



ARAPAHOE COUNTY
OPEN SPACES

Kiowa Creek North Open Space: BOCC Master Plan Approval

Kiowa Creek North Open Space





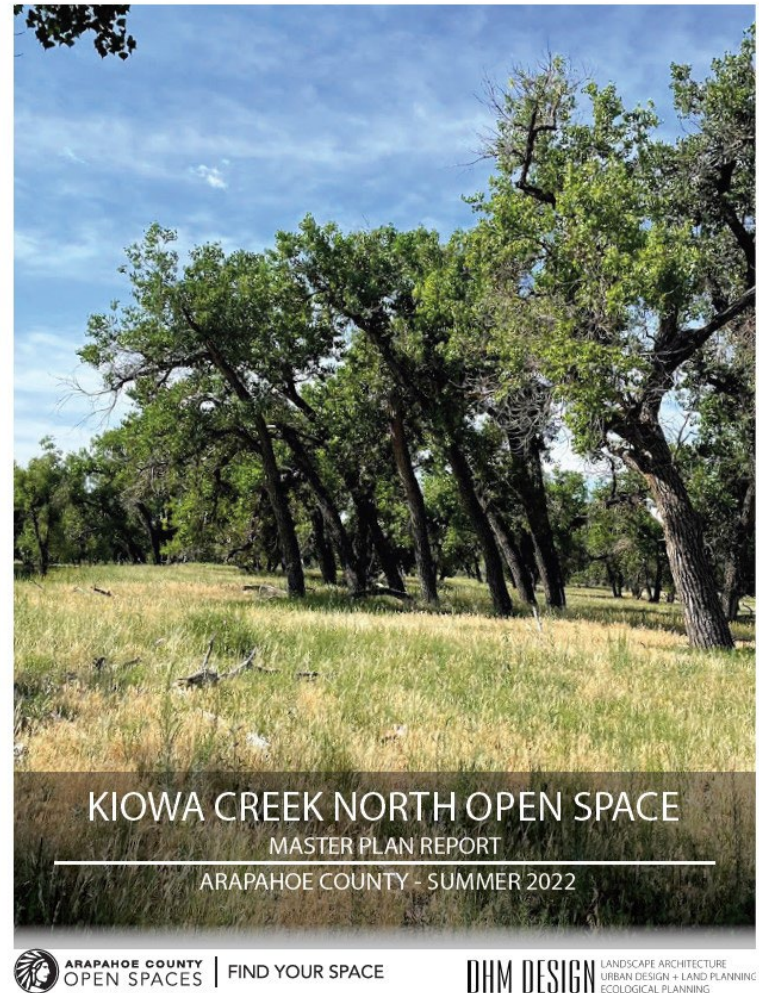
KCNOS Property History

- approximately 265 acres of unimproved open space
- property was purchased in 2009 to be maintained as an open space, for future passive use recreation
- The site is unique because of its matrix of ecological communities and intact riparian corridor splitting the site.



KCNOS Master Plan

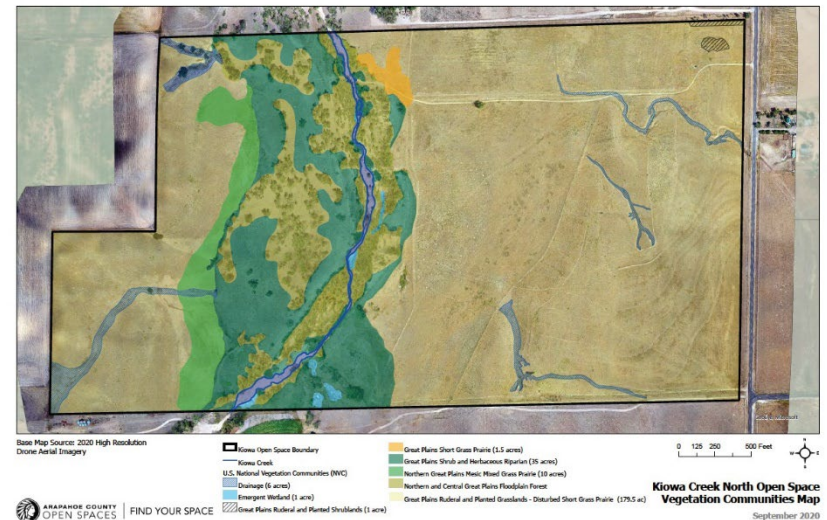
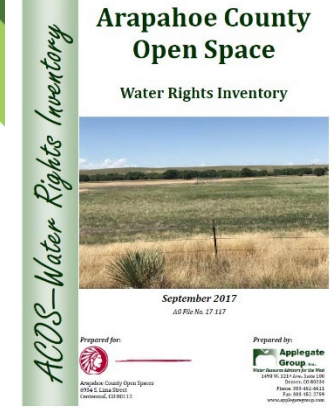
- Goal: To create a passive recreation destination in eastern Arapahoe County while protecting the site's high-quality ecosystems.
- Due to past ACOS funding restrictions, no active recreation amenities will be allowed in the park.
- High intensity public engagement to identify passive park amenities desired by the public.



