

KANE RANCH OPEN SPACE MASTER PLAN



EL PASO



COUNTY

COLORADO

KANE RANCH OPEN SPACE **MASTER PLAN**



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RODEO HAND

A rodeo hand is a twister.

*You can tell them easy cause even the short ones have a tall walk.
They're dust devil damned with a punch of bourbon, and graced with
a big black hat politeness, their rainbow shirts like flags in a thousand
arenas, and down every road that ever led to a rodeo.*

*The oldest Indian war Gods blow smoke four ways when they pass.
The bronc riders on the big rebel horses, they ride the wild ponies, and
name them to fit: Big Bear Mountain, Chief Tyhee, Widow Maker, War
Paint, Wagon Wheel, Five Minutes to Midnight and Kings X.*

*Calf ropers with the fast hands, Billy the Kid and Jesse James Quick,
with the ropes that move like an answered prayer, and the lives gauged
in tenths of a second on the snap finger nimble rope horses. Horse and
man moving together as though they had traded souls some prairie
night.*

*Steer wrestlers making the longjumps from the backs of the locomotive
train tracked dogging horses, the leaping reach onto the running steer,
rope horses and dogging teams as valuable as diamond humming
birds. Bull riders on the Brahma bulls, with the snide horns bent
to smash and death as an alibi, the rider outweighed by just two
thousand pounds.*

*Whoop swagger cowboys, ignoring with a care the adding up of the
constant stampede hurts, always able to go that other further, past
the hell gate odds, happily screaming the oldest almost lost cries in the
night, these are the heirs to the last of the old West.*

Peter La Farge

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Andy Kane at Kane Ranch (date unknown)

INTRODUCTION

In 2003, El Paso County Parks was conveyed 440 acres of pristine grasslands through the execution of the will of former rancher, Alexander F. Kane. Located approximately 4 miles east of the City of Fountain, Colorado, along Squirrel Creek Road, this large, previously undeveloped parcel of ranchland, known as Kane Ranch, features rolling terrain, small pockets of cottonwood trees, and dry creek beds. With the land now available for recreational, cultural, and educational opportunities, El Paso County Parks has developed a Master Plan for the Kane Ranch Open Space. The purpose of this Master Plan is to comprehensively outline existing conditions, community wants and needs, and recommend new sustainable recreational facilities and cultural services for Kane Ranch Open Space over the next seven to ten years. The Master Plan reaffirms the essential goals and objectives of the overall 2013 El Paso County Parks Master Plan, an important element of the El Paso County Strategic Plan, while at the same time generating new ideas based on needs expressed by citizens and stakeholders, through interviews and a public meeting.

As with all individual parks and open space master plans, the Kane Ranch Open Space Master Plan will be used as a guiding document for the development of passive and active use facilities and services throughout the park. This Master Plan is intended to provide a vision for the future of Kane Ranch Open Space, while outlining new facilities, recreation opportunities, and cultural services programs. It explores existing conditions and future needs from the vantage point of the public, stakeholders, and County staff and leaders to provide a roadmap for the future. This vision is further expressed through the following goals, action items, and implementation plan. It will work alongside other County Parks master plans to provide outdoor recreational opportunities and foster long term protection of open space, wildlife habitat, and historic and cultural resources throughout El Paso County. All park master plans serve as an important element in the County's overall comprehensive plan and statutory master plan used by the Planning and Development Services Department, the El Paso County Planning Commission, and the Board of County Commissioners to ensure that new development proposals conform and contribute to a cohesive system of parks and open space development.

The Kane Ranch Open Space Master Plan uses site analysis, regional growth and demographic patterns, documented user needs, recreational trends, and other statistics to ensure the validity of its context and final recommendations. Recommended improvements include a loop trail system, trailhead parking area, restroom, gazebo and/or picnic areas, and interpretive opportunities, one low-water crossing, as well as possible site location of the El Paso County Sheriff's Office Equestrian Unit's stable facilities.

A total project budget of \$450,000 has been designated for planning, design, implementation, and construction of the Kane Ranch improvements identified in this master plan, funded through Regional Park Fees and 2014 Ballot Question 1-A funds. The implementation component of the Master Plan will address sustainable facilities development and maintenance practices to ensure wise use of limited resources. Developing and implementing the Kane Ranch Open Space Master Plan reinforces the County's commitment to providing a balanced approach when addressing community recreational needs, while providing responsible land stewardship and asset management.

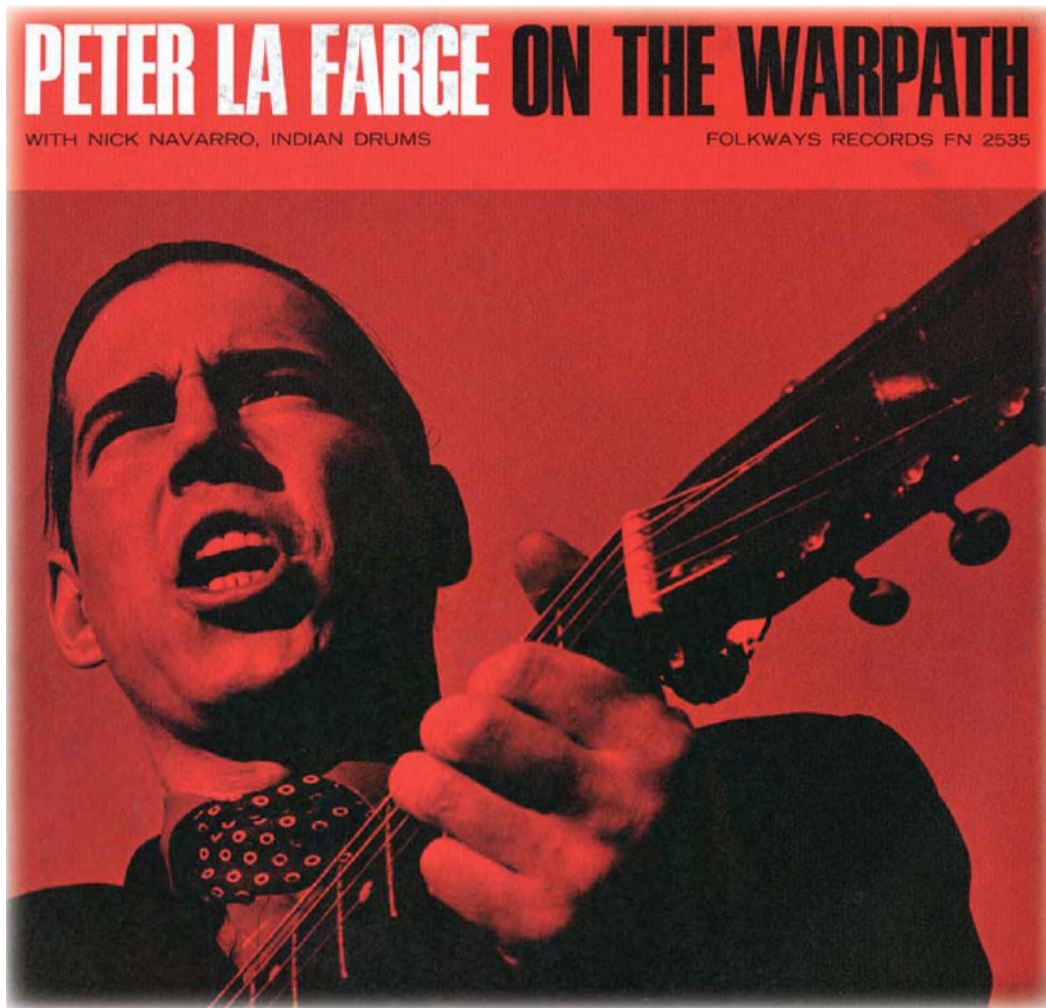


Kane Ranch Open Space, looking north along western boundary fence

CHAPTER 1:

GOALS & PLANNING PARAMETERS

*We walk this road together
and this road is freedom bound
- Peter La Farge -
(from I'm an Indian, I'm an Alien, 1965)*





Kane Ranch Open Space, looking north toward the cottonwoods along Williams Creek

GOALS

Broadly stated, the goal of the Kane Ranch Open Space Master Plan is to balance the preservation of the property's unique resources with managed public use. In order to accomplish this broad goal, directional statements, called planning parameters, were established that set boundaries to balance public use with preservation.

General goals were also established to guide development of the Master Plan and future use of the property. The goals and the planning parameters work together to provide direction and structure for the master planning process. The goals of the Kane Ranch Open Space Master Plan are:

- Provide a place for the recreational use and enjoyment of the citizens of El Paso County, consistent with the provisions of the land use restrictions stipulated by the Estate of Alexander Kane.
- Protect and enhance the natural features of the site and its wildlife habitat.
- Provide educational and interpretive opportunities in the design of facilities and the open space programming.
- Develop the site as a regional open space area providing a trailhead and a stacked loop trail system serving hikers, cyclists, and equestrians.
- Plan linkages to future regional trails including the Black Squirrel Creek Trail and Kane Ranch Trail as identified in the 2013 El Paso County Parks, Trails, and Open Space Master Plan.
- Plan linkages to projected City of Fountain developed areas.
- Respect the historical ranching heritage and the cultural values of the property in the design and siting of facilities.
- Minimize impacts on adjacent residential properties in the design and management of facilities.



Andy Kane at the Rodeo Broadmoor, 1950

PLANNING PARAMETERS

Planning parameters are direction-setting statements that become the guidelines for preparation of the final plan recommendations. The Kane Ranch Open Space planning parameters are divided into two categories:

1. Land use restrictions established by the Estate of Alexander Kane
2. Planning guidelines employed in developing the Master Plan with respect to natural and cultural resources, park programming, layout and design of constructed features, and by operational requirements to facilitate sustainable administration and maintenance of the open space with respect to staffing and budgeting

1. LAND USE RESTRICTIONS

The following planning parameters summarize key elements of the land use restrictions governing the Kane Ranch Open Space Plan. This is not a complete description of every land use restriction contained in the referenced documents, but a brief description of the parameters most relevant to the Master Plan:

- A. Comply with the Declaration of Land Use Restrictions made by The Estate of Alexander F. Kane, recorded May 23, 2007. This declaration applies to the main body of the Kane Ranch property deeded to El Paso County. The parameters of this declaration include, but are not limited to the following:
 - **Recital:** Declarant, being desirous of preserving the vacant, unimproved nature of the Property, and maintaining scenic, open space in order to preserve the visual beauty of the Property, does hereby declare that the following terms, covenants, conditions, restrictions, limitations and obligations shall be deemed to encumber title and run with the land described herein, and shall be a burden upon and benefit to any person or persons acquiring or owning any interest in the Property, their grantees, successors, heirs, devisees and assigns.
 - **2.1.3 Park Facilities.** Declarant grants to the El Paso County Parcel the limited right to construct and maintain a county open space park including related structures, infrastructure, and facilities. Trail systems may be a feature of the open space park.
 - **2.1.4 No Other Improvements.** No home, building, other structure or landscaping shall be erected or allowed to remain which violates this Declaration.
 - No development, construction, alteration, or remodeling or any other things of a similar nature other than those described herein shall be undertaken or permitted to be undertaken on the Property.
 - **3.1 Owner Maintained.** Except for those limited uses described in Article II, the Owner is required to maintain the Property as open space park pursuant to the terms and conditions hereof. The cost of such maintenance shall be borne by the Owner.
- B. Comply with the Deed of Conservation Easement dated December 27, 2007, applying to the 63.49 acre parcel adjacent to the northwest corner of El Paso County's Kane Ranch parcel. The land use restrictions contained in this conservation easement are more restrictive and more detailed than those stipulated the Declaration of Land Use Restrictions. The conservation easement parameters include, but are not limited to the following:
 - It is the purpose of this Easement to assure that the Property will be retained forever predominantly in its natural, scenic, and open space condition, to preserve and protect

in perpetuity the wildlife, aesthetic, ecological, recreational, and environmental values of the Property, and to prevent any use of the Property that will impair or interfere with the Conservation Values of the Property and to extinguish any and all development rights and allocations, whether presently existing or arising in the future. Grantor intends that this Easement will continue the use of the Property to such activities as are consistent with the purpose of this Easement.

- The following uses and practices, though not an exhaustive recital of consistent uses and practices, are permitted under this Easement:
 - » To conduct such forestry and pastoral activities on the Property as are consistent with the overall purposes of the Easement, including, tree thinning, fire mitigation measures, planting of native trees, pest control and/or other necessary forest and pasture maintenance in accordance with the recommendations from the Natural Resource Conservation Service, the Colorado State Forest Service, or any other successor or government agency with similar interests and purposes.
 - » To construct a wildlife friendly perimeter fence, livestock fencing, maintain, repair, and replace trails, fences, ditches, pastures, corrals and other similar improvements, on the Property at locations of Grantor's choosing as may be necessary or desirable to maintain the Property in its current condition and for the primary purpose of the enjoyment of open space.
 - » To grant an easement for a proposed sixty (60) foot wide loop road ("road easement") within that certain one hundred (100) foot wide envelope ("road envelope") which is shown on Exhibit "C", which will modify access to the Property by allowing motor vehicles and pedestrian use thereon, the alignment of which loop road will be governed by a bridge to be constructed over Williams Creek; provided, however, the exact location of such road easement within the road envelope will be determined by agreement between the Grantor and Grantee, which approval Grantee will not unreasonably withhold, and said corridor shall neither significantly diminish nor impair the Conservation Values of the Property. Alternatively, the Grantor, its successors and assigns, may construct such loop road meeting the above requirements.
 - » To grant a trail easement to allow El Paso County, another governmental unit or an appropriate private organization to construct and maintain trails on areas of the Property acceptable to Grantee in a manner which will neither diminish nor impair Conservation Values of the Property, additionally, it is intended to connect the trails to El Paso County's open space to the Southeast. Alternatively, the Grantor, its successors and assigns, may construct such a trail meeting the above requirements.
 - » To construct a trailhead area no greater than 3 acres in size in the vicinity of the proposed loop road which would provide opportunity for public access for passive recreational opportunities on the Easement. The proposed area which is shown generally on Exhibit "C" and is identified as the "trailhead envelope", may include an area for public parking, restroom facilities, and signage identifying the trailhead.

C. Comply with the Will of Alexander F. Kane with regard to the property deeded to El Paso County. The will includes the following description (Article X, Part A):

- No homes are to be built on the property. It is to be an open space park area. The cemetery is to remain in place, although the county may wish to place an appropriate and attractive fence around it.

2.1.3 Park Facilities. Declarant grants to the El Paso County Parcel the limited right to construct and maintain a county open space park including related structures, infrastructure and facilities. Trail systems may be a feature of the open space park.

2.1.4 No Other Improvements. No home, building, other structure or landscaping shall be erected or allowed to remain which violates this Declaration. The issuance of a building permit by the County or other governmental authority having jurisdiction over the Property shall not prevent or prohibit the Declarant from enforcing the terms and provisions of this Declaration. Compliance with the provisions hereof is not a substitute for compliance with governmental building, zoning and subdivision regulations and other applicable laws, and the Owner is responsible for obtaining all approvals, licenses and permits as may be required prior to commencing construction of any improvement.

From the Declaration of Land Use Restrictions made by the Estate of Alexander F. Kane

2. PLANNING GUIDELINES

The following planning guidelines were employed in developing the Master Plan with respect to natural and cultural resources, park programming, layout and design of constructed features, and by operational requirements to facilitate sustainable administration and maintenance of the open space with respect to staffing and budgeting:

GENERAL MANAGEMENT

- Guidelines found in the 2013 El Paso County Parks Master Plan provide context and direction.
- Fence the open space perimeter to control unauthorized access, and to delineate boundaries between public and private property.
- Remove interior fencing and other non-contributing constructed elements.
- If identified on the property, public access will be restricted to any rare plant locations or critical wildlife habitat.

TRAILS

- Design trails to avoid drainageways and wetland areas whenever possible.
- Limit drainage crossings. All crossings should be perpendicular to drainages.
- Provide a “stacked loop” trail system to provide choices in trail routes with varying distances and challenge levels.
- Don’t overcrowd trails. Locate trails so that one leg of a loop is not visible from the opposite leg, where possible. Use natural landforms and distance to visually and physically separate trail segments, to preserve the perception from each trail location that the user is in a large expanse of open space.
- Use El Paso County Tier II double track trail for trail sections where county maintenance vehicles and emergency vehicles require access.
- Provide an accessible trail with crusher fines surfacing, incorporating significant views and/or natural/cultural resource features, originating at an accessible parking area within the proposed trailhead parking area.
- Provide separation between equestrian parking and general trailhead parking to reduce user conflicts.
- Design the trail system to discourage the development of social trails.

TRAILHEAD AND PUBLIC ACCESS

- Provide trailhead parking, including equestrian parking and a turnaround loop, just south of the new public access, on the north side of Williams Creek.
- Provide separation between equestrian parking and general trailhead parking to reduce user conflicts.
- Due to cost concerns, there will be no bridge across Williams Creek. Public vehicle access will be limited to the trailhead parking loop on the north side of Williams Creek. Trail access to the south side of Williams Creek will be via a low-water trail crossing.
- Prohibit motorized vehicle use on the open space property, except for designated parking areas, county maintenance, and emergency access.
- Fence the open space perimeter to control unauthorized access, and to delineate boundaries between public and private property.

PUBLIC AMENITIES

- Provide restroom facilities, either a vault restroom or portable restroom enclosure, at the proposed trailhead parking area.
- Provide interpretive signage and/or other interpretive elements highlighting significant natural/cultural elements and/or other unique features of the Open Space.
- Provide shade, particularly near the trailhead parking area.



Looking west toward Pikes Peak with the cottonwoods along Williams Creek on the right



Peter La Farge mural, Kane Ranch House
(Photography by Ron Pollard)

*I remember when protest songwriting was really big,
but there was never any such thing as a protest movement.*

*The guy who was best at that was Peter LaFarge.
He was a champion rodeo cowboy and sometime back he'd been a boxer.
He had a lot of his bones broken. I think he'd also been shot up in Korea.*

*Anyway he wrote "Ira Hayes,"
"Iron Mountain", "Johnny Half-Breed", "White Girl" and about a hundred
other things. There was one about Custer "the general he don't ride well
anymore." We were pretty tight for a while. We had the same girlfriend.*

*Actually, Peter is one of the unsung heroes of the day.
Johnny Cash recorded a bunch of his songs. When I think of a guitar poet or
protest singer, I always think of Peter, but he was a love song writer too.*

- Bob Dylan, CBS Biograph -

CHAPTER 2:

HISTORICAL BACKGROUND

*Then there will be changes to another way,
We will fight battles that are legends long.
But of all our glory
None will stay,
Who will remember
that I sang this song?*

- Peter La Farge -
(from *Vision of a Past Warrior*, 1963)



HISTORICAL BACKGROUND

Kane Ranch has a rich and unique history, of which little physical evidence remains. The establishment of Kane Ranch Open Space provides an opportunity to highlight some of the stories that would not otherwise be known or apparent to most visitors. The personalities associated with Kane Ranch have cultural ties far beyond local ranching history.

The 440-acre parcel that is now Kane Ranch Open Space was once part of a 5,000-acre ranch established in the 1940s by a woman named Wanden Matthews La Farge. Born Wanden Matthews, she came from a privileged background in New York and was extremely well-educated and well-travelled. Especially noted for her language expertise, Wanden reputedly spoke seven languages and was an accomplished scholar of Arabic and Sanskrit.

Wanden's first husband, Oliver La Farge, was a noted American writer and anthropologist best known for his research and writing on Native American culture. His novel "Laughing Boy" won a Pulitzer Prize. Wanden and Oliver had a son, Oliver Albee La Farge, and a daughter, Povy La Farge. The family relocated to Santa Fe in 1933 where Oliver toured and studied Native American sites across the Southwest, often accompanied by the family. Wanden and Oliver's struggling marriage ended in divorce in 1935, with Wanden and the children resettling in Fountain, Colorado.

Wanden originally purchased a house in town, but soon purchased the 5,000 acres east of town that would become Kane Ranch. She hired Alexander "Andy" Kane, a local rancher, as the foreman, and the two eventually were married. Thereafter, she was known as Wanden Kane, and the ranch became known as Kane Ranch. In addition to ranching, Wanden Kane served two terms as mayor of Fountain starting in 1942. She was Colorado's first female mayor.



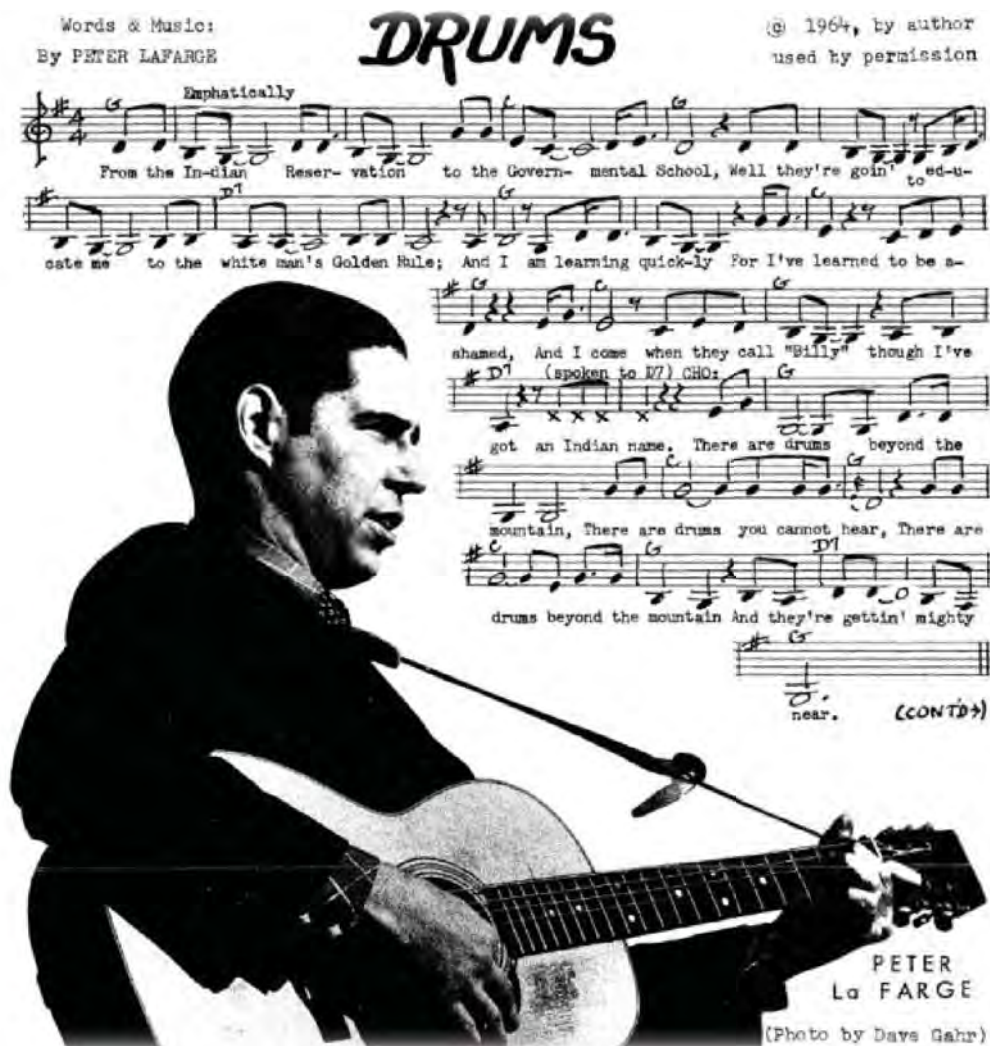
Wanden Kane

The ranch became a successful quarter-horse enterprise, and Wanden and Alexander amassed a considerable fortune. To support their shared belief in independence through education, they established the Kane Family Foundation. This foundation provides merit-based college scholarships covering tuition, fees, and books for up to five years to promising students in southern Colorado who might not otherwise be able to afford a college education.

Wanden's son Oliver Albee La Farge inherited a deep connection to Native American culture from his

father and was introduced to the skills that would make him a professional rodeo rider by his stepfather. Uncomfortable with the name Oliver Albee as a child, he began to go by “Pete” and would be known for his adult life as Peter La Farge. Peter La Farge was a writer, a painter, a poet, a Shakespearian actor, and a rodeo rider. But he was best known as a folksinger in the Greenwich Village of the 1950s and 1960s, where he spent time with Bob Dylan, Ramblin’ Jack Elliot, Dave Van Ronk, and Pete Seeger, among others. Peter La Farge wrote five of the eight songs on Johnny Cash’s 1964 “Bitter Tears” album dedicated to the status and treatment of American Indians. “The Ballad of Ira Hayes” and “As Long as the Grass Shall Grow” are two of La Farge’s better-known songs.

Peter La Farge was found dead in his apartment in 1965 at the age of 34. The official cause of death was listed as a stroke, but it was also rumored to have been an accidental overdose. He is buried in the Kane Family Cemetery which is now encircled by the Kane Ranch Open Space.



Peter La Farge

KANE RANCH OPEN SPACE MASTER PLAN

Although it was not located on the open space parcel, the former Kane Ranch House is worth mentioning for its architectural significance. The house was designed by noted modern architect Jan Ruhtenberg, who was involved in the Bauhaus movement in Germany, studied under Mies van der Rohe, and worked with Philip Johnson. The Kane Ranch House is included in the book “Modern at Midcentury: Ruhtenberg Revisited” by Elaine Freed. Photographs of the house, including murals painted by Peter La Farge, can be seen at photographer Ron Pollard’s website:

<http://www.ronpollardphotographer.com/the-andy-kane-ranch-fountain-clorado/>.

The house was demolished in 2005.



Kane Ranch House exterior (photography by Ron Pollard)



Kane Ranch House interior (photography by Ron Pollard)

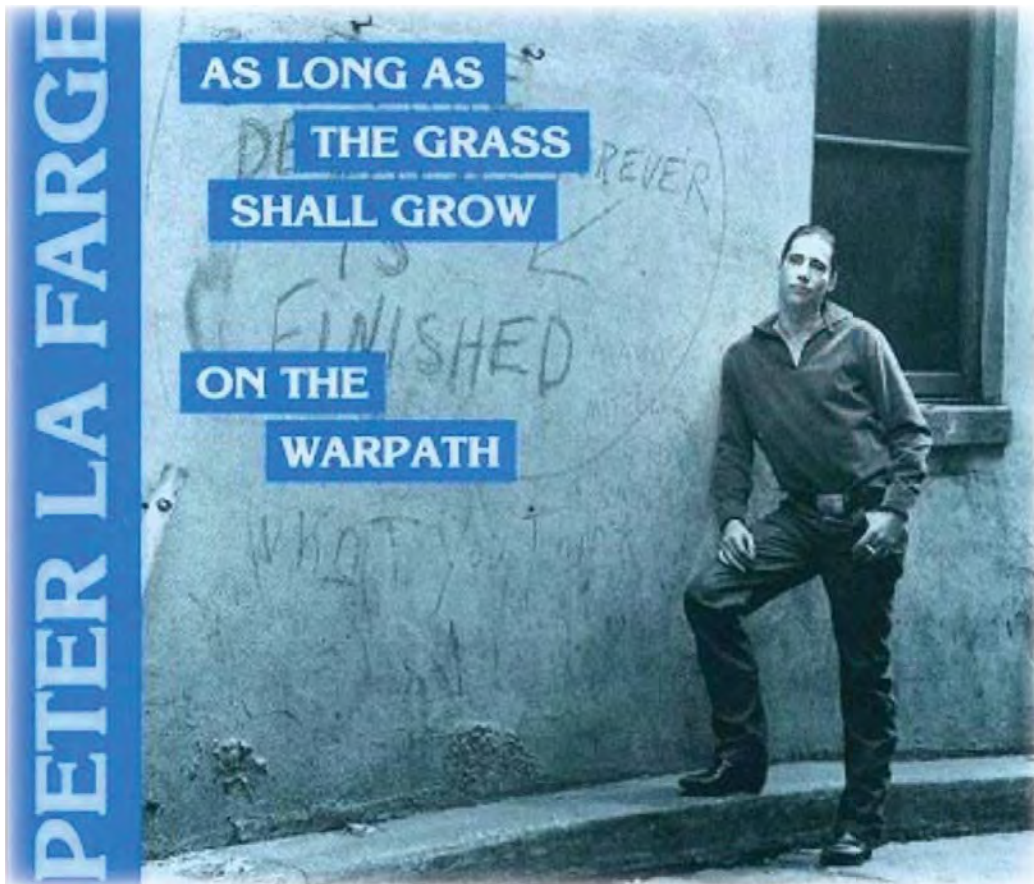
CHAPTER 3:

SITE INVENTORY & ANALYSIS

*As long as the moon shall rise
As long as the rivers flow
As long as the sun will shine
As long as the grass shall grow*

- Peter La Farge -

(from As Long as the Grass Shall Grow, 1964)





Kane Ranch House exterior (*photography by Ron Pollard*)

TOPOGRAPHY

Although much of the Kane Ranch parcel is relatively flat with grades in the 0-5% range, the rolling topography and incised drainageways present certain design challenges and opportunities. Working from north to south, the topographical challenges include siting an access drive from Squirrel Creek Road, providing suitable entrance road and trailhead parking grades, providing a trail crossing at Williams Creek, avoiding a poorly drained mudflat area in the west central portion of the site, and providing a trail crossing at the southern drainageway, East Branch Dry Creek. Topographical opportunities include high points with excellent views at the northwest and southeast parts of the site, and a low-lying, secluded area in the eastern central portion of the site.

SITE ACCESS

The Kane Ranch parcel has public road frontage on the north end only, at two locations along Squirrel Creek Road. At the eastern access point, Andy Kane Road, provides the only existing public road access into the open space. This existing access point, however, is just below the crest of a ridge on Squirrel Creek Road. Vehicles traveling west on Squirrel Creek Road have very little distance to react to vehicles turning left onto Squirrel Creek Road. The Kane Ranch property boundary does not extend far enough in either direction to relocate the Andy Kane Road intersection to a safer location. For this reason, the eastern access point is not recommended for public access to the open space. The western access point has good visibility in both directions along Squirrel Creek Road. It is recommended as a safer location for public access.



