

Midpeninsula Regional Open Space District

R-24-47 Meeting 24-11 April 24, 2024

AGENDA ITEM

AGENDA ITEM 21

Shuttle and Ride Hail Program Studies at Rancho San Antonio Open Space Preserve

GENERAL MANAGER'S RECOMMENDATIONS

- 1. Receive the following information regarding the exploration of shuttle and ride hail services at Rancho San Antonio Open Space Preserve:
 - a. Specific Service Design Concepts Previously Flagged by the Board of Directors
 - b. Implementation Considerations
- 2. Based on the information received, direct the General Manager to not move forward with implementing a shuttle program or ride hail program at Rancho San Antonio Open Space Preserve at this time, and instead focus on implementing a permanent carpool lot as previously approved by the Board.

SUMMARY

The Midpeninsula Regional Open Space District (District) has been exploring the potential for a Shuttle Program and/or Ride Hail Program for Rancho San Antonio Open Space Preserve & County Park (Rancho San Antonio, Preserve) as two multimodal access strategies for its most popular preserve. Shuttle and Ride Hail Programs were identified as two of numerous potential other strategies in the 2021 Rancho San Antonio Multimodal Access Study that was commissioned to evaluate green modes of transportation for addressing congestion and parking issues and improving the visitor experience at the preserve.

On September 12, 2023 (<u>R-23-98</u>), the Board of Directors (Board) reviewed and provided feedback on draft shuttle and ride hail service design concepts and performance measures, and potential companion Transportation Demand Management (TDM) measures that would be needed to support a shuttle and/or ride hail program. The Board expressed concern about implementing either of these programs but agreed to allow staff to complete the study and return to the Board with findings that would inform potential future implementation at Rancho San Antonio or other more appropriate open space preserve(s). The Board also requested additional information on a visitor capacity study. Staff and consultants have completed the shuttle and ride hail studies, and the findings are presented in this report.

BACKGROUND

Over the past 20 years, Rancho San Antonio Preserve has experienced increased visitation, where the annual total estimated visitation has exceeded one million visitors over the last few

years. The Preserve is popular due to its proximity to many bayside communities and ease of access. As such, parking demand has exceeded supply, creating parking and congestion impacts onsite and for adjacent communities. In response to the ongoing parking and congestion issues, some adjacent neighborhoods have eliminated street parking altogether or restricted roadside parking during the Preserve's peak hours. These parking policy changes have further exacerbated the parking challenges at this popular preserve. To address parking and congestion issues, the District initiated the Rancho San Antonio Multimodal Access Study (Study) in 2020.

The Study explores and evaluates non-motorized mobility, transit options, and parking alternatives for the Preserve. The Study identifies strategies for encouraging visitors to use greener modes of transportation and reduce parking demand and traffic, while maintaining equitable access for both local and regional visitors. The Study prioritizes 15 TDM strategies and organizes them into three sets of recommendations. The Board, at its April 28, 2021 meeting, approved moving forward with the first set of recommendations, including the following six strategies (italics added to highlight the two strategies that are the subject of this report):

- Bike facilities
- New and improved bike access
- Subsidized ride hail
- Free or low-cost shuttle service
- Carpool restricted lot
- Dynamic or variable signage

The District has been actively implementing priority-one strategies since Board authorization in April 2021. To date, new bike facilities and a dynamic sign have been installed, a one-year carpool restricted pilot program was completed, and the Board authorized a permanent carpool program, with design development of the carpool lot slated for Fiscal Year (FY) 2025. Additionally, the City of Los Altos made bike infrastructure modifications along St. Joseph's Avenue and the District partnered with the City of Cupertino to prioritize and install Class II bike lanes along Cristo Rey Drive. The Shuttle Program and Ride Hail Program are being explored as potential additions as part of this overall implementation effort. At the July 13, 2022 Board meeting, the District awarded a contract to Mead & Hunt to develop the Shuttle Program. On September 6, 2022, the District executed a contract with Arcadis-IBI (Arcadis) to develop the Ride Hail Program. Both firms were selected through a competitive request for proposals process.

District staff's participation in the Santa Cruz Mountain Stewardship Network's Shuttle Exploration Team in 2021 and 2022 informed the shuttle and ride hail studies. Over the duration of the shuttle and ride hail studies, staff continued their outreach to other agencies, organizations, and a vendor to learn more about shuttle programs and TDM programs, including King County's Trailhead Direct Program, Muir Woods Parking & Shuttle Reservation System, Big Basin State Park's parking reservation system, Packard Foundation's employee shuttle program, Mountain View's shuttle programs, Cupertino's Silicon Valley Hopper program, and Palo Alto's Foothill Nature Preserve's parking and visitor management strategies.

PNR Discussion and Feedback from the July 11, 2023 and July 18, 2023 Meetings

On July 11 and July 18, 2023 (<u>R-23-86</u>), the Planning & Natural Resources Committee (PNR) reviewed and provided feedback on the draft shuttle and ride hail service design concepts and

performance measures, and potential companion measures to support the shuttle and ride hail programs. PNR expressed support for the project teams to complete the shuttle and ride hail studies, and for staff to further evaluate contingent Transportation Demand Management (TDM) measures, commenting that whether or not the programs are implemented for Rancho San Antonio Preserve, the information in the final reports will be useful to obtain and can be applied at other preserves if other sites are considered more appropriate for these types of programs. The PNR Committee also recommended initiating a visitor capacity study of the selected preserve prior to taking actions on the proposed programs.

Board Discussion and Feedback from the September 12, 2023 Special Meeting

At the September 12, 2023 special meeting, the Board received a presentation on the data collection, background analyses, and public and stakeholder engagement that has been informing the shuttle program and ride hail programs. The Board reviewed and provided feedback on shuttle service design concepts, ride hail service design concepts, shuttle and ride hail performance measures, and additional information requested by PNR, including additional costs to fully implement a shuttle program and ride hail program and anticipated parking demand reductions. The Board supported staff and the consultant team completing the shuttle and ride hail studies but expressed uncertainty about implementing either of these programs at the Rancho San Antonio Preserve. The Board requested that staff further evaluate an optimized Shuttle Service Design Concept I, the partnership opportunity associated with Ride Hail Service Design Concept B, and the companion TDM measures. The Board also directed staff, prior to taking action on a proposed shuttle and/or ride hail program, to return with information on the potential scope, timeline, and cost for a visitor capacity study and indication of the type of findings that are expected, to confirm whether such a study would provide information to aid a Board decision on subsequent program implementation steps.

DISCUSSION

Shuttle and Ride Hail Program Preferred Concepts & Implementation Considerations

Shuttle Program

The Board requested that staff further evaluate an optimized shuttle service design Concept I, from Lucky Supermarket to Rancho San Antonio's main parking area. According to Board feedback and previous visitor survey results, the desired wait time for shuttle service is 20 minutes or less. To reach a 15-minute headway, two vehicles are required to service this route. The annual operating cost for this preferred concept (Attachment 1, Pages 18-20 and Attachment 2, Page 5) is approximately \$190,000. Mead & Hunt previously shared that shuttle vehicles would cost between \$100,000 and \$150,000 and these costs are typically annualized across seven years. Additionally, the average cost for providing a new shuttle stop is \$2,000. Based on the information, the up-front estimated capital cost to implement a shuttle program is \$454,000, which include purchasing or leasing three vehicles (two operating and one spare) at \$150,000 each and two shuttle stops.

Assuming successful implementation of Concept I with sustained ridership, it can be expanded to incorporate Concept C, providing service to Mountain View Transit Center. This concept could be accomplished with three shuttle vehicles, one vehicle dedicated to providing service between Lucky Supermarket and the Preserve every thirty minutes, and two other vehicles providing

service every thirty minutes between Mountain View Transit Center and the Preserve with a stop at Lucky Supermarket. The 30-minute headways for the two combined concepts, in aggregate, results in a shuttle service with 15-minute headways to/from Lucky Supermarket and 30-minute headways to/from Mountain View Transit Center. The annual operating cost for the fully expanded concept is approximately \$283,000 and the up-front capital cost is estimated at \$606,000 (three operating and one spare vehicles at \$150,000 each and three shuttle stops at \$2,000 each).

Mead & Hunt estimates the District would need 0.5 to 1.0 full-time equivalent (FTE) position to manage the program on the backend, working directly with a vendor and monitoring performance, and to market and promote the program. A Management Analyst II and Public Affairs Specialist II have been identified as the appropriate staff to work on this program. Assuming a 90/10 split of functions, the annual staffing cost to support this program ranges from \$92,000 to \$185,000.

The total operating cost (program operation and District support and oversight) ranges from \$282,000 to \$375,000 for the Lucky Supermarket concept and \$372,000 to \$465,000 for the expanded concept.

Mead & Hunt estimates the daily ridership for Lucky Supermarket concept to range from 200 to 360 and from 250 to 360 for the expanded concept. Based on these ridership projections and the total annual operating cost estimates, the Lucky Supermarket concept costs between \$6.93 - \$16.59 per rider, and the expanded concept costs between \$9.14 - \$16.46 per rider.

Staff recently had the opportunity to meet with the Packard Foundation to learn about their employee shuttle program and received very helpful information. Packard Foundation staff shared that they experience little administrative burden in working with their shuttle operator and receive regular reports on program performance. Through Packard Foundation, staff connected with their vendor and were able to obtain operation and cost information directly from a shuttle operator. Staff learned that this vendor charges a flat daily 8-hour minimum fee for their shuttle services and the fee varies depending on vehicle size. For the service level we are contemplating (two midsize passenger vans operating with 15-minute headway during weekends and holidays), the cost is approximately \$170,000 annually, which is slightly lower than what is estimated in the Mead & Hunt report. According to this vendor, they do not pass vehicle purchase costs onto their clients and the clients' program administrative cost is minimal. For the District, since the program would be a public program (versus an employee program), with ridership that will vary from day to day, week to week, and/or month to month, additional administrative support from the District is anticipated to assist public members with instructions, to sufficiently and regularly market the program, and to address any public concerns or constructive feedback.

Mead & Hunt identified six months as the evaluation timeframe for several performance measures. If a shuttle program were to be implemented, an ideal minimum pilot period would be one year. If shuttle service use were to surpass shuttle service capacity, it could result in reduced level of service, with crowding and passengers being turned away. Visitors that made the switch to the shuttle may revert back to driving and could use the parking spaces that were freed up by the shuttle service mode shift. An equilibrium would be reached after a time, and the District would face a decision over whether to expand shuttle service or not. Mead & Hunt developed an operations and management framework and a branding and marketing framework, which are key to understanding how to implement a shuttle program and promote the program to sustain ridership. The Operations & Management Framework

(Attachment 1, Pages 23-26) identifies key components the District should include in a future Request for Proposals (RFP) for shuttle service operators; these include:

- Fleet Management: The District needs to know how it would like shuttle vehicle fleets to be owned and managed when developing an RFP.
- Service Requirements: The full details of the planned service should be spelled out in the RFP, including days and hours of operation, service headways, and routes service requirements.
- Maintenance Requirements: The RFP should include maintenance standards that the contractor will be held to as approved by the District.
- Support Services: Performance standards for other services outside of actual service and vehicle maintenance, including rider information services, shuttle stop infrastructure maintenance and security, and service evaluation and future transit service planning.
- Policies and Plans: A shuttle operator should operate according to a set of established plans that are mutually agreed upon by the District and the operator. These plans should ensure safety, equity, and protect the operator and District from liability.
- Compensation: The RFP will need to identify how the shuttle service contractor will be compensated, whether through a per hour rate or a flat fee per week/month as long as certain benchmarks are met.
- Agency Oversight and Reporting: The RFP will need to detail how the contractor will report on program performance, including ridership, maintenance, safety, and if applicable, fare payment data. In addition to regular reporting, the District will want to ensure the vendor can provide access to a data dashboard so staff can query various metrics.
- Qualifications and Experience: The District will want to vet contractors based on their experience and demonstration of similar experience, such as providing shuttle service to open space and remote rural destinations. The RFP should also request that contractors provide their general staffing procedures and plans.

Additionally, any shuttle service entering into a contract with the District would also need to provide evidence of a satisfactory safety record, as well as meet the District's insurance requirements specific to these services.

Mead & Hunt provided two RFP examples (Attachment 1, Pages 30 and 31) they developed for other shuttle services. While these RFPs are not specific to open space shuttle service, they demonstrate how thorough the District should be in seeking proposals to meet its unique needs.

Mead & Hunt developed a marketing & branding framework (Attachment 1, Pages 30 & 31) for implementing a shuttle program, which can be applied to a shuttle program at any District preserve. This framework identifies how to best establish initial ridership through a preserve's existing visitor base, maintaining momentum by conducting broader outreach and sharing success stories, and lastly working local media to promote the District's efforts in investing in visitor experience, diversity, equity, and inclusion (DEI), and environmental stewardship.

Shuttle Concepts	S					
Proposed	Saturdays/Sundays/Holidays from 6:30am to 12:30nm					
Service	Sataraa ja Sanaa ja Honaa ja Honaa ja Honaa ja Honaa ja Sataraa ja Sataraa ja Sataraa ja Sataraa ja Sataraa ja					
Concept:	Concept I: Lucky Supermarket (Mead & Hunt Estimate)	Concept I: Lucky Supermarket (Vendor Estimate)	Combined Concept: (Buildout scenario (Mead & Hunt)	Combined Concept: Buildout Scenario (Vendor Estimate)		
Stops:	2 S	Stops	3 (one existing VTA stop at Mountain View Transit Center, two new)			
Travel Time:	7-9 minut 13-17 minu	tes one way tes round-trip	17-22 m 33-44 mi	inutes one way nutes round-trip		
Headways	15 m	inutes	30 minutes from Mountain View Station, aggregate 1 minutes from Lucky			
Vehicle Requirements:	21	2	31 3			
Initial Capital Costs2 (Annualized)3	\$454k (\$65k)	\$4k4	\$606k (\$87k)	\$6k4		
Staff Resources / Fiscal Impact ₅			0.5 to 1.0 FTE \$92k to \$185k			
Annual Shuttle Operating Cost:	~\$190k	~\$170k	~\$280k ~\$250k			
Total Operating Costs6	\$282k - 375k	\$262k - \$355k	\$372k - \$465k	\$342k - \$435k		
Daily Ridership Range (inbound + outbound):	200)-360	250-360			
Cost per Rider	\$6.93- \$16.59	\$6.44 - \$15.70	\$9.14 - \$16.46	\$8.41 - \$15.40		

1. Excludes spare vehicle that would be needed.

2. Includes required vehicles and one spare vehicle and shuttle stop infrastructure.

3. The transportation industry standard is to annualize vehicle costs across seven years. The District may identify a vendor that does not pass on capital vehicle costs to the District or identify a vendor willing to negotiate cost of spare vehicle.

4. This vendor does not pass along vehicle costs onto clients, only shuttle stop infrastructure included.

5. Based on 90/10 split for Management Analyst II and Public Affairs Specialist II.

6. Sum of internal staff overhead and shuttle program operating costs.

Ride Hail Program

The Board directed staff to seek partnership opportunities with the Silicon Valley (SV) Hopper program currently operated by Via under contract with the City of Cupertino (Cupertino) (Service Design Concept B). Staff and Arcadis met with Cupertino staff to further discuss partnership opportunities, with an eye toward better understanding the costs for this concept. Cupertino expressed interest in this partnership and is open to some options in modifying the existing Silicon Valley Hopper program.

The existing SV Hopper program services both the cities of Cupertino and Santa Clara. It provides on-demand ride hail services from a nearby designated "stop", typically the closest street corner to a requested origin or destination. The SV Hopper currently serves Rancho San Antonio and the operating hours are Monday to Friday, 7 AM -7 PM and Saturday, 9 AM – 5 PM.

The operating hours of the existing SV Hopper program would need to be expanded to meet the peak preserve visitation needs. After consulting with Via, Cupertino informed staff that the costs to expand Saturday morning service by three hours and to provide six hours of new service on Sundays is \$40,000 and \$105,000 respectively for a total of \$145,000 annually. The expanded service would require three vehicles and would not be dedicated to preserve visitors as restricting the service to one user group does not align with the SV Hopper program mission of providing a transportation option that serves the entire community. Additionally, Cupertino and its new partner, Santa Clara, would not be able to share the added costs for the expanded service hours for all rides in the service area for any destination within Cupertino, Santa Clara, and other satellite locations in the service area. The cost information provided by Cupertino only reflects a portion of the hours needed to meet peak preserve visitation demand. Arcadis estimates that the annual cost to provide full service during peak hours on Saturdays, Sundays, and holidays is \$342,000 (Attachment 3, Page 3).

A review of existing SV Hopper ridership data of inbound rides to Rancho San Antonio between September and November 2023 shows between 0-3 riders on Saturdays, which could be doubled to account for outbound trips. While existing data illustrates low ridership to Rancho San Antonio, Cupertino and Via estimates that the increased three hours on Saturdays would potentially result in 32 weekly riders within the entire service area during those expanded hours, of which, approximately 72% going to Rancho and the new service on Sundays would potentially result in 93 riders within the entire service area during the new service hours, of which, approximately 46% may be going to Rancho. These estimates are based on Via's transit planning software, which they use to model estimate ridership projections based on demographic characteristics, and this methodology is the basis for other on-demand deployments throughout the country. Separately and independently, Arcadis estimates that, despite existing lower ridership, proper marketing and outreach coupled with subsidized service could generate 2,280 trips across 114 service days (or 20 one-way trips per day). A cost per rider calculation cannot be performed since the expanded concept includes unknown other rides within the Silicon Valley Hopper service area.

Arcadis estimates the District would need 0.2 to 0.25 full-time equivalent (FTE) position to manage the program on the backend, working directly with the vendor and to market and promote the program. A Management Analyst II and Public Affairs Specialist II have been identified as the appropriate staff to work on this program. Assuming a 90/10 split of functions, the annual staffing cost to support this program ranges from \$37,000 - \$46,000.