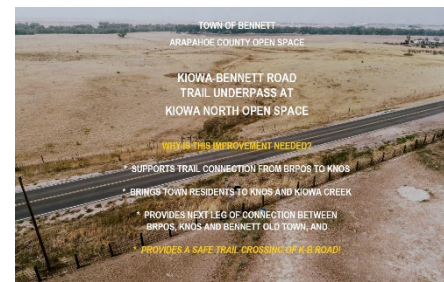
KCNOS Master Plan Existing Conditions Analysis

Existing Conditions Analysis includes:

- Ecological Communities
- Wildlife
- Ecological Assessment and Recommendations Report
- Noxious Vegetation Management Plan
- KCNOS Well Capacity Testing and Permit Renewal Project
- Proposed Regional Trail System & Kiowa Bennett Road Underpass

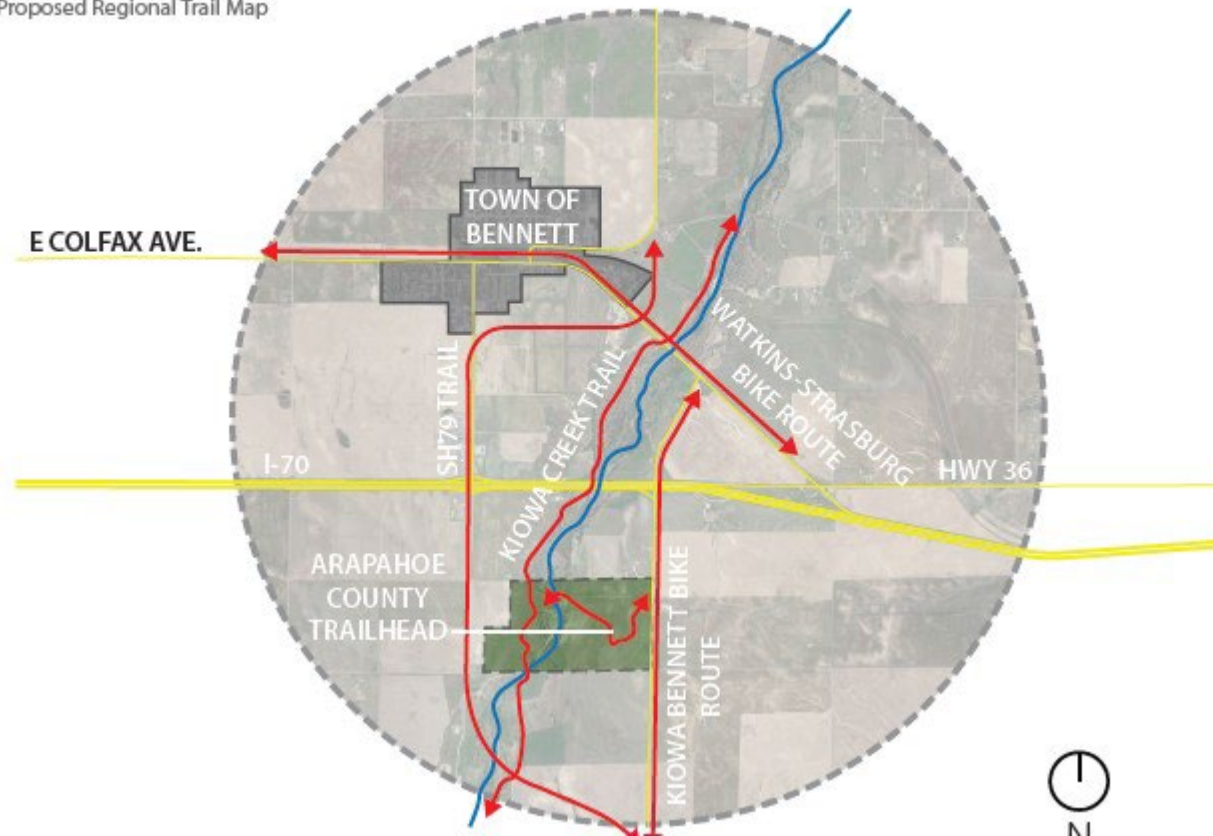


Appendix 1 - Existing Conditions Maps
KIOWA CREEK NORTH OPEN SPACE ECOLOGICAL ANALYSIS
September 2020



