above average snow fall, there was pooling water in several areas of the site. Of primary concern was the water pooling throughout the pea-gravel play area and especially the northwest corner. Another major problem existed at the northeast corner of the site. At the time the school district was attempting to work with the city to resolve this problem. One issue that needs to be considered when redesigning the site is the creation of an area for snow storage.

Safety
The following are some of the primary safety concerns addressed by parents and teachers and/or identified during the site assessment:
• Outdated play equipment at the ECE area needs to be removed and replaced
• The domed jungle gym is a source of many injuries
• Some rubber mats at the base of the main play structure were missing and need to be replaced
• The cargo net on the main play structure is fraying and needs to be replaced
• Kids playing ball in the open field often end up chasing stray balls into the parking/bus drop-off area
• There are some significant cracks and potholes in the asphalt play area that are tripping hazards.
• The city’s batting cage is located next to the playground, but is off limits to children as it is not in the best of shape and could be a safety hazard.

Circulation and Site Accessibility
The school’s main entry is accessed from Breeze Basin Boulevard. Busses and cars enter the site via a one-way traffic loop surrounding the main parking lot. The lot has just over 50 spaces but is considered to be somewhat inadequate. The busses drop students off directly in front of the school. Teachers, visitors and parents dropping off students use the parking lot. There is no physical separation between the parking lot and the bus drop off area aside from some faded paint striping and a few 3’ tall plastic bollards marking the edge of the bus lane. There is a painted cross walk that connects the parking area to the sidewalk adjacent to the school building, but it too could use a coat of paint. A physical separation between the parking and the bus lane (i.e. a landscape strip, or concrete curb) would make this more visible and a potentially safer crossing.

Some kids walk or ride their bikes to school. A recent “Safe Routes to School Grant” was recently used to create safe, accessible, sidewalks in the area around the elementary school. Kids from the subdivisions to the south, however, often cut through the South East corner of the site rather than walk around the school on the new sidewalks. Currently the school has some old steel bike racks located along the north wall of the gym. These racks are not permanent and could be moved to a better location if need be.

Delivery trucks, and some staff members use a separate entrance near the corner of Breeze Basin and South 3rd St. There is some parking for staff at this location, but not nearly enough for the entire school. This rear area also contains, recycling, dumpsters, and a maintenance shed that contains the pump room for the irrigation system.

Students and teachers may access the schoolyard for recess directly from their classroom or from either the main entrance on the west side of the building or another set of doors directly opposite it. These main entrances are the only means of getting back in the building as the classroom doors lock from the inside. Preschoolers access their own play area directly from their classroom and can return to their classrooms through the same door. There are also two doors on the north side of the gym that are often used by the PE instructor to access the adjacent playing field.
Existing Conditions

Existing Conditions Continued:

**Maintenance**
Most of the schoolyard is equipped with irrigation systems making the grass fields easy to water. The two exceptions are the natural area along the south end of the site and the open area in the NW corner of the site. The biggest maintenance issue at the elementary school is snow removal. Due to Hayden’s heavy winter snowfall, it is important to allow snow plows and other snow removal equipment to access the south side of the elementary school in order to clear the asphalt in the winter. Currently there are no real issues with this, but the maintenance staff requests that a swinging gate be built south of the main entry to prevent teenagers and the like from driving their cars and trucks onto the grounds.

**Environment-Plant Conditions**
The schoolyard is for the most part wide open with very few trees. Exceptions to this are two medium sized pine trees near the main entry, and an assortment of trees in the natural area (some of which were just planted this year). While shade is not a huge necessity in the relatively cold, snowy climate prevalent during most of the school year, additional trees could be used to provide shade during the summer months and to screen views such as the back side of the fire station.

---

Legend - key of Uses
- **Hardscape**
- **Softscape**
- **ECE Play Area**
- **Primary Play Area**
- **Parking Area**
- **Class room distribution**
- **Circulation**
- **Doors**

Existing Use Diagram
The 5,100 square foot ECE play area is used by kindergarten and first grade students before school and exclusively by the ECE students during the school day. The playground consists of two main play structures and a few smaller components and is completely inclosed either by the school building itself, a brick wall or a 4' chain link fence. Access to the play area is provided from the public sidewalk at the SW corner of the area or from a door that exits directly from the ECE area inside the school. Generally speaking, the area is not handicapped accessible.

