

Midpeninsula Regional Open Space District

R-23-87 July 25, 2023

AGENDA ITEM 2

AGENDA ITEM

Highway 35 Multi-use Trail Crossing and Parking Feasibility Study at Purisima Creek Redwoods Open Space Preserve – Conceptual Parking Design Alternatives and Trail Crossing Location at the North Ridge Parking Area

GENERAL MANAGER'S RECOMMENDATIONS

- 1. Receive a presentation on the Highway 35 Multi-use Trail Crossing and Parking Feasibility Study and provide feedback on the parking area conceptual design options.
- 2. Forward Option A-2 (upper and lower parking area expansion with two-way circulation and the associated multi-use trail crossing location and design) to the Board of Directors for consideration as the project description and scope to initiate environmental review under the California Environmental Quality Act.

SUMMARY

The Highway 35 Multi-Use Trail Crossing and Parking Feasibility Study (Project) is a partnership between the Midpeninsula Regional Open Space District (District), San Francisco Public Utilities Commission (SFPUC), Bay Area Ridge Trail Council (Ridge Trail Council) and Peninsula Open Space Trust (POST). The Project is evaluating a multi-use trail crossing location and connector trail in the northeastern reaches of Purisima Creek Redwoods Open Space Preserve (Purisima, Preserve), as well as the potential expansion of the existing North Ridge parking area.

At the July 25, 2023 Planning and Natural Resource (PNR) Committee meeting, staff will present conceptual parking area design options to expand the Purisima North Ridge parking area, including a preferred design option (A-2) for Committee consideration to forward on to the Board of Directors as the recommended project description and scope to initiate environmental review under the California Environmental Quality Act (CEQA).

BACKGROUND

The District is conducting a feasibility study to identify a trail crossing location from the Purisima North Ridge parking area across Skyline Boulevard (Highway 35) to connect existing segments of the Bay Area Ridge Trail within Purisima, west of Highway 35, to a new segment of the Bay Area Ridge Trail planned on the east side of Highway 35 (Ridge Trail Extension). The feasibility study is also analyzing a potential expansion of the North Ridge parking area to serve visitors to both the existing Preserve trailhead and to the proposed Ridge Trail Extension.

The intent of the Project is to (1) enhance regional connectivity through a multi-use trail crossing that will allow access to trails on both sides of Highway 35 and (2) identify ways to reconfigure and expand parking capacity at the North Ridge parking area. Existing conditions of the North Ridge parking area and trailhead are shown on Attachment 1. The Project goals and strategies include supporting the implementation of the Bay Area Ridge Trail and improving public access and visitor experience at the Purisima North Ridge trailhead.

At the April 4, 2023 PNR meeting, staff presented the Project goals and strategies, the results of preliminary technical studies and the opportunities and constraints analysis (R-23-38). The technical studies conducted for the Project site include a Biological Resource Survey, Pathogens Risk Assessment, Cultural and Historic Resource Surveys, Boundary and Topography Surveys, and a Traffic Study. These technical studies, along with field scouting work completed by staff, identify existing site conditions and provide findings that informed the Opportunity and Constraints Analysis. The analysis completed to date have identified a feasible trail crossing location on Highway 35 immediately south of the existing parking area exit driveway as well as two potential onsite locations for parking expansion at the North Ridge trailhead.

At the April 4, 2023 PNR meeting, staff also shared information on spatial analysis and parking capacity scenarios to illustrate preliminary parking capacities for standard vehicles, horse trailers, and shuttle buses at the two potential parking expansion areas. In addition to onsite parking capacity, the Project is also incorporating Transportation Demand Management (TDM) strategies recommended in the Purisima Multimodal Access Study, which the Board reviewed and accepted on November 9, 2022. The expectation is that many of these strategies are suitable for the North Ridge trailhead site and can be incorporated into the design and long-term management of the parking area, where one or more of these strategies may be implemented concurrently:

Highest priority TDMs

- Peak period parking reservations/priority parking
- Bicycle parking and facilities (including bicycle repair stations)
- Temporarily redesignate spaces on specific days/times to best meet demands
 - May include designating special parking areas temporarily for carpool, equestrian, shuttle pick-up/drop-off, or other uses
- Real-time parking lot occupancy sensors and signage
- Electric Vehicle (EV) charging infrastructure