Andy Kane Road looking southwest to the former Kane Ranch homestead



Andy Kane Road looking north toward Squirrel Creek Road

ENTRANCE ROAD AND TRAILHEAD PARKING

From the recommended western access point off Squirrel Creek Road, the topography slopes downward to the south, toward Williams Creek. It is recommended to curve the proposed access road into the slope to mitigate the 10% average grades. At the bottom of this slope, north of Williams Creek, the grades ease to allow a comfortable trailhead parking location well above the creek bank. In addition to providing access to a nice shady area suitable for picnicking on the north bank of Williams Creek, this trailhead parking location offers a natural boundary to discourage unauthorized vehicle traffic deeper into the park. Without a bridge, it would require a very deliberate effort and clear disregard for the rules to drive beyond the trailhead parking loop.



Proposed entrance road and trailhead parking area location is on the far side of Williams Creek, just left of the white fenceline (looking north)

WILLIAMS CREEK TRAIL CROSSING

Although the volume of water flowing in Williams Creek is intermittent, the floodway channel is up to 100 feet wide with steep banks. The cost of a bridge with a span long enough to clear the floodway would exceed the project budget. A low water trail crossing is therefore recommended. A suitable location for this low water crossing has been recommended southeast of the proposed trailhead parking, where the floodway widens out and the existing grades are moderate.



Proposed Williams Creek trail crossing location (looking southeast from the north side of the creek)

WEST CENTRAL MUDFLAT

The west central mudflat is a naturally low-lying area surrounded by slightly higher grades on all sides, without positive drainage. Cattle grazing in this area while it is muddy have heavily impacted the surface, leaving deep hoofprints everywhere. To avoid seasonal impacts in the future and to allow this area to recover, it is recommended not to construct trails in the mudflat area. The trail should skirt this area on the higher ground to the east.

EAST BRANCH DRY CREEK TRAIL CROSSING

This southern drainageway is topographically challenging to cross because it is deeply incised, with steep banks. Options for trail crossings include carving a shallower, oblique approach into the bank or constructing rustic steps with timber or stone. It may be acceptable for the southern crossing to be more challenging than the Williams Creek crossing because it is more distant from the trailhead and more challenging to access.

TRAIL TOPOGRAPHY — HIGH POINTS

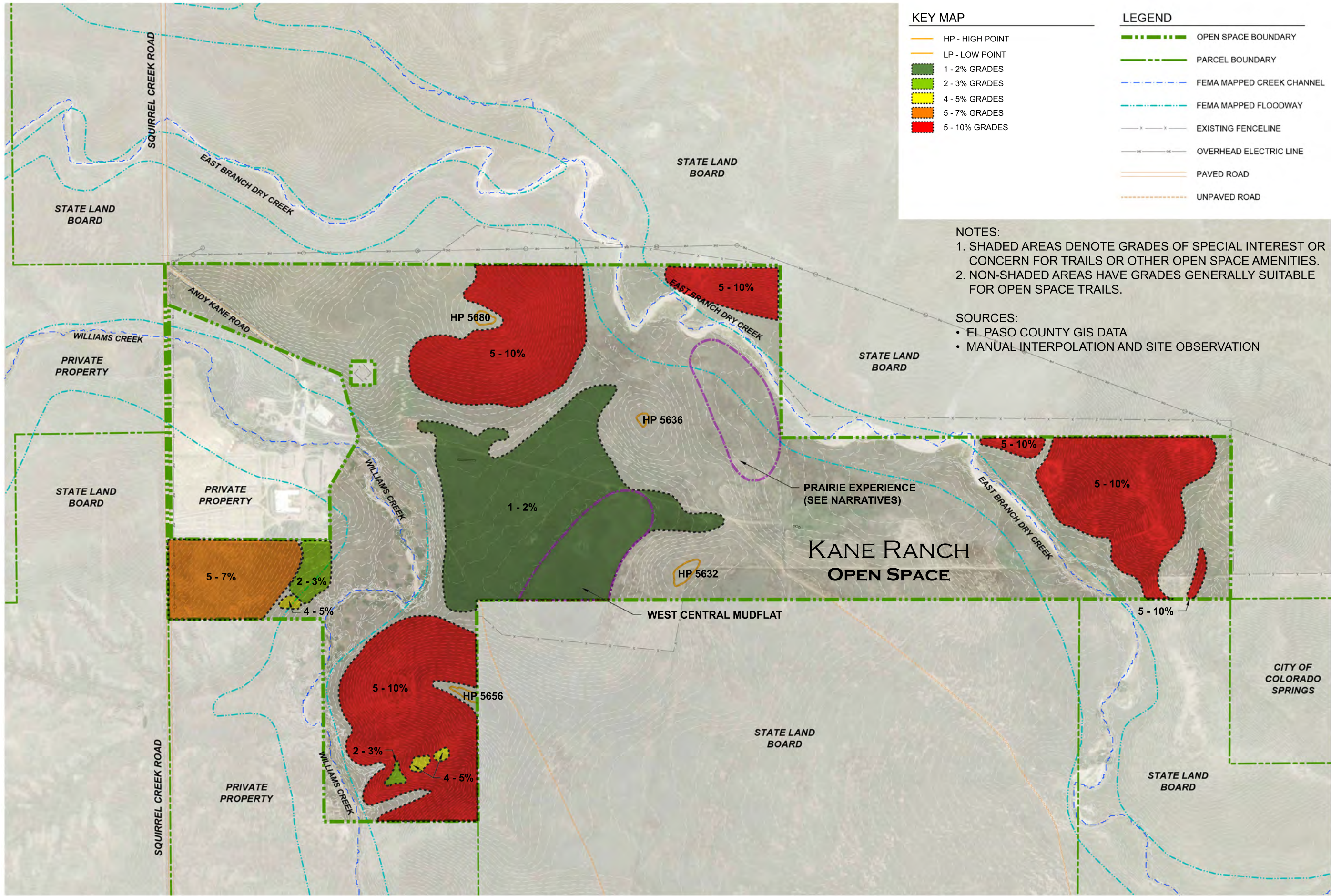
Desirable trail high points with excellent views have been located at the northwest and southeast parts of the site. Trails to these high points should be constructed using sustainable trail building practices. Although the Half Rule is typically employed to establish sustainable trail grades in the mountains and foothills, the One Third Rule is recommended to prevent trail erosion in the prairie. In other words, trail grades should not exceed one third of the grades of the side slopes they traverse. Trail drainage characteristics are also of great importance in the prairie. Guidelines are included in the Appendix. The proposed trail alignments in this master plan have been designed to meet these guidelines.

TRAIL TOPOGRAPHY — VISUAL BUFFERS

The Kane Ranch site is long, narrow, and open, with expansive 360-degree prairie views and dramatic western mountain views. To preserve the feeling of wide-open prairie and to discourage short-cut social trails, it is important to maintain visual and distance buffers between trails. To offer an interesting trail experience, it is desirable to provide loop trail opportunities rather than a single out-and-back route. At the narrow southern end of the property, however, it is challenging to provide a loop that does not appear to double back on itself tightly and overcrowd the available space. To provide the illusion of greater trail separation than there actually is, it is recommended to carefully use the ridges and valleys on the higher eastern side of the site to hide the eastern and western legs of the trail loop from each other as much as possible. The proposed trail alignments have been designed to take advantage of these topographical opportunities.

TRAIL TOPOGRAPHY — PRAIRIE EXPERIENCE

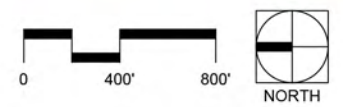
Although it does not have the most dramatic mountain views on the property, the secluded, low-lying area in the east central portion of the site offers a unique experience due to its topography. The landforms around this location rise up enough to block all views of civilization, providing the illusion of endless prairie all the way to the mountains. This area is sure to be one of the highlights of the Kane Ranch trail experience, and its unique character and views should be recognized and maintained. The proposed trail system has been designed to provide access to this experience while preserving its integrity.



KANE RANCH OPEN SPACE
MASTER PLAN



TOPOGRAPHIC ANALYSIS



SOILS AND GEOLOGY

Kane Ranch soils are primarily silt loams, sandy loams and clay loams. The soil criteria most critical for the proposed open space program elements include suitability for an unpaved access road and trailhead parking, suitability for a small restroom structure, and suitability for trails. Soil data for this site analysis was obtained from the Natural Resources Conservation Service Web Soil Survey.

ENTRANCE ROAD

Soil suitability for natural surface access roads is rated as “moderately suited” for almost the entire Kane Ranch parcel. There is one exception along Williams Creek. Soils along Williams Creek are rated as poorly suited for natural surface roads due to flooding potential. Because no vehicle crossing is proposed for Williams Creek, all roads and parking can be located in the “moderately suited” zones. The soil zones at the proposed entrance area are rated “moderately suited” due to slope, low strength, and dust. Fair performance can be expected from natural surface roads on moderately suited soils. More maintenance needs can be anticipated for these roads compared to roads constructed on soils without these unfavorable properties. As long as no Williams Creek vehicle crossing is required, soil suitability for natural surface roads does not appear to be a limiting factor for the proposed Kane Ranch Open Space development.

TRAILHEAD PARKING

Soil suitability for trailhead parking is based on the same criteria as natural surface access roads. The trailhead parking should also avoid the flood-prone soils adjacent to Williams Creek. Other than that, soils do not appear to be a limiting factor for trailhead parking.

RESTROOM STRUCTURE

Within the western Squirrel Creek Road frontage where the park entrance is anticipated, there are two soil types. Nelson-Tassel fine sandy loams are rated “very limited” for small commercial buildings due to unfavorable slopes and shallow depth to soft bedrock. Wiley silt loam is more favorable for building construction, with a “somewhat limited” rating due to slope. It is recommended to locate the proposed restroom structure within the Wiley silt loam soil zone. This also coincides with the more favorable slopes and supports the conceptual trailhead parking location.

TRAILS

Multiple soil property ratings affect suitability for trails. The first is a general soil suitability rating for paths and trails. Almost the entire Kane Ranch parcel is rated as “somewhat limited” with the primary limitation being dustiness. Trail surfacing materials such as crusher fines will help mitigate dusty conditions. For natural surface trails at Kane Ranch, dusty conditions can be anticipated when it is dry and windy.

Erosion hazards for roads and trails at Kane Ranch are rated slight to moderate, with the moderately erosive areas on the steeper slopes. Sustainable trail building practices as recommended in this report will help mitigate trail erosion issues.



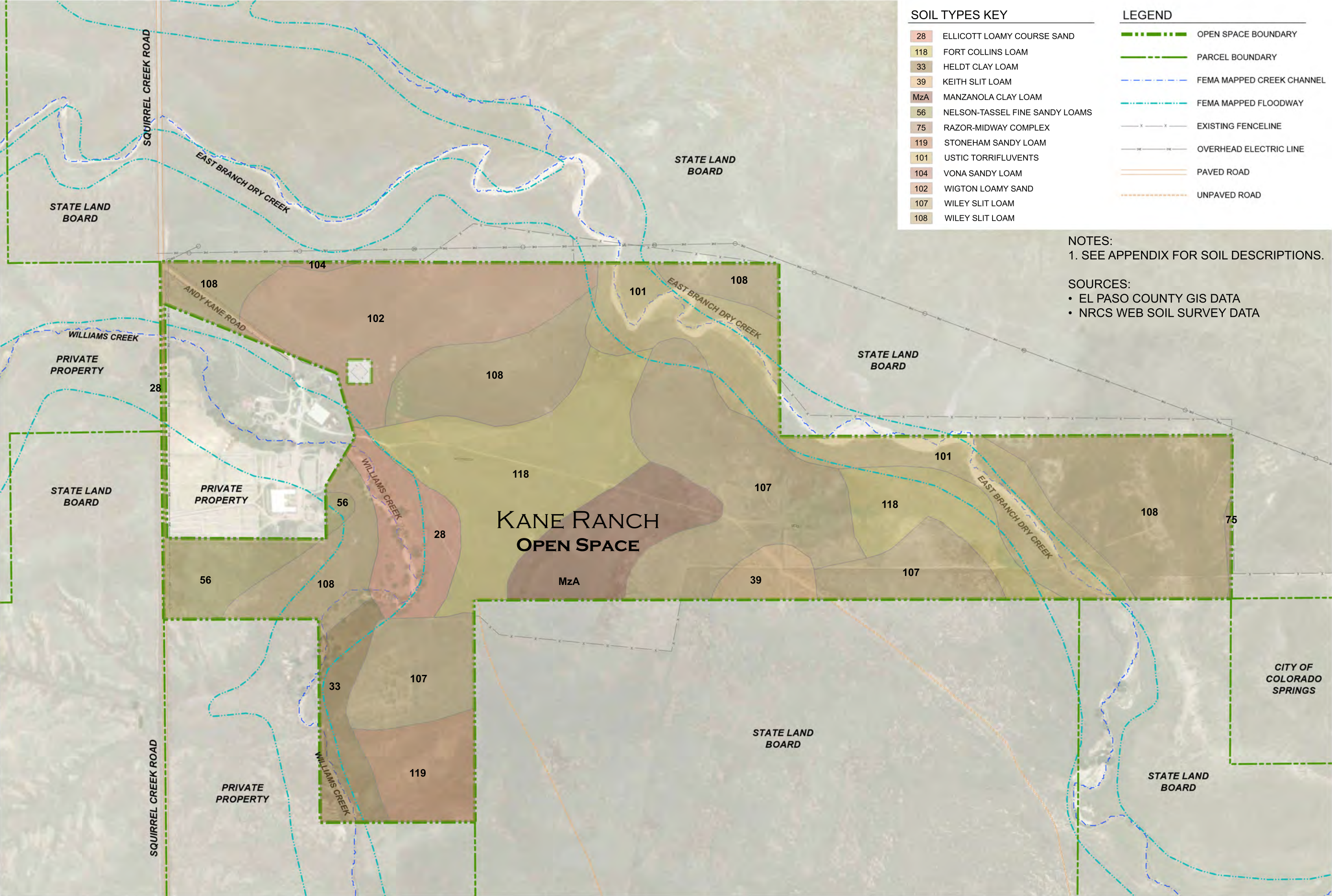
Old cottonwood near Williams Creek, looking east

Ponding frequency is an additional soil characteristic that can affect trails. All of the Kane Ranch soils receive the lowest rating for ponding frequency, which is “none”. Although this appears to indicate that the possibility of ponding is not a concern for Kane Ranch trail routing, site observation indicates that there is at least one location where seasonally muddy conditions occur. This area coincides with the soil type indicated as Manzanola silty clay loam on the soils maps. This soil zone occupies a low, flat area without positive drainage, and has been impacted by cattle leaving deep hoofprints during muddy conditions. It is recommended to route trails on higher ground away from this zone to avoid seasonally muddy trail conditions.

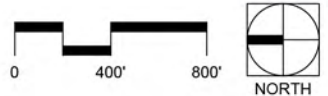
The final soil characteristic reviewed in relation to proposed trails is soil rutting hazard. Almost the entire Kane Ranch parcel is severely susceptible to soil rutting due to low strength soils. Flat trail construction techniques will likely be needed for most of the trails. Crusher fines trail surfacing where feasible may help provide a sustainable solution. Restricting motorized vehicle access will also help mitigate this problem, but higher trail maintenance needs can be anticipated for this site in comparison to sites with higher strength soils. Periodic re-grading and resurfacing will be required.

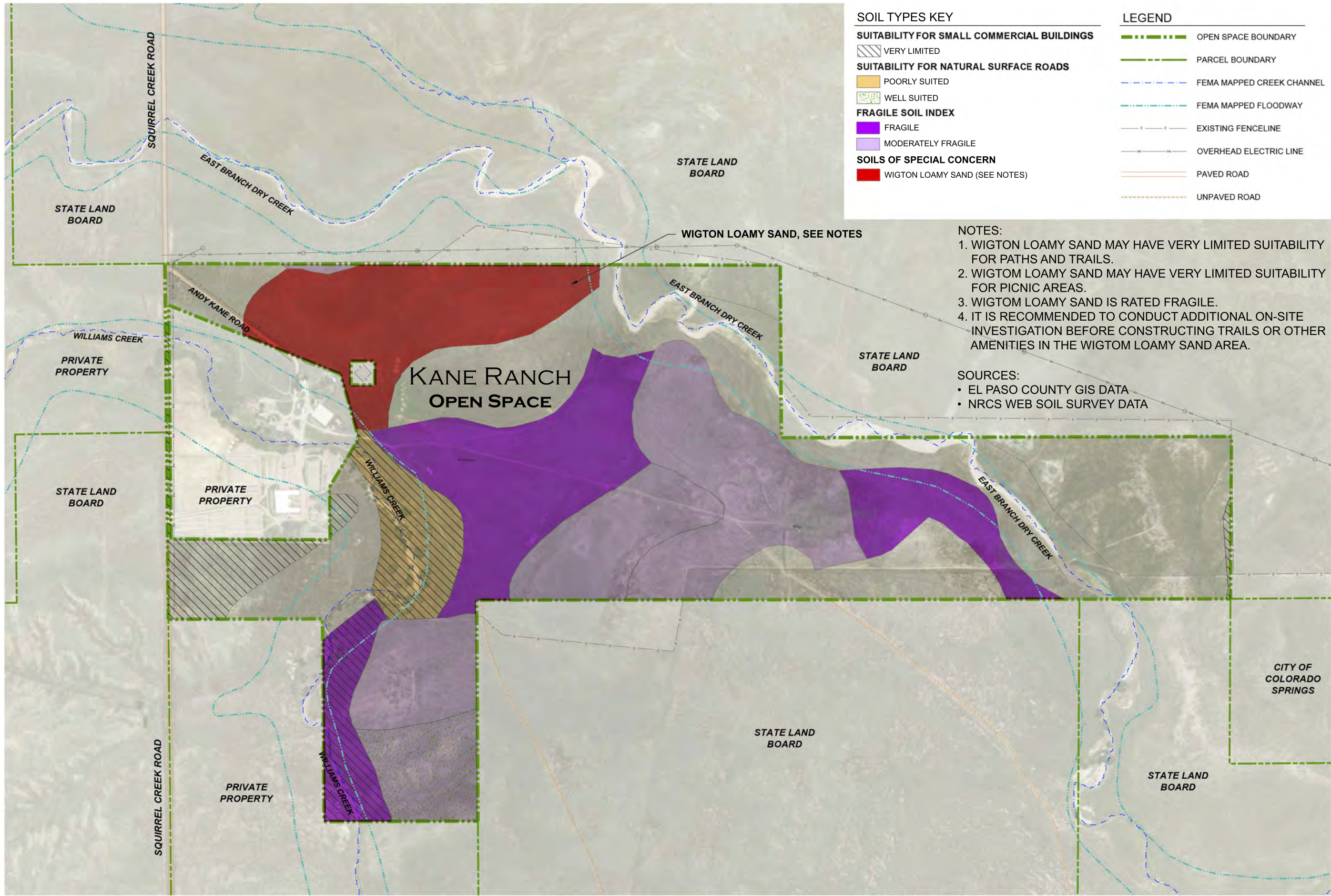


Andy Kane at Kane Ranch (date unknown)



KANE RANCH OPEN SPACE
MASTER PLAN

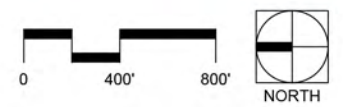




KANE RANCH OPEN SPACE
MASTER PLAN



SOIL SUITABILITY ANALYSIS



CREEKS AND DRAINAGEWAYS

Two significant drainages cross Kane Ranch. Williams Creek originates in the plains east of Colorado Springs and drains into Fountain Creek about seven miles south of the City of Fountain. Williams Creek is not a year-round, perennial stream. It carries intermittent, seasonal flows. East Branch Dry Creek is a tributary of Williams Creek that originates about five miles north of Kane Ranch and joins Williams Creek about two miles southwest of Kane Ranch. East Branch Dry Creek appears to be an ephemeral stream that only carries water after heavy precipitation.

Williams Creek and East Branch Dry Creek are both FEMA-mapped floodways. Outside of the mapped 100-year floodways, the remainder of the site is outside the 500-year floodplain.



Williams Creek looking east



Williams Creek looking west



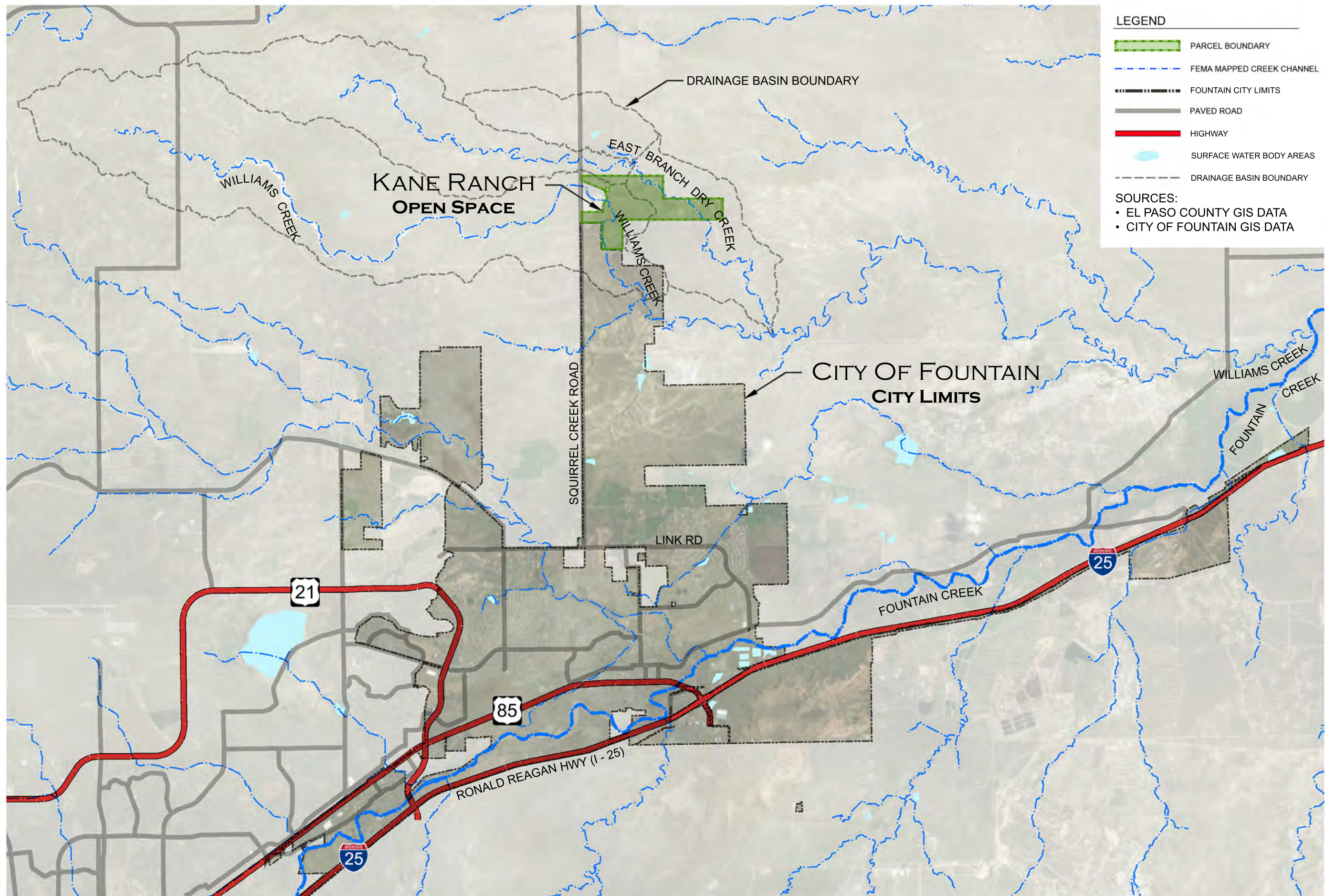
Williams Creek looking east



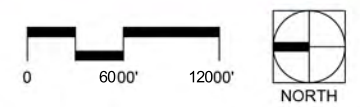
East Branch Dry Creek looking southwest



East Branch Dry Creek looking west



CREEKS AND DRAINAGES

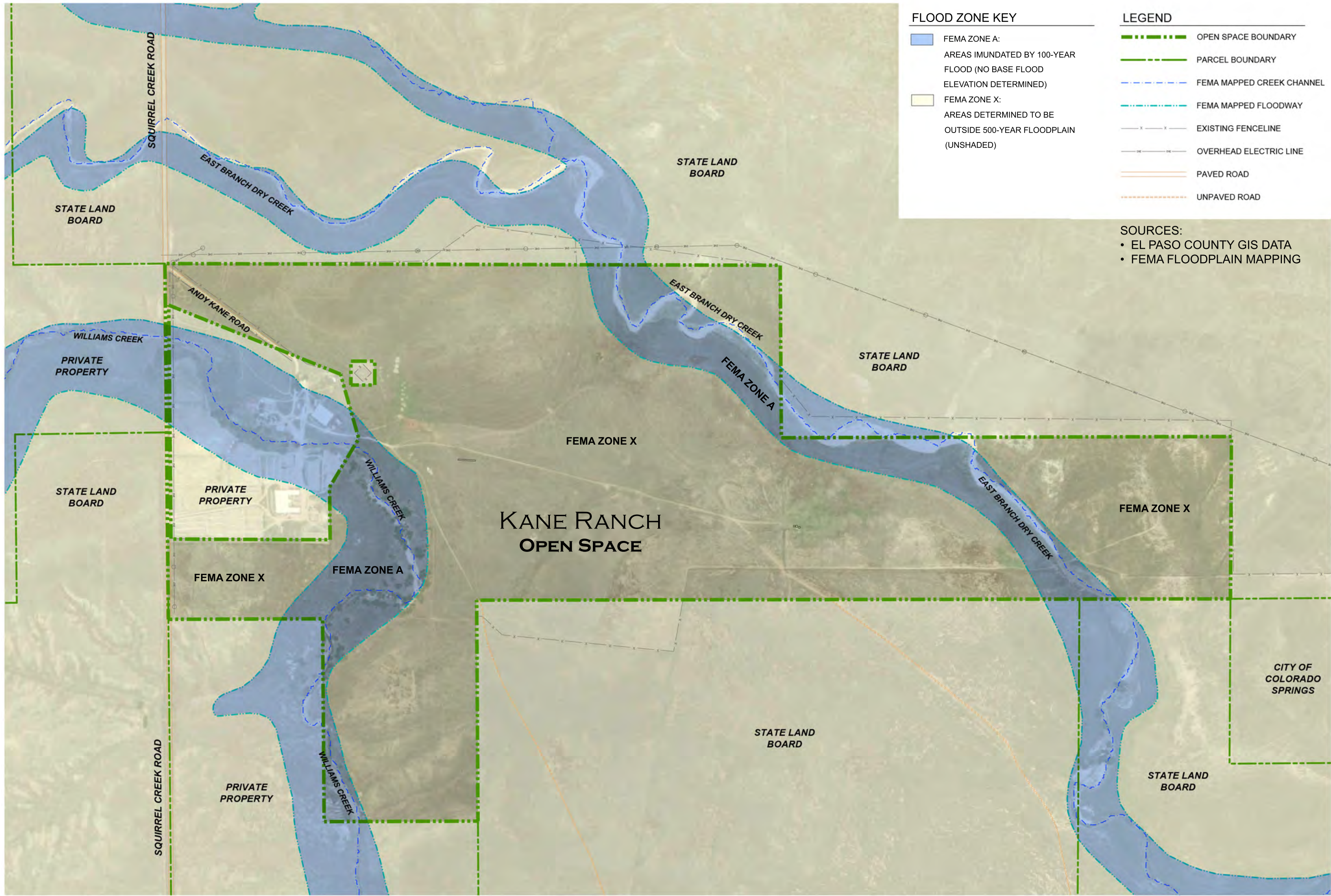


KANE RANCH OPEN SPACE MASTER PLAN



CREEKS
AND
DRAINAGES

A4



FLOOD ZONE KEY

- FEMA ZONE A:
AREAS IMUNDATED BY 100-YEAR
FLOOD (NO BASE FLOOD
ELEVATION DETERMINED)
- FEMA ZONE X:
AREAS DETERMINED TO BE
OUTSIDE 500-YEAR FLOODPLAIN
(UNSHADED)

LEGEND

- OPEN SPACE BOUNDARY
- PARCEL BOUNDARY
- FEMA MAPPED CREEK CHANNEL
- FEMA MAPPED FLOODWAY
- EXISTING FENCELINE
- OVERHEAD ELECTRIC LINE
- PAVED ROAD
- UNPAVED ROAD

SOURCES:

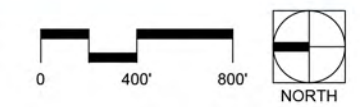
- EL PASO COUNTY GIS DATA
- FEMA FLOODPLAIN MAPPING



KANE RANCH OPEN SPACE
MASTER PLAN

DC
DESIGN
CONCEPTS
Community + Landscape Architects
211 North Public Road, Suite 200
Lafayette CO 80026
303 664 5301 www.dcla.net

FLOODPLAIN



HABITAT

The Kane Ranch Open Space parcel is untilled landscape in the Central Shortgrass Ecoregion and is primarily prairie grassland. There are also areas of riparian and wetland ecosystem associated with Williams Creek.

According to the Colorado Natural Heritage Program, sponsored by the Warner College of Natural Resources at Colorado State University, the Western Great Plains Shortgrass Prairie system is characterized by sod-forming short grasses dominated by *Bouteloua* (grama) species. Other associated grasses may include *Buchloe dactyloides* (buffalo grass), *Hesperostipa comata* (needle-and-thread grass), *Koeleria macrantha* (prairie junegrass), *Pascopyrum smithii* (western wheatgrass), *Aristida purpurea* (purple three-awn), and *Sporobolus crytandrus* (sand dropseed). Healthy shortgrass prairie systems historically supported grassland bird species, prairie dog complexes, pronghorn, deer, elk, and bison in sufficient numbers to support populations of wolves. With the loss of much of the prairie ecosystem and its massive herds of bison and other large mammals, coyotes have replaced wolves as the top predators.

According to Colorado's 2015 State Wildlife Action Plan by Colorado Parks and Wildlife (CPW), nearly 50% of the state's shortgrass prairie has been converted to other uses. Many of the remaining tracts have been managed for the domination of blue grama and the exclusion of other grasses, with a loss of native forb diversity. Although the short grass species that dominate this system are tolerant of drought and grazing, increasingly warm and dry conditions are likely to favor increasing growth of shrubby species such as cholla and snakeweed, especially in areas that are disturbed. Site observations at Kane Ranch Open Space appear to correlate CPW's description of diversity loss and climate impacts, with large areas of exposed soil, isolated patches of grama grasses, and cholla.