The first major component is a plastic "Little Tikes" play structure. This structure is age appropriate for the space and is around 5 or 6 years old. The structure sits in a pea gravel filled play pit edged with 4x4 wood timbers that are not in the best of shape. While this structure could be salvaged, the edging and pea-gravel certainly need to be replaced.

The second main component is a metal and plastic play structure. This equipment is in the 10-15 year age range and while structurally sound is showing signs of wear. This equipment is more appropriate for grades K-2 than for the younger ECE students and should probably be replaced with something more age-appropriate. The structure sits on a concrete pad that is covered in rubber tiles; these tiles are beginning to warp and degrade and should also be replaced.

The other components in the ECE area are probably as old as the school (30+ years). These include a swing set, a merry-go-round and a rocking eagle mounted on a large rusting spring. These pieces of equipment should all be removed as they pose potential safety concerns.
Playground Assessment - Main playground

Main Playground Assessment

The main playground is used by students from grades K-5. At nearly 9,000 square feet the play area contains a large play structure a steel domed jungle gym a 3-bay swing set and a covered sandbox. With the exception of the sandbox, the entire play area is surfaced with pea-gravel, a non-ADA compliant material. The pea-gravel should be replaced with engineered wood fiber. The play area has some drainage issues that should be dealt with before replacing the gravel.

The main play structure is only around 4-5 years old and is in very good condition. The only maintenance issues that need to be addressed are replacing the decaying cargo net bridge on the structure and replacing the rubber tiles at the handicapped access point of the structure. The structure was probably marketed for ages 5-12 which would cover grades K-5, but it is most likely lacking appropriate activities for the youngest and oldest kids in this age range.

The geo-dome has been noted as a safety concern by the school nurse and other staff. The kids, however, love to climb all over it and therefore it should be replaced with a safer climbing structure.

The 3-bay swing set is likely as old as the school and sits close to the edge of the play pit. These should be replaced and relocated.

The last component of the play area is a wood shade structure over a sandbox. The sandbox is not well used by the students and the structure is not in good condition. We recommend removal of the entire component.

Plan of ECE Play Area:

- Concrete path
- Asphalt play area
- ADA access point for play structure
- Steel geo-dome
- Main play structure
- Tripping hazard at edge of asphalt and play pit
- Wood shade structure over sand box
- 3 bay swing set
- 9,000 Sq.Ft play pit with pea-gravel
- City owned batting cage

Maintenance and drainage issues at play pit

Main play structure: cargo net in center should be replaced soon.

Wood shade structure over sand box

View of geo-dome and swings. Note tripping hazard at edge of play pit.
Section Three

- Design Advisory Team / Vision and Goals
- Design Theme
- Ordering System
- Master Plan
- Ideograms and Precedent Images
Design Advisory Team

While much of the master planning process was headed up by the elementary school principal and the district superintendent, Learning Landscape staff obtained information and design ideas from a wide segment of people associated with the Hayden School District. One component of the advisory team was a group of 12 teachers, staff and parents from the elementary school. This team was helpful in establishing some of the visions and goals for the elementary school grounds. Additional information was obtained from the school district’s chief of maintenance, and the elementary school PE instructor.

Also helping us with planning at the elementary school were the students themselves. The Students provided input via a photo survey. The kids were shown a poster of various, possible design elements and asked to choose their top five. The results of this survey are shown to the left.

Finally, we presented a working draft of the active play areas plan to members of the school board and the public at an official school board meeting on June 15, 2011. The input we received there was integrated into the master plan as well.

Vision:
The Vision for the elementary school playground is to create a fun, safe and colorful, and educational playground that provides diverse activities for all age ranges and weather conditions.

Goals/Wishlist:
- Elementary School:
  - Address safety/maintenance issues and redesign ECE play area
  - Address safety/maintenance issues at primary play structure
  - Add more play equipment to compliment existing play structure
  - Remove domed jungle-gym and sand box area
  - Provide additional swings
  - Increase amount of hard surface play area for snowy/ muddy months, include space for basketball and kickball
  - Build running track for kids
  - Create soccer field for 4th-5th graders
  - Create shade structure and outdoor learning space
  - Create a more lively, colorful play area
  - Fence in the north yard for Physical Education classes
  - Construct fence and maintenance gate on west side of school to keep kids and balls out of the parking lot
**Design Theme**

**Hayden Valley Elementary Design Theme:**
Ferdinand Hayden, the town of Hayden’s namesake, was a surveyor and explorer of western Colorado and much of Wyoming. During his career, he published the first survey of Yellowstone National Park and a geographic atlas of Colorado. Given the very important role that physical geography played in the settlement of Western Colorado, its current importance as the backbone of tourism in our state and the town’s tie to this important historic figure, we are proposing an design theme based on local geography, surveying and exploration.