Ride Hail Concept: Silicon Valley Hopper Collaboration (Concept B)			
	Vendor Estimate	District Needs	
Geographic Limitations	Cities of Cupertino and	Santa Clara, and satellite	
	locations within	n the service area.	
Existing Service Hours	Monday – Frie	day: 7 am – 7 pm	
	Saturday:	9 am - 5 pm	
		Saturdays: 6:30-9:00am	
		and 5:00-7:00pm (234	
	Saturday: 6:00 – 9:00am	annual hours)	
	(156 annual hours)		
	Sundary 600am	Sundays: 6:30am-7:00pm	
Proposed Expanded Service Hours	12:00 nm $(312$ hours)	(650 annual hours)	
	12.00pm (312 nours)		
	Total Additional Hours:	Holidays: 6:30am-/:00pm	
	468 hours	(125 annual nours)	
		Total Additional Hours:	
		1009	
Vehicle Requirements		3	
Staff Resources / Fiscal Impact.	0.2 to 0.25 FTE		
	\$37k - \$46k		
Annual Ride Hail Operating Cost	~\$145k	~\$342k	
Total Operating Cost ₂	\$182k - \$191k	\$379k -\$388k	
	Saturday: 32		
	Sundays: 93	No Information	
Additional Ridership Generated	Annual: 6,500	Available	
	500/	7 1 V ana 0104	
	52% of rides estimated		
Castara sidar		 	
No information Available ₅			

1. Based on 90/10 split for Management Analyst II and Public Affairs Specialist II.

2. Sum of internal staff overhead and ride hail program operating costs.

3. Expanded hours results in additional ridership generated by rides to Preserve and other locations within SV Hopper service area.

4. Ridership estimates have not been generated based on the described hours.

5. Breakdown of cost per rides at Preserve level cannot be calculated because ridership estimates includes rides to other

locations within SV Hopper service area, and Cupertino and Santa Clara will not share costs for expansion with the District.

Funding Opportunities

Staff researched and evaluated potential funding opportunities at the federal, state, and local levels as well as public/private partnership for implementing shuttle or ride hail programs (Attachment 4). Staff's research reveals that transit funding opportunities are limited and do not appear to be available to agencies like the District at this time. Transit funding is typically limited to providing transit service to the general public or underserved populations. The District would likely be required to fund a program on its own. The District, however, could look to public-private partnerships to provide funding to subsidize program costs (e.g., King County's Trailhead Direct Program received some funding contributions from REI for their program). Staff recommends the District should continue to actively monitor relevant grant opportunities, explore potential partnerships, and consider creative approaches to secure funding. The District

should also continue to monitor state and federal legislation, which could result in future grant opportunities that are more directly applicable to the District's needs.

TDM Programs

District outreach and Mead & Hunt's case study confirm that shuttle programs and other transportation programs are most successful when parking is not readily available at the destination site. The public survey effort confirmed that motivation to use alternative modes for accessing the Preserve is largely influenced by parking availability. The 2021 Study concluded that companion TDM measures should be implemented in unison or concurrently to have the greatest impact in reducing parking demand, promoting modal shift, and enhancing visitor experience at the Preserve. Staff presented potential companion TDM measures that would be needed to support a shuttle and/or ride hail program during the September 12, 2023 Special Board Meeting. Since this meeting, a project to establish permanent carpool parking was added to the District's Capital Improvement and Action Plan (CIAP) and staff further evaluated the other TDM measures as detailed below.

Designate Carpool Parking

Rancho San Antonio Permanent Carpool Parking Implementation has been added to the FY25-FY27 CIAP and the planning work will begin in FY25. This effort will build on the lessons learned from the 2022-2023 carpool pilot project. The FY25 scope includes initiating feasibility and site planning studies with consultant support; coordination with the County and obtaining County agreement; obtaining Board approval of a concept plan as the project description for environmental review; and initiating public engagement. The FY26 scope includes initiating and complete environmental review, continued coordination with the County, and initiating design and permitting.

Implementing Parking Reservations – a companion TDM measure for shuttle/ride hail programs

Staff met with State Parks to learn more about their parking reservation system at Big Basin State Park. State Parks uses CognitoForms for their parking reservation system due to their comanagement agreement with Friends of State Parks, a nonprofit organization that manages this reservation system. Based on the District's needs, using this platform could cost between \$35 and \$99 a month, with a 20% discount if pre-paid for a year. Outside the base-level cost, users can collect and manage data, automate workflows, integrate with other platforms for user insights, automation, and for more payment options if the District decided to charge for reservations.

According to the Purisima Multimodal Access Study Report, it is estimated to cost \$15,000 to implement a parking reservation system (web platform/software app), and \$30,000 for signage and physical site changes. With any reservation system, additional employees would be required to manage the program on the ground, and additional administrative staff may also be needed to manage the backend. Given the significant difference in the estimated cost in the Purisima study and the CognitoForms estimate, if the Board wants to implement a shuttle program and/or ride hail program with a parking reservation system, the District should compare different parking reservation platforms to determine which best balances positive customer experience with overall cost.

Priority Parking Zones – a companion TDM measure for shuttle/ride hail programs

A priority parking zone would involve designating a part of the parking area for carpool and/or reservation parking. Additional staff would be required to administer priority parking zones on the ground, in the field, and administratively on the backend. In addition, the District would need to retrofit Rancho San Antonio's existing parking area to properly designate a permanent carpool lot and/or reservation parking zone, which are zones that need to be clearly signed and marked onsite, as well as noted on maps, with other specific instructions for proper public use.

Close Parking lots when full during shuttle operation

While infrequent, Ranger staff have closed the main entrance when the main parking area has reached capacity and congestion becomes unmanageable. This strategy is proposed primarily to increase the success of the shuttle program. If the Board decides to implement a shuttle program, staff will need to further evaluate a policy around managing the main entrance. The current parking area entrance gate manages inbound and outbound access concurrently. Pursuing this strategy would require infrastructure improvements to manage inbound and outbound access separately. The gate could be managed by staff manually or electronically. Staff can leverage the real-time parking data coupled with observations to determine when it is appropriate to close the inbound access. Staff presence would be required at each of the lots and near the entrance of the Preserve during peak hours to accommodate this strategy. A strong education campaign and coordination with the cities of Cupertino and Los Altos would be required to ensure that any queuing impacts on Cristo Rey Drive can be minimized.

General Manager Recommendation

At the September 12, 2023 Board meeting, the Board directed staff to further evaluate an optimized shuttle service design concept from Lucky Supermarket to Rancho San Antonio's main parking area and further explore partnership opportunities with Silicon Valley Hopper program operated by Via under contract with the City of Cupertino. Working with the consultants, staff completed these evaluations.

Based on the study findings, providing a limited shuttle program (6 to 8 hours on weekends and holidays) to serve between the Lucky Supermarket and Rancho main parking area would require an annual operating budget ranging from \$262,000 to \$375,000, with initial capital costs up to \$454,000. Additionally, to overcome the convenience of private vehicle trips to the Preserve and promote the use of the shuttle service, the District would likely need to implement companion parking demand specific TDM strategies, such as a reservation system or parking lot closures, which would require additional up-front capital and annual operating costs. While the consultant has provided some ridership projections, the estimates are highly speculative at this time.

Regarding the potential partnership with the SV Hopper program, the cost to participate in the program to provide the service during peak hours could be up to \$342,000 with an additional \$37,000 to \$46,000 of (new) District staff resources to support the program. One key consideration is the constraint of not being able to provide dedicated service to Rancho visitors during expanded service hours. While it is understandable as it is not consistent with the original SV Hopper program goal of providing transportation services to the entire community, this constraint limits the effectiveness of meeting the District's goals of reducing parking demand and relieving traffic congestion at Rancho.

Given the high cost of implementing these programs and the lack of certainty of success, the General Manager recommends that the District not move forward with implementing these two programs at this time, and instead focus on implementing a permanent carpool lot as approved by the Board in November 2023 based on a successful year-long carpool pilot project. A more appropriately placed carpool lot can further encourage carpooling and reduce overall parking demand. If necessary, the District can in the future still consider the shuttle program, ride hail program, and/or other TDM strategies to further address parking and congestion issues at Rancho. While the shuttle and/or ride hail programs are not recommended at this time for Rancho, the information gathered through these studies is invaluable to inform the implementation of similar programs at other more appropriate open space preserve(s).

Visitor Capacity Study

During the September 12, 2023 Special Board Meeting, the Board requested staff, prior to taking action to implement a proposed shuttle and/or ride hail program, to return with information on a potential visitor capacity study, including the scope, timeline, cost and the type of findings that are expected, to confirm whether such a study would provide useful information prior to Board decisions on subsequent program implementation steps. If the Board approves the General Manager's Recommendation, there is no need at this time to proceed with a Visitor Capacity Study for Rancho San Antonio Preserve.

However, separate from the consideration of a shuttle and/or ride hail program, the District is including Project #31913, Visitor Use Management and Carrying Capacity, to the FY25-FY27 CIAP list. This project is scheduled to begin in FY26. The purpose of this project is to develop a framework for visitor use management to assess visitor use capacity within preserves and identify management strategies that protect the natural resources. The FY26 and FY27 scopes include conducting background research, literature review, and partner agency engagement; developing visitor use management goals; selecting indicators; establishing thresholds and identifying management strategies; and initiating public and stakeholder engagement. If in the future, the Board decides to proceed with a shuttle and/or ride hail program for Rancho San Antonio or another preserve, the findings of the Visitor Use Management and Carrying Capacity project will provide information to understand the potential effects of changes in visitation levels that may arise from the implementation of either program.

FISCAL IMPACT

The General Manager's recommendation is to not move forward with implementing a shuttle program or ride hail program at Rancho San Antonio Open Space Preserve at this time, and instead focus on implementing a permanent carpool lot as previously approved by the Board. If approved, funding for the Rancho San Antonio Permanent Carpool Parking Implementation Project will be included in the upcoming proposed FY25 Budget.

PRIOR BOARD AND COMMITTEE REVIEW

- July 11, 2023 and July 18, 2023: The Planning and Natural Resources Committee received a presentation on the proposed shuttle and ride hail service design concepts and performance measures and contingent TDM measures.
 - o <u>PNR Report</u>
 - o <u>July 11, 2023 Minutes</u>

July 18, 2023 Minutes

- August 9, 2023: The Board received a memo on estimated visitation for 2022.
 <u>Memo</u>
- September 12, 2023: The Board of Directors received a presentation on the proposed shuttle and ride hail service design concepts, performance measures, contingent TDM measures, and an overview of visitor capacity study.
 - o Board Report
 - o September 12, 2023 Minutes

PUBLIC NOTICE

Public notice was provided as required by the Brown Act. Additional notice was provided to Santa Clara County Parks, the Cities of Cupertino, Mountain View, Los Altos and Los Altos Hills, Santa Clara Valley Water District, Santa Clara Valley Transportation Authority, and Rancho San Antonio Open Space Preserve interested parties.

CEQA COMPLIANCE

The exploration of a Shuttle and Ride Hail Program for the Preserve is equivalent to a feasibility or planning study to inform possible future actions, which the Board has not yet approved, and is statutorily exempt in accordance with State California Environmental Quality Act (CEQA) Guidelines Section 15262. If the Board were to direct staff to implement a shuttle and/or ride hail program, the District will conduct subsequent environmental review for CEQA compliance prior to implementation. Also, the District will conduct environmental review for CEQA compliance of a permanent Carpool Lot prior to Board approval of an award of contract for its onsite implementation.

NEXT STEPS

If the Board supports the General Manager's recommendation of not proceeding with a shuttle or ride hail program at this time, staff will focus on initiating the Rancho San Antonio Permanent Carpool Parking Implementation Project in FY25. The project is anticipated to be complete in FY27.

Attachments:

- 1. Shuttle Report
- 2. Shuttle Concept Calculations
- 3. Ride Hail Report
- 4. Funding Opportunities Report

Responsible Department Head:

Susanna Chan, Assistant General Manager, General Manager's Office Jane Mark, AICP, Planning Manager, Planning Department

Prepared by: Tyler Smith, Planner II, Planning Department Contact person: Tyler Smith, Planner II, Planning Department Susanna Chan, Assistant General Manager, General Manager's Office

ATTACHMENT 1



Memo

Subject:	Rancho San Antonio Implementation – Shuttle Program; Final Report
Date:	February 26, 2024
From:	Brian Laverty, Mead & Hunt
To:	Tyler Smith; Midpeninsula Regional Open Space District

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PROJECT BACKGROUND & GOALS

Rancho San Antonio County Park and Open Space Preserve is the most frequently visited preserve managed by Midpen, and visitation continues to increase. The parking demand regularly exceeds parking capacity available at the parking lots located at the main Cristo Rey Drive entrance. Visitors often park along neighboring roads or have to idle/circle around while seeking a parking space. The recently completed Ranch San Antonio Multimodal Access study recommended several Transportation Demand Management (TDM) strategies, including a fixed-route, fixed-schedule free or reduced cost shuttle for peak season and first/last mile connections to be further evaluated as part of a formal transit service planning effort.

The goals for the Rancho San Antonio Shuttle Program are as follows:

- 1. Provides the optimal access for a wide range of visitors.
 - a. Provides opportunity to reduce parking demand and congestion at parking lots in the preserve during peak hours.
 - b. Address preferences expressed by the public through prior and current surveys.
 - c. Explores providing alternatives in terms of pick-up/drop-off locations to distribute visitor access across a variety of trailhead entrances when feasible.
 - d. Considers the constraints of preserve entrances and trailheads that provide parking.
 - e. Identifies alternate offsite parking to utilize as shuttle stops.
 - f. Provide reliable service with reasonable pick-ups and drop-offs timeframes.
- 2. Equity is woven into the program with a goal to offer a free or low-cost service.
- 3. Utilize low-friction concept
 - a. Provide a simple, easy to understand and descriptive schedule.
 - b. Ability for riders to use the service without checking a schedule.
- 4. Design shuttle program to align with other TDM strategies being implemented and current/future Preserve operations.
- 5. Define clear implementation path
 - a. Establish clear shuttle governance and management
 - b. Lay out detailed implementation steps and timeline
 - c. Develop firm cost estimate
 - d. Identify multiple funding options
- 6. Develop ridership estimates, performance measures, utilizations rates, and other metrics to monitor program success. Establish baseline data to allow for comparison of program performance.
- 7. Build awareness for the shuttle program through engagement efforts and branding.
 - a. Branding is clear and the shuttle program is not at risk of confusion with other services.
 - b. Actively engage and encourage strong participation in public survey with largely constructive, anticipatory feedback from public.
- 8. Shuttle program aims to reduce visitor transportation emissions in support of Midpen's Climate Action Plan by decreasing single occupancy vehicle (SOV) trips and vehicle miles traveled (VMT). Further gains may be possible by requiring shuttle provider to use newer or electric vehicles to further reduce greenhouse gas emissions.

STUDY PROCESS

This technical memo details the existing conditions and concept development phases of the shuttle study. The existing conditions section focus on defining the access needs to be met by

the shuttle, identifying feasible locations for stops both within and beyond the Preserve, and setting a number of guiding principles to be used in outlining the set of shuttle service concepts to be reviewed. The steps involved in the existing conditions phase include:

- A **state of practice review**, consisting of interviews with other park/preserve facilities that have launched shuttle services similar to what is envisioned for Rancho San Antonio.
- **Field observations** to assess potential stops and shuttle routes and develop a greater understanding of current Preserve access issues.
- A series of **interviews with stakeholders**, including local jurisdictions, existing local mobility providers, and the regional community college district.
- A **public survey** aimed at further defining the demand for shuttle service.

The concept development section details a number of initial service design concepts based on the cumulative context developed through the existing conditions phase, and outlines the process of narrowing those concepts to a set of four that are seen as the most feasible concepts.

EXISTING CONDITIONS

STATE OF PRACTICE REVIEW

As part of the market analysis task, Mead & Hunt interviewed representatives from similar park or preserve areas which already operate a shuttle system to provide access to users. This effort was supplemented by similar conversations Midpen staff had with other agencies. Those locations included:

- Yosemite National Park (CA)
- San Mateo County Access to Parks shuttles (CA)
- Muir Woods National Monument (CA)
- Belle Isle Park (MI)
- Acadia National Park (ME)
- Zion National Park (UT)
- Bryce Canyon National Park (UT)
- Rocky Mountain National Park (CO)
- Presidio of San Francisco (CA)

Several common themes emerged from the case study process, including:

- Almost all services that were reviewed operate under a service contract model, with about half operating vehicles owned by the park entity, and the other half operating vehicles owned by the contractor.
- A key factor in shuttle success is offering access on roads that are restricted to general vehicle traffic.

- Managing agencies generally consider a fixed shuttle successful if it serves 20-25 passengers per hour per vehicle.
- Other simultaneous programs, such as permit parking or metered access, parking reservations, and other parking restrictions are key to shuttle program success.
- Highly visible signage is important.
- Shuttle systems attract the most riders when parking is full.
- "Getting the word out" to potential users is critical.

Full details on the state of practice review can be found in Appendix A.

FIELD OBSERVATIONS

To provide context for the development of feasible shuttle route concepts, the study team conducted field observations in August 2022. Field observations focused on documenting potential locations for passenger boardings outside of the Preserve, several of which were identified by the 2021 Multimodal Access Study, as well as potential locations for passenger boardings/alightings within or at the edge of the Preserve. The study team examined these locations with an eye towards safe boarding/alighting locations and potential vehicle routing. The team also reviewed locations within the Preserve to understand the inherent challenges of operating on internal roadways and to understand the existing patterns of use and the primary destinations sought out by visitors. In addition, the study team interviewed Midpen's ranger staff regarding enforcement and safety concerns, and observed the overcrowding of parking locations on weekend mornings, overflow parking on neighborhood streets, and walk-in access patterns. See Appendix B for full details on the field observations.



