

Ken Caryl Trail Maintenance Plan for 2016 work Season

Lead on Activity - Legend

Sort : On zone / machine / priority

Trail Club Staff Contractor

Primary Segment number (see map)	Trail Name	Segment Name	Segment Length (miles)	Segment Length (feet)	Work Zone Number: 1= South, Valley; 2 = North, Valley; 3 = South, Hills; 4 = North, Hills; 5= Hogback trails	Monthly Observation, Inspection & Report	Vegetation clearing in spring (woody) (once annually)	Vegetation clearing in summer/fall as needed (grasses) (once annually)	Maintain all drainage features throughout season, light maintenance (several times May-October)	Tread Surface Repair (tread width, cupped tread, etc)	Install new drainage features (One time project)	2016 initial Status	End 2016 Status	Soft soil – inspect for damage after heavy rain and clean drainage features	Machine accessible?	Mowing trail edges by KCROS Staff, 2-3 times annually	Initial 2016 Comments	2017 New Comments
												1= Highest Priority 5= No work needed	1= Highest Priority 5= No work needed					
1	Massey Draw	Lower Massey Draw Trail (Valley Parkway to Colorow)	0.617	3,258	1	x			x	x	x	1	5.0	x	Yes	Yes	Manage Creek crossings during periods of high flow. Re-do tread, machine built, with a lot more shape than current alignment; reclaim current tread surface. Install new drainage features in lower section of trail, gate to steep red hill; Re-shaping to occur within area of current braiding.	
5	Colorow	Mountain Willow Connector to Deerwood Connector	0.580	3,062	1	x				x	x	2	5.0		Yes	Yes	Soil reclamation at rocky drainage crossing. Move new soil to tread &/or armor tread. Reclaim neglected drainage features	
13	Manor House Trail Connector to North Ranch Road	Manor House Trail Connector to North Ranch Road	0.226	1,193	1	x			x	x		2	5.0		Yes	Yes	Steps (timber or stone) needed at NRR. Replace culvert? Re-work with machine, bigger drainage dips, rollers + more shape to create shorter tread segments. 2015 repairs were a band-aid, more substantial work required; Not sure if this is part of the mowing plan;	
4	Colorow	Massey Draw to Mountain Willow Connector	0.386	2,038	1	x			x	x	x	2.5	5.0		Yes	Yes	tread surface repair is minor; Drainage work should be done with machine; Harden water bars / rollers ? More frequent water bars needed in fall line section	
6	Colorow	Deerwood Connector to Lost Canyon	0.084	444	1	x			x		x	2.5	5.0		Yes	Yes		
9	Deerwood Connector	Deerwood Connector	0.299	1,579	1	x			x	x	x	3	5.0		Yes	Yes	Shape both vertically & laterally needed to create short segments on top section that is fall line	
3	Lindenwood Connector	Lindenwood Connector	0.044	232	1	x			x	x	x	3.5	5.0		Yes	Yes	Cupped trail noted on 4-8-16 report; Discussed with Dan & we concur that hand cre best way to address this segment	
18	Brannon Gearhart Park Trails - natural surface	Brannon Gearhart Park Trails - natural surface	1.012	5,343	1	x					x	3.5	5.0		Yes	Yes	Cupped section in the east segment. Turnpike section needed in wet section under rocks	
12	Rose Clover Connector	Rose Clover Connector	0.152	803	1	x			x			4	5.0		Yes	?	Not sure if this is part of the mowing plan; In pretty good shape currently	
8	Mountain Willow Connector	Mountain Willow Connector	0.138	729	1	x				x	x	4.5	5.0		Yes	Yes	Appropriate for machine repairs - similar to lower Massey in repairs needed (because of fall line nature); May be moved to two track maintenance category ?	
19	Pasture Trail	Pasture Trail-north	0.191	1,008	1	x				x		4.5	4.5		Yes	Yes	Needs more observation. Heavy Maintenance needed. Crusher fines? Define/reconstruct sections that cross KC Ave	