Lower priority TDMs

- Vehicle wayfinding signage
- Clearly identify permitted on-street / shoulder parking
- Accommodate future shuttle / transit systems

Public Feedback and Stakeholder Engagement

Feedback received at the April 4 PNR meeting from Committee members and the public on the parking expansion and reconfiguration of the North Ridge parking area and trailhead is summarized in the table below:

Theme/Topic	General Feedback/Comments
Equestrian Parking Demand	 Current equestrian parking spaces are not exclusively for equestrian trailers or reservable and therefore are often used by visitors with standard vehicles. An equestrian provided feedback that they do not visit Purisima because the equestrian spaces are rarely available. There is a need to better understand demand for equestrian parking at the North Ridge trailhead (a range of 2-4 designated equestrian spaces should be considered for conceptual design options). A member of the public suggested implementing at least two designated equestrian stalls through flexible parking areas.
Highway Crossing	 Multiple suggestions were provided for additional warning features, including crossing lights and pavement markings (although acknowledging that designs will ultimately be determined by Caltrans). Interest in keeping the crossing consistent with the rural character of the area.
Parking Expansion Areas	 Interest in parking reconfiguration options with and without expansion into the lower area near the District residence. Interest in having the lower expansion area be for equestrian parking, as long as screening is provided between the parking area and adjacent residence.
Transportation Demand Management (TDM) Strategies	 Support for parking reservations and flexible parking areas for part of the parking area. More information is needed regarding equity considerations for visitors with limited access to technology and understanding the success of parking reservation systems at other parks/preserves. Interest in a shuttle stop on the highway shoulder for easier pick-up and drop-off. More information is needed about the required space for a future shuttle drop-off and pick-up area and whether a shuttle could circulate through the parking area. Bike racks and other bike facilities may not need to be prioritized at the North Ridge trailhead since not many people will ride their bikes here and to go on a hike or ride through the preserve. Need to consider how many electric vehicle (EV) spaces are necessary given the limited size of the parking areas, and how the addition of this infrastructure may increase parking demand due to decreased general parking spaces.

 Table 1. Public and Committee Feedback from the April 4, 2023 PNR Meeting

In response to feedback received at the April 4 PNR meeting, staff began drafting conceptual parking design options for the North Ridge parking area and trailhead. Staff also held a virtual meeting on June 7, 2023, to share preliminary design options with members of the public for further feedback (see Attachments 2-5). Notice of the June 7 meeting was emailed to interested

parties of the Preserve and the hiking, biking, equestrian, accessibility, and regional trails interested parties lists. A summary of the feedback received at the June 7 meeting is included in the table below:

Theme/Topic	General Feedback/Comments
Conceptual Parking Design Options	 Support for option B.2 (Upper & Lower (Parking) Expansion areas, One-Way Circulation), A.2 (Upper & Lower Expansion, Two-Way Circulation), and B.1 (Upper Only, One-Way Circulation). A neighbor shared concerns about the change to the "serenity" of the neighborhood setting with the parking changes.
Equestrian Parking/Access	 Neighbors and equestrians both shared that few equestrians currently visit the North Ridge trailhead due to a lack of designated equestrian parking. Equestrians supported the inclusion of designated equestrian parking spaces and said they appreciated being considered in the planning process and would use these equestrian parking if provided. Proximity of equestrian parking to standard vehicle parking is not a significant safety concern and the different types of parking do not necessarily need to be separated. For example, equestrian parking at Rancho San Antonio is located next to standard vehicle parking and gets a good amount of foot traffic. Two designated equestrian spaces at North Ridge may be sufficient. Providing four equestrian spaces would make it much easier for equestrians to count on available parking but they may not be constantly
Transportation Demand Management (TDM) Strategies	 If two designated equestrian parking stalls are provided, another two stalls could be provided as flexible stalls for larger vehicles that could be used by either equestrians, bicycling groups transporting bikes and other gear, or school/educational programs, etc. These flexible spaces could also be reserved to allow groups to plan their outings to the North Ridge trailhead.
Circulation	• Consider how one-way circulation through the parking area will interfere with traffic on Highway 35. Anticipate that cars may back up on the highway, if a vehicle stops at the parking entrance or if vehicle circles back into the parking area.
Highway Crossing	 A neighbor expressed concerns about the safety of an on-grade trail/road crossing due to speed and road curvature. The neighbor suggested a tunnel be implemented for a safe crossing and lights should not be used for the crossing. Equestrians shared that they have used similar equestrian/ pedestrian crossings on Highway 50 and other highways that could be considered "unsafe" for trail crossings. The equestrians appreciate these crossings, which are not highly used but necessary for equestrians to connect to county parks and equestrian facilities. Important to consider who will be using the crossings and how much traffic is expected on the highway to balance the risk of formalizing an at grade crossing.