Figure 1: Overflow Parking on Cristo Rey Drive

The following locations were examined as part of the field review:

Preserve Entrances

- Main Entrance (Lots 1-6)
- St. Joseph Avenue trailhead
- Mora Drive trailhead

- Ravensbury Avenue trailhead
- Hidden Villa (external, NW of Preserve)
- Laura Court neighborhood
 access
- Rhus Ridge trailhead

Internal Destinations

- Deer Hollow Farm
- Permit Lot

Off-site Satellite Parking Locations

- Foothill College
- Foothill Crossing Shopping
 Center
- Lucky Supermarket
- Foothill Christian Center
- Montclaire Elementary School
- Mountain View Transit Center
- Rancho Shopping Center
- St. Nicholas Elementary School



Figure 2: Hikers walking in the Rancho San Antonio Service Road

The following key takeaways came as a result of the team's field observations:

- Service to the internal locations on the Rancho San Antonio service road, primarily Deer Hollow Farm, will be challenging due to the narrowness of the roadway. As the service road is designated an easy-access trail, many Preserve visitors walk on the service road instead of using the parallel path. If service were provided on this corridor, signage and enforcement to ensure that hikers use the trail would be critical.
- Most of the trailheads outside of the main entrance must be reached after traversing narrow, winding neighborhood streets. Such locations could be challenging to serve with transit vehicles and could engender significant neighborhood resistance. Overflow parking on neighborhood streets is prevalent near the main entrances and major trailheads. Some visitors park as much as a mile from the entrance.
- Foothill Crossing Shopping Center was eliminated as a potential satellite parking location due to the lack of available curb space for a stop and the overall busy condition of the parking lot, bringing safe boardings/alightings and efficient access into question.
- Montclaire Elementary was eliminated as a potential satellite parking location due to the relatively small number of off-street parking spaces available. Riders parking in this location would likely park on St. Joseph Avenue, probably incurring resistance from the neighborhood.

• St, Nicholas School was eliminated as a potential satellite parking location due to the close proximity of a seemingly much better facility at Foothill College, as well as the complex intersection of El Monte Road and Voorhees Drive, which would likely be confusing to Preserve visitors looking for the shuttle pickup.

STAKEHOLDER INTERVIEWS

During the existing conditions phase of the project, significant stakeholders were identified and an outreach plan was developed. From November 2022 through January 2023, three separate virtual meetings with neighboring municipalities and Foothill College were held. The communication with the stakeholders included describing Midpen's objectives with the shuttle program project, sharing the results of the public survey and discussion regarding existing factors that are of importance when developing the shuttle program. In general, the neighboring municipalities and Foothill College expressed general support for the shuttle program. Another significant discussion topic was how a shuttle program would complement the existing City of Cupertino on-demand ride share program, Silicon Valley Hopper (formerly Via Cupertino), which the City is expanding.

Additional stakeholder meetings will be held during the upcoming phases of the shuttle program. The list of stakeholders may change as the shuttle program is further defined and route/stop alternatives are identified.

		-	
Stakeholder	Date	Primary Topics of Outreach	
Santa Clara County Parks			
Town of Los Altos Hills			
City of Los Altos			
City of Cupertino	1/12/2023 Joint	Existing factors likely to	
Cupertino Union School District (Montclaire Elementary)	Stakeholder Workshop	influence shuttle program	
City of Sunnyvale			
City of Mountain View			
City of Cupertino	1/30/2023	Experiences from Via Cupertino and Via Expansion	
Foothill College	11/9/22	Use of college parking to support shuttle program.	

Table 1: Stakeholder Outreach Summary

PUBLIC SURVEY

An online survey was promoted through Midpen's and its partner agencies' email notifications, social media outreach channels and in-person at the preserve. A total of 626 responses were received between October 16, 2022 and November 15, 2022. Respondents were largely located in the South Bay Area between Redwood City and San Jose, which means they would have

roughly a 30-minute drive to get to the preserve. The survey expanded upon a prior survey performed as part of the 2019-2021 Multimodal Access study.

Questions relating to the potential shuttle program were aimed at creating an understanding of the current visitation patterns and visitors' attitudes toward a shuttle option for accessing the preserve. The primary takeaways from the survey results are as follows:

- 1. Most visitors access the preserve from the main entrance at Cristo Rey Drive and they do so by driving their own vehicle. The main entrance is also the *preferred* access point for the majority of visitors.
- 2. Mornings are the most popular time of day to visit the preserve on both weekdays and weekends. This result is supported by the observation that the parking lots at the main entrance often fill up early on weekend mornings, which are generally the heaviest visitation periods.
- 3. A common sentiment among respondents is that the preserve itself is crowded during peak visitation times and therefore they decide to either visit other preserves or to not visit at all during those times.
- 4. About 2/3 of the survey respondents are open to potentially using a shuttle to access the preserve.
- 5. The lack of parking is the reason most respondents would consider using a shuttle.
- 6. The ease of use and frequency of the shuttle service are also important considerations for potential shuttle users.
- 7. The most significant concern regarding a shuttle service is being able to rely on a return trip from the preserve.
- 8. Survey respondents want a shuttle program which has wait times and trip times no longer than 10 minutes each.
- 9. Half of survey respondents do not want to pay for a shuttle ride and only about 10% would consider paying more than \$2.

KEY FINDINGS

The following list summarizes the key takeaways from all activities of the existing conditions study phase:

- 1. Prior experience of other shuttle providers indicates that shuttles are most successful when they provide access to areas where private vehicle access and/or parking is restricted, either by regulation or due to parking demand exceeding supply.
- 2. The experience of the San Mateo County shuttle highlights the need for service to be simple, direct, and as short (in terms of route length and running time) as possible.

- 3. Routes serving locations in the central portion of the Preserve, such as Deer Hollow Farm and the mid-level hiking loops, may be considered due to the interest for that area and the fact that restricted private vehicle access creates an unmet demand among visitors, although serving locations internal to the Preserve will be challenging.
- 4. There is a need for routes to serve potential satellite parking locations nearby the main entrance, as the most concentrated need for additional access stems from demand exceeding parking supply in the first 2-3 hours of weekend mornings after the Preserve opens. Shuttle service should be focused on this timeframe, with a 3-4 hour buffer to allow for the majority of those users return trip to be accommodated.
- 5. Preserve visitors would be most likely to support a shuttle service that is simple to use and requires minimal trip planning. Service trip times should be kept short, as well as wait times. Routes should be direct, with few stops other that terminal points. Concern over missing their return trip is notable among survey respondents, underscoring the necessity to integrate shuttle service with other access efforts such as a ride hail program. Half of survey respondents do not want to pay for a shuttle ride and only about 10% would consider paying more than \$2.
- 6. Of the alternative Preserve entrances, Mora Drive and Rhus Ridge Road will be considered due to their relatively straightforward access routes and the fact that they provide the best access to desired areas in the middle and west end of the Preserve.
- 7. There is sufficient interest in a shuttle that connects to existing public transit services.
- 8. Clear communication with potential users, including highly visible signage, broad outreach campaigns, and clear instructions on shuttle program details and integration with other programs, will be critical to program success.

PERFORMANCE MEASURES

The recommended performance measures for the Rancho San Antonio shuttle pilot focus on establishing a steady rider base, providing service that is well-integrated with other access means and efforts, and establishing a simple, positive rider experience.

Data collection to assess the effectiveness of the shuttle would require that certain steps be included in the scope of the eventual operating contractor, or taken on by Midpen. Passenger counts and on-time performance are standard measures recorded by all transit operators as part of standard service. Follow-on rider surveys and parking counts conducted at defined intervals would be additional required steps to track the effectiveness of the service.

Table 2 summarizes the recommended performance measures.

Target	Target Date	Measurement	Alternate
Achieve 50% or more of the specific concept's ridership range median	6 months from shuttle service introduction	Automated Passenger Counter (APC) or operator counts from average service period	Over 50 shuttle reservations occurring on at least five service days
Improved count of empty parking spaces at Rancho San Antonio Main Entrance Parking Lots and/or reduced overflow parking in neighborhoods	3-6 months from shuttle service introduction, compare with pre- shuttle counts	Counts of empty parking spaces during the shuttle's operating hours on selected random dates and counts of reduced parking in neighborhoods	
90% on-time arrivals at main lot by schedule	1 month after shuttle service introduction	On-time performance monitoring and trip schedules	Travel time shorter than 15 minutes for a majority of riders
Public engagement with shuttle from 10 or more zip codes	3-6 months from shuttle service introduction	Home zip code of those who fill out rider survey	Number of survey responses

Table 2: Recommended Performance Measures

CONCEPT DEVELOPMENT

PREFERRED CONCEPT ATTRIBUTES

Based on the results of the existing conditions phase of the study, the initial set of shuttle concepts was developed to address the following preferences:

- There is a need for service design concepts to serve potential satellite parking locations near the main entrance, as the most concentrated need for additional access stems from demand exceeding parking supply in the first 2-3 hours of weekend mornings after the Preserve opens.
- Service trip times should be kept short, as well as wait times.
- Of the alternative entrances, Mora Drive and Rhus Ridge Road provide relatively straightforward access routes and the best access to desired areas in the middle and west ends of the Preserve.
- There is sufficient interest in a shuttle stop location that riders can access from existing public transit services.
- There may be a demand for service design concepts serving Deer Hollow
 Farm, although serving locations internal to the Preserve is challenging.

A Note on Terminology

The following terms common in transit planning practice are used in the sections below. For the sake of clarity, they are defined here.

Boarding – The act of a passenger getting onto a transit vehicle.

Alighting – The act of a passenger getting off of a transit vehicle.

Wait Time – The length of time a passenger waits at a stop for a transit vehicle to arrive.

Trip Time – The length of time a passenger spends on the shuttle between boarding and alighting.

Headway – The time between consecutive transit vehicles serving the same stop.

Running Time – The time it takes a transit vehicle to traverse its route, (expressed as either one-way or round-trip).

Span of Service – The number of hours a transit route operates in a day (may vary by day of week or season).

Terminal – Stops at either end of a transit route. Time is often built into transit schedules for vehicles to wait at these stops for several minutes.

Revenue Service – When a transit vehicle is in service and able to pick up passengers.

Revenue Miles – The number of miles that a transit vehicle is in revenue service.

Ridership - The number of passengers who ride a transit route.

Vehicle Requirement – The number of transit vehicles needed to operate a specific route.

INITIAL CONCEPTS

Based on the key attributes listed above, the following initial set of alternatives was selected for review:

Table 3: Initial Set of Concepts Reviewed

	Concept	Rationale	Pros	Cons
A	Foothill Christian Center/ Stevens Creek Elementary School) to Rancho San Antonio main lot	Usage patterns and survey results indicate that a large majority of users want to use the main entrance, and that service from a park & ride location very close to the main entrance was desirable for those users who come to the Preserve and find the parking lot full.	•Shortest trip length	 Parking at Foothill Christian Center may be unavailable on weekends due to multiple churches and a school operating at this site. Limited parking availability at Stevens Creek Elementary School
В	Foothill College to Rancho San Antonio main lot (with on-demand to Rhus Ridge)	Foothill College has been responsive to serving as a park & ride location, and the supply of parking there is large. Weekend events do not seem to be an issue, and Foothill College has an existing transit stop with shelters.	 Large # of available free parking spaces on weekends On demand trips to Rhus Ridge Rd trailhead may be possible Connection to regional transit network 	 Fee to park (once fee program reinstated). Neighborhood dynamics On-demand to Rhus Ridge requires added coordination w/ Town of Los Altos Hills and adjacent property owners of the private Rhus Ridge Road. Would need to eliminate parking at Rhus Ridge unless dropped at Moody and Rhus Ridge.
С	Mountain View Station to Rancho San Antonio main lot via Foothill Christian Center	Survey results indicate a strong interest in access to a transit hub.	 Large # of available parking spaces on weekends Strongest connection to regional transit network Mountain View downtown features amenities attractive to riders. 	 Fee to park Distance/time to Rancho
D	Sunnyvale Station to Rancho San Antonio main lot via Foothill Christian Center	Survey results indicate a strong interest in access to a transit hub.	 Large # of available parking spaces on weekends Strong connection to regional transit network Sunnyvale downtown features amenities attractive to riders. 	 Fee to park Distance/time to Rancho

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	Concept	Rationale	Pros	Cons
E	DeAnza College via Foothill Christian Center to Rancho San Antonio main lot	DeAnza College is close to the main entrance and has both large parking lots and a transit center.	 Short trip length Large # of available free parking spaces on weekends Strong connection to regional transit network 	• Farmer's Market, Flea Market on weekends
F	Rancho Shopping Center through – Mora Entrance w/ two internal stops and Rancho San Antonio main lot	Mora Drive provides access to the middle section of the Preserve, which is the most desired access among surveyed users.	 This service design concept would allow for a stop within 1/4 mile of Deer Hollow Farm. This route would keep the shuttle on hard-surface roads inside the Preserve. This route would provide direct access to the middle portion of the Preserve indicated as the most visited/preferred. Rancho Shopping Center features amenities attractive to riders. Connection to regional transit network 	 Concerns about adding vehicle traffic within Preserve Proposed route through Preserve is a heavily trafficked trail and serves as an easy access route. Neighborhood dynamics Would require adding stop along a service road
G	Monta Vista High School via Foothill Christian Center to Rancho San Antonio main lot	Monte Vista High School is close to the main entrance and has large parking lots.	 Short trip length Large # of available free parking spaces on weekends 	 School District unable to commit to renting space for consecutive use.
н	Through - Loop (in via the Rancho San Antonio main lot, out via Mora Drive entrance)	Mora Drive provides access to the middle section of the Preserve, which is the most desired access among surveyed users.	 As a drop off point, would bring visitors within 0.7 miles of Deer Hollow Farm; interior route would allow for a stop within 1/4 mile of Deer Hollow Farm. This route would keep the shuttle on hard-surface roads inside the Preserve. This route would provide direct access to the middle portion of the Preserve indicated as the most visited/preferred. Connection to regional transit network 	 Concerns about adding vehicle traffic within Preserve Proposed route through Preserve is a heavily trafficked trail and serves as an easy access route. Neighborhood dynamics Would require adding stop along service road.
1	Lucky Supermarket to Rancho San Antonio main Iot	Usage patterns and survey results indicate that a large majority of users want to use the main entrance, and that service from a park & ride location very close to the main entrance was desirable for those users who come to the Preserve and find the parking full.	•Short trip length •Potential amenities for visitors (food, drink etc)	• Permission and agreements likely required

RIDERSHIP ESTIMATION

From May 2021 to June 2022, average daily weekend visitation at Rancho San Antonio ranged from 1,800 (December) to 2,800 (January). The survey conducted for this study in the fall of 2022 indicates that roughly 60 percent of weekend visitors arrive before noon, and of those, 81.5 percent prefer the main entrance. Approximately 79 percent of survey respondents said they arrive via automobile or transit, and therefore are traveling a distance that a shuttle ride makes sense. Roughly 21 percent of survey respondents indicated that they would use a shuttle service either every time (6.5 percent) or most times (15.1percent) that they visited, although it would be wise to assume that the percentage of visitors who *actually will* utilize the shuttle is not as high as those who indicate willingness on a survey, at least in the early months of service. Therefore, we conservatively estimated that roughly 2/3 of those who indicated their willingness, or 14% of respondents, would actually use the shuttle service. A simple calculation based on these figures provides a range of 100 to 150 inbound shuttle riders each weekend day (See Table 8).

	Weekend day visitorship					
		Weekend AM				
		Prefer Main entrance				
				Drive or trar	nsit	
					Likely	Users
					inbound	outbound
High (Jan 2022)	2800	1680	1370	1080	200	160
Low (Dec 2021)	1800	1080	880	700	100	80

A further 21.9 percent of survey respondents indicated that they would use the shuttle only if they could not find parking, but that potential ridership is difficult to estimate, as the existing number of visitors who turn away due to lack of parking or park in nearby neighborhoods is not known. Additionally, the advent of a shuttle, as well as other TDM measures underway on the part of Midpen, may reduce the instance of parking lots overfilling. For the sake of estimation, we have adjusted the upper range of the ridership estimate to 200 to reflect the possibility of additional riders when parking is at capacity.

The above figures reflect only inbound riders, however. Approximately 60% of survey respondents stated that their typical visit to the Preserve is two hours or less, while another 38 percent indicated visits of 2-4 hours. Given the planned six-hour span of service for the shuttle, the team is estimating that approximately 80 percent of inbound riders will take an outbound shuttle trip, with the remaining 20 percent returning via the planned ride hail service.

This estimation is not specific to one or another of the service design concepts detailed above, but the visitor survey does indicate that over 90 percent of potential users would not wait more than 20 minutes for a shuttle, and would only be willing to take a shuttle ride of up to 20 minutes. Therefore, expected ridership for the longer routes or longer headways should be discounted. Individual ridership estimates by service design concept in the tables above are based on these preferences and the individual length/headway of each concept.

REFINED CONCEPTS

Through conversations w/ Midpen staff and agency partners, including a review of the potential shuttle satellite (pick-up/drop-off & parking) locations, the study team narrowed the options to the following four alternatives, with each providing access to the main parking lot (Lot 5) These four concepts are being proposed to the Planning & Natural Resources Committee.

- B Foothill College
- C Mountain View Station via Lucky Supermarket
- E DeAnza College
- I Lucky Supermarket

The options carried forward were selected based on the following considerations:

- The Foothill Christian Center service design concept was eliminated due to the fact that the school's parking lot is heavily used on weekends, including Sunday religious services.
- The Foothill College service design concept was simplified by removing the on-demand extension to the Rhus Ridge Road trailhead. While the survey results indicate some interest for that location, vehicle routing at that trailhead will be problematic. Service to the Rhus Ridge Road trailhead may be considered as a future extension if the Foothill College service design concept is selected for implementation and there is both significant interest from the public and support from the Town and local residents. If that service design concept is successfully established, the extension service could be added on.
- The through service design concepts were eliminated due to the difficulties of operating on the Rancho San Antonio service road which also functions as an easy-access trail at peak visitation times.
- Fremont Union High School District, which includes Monta Vista High School operates a facilities rental program, and the high school's parking lot is available for rental. In discussing the shuttle program needs, school district staff indicated they would not be able to commit to renting their facilities consecutively if there were conflicts with school events. The Monte Vista High School was identified as not a feasible location for a dedicated park & ride as the lot may be unavailable on some weekends.
- Rancho Shopping Center was eliminated as a satellite location due to the existing parking demand related to available on-site parking.

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• The proposed span of service for all concepts is a six-hour window beginning 15 minutes before the Preserve opens, with the first vehicle entering revenue service at the terminal point furthest away from the Preserve. Additional vehicles, if called for, will also enter service at the far terminal at intervals based on the headway. All vehicles would end service when they make their last stop at the far terminal within the six-hour window. The actual hours of service would shift throughout the year as the Preserve opening time shifts.