The Kane Ranch Open Space is within the Chico Basin Conservation Area (#25) with a "Very High" conservation value, as designated in the Central Shortgrass Prairie Ecoregional Assessment and Partnership Initiative. This partnership includes the US Department of Defense, Colorado Parks and Wildlife, The Nature Conservancy, USDA Natural Resources Conservation Service, and USDI Fish & Wildlife Service. The property is also within a "High Priority Habitat Acquisition Area" as designated by the Colorado Parks and Wildlife in its Colorado Species Conservation Program. These designations indicate that the Kane Ranch Open Space is part of a threatened ecosystem that is important to conserve.

CPW's recommended conservation actions for shortgrass prairie environments that have altered native vegetation due to grazing intensity (such as Kane Ranch Open Space) include native prairie restoration using site-specific techniques and context. Management techniques to support shortgrass prairie restoration include modifying grazing regimes, reintroducing fire to manage vegetation, and seeding to restore and reintroduce native plant populations. Cattle grazing at Kane Ranch has ended, at least temporarily, with the expiration of the property's grazing lease in May 2018. Because grazing by bison, pronghorn, and other ungulates is one of the processes that naturally occurs in a native prairie ecosystem, some grazing may be desirable to support the long-term health of the Kane Ranch landscape. While cattle and public recreation may be a problematic mix, native grazers like pronghorn may be more attracted to the site as its grassland recovers. Fire is another one of the natural processes that helps maintain the health of prairie landscapes, helping grasses remain dominant and controlling the spread of cholla and other shrubs. Given the extreme fire danger in this area and the difficulty in containing its spread, this may not be a safe or appropriate management tool for Kane Ranch Open Space restoration. Seeding with native shortgrass prairie species may be an effective technique for improving the health and diversity of Kane Ranch Open Space. The flat and gently rolling terrain is suitable for drill seeding. It is recommended to consult a specialist in prairie

restoration seeding, and to consider developing custom seed mixes specific to the different soil types, exposures, and localized conditions across the open space. The mud flats, for example, may support a different mix and proportion of plant species than the dryer, sandier upland areas.

Natural resource assessment and monitoring may also be a component of the Kane Ranch Open Space restoration process if resources are available to support this effort. Lists are provided in the Appendix with additional detail on plant and animal species that are naturally occurring in shortgrass prairie ecosystems and that may currently occur or may be supported in the future at Kane Ranch Open Space. Birds protected under the Migratory Bird Treaty Act are likely to be found on the site and should be considered during trail layout and construction. These include tree nesting bird species in the cottonwoods as well as ground nesting species in the prairie. Species such as burrowing owls and mountain plovers have been identified on other properties in the region.



Typical patchy grass and cholla, looking south-southwest with the peaks of the Sangre de Cristo range in the distant center

During a site tour of the Kane Ranch Open Space property conducted June 20, 2018 as part of the public outreach for this master plan, the following bird species were identified:

- Turkey vulture
- Mourning dove
- Say's phoebe
- Western kingbird
- Eastern kingbird
- European starling
- Horned lark
- Western meadowlark
- Cassin's sparrow
- Lark sparrow
- House finch
- Swallow species

It was surmised that all of the observed species, with the exception of the turkey vulture, were likely nesting on the property.

Additionally, large numbers of prairie dogs were observed during the site walk, primarily in colonies surrounding the central mudflat area. Rattlesnakes were also observed on the site walk, and the public meeting comments indicate that rattlesnake encounters are common.

VISUAL RESOURCES

Views at Kane Ranch are characterized by open expanses of flat and rolling prairie grassland, with a dramatic Front Range backdrop to the west. Pikes Peak and Cheyenne Mountain are prominent from much of the site. More distant peaks are visible from higher elevations, including the Spanish Peaks to the south and the foothills above the northwestern Colorado Springs and the US Air Force Academy areas to the north.



View west across Kane Ranch with Pikes Peak in center



Cholla in bloom at Kane Ranch Open Space

CLIMATE / MICROCLIMATES

(from Central Shortgrass Prairie Ecoregional Assessment, Final Report, November 2006)

This region lies in the rain shadow of the Rocky Mountains and receives 10-25 inches (25 to 60+ cm) of annual precipitation, increasing from west to east, mostly in the form of summer rainfall. The climate is semi-arid, with cold, dry winters, and warm to hot summers. Mean annual temperature varies from 44-61° F (7-16° C). Extreme events in the form of hail, blizzards, tornadoes, and dust storms are frequent. Precipitation levels fluctuate greatly from year to year throughout the Great Plains. In 2002, the region experienced a drought that became the worst on record for many municipalities along the western edge of the ecoregion (Pielke et al. 2002). Climate projections for the Great Plains suggest that extreme events might become more commonplace within the next century. Global climate models predict a 7° F (3.9° C) or greater temperature increase in the Great Plains within the next century, and increased weather variability that might result in greater competition for water resources, particularly among farmers and urban communities (McCarthy et al. 2001). A recent analysis of a downscaled global climate model projects a 12° F (6.7° C) warming for the CSP in the next century, along with up to an 8% decrease in average annual precipitation (Zimmerman et al. 2006).



Looking south-southwest along the old ranch road

CULTURAL FEATURES

The Kane Ranch Open Space parcel does not include the former Kane Ranch home site where most of the constructed features are located. The Open Space is mostly open prairie that has been used for grazing, with unimproved access roads and wire fencing. The Kane family cemetery is a private 1-acre parcel contained within the open space. It will not be open to the public.



Former Kane Ranch homesite - looking west



Former Kane Ranch homesite - looking north



Kane family cemetery

KANE RANCH OPEN SPACE MASTER PLAN

An old, non-functioning, water pumping windmill and two old stock tanks are the most prominent constructed features in the central portion of the open space. Another artifact of the site's ranching heritage is a long, wooden trough in the north central part of the site.

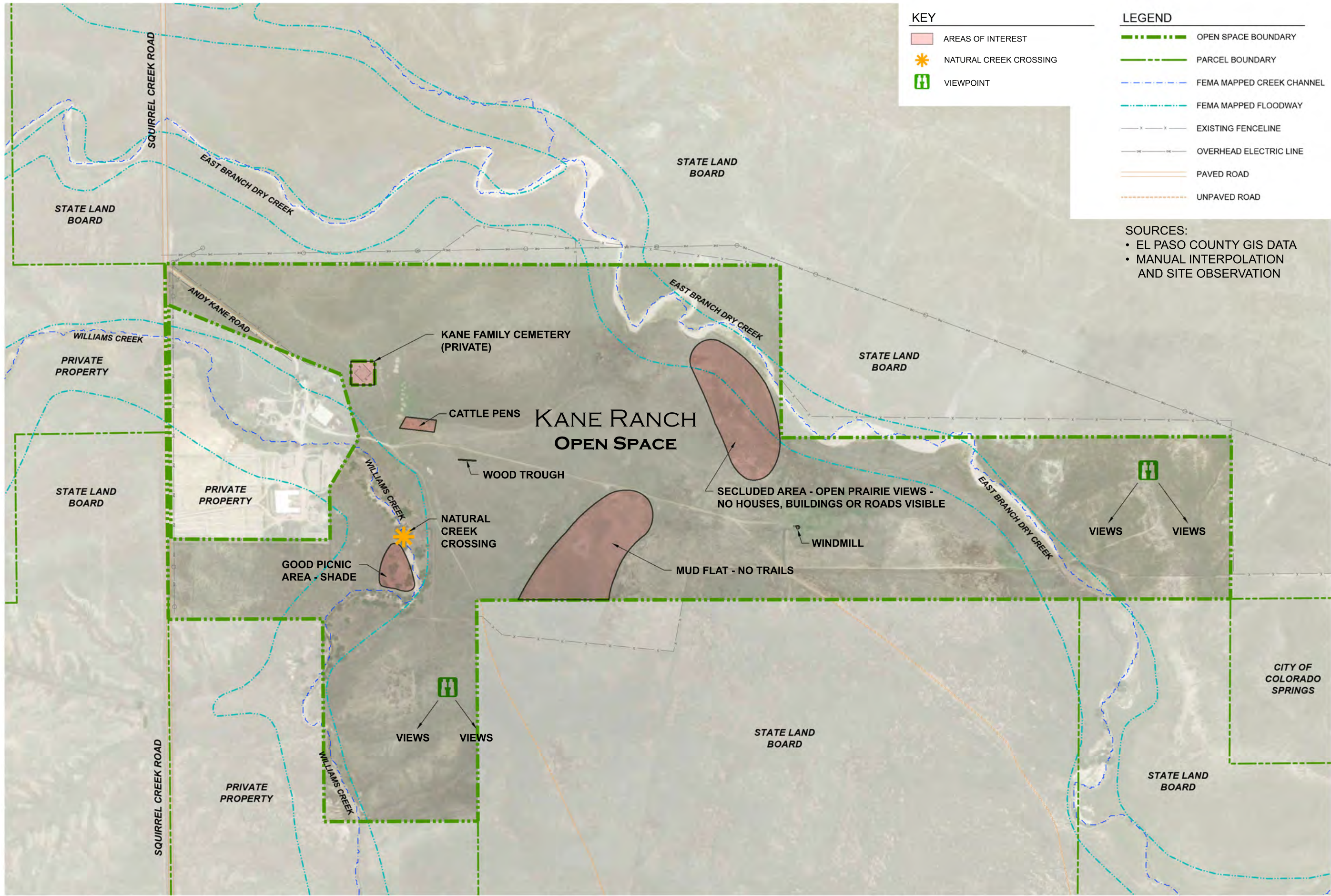
As described in the historic background section of this report, Kane Ranch has a striking cultural legacy. Almost nothing of this legacy is readily apparent to the casual visitor. Providing open space visitors with some references to the site's history would open a whole new dimension to the experience.



Windmill and stock tanks



Wood trough



KANE RANCH OPEN SPACE
MASTER PLAN



CULTURAL FEATURES, AREAS OF INTEREST

POPULATION AND GROWTH ANALYSIS

The El Paso County Parks Master Plan anticipates population growth in the Kane Ranch vicinity, including the City of Fountain and unincorporated areas on the north side of Squirrel Creek Road. Because most of the land directly north of Kane Ranch is owned by the State Land Board, with the exception of the Williams Creek corridor which is leased grazing land, Kane Ranch may not be directly impacted by development to the north for the foreseeable future.

Although also long term, City of Fountain planning maps indicate future residential development directly abutting Kane Ranch on the northwest, with an open space corridor along Williams Creek. If realized, this would create a direct link between Kane Ranch and City of Fountain open space. Kane Ranch would then serve as an extended backyard and as a local open space for a significant population. This would be a change from Kane Ranch's current character as a relatively isolated facility and a regional, rather than a local, destination.

COMMUNITY NEEDS ASSESSMENT

The El Paso County Parks Master Plan, based on projected recreational needs for anticipated population growth, suggests the need for a regional park in the vicinity of Kane Ranch. Kane Ranch Open Space development is deed restricted and cannot provide active recreation facilities. To serve a role in supporting the assessed community needs that are compatible with its development restrictions, Kane Ranch will provide passive recreational amenities such as trails through preserved open space, as well as regional trailhead facilities. Kane Ranch and its trails can become part of a regional trails and open space network as envisioned in the El Paso County Parks Master Plan.



Looking west across Kane Ranch Open Space

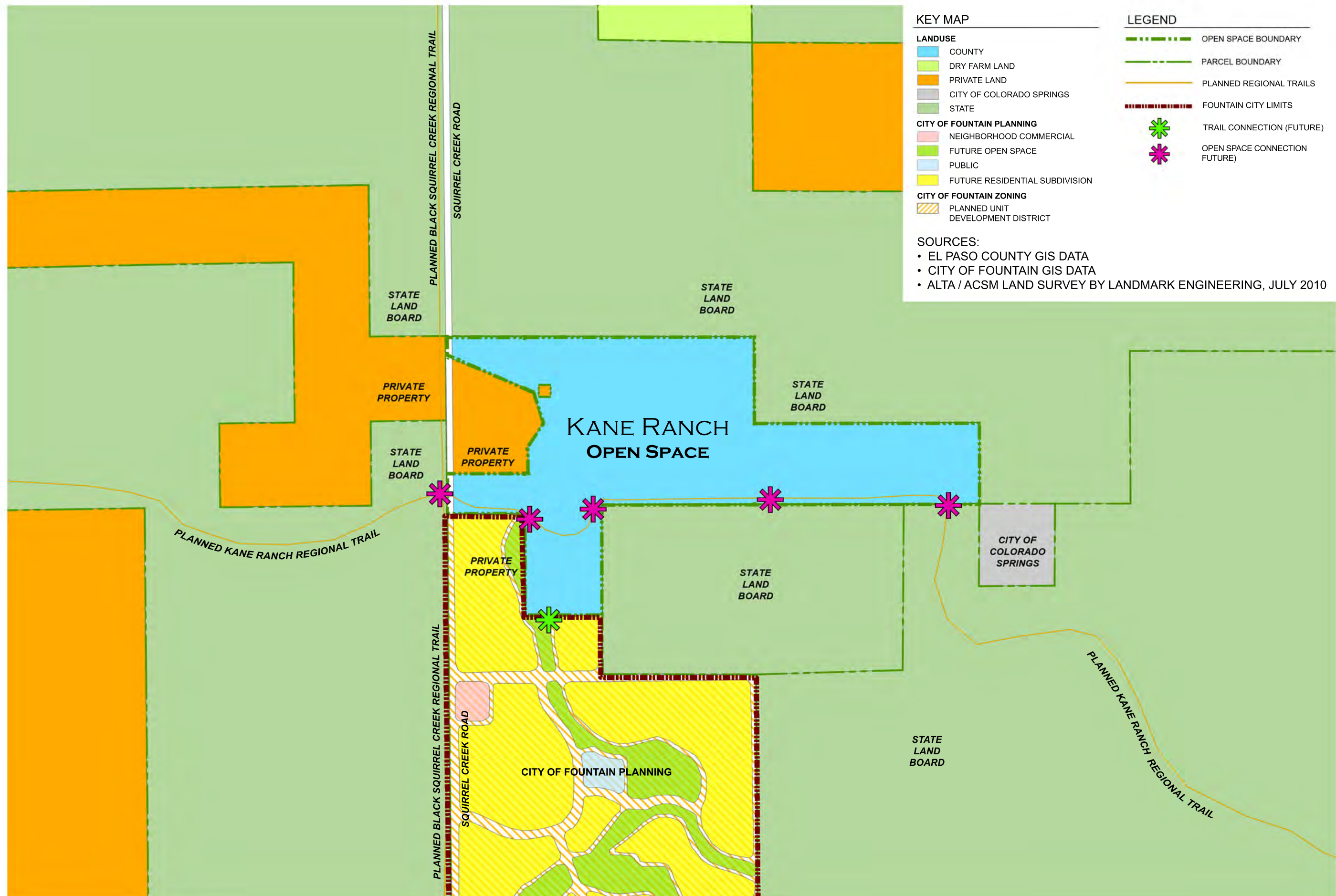


Looking north up the old ranch road toward the former Kane Ranch homestead

TRENDS ANALYSIS: SUPPORT FOR EL PASO COUNTY PARKS MASTER PLAN GOALS AND OBJECTIVES

As described above, Kane Ranch's development will be quite limited, with an emphasis on preserving natural open space with trails and views. General recreation trends influencing regional parks and active recreation areas are not especially relevant to this limited open space context. The specific set of recreation trends that are relevant to Kane Ranch Open Space are the goals and objectives of the El Paso County Parks Master Plan. The El Paso County Parks Master Plan goals that are supported by the Kane Ranch Open Space Master Plan are listed below.

- **OVERALL SYSTEM MISSION/ROLE**
 - *Goal 2:* Provide a coordinated and connected system of parks, trails, and open space that is equitably distributed based on population and serves the needs of county residents.
- **REGIONAL TRAILS**
 - *Goal 1:* Work collaboratively with others to create a continuous, connected system of regional trails.
 - *Goal 2:* Prioritize and locate trail connections using criteria and proposed actions items identified in this master planning process.
- **OPEN SPACE**
 - *Goal 1:* Protect and enhance El Paso County's legacy of unique natural features and areas and cultural resources, working in collaboration with others to conserve high priority open space areas in the county.
- **RECREATION AND CULTURAL SERVICES PROGRAMS AND FACILITIES**
 - *Goal 1:* Provide high quality recreation and educational experiences for users of county park facilities and recreational areas.
 - *Goal 2:* Expand recreation and education opportunities and programs that build upon the area's natural and cultural resources and agricultural heritage and promote conservation and stewardship.



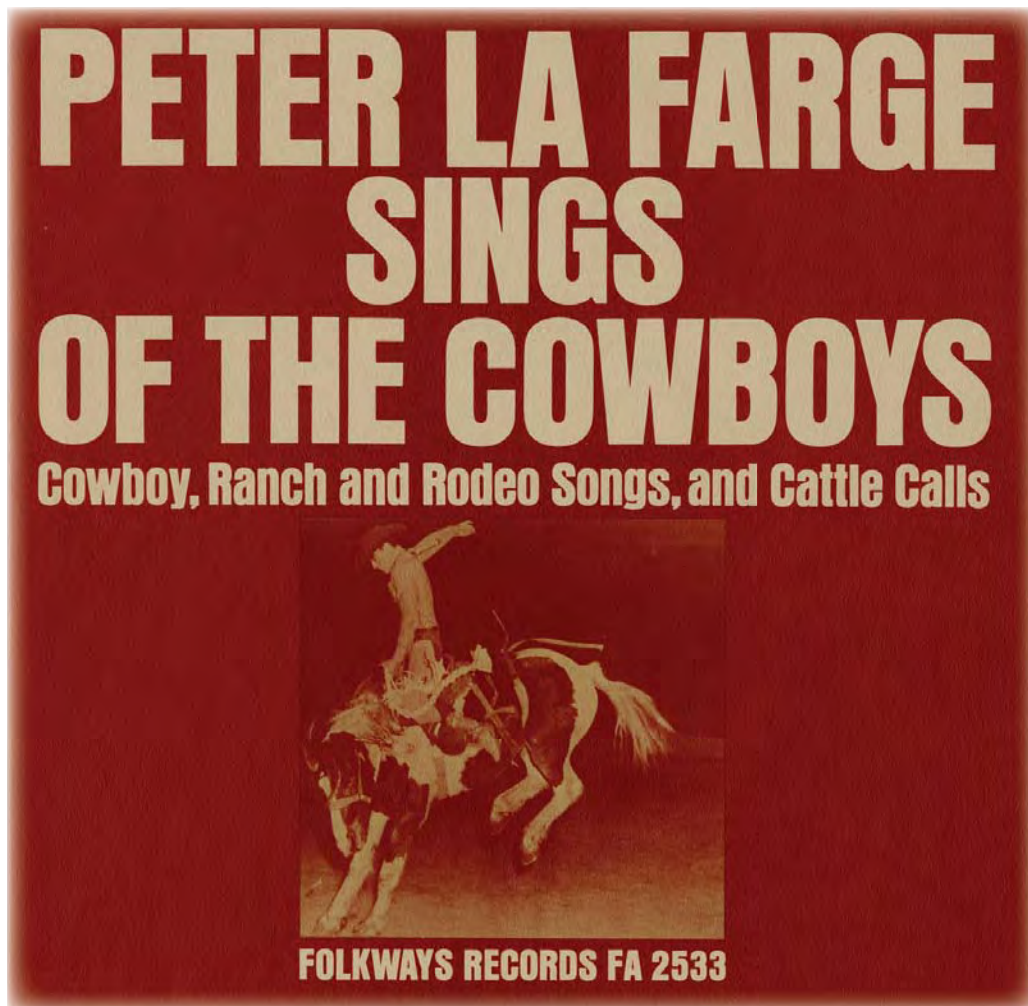
CHAPTER 4:

PUBLIC PROCESS AND OUTREACH

*Don't tell me how I looked falling
Buddy tell me how I looked on
Don't tell me how I looked fading
Cuz yesterday is gone*

- Peter La Farge -

(from Don't Tell Me How I Looked Falling, 1963)





Looking southeast toward Williams Creek

PUBLIC PROCESS AND OUTREACH

Public outreach for the Kane Ranch Open Space was conducted through a public open house, a site tour, and stakeholder interviews. These processes are summarized below.

PUBLIC OPEN HOUSE

A public open house was held June 7, 2018 at the Fountain Creek Nature Center. It was advertised by press release, email invitation, and through social media outlets. At the open house, project background, existing conditions, and draft master plan concepts were presented on display boards and on an 8-minute looped slideshow. Two members of the consultant team and two El Paso County Parks representatives were present to discuss, answer questions, and record comments. Although the open house was scheduled from 6:00 – 7:30 PM, visitors began arriving by about 5:40 and remained for discussion until nearly 8:00. Thirteen individuals signed in, but actual attendance appeared to be closer to fifteen or twenty. Comments included:

- Consider a nature center in the master plan update.
- Preserve the fragile ecosystem.
- Don't disturb bird nests.
- We would like to tour the site prior to providing comments.
- Concerns for public safety in relation to rattlesnakes, hunting, flash flooding, and emergency response times.
- Concerns regarding potential conflicts between recreational uses and adjacent cattle operations including livestock disturbance, wildfire danger, and illicit activity.
- Support for equestrian facilities.



Looking southwest from the north central area of Kane Ranch Open Space

SITE TOUR

A public site tour was conducted June 20, 2018 to allow interested parties to view and hike the site during the master planning process. Bird species identified on this hike are listed in the Habitat section of this report. Prairie dogs and rattlesnakes were also observed.



Wenden Kane (date unknown)

STAKEHOLDER INTERVIEWS

Eight stakeholder organizations were identified for outreach. These were:

- El Paso County Sheriff's Office
- Fountain Creek Watershed, Flood control and Greenway District
- Friends of the Equestrian Skills Course
- Trails and Open Space Coalition
- Colorado Springs Astronomical Society
- City of Fountain
- Medicine Wheel Trail Advocates
- Aiken Audubon Society

Each Stakeholder was sent a brief questionnaire and a link to the 8-minute slideshow describing the project background, existing conditions, and draft master plan concepts that was also presented at the public open house. Comments could be returned by email or phone. Follow-up to request responses was conducted by phone. Five organizations provided responses. The responses were generally positive in support of the proposed open space and trails. More specific comments included:

- Support for equestrian trails and parking.
- Good hiking opportunity in an underserved area.
- Possible stopping point for road cyclists.
- Good for recreational single track riders and beginning mountain bikers.
- Incorporate history and ranching heritage.

Stakeholder responses are included in the Appendix.



Peter La Farge in New York (date unknown)

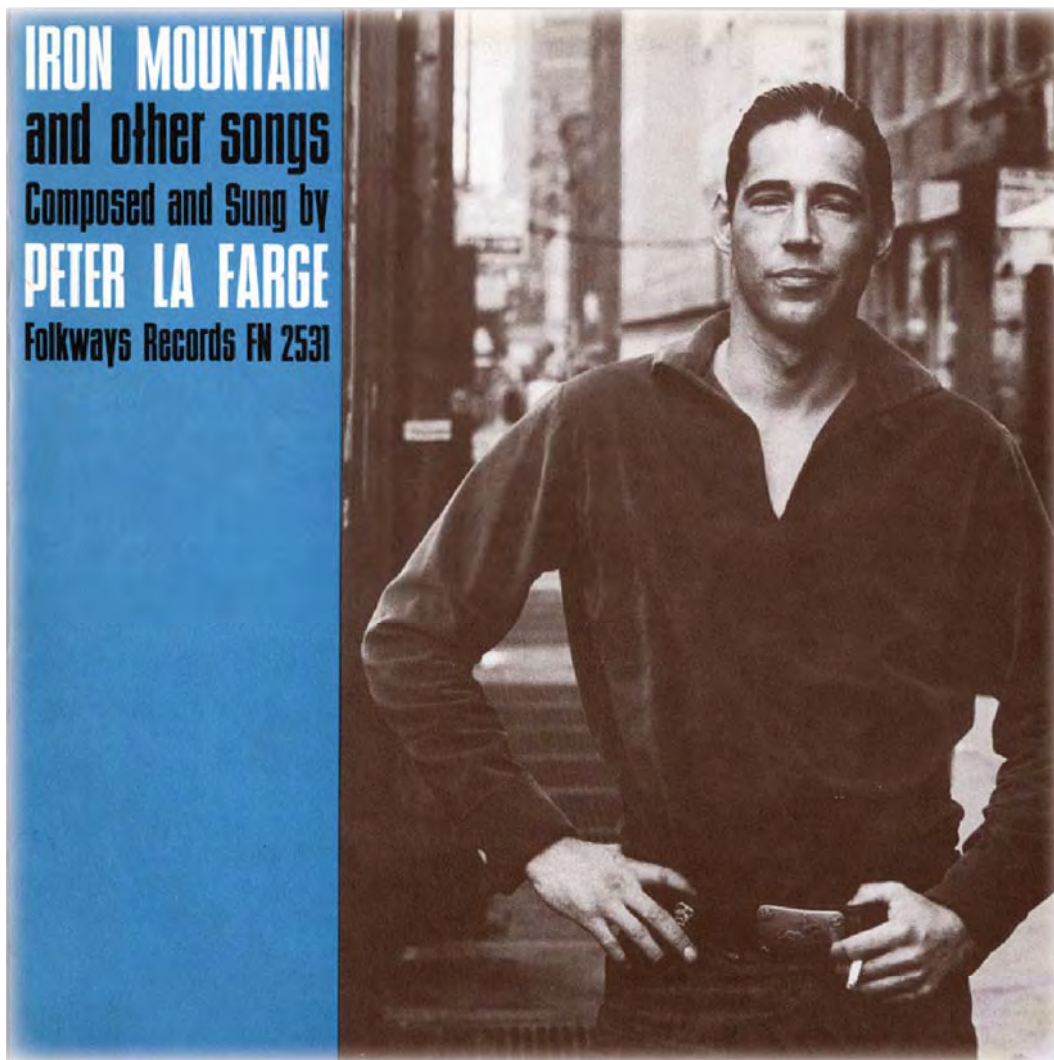
CHAPTER 5:

RECOMMENDATIONS

*I don't have much to give you in winters cold and snow
But listen to my offer once more before you go
The time of the snowdrops is coming
I can hear the bluebells sing
And I will bring you flowers
If you will stay till spring*

- Peter La Farge -

(from I Will Bring You Flowers, 1964)





Looking southeast across the central portion of Kane Ranch Open Space

RECOMMENDATIONS

The recommendations of the Kane Ranch Master Plan represent the best approach identified by the planning team for achieving the project goals within the framework of the opportunities and constraints described in this report, including planning parameters, site inventory and analysis, public process, and budget. In addition to this narrative description, the project recommendations are illustrated graphically in Master Plan sheets MP1 through MP4. Recommendations describing design character and criteria for proposed improvements are contained in the Design Guidelines, sheets DG1 through DG11. Together, the Recommendations, Master Plan graphics, and Design Guidelines provide the basis for the proposed development of the Kane Ranch Open Space.

PUBLIC ACCESS

Public access to the Kane Ranch Open Space is recommended from the western Squirrel Creek Road frontage. As described in the site analysis, the eastern Squirrel Creek road frontage where Andy Kane Road enters the open space parcel is just below the crest of a ridge. This would be a hazardous and accident-prone location for public access and is not recommended. The master plan reflects the recommended western location for the proposed trailhead access road. Intersection visibility is better at the western location. The existing grades allow the proposed entrance road to be graded very gently at the Squirrel Creek Road intersection for good visibility. Between the intersection and the proposed trailhead parking, the access road descends at a moderate 5% - 6% grade before flattening out at the proposed trailhead parking area.

TRAILHEAD LOCATION

The proposed trailhead location is in close proximity to the proposed access point, facilitating a short access road for efficient use of construction, operations, and maintenance budgets. The trailhead parking loop is proposed at a relatively flat area at the base of the slope below Squirrel Creek Road. This provides an attractive trailhead location because the existing grades facilitate parking without extensive regrading and because the natural setting above Williams Creek offers pleasant views, shade from large cottonwood trees, and adequate space for equestrians, hikers, and picnickers. Although a portion of the trailhead parking loop extends into the mapped 100-year floodplain, it is well above the Williams Creek embankment. This location appears to represent a balanced approach, accepting some risk of flood damage while avoiding the extensive regrading that would be required to locate the entire parking loop above the floodplain.

TRAILHEAD AMENITIES

The proposed trailhead amenities support the project goals, providing public access for trail users and picnickers. Equestrians and hikers are anticipated to be the primary trail users. Because Squirrel Creek Road is part of a popular road bike circuit, some road bikes may venture onto Kane Ranch trails. Although the more popular mountain bike trails are in the foothills to the west, some mountain bikers may also be attracted to Kane Ranch's plains trails. To support the various trail users, pull-through parking spaces are proposed for equestrians, and angled head-in parking is proposed for standard vehicles. Paved accessible parking and crushed limestone accessible routes are proposed throughout the trailhead area. A trailhead kiosk is proposed near the trailhead parking, providing a trail map, rules, and

historical background. Restroom facilities are proposed adjacent to the trailhead parking loop just above the mapped floodplain. If budget allows, a prefabricated vault toilet building is recommended. As a less costly alternative, a steel-framed lavatory enclosure for a portable restroom is also included in the Design Guidelines. Three picnic sites are proposed overlooking Williams Creek, each with a single table and a picnic shelter. One larger picnic shelter with two tables is proposed near the trailhead.

CREEK CROSSING

Because a bridge across Williams Creek would be budget-prohibitive, a low-water trail crossing is proposed. This is envisioned as a hardened, reinforced route through the creek bottom and extending up the banks using cast-in-place concrete, precast concrete pavers, and/or stone according to the criteria contained in the Design Guidelines. This will be designed to allow the ephemeral flows in Williams Creek to move unimpeded over the crossing. The crossing surface will accommodate hikers, equestrians, and bikes. Authorized vehicles including El Paso County maintenance and operations trucks and emergency vehicles will also use the low-water crossing to access the main portion of the park south of Williams Creek. No hardened crossing is recommended for East Branch Dry Creek because the southern end of the park south of East Branch Dry Creek is more remote and no vehicle access is anticipated there. East Branch Dry Creek crossing improvements will consist of stable, sustainable trail alignments down the creek banks, and a natural, sandy crossing through the creek bed. Both creeks are subject to flash floods. It is recommended to close the trails during and immediately after heavy rain events, and to provide warning signage at the trailhead advising visitors of the flash flood danger.