 Table 2. Public Feedback from the June 7, 2023 Virtual Meeting

 Thome/Topic

DISCUSSION

The intent of this agenda item is for the PNR to review the conceptual parking design options for the North Ridge parking area and consider forwarding conceptual parking area design option A-2 (two-way circulation, upper and lower expansion) to the Board as the recommended project description and scope to initiate CEQA review.

Conceptual Parking Area Design Options

The conceptual parking area design options strive to accommodate the increased demand for access to the Preserve from hikers, equestrians, and bicyclists while minimizing neighbor and environmental resource impacts. Each option will meet or exceed accessibility requirements under the Americans with Disabilities Act (ADA). At this stage in the design process, details such as the parking surface material and striping are not yet discussed until the District prepares detailed plans during the design development phase after environmental review is completed. The parking area, in all configurations shown, will have over 5,000 square feet of impervious area and be required to implement Low Impact Development (LID) measures in compliance with the Municipal Regional Stormwater Permit. Therefore, although not shown, each design will include LID measures such as bio-swales, detention basins, or pervious pavements.

Furthermore, it should be noted that each design option includes the recommendations of the traffic engineering study to maintain existing entrance and exit driveways, locate an on-grade crossing adjacent to the exit driveway, establish a no-parking zone along the western side of Skyline Boulevard and formalize shoulder parking at designated spaces. The final design solution for the on-grade trail crossing and parking improvements located within the Skyline Boulevard right-of-way will be at the discretion of the California Department of Transportation through the encroachment permit process.

Option A.1 Upper Expansion Only, Two-Way Circulation

This design option proposes to improve the upper area only (see Attachment 2). It includes a main parking aisle with approximately 50 parking spaces and two-way vehicle circulation within the aisle. This is very similar to the current parking configuration, but with more effective use of the space. A second one-way aisle is proposed with approximately 4 equestrian parking spaces and ample adjacent space for horse staging. The second aisle can flexibly meet TDM strategies, including a shuttle stop or priority / reservation parking. Access to this aisle could be managed with a gate or kiosk if deemed appropriate. In this design option, the restroom can be located at the current, south end of the area near the existing trailhead, or relocated to the north end of the parking area, where there is more space for staging. The approximate footprint of drivable surface is 25,000 square feet. An ADA path of travel is provided that connects the Highway 35 crossing to the north end of the median between the standard vehicle parking area and equestrian aisle (as well as the northern restroom location option). The ADA path extends along the median and connects to the existing trailhead near the entrance of the parking area where ADA parking spaces are located. The ADA path crosses one drive aisle on the north end of the parking area.

In this design option, the existing driveway access to the employee residence would remain unchanged.

Option A.2 Upper & Lower Expansion, Two-Way Circulation

This design expands on option A.1 by moving the equestrian parking to the lower expansion area and introducing a second row of passenger vehicle spaces in the upper area. Approximately 74 passenger vehicle spaces can fit in the upper area, with 2 to 3 equestrian spaces down below (see Attachment 3). A new driveway would be constructed down to the lower area to allow equestrian vehicles to "pull-through" when parking. Equestrian parking is appropriate for the lower area because it offers the most separation between horses and other user groups and based on the number of spaces available for use, offers the lowest volume of visitors adjacent to the employee residence. New vegetation would buffer the employee residence from the parking area. Pedestrian circulation and restroom locations are generally consistent with option A.1. And similar to option A.1, the TDM strategies, such as flexible parking, shuttle stop, or priority parking, could be implemented in either the second aisle of the upper area, or the lower area. The approximate footprint of drivable area is 39,500 square feet. In this design option, a new vehicular connection to the employee residence would be created off the one-way aisle constructed through the lower area.