Concept B – Foothill College

The Foothill College service design concept was advanced because Foothill College has been responsive to serving as a park & ride location, and the supply of parking there is large, with roughly 150 spaces in the lot closest to the anticipated stop location and several other lots nearby. Though there are some college events, generally weekend events do not seem to be an issue, and Foothill College has an existing VTA transit stop with shelters. Given the location of the Foothill College campus directly adjacent to I-280, this service design concept was expected to appeal to those weekend users coming from further away, particularly those coming from locations further north along the peninsula. This service design concept was also considered a possibility for a spur to serve the Rhus Ridge Road trailhead, but that option was eliminated due to the difficulty of turning vehicles around at the trailhead when the lot is full, as it typically is on weekends.

Route Length:	12.76 miles round-trip				
Stops:	2 (one existing VTA stop at Foothill College, one new)				
Running Time:	17-23 minutes one way; 34-46 minutes round-trip				
Headways	15 20 30				
Vehicle Requirements (not including spares):	3 2-3 2		2		
Annual Revenue Miles:	~32,500 ~25,000 ~15,900				
Annual Operating Cost:	~\$280K \$190K - \$275K ~\$185K				
Daily Ridership Range (inbound + outbound):	180-325 150-270 50-90				

Table 5: Concept B Details

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Figure 3: Concept B

Concept C – Mountain View Station

The Mountain View Station service design concept is proposed to address strong interest in access to a transit hub as indicated in the user survey. The Mountain View Transit Center is served by CalTrain and the VTA Orange light rail line, as well as four VTA bus lines and MVgo shuttle service, and the Mountain View Community Shuttle. While there are a few minor transit hubs closer to Rancho San Antonio, the Mountain View Station provides a much broader set of transit connections. A stop at the Lucky grocery store is included in this service design concept in order to serve the overflow parking need that is so prevalent for the Preserve.

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Route Length:	15.21 miles round-trip	15.21 miles round-trip			
Stops:	3 (one existing VTA stop at Mountain View Transit Center, two new)				
Running Time:	17-22 minutes one way; 33-44 minutes round-trip				
Headways	15 20 30				
Vehicle Requirements (not including spares):	3-4	2-3	2		
Annual Revenue Miles:	~39,000 ~30,000 ~19,200				
Annual Operating Cost:	\$280K - \$365K \$190K - \$275K ~\$185K				
Daily Ridership Range (inbound + outbound)::	270-360 240-360 130-220				

Table 6: Concept C Details



Figure 4: Concept C

Concept E – De Anza College

The De Anza College service design concept is based on balancing the need to provide service from an ample parking area as near as possible to the Preserve entrance and the desire to provide service from a transit hub. De Anza College is close (4.5 miles) to the Rancho San Antonio main entrance, and has both large parking lots and a transit center.

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r	r			
Route Length:	9.06 miles round-trip			
Stops:	2 (one existing VTA stop at DeAnza College, one new)			
Running Time:	12-17 minutes one way; 24-33 minutes round-trip			
Headways	15	20	30	
Vehicle Requirements (not including spares):	2-3	2	1-2	
Annual Revenue Miles:	~24,000	~17,700	~12,300	
Annual Operating Cost:	\$190K - \$280K	~\$190K	\$95K - \$185K	
Daily Ridership Range (inbound + outbound)::	200-360	180-320	70-125	

Table 7: Concept E Details



Figure 5: Concept E

Concept I - Lucky Supermarket

Usage patterns and survey results indicate that a large majority of users want to use the main entrance, and that service from a park & ride location very close to the main entrance was desirable for those users who come to the Preserve and find the parking full. The closest potential park & ride locations to the main entrance, Foothill Christian Center and Foothill Plaza, have

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been o	determined to not	be feasible,	and Lucky is the	closest location	beyond those.	The parking
lot of t	he store is ample,	and access i	is relatively easy	off Foothill Expre	ssway.	

Table 8: Concept I Details					
Route Length:	4.68 miles round-trip				
Stops:	2 new stops				
Travel Time:	7-9 minutes one way; 13-17 minutes round-trip				
Headways	15	20	30		
Vehicle Requirements (not including spares):	2	1-2	1		
Annual Revenue Miles:	~12,100	~9,500	~6,300		
Annual Operating Cost:	~\$190K	\$95K - \$190K	~\$95K		
Daily Ridership Range (inbound + outbound)::	200-360	180-320	100-180		



Figure 6: Concept I

PREFERRED CONCEPT

In light of the analyses conducted and direction from the Midpen Board, the preferred concept to further explore for potential implementation is Concept I, which would provide direct service between Lucky Supermarket and the Preserve's main parking area. Given the stated preference of survey respondents to wait less than 20 minutes, the team's recommendation would be to design this route with a 15-minute headway. This would require two vehicles, each making round trips on a half-hour schedule (see Figure 7). Given the estimated 7-9 minute one-way travel time between these two locations, a half-hourly schedule should result in a high level of on-time performance. See the 15-minute headway column of Table 8 for additional details. Cost per rider for this service would range from \$4.67 to \$8.40, depending on the total ridership. The estimated reduction in parking demand at the main lots is 55-100 cars per day, including the current overflow parking that occurs on Cristo Rey Drive. It should be noted that the availability of free parking spaces could attract additional users to the Preserve, potentially offsetting that reduction.

Lu	JCKY	Lot 5
(5:15	6:30
(6:30	6:45
(6:45	7:00
7	7:00	7:15
7	7:15	7:30
7	7:30	7:45
7	7:45	8:00
8	3:00	8:15
8	3:15	8:30
8	3:30	8:45
8	3:45	9:00
9	9:00	9:15
9	9:15	9:30
9	7:30	9:45
9	7:45	10:00
1	0:00	10:15
1	0:15	10:30
1	0:30	10:45
1	0:45	11:00
1	1:00	11:15
1	1:15	11:30
1	1:30	11:45
1	1:45	12:00
1	2:00	12:15

Figure 7: Sample Schedule for Concept I Running 15-Minute Headways

1

2

Assuming successful implementation of the concept and sufficient ridership numbers, Midpen could consider expanding the program by adding service to Mountain View Station on a half-hour headway. Given the estimated 17-22 minute one-way travel time between these two

locations, a half-hourly schedule should result in a high level of on-time performance. In this concept, a third vehicle would be needed, with two vehicles operating between the preserve, Lucky Supermarket, and Mountain View Station, and a third vehicle only making trips between the Preserve and Lucky Supermarket. Figure 8 provides additional detail on how this combined concept would function. In that graphic, Vehicle 1 and Vehicle 3 represent the implementation of Concept C on a 30-minute headway, while Vehicle 2 represents Concept I operating at a reduced 30-minute headway. An aggregate 15-minute headway is achieved between the Preserve and Lucky Supermarket, satisfying the riders' preference for short trips, while Mountain View Station is served at 30-minute intervals.

The expectation is that riders coming from transit connections at Mountain View Station will naturally be more tolerant of somewhat longer trip times. While this option is presented as a combination of Concepts C and I, from the passenger's perspective it would be one service, with half of the trips continuing on the Mountain View Station.

See Table 9 for additional details on these concepts running in combination. Cost per rider for this service would range from \$6.88 to \$9.91, depending on the total ridership. The estimated reduction in parking demand at the main lots is 70-100 cars per day, including the current overflow parking that occurs on Cristo Rey Drive. It should be noted that the availability of free parking spaces could attract additional users to the Preserve, potentially offsetting that reduction.

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Lucky	Lot 5	Lucky	Mountain View
6:15	6:30	6:45	7:00
6:30	6:45		
6:45	7:00	7:15	7:30
7:00	7:15		
7:15	7:30	7:45	8:00
7:30	7:45		
7:45	8:00	8:15	8:30
8:00	8:15		
8:15	8:30	8:45	9:00
8:30	8:45		
8:45	9:00	9:15	9:30
9:00	9:15		
9:15	9:30	9:45	10:00
9:30	9:45		
9:45	10:00	10:15	10:30
10:00	10:15		
10:15	10:30	10:45	11:00
10:30	10:45		
10:45	11:00	11:15	11:30
11:00	11:15		
11:15	11:30	11:45	12:00
11:30	11:45		
11:45	12:00	12:15	12:30
12.00	12.15		

Figure 8: Sample Schedule for Combined Concepts I/C Running 30-Minute Headways to Mountain View and 15-Minute Headways to Lucky Supermarket

Concept:	Concept I: Lucky Supermarket	Concept C: Mountain View Station	Combined Concept	
Stops:	3 (one existing VTA stop at Mountain View Transit Center, two new)			
Travel Time:	7-9 minutes one way; 13- 17 minutes round-trip 33-44 minutes round-trip			
Headways	30	30	30 minutes from Mountain View Station, aggregate 15 minutes from Lucky	
Vehicle Requirements (not including spares):	1	2	3	
Annual Revenue Miles:	~6,300	~19,200	~25,500	
Annual Operating Cost:	l Operating Cost: ~\$95K		~\$280K	
Daily Ridership Range (inbound + outbound):	250-360			
Cost per Rider:	\$6.88 to \$9.91			

Table 9: Combined Concepts I/C Details

OPERATIONS AND MANAGEMENT FRAMEWORK

The following section includes guidance related to the implementation of one of the concepts detailed above, including sections related to requests for proposals (RFPs) for contracted transit service, branding and marketing, and a timeline of project implementation. These sections are generalized, and are equally applicable to any of the refined concepts, or potentially for shuttles employed by Midpen at other preserves.

WHAT TO INCLUDE IN A SHUTTLE OPERATIONS REQUEST FOR PROPOSALS (RFP)

An RFP for transit operations sets the stage for success or failure of a shuttle service as much as the proficiency of the operator or the supervision of the agency (Midpen). The RFP must provide clear operating parameters to prospective bidders, and outline any and all expectations outside of the actual operation of the service, such as reporting on safety, ridership, etc. In addition to the sections found in any RFP, such as proposal requirements, scoring criteria, and the Midpen's standard contract provisions, several focus areas specific to transit service should be covered in detail in the RFP in order to ensure smooth future operations between Midpen and its contractor. The following section expands upon the focus areas important to transit services.

Fleet & Fleet Management

In general, when transit services are contracted, the fleet vehicles (buses or vans) are either owned by the agency seeking services and leased to the contractor, owned by the contractor, or purchased/leased by the contractor for the express purpose of the service to be performed. The latter option is complicated in terms of taxes, titling, etc., and may be inadvisable for a pilot project. In some cases, a mix of these conditions could be in effect. Service vehicles, such as cars or trucks for supervisors, should also be addressed in the RFP. These are more likely to be provided by the contractor in many cases.

If the agency will own the passenger-carrying (revenue) vehicles, the RFP should detail the fleet to be passed to the operator, including vehicle models, year entered service, and mileage. The expected lease terms should also be detailed. Often these are nominal amounts, such as \$1 per year, and are instead factored into the compensation rates for service. The contracting agency is most likely to provide vehicles for more expansive, ongoing service, such as routes that have already been operating.

If the operator will be expected to provide vehicles, often there is flexibility to either acquire vehicles or provide the service using their existing fleet. In either case, expectations should be laid out as to the type of vehicles that will be needed, as well as any requirements that Midpen wishes to impose regarding maximum vehicle age/mileage and inspections of the fleet by Midpen or a trusted third party prior to fleet acceptance. For smaller, start-up services, stipulating that the contractor should provide vehicles may be the preferred approach in order to shorten the service implementation timeline and to avoid acquiring capital assets (vehicles) that would not be needed should the service be discontinued or modified after the pilot timeframe. Midpen
could specify vehicle type, maximum mileage/years of service, or operating condition to ensure that the fleet is acceptable.

The contractor's plan for garaging the fleet should be a requirement of their proposal, and may be a significant deciding factor in evaluation of proposals, as a nearby depot location provides better response time for incidents and better overall efficiency. Likewise, a contractor with a larger local fleet may be better able to flex in additional vehicles if needed.

Service Requirements

The full details of the planned service should be spelled out in the RFP, including days and hours of operation, service headways, and routes. Maps of service to be performed should be provided, including details of expected stops and layover locations, as should run schedules if they have been developed. In some cases, contractors are tasked with developing detailed schedules or even some route planning responsibilities, but this is less likely with single pilot services than with interconnected transit networks.

If the service will <u>not</u> be free, details on planned fares and collection methods and associated requirements that will fall to the operator should be included. If the service is expected to provide added value to the customer through technology, such as real-time bus location or ticket reservation apps, the expectations for the contractor must be detailed, specifically whether the contractor should be expected to contract with a technology vendor directly or whether Midpen should contract with the vendor and pay for upfitting and maintenance.

Maintenance Requirements

The RFP must state the maintenance standards that the contractor will be required to follow and/or mandate a maintenance plan to be developed by the contractor and approved by Midpen. It should be spelled out what items will be included in daily, weekly, and mileage-based inspections, as well as expected timeframes for vehicles to return to service after mechanical failures. Financial penalties for failure to meet the stated maintenance requirements should be spelled out. For a small pilot service expected to only require a few vehicles, the contractor should be required to outline how they will replace any vehicles lost for any prolonged period due to accidents or major mechanical failures.

Support Services

The RFP will need to outline whether the contractor will be required to provide any services beyond operating the actual service and maintaining the vehicles. Services that are sometimes required of contractors in support of transit operations include:

- Operating rider information services through methods such as a call-in center or monitoring a customer questions e-mail address.
- Marketing services, such as the provision of a website or the development of posters, bus wraps or print advertisements.
- Maintenance of facilities, including stops and shelters.

- Security at stops, including guards or cameras.
- Evaluation of operations and future service planning.

Policies and Plans

It is critical that the operator operate according to a set of established plans that are mutually agreed upon by Midpen and the operator. These plans should ensure safety, equity, and protect the operator and Midpen from liability. Some plans, such as the comprehensive safety plan, may require approval from state agencies, including CalTrans, or the Federal Transit Administration (FTA) if any Federal funds will be used.

Larger operations contractors that operate multiple services are likely to have boilerplate versions of many of these plans, which they customize based on each contract won. Smaller or newer contractors may require more time and effort to produce the same plans.

The RFP should define the plans the contractor will be required to develop, as well as the timeframes within which they will be required and the process by which Midpen (and other agencies) will approve them. Below is an outline of likely plans/policies that Midpen might require of a contractor for shuttle services.

First Plan Submittal Window - These plans are required to be submitted as attachments to Contractor's proposal.

- Service Start-Up Plan (includes plans for maintenance/garage facilities)
- Hiring/Staffing Plan
- Vehicle Maintenance Plan
- Technology Operations Plan

Second Plan Submittal Window - These plans are required to be submitted within 30 days of Notice of Award.

- Training Plan
- Drug and Alcohol Testing Plan

Third Plan Submittal Window - These plans are required by the first day of operation.

- Operations & Maintenance Facility Maintenance Plan
- Emergency Preparedness Plan
- Equal Employment Opportunities Plan
- National Transit Database Reporting Standard Operating Procedures
- Asset Management Plan

Compensation

An agency must determine how the contractor will be paid. In most cases, payment is set at a contract rate per hour of service provided, but in some cases a flat fee per week or month is used so long as specific service benchmarks are met. There are many subsidiary considerations to the prescribed payment plan, including:

- How will missed trips be accounted for? Will the contractor forfeit payment for missed trips?
- How will payment for any support services be calculated, or will they be assumed to be included in the base fee?
- Will there be incentives for certain performance measures met, or conversely any penalties for service missed, maintenance shortfalls, or safety lapses?

Agency Oversight and Reporting

In order to evaluate the success of shuttle services and plan for future expansion, Midpen must rely on information reported by the contractor. The RFP must detail the requirements for the contractor to report ridership, maintenance, safety, and if applicable, fare payment data. The required timeframes for reporting must be defined, as well as any penalties for late or inaccurate reporting. In some cases, data will need to be reported to state agencies or the National Transit Database (NTD), and schedules for reporting should reflect the relevant deadlines associated with these requirements.

Qualifications and Experience of Contractor

As with any RFP, the contractor must provide demonstration of similar experience that is as close to the requested service as possible, such as prior experience with providing shuttle service to open space. These qualifications should be accompanied by client references in all cases.

Staffing

A new transit service coming into operation means drivers, mechanics and other staff need to be hired. Supervisors and managers may be hired or identified from within the contractor's existing staff. Seasoned transit operations contractors have handled this balancing act numerous times, and their proficiency at staffing a new service may be a primary consideration in proposal evaluation.

The RFP should require contractors to outline their general staffing procedures as well as their plans to staff the specific service. In addition to demonstrating similar contracts operated, prior successful service staffing efforts should be detailed, again with references.

Comparison of Example RFPs

In order to provide practical examples of the content above, the team reviewed two RFPs for transit services that are recognized as well-written and effective at providing clear guidance to the contractor. While none of the two is specifically for a pilot shuttle to an open space destination, the emphasis in selection was more related to strong writing and comprehensiveness. The RFPs included are:

- Winter Park Colorado (2021) Seeking a contractor to operate existing public fixed-route, demand-response, and paratransit services already in operation.
- Western Contra Costa Transit Authority (2020) Seeking a contractor to operate existing public fixed-route and paratransit services already in operation.

Table 10 details how each of the example RFPs handled the focus areas listed above. The RFPs have been provided separately as appendices.

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Table 10: RFP Details for Two Agencies

Category	Winter Park, CO	Western Contra Costa Transit Authority
Fleet & Fleet Management	 Details existing revenue fleet (owned by Town) and vehicles that are on order. Specifies that contractor will provide non-revenue vehicles. Contractors asked to detail their ability to lease vehicles as necessary 	Details existing revenue fleet (owned by WCCTA)
Service Requirements	 Specific hours and miles totals given. Requests operating plans for possible expansion 	 Details standard, express, paratransit and regional service, as well as planned expansion. Details existing scheduling software
Maintenance Requirements	 Refers to maintenance provisions in Town's existing Transit Manual. 	 Stipulates that contractors will operate from a city- owned maintenance facility Agency to supply Maintenance Manager. Contractor still must submit a maintenance plan.
Support Services	n/a	
Policies and Plans	 Requires: Maintenance Plan Other operator-supplied policies subordinated to the Town's Transit Manual. 	Requires: • Transition Plan • Maintenance Plan • Training Plan • Customer Service Training • Energy Conservation Plan
Compensation	 Two rates requested: Base rate (includes overhead costs) – fixed price for expected amount of revenue hours Variable rate (no overhead) Fuel pass-through 	 Monthly fixed fee for service "Extra Board" rate for unforeseen added service
Agency Oversight and Reporting	Detailed in Town Transit Manual	Describes existing video surveillance/tracking system
Qualifications and Experience of Contractor	3 references required	
Staffing	 Requires staffing plan that identifies key staff by name/resume Specifies: General Manager/Operations Manager Dispatchers Drivers/driver training Variable driver staffing rates due to seasonality of service. 	 Requires staffing plan that identifies key staff by name/resume Requires that key personnel on proposal are kept on the contract throughout Requires employee job classes, wage scales, and benefit packages be supplied for review.