TRAIL STANDARDS

A hierarchy of El Paso County standard trail details is proposed for the Kane Ranch Open Space trail system. This is detailed in the Design Guidelines and includes crushed-limestone-surfaced trails for accessible routes near and within the trailhead area, and natural-surfaced trails for the remaining routes. Double-track trail is preferred for equestrian use and for authorized maintenance vehicle access along the Kane Ranch Regional Trail between the trailhead parking area and East Branch Dry Creek. Single-track trail is proposed for all other trails, where vehicle access is not anticipated.

TRAIL ALIGNMENTS

Trail alignments have been proposed to provide attractive, sustainable routes linking the viewing points and interesting site features noted in the site analysis. Looped trails and trail route options have been proposed where feasible without overcrowding the open space and diminishing the open prairie experience. The proposed trail alignments have been designed to support sustainable flat trail construction techniques. Although only the crushed-limestone-surfaced trails near the trailhead area are anticipated to be designated as accessible routes, it is recommended to follow the trail slope recommendations of the Forest Service Trails Accessibility Guidelines (FSTAG) wherever feasible. At the master planning level, it appears that the majority of the Kane Ranch Open Space trail system can be constructed with running grades of 5% or less.

PERIMETER FENCING

Much of the existing perimeter fencing does not follow the property lines. In some cases, the fence alignment appears to have been purposefully located on higher ground above the creek banks where the property line follows the creek bed or has multiple creek crossings. In order to keep visitors within the open space boundaries while maintaining fence alignments that do not need to be repaired after every flood event, it is recommended to consider new fence alignments inside the open space boundary above the creek floodways where they are currently outside the open space boundary. These are indicated on the master plan. All wire fencing is recommended to follow wildlife-friendly standards as indicated in the Design Guidelines.

PRAIRIE RESTORATION

Much of the prairie grassland has been impacted by decades of cattle grazing. In order to assist the restoration of this open space to a condition more reflective of the grassland plant species and density found in a more pristine prairie environment, it is recommended to re-seed with a native prairie restoration seed mix. Re-seeding is recommended particularly in the low, flat areas with little remaining grass, and to naturalize old roads and tracks that are not part of the proposed trail system. Native grass mixes can be custom designed to support specific site soil conditions and restoration goals. Recommended suppliers include Arkansas Valley Seed in Denver, Pawnee Buttes Seed in Greeley, Sharp Brothers Seed in Greeley, and Western Native Seed in Coaldale.

PROGRAM OPPORTUNITIES

As the prairie restoration efforts progress, natural resource education and interpretive programming opportunities should increase. Improved grassland health and diversity can be highlighted, as well as the restoration efforts themselves. The stories of Kane Ranch and the personalities associated with it are compelling and unique, providing a perspective on this place that the public is unlikely to be aware of without interpretive exhibits or programming. Kane Ranch Open Space also contains locations where visitors can have a brief illusion of being surrounded by open prairie. This is becoming hard to find, especially on public land, as development spreads eastward from the I-25 corridor. Suggestions and ideas that surfaced during the master planning process include:

- Incorporating cowboy poetry and song lyrics in the open space experience through interpretive elements, wayfinding features, or other site amenities. The Peter La Farge references throughout this report are intended to provide inspiration.
- Providing stargazing and/or night photography workshops that take advantage of the dark sky opportunities at Kane Ranch Open Space.
- Organizing equestrian events such as social rides, mini poker runs, etc.

CHAPTER 6:

IMPLEMENTATION AND COST ESTIMATING

*It takes more than one feather to weight the wings of a bird,
It takes more than one letter to make peace a word,
It takes more than one people to reach for the stars,
If we all reach together then we'll all stand on Mars,
But nobody can do it alone.*

- Peter La Farge -

(from Nobody Can Do It Alone, 1964)





Kane Ranch House interior (photography by Ron Pollard)

MASTER PLAN IMPLEMENTATION

The Kane Ranch Open Space Master Plan is intended to provide a guiding document for the initial development and phased improvements to this property over a period of 10-15 years. Understanding that the current budget of \$450,000 for planning, design, and implementation will cover only a portion of the master plan's recommendations, the master plan is designed to be implemented in multiple phases. This chapter of the master plan provides recommended goals and guidelines for each phase, as well as planning-level cost estimates.

PHASE 1 RECOMMENDATIONS

Kane Ranch Open Space does not yet have facilities for public access or use. The ideal result of Phase 1 implementation would be to provide a level of development facilitating public access and use. At a minimum, this would include the entrance road and trailhead parking, enough trail development to provide a worthwhile outing, and perimeter fencing to establish clear boundaries between public open space and adjacent properties. Trailhead amenities such as restroom and picnic facilities, ranch-style entrance features, and interpretive features would also be desirable to include in Phase 1 if feasible.

The Phase 1 trail recommendations include the Picnic Loop Trail, the portion of the Kane Ranch Regional Trail between the trailhead parking area and East Branch Dry Creek, and Last Stand Loop Trail at the southern end of the open space. This provides access to the full north-south extents of the open space, a high point with views, and a small loop. Hiking the Kane Ranch Regional Trail from the trailhead to Last Stand Loop, completing the loop, and returning to the trailhead via Kane Ranch Regional Trail would be a 4.25-mile round trip. Development of the Kane Ranch Regional Trail is also intended to facilitate access by maintenance and emergency vehicles for nearly the full length of the open space.

Based on initial cost estimating, it is not feasible to develop all of the desired Phase 1 facilities within the current budget. Two ways to address this budget gap would be to obtain additional funding or to divide Phase 1 into smaller phases. The Phase 1 cost estimate is divided into Phases 1a and 1b to facilitate either approach. Phase 1a is intended to develop the most essential facilities in the short term, and to defer the costs of less essential but desirable amenities to the subsequent Phase 1b.

PHASE 2 RECOMMENDATIONS

Adding variety and choices to the Kane Ranch Open Space trail system is the goal of Phase 2. The recommended Phase 2 trails are the East Branch Trail, Dust Devil Connector Trail, Stampede Trail, and an additional connection between the Last Stand Loop Trail and the Kane Ranch Regional Trail. These routes add a little over 3 miles to the trail system. More importantly, they provide multiple options for a variety of loop hikes. East Branch Trail offers the secluded prairie experience on the east side of the open space, and Stampede Loop Trail offers a gentle climb to the northwestern high point overlook. These trails complete the trail system recommended for the interior of Kane Ranch Open Space, providing variety and interest while maintaining the open prairie character.

PHASE 3 RECOMMENDATIONS

The goal of Phase 3 is to add connections to future regional trails. The El Paso County Parks, Trails, and Open Space Master Plan identifies two regional trails with connections to or through Kane Ranch Open Space. The Kane Ranch Regional Trail, identified as the main north-south trail route in the Kane Ranch Open Space Master Plan, is planned to be extended north along the Williams Creek corridor to meet the Widefield area regional trails, and southwest toward Clear Spring Ranch to meet the Fountain Creek Trail. The Black Squirrel Creek Trail is planned to run east-west adjacent to Squirrel Creek Road. Phase 3 Kane Ranch Open Space trail development is intended to provide connections to this planned regional trail network. In addition, City of Fountain planning maps indicate future residential development adjacent to Kane Ranch Open Space on the northwest, with a city open space corridor along Williams Creek. Phase 3 Kane Ranch Open Space trails may also provide connections to future City of Fountain open space trails along this corridor.

HABITAT RESTORATION

Habitat restoration, including assessment, native seeding, and monitoring, is an ongoing process that may be partially included within the implementation phases described above or may be an independent effort. The potential range of habitat restoration efforts is huge, from small focus areas to hundreds of acres of prairie seeding. Because habitat restoration is not bound to a specific implementation timeframe or budget, habitat restoration cost estimating has not been included in the phased implementation cost estimating. The native seeding included in the Phase 1 cost estimate is intended to revegetate areas disturbed during construction, independent from other habitat restoration initiatives.

PHASING PLAN

Master Plan Sheet MP3 in the following chapter is a phasing plan illustrating the relationships between Phase 1 and subsequent implementation phases.

COST ESTIMATING

Planning level cost estimating for Phase 1A through Phase 3 is provided below and on the following pages.

Conceptual Phasing Cost Estimate	
SUMMARY OF ALL PHASES	
PHASE	TOTAL COST
PHASE 1A: Essential Phase 1 Amenities - Entrance Drive, Trailhead Parking, Phase 1 Main Trail	\$609,185
PHASE 1B: Additional Phase 1 Amenities	\$392,795
PHASE 2: Additional Trails	\$198,170
PHASE 3: Regional Trail Connections	\$88,046
GRAND TOTAL - PHASES 1-3	\$1,288,196

KANE RANCH OPEN SPACE MASTER PLAN

Conceptual Phasing Cost Estimate				
PHASE 1A: Essential Phase 1 Amenities				
ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
DEMOLITION				
Sawcut asphalt roadway	100	LF	\$4.00	\$400
Demo existing asphalt	200	SF	\$4.00	\$800
Temporary construction fencing at entrance road / trailhead parking area	4,000	LF	\$4.50	\$18,000
Traffic control	1	LS	\$3,000.00	\$3,000
Demo existing wire fence	20,000	LF	\$0.25	\$5,000
SUBTOTAL				\$27,200
TEMPORARY EROSION CONTROL				
Temporary erosion control at entrance road / trailhead parking area	4.60	AC	\$10,000.00	\$46,000
Temporary erosion control along phase 1 trails	15,500	LF	\$3.50	\$54,250
SUBTOTAL				\$100,250
EARTHWORK & GRADING				
Earthwork at entrance road / trailhead parking area (cut, fill, & compact on	4,000	CY	\$12.00	\$48,000
SUBTOTAL				\$48,000
UTILITY - STORM DRAINAGE				
Culvert and Swale Allowance	1	LS	\$7,500.00	\$7,500
SUBTOTAL				\$7,500
ROADWAYS & PARKING				
6" aggregate base course for new entrance road and trailhead parking area	88,000	SF	\$0.85	\$74,800
Concrete paving for ADA parking	550	SF	\$7.50	\$4,125
Roadway and parking lot signage	7	EA	\$300.00	\$2,100
Striping for ADA parking	1	LS	\$750.00	\$750
SUBTOTAL				\$81,775
SITE CONSTRUCTION				
New 4-wire perimeter fencing (re-use existing where feasible)	13,000	LF	\$5.50	\$71,500
Crushed limestone surfacing at trailhead area	5,000	SF	\$3.75	\$18,750
Trails, natural surface	15,500	LF	\$5.00	\$77,500
Low-water trail crossing	2,500	SF	\$6.50	\$16,250
SUBTOTAL				\$184,000
SITE FURNISHINGS				
Trailhead kiosk	1	EA	\$5,000.00	\$5,000
Trail markers	8	EA	\$200.00	\$1,600
Trash receptacles	2	EA	\$850.00	\$1,700
SUBTOTAL				\$8,300
LANDSCAPE				
Native Seeding for revegetation adjacent to new construction	3	AC	\$3,500.00	\$10,500
SUBTOTAL				\$10,500
CONSTRUCTION SUBTOTAL				\$467,525
COST FACTORS				
Site Survey - entrance road and trailhead parking area			0.3%	\$1,403
Mobilization			0.5%	\$2,338
Contractor Survey & Staking			0.5%	\$2,338
Fees and Permitting			3.0%	\$14,026
Construction Administration			6.0%	\$28,052
Owner's Contingency			10.0%	\$46,753
Planning Contingency			10.0%	\$46,753
SUBTOTAL				\$141,660
GRAND TOTAL - PHASE 1A				\$609,185

KANE RANCH OPEN SPACE MASTER PLAN

Conceptual Phasing Cost Estimate				
PHASE 1B: Additional Phase 1 Amenities				
ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
TEMPORARY EROSION CONTROL				
Temporary erosion control along phase 1 trails	2,000	LF	\$3.50	\$7,000
SUBTOTAL				\$7,000
ROADWAYS & PARKING				
New asphalt at entrance road transition	3,000	SF	\$7.00	\$21,000
Base course for asphalt	3,000	SF	\$3.00	\$9,000
SUBTOTAL				\$30,000
SITE CONSTRUCTION				
Ranch-style entrance gate	1	LS	\$15,000.00	\$15,000
3-rail post and dowel fence along Squirrel Creek Road frontage	650	LF	\$40.00	\$26,000
New 4-wire perimeter fencing	17,000	LF	\$5.50	\$93,500
Concrete paving at picnic pads	2,500	SF	\$6.50	\$16,250
Trails, crushed limestone surface at picnic loop	2,000	LF	\$12.00	\$24,000
SUBTOTAL				\$174,750
STRUCTURES				
Restroom allowance (vault toilet or roofed enclosure for portable restroom)	1	LS	\$40,000.00	\$40,000
Picnic shelter for 2 tables	1	EA	\$25,000.00	\$25,000
Picnic shelter for 1 table	2	EA	\$18,000.00	\$36,000
SUBTOTAL				\$101,000
SITE FURNISHINGS				
Trail markers	2	EA	\$200.00	\$400
Trail wayside interpretive sign	1	EA	\$2,500.00	\$2,500
Picnic tables	5	EA	\$1,500.00	\$7,500
SUBTOTAL				\$10,400
CONSTRUCTION SUBTOTAL				\$302,150
COST FACTORS				
Mobilization			0.5%	\$1,511
Contractor Survey & Staking			0.5%	\$1,511
Fees and Permitting			3.0%	\$9,065
Construction Administration			6.0%	\$18,129
Owner's Contingency			10.0%	\$30,215
Planning Contingency			10.0%	\$30,215
SUBTOTAL				\$90,645
GRAND TOTAL - PHASE 1B				\$392,795

KANE RANCH OPEN SPACE MASTER PLAN

Conceptual Phasing Cost Estimate				
PHASE 2: Additional Trails				
ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
TEMPORARY EROSION CONTROL				
Temporary erosion control along phase 2 trails	17,000	LF	\$3.50	\$59,500
SUBTOTAL				\$59,500
SITE CONSTRUCTION				
Trails, natural surface	17,000	LF	\$5.00	\$85,000
SUBTOTAL				\$85,000
SITE FURNISHINGS				
Trail markers	10	EA	\$200.00	\$2,000
Trail wayside interpretive sign	1	EA	\$2,500.00	\$2,500
SUBTOTAL				\$4,500
CONSTRUCTION SUBTOTAL				\$149,000
COST FACTORS				
Mobilization			1.0%	\$1,490
Contractor Survey & Staking			1.0%	\$1,490
Fees and Permitting			5.0%	\$7,450
Construction Administration			6.0%	\$8,940
Owner's Contingency			10.0%	\$14,900
Planning Contingency			10.0%	\$14,900
SUBTOTAL				\$49,170
GRAND TOTAL - PHASE 2				\$198,170

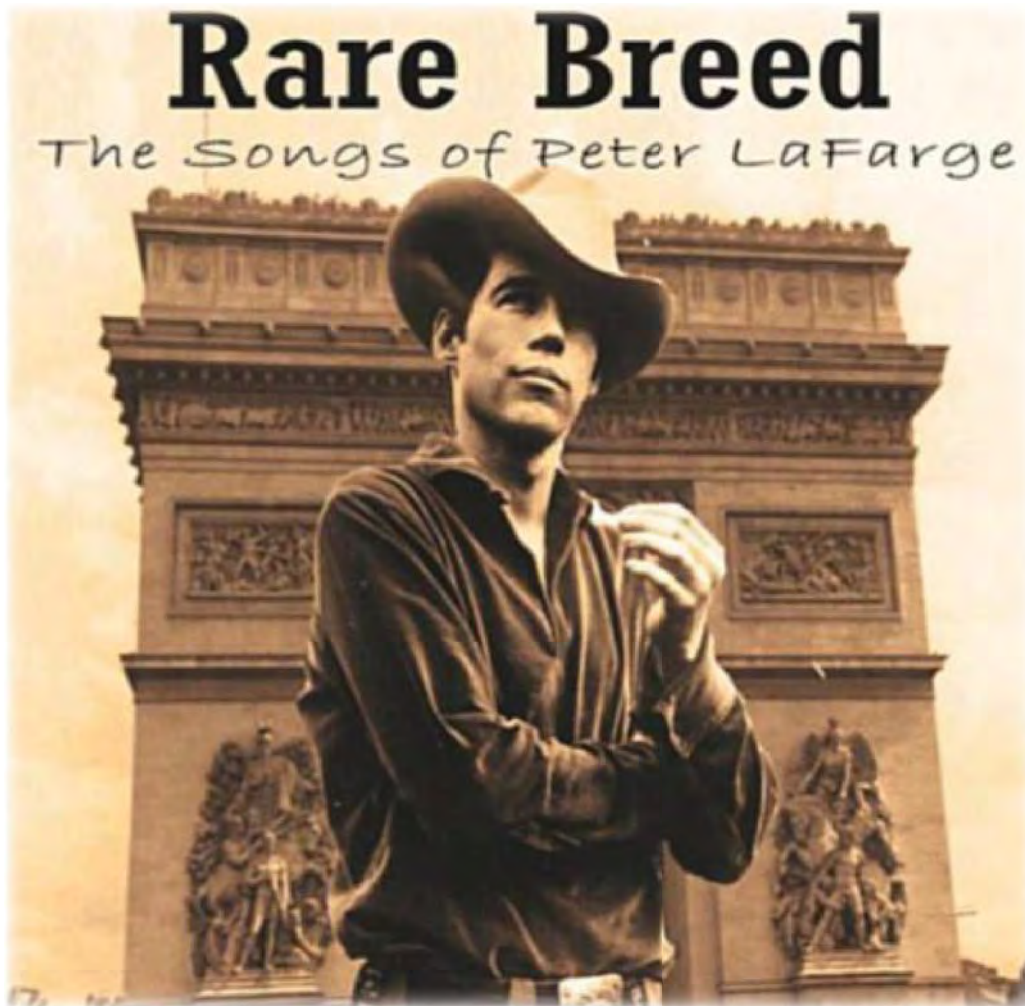
Conceptual Phasing Cost Estimate				
PHASE 3: Regional Trail Connections				
ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
TEMPORARY EROSION CONTROL				
Temporary erosion control along phase 3 trails	7,600	LF	\$3.50	\$26,600
SUBTOTAL				\$26,600
SITE CONSTRUCTION				
Trails, natural surface	7,600	LF	\$5.00	\$38,000
SUBTOTAL				\$38,000
SITE FURNISHINGS				
Trail markers	8	EA	\$200.00	\$1,600
SUBTOTAL				\$1,600
CONSTRUCTION SUBTOTAL				\$66,200
COST FACTORS				
Mobilization			1.0%	\$662
Contractor Survey & Staking			1.0%	\$662
Fees and Permitting			5.0%	\$3,310
Construction Administration			6.0%	\$3,972
Owner's Contingency			10.0%	\$6,620
Planning Contingency			10.0%	\$6,620
SUBTOTAL				\$21,846
GRAND TOTAL - PHASE 3				\$88,046

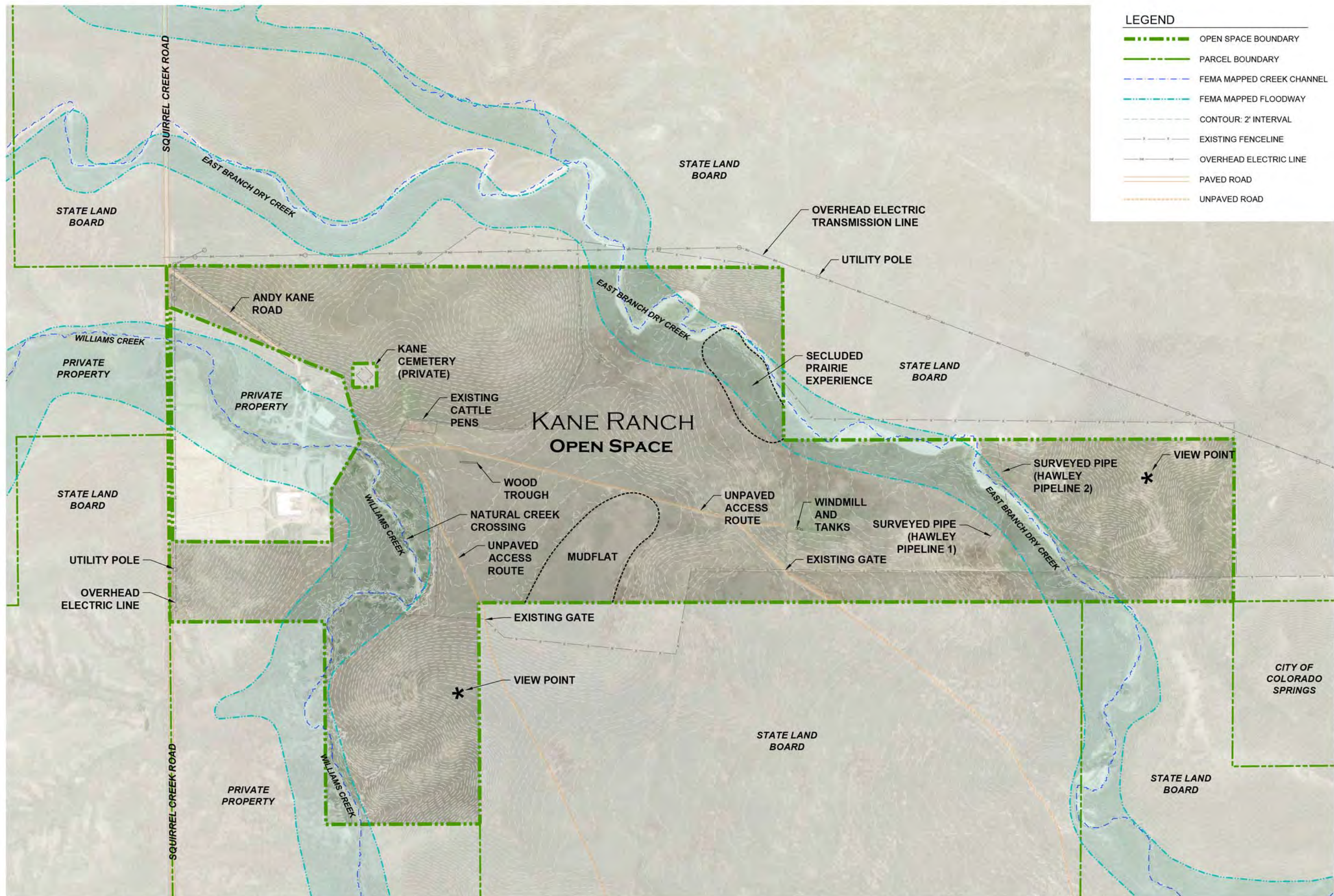
CHAPTER 7:

MASTER PLAN

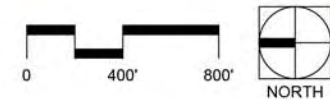
*Ask for me by the whipporwill, he'll say where I'll be found
I prefer to talk with wildcats and to hear the wild goose moan
I'm headed back to wilderness, the forest is my home.*

- Peter La Farge -
(from *Johnny Half-Breed*, 1965)





EXISTING CONDITIONS SITE PLAN





**EL PASO
COUNTY
PARKS**

KANE RANCH OPEN SPACE
MASTER PLAN

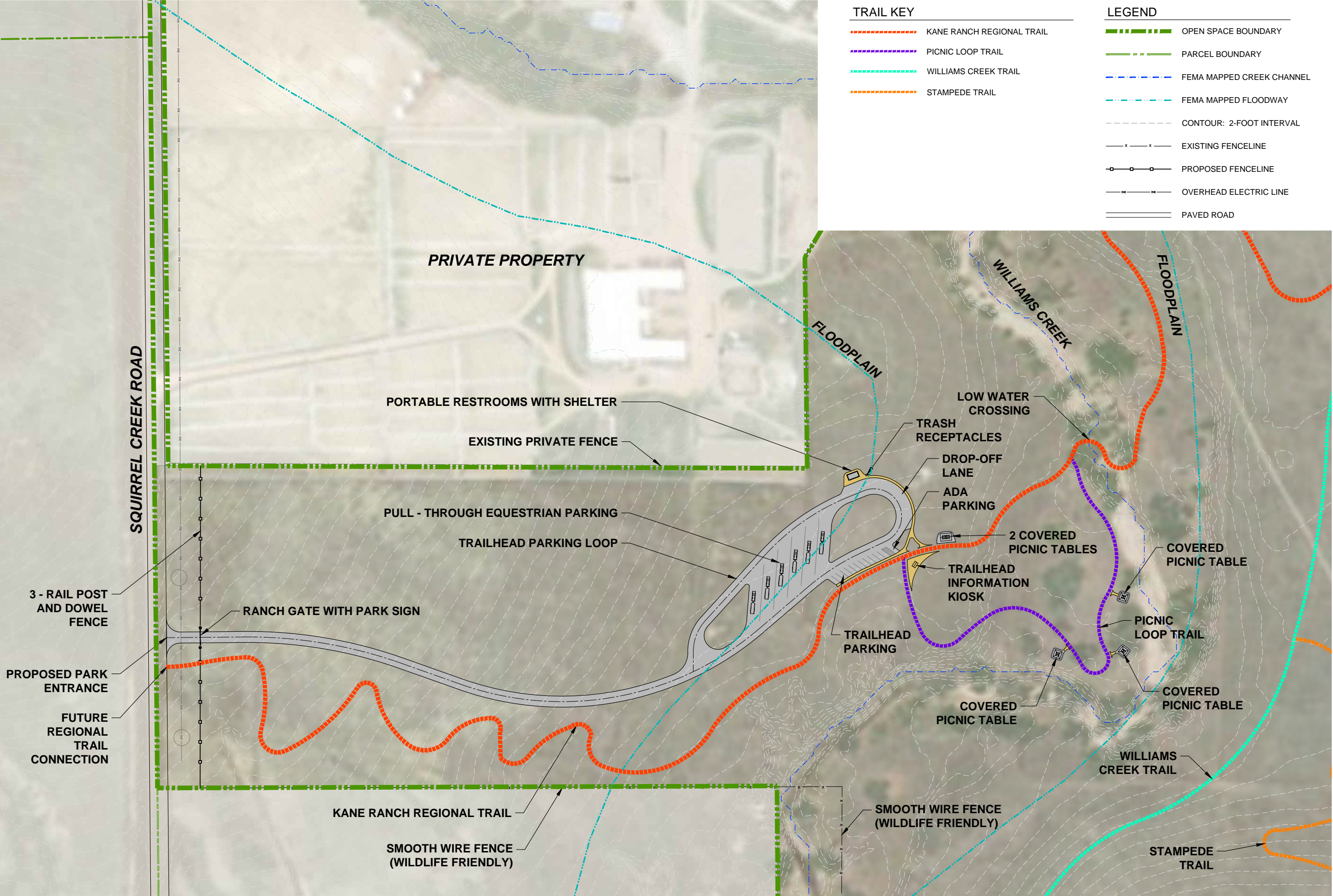


**DESIGN
CONCEPTS**
Community • Landscape Architects

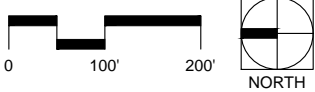
211 North Public Road, Suite 200
Lafayette, CO 80026
303.664.5301 • www.dcla.net

EXISTING
CONDITIONS
SITE PLAN

MP 1



TRAILHEAD PLAN



KANE RANCH OPEN SPACE
MASTER PLAN



ENLARGEMENT
PLAN
MP4

CHAPTER 8:

DESIGN GUIDELINES

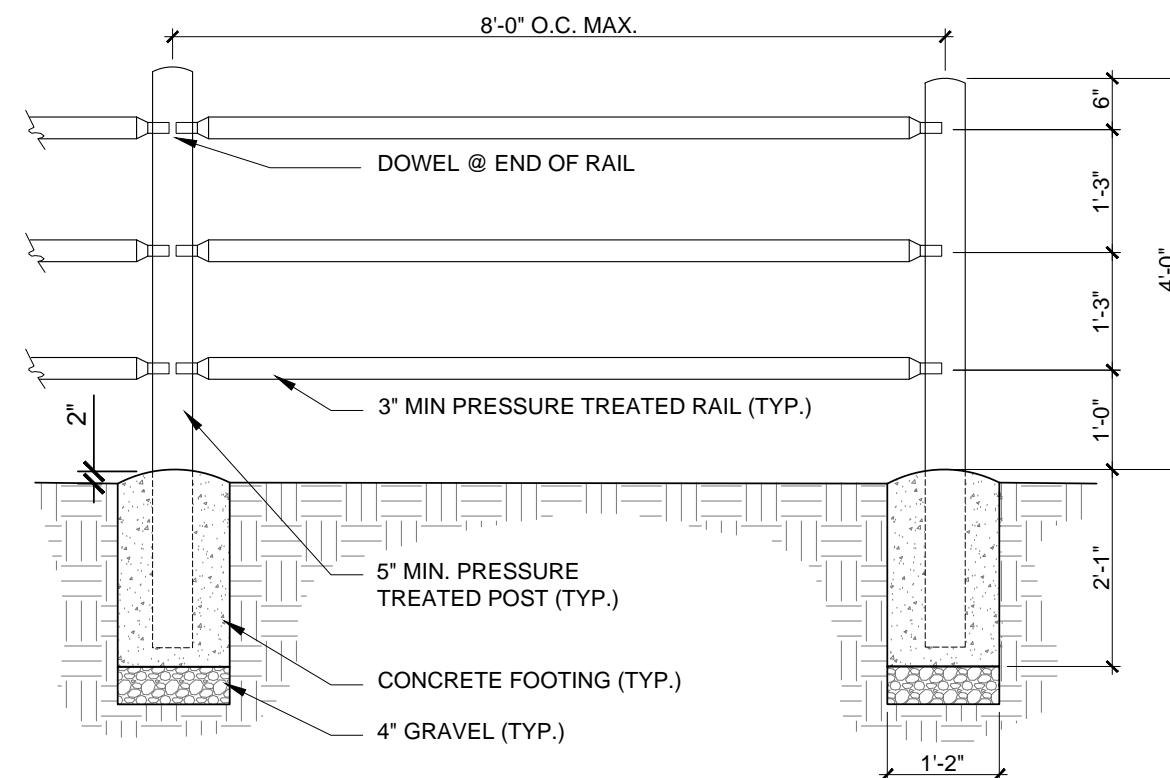
There are drums beyond the mountain
And they're getting mighty near

- Peter La Farge -
(from *Drums*, 1965)