20	Pasture Trail	Pasture Trail-middle	0.159	840	1	x				x		5	5.0		Yes	Yes	Needs more observation. Heavy Maintenance needed. Crusher fines? Define/reconstruct sections that cross KC Ave	
21	Pasture Trail	Pasture Trail-south	0.151	797	1	x				x		5	5.0		Yes	Yes	Might need culverts ? Would need wetland & floodplain permits to do this part of the program	
7	Colorow	Lost Canyon to Manor House	0.296	1,563	1	x					x	5	5.0		Yes	Yes	Low priority	
10	Mountain High Court Connector	Mountain High Court Connector	0.078	412	1	x					x	5	5.0		Yes	Yes		
11	Plum Thicket OS	Plum Thicket OS	0.715	3,775	1	x						5	5.0		Yes	Yes	Crusher fine trails; Southern most part subject to erosion issues; Possible candidate for paving in the future.	
16	Brannon Gearhart Park Trails -paved	Brannon Gearhart Park Trails - paved		0	1							5	5.0		Yes	Yes	Replace old asphalt with concrete over time; Re-route sections of icy trail & elevate stream crossings ; Possible 2016 project (funding outside this maintenance plan)	
17	Brannon Gearhart Park Trails - crusher fine	Brannon Gearhart Park Trails - crusher fine	0.328	1,732	1	x						5	5.0		Yes	Yes	Currently, generally in good condition; Steps from Silverberry are maintenance issue, needs attention from time to time.	
71	Lower Cougar	Lower Cougar	1.759	9,288	1	x						5	5.0		Yes	Yes?	Just built, no work currently needed. Trail in good condition. Monitor tread for open grading / stormwater management permits; Need to confirm mowing with OSC	
41	Bradford	Bradford-Perley House to NW Property corner	0.450	2,376	2	x			x	x	x	1	5.0	x	Yes	East end only	On West end , erosion continues despite efforts to control due to soft soils - need to figure a better solution; Bad cupping east end; Be sure to do a utility locate before moving any dirt	
39	Bradford	End of NRR to Bradford Rocks	0.445	2,350	2	x	x		x	x	x	1.5	5.0	x	Yes	Yes	Work needed primarily in 2 track section; AGE is currently on site fixing wash-out from last may; Be sure to do a utility locate before moving any dirt	
42	Bradford	NW Property Corner to Stove Prairie trail	0.538	2,841	2	x			x	x	x	1.5	5.0	x	Yes	Yes	Low section south of WS access - consider turnpike (muddy section); Currently, one of the worst section, most in need of maintenance; Work needs to be done in a way to maintain 4 wheel vehicle access for utilities - Be sure to do utility locate before moving any dirt	
14	Stove Prairie Trail	Stove Prairie Trail	0.479	2,529	2	x			x	x	x	2	5.0		Yes	Yes	Keep as 2 track or convert to single track? Sean to check with water department on if they have an opinion on two track vs singletrack	
36	Connector Lark Bunting Trail to Hogback Trail	Connector Lark Bunting Trail to Hogback Trail	0.177	935	2	x			x	x	x	2	5.0	x	Yes	Yes	This section has a lot of fall line trail, best reworked by machine to create shorter segments; 2015 work was a band-aid	
40	Bradford	Bradford Rocks Loop	0.317	1,674	2	x			x			3	3.0	x	Yes	Yes	Close social trail next to check dams	
15	Red Fox Connector	Red Fox Connector	0.100	528	2	x				x	x	3.5	3.5		Yes	Yes	Fall line trail, challenge to keep properly drained; Machine repair is best approach; More shape / shorter segments needed; Need to be careful of property boundaries - talk to staff about boundaries prior to working	
32	Lark Bunting	- North Ranch Road to intersection (west side of loop)	0.350	1,848	2	x				x	x	3.5	5.0		Yes	Yes	Staff may want 2 track access; Discuss prior to working segment	
34	Lark Bunting	- Dutch Creek Trail to End of NRR (east side of loop)	0.217	1,146	2	x				x	x	3.5	3.5		Yes	Yes	Local drainage features needed, local cupping, not extensive	