BRANDING AND MARKETING FRAMEWORK

Branding for a pilot shuttle service conveys a level of commitment on the part of Midpen that will attract users and provide a positive impression that Midpen is investing in the future of the Preserve system. The key elements of branding in this context are:

- A simple-to-remember name that includes the name of the Preserve in some fashion. While also emphasizing ease-of-use and functionality over a catchy play-on-words.
- A color palette and design logo that follow the current Midpen brand style guide, but are easily identifiable as being something new and distinct.
- Highly-visible signs at stops
- Investment in repair/improvement of stop areas. A new service superimposed over wornout facilities undermines the intent of the investment.
- If feasible, pavement markings along the route of the service.

Marketing in Three Phases

Phase 1

The marketing effort for a pilot shuttle service should initially focus on the Preserve's existing user base (and Midpen locations in general) in order to encourage speedy adoption by regular visitors. This will have the greatest positive effect on access to the Preserve, and will directly impact the established performance measures for the pilot service. This phase should begin several months prior to the start of service and extend into the first month of operation.

Marketing priorities in this phase include:

- Handouts to visitors describing the upcoming service
- Signage at Preserve entrances
- Page added to Midpen website, with QR code included on all relevant materials.
- Social Media posts and blurbs in regular e-mails to Midpen visitors, including a special email focused on the shuttle 1-2 weeks out.
- Partner agency/organization emails and social media

Phase 2

The second phase of marketing should focus on the outdoor recreation community in the Bay Area in general, aiming to alert potential visitors who may in the past have chosen other locations for hiking, biking, riding, etc. due to access concerns. This phase would start roughly a month before service starts and extend into the first six months of operation.

Marketing priorities in this phase include:

- Brief video of the shuttle service shared through social media
- Bulletin board notices at colleges, outdoor stores, community centers, libraries.

- "Success" social media posts and blurbs in regular e-mails to Midpen visitors.
- Partner agency/organization social media posts and email blurbs.
- Outreach to influential members of the community, such as staff at outdoor gear retailers, hotel managers, staff at tourism businesses such as wineries.

Phase 3

The third phase of marketing should focus on capitalizing on the success of the shuttle. This phase provides Midpen with positive coverage as a forward-thinking organization that invests in the visitor experience and pursues laudable goals of inclusion, equity, and environmental stewardship. Starting 6-12 months from service start, Midpen should seek to invite local media outlets to run stories on the success of the shuttle, provide staff the opportunity to present the project at industry conferences, and capitalize on the success by seeking funding for follow-on access projects.

APPENDICES

APPENDIX A: CASE STUDIES

As part of the market analysis task, Mead & Hunt interviewed representatives from similar park or preserve areas which already operate a shuttle system to provide access to users. Those locations included:

- Yosemite National Park (CA)
- San Mateo County Access to Parks shuttles (CA)
- Muir Woods National Monument (CA)
- Belle Isle Park (MI)
- Acadia National Park (ME)
- Zion National Park (UT)
- Bryce Canyon National Park (UT)
- Rocky Mountain National Park (CO)
- Presidio of San Francisco (CA)

Several common themes emerged from the case study process, including:

- Almost all services operate under a service contract model, with about half operating vehicles owned by the park entity, and the other half operating vehicles owned by the contractor.
- A key factor in shuttle success is offering access on roads that are restricted to general vehicle traffic or implementing parking restrictions such as permit parking, metered parking, carpool parking, and parking reservations
- Success for a fixed shuttle is generally seen as 20-25 passengers per hour per vehicle.
- Other simultaneous programs, such as permit parking or metered access, are key to shuttle program success.
- Highly visible signage is important.
- Shuttle systems work well when parking is full.
- "Getting the word out" to potential users is critical.

CASE STUDIES

Case Study: Yosemite

Brief Takeaway: Covers large area through several buses to provide day trips and longer trips

Yosemite Area Regional Transit System (YARTS) focuses on commuting at the beginning and end of the day. It is operated through concession contracts like the majority of NPS transit systems under which a private concessioner pays the NPS a franchise fee to operate inside a unit.

YARTS provides transit service to Yosemite from surrounding communities: from railway stations, airports, hotels, and other stops in Fresno, Mariposa, Merced, Mono, and Tuolumne Counties. YARTS offers connecting or "thruway" service on behalf of Amtrak and Greyhound, and sells

tickets to national and international travelers through an online reservation and ticket service. YARTS also provides a convenient means of travel for local residents and park employees. One year-round route and three summertime routes connect local communities and the park. YARTS service continues to grow year by year, but currently serves only two percent of the park's annual visitation. Whether one is booked on the shortest one-way trip, or the longest roundtrip, taking YARTS into the Park means visitors do not need to pay the park entrance fee. A round trip can be booked through a single transaction.

YARTS has stops at Merced Regional Airport and Fresno Yosemite International Airport and connects with passengers traveling by Amtrak and Greyhound in both Merced and Fresno. Along the way to the park, YARTS stops at designated park and ride lots, campgrounds, and RV parks (an interactive map on the YARTS web site shows icons for all the RV parks).

Case Study: Muir Woods

Brief Takeaway: Ridership stays high through reservations that manage both parking and shuttle use from two major transit hubs. Limiting the practice of roadside parking encouraged shuttle ridership.

Muir Woods shuttles provide service from two major transit hubs, Larkspur Ferry and Sausalito stop Bay St & Bridgeway, on a 12-mile winding route. Service is also provided to the Sausalito stop on weekdays in the summer. The Sausalito stop offers connections within Marin County while Larkspur Ferry offers connections within Marin County and the rest of the Bay Area. The shuttle runs with departures from Larkspur occurring from 9am to 4pm, every 30 minutes, and return trips until the park closes at dusk.

Reservations for \$3.50 per roundtrip ticket are a key part of the service though comp ticket options are available. There are 300-400 parking spaces at Muir Woods that are also operated through a parking reservation system following difficulty managing visitation at peak times before 2012. Ace Parking manages the shuttle and parking reservation through a concession contract. Three changeable message signs on Highway 101 help manage traffic. NPS (National Parks Service) funds operational costs and Marin Transit operates and manages fleet in a cooperative fashion. The reservations help assure parking will be available when it's available and not be concerned about searching for parking. Larkspur Ferry also offers over 200 free parking spots but the Sausalito stop does not offer parking.

Service began in 2005 as a demonstration project to provide a transit alternative after congestion and safety issues seemed persistent as a partnership of NPS, Marin County, and Golden Gate Transit. Responsibility shifted to Marin Transit in 2009. Service was initially funded through a FHWA grant and then continued as an NPS and Marin Transit-funded endeavor once the project proved successful. Service initially began with its focus on weekend and holidays in the summer with ridership steadily growing from 10,219 in 2005 to 29,938 in 2008. Service expanded slowly from weekends May to September until 2011 to May to October in 2012 to April to December in 2014 to additional weekday service to 2015 to year-round service in 2018. As annual service hours tripled from 2011 to 2018, annual ridership grew from 47,572 to a peak of 177,412 in 2018. Ridership has consistently been at 15 passengers or above per service hour with a ridership of over 20 passengers per service hour throughout the 2010s. Shuttle service was suspended due to the pandemic from March 2020 to June 2021. Reduced service hours back to

2011 levels for 2021 and other factors led to only 36,082 riders for the 6+ months of service in 2021. Ridership for the first nine months of 2022 has held steady at about 70,000 riders.

Pre-COVID, the shuttle cost about \$1.1-\$1.2 million to operate annually. Diesel buses are used currently but hybrid and electric buses are being considered. Bikes are not allowed on the shuttle.

Nature studies and surveys were conducted to determine peak capacity of the park. A half-time position manages the concession contract and Marin Transit manages buses to make sure everyone can leave the park at the end of the day.

Case Study: San Mateo County

Brief Takeaway: Lack of direct service and long trips hinder interest in shuttle service

San Mateo had three shuttles, County Park Explorer, Coastside Beach Shuttle, and the Pacifica Shuttle operating in the 2010s that ended due to low ridership. The Coastside Beach Shuttle was funded by an 18-month pilot from a matching grant from the county and San Mateo Transportation Authority (SamTrans). Coastside had about 60 daily riders at its peak but usually less. It operated using one, 24-seat bus for around \$100,000 annually on weekends from downtown Half Moon Bay to Princeton Harbor while traveling through state and city parks in the county. The shuttle tried to reduce busy coastline traffic on sunny days. The shuttle was restricted in movement due to space constraints with only southbound access to beaches and state parks and no access to Half Moon Bay or Marotta Road. Despite massive buzz, outreach to senior centers, media coverage, advertisements and even free dinner offers, ridership was too low to continue on the Coastside after the pilot ended. People indicated they wanted a beach shuttle and were supportive of it, but when it came down to using the shuttle, the ridership numbers were unable to sustain the program. San Mateo County believes a reservation shuttle may be more successful in the future and that the community may have been too small for successful service.

The County Park Explorer, funded by SamTrans, was also unsuccessful after a two-year program. Service was free but with limited frequency on weekends in spite of having two buses. The shuttle costs around \$300,000 annually to operate. The County Park Explorer was geared towards focusing on non-traditional transit users to go to and from Redwood City and surrounding parks. A pre-market study was conducted with many saying they would use the shuttle if it was quicker than driving. Unfortunately, the bus was often stuck in the same traffic as the cars. The shuttle served two locations along current SamTrans routes and new destinations in Redwood City: two parks and downtown for a one-hour round trip, longer than most buses. Real-time bus information was available on the SamTrans website for the shuttle. Various outreach and incentivizing efforts were pursued to encourage ridership. San Mateo County found that for the route to be more successful, it needed to provide more direct service for customers such as ondemand service. The county also found connecting with people at events and utilizing focus groups to be helpful as a way to better learn customer needs which can in turn help address the County's transportation needs

The Pacifica Shuttle, funded by the City of Pacifica through two grant cycles, connected Skyline Connector to Devil's Slide on the pacific coast for four years on weekends, two of which SamTrans operated. During this time, Devil's Slide's park was not open and even after it opened, demand was low despite a full parking lot when the park opened. Six months after Devil's Slide opened, turnover in the parking lot was enough to serve visitors. High traffic remained on the road to Devil's Slide. Small successes were engaging riders at libraries and events.

The County acknowledged that success stories from other locations such as Muir Woods are due to the added value that a shuttle provides when parking and/or road restrictions are implemented for vehicles at high-demand locations.

Case Study: Sequoia and Kings Canyon

Brief Takeaway: Staffing is helpful towards tracking customers and providing them with direct service from a larger city located over 30 miles away.

The Sequoia shuttle was first proposed in 1974 to reduce traffic congestion and maintain environmental conditions after a study found a lack of parking and everyone wanting to go to a single destination: the General Sherman Tree. A shuttle was launched in 1991 by a local hotel from money from overnight stays that ended in 2000.

The new in-park shuttle system began in 2007 after over six years of studies and coordination with agencies as a cooperative agreement between NPS and the City of Visalia. The in-park shuttles run from 8:00 a.m. – 6:30 p.m. about every 15 minutes during the summer with select winter holiday times and are completely ticketless with four routes having a combined ten stops. Three parking lots are available at the Giant Forest Museum 2200-car lot, which is often full by mid-morning. Portions of the in-park shuttle travels on roads that are for shuttles on weekends and holidays while traffic remains high there on weekdays.

First Transit operates a shuttle via contract with Visalia where the Sequoia routes are about 12% of the \$4.5 million annual contract. NPS funds the shuttle with a total annual cost of \$1.7 million through park entrance fees. The Shuttle connects between the transportation hub at Giant Forest Museum and locations within the park. Ridership grew from 130,000 in 2007 to 940,000 in 2019 while visitation to the park has doubled in those years. Ridership totals were collected through hand clickers. NPS is looking into placing Automatic Passenger Counters and Vehicle Locators on vehicles.

Signage, advertising, and staffing helped make the shuttle more permanent and staff provides guidance and assistance. Staff went from zero to 16 today with shuttle operation funding. The first few years of operation had difficulty with shuttle wait times due to low staffing.

The Gateway Shuttle serving between Visalia and the Giant Forest Museum brings about three percent of the total visitors during a summer season to the park for \$20, which offers an option for carless travelers. Reservations are required and vans fitting 16 passengers are used for the Gateway Shuttle with an average of 48 riders per day. Most users of Gateway Shuttle do not have a car or are international travelers. Visalia is a city of over 100,000, 36 miles from Sequoia National Park.

Community engagement was limited initially but there was no opposition to launching the shuttles but there was some internal opposition to using fee money for shuttles.

Case Study: Tahoe

Brief Takeaway: Changing travel behavior of already existing users is difficult. Recruiting new recreation users may be a good option for attracting riders and public-private partnerships can help secure funding.

TART Connect is a free microtransit shuttle that started in 2021 and relies on eight vans to provide curb-to-curb service through North Lake Tahoe. Passengers can request the service by phone or a mobile app. About 350 trips can be provided per day. Service is contracted through Squaw Downtowner, LLC, which provides the vehicles, drivers, and software to operate the service. Bikes are permitted on TART Connect in the summer,

TART overall serves the North and West sides of Lake Tahoe. Placer County works with the Truckee North Tahoe Transportation Management Association (TMA) to do public-private partnerships and marketing for TART that Placer County is not able to do.

TART Connect was targeted to keeping new renters in the area from relying on cars with shuttles like this being considered for 15 years but cost barriers were challenging. Survey results showed that locals were unwilling to change travel behaviors but newcomers could adopt a transit alternative. Word-of mouth has been successful while social media and Google and Pandora ads were also used. Tourism Business Improvement District is funding the shuttle for a two-year pilot, which has had successful ridership levels for them but not enough car reduction. Hiring a turnkey-operator like Squaw Downtowner resulted in higher costs than having TART operate service.

TART Connect provides connection to main arterials where TART service runs with most people living 3-4 miles from the main arterials. Transit ridership increases in winter and summer peak seasons.

Due to various jurisdictions between California and Nevada, transit service around Tahoe has holes with almost no connections between North Shore and South Shore. TART serves the North Shore while Tahoe Transportation District runs less frequent service on the South Shore. TMA is assisting with identifying solutions. Resorts also run some individual shuttles to cover gaps.

The Tahoe Transportation District also operates a park shuttle, the Emerald Bay Shuttle connecting the North and South shores of Lake Tahoe where limited (75-100 spaces) parking is available. Service is successful through tailoring to the area with the option of ordering a sack lunch and providing one roundtrip per day that leaves early in the morning, Visitation still needs to be managed at parking areas though. TMA is assisting in finding more park and ride satellite lots to rent.

Overall, Placer County found partnerships with the airport, school districts, and private resorts to secure additional parking near park areas with only major issues for the 4th of July fireworks show. Surveys and studies helped identify what needed to be managed and that pilot programs were a start to seeing what worked and what did not.

Case Study: Belle Isle, MI

Brief Takeaway: Pilot shuttle adjacent to a major city to reduce parking demand

Belle Isle is a 1000 acre island right off the coast of Detroit. The Michigan Department of Natural Resources started a free shuttle service this summer via biodiesel-powered buses provided and operated by the Detroit Bus Company, a small, local business. This shuttle pilot program runs

noon to 8 p.m. Thursday through Sunday. Riders can hop on one of two shuttle buses that will make a continuous loop between the parking area, designated swim beach, Anna Scripps Whitcomb Conservatory, Belle Isle Aquarium and Kids Row. These shuttles are meant to reduce vehicle traffic and parking needs at the beach by directing parking to a lot near Belle Isle's entry point. Transit service to the island is provided by DDOT, the City of Detroit's transit system.

Due to the park's single access point – MacArthur Bridge – park staff and law enforcement must monitor and manage park closures there when the park reaches capacity. In addition, the Detroit Police Department helps manage traffic backups on East Jefferson as visitors wait to cross the bridge to Belle Isle.

To help ease traffic congestion and increase public safety, the Michigan Department of Natural Resources, in partnership with the Michigan Department of Transportation and the Belle Isle Conservancy, has launched a comprehensive multimodal transportation and traffic study, expected to be completed at the end of 2023. Wade Trim, a metro Detroit-based engineering consultant firm, will complete the study.

Case Study: Zion National Park

Brief Takeaway: Signage and frequent buses manage parking demand while custom-built or designed vehicles are challenging to maintain. Important to plan for the possibility that improved access could create new access challenges.

A shuttle to Zion Canyon has operated since 2000. It is the third-most used NPS transit system as of 2017 with over 6 million boardings. The free shuttle is operated through a contracted service that is renewed every five years with reservations helpful to planning but not required. The park is surrounded by a rural area and adjacent to the town of Springdale, UT. The shuttle is the only access point to the canyon during its operating season, which was determined after including both car and shuttle traffic in a trial was found to be unsafe. It runs during the Daylight Savings Time months (March to November) generally from 7am to 7:15pm in spring and fall and 6am to 8:15pm in summer. The Zion Canyon Shuttle serve nine stops with one at the Visitor Center in Springdale that features a 400-car parking garage.

The fleet is custom-built propane vehicles, but it is aging at over 20 years old and there is no NPS funding available to replace the fleet and replacement parts are not available in the US. For the future, Zion Park is testing battery-electric buses and will pursue that option for vehicle replacement after receiving a grant to fund electric infrastructure.

To manage visitors, Springdale has signs when parking is full in the park and the garage so visitors need to find other parking in town. The Town of Springdale also has its own shuttle that transfers to the Zion Canyon Shuttle and serves 9 stops where hotels and parking is located. Transient lodging growth in Springdale has surged so planning for more parking management is likely in the future.

Case Study: Bryce Canyon, UT

Brief Takeaway: Shuttle connects visitors where cars would congest the roadway.

Bryce Canyon Shuttle had over 700,000 riders in 2019, which made it the 9th most-used NPS transit system. Service runs every 15 minutes from April to October beginning at 8am to close at sunset.