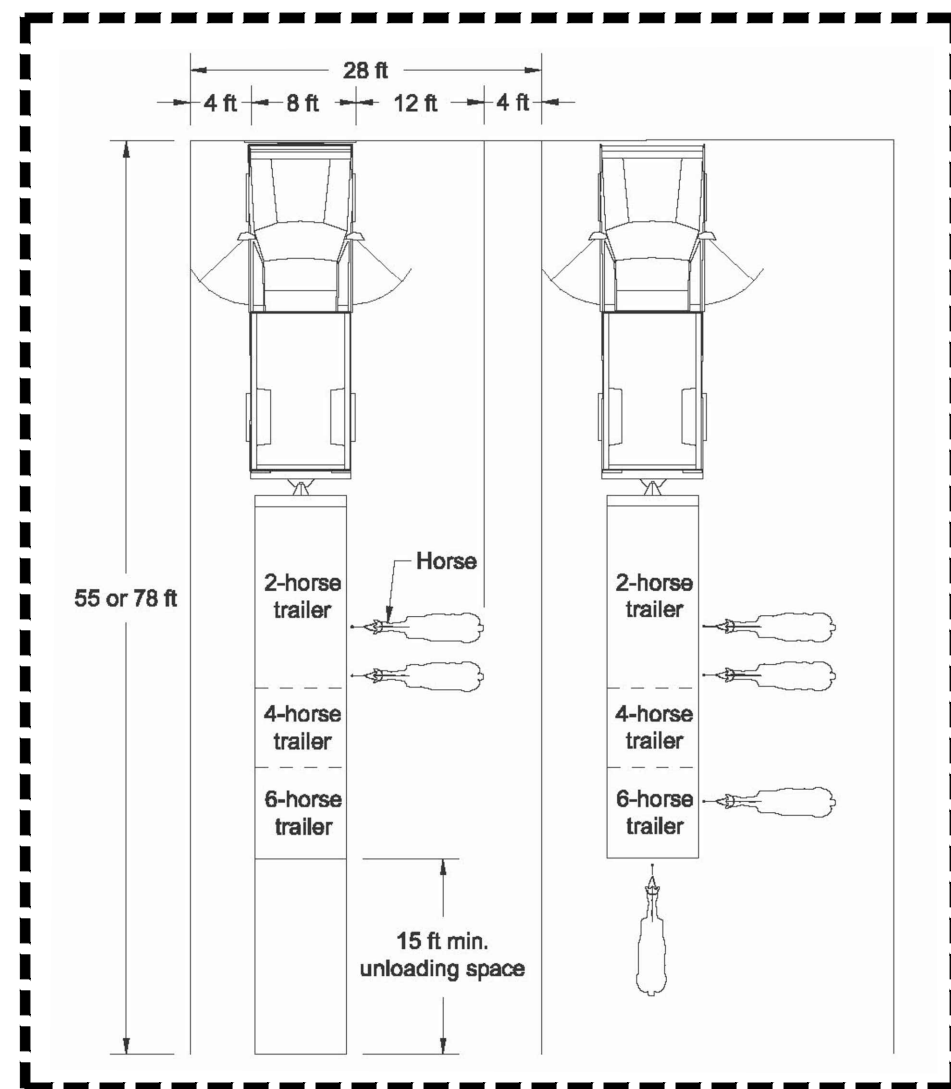




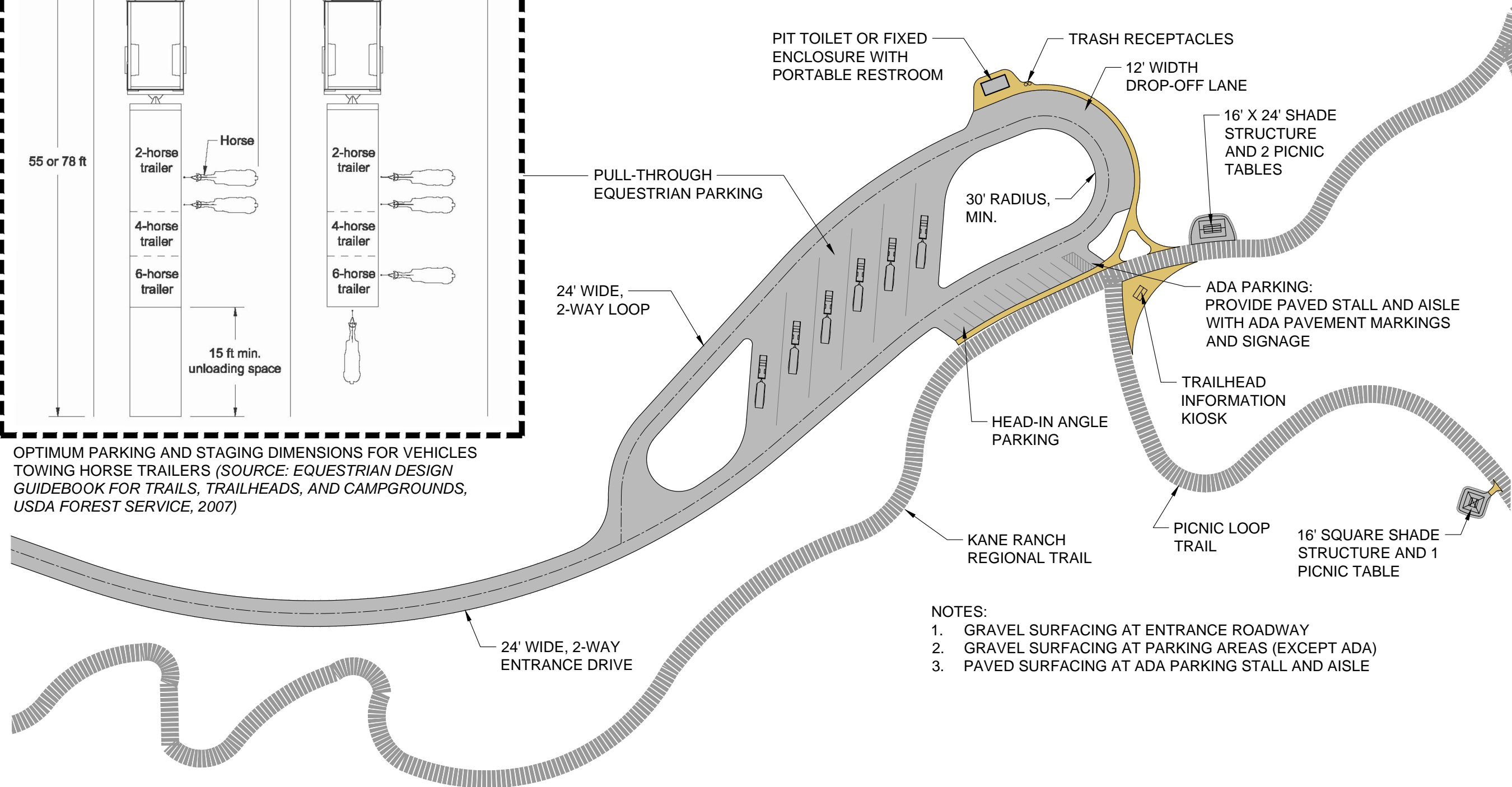
OLD WEST RANCH CHARACTER AT ENTRANCE SIGN / GATE



3 - RAIL POST AND DOWEL FENCE ALONG SQUIRREL CREEK ROAD



OPTIMUM PARKING AND STAGING DIMENSIONS FOR VEHICLES TOWING HORSE TRAILERS (SOURCE: *EQUESTRIAN DESIGN GUIDEBOOK FOR TRAILS, TRAILHEADS, AND CAMPGROUNDS*, USDA FOREST SERVICE, 2007)



- NOTES:
1. GRAVEL SURFACING AT ENTRANCE ROADWAY
 2. GRAVEL SURFACING AT PARKING AREAS (EXCEPT ADA)
 3. PAVED SURFACING AT ADA PARKING STALL AND AISLE

TRAILHEAD PARKING AREA CONCEPTUAL PLAN

ENTRANCE ROAD / PARKING

DESIGN GUIDELINES



KANE RANCH OPEN SPACE
MASTER PLAN

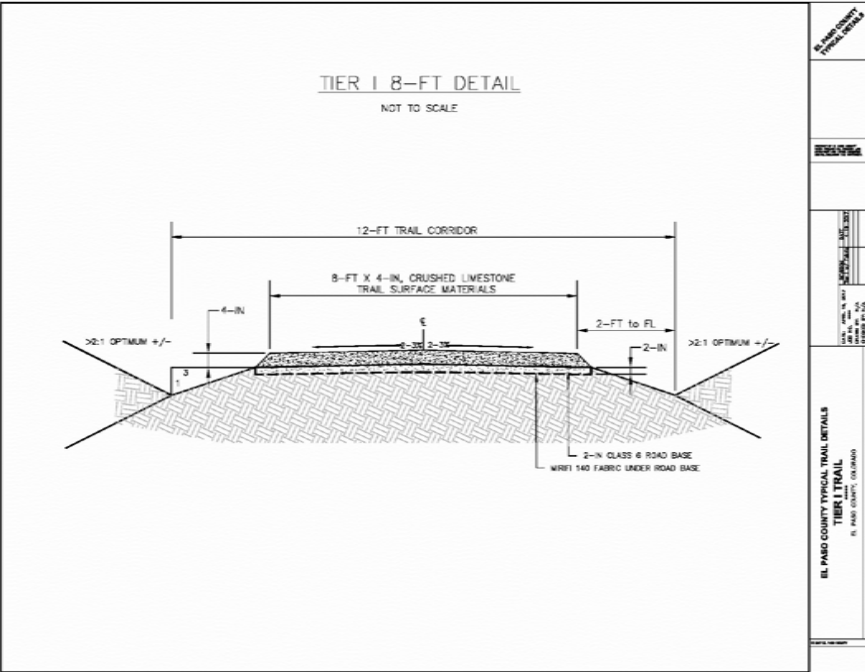


DESIGN
CONCEPTS

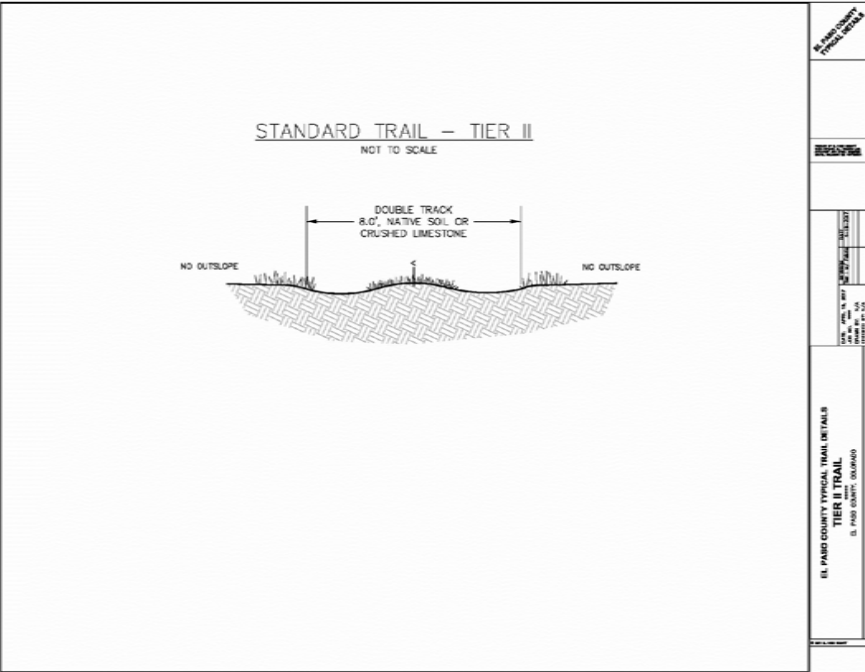
Community + Landscape Architects
211 North Ninth Street, Suite 300
Tulsa, OK 74103
303.464.5801 www.dcn.net

DESIGN
GUIDELINES

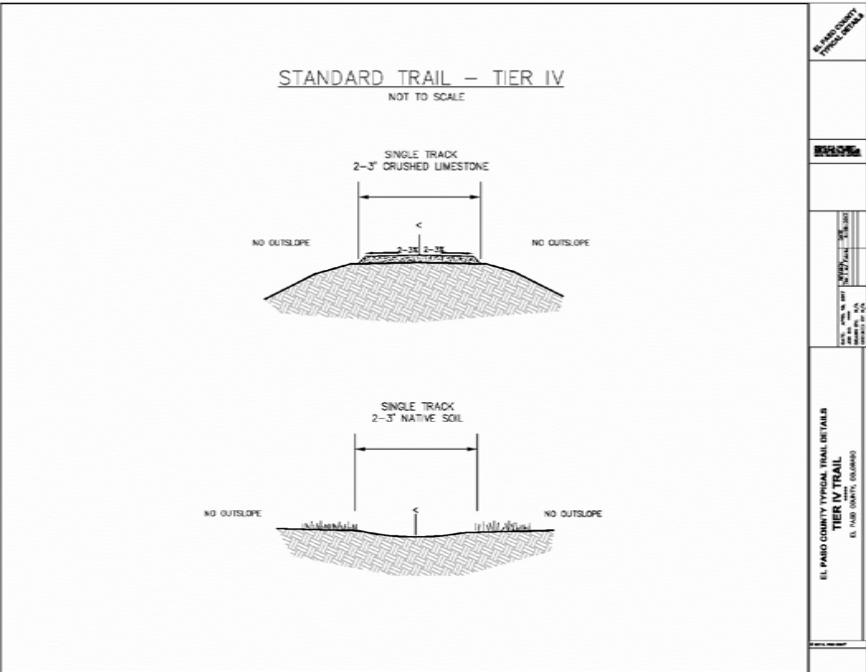
DG2



EL PASO COUNTY TYPICAL TIER I TRAIL DETAIL



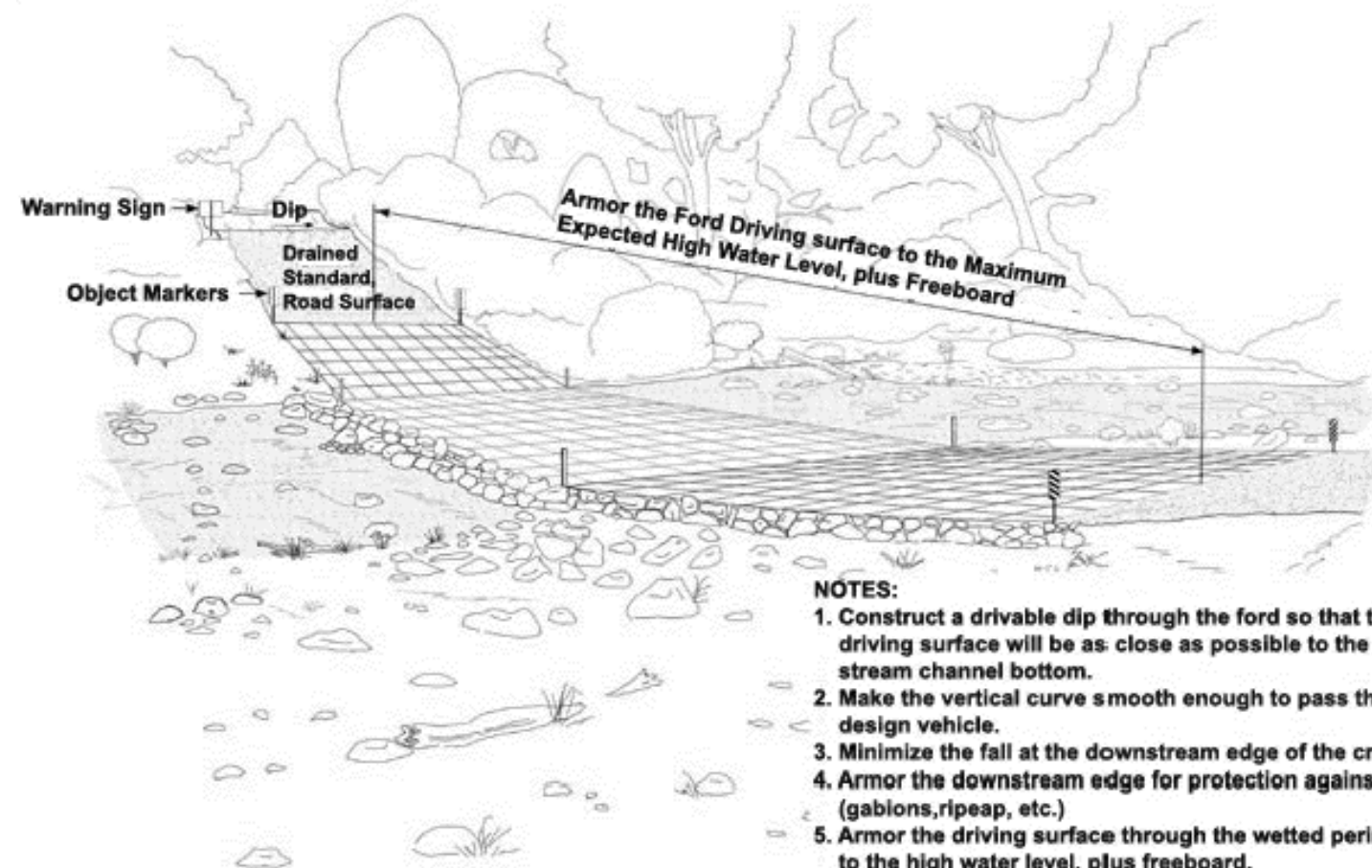
EL PASO COUNTY TYPICAL TIER II TRAIL DETAIL



EL PASO COUNTY TYPICAL TIER IV TRAIL DETAIL

KANE RANCH OPEN SPACE - TRAIL STANDARDS

El Paso County Trail Standard	Trail Width	Trail Surface	Proposed Uses	Proposed Locations
Tier 1	8'	Crushed Limestone	Nonmotorized Multi-Use / ADA Accessible	Within trailhead / parking area only: Kane Ranch Regional Trail, Picnic Loop
Tier 2	8'	Natural Surface	Nonmotorized Multi-Use / Double-Track	Kane Ranch Regional Trail, Last Stand Loop Trail, East Branch Trail, Williams Creek Trail
Tier 4	2' - 3'	Natural Surface	Nonmotorized Multi-Use / Single-Track	Stampede Trail, Dust Devil Connector

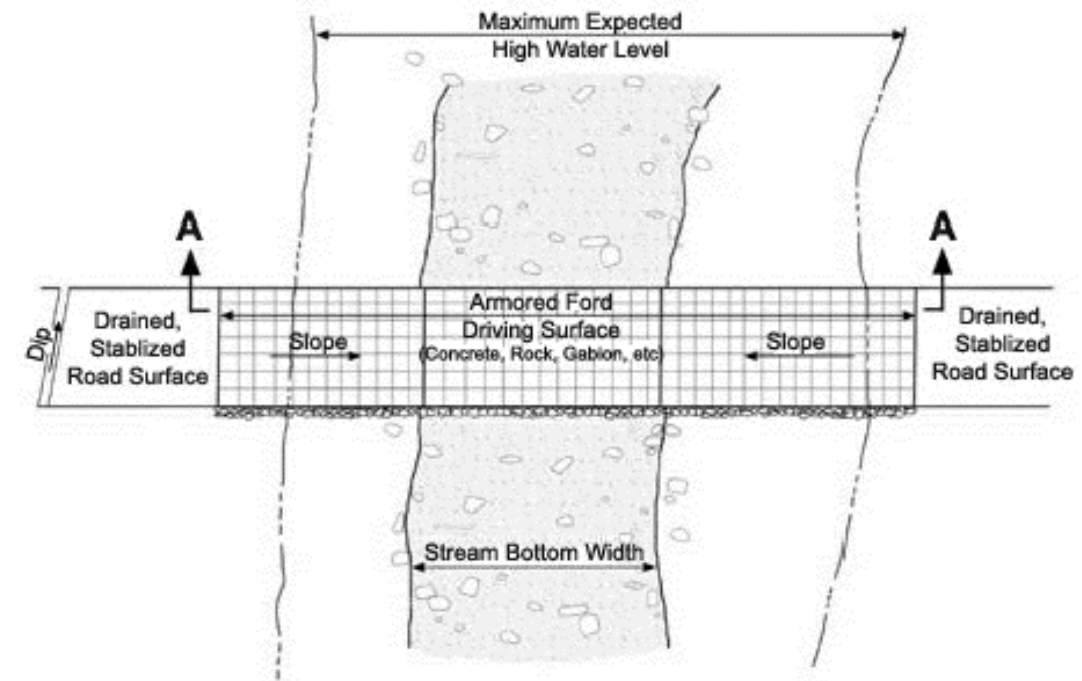


PERSPECTIVE VIEW

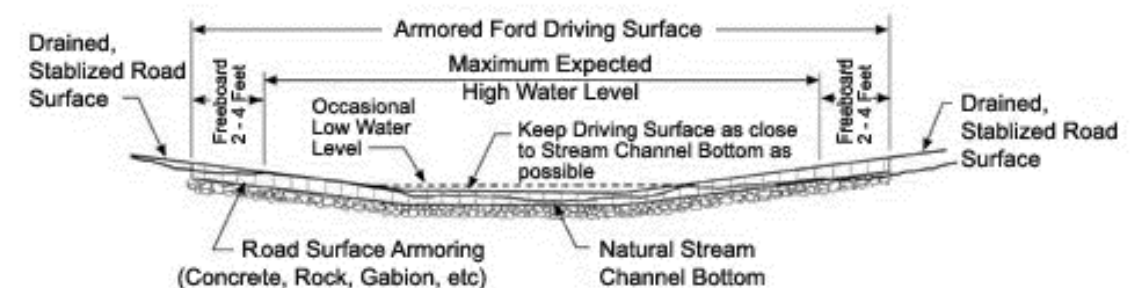
KEY DESIGN COMPONENTS FOR AN UNVENTED, IMPROVED
LOW-WATER FORD CROSSING AN EPHEMERAL STREAM

NOTES:

1. Construct a drivable dip through the ford so that the driving surface will be as close as possible to the natural stream channel bottom.
2. Make the vertical curve smooth enough to pass the design vehicle.
3. Minimize the fall at the downstream edge of the crossing.
4. Armor the downstream edge for protection against scour (gabions, riprap, etc.)
5. Armor the driving surface through the wetted perimeter to the high water level, plus freeboard.
6. Use a roughened surface to minimize flow acceleration across the slab/apron.
7. Provide for traffic safety with signs, depth markers, and object markers.



PLAN VIEW

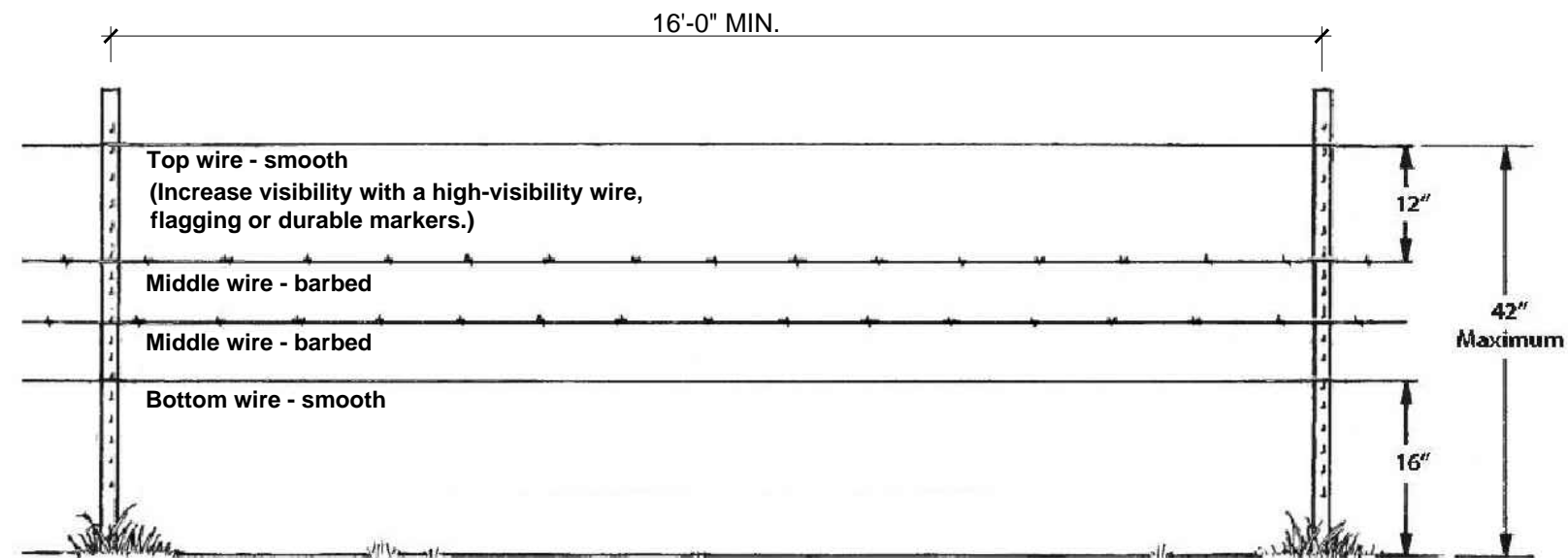


SECTION A-A

KEY DESIGN COMPONENTS FOR AN UNVENTED,
IMPROVED LOW-WATER FORD CROSSING
AN EPHEMERAL STREAM (cont.)

SOURCE:

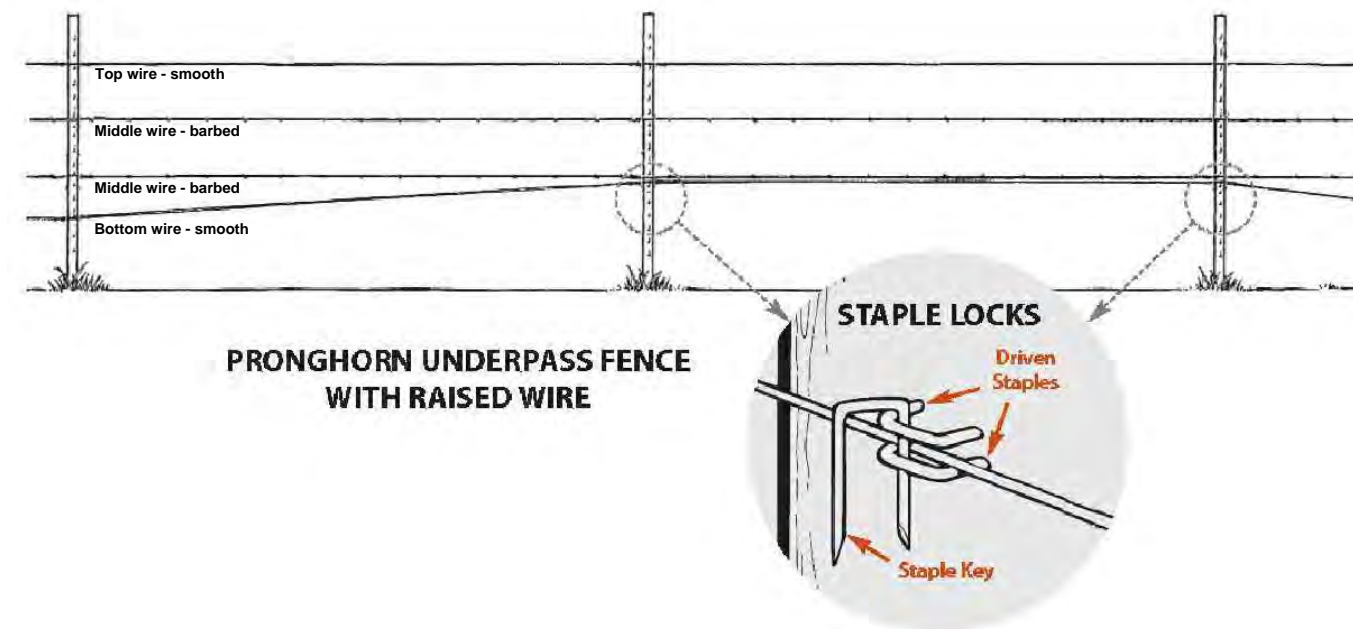
LOW-WATER CROSSINGS: GEOMORPHIC, BIOLOGICAL, AND ENGINEERING
DESIGN CONSIDERATIONS, USDA FOREST SERVICE, 2006



NOTES:

1. PLACE FENCING WIRE ON THE SIDE OF THE FENCE POSTS WHERE DOMESTIC ANIMALS ARE LOCATED.
3. HEIGHT OF TOP WIRE SHOULD BE 42" OR LESS.
4. PROVIDE AT LEAST 12" BETWEEN THE TOP TWO WIRES.
5. PROVIDE AT LEAST 16" BETWEEN THE BOTTOM WIRE OR RAIL AND THE GROUND.
6. POSTS AT MINIMUM 16' INTERVALS.
8. HIGH-VISIBILITY WIRE, FLAGGING, OR OTHER VISUAL MARKERS RECOMMENDED FOR THE TOP WIRE.