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												1= Highest Priority 5= No work needed	End 2016 Status 1= Highest Priority 5= No work needed		Machine accessible?	Mowing trail edges by KCROS Staff, 2-3 times annually	
45	Golden Eagle Lane Connectors (x3)	Golden Eagle Lane Connectors (x3)	0.165	871	2	x						4.5	4.5	Yes	Yes	Steps (timber or stone) needed at Dutch Creek?? (from Cory). not sure the meaning or intent; These segments need to be looked at further to define work plan; 3 segments include WS road access; Southern segment was a bog for parts of 2015; monitor in 2016 & decide if french drain is needed	
33	Lark Bunting Connector Lark Bunting Trail to Blue Grouse Ridge Rd	- Intersection to Dutch Creek trail Connector Lark Bunting Trail to Blue Grouse Ridge Rd	0.420	2,218	2	x						5	5.0	Yes	Yes	This segment is in good condition	
35	Dutch Creek Connector	Dutch Creek Connector	0.154	813	2	x						5	5.0	Yes	Yes	Currently in good condition, monitor only	
37	Dutch Creek Trail	Dutch Creek Trail	0.377	1,991	2	x						5	4.0	Yes	Yes	Creek crossing needs to be re-worked (bridge possibly); Culvert another option but rejected by OSC in past; Need to discuss with OSC / Staff prior to working segment; If bridge, bridge must accommodate equestrians.	
38	Lost Canyon LQMPL trail	Colorow Trail to forest entry LQMPL trail	0.563	2,973	2	x	x	x	x	x	x	5	4.0	50%	Yes	West section to connector needs maintenance. East section to remain rustic to discourage trespassers. This trail needs more assessment of needs to define work program (low use trail)	
62	Lost Canyon	Forest entry to Shaffer Trail	0.838	4,425	3	x	x	x	x	x	x	3	3.0	Yes	No	Grass trimming at bottom only	
70	Shaffer	Saddle to armored Drainage crossing	1.796	9,483	3	x	East side only				East side only	5	5.0	West Portion	No	Just built, no work currently needed	
63	Shaffer	Lost Canyon Trail to saddle	0.490	2,587	3	x	x		x		x	1.5	1.5	No	No	Repair tread in extremely rocky areas at switchback. In rocky areas, continuing to loose soils, need to bring soils back in & armor to prevent further erosion. May not do entire tread width but just a standard 24"	
58	Shaffer	Armored Drainage crossing to High Meadow	0.597	3,152	3	x	x				x	2	2.0	No	No	Check tread surface width; several short sections < 24" standard due to back slope collapse. Several eroded areas need repair	
57	Shaffer	Gothic Trail	0.540	2,851	3	x	x				x	3	3.0	No	No	Stabilize local erosion problems in rocky areas (drainage + tread surface repair + armoring); Fix local cupping. Repair several rocky areas	
59	Shaffer	Upper Massey Draw Trail (Colorow to Shaffer)	0.432	2,281	3	x	x	x			x	3	3.0	No	No	A few areas of cupped tread, need more drainage features. Cupping primarily in lower switchback corner	
64	High Meadow	West meadow to LQMPL (west)	0.178	940	3	x	x				x	3.5	3.5	No	No	In rocky areas, continuing to loose soils, need to bring soils back in & armor to prevent further erosion. May not do entire tread width but just a standard 24"	
2	High Meadow	LQMPL (west) to LQMPL (east)	0.675	3,564	3	x			x			2	2.0	No	No	Continue rock or timber steps after bridge; Detailed inspection & separate plan required	
66	High Meadow	High Meadow to Gothic Overlook	0.308	1,626	3	x	x		x			4	4.0	west part only	No	Harden trail in west meadow – wet spring conditions	