The free shuttle travels between the National Park and town of Bryce Canyon City, UT with parking at the shuttle station across 12 stops. A private company, Red Canyon Transit, operates the company and maintains the eight-car fleet. Cars are allowed on the scenic drive the shuttle drives though the dead end road causes major congestion issues and the shuttle was created to address those problems. The town, located directly outside the park, has few full-time residents as most of the inhabitants are park employees and visitors. The shuttle is free with park admission and the shuttle's location can be tracked online.

Case Study: Rocky Mountain National Park

Brief Takeaway: Shuttle service success is helped by having more than one route and coordination between park, town, and business community

Rocky Mountain National Park's three shuttle lines combined for over 700,000 riders in 2019, which made it the 10th most-used NPS transit system. These three routes that operate from Memorial Day Weekend to mid-October daily with service about every 45 minutes on the Hiker shuttle, 10-15 minutes on Bear Lake shuttle, and every 30 minutes on the Moraine Park shuttle. The Bear Lake and Moraine Park shuttle travel within the park while the Hiker shuttle travels between the park and the adjacent town of Estes Park. Bear Lake and Moraine Park are free while Hiker requires reservations for \$2.

Limited parking at many trailheads and traffic congestion on the park roadways resulted in the consideration of transit connecting the Park and Estes Park in the mid-1990s. A shuttle bus, providing limited service, had been in operation since 1978. Expanding the shuttle service was considered in the park master planning process and in the park transportation planning process. The Bear Lake shuttle bus route was implemented in 2001, with two more routes added in subsequent years. The Town of Estes Park also initiated six free shuttle routes within the town. The planning activities involving representatives from the park, town, and business community helped develop a common understanding of the issues and opportunities associated with operating the park and the town shuttles.

Case Study: San Francisco Presidio (Presidio Go)

Brief Takeaway: Urban park shuttle service boosted and partially funded by local real estate through public-private partnership

Presidio Go, which is operated by the Presidio Trust, has two routes: one around the park and one into downtown San Francisco that operate year round with service every 30 minutes or hour. The Presidio Trust is a federal agency that oversees The Presidio of San Francisco and is partly funded by leases with residential and commercial tenants. The service is free and a live map shows the vehicle's current location. The Presidio Go Downtown Shuttle is pass-restricted weekdays during the morning commute (7:30 am-9 am) and on every other shuttle trip during the evening commute (4:30 pm, 5 pm, 5:30pm, 6 pm). There are no pass restrictions on weekends or on the Around the Park Shuttle routes. Presidio Go passes are distributed to those who live or work in the Presidio through the Presidio Residences Leasing Office or an employer. Presidio Go passes cannot be purchased. The Presidio Go is funded by the Presidio Trust, the Bay Area Air Quality Management District, and Presidio tenant organizations. Presidio parking fees help fund the Presidio Go as well as other sustainable transportation projects.

Location	Number of Stops	Span	Frequency	Ridership	Cost	Service Operations
Yosemite	35	Around AM and PM peak travel hours, daily with one year-round route and three seasonal routes from May to September	Several trips during peak travel hours	2% of park's visitors	up to \$30 one-way, depending on distance	Concessionaire contract
Muir Woods	3 (2 on weekdays)	9am-dusk, weekends, holidays, and summer weekdays	30 minutes	177,000 in 2018	\$3.50	Operated with Marin Transit with NPS, Ace Parking handles reservations
Belle Isle, MI	5	12-8pm, Thursday- Sunday	20-30 minutes	-	Free	Operated by local business, funded by Michigan Department of Natural Resources as a pilot
Zion	17	7am- 7:15pm spring and fall, 6am- 8:15pm summer, daily, March to November	5 minutes	6 Million in 2017	Free	Service contracted out every 5 years
Sequoia	10	8am- 6:30pm, daily, summer and select winter holiday dates	30 minutes	940,000 in 2019	Free with park admission but Gateway Shuttle to/from Visalia is \$20	Operated by First Transit on contract service
Tahoe	-	Microtransit service, 8am-10pm daily,	-	About 350 daily	Free	Private LLC provides turnkey service

ATTACHMENT 1 Rancho San Antonio Implementation – Shuttle Program;

Final Report

Location	Number of Stops	Span	Frequency	Ridership	Cost	Service Operations
Bryce Canyon, UT	12	8am to dusk, daily, April to October	15 minutes	700,000+ in 2019	Free with park admission	Private company operates service
Rocky Mountain National Park	13	Memorial Day to mid- October	15-45 minutes	700,000+ in 2019	Free but Hiker Shuttle route \$2	Concessionaire contract
San Francisco Presidio	10	Daily, 6am to 6:30pm	30 minutes to hour		Free but pass restricted during peak times	Operated by Presidio Trust

APPENDIX B: FIELD OBSERVATION NOTES

General Observations:

- Supervising Ranger feels that all entrances other than main are unlikely options for shuttle stops.
- Hidden Villa, Duveneck Ranch could be an option for getting visitors to the West part of the preserve. However, this area is strenuous hiking. Currently Hidden Villa is not operating any programs, and its expected re-opening is unknown.
- Rancho had 1.2M visitors last year.

Notes by Entrance (E to W):

Main entrance (Lots 1-6)

- Gate opens 1/2 hr before sunrise or at 6:30 at the latest.
- Parking lots are full right away on weekend mornings.
- Parking counters were recently installed and being tested. Parking counters showed 20+ available spaces at 07:45 when none were available.
- When we returned at 14:20 the counters were turned off but all parking lots had significant availability (below 50% occupancy).
- Lots 5/6:
 - The best stop location may be the existing ride hail area, adjacent to the public restroom on the SE side (1, below). There is 60' of accessible curb at this location.
 - Other possible locations to the right of the lot entrance (2), on the opposite side of the restroom building by the water fountain (3), or directly adjacent to the trailhead bridge.



Figure 9: Potential Boarding/Alighting Locations in Lots 5/6

St Joseph Avenue Trailhead (RS01)

• Ample space for a turnaround here <u>inside</u> the RSA gate (75' wide cul-de-sac)

- Second gate here north of the I-280 underpass presumably erected by the neighborhood.
- Mora, St Joseph and main entrance are the most popular entrances.
- Road width between gates = 27'.
- 430' from gate to gate.

Mora Drive trailhead (Gate R\$10)

• The cul-de-sac at the end of Mora Drive is a good spot for a shuttle turnaround (roughly 90' long by 42' wide).

Laura Court neighborhood access (Gate RS08)

- We had been referring to this as Stonebrook Drive, but it appears to actually be Laura Court.
- Stonebrook Drive is a private road, blocked from the Laura Court cul-de-sac by bollards and a chain barrier.
- The actual boundary of the Preserve is ~700 ft. away from Laura Court, and Midpen does not have an easement across this portion of the trail
- The hike from Laura Court to the Chamise Trail is steep & difficult.

Rhus Ridge trailhead (Gate WP01)

- Rhus ridge trail is very strenuous. The hikers who use it tend to be repeat visitors who know the Preserve well.
- This Trail provides the shortest access to Black Mountain Trail.
- Turnaround here would be difficult for a shuttle vehicle. A 3-pt turn would be required.
 Free space between vehicles parked on either side ranges from 20' to 35'
- The parallel parking area on the left side of the lot is 65' long.
- 80' long driveway leading into the lot is only 12' wide. Vehicles would not be able to pass.
- There is a house a few hundred feet inside the gate here. The resident acts as an unofficial caretaker, informing rangers of what she sees. A private residence has access to their property through the Rhus Ridge parking lot.
- A private residence has access to their property through the Rhus Ridge parking lot.

Internal Destinations:

Deer Hollow Farm:

- Farm operated by City of Mountain View under a permit.
- The farm requires a parking permit, but may be an option.
- The farm operates week-long camps for kids.

Permit Lot

- Roughly half-way between Lots 5/6 and Deer Hollow Farm
- The permit lot is County-controlled, and likely cannot be used for shuttle stop. It's not really close to anything anyway.

Satellite Locations (parking/pickup locations outside of the Preserve):

Foothill College:

 Some Preserve visitors apparently already park at Foothill College and walk in to Rhus Ridge. We noticed some vehicles parked in student lot 8 (<u>https://foothill.edu/map/images/FC-Map-2022.svg</u>) that could have been visitors to Rancho.

- Permits are not required to park on campus for Fall 2022 quarter (<u>https://foothill.edu/parking/</u>). Unknown how long this rule will continue – could be COVID-related.
- Existing bus stop adjacent to Student Lot 8 would be a logical shuttle stop.

Foothill Crossing Shopping Center:

- No good curb space for a shuttle stop. The best potential location is likely in the middle of the parking lot.
- Lot was very busy on Saturday morning, especially near the Trader Joe's store. The lot was at least 75% occupied

Lucky grocery store:

- Possible locations for shuttle stop:
 - VTA bus stop 60555 (1, below) served by VTA 51, 51H routes
 - VTA bus stop 60672 (2) served by VTA 51, 51H routes
 - Right-hand edge of the lot (3) already used as a Goodwill donation site
- Lot was around 20% full on Saturday morning



Figure 10: Potential Boarding/Alighting Locations at Lucky Grocery Store

Foothill Christian Center:

- The school is actually an off-shoot of the Korean church located here would the location be available on Sundays?
- Pickup location could be anywhere in the lot.
- The lot is large with ample spaces for park & ride
- Would be a logical "overflow" parking locale for the main entrance parking lots

Montclaire Elementary School:

- The most likely stop location, the school bus drop off loop in front of the school, has only 11 spaces + 2 handicap spaces.
- Other parking areas to the side & rear of school don't seem feasible for use as a shuttle stop.
- Street parking is available on both sides of St. Joseph's Ave. on weekends.

Mountain View Transit Center

• There is a loop for shuttles adjacent to the bus loop – room for likely 5 shuttles at once. Already served by MVgo. Mountain View Community Shuttle shares use of the bus loop.

Rancho Shopping Center:

- 1) Busy shopping center with a lot of amenities Preserve users may find convenient (grocery store, coffee shops, restaurants, etc.)
- 2) Over 75% utilization of parking spaces on Saturday AM
- 3) Possible locations for shuttle stop:
 - a. SE corner of lot (1, below) visible from Foothill Expy, less full (~10%)
 - b. Rear parking area (2) May be harder to find



Figure 11: Potential Boarding/Alighting Locations at Rancho Shopping Center

St. Nicholas Elementary School:

- Lot was empty on Saturday
- Pickup location could be anywhere in the lot.
- The lot is large with ample spaces for park & ride
- Would be a logical "overflow" parking locale for the Rhus Ridge trailhead
- Somewhat confusing intersection at school entrance from El Monte Rd.

APPENDIX C: SUMMARY OF PUBLIC SURVEY RESPONSES

An online survey was promoted through Midpen's and its partner agencies' email notifications, social media outreach channels and in-person at the preserve. It received a total of 626 responses between October 16, 2022 and November 15, 2022. Respondents were largely located in the South Bay Area between Redwood City and San Jose which means they would have roughly a 30-minute drive to get to the preserve. The survey expanded upon a survey performed as part of the previous Multimodal Access study performed in 2019-2020.

Questions relating to the potential shuttle program were aimed at creating an understanding of the current visitation patterns and visitors' attitudes toward a shuttle option for accessing the preserve. Below is a summary and analysis of the most significant responses.

Figure 10 shows that about 80% of visitors access the preserve from the main entrance at Cristo Rey Drive. Approximately 10% of visitors would prefer to use another entrance if parking at those entrances were not an issue. It was expected that the vast majority of visitors used the Cristo Rey Drive entrance and the results show that, while that is not likely to change significantly, there are some visitors who would divert to other entrances if transportation/parking options were available. Distributing the visitors more evenly among the various entrances could be a strategy to reduce the congestion at the Cristo Rey Drive entrance.



Figure 12: Preserve Entrances

As shown in Figure 11, most survey respondents drive to the preserve. Transit and ride-hail options are currently not utilized to any significant degree. This was expected as the closest transit stops are located 1 mile or further away from any preserve entrance. Furthermore, transit service is not

provided during the popular visitation time of weekend mornings. Connecting a shuttle service with a transit stop which does provide service during weekend mornings, such as a Caltrain station, would allow individuals who do not have access to a car to still visit the preserve.



Figure 13: Transportation Mode

Figure 12 shows that mornings are the most popular time of day to visit the preserve. This result is supported by the observation that the parking lots at the main entrance often fill up early on weekend mornings. Although weekday mornings attract the most visits from survey respondents, they are likely distributed throughout the week, meaning that the resulting saturation of the main parking lots observed during the weekends are not observed during weekdays. Reducing the number of visitors who drive alone during these peak times of visitation would be the primary focus of a shuttle program.



Figure 14: Visitation Times

Figure 13 shows that most survey respondents stay at the preserve less than 4 hours and over half of them between 1 and 2 hours. This result combined with the popularity of visits in the morning leads to the conclusion that there will be little demand for shuttle service during afternoons.



Figure 15: Duration of Visits

It is anticipated that frequent visitors familiar with the preserve are more likely to utilize a shuttle. Figure 14 shows that frequent visitors favor the main entrance at Cristo Rey Drive whereas the smaller entrances at Rhus Ridge, Ravensbury Drive and Mora Drive are disproportionally used by infrequent visitors. Providing a shuttle stop at Cristo Rey Drive would serve the largest population of existing visitors but providing stops at some of the smaller entrances would allow the shuttle to not compete with the convenience of a visitor driving their own car to the preserve.



Figure 16: Visitation Frequency by Entrance

Rancho San Antonio is a large, outstretched preserve in the East-West direction, and it contains distinctly different characteristics. The eastern portions of the preserve are flatter and more easily accessible. The western portion of the preserve includes much steeper terrain and trails and attracts a different type of visitor. Figure 15 shows that a large portion of survey respondents typically have the middle section of the preserve as their main destination. Some of the smaller entrances (such as Mora Drive and Ravensbury Drive) provide a much more direct access to this middle portion of the preserve.



As shown in Figure 16, about 2/3 of the survey respondents are open to potentially using a shuttle to access the preserve. Even if only a portion of those respondents actually end up using the shuttle, that could end up making a significant impact on the overcrowding at the Cristo Rey Drive entrance during weekend mornings.



Figure 18: Potential Shuttle Users

Figure 17 shows that the expected frequency of shuttle usage correlates closely with the general sentiment towards the shuttle. The amount of respondents who state that they would use a shuttle are mainly the same respondents who anticipate using the shuttle during most or all of their visits. Likewise, the respondents who are unsure if they will use the shuttle state that they may use it occasionally or only if they cannot find parking.



Figure 19: Frequency of Potential Shuttle Usage

Figure 18 shows that the lack of parking is by far the most determining factor when respondents are considering if they will use a shuttle. About half the respondents listed it as their most important consideration. Because of this, it is expected that shuttle service will be most successful during those times when parking at the Cristo Rey Drive entrance is at capacity or if it provides access to an entrance that does not offer parking facilities.

Beyond the availability of parking, the ease of use and frequency of the shuttle service are also important considerations for potential shuttle users. Those aspects of a shuttle program should therefore be prioritized.



Figure 20: Factors Influencing Shuttle Usage

As shown in Figure 19, when respondents were asked about the obstacles that would keep them from using a shuttle service, they overwhelmingly listed concerns about the reliability of a return trip from the preserve. That means that a successful shuttle program should have a robust and reliable schedule and cooperation with a ride-hail service can be an important option for those shuttle users who might stay longer at the preserve and may want a return trip after the peak visitation period. The somewhat large number of responses labeled "Other" included mostly respondents who either did not want a shuttle program or who lived too close to the preserve to use a shuttle. It is expected that the concern over COVID or other infectious diseases will diminish as we are further removed from the COVID pandemic.



Figure 21: Obstacles to Shuttle Usage

Figure 20 shows that respondents are not willing to wait for or ride the shuttle for a long period of time. Only about 1/4 of respondents would consider anything longer than 10 minutes for each activity. These responses further highlight the importance of the shuttle schedule and supports shuttle options with nearby satellite parking locations with direct and frequent service. This information will also help inform estimates of number of shuttles needed for any suggested route.



Figure 22: Shuttle Schedule

Figure 21 shows that about half of survey respondents do not want to pay for a shuttle ride and only about 10% would consider paying more than \$2. This information will be used when developing the economic models for any proposed shuttle service. If the willingness to pay for a service is very low an owner will have to weigh the costs associated with collecting the fee against the anticipated revenue. Other considerations will be how the fee is collected and if passes (weekly, monthly etc.) are offered.



Figure 23: Shuttle Fare Cost

The survey also included an open-ended question where respondents were able to provide their own custom responses. The intent for this inclusion was to capture any potentially significant opinions regarding either a potential shuttle program or access to the preserve in general. Some of the most common themes among these responses were:

- The preserve is crowded, and this causes some potential visitors to either visit other preserves or to not visit at all during peak times. This suggests that overall visitation demand could still go up if access to the preserve was improved.
- Bringing more visitors to the park than can be accommodated by existing parking lots is seen as further crowding the preserve itself.
- Connections to or partnering with other local transit is desired.
- Some support for shuttle drop-off locations other than Cristo Rey Drive. However, there was also a general theme of respondents opposing drop-off locations in their own neighborhood if they lived close to the preserve.

Route Metrics

This section lays out the general measurables of each route concept, specifically the running length in miles and the number of stops that will be needed for each concept, broken down by existing (VTA) and new stops. This information forms much of the backbone of the calculations in subsequent sections.

	Round trip routo	ED /CD		Stops					
Concept	distance (miles)	(miles)	(miles)	Existing VTA	New	Total			
I - Lucky	4.68	2.44	2.24	0	2	2			

Daily Service Calculations

This section calculates, on a daily basis, the quantities that are critical to cost estimation:

•The expected travel time is based on the lenth of each route concept and the anticipated average speed of each route concept, including stops. For this estimate, 20 mph was used for off-peak periods (including weekends), with a slightly higher 25 mph for the Mtn View Station route in light of the fact that it will largely run on highways. High, middle, and low scenarios are presented based on the recognition that real-world conditions may result in vehicle running times differeing from these assumptions.

•Deadhead time and miles represent the trip from the vehicle garage to the point where the vehicle goes into service and begins boarding passengers.

•Layover/recovery time is time that the shuttle will spend sitting at one end of the route returning to schedule (if it is ahead).

•Revenue time/hours represent the time that the vehicle is in service and boarding passengers.