In this design, an ADA path is provided on the west side of the upper parking area that connects to the Highway 35 crossing and restroom location on the north end of the parking area, and to the ADA parking spaces and restroom option on the south end of the parking area. The ADA path crosses two drive aisles on the north end of the parking area and one on the south end of the parking area.

Option B.1 Upper Expansion Only, One-Way Circulation

Design option B.1. has the smallest footprint, thus minimizing impacts and construction costs (see Attachment 4). This option proposes one-way vehicle circulation and angled parking spaces for approximately 41 passenger vehicles in the main aisle. Consistent with option A.1, a second aisle is proposed with approximately 4 equestrian parking spaces, and ample space adjacent for horse staging. The second aisle can flexibly meet TDM strategies, including a shuttle stop and priority / reservation parking. Access to this aisle could be managed with a gate or kiosk if deemed appropriate. In this design option, the restroom can be located at the south end of the area near the existing trailhead, or at the north end of the parking area, where there is more space for staging. The approximate footprint of drivable surface is 22,500 square feet. In this design option, the existing access to the employee residence would remain unchanged.

In this design, an ADA path is located similarly to option A.1 and crosses one drive aisle on the north end of the parking area and one drive aisle on the south end of the parking area. ADA parking stalls are located near the trailhead and entrance to the parking area.

Option B.2 Upper & Lower Expansion, One-Way Circulation

This design expands on option B.1 by relocating the equestrian parking to the lower expansion area and introducing a second row of angled passenger vehicle spaces in the upper area (see Attachment 5). Approximately 61 passenger vehicle spaces can fit in the upper area, with 2 to 3 equestrian spaces down below via a new one-way driveway. New vegetation would buffer the employee residence from the parking area. Pedestrian circulation and restroom locations are generally consistent with option B.1. And similar to option B.1, the TDM strategies, such as flexible parking, shuttle stop, or priority parking, could be implemented in either the second aisle of the upper area, or the lower area. The approximate footprint of drivable area is 34,750 square feet. In this design option, a new vehicular connection to the employee residence would be created off the one-way aisle constructed through the lower area.

In this design, an ADA path is located similarly to options A.1 and B.1 and will cross one drive aisle on the north end of the parking area and one drive aisle on the south end of the parking area. ADA parking stalls are located near the trailhead and entrance to the parking area.

Phasing

The design options presented herein all offer the ability to be phased. For example, option A can be implemented as phase A.1 initially. Once additional capacity is needed, option A.2 could be implemented with little change or reconstruction of the A.1 improvements.

Design Variations

Design options A & B have similar layout and circulation, so favorable attributes from one design option can be combined with the other, should the Committee wish to bring the two concepts together.

Preliminary Cost Estimate in Current Dollars

Preliminary estimates have been prepared to compare the probable construction costs associated with each design option. The estimates are based on the findings of the site assessments, technical studies, and recommended construction methods. The estimates provide an order of magnitude cost, commiserate with the amount of information available in the design. Each estimate includes all of the components shown in the attached conceptual designs, including parking and circulation improvements, TDM strategies, trailhead amenities, on-grade crossing infrastructure, and right-of-way improvements. There are many factors that will impact the final construction costs, including design changes, permit conditions, as well as fluctuations in material and labor costs. The estimates were prepared using current 2023 dollar values because the target construction date has not yet been identified.