Concepts for integration of this theme into the site plan include:
- The creation of a compass rose in the concrete or asphalt that points out local geographic features
- Maps of Colorado and the United States featuring the Continental Divide
- References to the river system emanating in Routt County (Yampa, Green, Colorado, Gulf of Mexico)
- A benchmark with the elevation of the school
- Labyrinths or mazes painted on sidewalks or courts
- Integration of rocks and boulders for climbing
- Structures and artwork that contain elements of the survey trade, (i.e. tripods, compasses, measuring sticks, etc.)

**Ferdinand Hayden**

Incorporation of such devices will connect students to the geography of the region and increase awareness of their surroundings and cultural heritage. This connection may spark students’ interest for further learning opportunities related to geography, geology exploration and surveying.
Definition:
Ordering Systems are a unique way of organizing the site in a sort of abstract way based on a design theme or other interesting aspects of the school and/or community. The ordering system is an important part of a Learning Landscape in that it can offer the whimsy and inspiration that keeps education fun.

Ordering System:
Tying back to the design theme of surveying and exploration, the site is organized around a central compass that points out local geographic landmarks. An extension of each of the four cardinal directions leads to a learning pad that teaches about one of four natural elements that shapes the geography and climate of the area.

- To the north at the main entry is an area devoted to the earth and the physical landscape. At its center is a benchmark containing the elevation of the school. The pad might also be striped with topographic lines reminiscent of the Yampa Valley in which Hayden sits.
- To the east (oriented toward the continental divide and the source of the Yampa River) is an area devoted to the water cycle. This pad might demonstrate the interconnectedness of the water and the chain of rivers that emanate from Routt County.
- To the south is an area dedicated to the sun. The sun warms and energizes us, it also shapes the vegetation on mountainsides and dictates the life cycles of animals. The sun allowed early explorers to tell the time of day and as such this plaza (which is proposed as an outdoor classroom) might contain a human sundial, in which a student becomes the gnomon and his or her shadow tells the time of day.
- To the west (from where most of our weather comes) is an area dedicated to the wind. The canvass of the shade structure located here catches the wind like the sails of a ship and a windsock or weather vane tells the direction of the wind.
Hayden Valley Elementary - Master Plan

- Reconfigure and expand area (70 spaces) Separate parking from drive lane with raised landscaped medians
- Restripe crosswalk
- Demo and rebuild ECE play area
- Relocate bike racks, provide new conc. pad
- Reconfigure existing play area for intermediate grades (2-5): Remove exist shade structure, sandbox, swings and play dome. Add 2 new, play pieces and new swings. Existing play structure to remain.
- New play area for primary grades (K-1)
- New shade structure on concrete pad with weather vane
- New sod as necessary
- Existing natural landscape area and pond
- Extend conc. sidewalk
- New chainlink fence with gates at NE and SE corners for fire egress and maintenance
- New conc. pad for accessibility
- New fence and maint. gate
- Open play area
- Snow Stor.
- Outdoor classroom/quiet seating area with human sundial-500 sf
- Art sculpture/entry sign
- Possible location for future relocation of bus barn (70’x120’)
- Expand staff parking area to include appx. 30 parking spaces
- Remove existing fence
- 4-5 grade soccer field (35x50 yards)
- Expand existing irrigation system to this area
- New chainlink fence
- 1/8 mile crusher fines running track
- Existing fence
- Picnic area and volley ball court to remain
- Expanded asphalt play area with the following: Basketball courts, Four-square courts, Hopscotch, Tetherball, Kickball and Maps
- New chainlink fence with gates at NE and SE corners for fire egress and maintenance
- New conc. pad for accessibility
- Community gateway
- New conc. pad for accessibility
- Learning node
- Proposed tree
- Not priced per this plan

Legend - Key of Uses
- Hardscape
- Softscape
- ECE Play Area
- Primary Play Area
- Intermediate Play Area
- Not priced per this plan
- Proposed tree
- Community gateway
- Learning node
Ideograms and Precedent images

Ideograms:
Ideograms are a fun look into the future. These are intended to be a way of envisioning what the project might look like when the plan is implemented. Typically we use collage techniques to combine existing conditions with the proposed design ideas. There might be words, symbols, poems, and textures that offer a look into what the future of the master plan might look and feel like.