•Platform hours/miles are revenue and deadhead time combined.

•Headways are the amount of time between two vehicles serving the same stop (i.e. service every 15 minutes, every 30 minutes, etc.)

Vehicle requirements are a function of the running time of the route (including layover) and the assumed headways. Revenue hours are based on the number of vehicles running and the amount of time they run.

General Route Parameters

								Assumed								
	Round-Trip	Travel Time	Estimates in	Round-Trip	Travel Time I	Estimates in	Assumed	Deadhead								
	minutes (Peak)			minutes (Off-Peak)			Deadhead	Distance	Layover/Recovery Time (Peak)			Layover/Recovery Time (Off-Peak)			Route distance	Number of
	Low	Mid	High	Low	Mid	High	Time (min)	(Miles)	Low	Mid	High	Low	Mid	High	(miles)	stops
l - Lucky	14	16	19	13	14	17	15	10	5	5	5	5	5	5	4.68	2

Daily Revenue Hours (Saturday) Daily Platform Hours (Saturday) Daily Revenue Daily Platform Mile	iles
Low Mid High Low Mid High Daily Trips Miles Low Mid	High
11.75 11.75 11.75 13.25 13.25 22.9 107 127 137	147
Low Mid High Low Mid High Daily Trips Miles Low 11.75 11.75 11.75 13.25 13.25 13.25 22.9 107 127	/ Mid / 137

Sunday Service	nday Service																	
	Assumed	Assumed	Span of	Assumed	Vehicles ne	Vehicles needed (add 20% for spares)			Daily Revenue Hours (Sunday)			Daily Platform Hours (Sunday)			Daily Revenue	Dail	y Platform M	1iles
	Start Time	End Time	Service	Headway	Low	Mid	High	Low	Mid	High	Low	Mid	High	Daily Trips	Miles	Low	Mid	High
l - Lucky	6:30	12:30	6.0	15	2	2	2	11.75	11.75	11.75	13.25	13.25	13.25	22.9	107	127	137	147

ATTACHMENT 2

Cost Figures

This section presents the cost figure assumptions used to translate platform hours into costs. Most transit providers use a generalized per hour cost to estimate the cost of new or midified service. The figure shown here is an estimate based on known operating costs for similar services. The per-stop cost assumes the installation of a standard bus shelter and bench.

Medium Cutaway Van (10-15 seats)

Per Mile Costs		
Per Revenue Hour Costs	\$	143.0
Vehicle Puchase Cost	\$1	.50,000.0
Per-Stop Infrastructure Cost	\$	2,000.0

\$ 143.00	
\$ 150,000.00	
\$ 2,000.00	

Annual Service

This section annualizes the daily calculations of the previous section, based on 52 Saturdays & 52 Sundays each year, plus nine weekday holidays that will have the same service as a weekend day.

	Annua	al Revenue	Hours	Annua	Annual Platform Hours			Annual Revenue Miles	Annual Platform Mile		Miles
l - Lucky	1,328	1,328	1,328	1,497	1,497	1,497	2,591	12,127	14,387	15,517	16,647

ATTACHMENT 2

Cost Figures

This section applies the cost figures to the calculated annual platform hours to arrive at annual operating costs The capital costs of purchasing or leasing vehicles is annualized in the operating cost numbers.

Medium Cutaway Van (10-15 seats)

Anticipated Annual Service Days: 113

Annual Operating Costs

			Per H	lour Costs		Annual r	idership	Cost per rider			
	Lo	w		Mid		High	Low	High	Low	High	
l - Lucky	\$	189,868	\$	189,868	\$	189,868	22,600	40,680	\$4.67	\$8.40	

Initial Capital Costs

	Vehicle Purchase Costs					
		Low		Mid		High
l - Lucky	\$	454,000	\$	454,000	\$	454,000

Annualized Capital Costs

	Vehicles						
		Low		Mid		High	
l - Lucky	\$	64,857	\$	64,857	\$	64,857	

Expected Annualized Contractor Cost

	Vehicles						
		Low		Mid		High	
l - Lucky	\$	254,725	\$	254,725	\$	254,725	

Capital costs are based on number of vehicles and shuttle stop infrastructure required for a shuttle concept. The industry standard is to account for any spare parts and vehicles representing a 20% increase in the number of required vehicles in calculations. As such, vehicle counts are rounded up to an entire vehicle to account for spare vehicles. The District may work with a vendor who has their own fleet and doesn't pass these costs onto the District. If a vendor does pass on vehicle costs, the District could negotiate with a vendor to only pay a 20% increase for spare parts and vehicles, not rounding up a whole spare vehicle.
Route Metrics

This section lays out the general measurables of each route concept, specifically the running length in miles and the number of stops that will be needed for each concept, broken down by existing (VTA) and new stops. This information forms much of the backbone of the calculations in subsequent sections.

	Pound trip routo			Stops					
Concept	distance (miles)	(miles)	(miles)	Existing VTA	New	Total			
C - Mtn View Station	15.21	7.58	7.63	1	2	3			
l - Lucky	4.68	2.44	2.24	0	2	2			

Daily Service Calculations

This section calculates, on a daily basis, the quantities that are critical to cost estimation:

•The expected travel time is based on the length of each route concept and the anticipated average speed of each route concept, including stops. For this estimate, 20 mph was used for off-peak periods (including weekends), with a slightly higher 25 mph for the Mtn View Station route in light of the fact that it will largely run on highways. High, middle, and low scenarios are presented based on the recognition that real-world conditions may result in vehicle running times differing from these assumptions.

•Deadhead time and miles represent the trip from the vehicle garage to the point where the vehicle goes into service and begins boarding passengers.

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•Revenue time/hours represent the time that the vehicle is in service and boarding passengers.

•Platform hours/miles are revenue and deadhead time combined.

•Headways are the amount of time between two vehicles serving the same stop (i.e. service every 15 minutes, every 30 minutes, etc.)

Vehicle requirements are a function of the running time of the route (including layover) and the assumed headways. Revenue hours are based on the number of vehicles running and the amount of time they run.

General Route Parameters

								Assumed								
	Round-Trip	Travel Time	Estimates in	Round-Trip	d-Trip Travel Time Estimates in Assu		Assumed	Deadhead								
	n	ninutes (Peal	k)	mi	minutes (Off-Peak) Dead		Deadhead	Distance	Layover/	Recovery Tir	ne (Peak)	Layover/Recovery Time (Off-Peak)			Route distance	Number of
	Low	Mid	High	Low	Mid	High	Time (min)	(Miles)	Low	Mid	High	Low	Mid	High	(miles)	stops
C - Mtn View Station	46	51	61	33	37	44	15	10	7	7	10	5	5	5	15.21	3
l - Lucky	14	16	19	13	14	17	15	10	5	5	5	5	5	5	4.68	2

Saturday Service																		
	Assumed	Assumed	Span of	Assumed	Vehicles ne	hicles needed (add 20% for spares) Da		Daily Reve	Daily Revenue Hours (Saturday)		Daily Platform Hours (Saturday)				Daily Revenue	Dail	y Platform N	liles
	Start Time	End Time	Service	Headway	Low	Mid	High	Low	Mid	High	Low	Mid	High	Daily Trips	Miles	Low	Mid	High
C - Mtn View Station	6:30	12:30	6.0	30	2	2	2	11.50	11.50	11.50	13.00	13.00	13.00	11.2	170	190	200	210
l - Lucky	6:30	12:30	6.0	30	1	1	1	6.00	6.00	6.00	7.50	7.50	7.50	12.0	56	66	71	76

Sunday Service																		
	Assumed	Assumed	Span of	Assumed	Vehicles ne	ehicles needed (add 20% for spares)		Daily Rev	Daily Revenue Hours (Sunday)			Daily Platform Hours (Sunday)			Daily Revenue	Dail	y Platform N	1iles
	Start Time	End Time	Service	Headway	Low	Mid	High	Low	Mid	High	Low	Mid	High	Daily Trips	Miles	Low	Mid	High
C - Mtn View Station	6:30	12:30	6.0	30	2	2	2	11.50	11.50	11.50	13.00	13.00	13.00	11.2	170	190	200	210
l - Lucky	6:30	12:30	6.0	30	1	1	1	6.00	6.00	6.00	7.50	7.50	7.50	12.0	56	66	71	76

ATTACHMENT 2

Cost Figures

This section presents the cost figure assumptions used to translate platform hours into costs. Most transit providers use a generalized per hour cost to estimate the cost of new or midified service. The figure shown here is an estimate based on known operating costs for similar services. The per-stop cost assumes the installation of a standard bus shelter and bench.

Medium Cutaway Van (10-15 seats)

Per Mile Costs		
Per Revenue Hour Costs	\$	143.00
Vehicle Puchase Cost	\$1	.50,000.00
Per-Stop Infrastructure Cost	\$	2,000.00

Annual Service

This section annualizes the daily calculations of the previous section, based on 52 Saturdays & 52 Sundays each year, plus nine weekday holidays that will have the same service as a weekend day.

	Annua	al Revenue	Hours	Annual Platform Hours			Annual Trips	Annual Revenue Miles	Annual Platform Miles				
C - Mtn View Station	1,300	1,300	1,300	1,469	1,469	1,469	1,263	19,212	21,472	22,602	23,732		
l - Lucky	678	678	678	848	848	848	1,356	6,346	7,476	8,041	8,606		

Cost Figures

This section applies the cost figures to the calculated annual platform hours to arrive at annual operating costs. The capital costs of purchasing or leasing vehicles is annualized in the operating cost numbers.

Medium Cutaway Van (10-15 seats)

Anticipated Annual Service Days: 113

Annual Operating Costs

		Per	Hour Costs			Annual ridership			Cost pe	er rider
	Low Mid			High		Low	High		Low	High
C - Mtn View Station	\$ 185,829	\$	185,829	\$	185,829	14,690	24,860		\$7.48	\$12.65
l - Lucky	\$ 96,954	\$	96,954	\$	96,954	11,300	20,340		\$4.77	\$8.58
Combined	\$ 282,783	\$	282,783	\$	282,783	28,250	40,680		\$6.95	\$10.01

Initial Capital Costs

	Vehicle Purchase Costs										
		Low		Mid		High					
C - Mtn View Station	\$	456,000	\$	456,000	\$	456,000					
l - Lucky	\$	304,000	\$	304,000	\$	304,000					
Combined	\$	606,000	\$	606,000	\$	606,000					

Annualized Capital Costs

	Low	Mid	High
C - Mtn View Station	\$ 65,143	\$ 65,143	\$ 65,143
l - Lucky	\$ 43,429	\$ 43,429	\$ 43,429
Combined	\$ 86,571	\$ 86,571	\$ 86,571

Expected Annualized Contractor Cost

	Low	Mid	High		
C - Mtn View Station	\$ 250,971	\$ 250,971	\$	250,971	
l - Lucky	\$ 140,383	\$ 140,383	\$	140,383	
Combined	\$ 369,354	\$ 369,354	\$	369,354	

Capital costs are based on number of vehicles and shuttle stop infrastructure required for a shuttle concept. The industry standard is to account for any spare parts and vehicles representing a 20% increase in the number of required vehicles in calculations. As such, vehicle counts are rounded up to an entire vehicle to account for spare vehicles. The District may work with a vendor who has their own fleet and doesn't pass these costs onto the District. If a vendor does pass on vehicle costs, the District could negotiate with a vendor to only pay a 20% increase for spare parts and vehicles, not rounding up a whole spare vehicle.

ATTACHMENT 2



DATE 2/26/2024

CONTACT Susanna Chan Tyler Smith

ORGANIZATION Midpeninsula Regional Open Space District

Background

Rancho San Antonio (RSA) is the most visited preserve among the 27 preserves managed and operated by the Midpeninsula Regional Open Space District ("Midpen"). The Preserve has an estimated 1,000,000 visitors per year because of its popularity and proximity to Cupertino, Los Altos, Los Altos Hills, and the greater Santa Clara Valley area. The high visitation rates continually cause the parking supply at the Preserve to reach capacity during peak visitation times, especially on weekends and holidays.

In Spring of 2021, Midpen completed the '*Rancho San Antonio Multimodal Access Strategies Report*' which outlined a variety of strategies for travel demand management (TDM) to alleviate parking demand and explore alternative mobility solutions. Of the many strategies presented in the report, one of the most salient and highest ranking options was to explore the implementation of a subsidized ride-hail service providing transportation to and from the preserve during peak hours. At the September 12, 2023 Board of Directors (Board) meeting, updates on high priority TDM strategies for implementation, including a possible ride-hail program were provided. A copy of the ride-hail specific presentation slides is provided as Attachment 1 – providing for a summary of the ride hail service design and analysis.

Three ride-hail program deployment options were presented to the board for consideration:

- i. Pursue an independent ride hail program for RSA;
- ii. Seek to collaborate with the Silicon Valley (SV) Hopper program currently operated by the City of Cupertino in collaboration with Via; or
- iii. Integrate ride hail services with a shuttle program deployment.

Board direction was provided to pursue the second option and begin outreach to Cupertino to see if collaboration was possible. Arcadis and Midpen staff have facilitated discussions with Cupertino and by extension Via (the SV Hopper operator) and are now prepared to inform the Board on current progress and ask for further direction.

Current Silicon Valley (SV) Hopper Service

The SV Hopper was established in Cupertino and recently expanded to serve nearby Santa Clara. The provision of service is from a nearby designated "stop", typically the closest street corner to a requested origin or destination. Individuals with disabilities can receive door-to-door service upon request. Current hours of operation for the service are Monday - Friday: 7AM - 7PM and Saturday: 9AM – 5PM. Fares include one-way fares for \$3.50, discounted fares for \$1.75; and additional riders for \$1. The SV Hopper currently serves the RSA preserve. Below is a map depicting the service area.

PROJECT NAME Ride Hail Programming Assistance

SUBJECT Ride Hail Implementation Plan Updates and Report





Correspondence with the City of Cupertino

In the months that followed the September 2023 board meeting, Midpen and the City of Cupertino have had multiple discussions regarding partnership opportunities. While SV Hopper already serves RSA, currently the service does not operate on Sundays or holidays, and more limited hours on Saturdays. Because the RSA Multimodal Access Strategies Report illustrated peak travel demand and parking strain for the preserve to be on weekends and holidays, discussions with the City focused on the feasibility of expanding service hours and days to meet the needs of RSA travelers. In short, the City of Cupertino is open to options in modifying SV Hopper service.

As expected, there would be costs associated with expanding the SV Hopper program. These costs would be borne primarily by Midpen, though notably, expanded service would be distributed evenly across the service area. When staff inquired as to the possibility of expanded operations with *dedicated* service to RSA during those expanded hours, the City of Cupertino staff indicated that they would not support dedicated service to Midpen visitors for the following reasons:

- It is not consistent with the SV Hooper program's mission of providing a transportation option that serves the entire community.
- On a practical level, it would create confusion for customers of the SV Hopper service.

Cupertino also indicated that neither they, nor other partners, would have the resources to contribute towards the additional cost of this expanded, non-dedicated service at this time. Before proceeding any further in negotiations, this report presents specific data from our discussions and cost estimates of SV Hopper expansion to inform decisions and gauge further interest.



Cost Information

Midpen indicated that fully subsidized trips (meaning passengers ride free and Midpen absorbs 100% of trip costs) would be most beneficial to RSA on weekends and holidays. Calculating the total number of weekend days and holiday days in a year, this came out to 114 annual service days eligible for subsidy.

Per the Multimodal Access Strategies Report, the ideal hours of operation on those days would be from 6:30am – 7:00pm, to fully capture travel demand. This meant that the following modifications would be required to the SV Hopper program on those days:

- Saturdays: Extending hours to include 6:30-9:00am and 5:00-7:00pm = 234 additional annual hours
- Sundays: Adding hours to include 6:30am-7:00pm = 650 additional annual hours
- Holidays: 6:30am-7:00pm x 10 days = 125 additional annual hours
- Total additional annual revenue hours. = 1009

After discussions with the City of Cupertino and Via, the following costs were shared as an estimate for expanding service:

Expansion Scenario	Projected Weekly Ridership	Weekly Vehicle Hours Needed	Additional Annual Budget Required
Saturdays 6am-9am	32	9	~\$40K
Sundays 6am-12pm	93	24	~\$105K

Note that this **\$145k** estimate in the scenario presented above only covers **partial Saturday and Sunday expansion**. Because of this, the entire hours of operation requested by Midpen are not fully priced in. If the same assumptions as presented above were used and costs are extrapolated for the total desired hours of service to RSA, the estimated cost of the expansion, as presented by Cupertino and Via, would be **\$342k**. This revised estimate of \$342k also assumes holiday operations are feasible, something that has not been discussed with Via to date.



Estimated Ridership

A review of recent SV Hopper trip data suggests low ridership for Saturdays from September 2nd to November 18th, 2023. As presented on the right, inbound (one-way) trips to RSA ranged from 0 to 3 trips per Saturday. It is expected that the actual number would be double the numbers indicated, accommodating the return (out-bound) trip as well.



Despite few trips currently being taken, conservative

estimates suggest that with proper marketing and outreach, combined with the subsidy, approximately 2,280 trips may be generated over the 114 service days (or 20 one-way trips per service day). It is important to acknowledge that to date, there as been virtually no RSA specific marketing of the SV Hopper service.

Moving Forward

While our conversations with the City have been productive, we need to know whether to continue in negotiations with Cupertino based on our current understanding of the costs and operating parameters. While we do think there may be room for discussion around the number of vehicles deployed by Via on the weekends and availability of holiday hours, if the Midpeninsula Regional Open Space District is interested in pursuing this further, it should be prepared to pursue a program collaboration costing somewhere between \$145k and \$342k depending on hours and vehicles used.

This leaves the District with two main options for moving forward:

- 1. Pursue further negotiations with the City of Cupertino
- 2. Seek alternative solutions for implementing ride-hail service or pursue alternative TDM strategies.



Attachment 1: Ride Hail Presentation Material Midpen Board of Directors – September 12, 2023

RIDE HAIL

ATTACHMENT 3



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Ride Hail

The Rancho San Antonio *Multimodal Access Study* (2021): **subsidized ride hail program** among first priority strategies recommended for implementation

Develop service design for a ride hail service specific enough to issue an RFP for provision of services.



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Ever Used a Ride Hail Service?

Close to four of five respondents indicated 'Yes'.