	Exis	ting	Optio	on A.1	Optio	on A.2	Optio	on B.1	Optio	on B.2
	Cars	Eq.	Cars	Eq.	Cars	Eq.	Cars	Eq.	Cars	Eq.
Existing Lot + Upper Area	41*	0*	50	4	74	0	41	4	61	0
Lower Expansion Area	0	0	0	0	0	2	0	0	0	2
Hwy 35 Shoulder	13	0	6	0	6	0	6	0	6	0
Total	54	0	56	4	80	2	47	4	67	2
Impervious Area	17,4	90 sf	25,0	00 sf	39,5	00 sf	22,5	00 sf	34,7	50 sf
Preliminary Cost Estimate	n	/a	\$2,13	5,000	\$3,05	0,000	\$2,02	5,000	\$2,83	8,000

Table 3. Design Concept Summary

*Although the existing parking lot can accommodate equestrian parking, it does not provide designated equestrian parking spaces. Existing capacity with equestrian parking is approximately 26 cars and 2 equestrian spaces. Cars = Standard vehicle parking stalls, 9' x 18'

Eq. = Designated equestrian trailer parking stalls, $12' \times 55'$

sf = Square feet

Each conceptual design option is intended to support the project's overall goals and strategies. A comparison of the conceptual parking area design alternatives is shown in Attachment 6. The criteria used to compare the concept options include value, impact to site, integration of TDMs, alignment with Project goals and policies and public support.

FISCAL IMPACT

There is no immediate fiscal impact associated with the recommendation. Funds for design development, engineering, and permitting will be recommended in future fiscal year budgets as a part of the annual Budget and Action Plan process.

This project is not currently funded by Measure AA as it is still within a feasibility stage. However, implementation of capital improvements may be eligible for Measure AA funding reimbursements in the future.

PRIOR BOARD AND COMMITTEE REVIEW

- **September 29, 2020:** The Legislative, Funding and Public Affairs Committee (LFPAC) reviewed a partnership agreement and recommended Board adoption of a resolution authorizing the General Manager to accept \$114,000 in grant funding from the SFPUC for the Project.
 - o Board Report (R-20-101)
 - o <u>Minutes</u>
- October 28, 2020: The Board adopted a resolution authorizing the General Manager to accept grant funding for the Project.
 - o Board Report (Res. 20-32)
 - o <u>Minutes</u>
- April 4, 2023: The Planning and Natural Resources Committee (PNR) received a presentation on the Project and provided feedback on the Project goals, technical studies, opportunities and constraints analysis, and preliminary considerations for parking expansion.
 - O Board Report (R-23-38)
 - O <u>Minutes</u>

PUBLIC NOTICE

Public notice was provided as required by the Brown Act. In addition, public notices were sent to interested parties of the Preserve and to hiking, biking, equestrian, accessibility, and regional trails interested parties lists as well as the Kings Mountain Neighborhood Association.

CEQA COMPLIANCE

Board selection of a preferred design option for the Highway 35 Multi-use Trail Crossing and Parking Feasibility Study is not a project subject to the California Environmental Quality Act (CEQA). Environmental review is anticipated to occur in a future fiscal year, based on Board selection of a project design alternative as the CEQA project description.

NEXT STEPS

With guidance from the PNR, staff will either proceed with forwarding the General Manger's recommended concept design option A-2 to the Board or may further refine parking area

conceptual design options based on Committee input. A preferred alternative will be presented to the Board according to the following tentative schedule:

Feasibility Study Milestone	Tentative Schedule
PNR Meeting – Forward Preferred Parking Alternative recommendation	Summer 2023
to the Board of Directors for consideration as the project description and	
scope to initiate environmental review.	
Board Meeting - Presentation of trail crossing recommendations and	Winter 2023
preferred parking area conceptual design alternatives	

Future Project Phases	Tentative Schedule
Environmental review conducted as part of Purisima Comprehensive Use	FY24 and FY25
and Management Plan	
Design development, engineering, and permitting	FY25 and FY26

Attachment(s)

- 1. Existing Conditions
- 2. Option A.1 Upper Expansion Only, Two-Way Circulation
- 3. Option A.2 Upper & Lower Expansion, Two-Way Circulation
- 4. Option B.1 Upper Expansion Only, One-Way Circulation
- 5. Option B.2 Upper & Lower Expansion, One-Way Circulation
- 6. Conceptual Parking Area Design Alternatives Comparison