WILDLIFE - FRIENDLY WIRE FENCE



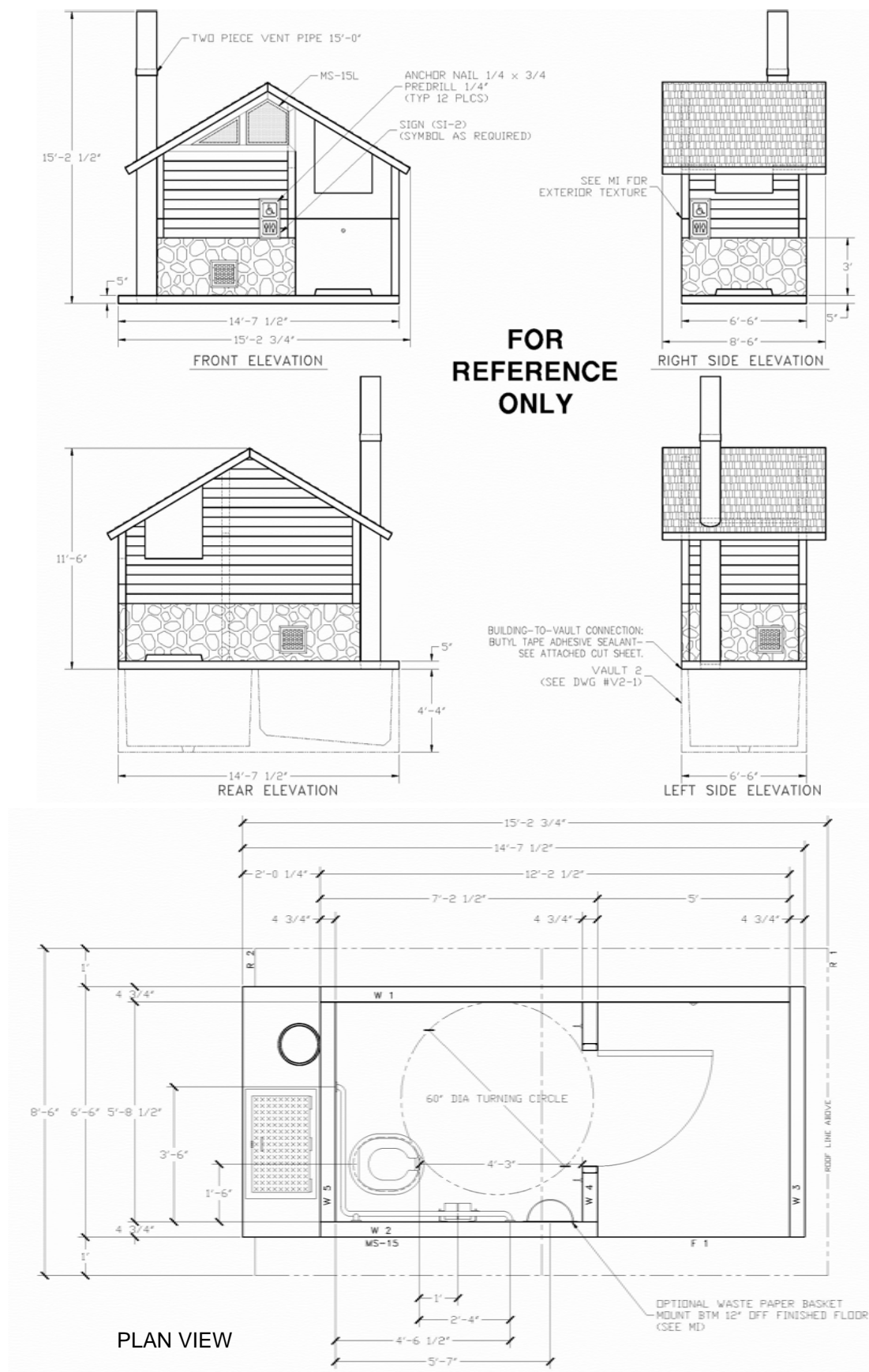
SOURCE:

*FENCING WITH WILDLIFE IN MIND,
COLORADO PARKS AND WILDLIFE, 2015*

NOTES:

1. PRONGHORN UNDERPASS FENCE SECTIONS MAY BE PLACED WHERE HIGH CONCENTRATIONS OF PRONGHORNS CROSS.
2. INSTALL TWO FENCE STAPLES HORIZONTALLY AND LESS THAN 1 INCH APART ON EACH POST AT THE LEVEL OF BOTH THE TOP WIRE AND THE SECOND WIRE.
3. SLIP THE FENCE WIRE BETWEEN THE TWO STAPLES.
4. SECURE IT IN PLACE BY HOOKING A THIRD STAPLE THROUGH THE PAIRED STAPLES VERTICALLY, LIKE A LATCH.

PRONGHORN UNDERPASS FENCE SECTION WITH RAISED WIRE



ROCKY MOUNTAIN MODEL PRECAST VAULT TOILET BUILDING BY CXT

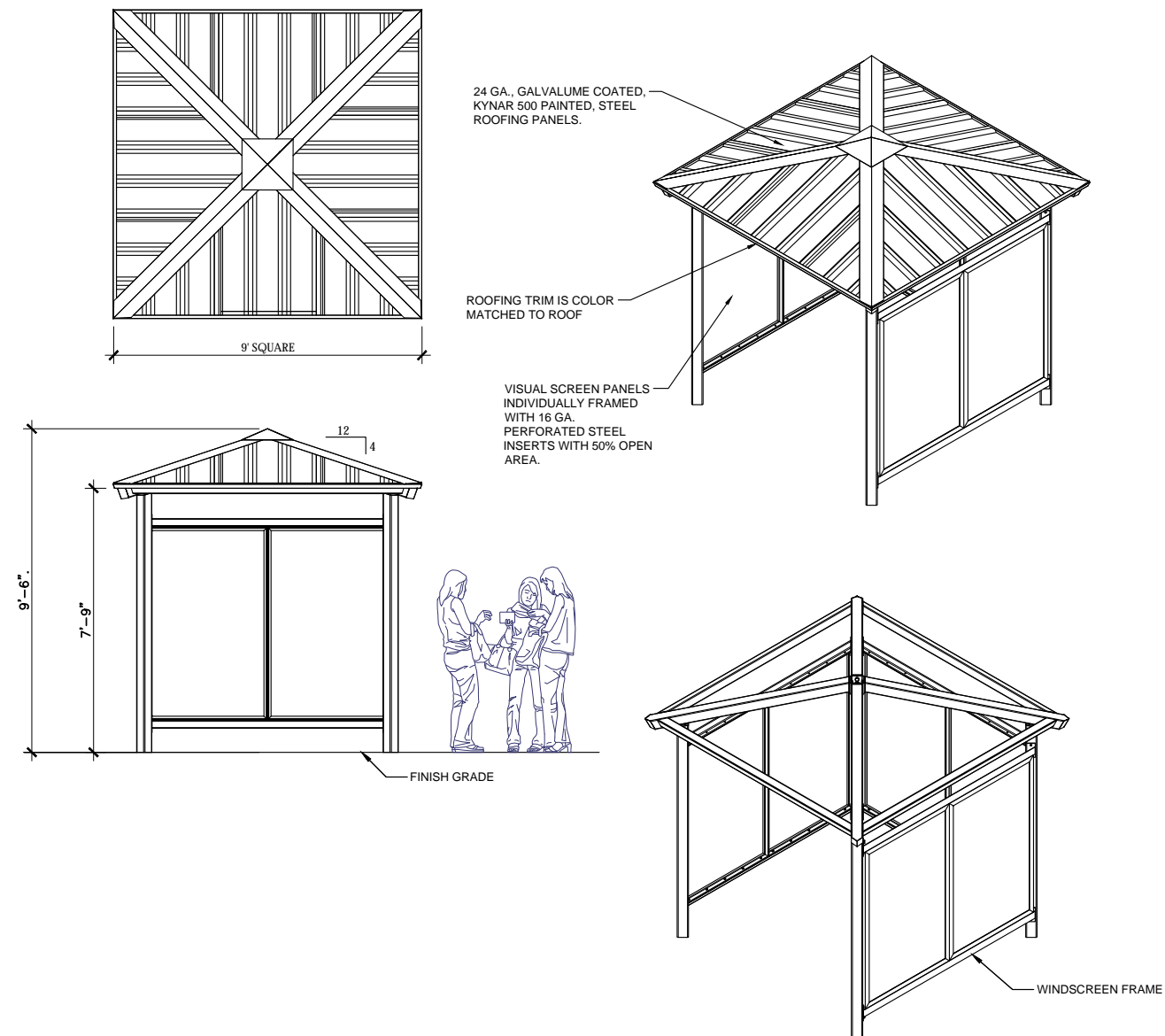


INTERIOR VIEW

PRECAST CONCRETE VAULT TOILET RESTROOM BUILDING - ALTERNATIVE 1

RESTROOM FACILITY - ALTERNATIVE 1

DESIGN GUIDELINES

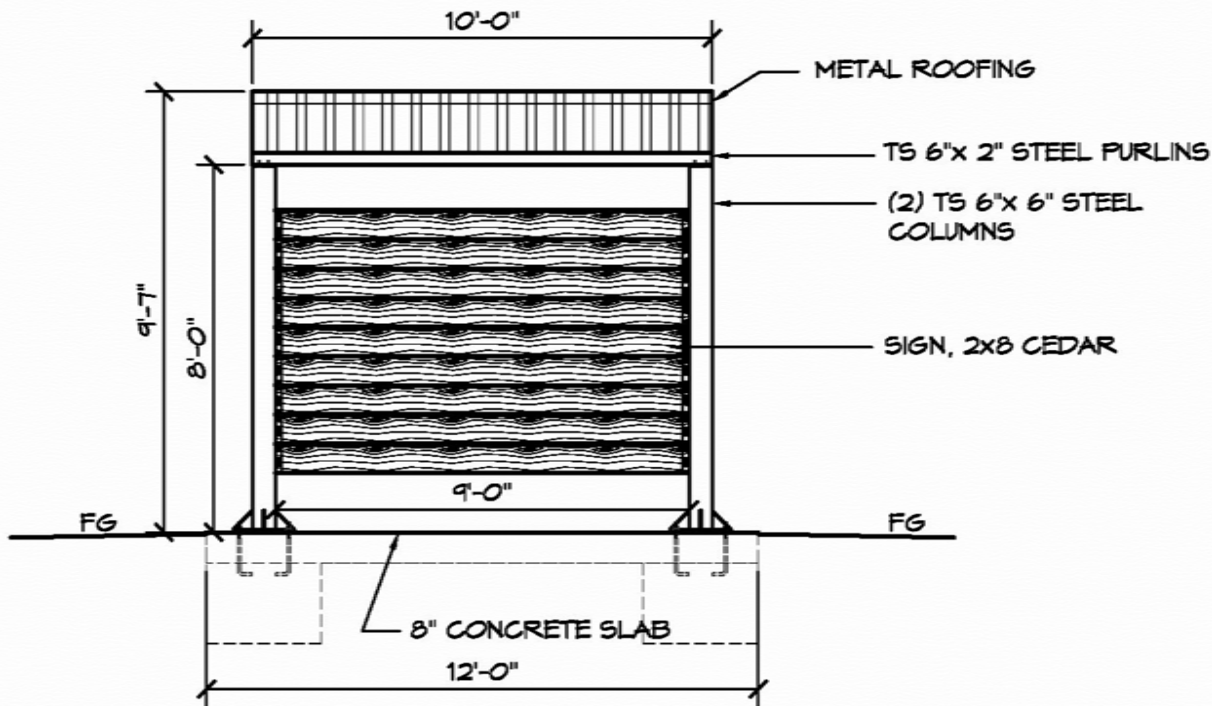


PORTABLE LAVATORY ENCLOSURE MODEL PLE-HC1 BY POLIGON

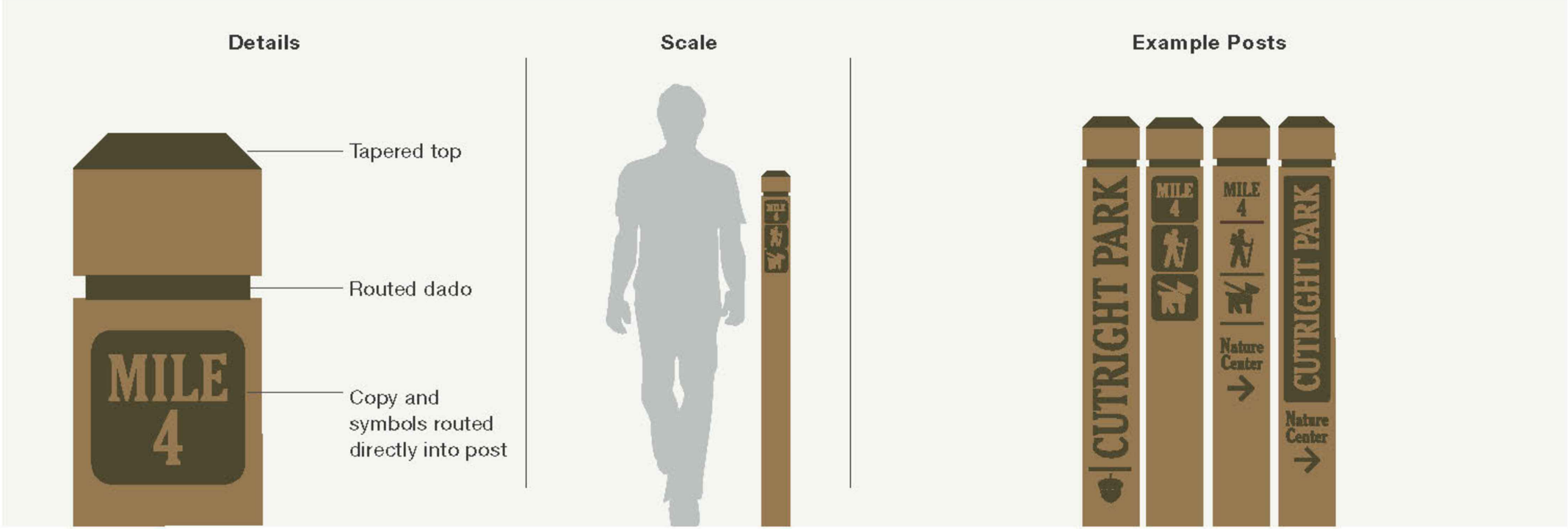
PORTABLE LAVATORY ENCLOSURE RESTROOM FACILITY - ALTERNATIVE 2



UPRIGHT PANEL TRAILHEAD KIOSK - ALTERNATIVE 1



ROOFED TRAILHEAD KIOSK - ALTERNATIVE 2



ROUTED BI-COLOR HDPE TRAIL MARKER
BY VACKER SIGN



Bi-color Routed Posts

Copy and symbols are routed directly into a bi-color (cedar/brown) post revealing the contrasting interior core of the post. Elements such as park / trail names, directional arrows, mile markers and recreation symbols can be incorporated directly into the post material. Bi-color posts are available in 4"x4" (true) x7' long.

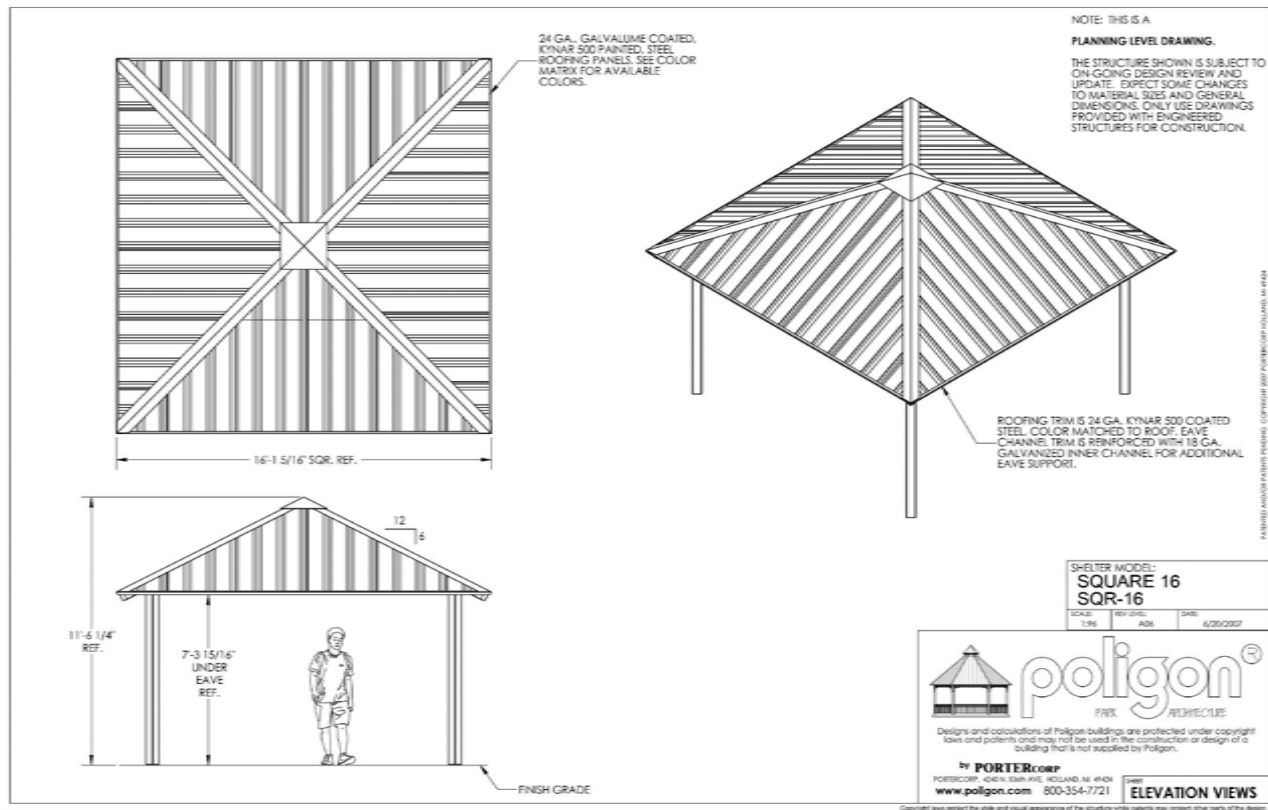
Clients are encouraged to provide a rough sketch with desired content for each post side to serve as a resource during the design process.

TRAIL WAYFINDING MARKERS

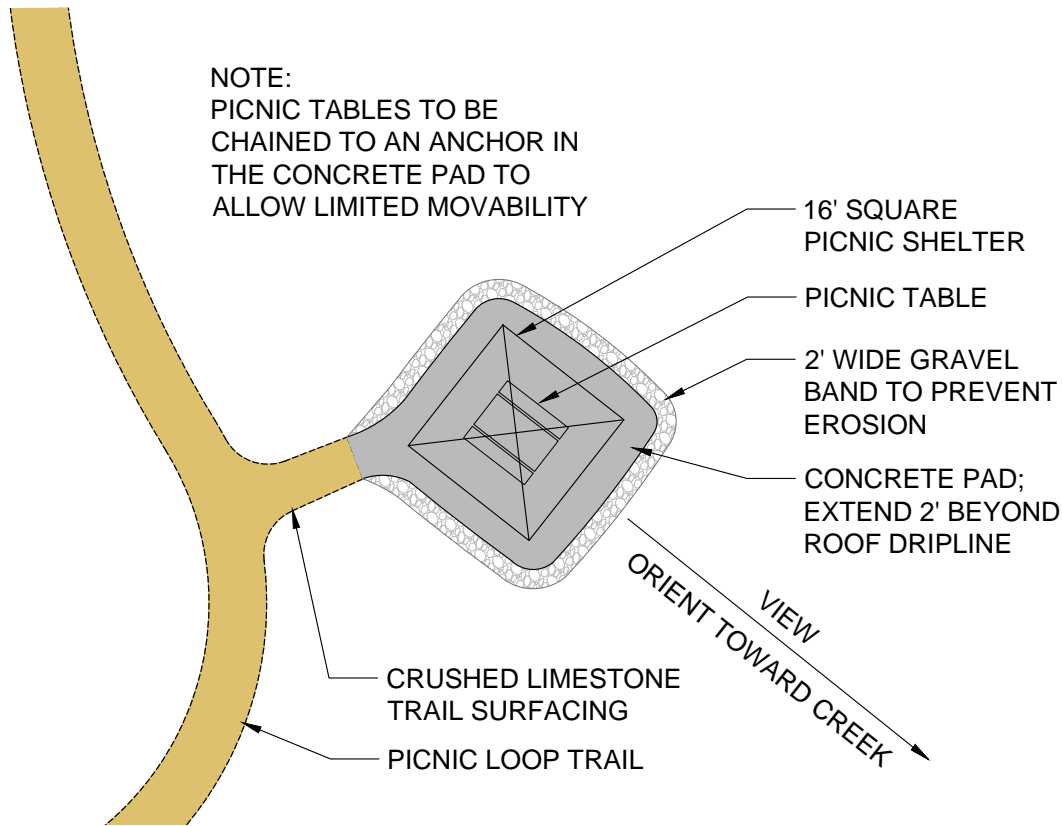


NPS CANTILEVER-STYLE WAYSIDE WITH METAL FRAME

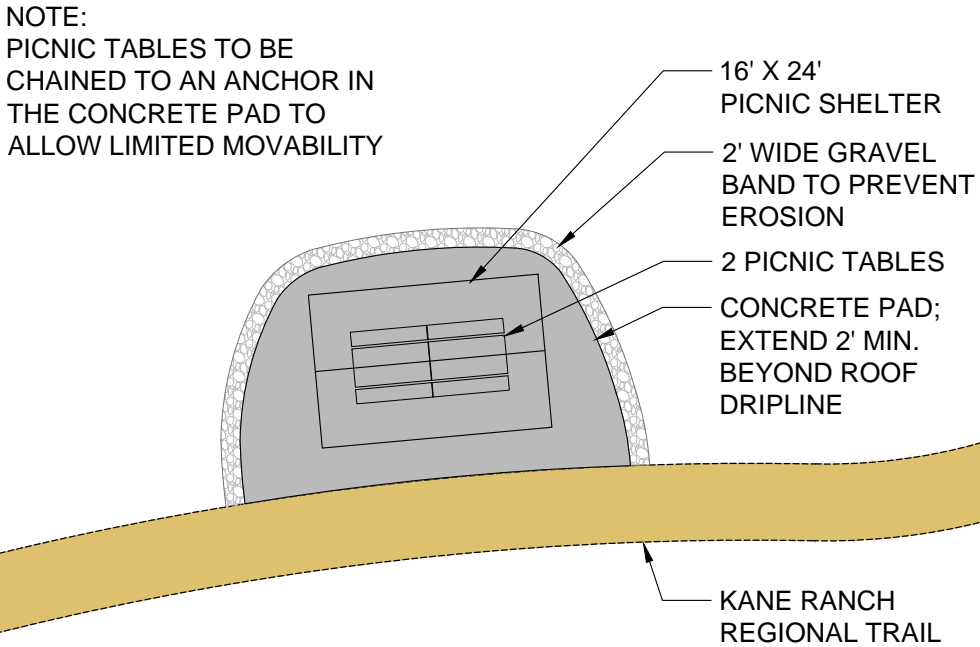
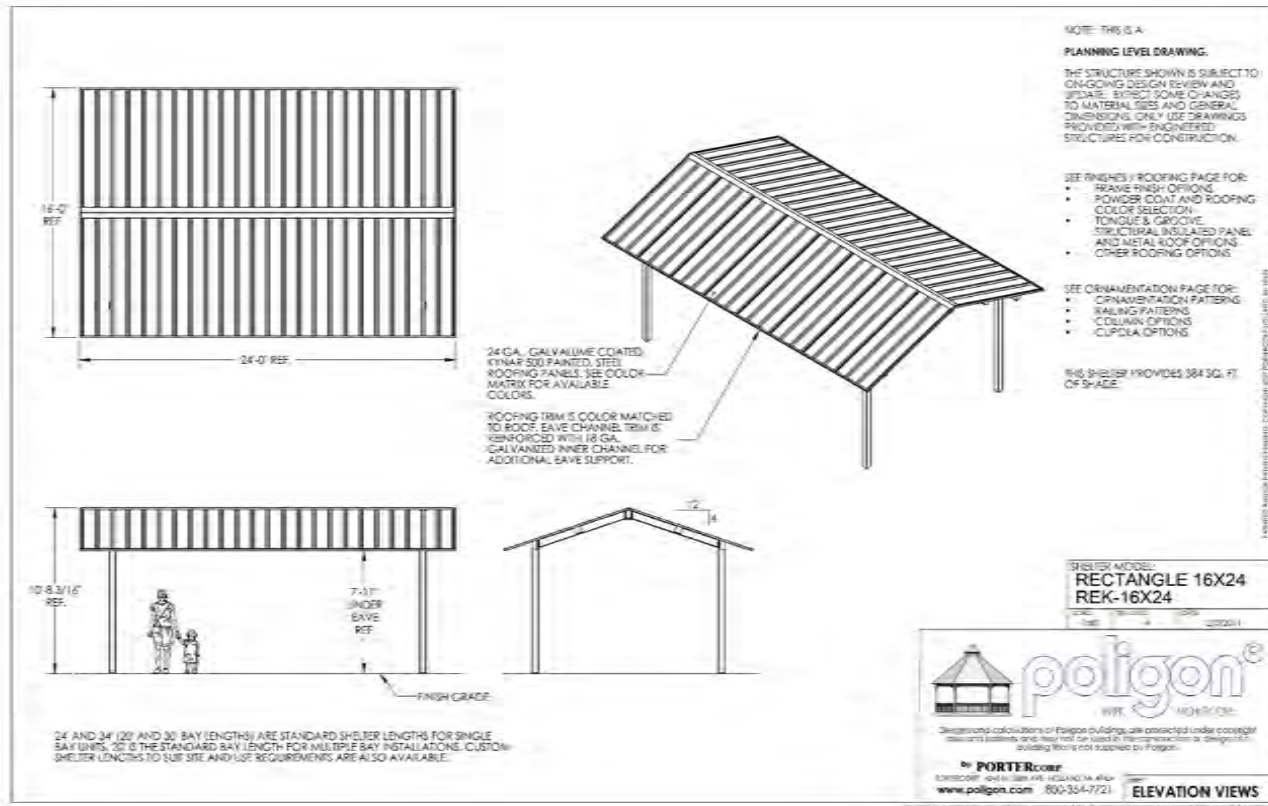
TRAIL INTERPRETIVE WAYSIDES