Service Characteristics That Would Encourage Use? Top Three:

- Able to book ride through mobile app
- Pick up from home
- Wait time less than 20 minutes

Distance Willing to Travel?

Close to two-thirds: traveling less than 5-miles

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Ride Hail – Concept of Operations (ConOps)

- Customer orders a customized ride usually through ride hailing platform – a third party (typically a transportation network company or TNC) that mediates the service between the driver and the passenger.
- May be in an exclusive ride or shared ride mode.
- ConOps provides for a high-level description of the actions to be taken in the pursuit of issuing an RFP for ride hail services including functional & technical requirements



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Deployment Plan - Preferred approach for vendor selection

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Ride Hail – Service Design Options

- 1. Independent Ride Hail program
- 2. SV Hopper: Collaborate with the City of Cupertino to expand their operation to include Rancho San Antonio as a specific service stop
- 3. Ride Hail services integrated with the shuttle program deployment



City of Cupertino's **Silicon Valley** Hopper (SV Hopper) shuttle community ride-share program serves the city and select destinations outside of the City. Of note, already services Rancho San Antonio.

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Ride Hail – How It Works

HOW DOES IT WORK?



Step 1: Book

- create your account
- select your pick-up and drop-off location
- select the number of seats
- confirm your route



Step 2: Pay

- add payment option to your account
- single-ride or multi-ride tickets available



Step 3: Pick-up

 track your ride in real-time through the app or online so you can be ready at your pick-up location when your vehicle arrives



Step 4: Ride

 hop on, show the driver your booking confirmation or paper ticket, relax and enjoy the ride

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Ride Hail – Important Considerations

- 1. Options for those who may not have a smart device for trip booking
- 2. Option for those who may be unbanked
- 3. Need to provide accessible service options for those who use a mobility device.
- 4. Need to incorporate a geofence capability in the platform (reflect trip constraints)
- 5. Customer-centric considerations: amenities (bike racks); understanding potential customer resistance; protecting customer privacy (data collection and management)
- 6. Data monitoring and performance evaluation

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Service Parameters - level and span of service.

Potential Ridership/Demand - estimates (high and low), providing for a range (and order of magnitude) based on the anticipated level of service.

Gross, Net, & Revenue Cost Estimates - for each of the options (& reflect alternate fare scenarios - \$1.50, \$2.50, \$3.50)

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Ride Hail – Cost & Ridership Model

Service Characteristics – level of service

Service Area	Recommended Level of Service - Mon Fri.	Service Mode(s)	Operating Span Weekday (hours)	Operating Span Saturday (hours)	Operating Span Sun/Hol (hours)	Weekday Average Vehicles in Service	Saturday Average Vehicles in Service	,
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Ridership EstimatesCoverage Hoursper Coverage HourAnnual Service CapacityLow DemandHigh DemandLow Annual Ridership EstimateHigh Ridership Estimate	Coverage & Ridership Estimates	Annual Coverage Hours	Capacity per Coverage Hour	Maximum Annual Service Capacity	Low Demand	High Demand	Low Annual Ridership Estimate	High Annua Ridership Estimate
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Costs & Subsidy	Cost per Hour	Annual Cost	Fare Revenue Low Demand	Fare Revenue High Demand	Net Cost of Service - Low Demand	Net Cost of Service - High Demand	Subsidy per Trip Low Demand	Subsidy per Trip High Demand
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Reflect alternate fare scenarios: \$1.50 \$2.50 \$3.50

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Sun/Hol Average /ehicles in Service MIDPENINSULA R e g I O N A L OPEN SPACE

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Service Parameters

	Service Model	Level of Servic	e - Mon Fri. *	Level of Service - Sat., Sun. & holidays *	Operating Span Weekday (hours)	Operating Span Saturday (hours)	Operating Span Sun/Hol (hours)	Weekday Vehicles in Service	Saturday Vehicles in Service	S V in
1	Independent Ride- Hail Program	6:30AM -	7:00PM	6:30AM - 7:00PM	12.5	12.5	12.5	4	4	
2	SV Hopper - Collaboration	6:30AM -	7:00PM	6:30AM - 7:00PM	12.5	12.5	12.5	1	1	
3	Integrated Ride-Hail & Shuttle Program	6:30AM -	· 7:00PM	12:30PM - 7:00PM	12.5	6.5	6.5	1	3	
	* Park Hours: 1/2 hour before sunrise to 1/2 hour after sunset									_

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Ridership/Demand Estimates (High & Low)

\$	Service Model	Annual Coverage Hours	Capacity per Coverage Hour	Maximum Annual Service Capacity (hours)	Low Demand	High Demand	Low Annual Ridership Estimate	High Annual Ridership Estimate
1	Independent Ride- Hail Program	16,300	3	48,900	0.33	0.50	16,137	24,450
2	SV Hopper - Collaboration	4,563	3	13,688	0.50	0.67	6,844	9,171
3	Integrated Ride-Hail & Shuttle Program	4,657	3	13,970	0.33	0.50	4,610	6,985
Ŭ	& Shuttle Program	1,007		10,010		0.00		

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Cost & Revenue Estimates (High & Low)

@ \$1.50 Fare

Service Model		Gross Cost of Service - Low Demand	Gross Cost of Service - HighDemand	Max. Subsidy per Trip Low Demand *	Max. Subsidy per Trip High Demand
1	Independent Ride- Hail Program	\$314,671.50	\$476,775.00	\$18.00	\$18.00
2	SV Hopper - Collaboration	\$133,453.13	\$178,827.19	\$18.00	\$18.00
3	Integrated Ride-Hail & Shuttle Program	\$89,893.73	\$136,202.63	\$18.00	\$18.00

Service Model		Fare Revenue (<u>@ \$1.50</u>) Low Demand	Fare Revenue (<u>@ \$1.50)</u> High Demand	Net Cost of Service - Low Demand	ļ
1	Independent Ride- Hail Program	\$24,206	\$36,675	\$290,466	
2	SV Hopper - Collaboration	\$10,266	\$13,756	\$123,188	
3	Integrated Ride-Hail & Shuttle Program	\$6,915	\$10,477	\$82,979	

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Net Cost of Service - High Demand

\$440,100

\$165,071

\$125,726

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@ \$2.50 Fare

@ \$3.50 Fare

Service Model		Service Model	Fare Revenue (<u>@ \$2.50</u>) Low Demand	Fare Revenue (<u>@ \$2.50)</u> High Demand	Net Cost of Service - Low Demand	Net Cost of Service - High Demand
	1	Independent Ride- Hail Program	\$40,343	\$61,125	\$274,329	\$415,650
	2	SV Hopper - Collaboration	\$17,109	\$22,927	\$116,344	\$155,901
	3	Integrated Ride-Hail & Shuttle Program	\$11,525	\$17,462	\$78,369	\$118,741

Service Model		Fare Revenue (<u>@ \$3.50</u>) Low Demand	Fare Revenue (<u>@ \$3.50)</u> High Demand	Net Cost of Service - Low Demand	S
1	Independent Ride- Hail Program	\$56,480	\$85,575	\$258,192	
2	SV Hopper - Collaboration	\$23,953	\$32,097	\$109,500	
3	Integrated Ride-Hail & Shuttle Program	\$16,135	\$24,447	\$73,759	

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Net Cost of Service - High Demand

\$391,200

\$146,730

\$111,756

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Ride Hail Costs

(Additional) Cost Element	1 Independent Ride Hail program	2 Collaborate with City of Cupertino (SV Hopper)	3 Integrated with shuttle program deployment
Admin. Burden: Detailed deployment plan	\$\$\$	\$	\$\$
Admin. Burden: Develop RFP/RFQ – operations & technology platform	\$\$\$	\$	\$\$
Admin. Burden: Contract administration	\$\$\$	\$	\$\$
Admin. Burden: Performance monitoring/evaluation	\$\$\$	\$	\$\$
Fare Collection & Payment Processing	\$\$\$	\$	\$\$
Data Collection and Reporting	\$\$\$	\$	\$\$
Customer/Visitor Support and Complaint Handling	\$\$\$	\$	\$\$
Branding	\$\$\$	\$	\$\$
Marketing & Communications	\$\$\$	\$	\$\$
Signage/Wayfinding	\$\$\$	\$	\$\$
Technology Infrastructure	\$\$\$	\$	\$\$
	+ 25 to 30%	+ 10 to 15%	+ 15 to 20%

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Ride Hail – Parking Reduction

Silicon Valley Hopper Collaboration

- Annual Ridership: 9,200
- Distribution by weekday vs. weekend: 80% on weekend = 7,360
- = approx. 70 (individuals) per weekend day.
- If assume 2.0 individuals per vehicle = **35 reduced parking spaces**

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Ride Hail – Performance Measurement

The Process

Monitor performance to determine if meeting desired goals and objectives?

Foundational to determine success or failure



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Ride Hail – Key Performance Indicators (KPIs)

The Measures

Look beyond ridership (& subsidy levels), need to reflect customer experience, including improved mobility/access, equity and visitor experience/ customer satisfaction.

BUSINESS FUNCTION	SAMPLE KPIS	REQUIRED
Mobility/ Service Operations	 Riders per hour Ridership by service area/zones On-time performance Service reliability Number of booked and completed trips Number of no-shows and cancellations Vehicle revenue hours and miles Number of trips originating /terminating within a zone or predefined location Number of passenger trips that are shared. 	 Trip details, Orig Destination Ridership Payments and P Methods Vehicle travel tin schedule adhere
Equity	 Trips delivered to variety of community segments Increased access to destinations in communities Trips delivered to unbanked/ underbanked communities Trip requests by mobile app vs. telephone requests through call-center 	• Trip details
Customer Satisfaction	 Number of customer complaints Passenger wait time Average on-board time Average trip length Number of service denials Reduced number of personal vehicle miles traveled Number of parking spaces relieved by ride hail use 	 Trip details; Orig Destination Ridership Payments Vehicle travel tin schedule adhere Missed connection
Finance	 Revenue trend Trends in cash and non-cash payments Cost/trip Subsidy/trip Cost/revenue hour Cost/revenue mile 	Cost and revenu
Environmental	 GHG reduction Increased Mode share of electric vehicles (as appropriate) 	 Vehicle Miles Tra (VMT) by modes service

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Rancho San Antonio - Shuttle and Ride Hail Funding Opportunities

Introduction

Implementing a shuttle program will require capital funding and ongoing operating costs for a tailored program to meet the District's unique needs and ensure success. Implementing a ride hail program requires ongoing administrative and operational costs. Partnerships with existing transit services could incrementally reduce these expenses and the District would need to further explore potential transit opportunities. Shuttle or ride hail service to open space is a specific transportation service that is not eligible for the same type of funding that local transit agencies, like Valley Transportation Authority (VTA), can rely on for funding capital and operating costs.

Grant and funding opportunities are available for transportation at the federal, state, and local level; however, these typically are available for communities looking to address a transportation service gap for the general population or underserved communities. As agencies grapple with addressing transportation issues, the state and federal government have responded by looking to fund innovative transportation opportunities. The District would need to get creative in approaching grant opportunities, and partnering with other agencies to leverage the District's proposal.

Traditional Transit Funding

Transportation funding is provided for capital costs and ongoing operational costs associated with transportation services. Capital projects for local transportation is funded through a combination of local sales tax, federal and state grants. Fares are another funding source but is usually a smaller contribution to an operating budget.

Funding Opportunities

Federal

Transit to Trails Act (Pending Legislation)

First introduced in the 117th Congress (2021-2023) and reintroduced in the 118th Congress (2023-2025), the Transit to Trails Act¹ would establish a grant program "Transit to Trails Grant Program" under the U.S. Department of Transportation to provide transportation services between critically underserved communities and public lands. This legislation would remove transit barriers and increase access to public lands for underserved urban and rural areas. This legislation was inspired by a successful program in Los Angeles County that connects residents of Los Angeles with their local public lands. The Transit to Trails Act calls for grants to fund the following projects:

- Projects that develop transportation connectors or routes in or serving, and related culturally and linguistically appropriate education materials for, critically underserved

communities to increase access and mobility to Federal or non-Federal public land, inland and coastal waters, parkland, or monuments; or

• Projects that facilitate transportation improvements to enhance access to Federal or non-Federal public land and recreational opportunities in critically underserved communities.

Applicability to the Preserve:

If this proposed legislation becomes law, it could provide funding for transportation projects to connect at-need communities with the Preserve and other nearby public lands. Implementing a shuttle program or an on-demand service like ride hail at a District preserve would align very well with the proposed program's goals and the District would be able to put forth a competitive application. District staff will continue to monitor action on this legislation.

State

Routes to Parks Program

The Routes to Parks Program² was launched by California State Parks in 2020 to support local organizations that are best able to address transportation barriers in improving transportation access to state parks and beaches. This program is the result of a public private partnership, funded by private fundraising from Parks California, and the California Department of Parks and Recreation's Waterway Connections Initiative. During the 2024 grant cycle, Parks California sought proposals that connected people inland waterways.

Applicability to Preserve:

This grant opportunity calls for providing transportation connections between California State parks and beaches and underserved communities. The District would need to explore a partnership opportunity with State parks to be eligible for funding. Depending on the grant cycle, there may be other requirements that may make it challenging for the District to be eligible for funding.

Transit and Intercity Rail Capital Program

The Transit and Intercity Rail Capital Program³ was enacted in 2014 to fund projects that will modernize California's intercity, commuter, and urban rail systems, and bus and ferry transit systems, to significantly reduce emissions of greenhouse gases, vehicle miles traveled, and congestion. The City of Cupertino launched their on-demand ride share service, Via Cupertino, now known as Silicon Valley Hopper to address first-mile/last-mile transit access. In 2022 they were awarded grant funding for the Transit and Intercity Rail Capital Program from the California State Transportation Agency (Caltrans) to expand their service into surrounding municipalities, increasing accessibility to critical points of interest in the area, and electrify their fleet.

Applicability to Preserve:

Implementing a standalone ride hail program or shuttle program at a District preserve would not be an eligible program. The District would need to further evaluate whether it could partner with other agencies for this grant opportunity.

Outdoor Equity Grants Program

A 2015 Report from the Parks Forward Commission found that the California Department of Parks and Recreation must expand access to parks for underserved communities and urban populations. Following this report, Assembly Bill 209 created the Outdoor Equity Grants Program⁴ (OEP). This grants program supports the health of Californians through the creation of outdoor programs by funding program operation and transportation costs in underserved communities. This grants program provides programmatic funding and does not fund capital projects.

The OEP's focus is on providing funding for transportation, logistics, program operations, and capacity costs associated with reaching historically underserved urban and rural communities in California.

To be eligible for this grant opportunity, interested agencies and organizations would need to do the following:

- Establish a community home base in an underserved community where a majority of participants live.
- Organize educational activities in the community and natural area trips from the community home base that serve participants who primarily live within half-mile of the community home base.
- Residents living primarily within a half-mile of the community home base including youth, families, and adults of all ages must be engaged. Some participants may commute from distance neighborhoods or rural towns.

Applicability to Preserve:

This grant opportunity could be available to the District, however the District would need to partner with a local municipality to establish a community base. A standalone shuttle program to open space would not be eligible for funding unless the District incorporates interpretive or other programmatic activities at the Preserve.

Regional

Senate Bill 1031

Senators Scott Wiener (San Francisco) and Aisha Wahab (Silicon Valley) announced Senate Bill 1031, the Connect Bay Area Act⁵. This bill would authorize a ballot measure to provide comprehensive transportation revenue and reform measure that would preserve and enhance public transit operations, improve the condition of local streets and roads, and promote

mobility and access for all people, including pedestrians, bicyclists and scooter and wheelchair users. The bill proposes that Metropolitan Transportation Commission (MTC) allocate at least \$750 million each year to support transit operations if voters approve a regional payroll tax, regional parcel tax, regional sales tax, or a regional vehicle registration surcharge

Applicability to Preserve:

It is unclear whether this bill and potential ballot measure would result in funding opportunities for the District. The District should engage MTC to including funding that helps with providing transit access to open space.

Local

Santa Clara County – 2016 Measure B

In 2016, Santa Clara County voters approved Measure B⁶, which resulted in a half cent sales tax increase to enhance transit, expressways, and active transportation. The transit operations program consists of four categories: enhance frequent core bus network, expand mobility services and affordable fare programs, innovative transit service models, and improve bus stop amenities. These programs address first/last mile connections and transit services for the transit dependent, vulnerable populations and paratransit users that is safe and accountable. Recent shuttle and on-demand programs have been awarded funding in the innovative transit category including Mountain View Community Shuttle and on-demand programs Milpitas SMART On-demand Service, MoGo Morgan Hill Quick Ride, Palo Alto On-Demand Service (Palo Alto Link which is similar to SV Hopper), and Reach Your Destination Easily (RYDE) Program. Most of these programs are filling a service gap for the general population, or serving a vulnerable population.

Applicability to Preserve:

A shuttle or ride hail program that is dedicated to open space access would not be an eligible program. However, the District could evaluate a partnership with a nearby agency that receives Measure B funding service to expand to serve the District's needs.

Other Opportunities

Private Partnerships/Sponsorships

Through the project team's engagement efforts, staff learned about other agencies' experiences with corporate sponsorships. In King County Washington, the Trailhead Direct program is co-led by King County Metro and King County Parks. Like the District's proposed program, Trailhead Direct operates on weekends and holidays. This transit program's goals are to ease vehicle congestion, reduce safety hazards, and expand transit access to open space hiking destinations.

While the program operates using King County Metro buses, they have leveraged corporate partnerships to receive funding to help promote and market the service. Trailhead Direct has partnered with REI, Patagonia, Cliff Bar, and Amazon across different operational seasons. Cliff

Bar provided snacks that would be available for shuttle riders. Amazon, the largest employer in Seattle is their current partner. Trailhead Direct staff suggested to District staff that leveraging technology companies in the Bay Area could be a good resource as they are better resourced and potentially less constrained than with other public partnership opportunities.

Conclusion:

To implement a shuttle program or a ride hail program, the District needs to ensure there is sufficient funding to implement and sustain program operations. Based on our research, traditional transit funding does not appear to be available to the District, the District would be required to fund a program on its own. The District should continue to actively monitor relevant grant opportunities, explore potential partnerships, and consider creative approaches to secure funding. The District should also continue to monitor state and federal legislation which could result in future grant opportunities that are more directly applicable to the District's needs.

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