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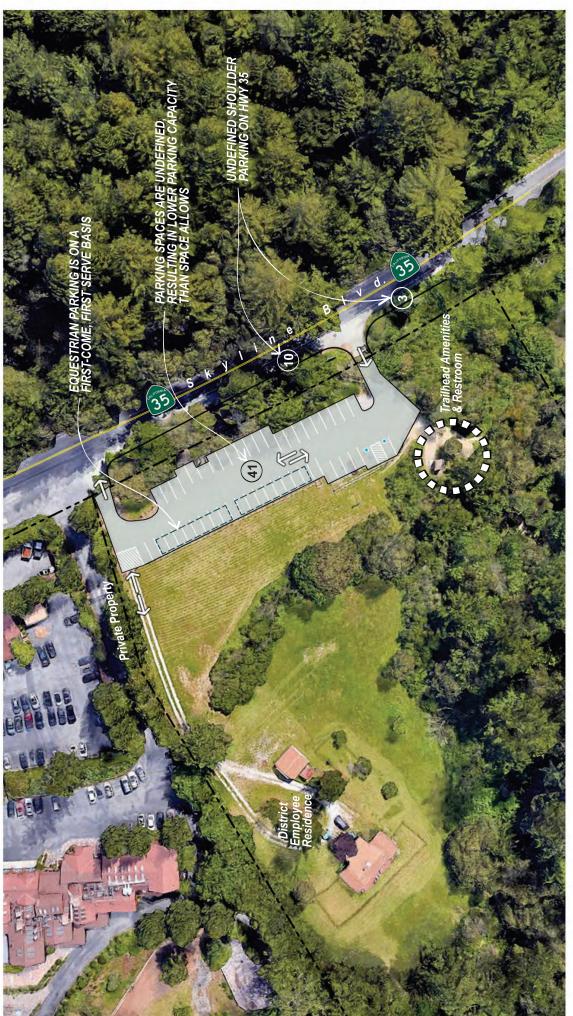
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HWY 35 MULTI-USE TRAIL CROSSING AND PARKING EXPANSION FEASIBILITY STUDY PURISIMA CREEK REDWOODS OPEN SPACE PRESERVE NORTH RIDGE PARKING LOT





ATTACHMENT 1 EXISTING CONDITIONS

JULY 25, 2023



HWY 35 MULTI-USE TRAIL CROSSING AND PARKING EXPANSION FEASIBILITY STUDY PURISIMA CREEK REDWOODS OPEN SPACE PRESERVE NORTH RIDGE PARKING LOT