Precedent images
The following images are examples of structures and play components that would be appropriate for the Hayden Valley Elementary school play areas.

Community Gateway

Playground and outdoor classroom

Shade Structure
Section four

- Preliminary Cost Estimate
- Phasing Priorities and Next Steps
- Resources and Acknowledgements
### Hayden Valley Elementary Master Plan - Cost Estimate

<table>
<thead>
<tr>
<th>Category</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Quantities</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Play Equipment, Structures &amp; Surfacing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE Sandbox w/ sand</td>
<td>LS</td>
<td>$2,000.00</td>
<td>1</td>
<td>$2,000.00</td>
</tr>
<tr>
<td>EE Sandbox cover</td>
<td>LS</td>
<td>$40.00</td>
<td>1</td>
<td>$40.00</td>
</tr>
<tr>
<td>Climbing Structures</td>
<td>LS</td>
<td>$5,000.00</td>
<td>1</td>
<td>$5,000.00</td>
</tr>
<tr>
<td>Cool topper, add’l shade</td>
<td>LS</td>
<td>$3,400.00</td>
<td>1</td>
<td>$3,400.00</td>
</tr>
<tr>
<td>EE Rec Plus - Play Equipment</td>
<td>LS</td>
<td>$25,000.00</td>
<td>1</td>
<td>$25,000.00</td>
</tr>
<tr>
<td>EE Swings</td>
<td>LS</td>
<td>$5,000.00</td>
<td>1</td>
<td>$5,000.00</td>
</tr>
<tr>
<td>Intermediate Play Equipment installed</td>
<td>LS</td>
<td>$20,000.00</td>
<td>1</td>
<td>$20,000.00</td>
</tr>
<tr>
<td>Primary Play equipment Installed</td>
<td>LS</td>
<td>$35,000.00</td>
<td>1</td>
<td>$35,000.00</td>
</tr>
<tr>
<td>Swings (3 bay 6 seat)</td>
<td>LS</td>
<td>$4,000.00</td>
<td>1</td>
<td>$4,000.00</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$99,440.00</strong></td>
</tr>
<tr>
<td><strong>Play Surfacing (12” EWF Delivered/Installed)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE Play Area</td>
<td>SF</td>
<td>$2.50</td>
<td>4,200</td>
<td>$10,500.00</td>
</tr>
<tr>
<td>Primary Play Area</td>
<td>SF</td>
<td>$2.50</td>
<td>2,800</td>
<td>$7,000.00</td>
</tr>
<tr>
<td>Intermediate Play Area and Swings</td>
<td>SF</td>
<td>$2.50</td>
<td>8,500</td>
<td>$21,250.00</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$38,750.00</strong></td>
</tr>
<tr>
<td><strong>Concrete &amp; ADA Accessibility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concrete Seat-Wall</td>
<td>LF</td>
<td>$29.00</td>
<td>0</td>
<td>$0.00</td>
</tr>
<tr>
<td>Concrete Flatwork- 4” depth</td>
<td>SF</td>
<td>$4.00</td>
<td>4,100</td>
<td>$16,400.00</td>
</tr>
<tr>
<td>Concrete mow band, 8”x8”</td>
<td>LF</td>
<td>$11.00</td>
<td>0</td>
<td>$0.00</td>
</tr>
<tr>
<td>Concrete Curbsall @ play pits</td>
<td>LF</td>
<td>$20.00</td>
<td>400</td>
<td>$8,000.00</td>
</tr>
<tr>
<td>Concrete Ramp @ Play Pits</td>
<td>EA</td>
<td>$800.00</td>
<td>4</td>
<td>$3,200.00</td>
</tr>
<tr>
<td>Concrete Stairs</td>
<td>LF</td>
<td>$37.00</td>
<td>0</td>
<td>$0.00</td>
</tr>
<tr>
<td>Concrete Stamping and artwork</td>
<td>EA</td>
<td>$1,000.00</td>
<td>5</td>
<td>$5,000.00</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$32,500.00</strong></td>
</tr>
<tr>
<td><strong>Site Work</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earthwork and Drainage</td>
<td>1</td>
<td>$15,000.00</td>
<td>1</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>Play pit sump</td>
<td>EA</td>
<td>$5,000.00</td>
<td>3</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>Relocate baseball batting cage</td>
<td>EA</td>
<td>$5,000.00</td>
<td>1</td>
<td>$5,000.00</td>
</tr>
<tr>
<td>New Asphalt, 4” depth</td>
<td>SF</td>
<td>$1.80</td>
<td>23,000</td>
<td>$41,400.00</td>
</tr>
<tr>
<td>Reconditioned seal existing</td>
<td>SF</td>
<td>$0.95</td>
<td>0</td>
<td>$0.00</td>
</tr>
<tr>
<td>Outdoor Classroom</td>
<td>EA</td>
<td>$10,000.00</td>
<td>1</td>
<td>$10,000.00</td>
</tr>
<tr>
<td>Map Striping</td>
<td>EA</td>
<td>$1,500.00</td>
<td>1</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>Tetherball Striping</td>
<td>EA</td>
<td>$150.00</td>
<td>2</td>
<td>$300.00</td>
</tr>
<tr>
<td>Hopsotch Striping</td>
<td>EA</td>
<td>$400.00</td>
<td>3</td>
<td>$1,200.00</td>
</tr>
<tr>
<td>Basketball Court Striping</td>
<td>EA</td>
<td>$400.00</td>
<td>2</td>
<td>$800.00</td>
</tr>
<tr>
<td>4-Square Striping</td>
<td>EA</td>
<td>$250.00</td>
<td>2</td>
<td>$500.00</td>
</tr>
<tr>
<td>Funnal Ball Striping</td>
<td>EA</td>
<td>$200.00</td>
<td>0</td>
<td>$0.00</td>
</tr>
<tr>
<td>Painted Kickball court</td>
<td>EA</td>
<td>$200.00</td>
<td>1</td>
<td>$200.00</td>
</tr>
<tr>
<td>Painted Tetherball Post</td>
<td>EA</td>
<td>$50.00</td>
<td>2</td>
<td>$100.00</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$91,000.00</strong></td>
</tr>
<tr>
<td><strong>Running Track</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crusher Fines, 4’ WIDE X 4” depth</td>
<td>SF</td>
<td>$1.00</td>
<td>2,640</td>
<td>$2,640.00</td>
</tr>
<tr>
<td>Crusher Fines Stabilizer (optional)</td>
<td>SF</td>
<td>$1.20</td>
<td>2,640</td>
<td>$3,168.00</td>
</tr>
<tr>
<td>Metal edger (optional)</td>
<td>LF</td>
<td>$5.00</td>
<td>1,200</td>
<td>$6,000.00</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$11,808.00</strong></td>
</tr>
</tbody>
</table>