KCNOS Regional Multimodal Connectivity

Proposed Regional Trail Map



- KCNOS will serve as a major regional multimodal route connecting the community to the Town of Bennett and the Adams County Multimodal System.
- Underpass construction and trail extension to directly connect KCNOS to Antelope Hills anticipated summer of 2023.



Public Outreach



Over 100 interactions at Bennett Days



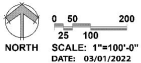
- Survey and website comments
- 57 online Survey Responses

Kiowa Creek North Open Space

Arapahoe County



900 S. Broadway
Suite 300
Denver, CO 80209
303.892.5566
www.ahmdesign.com



Site Amenities



Creek Crossings



Crusher Fines Trail



Equestrian Trail



Biking Trail



Boulder Seating



Equestrian Challenge Course



Hitching Posts



Vault Restroom



Wayfinding/Interpretative



Picnic Areas
Signage



Archery Range

Cost Estimate

Opinion of Estimated Costs

Kiowa Creek North Open Space

Opinion of Estimated Costs - Magnitude of scale use only

Prepared By: DMH Design
January 24, 2022

Value Engineered w/ ACOS Staff - 02.11.2022

Category	Unit	Qty	Unit Cost	Total Cost	Notes
Project Start-Up					
Project Start Up and Preparation	LS				
- Mobilization					
- Permits					
- Vehicle Tracking					
- Dust Control (Water)					
Puffing Utilities (Non-Destructive)	EA	5	\$1,200.00	\$6,000.00	Area around well & pump
Erosion Control & Stormwater Management	LS	1	\$100,000.00	\$100,000.00	Allowance - Review with further detail
Construction Staking / Surveying	LS	1	\$40,000.00	\$40,000.00	Allowance - Review with further detail
Section Subtotal				\$476,727.20	
Site Improvements					
Tree Protection - Orange Fencing	LF	5,500	\$3.00	\$16,500.00	Fencing areas of construction would lower fire cost dramatically
Riparian Corridor Minor Restoration/Stabilization	LS	1	\$100,000.00	\$100,000.00	Allowance - Review with further detail - Permits, BMP's, etc.
Section Subtotal				\$116,500.00	
Drainage & Drainage					
C&G Pit - Complete in Place	CY	10,000	\$10.00	\$100,000.00	Allowance - Review with further detail - Grading of track, track, parking lot, bedding of walls at underpass, etc.
Strip and Stockpile Existing Topsoil	CY	5,000	\$10.00	\$50,000.00	Allowance - Review with further detail - May not need this line item, patchback of grading
Topsoil Placement	CY	5,000	\$10.00	\$50,000.00	Allowance - Review with further detail - May not need this line item, patchback of grading
Misc. Engineered Drainage Improvements	LS	1	\$300,000.00	\$300,000.00	Allowance - Review with further detail - Curbless pipe, storming, etc.
Section Subtotal				\$650,000.00	
Sitework & Hardscape					
Gravel - West Parking Lot	SF	17,800	\$3.00	\$52,800.00	Parking drive and (10) parking stalls
Gravel - East Parking Lot	SF	10,950	\$3.00	\$32,850.00	Main Drive and (20) parking stalls
Gravel - Horse Trailer Parking Lot & Staging Area	SF	80,470	\$3.00	\$241,410.00	(10) parking stalls - 40' Length
Asphalt Millings - Entrance Drive	SF	19,950	\$6.50	\$129,675.00	Main Drive from entrance to West Parking
Soft Surface Trail - Equestrian Trail	LF	12,900	\$2.00	\$25,800.00	Equestrian trail - Clear to grub only
Cruiser Fines Trail - East Loop - 6' Width	SF	72,640	\$4.50	\$326,880.00	4' depth, stabilized - Filter fabric removed - East side of Kiowa Creek
Cruiser Fines Trail - West Loop - 6' Width	SF	59,456	\$4.50	\$267,552.00	4' depth, stabilized - Filter fabric removed - West side of Kiowa Creek
Cruiser Fines Trail - Regional Bike Connection - 6' Width	SF	7,315	\$4.50	\$32,917.50	4' depth, stabilized - Filter fabric removed - Located at underpass to East Parking area