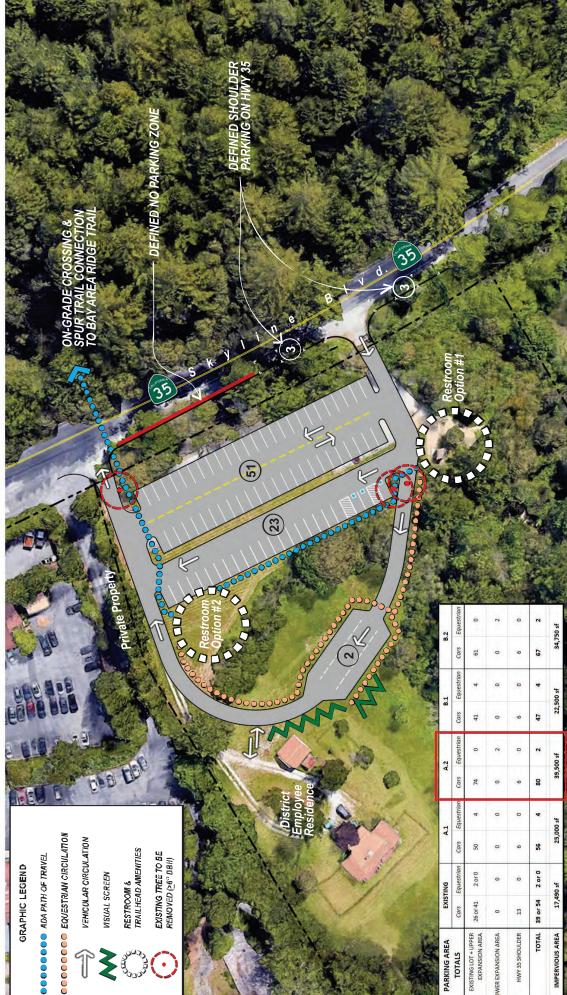


ATTACHMENT 2 CONCEPTUAL DESIGN OPTION A.1



NORTH RIDGE PARKING LOT





ATTACHMENT 3 CONCEPTUAL DESIGN OPTION A.2







ATTACHMENT 4 CONCEPTUAL DESIGN OPTION B.1







ATTACHMENT 5 CONCEPTUAL DESIGN OPTION B.2

	Value – Parking Expansion vs. Cost*	Minimizing Impact to Site	Integration of TDMs	Alignment with Project Goals & Policies	Public Support (Parking)**
Option A.1			•	•	•
	Provides moderate value for the overall cost by increasing standard vehicle parking and providing designated equestrian spaces.	Retains key site elements by keeping parking within the upper expansion area.	Provides a second drive aisle that can be controlled for flexible or priority parking.	Increases parking within the previously developed upper expansion area and increases traffic safety by providing two-way circulation within the parking area.	Supports public interest in providing designated equestrian parking and internal circulation. Does not provide a significant increase in standard vehicle parking.
Option A.2					
	Provides a significant increase in standard vehicle parking and includes designated equestrian spaces, which has the greatest value for the cost of construction.	Modifies the site's character by expanding parking to the lower expansion area, although this area has been previously disturbed. Vegetation clearing and grading is required for expansion into the lower area. Screening is recommended to provide separation from onsite residence.	Provides a second upper drive aisle and lower expansion area that can both have controlled access for flexible or priority parking.	Maximizes onsite parking within the previously developed upper and lower expansion areas and increases traffic safety by providing two-way circulation within the parking area.	Supports public interest in providing more standard vehicle parking, internal circulation, and designated equestrian parking.

Attachment 6: Parking Area Design Alternatives Comparison

Option B.1			•	0	
	Provides the lowest	Retains the site's	Provides a second	Does not significantly	Supports public
	value for the overall	character by keeping	drive aisle that can be	increase onsite parking	interest for designated
	cost. This option	parking at the upper	controlled for flexible	and retains one-way	equestrian parking but
	provides designated	expansion area with	or priority parking.	circulation that	does not provide any
	equestrian parking but	the least amount of		requires vehicles to	additional standard
	does not provide an	impervious area.		circulate onto Highway	vehicle parking. Does
	increase in total			35.	not support public
	standard vehicle				interest in keeping
	parking.				circulation within the
					site (i.e., making
					circulation two-way).
Option B.2					
	Provides the second	Modifies the site's	Provides a second	Increases onsite	Supports public
	highest value for the	character by expanding	upper drive aisle and	parking within the	interest for additional
	number of additional	parking to the lower	lower expansion area	previously developed	standard vehicle
	standard vehicle	expansion, although	that can both have	upper and lower	parking and designated
	spaces and provides	this area has been	controlled access for	expansion areas,	equestrian parking.
	designated equestrian	previously disturbed.	flexible or priority	although retains one-	Does not support
	parking.	Vegetation clearing	parking.	way circulation that	public interest in
		and grading is required		requires vehicles to	keeping circulation
		for expansion into		circulate onto Highway	within the site (i.e.,
		lower area. Screening		35.	making circulation
		is recommended to			two-way).
		provide separation			
		from onsite residence.			
*Analyzes the valu	e of each option based on pr	eliminary cost estimates and	estimated increase in total s	*Analyzes the value of each option based on preliminary cost estimates and estimated increase in total standard vehicle parking spaces.	es.

**The highway crossing and traffic safety remain priorities for the project, however, this comparison focuses on parking area design only.

Strongest alignment with policy/goal

Stronger alignment with policy/goal

igoplus Medium alignment with policy/goal

igodot Weaker alignment with policy/goal

 $igcolumbdo {\mathsf W}$ eakest alignment with policy/goal