### Hayden Valley Elementary Master Plan - Cost Estimate

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Unit</th>
<th>Unit Cost</th>
<th>Quantities</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picnic Table</td>
<td>EA</td>
<td>$1,000.00</td>
<td>1</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>Trash Receptacle</td>
<td>EA</td>
<td>$650.00</td>
<td>3</td>
<td>$1,950.00</td>
</tr>
<tr>
<td>6’ Bench</td>
<td>EA</td>
<td>$650.00</td>
<td>4</td>
<td>$2,600.00</td>
</tr>
<tr>
<td>Banner Pole and Banners</td>
<td>EA</td>
<td>$900.00</td>
<td>0</td>
<td>$0.00</td>
</tr>
<tr>
<td>Basketball Goal</td>
<td>EA</td>
<td>$1,200.00</td>
<td>4</td>
<td>$4,800.00</td>
</tr>
<tr>
<td>Tetherball Poles</td>
<td>EA</td>
<td>$350.00</td>
<td>2</td>
<td>$700.00</td>
</tr>
<tr>
<td>Permanent or Moveable Soccer Goals</td>
<td>EA</td>
<td>$1,000.00</td>
<td>2</td>
<td>$2,000.00</td>
</tr>
<tr>
<td>Shade Structure @ Plaza</td>
<td>EA</td>
<td>$25,000.00</td>
<td>1</td>
<td>$25,000.00</td>
</tr>
<tr>
<td>Gateway Feature</td>
<td>LS</td>
<td>$10,000.00</td>
<td>1</td>
<td>$10,000.00</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$48,850.00</strong></td>
</tr>
</tbody>
</table>