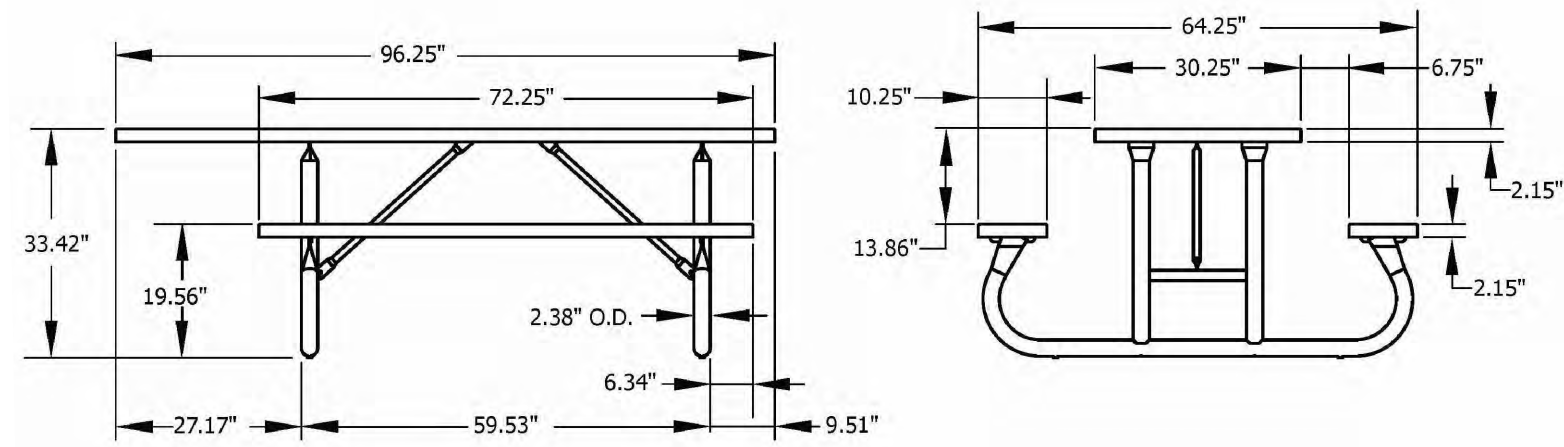


SQUARE SHELTER FOR ONE PICNIC TABLE



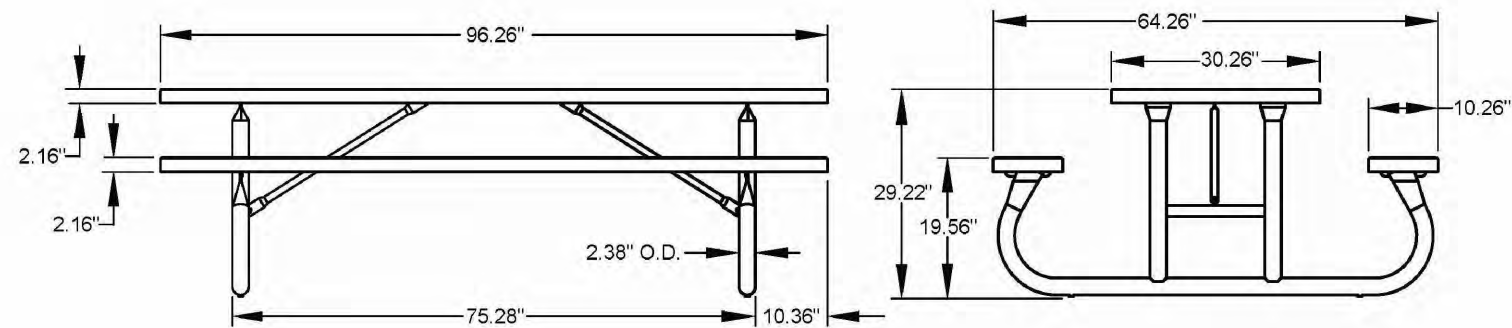
RECTANGULAR SHELTER FOR TWO PICNIC TABLES





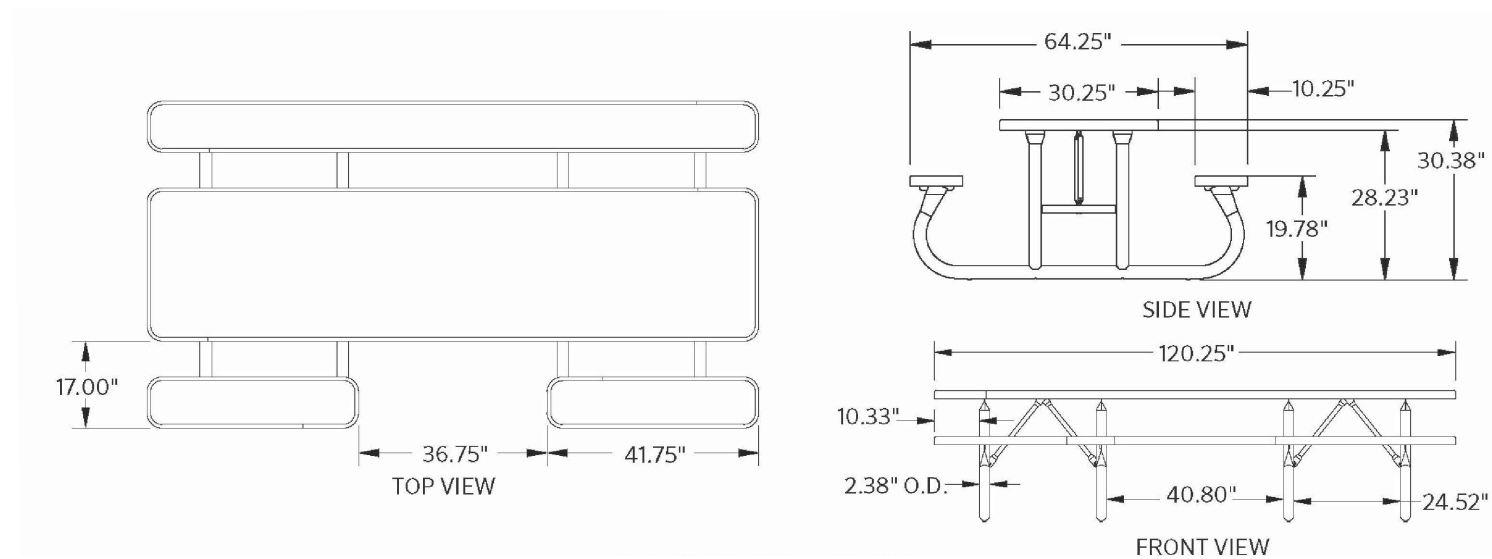
MODEL D2014 PICNIC TABLE BY ANOVA

STANDARD PICNIC TABLE - 8' LENGTH



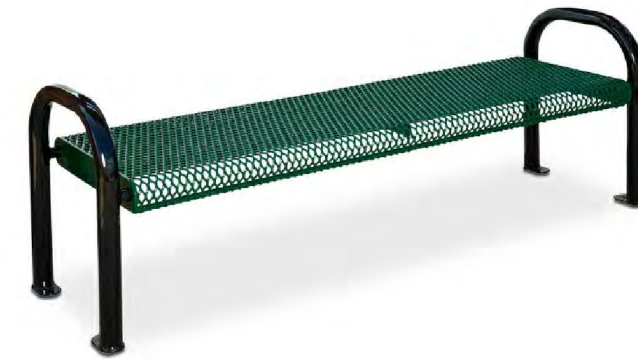
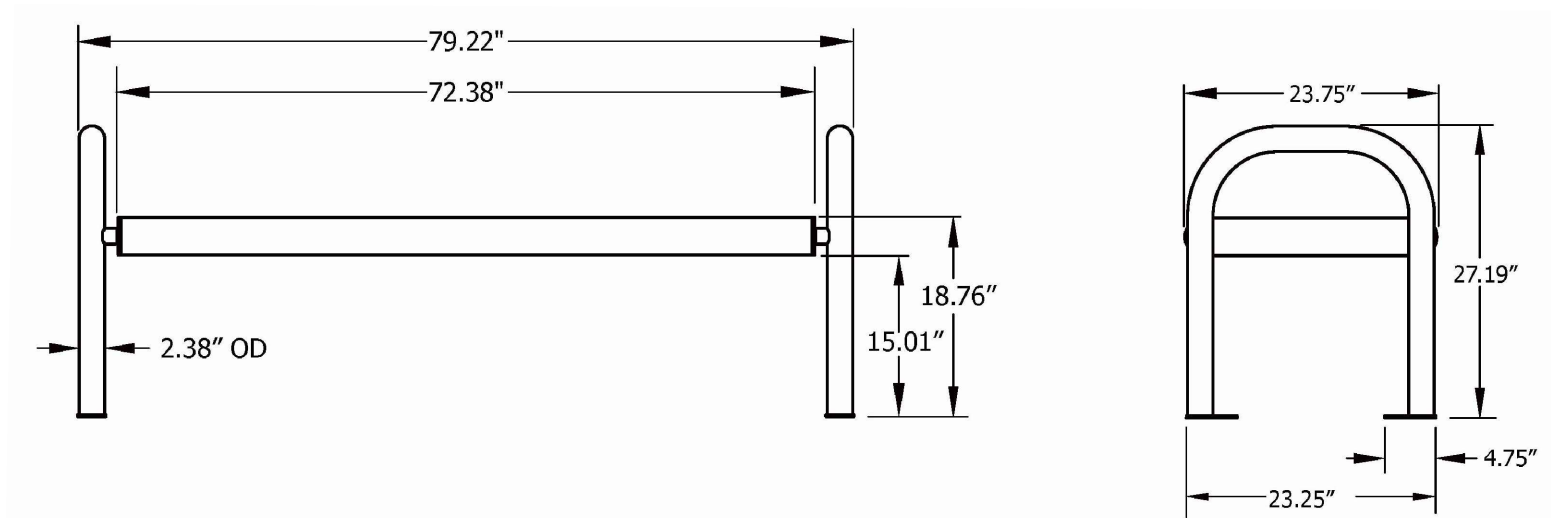
MODEL D1007 PICNIC TABLE BY ANOVA

ACCESSIBLE PICNIC TABLE - 8' LENGTH



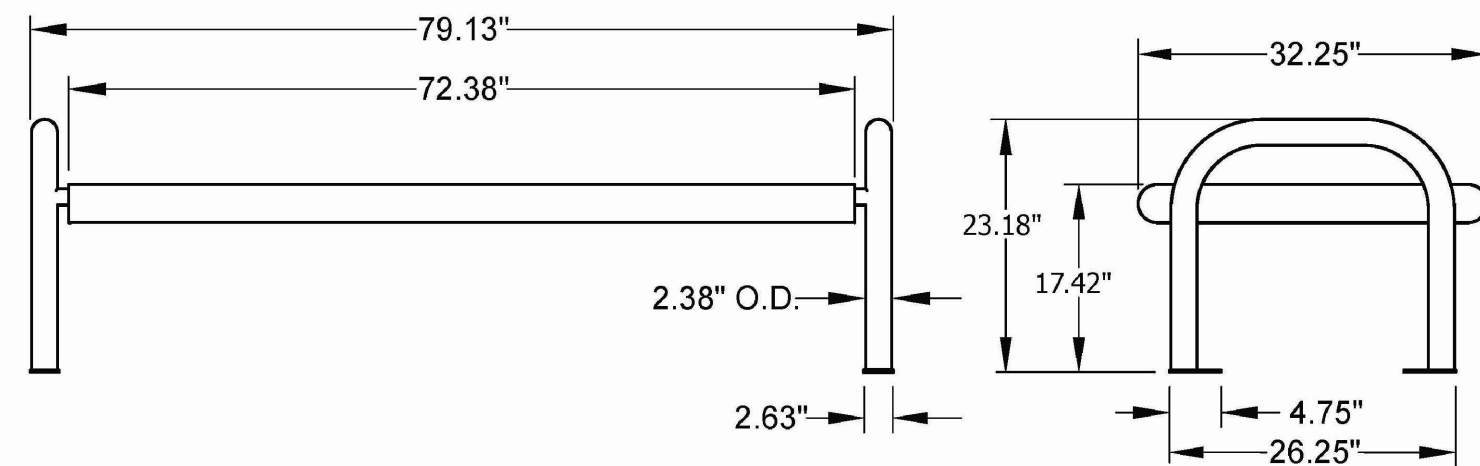
MODEL F6410 PICNIC TABLE BY ANOVA

ACCESSIBLE PICNIC TABLE - 10' LENGTH



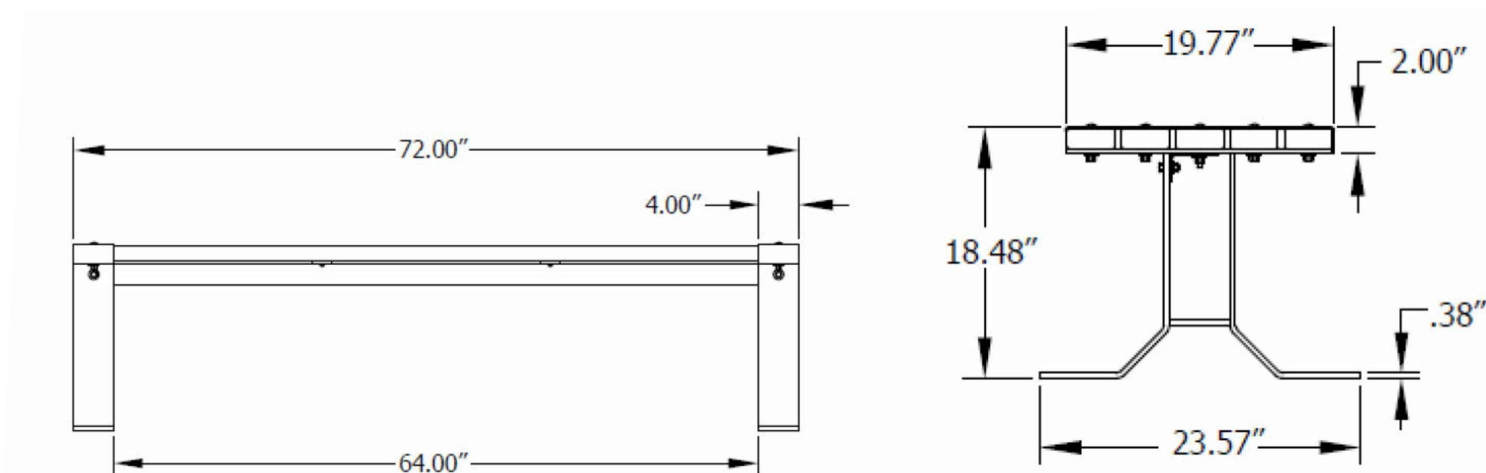
MODEL F1365 ULTRA FLAT BENCH BY ANOVA
(TO COORDINATE WITH PICNIC TABLES)

STANDARD BENCH - 6' LENGTH



MODEL F1360 EXTRA WIDE ULTRA FLAT BENCH BY ANOVA
(TO COORDINATE WITH PICNIC TABLES)

WIDE BENCH - 6' LENGTH



MODEL RCPWF6 WAINWRIGHT 6' FLAT BENCH BY ANOVA
(FOR TRAIL OVERLOOK AND REST AREAS)

RANCH STYLE BENCH - 6' LENGTH

REFERENCES AND RESOURCES

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- USDA Forest Service. August 2012. Accessibility Guidebook for Outdoor Recreation and Trails.
- USDA Forest Service. December 2007. Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds.
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APPENDIX A

PUBLIC PROCESS



DESIGN
CONCEPTS

Community + Landscape Architects

Meeting Notes

Kane Ranch Open Space Master Plan Public Open House

Location: Fountain Creek Nature Center

Date: June 7, 2018

Time: 6:00 – 7:30 PM

Planning Team Attendees:

- ☐ Ross Williams, PM, El Paso County
- ☐ Jason Meyer, Asst. PM, El Paso County
- ☐ Bill Gotthelf, PM, Design Concepts
- ☐ Priscilla Marbaker, Principal, Tapis Associates

Registered Public Attendees from sign-in sheet:

- ☐ Ed Hartl
- ☐ Charles L. Durbin
- ☐ Linda Foulk
- ☐ Robert Foulk
- ☐ Rise E. Foster-Brid...
- ☐ Carl Christian
- ☐ Chris Jackson
- ☐ Linda Hodges
- ☐ Patty Lovekin
- ☐ Nathan Winfield
- ☐ Shannon Winfield
- ☐ Cheryl Pixley
- ☐ Raymond Carr

Note:

Not all visitors appear to have signed in. Total attendance appeared to have been approximately 15-20 visitors.

Purpose

The purpose of this meeting was to present project background and draft master plan concepts to the public for information and feedback. Visitors were shown an 8-minute slideshow describing the project background and presentation boards illustrating project background, existing conditions, and draft master plan concepts. Comments were gathered on two flip-chart pads at either end of the room based on discussions with visitors.

Notes

- Consider a nature center in the master plan update (10-15 years)
- I love this idea! (nature center) Importance of short grass prairie ecosystem
- Preserve fragile ecosystem!
- Agree. (preserve fragile ecosystem)
- Be aware – and work around – any bird nests (ground, cottonwoods)
- Public hike before master plan finalization?
- Public safety concerns:
 - There are many prairie dogs and rattlesnakes. Hazardous for equestrians who are unaware or unprepared.
 - Hunting season is already dangerous for ranchers in this area. There are livestock losses and dangerous encounters due to antelope hunters shooting illegally and irresponsibly.
 - Flash flooding in Williams Creek and East Branch Dry Creek has become more frequent and more violent with increasing development in the headwater areas to the north. Fence crossings and vehicle crossings are washed out regularly.
 - Emergency response times for this area are not good. City of Fountain is closest but it is not in their jurisdiction.
- Concerns about potential public access / rancher conflicts:
 - Hundreds of cattle are on the adjacent lands. Off-leash dogs on open space that cross the fence and harass cattle can do livestock damage and risk being shot.
 - There is extreme fire danger here as evidenced by the recent 117 fire. One tossed cigarette could destroy many people's livelihoods as well as lives.
 - There is already a lot of illicit activity in this area already because it is isolated. Opening it to the public will bring parties and drug dealing and will place the public and the neighbors in bad situations.
- The Christian Open Space would be a better place to invest in public recreation facilities. It has a more attractive setting, more convenient access, better trail connections, fewer hazards, and fewer use conflicts with neighboring lands.
- Equestrian-related comments:
 - Horses and bikers don't mix. Bikers have access to many other trails. Kane Ranch should be for equestrians and hikers only. There are more attractive destinations for bikers.
 - Don't use concrete low-water trail crossings. Equestrians who ride in the prairie do not shoe their horses. Pavement hurts their hooves. Gravel trails are also undesirable for this reason.
 - More horse trailer parking capacity needed.
- The proposed parking extends into the floodplain. It will wash out.
- Public recreation funding would be better spent elsewhere. This is not the best location.
- Relocating the perimeter fencing is expensive and unnecessary.

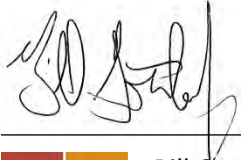
Action Items

1. Additional comments are anticipated via email and possibly by phone from attendees who wanted more time to organize their responses. Please forward any additional comments to Bill for inclusion on an updated list.
2. Priscila has sent stakeholders a link to the project background video and a questionnaire. Stakeholder comments will be incorporated in the public outreach summary of the master plan report.

Attachment:

- Scanned copy of sign-in sheet

Prepared by:



Bill Gotthelf, PLA
Sr Project Manager
billg@dcla.net
July 3, 2018

Open House Sign-In Sheet

Meeting Purpose: Kane Ranch Open Space Master Plan

Meeting Date: June 7, 2018

Facilitator: El Paso County Parks / Design Concepts

Place/Room: Fountain Creek Nature Center

Attendee's Name

Email Address for More Information

Ed Hartl

Charles L. Durhin

Linda Foulk

Robert Foulk

Rise E. Foster Brudner

Carl Christian

Chris Jackson

Linda Hodges

Patty Lovekin

Nathan Winfield

Shannon Winfield

Cheryl Pixley

Raymond Carr

(Contact information
redacted for privacy.)



**DESIGN
CONCEPTS**

Community + Landscape Architects



KANE RANCH OPEN SPACE MASTER PLAN STAKEHOLDER INTERVIEW QUESTIONS

21 JUNE 2018 3:00PM

1. Have you viewed the Kane Ranch Open Space informational video?

EPC Sheriff: Lt. Bill Huffor - yes

Fountain Creek Watershed, Flood Control and Greenway District: [no response to date](#)

Equestrians: Debbie Bibb - Yes. The video was really informative and provides a great history of the ranch.

TOSC: Susan Davies – not able to watch until next week – I provided an overview

CS Astronomical Society: Matthew T. Russell – Yes, the informational video was done professionally.

City of Fountain: Silvia Huffman – replying via email per conversation on 14 June. I left a message on 18 June she is out of the office [no response to date](#)

Medicine Wheel and Advocacy-chair Bike Colorado: Cory Sutela – no – I provided an overview.

Audubon Society: Comments received by EPC staff

2. Please describe your organization, its primary purpose, and the general demographic it serves or represents.

EPC Sheriff: Lt. Bill Huffor - The sheriff's Office is comprised of approximately 800 employees (535 sworn deputies and the remainder are civilian support staff). Our primary purpose is pretty obvious, but we operate the largest jail in the state of Colorado, provide patrol services to the unincorporated areas of the county, serve civil papers and conduct evictions, transport prisoners throughout the state, and provide wild land fire services among other things.

Fountain Creek Watershed, Flood Control and Greenway District: Larry Small

Equestrians: Debbie Bibb - Our Friends of the Equestrian Skills Course group is responsible for designing, building, funding and maintaining the Equestrian Skills Course at Bear Creek Regional Park. Many of us also try to be good advocates for equestrian access and use throughout the Pikes Peak area.

TOSC: Susan Davies –1,000 members with a focus on stewardship and preservation of trails, open spaces and parks

CS Astronomical Society: Matthew T. Russell - Since 1993, The Colorado Springs Astronomical Society (CSAS) has promoted and stimulated amateur astronomy for its members and the Pikes Peak Front Range community through a continuing program of observing events, seminars, meetings, workshops, speakers, publications, and free public star parties.

CSAS often works in conjunction with various public entities helping them enhance their nature education programs between March and November of each year. We typically provide viewing and astronomy education to interested members of the Pikes Peak Region, which includes El Paso County. Several collaborations include Florissant Fossil Beds National Park, Garden of the Gods, Bear Creek Regional Park and the Fountain Creek Regional Park and Nature Center.

City of Fountain: Silvia Huffman

Medicine Wheel and Advocacy-chair Bike Colorado Springs: Cory Sutela – Medicine Wheel is 400 members with a focus on mountain bike single-track and fun riding experiences - trails for mtn bikers. Bike Colorado Springs is an outreach of TOSC. Its mission to make bicycling better for all ages and abilities with a focus on safe connectivity.

Audubon Society: Comments received by EPC staff

3. How might your organization and/or your constituents utilize Kane Ranch Open Space, either recreationally or administratively?

EPC Sheriff: Lt. Bill Huffor - I think the citizens of El Paso County would enjoy using the space, and I would imagine if community events are held there, EPSO would participate to some degree, especially with our Mounted Unit. Early on, there was some discussion about moving the EPSO Mounted Unit to the Space. But because of the location, EPSO does not feel strongly that the space would be close enough for us to utilize effectively.

Fountain Creek Watershed, Flood Control and Greenway District: Larry Small

Equestrians: Debbie Bibb - We would use it as a recommendation for a place to ride horses with using the Skills Course as a training ground. If possible, we could also promote the skills course as a place for riders at Kane Ranch to further their skills to better use Kane Ranch and improve interactions with other trail users. It would also be a great place for our group to get together and enjoy another open space.

TOSC: Susan Davies - TOSC looking for interesting places to take our members on hikes in underserved areas of the County so this is good and welcome. Currently TOSC does not see it as a destination for our members.

CS Astronomical Society: Matthew T. Russell - The opportunity to provide public star parties and outreach at Kane Ranch would be a tremendous addition to the list of locations in El Paso county for public star parties conducted by CSAS

City of Fountain: Silvia Huffman

Medicine Wheel and Advocacy-chair Bike Colorado: Cory Sutela – Likely not a biking destination, although a good opportunity for bikers who live in and around Fountain. May be a great stopping point for road cyclist.

Audubon Society: Comments received by EPC staff

4. What proposed amenities or assets at Kane Ranch are most important to you?

EPC Sheriff: Lt. Bill Huffer – No opinion either way

Fountain Creek Watershed, Flood Control and Greenway District: Larry Small

Equestrians: Debbie Bibb - Very happy to see equestrian pull-through parking for trailers! It looks like a good variety of trails there as well. I noticed the "Future Equestrian Facility" on the map. I'm curious what that could be. In general, good access for parking horse trailers is a necessity for the equestrian community and trails that give riders good line of sight to see oncoming traffic.

TOSC: Susan Davies – Additional trails are good - combining trails with interpretation and picnicking is great.

CS Astronomical Society: Matthew T. Russell - The most important accommodations include dark skies free of unnecessary and obtrusive artificial lighting fixtures and an area near the main parking for us to set up our telescopes and provide viewing of astronomical objects to the general public. Information regarding proper lighting techniques can be found at the International Dark Sky Association's website (<http://darksky.org/>). We also believe that extended night time access to appreciate the nighttime sky should be considered, especially during the summer months.

City of Fountain: Silvia Huffman

Medicine Wheel and Advocacy-chair Bike Colorado: Cory Sutela – The ability to ride recreationally on single track and a gateway/beginner mountain biking opportunity in the east.

Audubon Society: Comments received by EPC staff

5. What programs and/or facilities would you like to see at Kane Ranch Open Space?

EPC Sheriff: Lt. Bill Huffer - I think this would be a good place to conduct a variety of community events which I would imagine would draw citizens from more rural portions of the county.

Fountain Creek Watershed, Flood Control and Greenway District: Larry Small

Equestrians: Debbie Bibb - Most important to our group is that all trail users be welcome. With the ranching history of Kane Ranch, it would be really nice to see the history incorporated in the interpretive signage. Ranching is such a dying lifestyle and so many in our area today are not aware of that rich history. This seems like a good opportunity to share that. That could be through signage and maybe even a day a year that

could be some sort of ranching celebration that would maybe have some activities and demonstrations, etc., to help share that history.

TOSC: Susan Davies – Engaging interpretation and art in combination with trails and picnicking - combining cultural stories with recreation.

CS Astronomical Society: CSAS continues to advance the science and appreciation of astronomy through our programs and in partnership with other organizations, institutions, professional astronomers, and other groups interested in astronomy. In order to make that happen, we believe that keeping the Kane Ranch Open Space a dark sky site is extremely advantageous.

We are in the final process of entering into an agreement with the United States Air Force Academy to transfer their Boller and Chivens 24 in. telescope to CSAS as the centerpiece of an intended observatory and science education center serving the El Paso County community. We are in search of a suitable location for this telescope and facility and the Kane Ranch site would be ideal for this purpose.

City of Fountain: Silvia Huffman

Medicine Wheel and Advocacy-chair Bike Colorado: Cory Sutela - Connectivity to the rest of the trail network or safe bike-lane connections is key. Also, would be interested in opportunities for some beginner mountain bike features such as ramps or balancing boardwalks.

Audubon Society: Comments received by EPC staff

6. Would your organization be able to support and/or assist in the ongoing maintenance and future development of Kane Ranch Open Space? (e.g. in-kind services, grants, donations, programs, advocacy, etc.)

EPC Sheriff: Lt. Bill Huffer - I don't believe so unless the EPSO Mounted Unit was relocated to the site. If that happened, then certainly we (EPSO or the County) would be responsible to assist with the constructions of the facilities and the ongoing maintenance etc.

Fountain Creek Watershed, Flood Control and Greenway District: Larry Small

Equestrians: Debbie Bibb - At this time all of our group's funding goes entirely to further building the skills course (we're about 20% complete at this point). We may be able to assist in small donations but would most likely be able to help more in other programs and especially advocacy. We are a group who is passionate about keeping horses on our trails and sharing them with others!

TOSC: Susan Davies – Would be able to help develop a Kane Ranch OS friends group. Will continue to support EPC thru advocacy.

CS Astronomical Society: CSAS places high emphasis on community education through our public outreach programs. We would be able to provide similar support and programs at the Kane Ranch Open Space.

City of Fountain: Silvia Huffman

Medicine Wheel and Advocacy-chair Bike Colorado: Cory Sutela – Medicine Wheel is interested in supporting Kane Ranch OS in principle as there are not many mountain bike opportunities out east – not

realistically a top focus. Interested in supporting grant applications or supporting a local friends or riding group.

Bicycle Colorado Springs currently is focusing CS and Manitou. With their limited resources, BSC would be interested in assisting a local advocacy group or supporting a unique opportunity for connectivity.

Audubon Society: Comments received by EPC staff

7. Please provide your additional comments or input.

EPC Sheriff: Lt. Bill Huffor

Fountain Creek Watershed, Flood Control and Greenway District: Larry Small

Equestrians: Debbie Bibb - The Kane Ranch looks like it will be a wonderful asset for El Paso County Parks. There is a large need for more trails and open space in the eastern portion of the county and this looks like it will provide a good variety of terrain and access for all trail users. Again, we would like to see the history of the ranch be honored in some way as the open space and trails are developed.

TOSC: Susan Davies - na

CS Astronomical Society: We have no additional comments or input at this time.

City of Fountain: Silvia Huffman

Medicine Wheel and Advocacy-chair Bike Colorado: Cory Sutela - na

Audubon Society: Comments received by EPC staff

APPENDIX B

NATURAL RESOURCES

GRASSLANDS

Grasslands (or prairies) are the most common vegetation type on the eastern plains of Colorado. The Great Plains region that once covered central North America between the Rocky Mountains and central Iowa had three main components arranged in irregular north-south trending bands from southern Canada to central Texas (Sims et al. 1978). As precipitation decreases from east to west, height and species composition of the dominant prairie grasses changes. Tall-grass prairie covered the eastern band from 95°-100° west longitude; mid-grass prairie dominated the middle section between 100° and 105° west longitude, and short-grass prairie typified the arid western region between 105° and 110° west longitude. The plains of Colorado are in the short-grass zone, but fingers of mid-grass prairie extend into the short-grass prairie, and patches of tall grasses occur in riparian areas where conditions are sufficiently moist year-round.

Notes on grassland projects

True restoration of the prairie that once covered hundreds of thousands of square miles and sustained the complex interactions of hundreds of species is probably impossible on the small parcels that are available today. However, where native grasslands do occur, they can be maintained and their condition improved. Small created prairies can preserve native prairie plants and give visitors a feel for the former native prairie.

Depending on the degree of past disturbance, rehabilitation may be accomplished by removing grazing, introducing fire, interplanting native grasses and forbs, and/or removing aggressive nonnative plants.

Planting a prairie from scratch is a long-term project. It may take 3 to 5 years for the prairie to look like the vision you have of it.

Transplanting from the wild is difficult because many prairie plants have developed long, deep roots to promote survival during drought. Try salvaging plants from sites that are scheduled for development rather than trying to move plants from intact native prairies.

Mow prairie plantings the first year after planting to prevent weeds from going to seed.

If possible, burn occasionally to reduce litter accumulations and prevent invasion by shrubs and trees. Burning only a part of the prairie in any year will leave the remainder as a refuge for creatures living there.

For more information on prairie planting or restoration, see Brune 1991, Roundy et al. 1993, and Schramp [1978](#).

NOTE:

Kane Ranch Open Space grassland restoration information excerpted from:
Native Plant Revegetation Guide for Colorado, Colorado Natural Areas Program, 1998

SHORT-GRASS PRAIRIE

Short-grass prairie covers much of the eastern plains, occurring on drought-prone, mildly alkaline, medium and fine-textured soils. The character of the short-grass prairie is shaped by aridity; average annual precipitation is between 10 and 16 inches (25-40 cm). Mid-grasses are able to survive during periods of moderate conditions, but are replaced by blue grama and buffalograss during and following events of stress such as drought or overgrazing. In the absence of such stress, mid-grasses such as needleandthread, sideoats grama, junegrass, and Sandberg bluegrass are common and even dominant, and the many associated forbs can turn the prairie into a colorful wildflower garden in wet summers. Western wheatgrass may form monotypic stands in swales and depressions on clay-rich soils. Few shrubs grow consistently in short-grass prairie because the soils are too dry and compacted to support them; yucca, cacti, fourwing saltbush and rabbitbrush are the most common woody plants on the prairie.

Plant Finder 1: Short-grass Prairie

(dominant species in bold type)

GRAMINOIDS

Bouteloua gracilis

Bouteloua hirsuta

Buchloe dactyloides

Carex filifolia

Hilaria jamesii

Koeleria macrantha

Muhlenbergia torreyi

Pascopyrum smithii

Poa secunda

Sporobolus cryptandrus

Stipa comata

blue grama

hairy grama

buffalograss

threadleaf sedge

galleta (southern plains)

junegrass

ring muhly

western wheatgrass

Sandberg bluegrass

sand dropseed

needleandthread

FORBS

Argemone polyanthemus

Artemisia carruthii

Artemisia frigida

Astragalus missouriensis

Heterotheca canescens

Cryptantha thyrsiflora

Dalea candida

Dalea purpurea

Delphinium carolinium ssp. *virescens*

Eriogonum effusum

Erysimum asperum

Gaillardia pinnatifida

Gaura coccinea

Ipomoea leptophylla

Liatris punctata

Linum lewisii

Mirabilis linearis

Oenothera caespitosa

crested pricklypoppy

Carruth's sagewort

fringed sagewort

Missouri milkvetch

hoary false goldenaster

calcareous catseye

white prairieclover

purple prairieclover

Carolina larkspur

spreading buckwheat

plains wallflower

red dome blanketflower

scarlet beeblossom

bush morning glory

dotted gayfeather

Lewis' flax

narrowleaf four o'clock

clumped evening primrose

Plant Finder 1: Short-grass Prairie

(dominant species in bold type)

FORBS (continued)

Psoraleidium tenuiflorum

Ratibida columnifera

Solidago mollis

Sophora sericea

Sphaeralcea angustifolia

Sphaeralcea coccinea

Tetraeneuris acaulis

Zinnia grandiflora

slimflower scurfpea

upright prairie coneflower

velvety goldenrod

silky sophora

copper globemallow

scarlet globemallow

stemless hymenoxys

Rocky Mountain zinnia (southern plains)

TREES AND SHRUBS (INCLUDING SUCCULENTS)

Atriplex canescens

Chrysothamnus parryi

Coryphantha vivipara

Echinocereus triglochidiatus

Echinocereus viridiflorus

Krascheninnikovia lanata

Opuntia fragilis

Opuntia macrorhiza

Opuntia phaeacantha

Opuntia polyacantha

Yucca glauca

fourwing saltbush

Parry's rabbitbrush

scarlet hedgehog cactus

kingcup cactus

nylon hedgehog cactus

winterfat

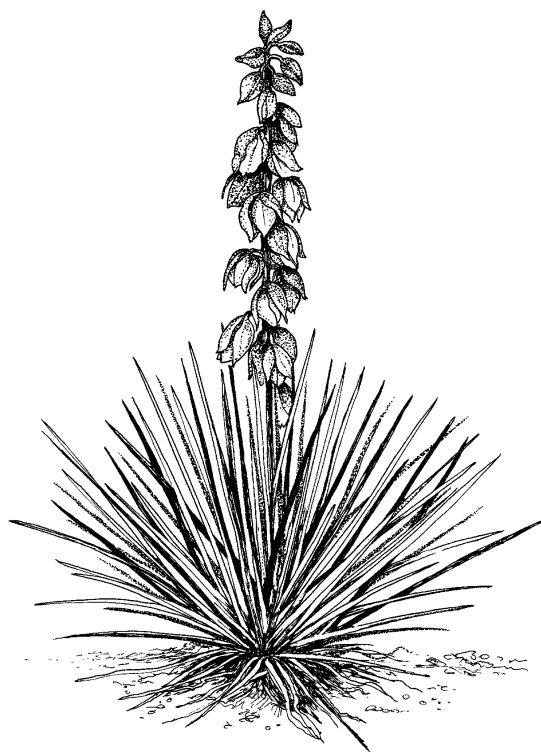
brittle pricklypear

twistspine pricklypear

Mojave pricklypear

hairspine pricklypear

small soapweed



Yucca glauca

Table 8 - Continued.