Cruiser Fines Walks - West Parking Lot - 5' Width	SF	11,525	\$4.50	\$51,862.50	4' depth, stabilized - Filter fabric removed - Located around parking lot and connections to main trail
Cruiser Fines Walks - Northeast Parking Lot - 5' Width	SF	5,200	\$4.50	\$23,400.00	4' depth, stabilized - Filter fabric removed - Located around parking lot and connections to main trail
Cruiser Fines Area - Boulder Seating Areas (19)	SF	9,500	\$4.50	\$42,750.00	4' depth, stabilized - Filter fabric removed - Located at each seating area along trail
Low Water Crossing - North	LS	1	\$45,000.00	\$45,000.00	Allowance - Review with further detail - Concrete apron, possible breakaway railing
Boardwalk Crossings/Features/Seating Area - South	LF	100	\$1,800.00	\$180,000.00	Allowance - Review with further detail - Includes boardwalk, railings, habitat plans, seating, adjacent trail improvements
Section Subtotal				\$1,415,397.00	
Site Amenities, Elements & Site Furniture					
Shade Structure - Large	EA	2	\$65,000.00	\$130,000.00	Allowance - Review with further detail - Custom per County Standards - go photo
Shade Structure - Medium	EA	2	\$65,000.00	\$130,000.00	Allowance - Review with further detail - Custom per County Standards
Shade Structure - Small (Trailside Seating)	EA	4	\$25,000.00	\$100,000.00	Allowance - Review with further detail - Custom per County Standards
Restroom - Portable (COT or equal)	EA	1	\$165,000.00	\$165,000.00	Allowance - Review with further detail - 6' x 8' stall, portable like site water (well) for maintenance
Outdoor Classroom - Lower Riparian Area	EA	1	\$25,000.00	\$25,000.00	Boulders, grading, cruiser fines, and area to shade structure
Sandstone Boulder - Trailside Seating Areas	EA	11	\$2,000.00	\$22,000.00	Includes placement
Drinking Fountain - Tie to existing well	EA	2	\$15,000.00	\$30,000.00	Allowance - Review with further detail - Tied to restroom to allow for hose bib
Handicap at Equestrian Area	EA	2	\$5,000.00	\$10,000.00	Allowance - Review with further detail
Well Improvements	LS	1	\$40,000.00	\$40,000.00	Allowance - Review with further detail - Pump, enclosure, etc.
Trailside Handrail - Underpass and steep area to west	LF	1,115	\$75.00	\$83,625.00	Allowance - Review with further detail - Steel
Fencing - Entry Gates to Open Space Site	EA	1	\$7,000.00	\$7,000.00	Allowance - Review with further detail - 3-Panel Decorative
Fencing - Parking Lots	LF	300	\$75.00	\$22,500.00	Allowance - Review with further detail - 3-Panel Decorative
Picnic Tables	EA	29	\$2,100.00	\$60,900.00	
Bike Racks	EA	12	\$500.00	\$6,000.00	
Trash Receptacles	EA	15	\$250.00	\$3,750.00	Drums
Hitching Posts	EA	20	\$500.00	\$10,000.00	Wood Post
Hammock Post	EA	6	\$500.00	\$3,000.00	Wood Post or Metal post with footing
Bike Repair Station	EA	2	\$1,800.00	\$3,600.00	
Removal and Replacement of Existing Large Logs	EA	30	\$500.00	\$15,000.00	For erosion control, seating, handrail posts, decorative use - Leave on site
Interpretive Signage Package	LS	1	\$20,000.00	\$20,000.00	Allowance - Review with further detail - Estimating (20) signs on site
Site Wayfinding	LS	1	\$20,000.00	\$20,000.00	Allowance - Review with further detail - Trail markers, mile markers, crossings, directional, vehicular
Entry Monument	LS	1	\$10,000.00	\$10,000.00	Allowance - Review with further detail
Archery Range	LS	1	\$15,000.00	\$15,000.00	Allowance - Review with further detail
Horse Challenge Area	LS	1	\$20,000.00	\$20,000.00	Allowance - Review with further detail
Section Subtotal				\$975,375.00	
Project Construction Sub-Total:				\$5,676,996.20	
15% Design & Construction Contingency				\$851,048.88	
Project Construction Total:				\$6,528,045.08	