**Site Improvements Total**: $363,123.00

**Project Start Up**

- Typical construction mobilization: $10,000.00
- Infrastructure: $10,000.00
- Demolition: $25,000.00

**Architecture Engineering and Coordination**

- 8% of construction cost: $29,049.84
- Owner Representative Fees: $18,156.15

**Contingency Cost**

- 10% of construction cost: $36,312.30

**Project Grand Total**: $491,641.29
Phasing Priorities

If funds are not available to implement the entire master plan the following priorities should dictate the phased implementation of the plan. These priorities are grouped in terms of High, Medium and Low. High priorities are considered necessary improvements. Medium level priorities are highly desirable, but not absolutely necessary. Low priority items are seen as functional and/or aesthetic improvements to the site that are desirable, but their omission would not jeopardize the integrity of the plan as a whole.

High Priorities:

- ECE upgrades: this area contains outdated and inappropriate equipment as well as numerous safety issues that need to be addressed.
- Construction of primary play area: The school currently has no defined play area for kids in grades K-2. This should be addressed.
- Relocate city batting cage: This has been identified as a safety and aesthetic concern by staff and faculty, the cage is not used by the school and should be moved to a proper location in association with the baseball fields. Doing so would also open up for grassy areas for the kids to play on.
- Asphalt play area: The existing asphalt is in dire need of repair and an extension of it would allow the kids more dry play space in the winter and spring months as well as provide space for a bike safety training that the PE instructor has stopped running since the parking lot is usually too full of cars.
- Revisions to the Primary play area: Removal of unsafe equipment (i.e. the jungle gym, shade structure and swings), elimination of the tripping hazard at the edge of the asphalt play area, addressing maintenance issues on the existing play structure, drainage improvements and replacement of pea gravel with engineered wood fiber, are all considered by the design team to be necessary improvements.

Medium Priorities:

- Running track and Soccer Field: these elements were on the PE instructor’s wish list as things that would significantly enhance her program. We feel they would be great additions to the school yard in terms of promoting physical fitness.
- Shade Structure: The design team indicated that given the wintry climate during most of the school year, shade was not a huge priority. Nevertheless, the school yard is used in the summertime and providing shade for summer use would be a significant improvement for an otherwise wide open site. The structure might also be used for picnics before or after baseball games.
- Outdoor Classroom: Given Hayden’s climate, use of the classroom might be limited to just a few months of the school year, however, it was highly ranked by students as something they’d like to have. Given Hayden’s beautiful natural setting we feel that having the opportunity to teach classes outside would be a great addition to the school experience.

Low Priorities:

- Community Gateway: Currently the elementary school and playground is visually uninteresting and lacks identity. While not absolutely necessary, constructing a gateway element would enliven the schools main entrance, provide a learning opportunity in which students might connect with local community’s history, geography and/or culture on a daily basis.
- Site Trees: Proposed trees on the site are mostly for aesthetic purposes (i.e. screening unsightly views and beautifying the site). Trees do provide shade in the summer, connection with nature, clean our air and provide oxygen, however, and would be a great addition to the site.
- Work at the north side of the school: Currently the PE instructor takes some classes out front for certain activities. The space is functional, but ill defined. Providing fencing to keep balls from rolling out into streets and driveways, trees to separate the field from the roadway and pouring a concrete slab at the gym entry for kids to line up and improve handicapped egress in case of an emergency would help the space tremendously. Finally, providing a formal space for bike parking would possibly encourage more biking to school.
Resources

Colorado Children’s Campaign

Education News Colorado “Child obesity threatens Colorado’s future” by Diane Carman on Feb 14th, 2011

Health at a Crossroads

2010 Supplement to the Colorado Health Report Card – Colorado Health Foundation

National Center for Health Statistics,


Acknowledgements:

Colorado Health Foundation

LiveWell Routt County

Principal, staff, students and parents at Hayden Valley Elementary

Routt County School District Administration

Routt County School Board

University of Colorado Denver
College of Architecture and Planning

Colorado Center for Community Development

Learning Landscapes

Professor Lois Brink
Executive Director

Cate Townley
Community Outreach Coordinator

Christopher Schooler
Senior Research Associate

Graduate Student Intern:
Chad Reischl