Grassland

Shortgrass Prairie

Tier 1 Species				Tier 2 Species			
Group	Species	Common Name	Primary	Group	Species	Common Name	Primary
Birds	<i>Athene cunicularia</i>	Burrowing owl	<input checked="" type="checkbox"/>	Amphibians	<i>Scaphiopus couchii</i>	Couch's spadefoot	<input checked="" type="checkbox"/>
Birds	<i>Aquila chrysaetos</i>	Golden eagle	<input checked="" type="checkbox"/>	Amphibians	<i>Anaxyrus debilis</i>	Green toad	<input type="checkbox"/>
Birds	<i>Charadrius montanus</i>	Mountain plover	<input checked="" type="checkbox"/>	Birds	<i>Haliaeetus leucocephalus</i>	Bald eagle	<input type="checkbox"/>
Mammals	<i>Mustela nigripes</i>	Black-footed ferret	<input checked="" type="checkbox"/>	Birds	<i>Aimophila cassinii</i>	Cassin's sparrow	<input checked="" type="checkbox"/>
Mammals	<i>Perognathus fasciatus</i>	Olive-backed pocket mouse	<input checked="" type="checkbox"/>	Birds	<i>Calcarius ornatus</i>	Chestnut-collared longspur	<input checked="" type="checkbox"/>
Reptiles	<i>Aspidoscelis neotesselata</i>	Colorado checkered whiptail	<input type="checkbox"/>	Birds	<i>Buteo regalis</i>	Ferruginous hawk	<input checked="" type="checkbox"/>
Reptiles	<i>Sistrurus catenatus</i>	Massasauga	<input checked="" type="checkbox"/>	Birds	<i>Ammodramus savannarum</i>	Grasshopper sparrow	<input checked="" type="checkbox"/>
				Birds	<i>Calamospiza melanocorys</i>	Lark bunting	<input checked="" type="checkbox"/>
				Birds	<i>Lanius ludovicianus</i>	Loggerhead shrike	<input checked="" type="checkbox"/>
				Birds	<i>Numenius americanus</i>	Long-billed curlew	<input checked="" type="checkbox"/>
				Birds	<i>Rhynchophanes mccownii</i>	McCown's longspur	<input checked="" type="checkbox"/>
				Birds	<i>Circus cyaneus</i>	Northern harrier	<input checked="" type="checkbox"/>
				Birds	<i>Falco mexicanus</i>	Prairie falcon	<input checked="" type="checkbox"/>
				Birds	<i>Asio flammeus</i>	Short-eared owl	<input checked="" type="checkbox"/>
				Birds	<i>Buteo swainsoni</i>	Swainson's hawk	<input checked="" type="checkbox"/>
				Insects	<i>Bombus pensylvanicus</i>	American bumblebee	<input checked="" type="checkbox"/>
				Insects	<i>Euphilotes rita coloradensis</i>	Colorado blue	<input checked="" type="checkbox"/>
				Insects	<i>Danaus plexippus</i>	Monarch butterfly	<input checked="" type="checkbox"/>
				Insects	<i>Bombus morrisoni</i>	Morrison bumblebee	<input checked="" type="checkbox"/>
				Insects	<i>Eurystrymon favonius Ontario</i>	Northern hairstreak	<input type="checkbox"/>
				Insects	<i>Speyeria idalia</i>	Regal fritillary	<input checked="" type="checkbox"/>
				Insects	<i>Polites rhesus</i>	Rhesus skipper	<input checked="" type="checkbox"/>
				Insects	<i>Callophrys mcfarlandi</i>	Sandia hairstreak	<input checked="" type="checkbox"/>
				Insects	<i>Bombus fraternus</i>	Southern plains bumblebee	<input checked="" type="checkbox"/>
				Insects	<i>Bombus suckleyi</i>	Suckley cuckoo bumblebee	<input checked="" type="checkbox"/>
				Insects	<i>Euphyes bimacula</i>	Two-spotted skipper	<input type="checkbox"/>
				Insects	<i>Bombus occidentalis</i>	Western bumblebee	<input checked="" type="checkbox"/>
				Insects	<i>Euproserpinus wiesti</i>	Wiest's sphinx moth	<input type="checkbox"/>
				Insects	<i>Bombus fervidus</i>	Yellow bumblebee	<input checked="" type="checkbox"/>
				Mammals	<i>Bison bison</i>	Bison	<input checked="" type="checkbox"/>
				Mammals	<i>Cynomys ludovicianus</i>	Black-tailed prairie dog	<input checked="" type="checkbox"/>
				Mammals	<i>Vulpes velox</i>	Swift fox	<input checked="" type="checkbox"/>
				Mammals	<i>Lepus townsendii</i>	White-tailed jackrabbit	<input checked="" type="checkbox"/>
				Plants	<i>Frasera coloradensis</i>	Colorado green gentian	<input checked="" type="checkbox"/>
				Plants	<i>Asclepias uncialis ssp. uncialis</i>	Dwarf milkweed	<input checked="" type="checkbox"/>
				Plants	<i>Oenopsis puebloensis</i>	Pueblo goldenweed	<input checked="" type="checkbox"/>
				Plants	<i>Oenopsis foliosa var. monocephala</i>	Rayless goldenweed	<input checked="" type="checkbox"/>
				Plants	<i>Trifolium dasyphyllum ssp. anemophilum</i>	Whip-root clover	<input checked="" type="checkbox"/>
				Reptiles	<i>Thamnophis cyrtopsis</i>	Blacknecked gartersnake	<input type="checkbox"/>
				Reptiles	<i>Hypsiglena chlorophaea</i>	Desert nightsnake	<input type="checkbox"/>
				Reptiles	<i>Rhinocheilus lecontei</i>	Long-nosed snake	<input checked="" type="checkbox"/>
				Reptiles	<i>Rena dissectus</i>	New Mexico threadsnake	<input checked="" type="checkbox"/>
				Reptiles	<i>Phrynosoma modestum</i>	Round-tailed horned lizard	<input checked="" type="checkbox"/>
				Reptiles	<i>Phrynosoma cornutum</i>	Texas horned lizard	<input checked="" type="checkbox"/>

NOTE:

Tier I and Tier II Conservation Species list
 excerpted from: State Wildlife Action Program:
 A Strategy for Conserving Wildlife in Colorado,
 Colorado Parks and Wildlife, 2015

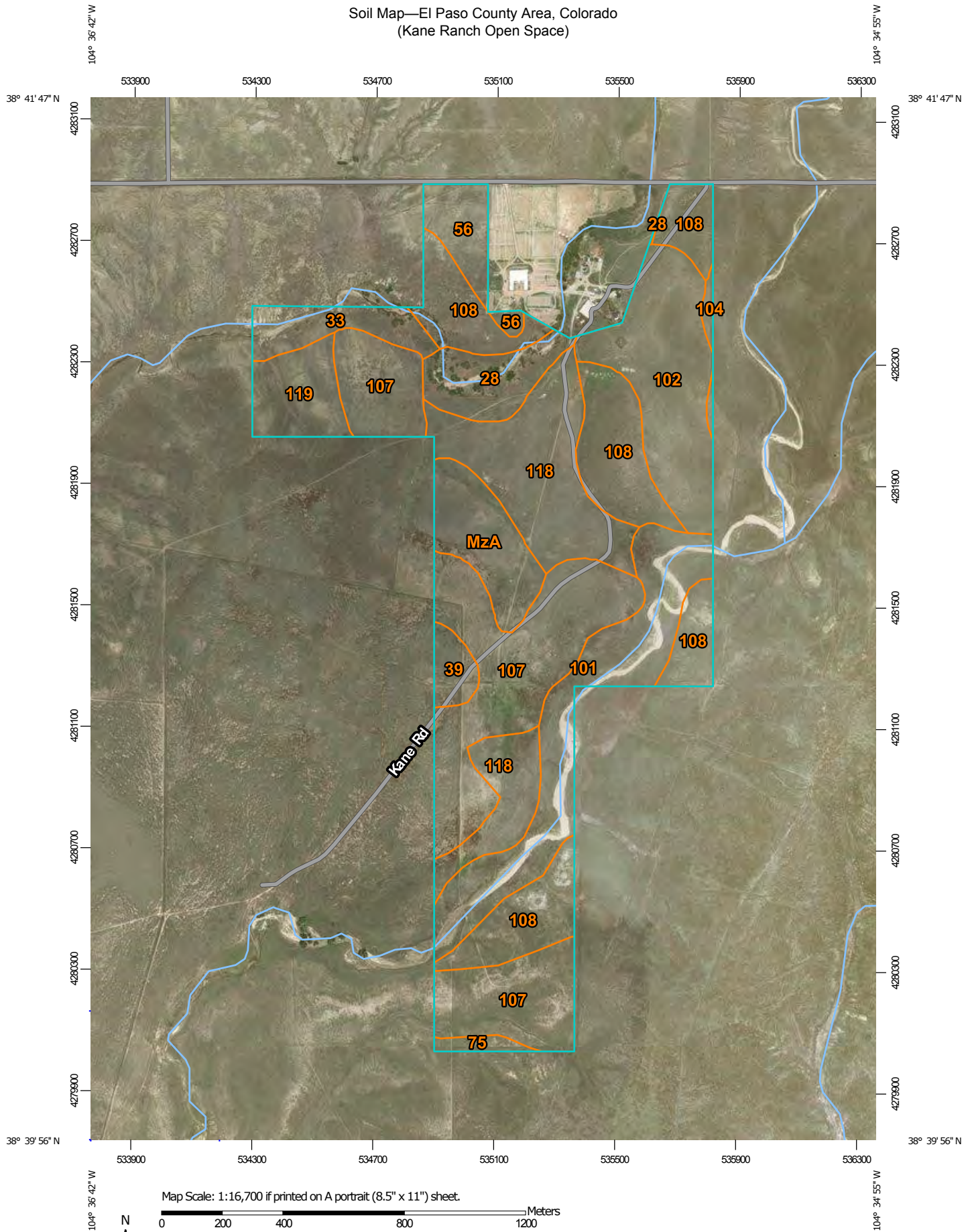
Table 8 - Continued.

<div> Reptiles <i>Lampropeltis triangulum taylori</i> Utah milksnake <input checked="" type="checkbox"/> </div>				
General Threat	Specific Threat	General Conservation Action	Specific Conservation Action	Priority
01.1 Housing & Urban Areas	Urban, suburban, and ex-urban development	1.2 Resource & Habitat Protection	Acquire conservation easement for habitat protection	H
02.3 Livestock Farming & Ranching	Altered native vegetation (grazing intensity)	2.3 Habitat & Natural Process Restoration	Restore native prairie using site-specific techniques and context	H
03.1 Oil & Gas Drilling	Fragmentation of native habitat due to oil/gas development & associated infrastructure	5.3 Private Sector Standards & Codes	Implement Best Management Practices for energy development and mining	H
01.2 Commercial & Industrial Areas	Urban, suburban, and exurban development	5.2 Policies & Regulations	Promote zoning that concentrates use and protects habitat	M
02.1 Annual & Perennial Non-Timber Crops	Conversion to cropland	1.2 Resource & Habitat Protection	Acquire conservation easement for habitat protection	M
02.1 Annual & Perennial Non-Timber Crops	Windbreaks, agricultural methods such as tilling, pitting	2.3 Habitat & Natural Process Restoration	Restore native prairie using site-specific techniques and context	M
04.1 Roads & Railroads	Roads or Railroads (super slab)	5.2 Policies & Regulations	Promote consideration of biodiversity issues in transportation and land use planning processes	M
08.1 Invasive Non-Native/Alien Species	Invasive plants	2.2 Invasive/Problematic Species Control	Write and/or implement integrated weed/pest management plan	M
11.2 Droughts	Climate variability (intensification or alteration of normal weather patterns, e.g., droughts)	2.3 Habitat & Natural Process Restoration	Maintain appropriate patch size and habitat mosaic	M
03.3 Renewable Energy	Wind energy development	5.3 Private Sector Standards & Codes	Implement Best Management Practices for energy development	L
07.1 Fire & Fire Suppression	Altered native vegetation (woody encroachment, seral stage imbalance, etc.)	2.3 Habitat & Natural Process Restoration	Restore natural fire regime	L











APPENDIX C

SOIL DATA

Soil Map—El Paso County Area, Colorado (Kane Ranch Open Space)



MAP LEGEND

Area of Interest (AOI)		Area of Interest (AOI)		Spoil Area
Soils		Soil Map Unit Polygons		Stony Spot
		Soil Map Unit Lines		Very Stony Spot
		Soil Map Unit Points		Wet Spot
Special Point Features		Blowout		Other
		Borrow Pit		Special Line Features
		Clay Spot		Water Features
		Closed Depression		Streams and Canals
		Gravel Pit		Transportation
		Gravelly Spot		Rails
		Landfill		Interstate Highways
		Lava Flow		US Routes
		Marsh or swamp		Major Roads
		Mine or Quarry		Local Roads
		Miscellaneous Water		Background
		Perennial Water		Aerial Photography
		Rock Outcrop		
		Saline Spot		
		Sandy Spot		
		Severely Eroded Spot		
		Sinkhole		
		Slide or Slip		
		Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL: <http://websoilsurvey.sc.egov.usda.gov>

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado

Survey Area Data: Version 15, Oct 10, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 7, 2015—Mar 9, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
28	Ellicott loamy coarse sand, 0 to 5 percent slopes	21.6	4.1%
33	Heldt clay loam, 0 to 3 percent slopes	17.6	3.4%
39	Keith silt loam, 0 to 3 percent slopes	7.8	1.5%
56	Nelson-Tassel fine sandy loams, 3 to 18 percent slopes	15.8	3.0%
75	Razor-Midway complex	3.5	0.7%
101	Ustic Torrifluvents, loamy	63.8	12.2%
102	Valent sand, 1 to 12 percent slopes, dry	55.9	10.7%
104	Vona sandy loam, warm, 0 to 3 percent slopes	2.5	0.5%
107	Wilid silt loam, 0 to 3 percent slopes	124.5	23.7%
108	Wiley silt loam, 3 to 9 percent slopes	88.6	16.9%
118	Fort loam, 1 to 5 percent slopes, cool	74.9	14.3%
119	Fort sandy loam, 1 to 8 percent slopes, cool	20.8	4.0%
MzA	Manzanola silty clay loam, saline, 0 to 2 percent slopes	27.2	5.2%
Totals for Area of Interest		524.6	100.0%

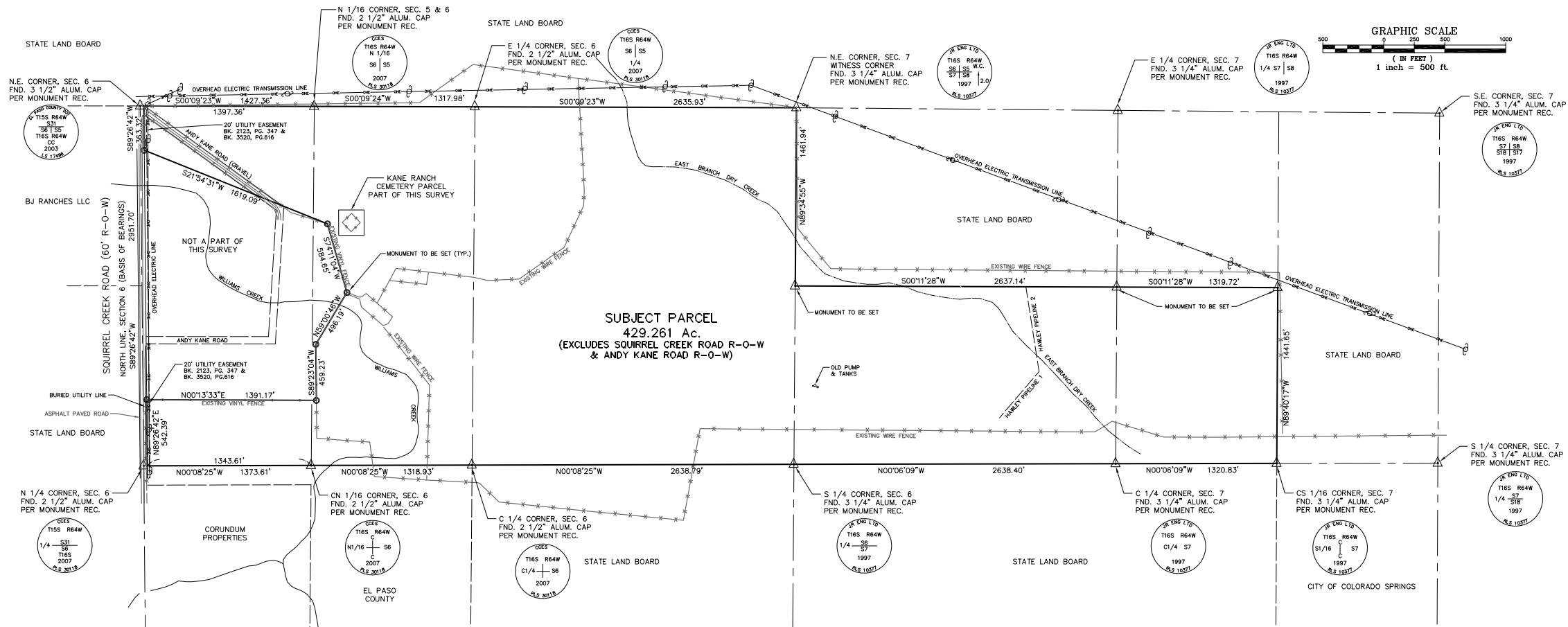
APPENDIX D

SURVEY:

MAIN PARCEL

ALTA/ACSM LAND TITLE SURVEY

OF A PORTION OF SECTION 6 AND A PORTION OF SECTION 7,
TOWNSHIP 16 SOUTH, RANGE 64 WEST OF THE 6TH P.M.,
EL PASO COUNTY, COLORADO.



Legal Description:

Government Lots 1 and 2, also known as the North half of the Northeast Quarter; the South half of the Northeast Quarter; and the Southeast Quarter of Section 6, Township 16 South, Range 64 West of the 6th Principal Meridian, together with the West half of the Northeast Quarter and the Northwest Quarter of the Southeast Quarter of Section 7, Township 16 South, Range 64 West of the 6th Principal Meridian, in El Paso County, Colorado, BUT EXCLUDING THEREFROM THE FOLLOWING THREE PARCELS:

(A) A strip of land sixty (60) feet in width, lying and being thirty (30) feet on each side of the following described centerline, to-wit:

Beginning at a point on the North line of Section 6, Township 16 South, Range 64 West of the 6th Principal Meridian, the said point being fourteen (14) feet West from the Northeast corner of said Section 6; thence South 36°23' West, 1414.0 feet; thence North 85°55' West, 1081.7 feet; thence North 00°35' East, 1061.3 feet to a point on the North line of said Section 6, 1920.8 feet West from the Northeast corner of said Section 6, being that parcel previously conveyed to El Paso County for purposes of maintaining a public road by Deed recorded August 5, 1921 in Book 602 at Page 184. (Andy Kane Road)

(B) That portion of Government Lots 1 and 2, and that portion of the South Half of the Northeast Quarter of Section 6, Township 16 South, Range 64 West of the 6th P.M., El Paso County, Colorado described as follows:

Commencing at the Northeast corner of said Section 6; thence South 84°33'45" West (said bearing and all others in this description being relative to the North line of Section 6 which was assumed to bear South 89°26'42" West) a distance of 364.93 feet to the POINT OF BEGINNING; thence South 21°54'31" West, 1619.09 feet; thence South 74°11'04" West, 584.65 feet; thence North 59°00'46" West, 496.19 feet; thence South 89°23'04" West, 459.23 feet; thence North 00°13'33" East, 1391.15 feet; thence North 89°26'41" East, on a line 30.00 feet South of, and parallel with the North line of Section 6, a distance of 2045.82 feet to the Point of Beginning (purported to contain a calculated area of 60.11 Acres, more or less) (The Morley Parcel / MM Ranch)

(C) A tract of land in the Northeast Quarter of Section 6, Township 16 South, Range 64 West of the Sixth Principal Meridian, County of El Paso, State of Colorado, being more particularly described as follows:

Commencing at the Northeast corner of said Section 6; thence South 27°40'57" West a distance of 1836.67 feet to the POINT OF BEGINNING; thence South 00°08'23" East, 208.71 feet; thence South 90°00'00" West, 208.96 feet; thence North 00°00'00" West, 208.20 feet; thence North 89°51'37" East, 208.46 feet to the Point of Beginning (purported to contain a calculated area of One (1) Acre, more or less) (The Kane Ranch Cemetery Parcel) Shown and included in this Survey.

BASIS OF BEARINGS

Assumed the North line of Section 6 as bearing South 89°26'42" West and with all bearings contained herein herein relative thereto. Said line being monumented as shown hereon.

To: JUR, LLC

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 'Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys,' jointly established and adopted by ALTA and NSPS in 2005, and includes terms 1, 4, 7a, 8, 9, 10, 11a, 13, 16, 17 & 18 of Table A thereof. Pursuant to the Accuracy Standards as adopted by ALTA and NSPS and in effect on the date of this certification, undersigned further certifies that in my professional opinion, as a land surveyor registered in the State of Colorado, the Relative Positional Accuracy of this survey does not exceed that which is specified therein.

Landmark Engineering Ltd.

By:

Paul A. Hernandez
Colo. L.S. 32829

According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of certification shown hereon.

NOTES:

1) Recorded and apparent rights-of-way and easements are shown per Title Commitment prepared by North American Title Company of Colorado, File No. 36200-10-00659 TFS, dated July 14, 2010.

SCHEDULE B - EXCEPTIONS

- through 7. Standard Exceptions.
- Any interest which may have been acquired by the public by reason of the Resolution of the Board of County Commissioners dated and recorded October 3, 1887 in Road Book A at Page 78, which provided that all sections lines, township lines, and range lines on the public domain East of the Range line dividing Range lines 65 West and 66 West are declared to be public highways of the width of 60 feet, being 30 feet on each side of said section lines, township lines, or range lines. (Appears to be the source for Squirrel Creek Road along the North boundary of the property.) As shown
- Any existing ditch rights, included but not limited to, (a) the Williams Ditch located by Al Williams in November of 1907, and (b) the Hawley Seepage and Underflow Pipe Line filed with the El Paso County Clerk and recorded as file No. 680 Approximate location shown, exact location cannot be defined.
- The right of proprietor of vein or lode to extract or remove his ore, should the same be found to penetrate or intersect the premises thereby granted and rights of way for ditches and canals as reserved in the United States Patent recorded as follows, and any and all assignments thereof or interests therein:
June 4, 1895 in Book 143 at Page 272
January 17, 1914 in Book 420 at Page 562
September 15, 1915 in Book 165 at Page 255
- Reservation for ditch and ditch rights contained in deed recorded August 29, 1918 in Book 591 at Page 260.
- Reservation of an undivided one-half of all oil, gas, and other minerals and mineral rights in instrument recorded December 17, 1942 in Book 1014 at Page 506.
- An easement for utilities and incidental purposes granted to Mountain View Electric Association, by the instrument recorded March 22, 1966 in Book 2123 at Page 347. As shown
- An easement for utilities for and incidental purposes granted to Mountain View Electric Association, by the instrument recorded January 11, 1982 in Book 3520 at Page 616. As shown
- Terms, conditions, provisions, agreements and obligations specified under the Notice by the El Paso County Telephone Company recorded January 29, 1982 in Book 3527 at Page 176.
- The effect of the inclusion of the subject property in Hanover Fire Protection District, as disclosed by the instrument recorded December 22, 1993 in Book 6340 at Page 1268.
- Terms, conditions, provisions, agreements and obligations specified under the Declaration of Land Use Restrictions recorded May 23, 2007 at Reception No. 207069395.
- Reservation of an undefined perpetual, non exclusive easement for access, ingress and egress of pedestrians and vehicles from Squirrel Creek Road to the Kane Ranch Cemetery, together with an easement for water pipeline, contained in Personal Representative's Deed recorded May 31, 2007 at Reception No. 207073281. The exact location not defined.
- Terms, conditions, provisions, agreements and obligations specified under the Non-Exclusive Permanent Access Easement and Maintenance Agreement recorded May 24, 2007 at Reception No. 207073283. The exact location not defined.
- Any existing leases or tenancies.

NOTES CONT:

- The locations of underground utilities as shown hereon are based on above-ground structures and field locates by utility companies. Locations of underground utilities/structures may vary from locations shown hereon. Additional buried utilities/structures may be encountered. No excavations were made during the progress of this survey to locate buried utilities/structures. Before excavations are begun, contact the Utility Notification Center of Colorado at 1-800-922-1987 for verification of utility type and for field locations.
- The survey shown hereon was performed on the ground.
- There was no observable evidence of earth moving work, building construction or building additions within recent months.
- There were no changes in street right of way lines either completed or proposed, and available from the controlling jurisdiction or observable evidence of recent street or sidewalk construction or repairs.
- There was no observable evidence of site use as a solid waste dump, sump or sanitary land fill.
- The lineal units used in preparing this survey are U.S. survey feet.
- The location of Williams Creek and the East Branch of Dry Creek shown hereon were established using a scanned image of the U.S.G.S. Fountain NE Quadrangle Map.

REVISIONS	Description	By	Date

Landmark Engineering
Engineers Planners Surveyors Architects Geotechnical
3521 West Eisenhower Blvd., Loveland, Colorado 80537
(970) 687-6262 Fax (970) 687-6266
www.landmarktd.com

DATE: JULY, 2010

SCALE: 1"=500'

DRAWN: P.A.H.

DESIGNED: N/A

APPROVED: P.A.H.

CLIENT: JUR, LLC

TITLE:
ALTA/ACSM LAND TITLE SURVEY
S.E. COLORADO NATIONAL V.A. CEMETERY

JOB NO.: JUR/LLC

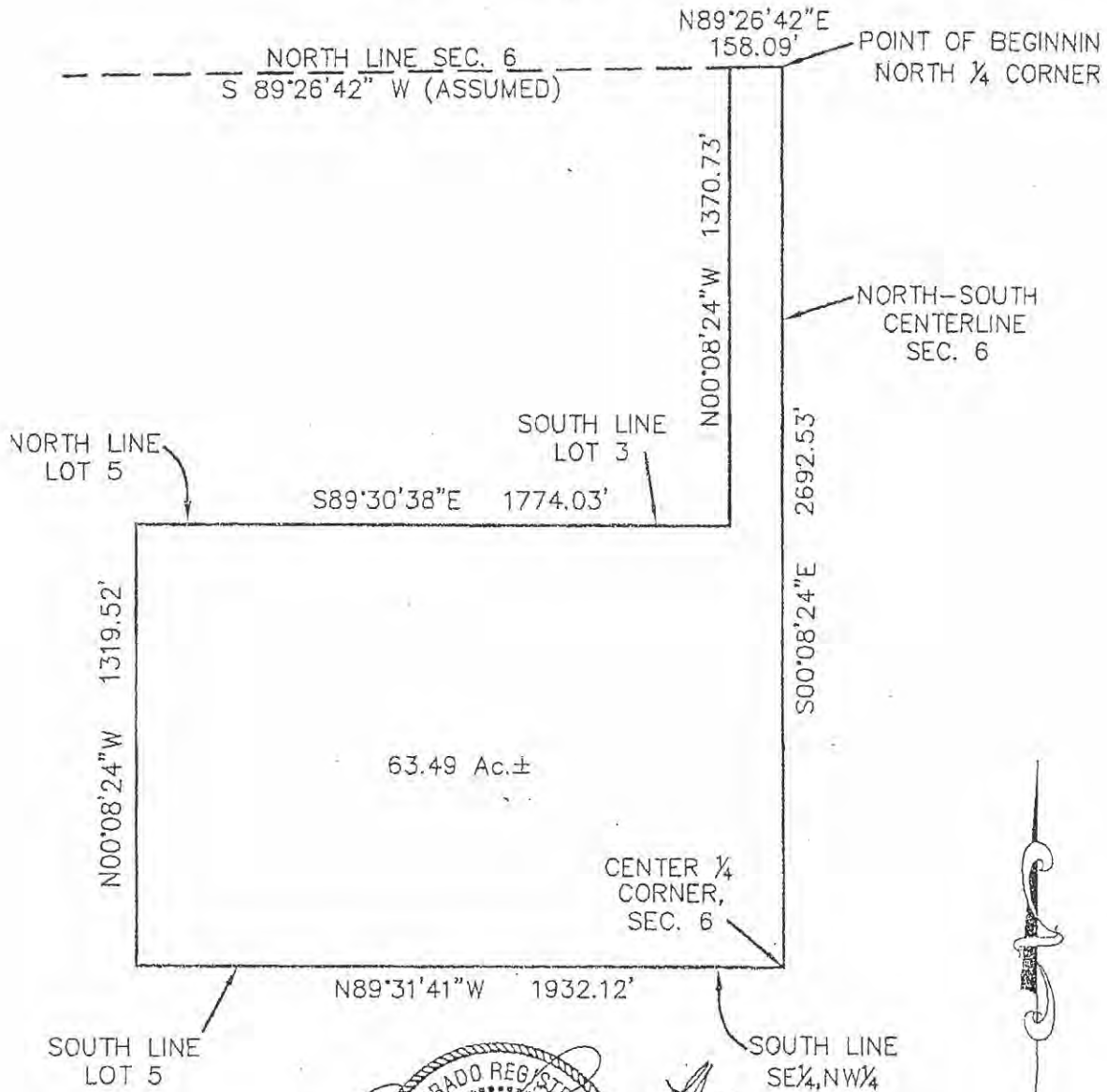
OC5C07-603

SHEET

1 OF 1

APPENDIX E
PARCEL BOUNDARIES:
NORTHWEST
“PANHANDLE”

EXHIBIT "B"
MAP OF REAL PROPERTY



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