Notes:

1. All unit prices are approximate and based on recent bids received on projects of similar type.
2. Opinion of Estimated Costs does not include any possible County required fees that may be incurred.
3. Additional landscape material not placed on site (with exception of demonstration garden) due to lack of irrigation - Adding landscape material would create need for County Maintenance Staff to handwater all locations (plantings and trees).
4. All grading elements have been removed per request of ACOS.
5. All Kiowa-Bennett Road improvements have been removed from this cost estimate and would be provided under separate project budget.

Old Alternative Options

Sitework & Hardscape					
Cruiser Fines Trail - East Loop - Additional 2' Width	SF	24,200	\$4.50	\$108,900.00	4' depth, stabilized - Filter fabric removed - East side of Kiowa Creek
Cruiser Fines Trail - West Loop - Additional 2' Width	SF	10,950	\$4.50	\$49,275.00	4' depth, stabilized - Filter fabric removed - West side of Kiowa Creek
Cruiser Fines Trail - Regional Bike Connection - Additional 2' Width	SF	2,450	\$4.50	\$11,025.00	4' depth, stabilized - Filter fabric removed - Located at underpass to East Parking area
Boardwalk Crossings/Features/Seating Area - North	LS	97	\$1,800.00	\$174,600.00	Allowance - Review with further detail - Includes boardwalk, railings, habitat plans, seating, adjacent trail improvements
Boardwalk Crossings/Features - Central	LS	69	\$1,800.00	\$124,200.00	Allowance - Review with further detail - Includes boardwalk, railings, habitat plans, seating, adjacent trail improvements
Amphitheater - East Parking Area	EA	1	\$100,000.00	\$100,000.00	Allowance - Review with further detail - Boulder seating, planting, trail connections, parking (concrete or C/P)
Fencing - Entry Gates to Open Space Site	EA	1	\$7,000.00	\$7,000.00	
Section Subtotal				\$613,475.00	

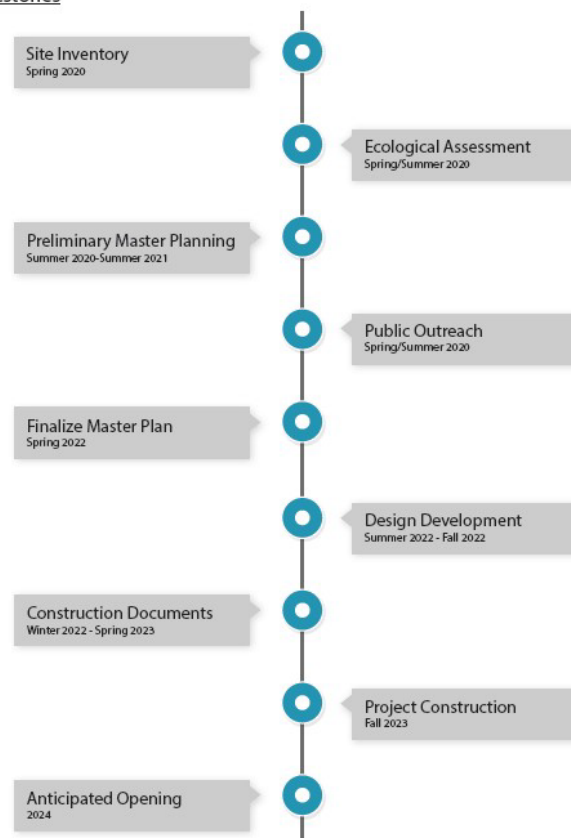
- Original Cost Estimate was \$10M.
- Careful refinement to reduce the number of amenities while retaining the important amenities identified by the public got us to \$4.5M.



KCNOS MP Milestones and Next Steps

- Summer 2022: Issue RFP for L&E submittal and construction documents
- Fall/Winter 2022: Issue RFP for Contractor
- Spring/Summer of 2023: Start Construction
- Summer/Fall 2024: Anticipated Opening

Project Milestones



The above timeline outlines the project status as completed to date, and the remaining milestones of the project. The completion of all stages could change over time, and the project may be completed sooner or later than the listed date.



THANK YOU