67	Shaffer	Gothic trail to Massey Draw trail	0.382	2,017	3	x	x		x			4		No	No	Trail in good condition. Staff has noted potential tread creep - need to review; Rogue trail user introduced bumps / jumps that need to be remediated	
60	Shaffer	Shaffer trail to west meadow	0.276	1,457	3	x	x				x	5	5.0	No	No	Tread in decent condition	
61	High Meadow	LQMPL (east) to MD bridge	0.086	454	3	x	x					5	5.0	No	No	Shortcutting of switchbacks	
65	High Meadow	Upper Cougar	1.501	7,925	3	x	x				x	5	5.0	No	No	Harden drainage crossings. Repair erosion at switchbacks. Consider further armoring wet sections (extend existing as needed)	
68	High Meadow	MD Bridge to Massey Draw Trail	0.069	364	3	x						5	5.0	No	No	Trail in good condition	
72	Summit View	Manor House Trail (shelter) to Beacon Hill Trail (west)	0.235	1,241	3	x	x	x			x	5	5.0	No	No	Under construction. Monitor tread for open grading / stormwater management permits. Just built, no work currently needed	
48	Little John's Chimney Trail	Manor House Trail to boardwalk	0.168	887	4	x	x				x	2.5	2.0	Yes	No	Trail in good condition. Grass just north of bridge	
54	Beacon Hill Trail	Beacon Hill Trail	0.168	887	4	x	x				x	2.5	2.0	Yes	No	Highly eroded tread surface. Woody veg is minor; Need to maintain 2 track access; 4-14-16 report : cupped trail, braided trail noted by spotter	
53	Bradford	Domino Trail to Manor House Trail	0.155	818	4	x	x				x	5	5.0	Yes	No	Needs field review to define work program; Cupped trail needs to be worked	
44	Summit View	Tin Cup Summit to Beacon Hill Trail (east)	0.352	1,859	4	x	x		x	x	x	2	2.0	No	No	Severely cupped in places, repair tread; Lowest switchback - upper leg badly eroded, fill & armor + add drainage feature above	
50	Shaffer	Beacon Hill Trail to Manor House Trail (east)	0.764	4,034	4	x	x	x	x	x	x	2.5	3.0	No	No	Several areas of damaged tread. Several areas losing soil but not rock - consider armoring tread locally	
55	Millennium Connector	Boardwalk to Lost Canyon Trail	0.977	5,159	4	x	x	x	x	x	x	2.5	2.0	No	No	One location, highly eroded steep hill; Best solution - armor tread. Replace soil over rock fill in areas & add drainage feature above	
56	Domino Trail	Domino Trail	0.997	5,264	4	x	x	x	x	x	x	2.5	2.0	No	No	Repair several eroded sections. Bad cupping just south of MH trail; Step at tree needs to be stabilized (continuing to eroded) - ML solution armoring of some sort; Other cupping locally, inspect whole segment for cupping - repair as needed, consider armoring as needed, consider drainage features as needed	
51	Millennium Connector	Millennium Connector	0.366	1,932	4	x	x				x	3.5	3.0	No	No	Tread surface repair , especially in switchback corners	
52	Shaffer	Boardwalk to Lost Canyon Trail	0.277	1,463	4	x	x		x	x	x	3.5	4.0	No	No	Local / minor tread surface repair; Widen very short section to 24" standard right at prop boundary	
46	Domino Trail	Domino Trail	0.432	2,281	4	x	x	x			x	3.5	3.0	No	No	Repair switchback (3rd north from bridge). Grasses just north of the bridge (also poison ivy in this area - spray?)	
			0.319	1,684	4	x	x	x			x	4	4.0	??	No	Tread locally < 24" standard, widen as needed; consider moving drainage crossing up hill / to the west to be less fall line to reduce ongoing erosion at crossing (despite water bars)	

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43	Bradford	Stove Prairie trail to Domino Trail	0.788	4,161	4	x	x	x	x	x	x	2	2.0		30% (lower section)	No	Very rocky tread on sidehill above lower intersection. Many new drainage features needed. Archeology clearance may be needed prior to doing this work. Waiting for staff guidance on this. Repair highly eroded section just below intersection with Domino; Good candidate for armoring
49	Summit View	Beacon Hill Trail to Tin Cup Summit (west)	0.758	4,002	4	x	x		x	x	x	3	3.0		50%	No	Local tread problems throughout, but generally tread in pretty good shape. Repair drainage features & locally cupped tread
28	Lyons	Ridge Trail (north end) to Hogback Trail	0.328	1,732	5	x	x		x	x	x	2	5.0	x	Yes	No	Cupping predominantly on south end of segment; North end rough but appears stable at this point. Staff interested in looking at mini re-routes as solution - review concept with contractor for input.
31	Connector – Lyons Trail to Hogback Trail (west)	Connector – Lyons Trail to Hogback Trail (west)	0.097	512	5	x			x	x	x	2.5	5.0	x	Yes	Yes	Severely incised
25	Lyons	KC Ave to Ridge Trail (south end)	0.381	2,012	5	x			x		x	3.5	4	x	Yes	Yes	Tread surface currently pretty good but may need work in the future. Need shorter tread segments for long term stability / sustainability
26	Lyons	Ridge Trail (south end) to Kiln Trail	0.688	3,633	5	x		x	x	x	x	4	4	x	Yes	No	Cupping is local; most the tread in pretty good shape; Monitor old tread for erosion, consider seeding old tread as well
30	Kiln Trail	Kiln Trail	0.104	549	5	x			x		x	4	4	x	Yes	Yes	
27	Lyons	Kiln Trail to Ridge Trail (north end)	0.173	913	5	x		x	x		x	4.5	4.5	x	Yes	No	
22	North Columbine Trail	North Columbine Trail	0.571	3,015	5	x	x	x	x		x	3	3	x	??	No	Maintain flat bottom in trough section of trail. Possible minor re-route, far north end to get better cross-slope & drainage (machine) - short segments; Tread surface currently in good condition
24	South Columbine Trail	South Columbine Trail	0.477	2,519	5	x	x	x	x		x	3	3	x	??	No	Maintain flat bottom in trough section of trail. Steepen exit from drainage as needed to prevent water flowing down tread
29	Ridge Trail	Ridge Trail	0.700	3,696	5	x	x					5	5		No	No	Tread surface appears largely stable, so although rough, it's OK. Maintain rustic character. 4-13-16 report - Woody vegetation encroaching noted
23	South Valley Connector	South Valley Connector	0.100	528	5	x						5	5		No	No	Armor south side of trail at steps to create better riding surface (on KC or Jeffco ??)
73	Manor House	Manor House															
74	- The Manor House to Stove Prairie	- The Manor House to Stove Prairie				x								x			Drainage work already on a schedule; No other work needed; Fix erosion problems with crusher fines as they occur
75	- Stove Prairie to Colorow	- Stove Prairie to Colorow				x								x			Drainage work already on a schedule; No other work needed; Fix erosion problems with crusher fines as they occur
76	- Colorow to Domino	- Colorow to Domino				x											Drainage work already on a schedule; No other work needed
77	- Domino to Bradford	- Domino to Bradford				x											Drainage work already on a schedule; No other work needed
78	- Bradford to Shelter	- Bradford to Shelter				x											Drainage work already on a schedule; No other work needed
79	North Hogback	North Hogback															
80	- KC Ave to Kiln	- KC Ave to Kiln				x											Drainage work already on a schedule; No other work needed
81	- Kiln to Lyons	- Kiln to Lyons				x											Drainage work already on a schedule; No other work needed
82	- Lyons to N Ranch Rd	- Lyons to N Ranch Rd				x											Drainage work already on a schedule; No other work needed
83	Cathy Johnson	Cathy Johnson				x											
84	- S Valley to N Columbine	- S Valley to N Columbine				x											Drainage work already on a schedule; No other work needed
85	- N Columbine to S Columbine	- N Columbine to S Columbine				x											Drainage work already on a schedule; No other work needed
86	- S Columbine to Deer Cr	- S Columbine to Deer Cr				x											Drainage work already on a schedule; No other work needed
87	Crusher fine Trails	Crusher fine Trails				x	x							x		Yes(?)	Repair erosion problems as problems develop
88	Paved Trails	Paved Trails				x	x									Yes	Replace asphalt with concrete over time per TMP & Board approval
Total			30.342	160,206											14,336		

30.342 15.145 8.254

Zone Boundaries  
 Zone 1 : South of Manor house, Colorow (inclusive) & east to Valley Pkwy  
 Zone 2 : North of Manor House, Stove Prairie / Bradford & east (inclusive) ; All North ranch  
 Zone 3 : Lost Canyon (inclusive) & south, west of Colorow (exclusive)  
 Zone 4 : Lost Canyon (exclusive) & north, west of Colorow, Stove Prairie, lwr Bradford (exclusive)  
 Zone 5 : Hogback trails south of North Ranch