



OPEN MEETING

**REGULAR MEETING OF THE GOLDEN RAIN FOUNDATION
MOBILITY AND VEHICLES COMMITTEE**

**Wednesday, February 6, 2019 – 1:30 p.m.
Laguna Woods Village Community Center Board Room
24351 El Toro Road**

AGENDA

1. Call to Order
2. Acknowledgment of Media
3. Approval of the Agenda
4. Approval of Meeting Report for December 5, 2018
5. Chair's Remarks
6. Member Comments (Items Not on the Agenda)
7. Response to Member Comments
8. Department Head Update

Consent:

None

Reports:

9. Transportation & Maintenance Manager's Report

Items for Discussion and Consideration:

10. Supplemental Funding to Award Contract for Bus Modeling Service

Items for Future Agendas:

11. Federal Transit Administration 5310 Grant Requirements:
 -) Service Animals on Buses and Plan-A-Ride Vehicles
 -) Oxygen generators and respiratory support devices on buses

Concluding Business:

12. Committee Member Comments
13. Date of Next Meeting – Wednesday, April 3, 2019
14. Adjournment

Ray Gros, Chair
Chris Laugenour, Staff Officer: 949-597-4638

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OPEN MEETING

**REPORT OF REGULAR MEETING OF THE GOLDEN RAIN FOUNDATION
MOBILITY AND VEHICLES COMMITTEE**

**Wednesday, December 5, 2018 – 1:30 p.m.
Laguna Woods Village Community Center Board Room
24351 El Toro Road, Laguna Woods, CA 92637**

MEMBERS PRESENT: Chair- Ray Gros, Andre Torng, Elsie Addington, John Frankel, Cush Bhada,

ADVISORS:

MEMBERS ABSENT:

OTHERS PRESENT: Juanita Skillman in audience, Lynn Jarret in audience,

STAFF PRESENT: Bruce Hartley, Lulu Bactor,

1. Call to Order

Chair Gros called the meeting to order at 1:30 p.m.

2. Acknowledgment of Media

No press was present.

3. Approval of the Agenda

Agenda was amended to add new item #11a "Discussion of a Seven Day Fixed Route Schedule" to the agenda. Amended agenda was approved by consensus.

4. Approval of Meeting Report for April 4, 2018

The Regular Meeting Report of October 3, 2018, was approved by consensus.

5. Chair's Remarks

Chair Gros commented that he provided bus information during yesterday's Board meeting for residents who do not otherwise receive it. He reported that he and Mr. Hartley met with other Board Member's to see the proposed replacement van for Plan A Ride, with a rear exit for wheel chairs.

6. Member Comments (Items Not on the Agenda)

Richard Fumanti - 277-A: Spoke about the medical office behind Trader Joe's and suggested adding a bus to stop to service the medical office at 24422 Avenida De La Carlotta.

Suellen Zima - 823-D: Welcomed all new members of the Committee. She spoke about the bus system, wait times for buses and Plan-A-Ride.

Patricia Gothard - 611-Q: Spoke about the wait times for buses and thanked staff for their hard work.
Vashti Williams - 726-P: Spoke about bus schedules, Plan-A-Ride and wait times.

7. Response to Member Comments

Director Bhada asked Ms. Gothard what was her main concern. Mrs. Gothard replied that it is a Plan-A-Ride and Bus scheduling problem.

Director Addington responded to Ms. Gothard that she rides the buses and agrees that sometimes they could be running a little late and understands her concerns.

Director Frankel responded to Ms. Zima that the Committee will be discussing the hiring of a bus route consultant before the meeting is over.

Chair Gros responded to Ms. Zima that the scheduling system she shared will be considered by the Committee. Director Gros commented that the evaluation of the fixed routes and Plan-A-Ride services by an outside consultant as directed by the Committee is in progress. The RFP was advertised on 12/13. Staff will bring back to January meeting or February meeting to discuss the cost, funding and the recommendation to award to GRF Board.

Director Addington thanked Ms. Zima for submitting her proposed schedule.

8. Department Head Update

Mr. Hartley welcomed all new Committee Members and chair. Mr. Hartley announced this will be his last Committee meeting and the new Transportation Manager will start December 10, 2018.

Consent:

None

Reports:

9. Transportation & Maintenance Manager's Report

Mr. Hartley commented that following discussion about the request for proposal for bus modeling services at the previous meeting of GRF M&V Committee, staff was directed to advertise an RFP and seek a professional consultant to evaluate the current bus routes and to help produce an efficient model to move forward. The idea is to get proposals in December with the highest rated firm brought back to the Committee for direction on whether to move forward with Board approval for funding. Mr. Hartley spoke about Plan-A-Ride and that there have been recent some improvements on the hardware side. The IT Director has moved the system to more powerful software which should reduce many of the glitches experienced by riders.

Items for Discussion and Consideration:

10. Supplemental Funding to Replace Plan-A-Ride Van

Director Addington asked if we get paid through the insurance to replace the damaged van.

Mr. Hartley responded that only buses have full coverage. All other vehicles do not carry full coverage insurance. This info was provided by the Finance Department.

Suellen Zima 823-D – Suggested to the Committee to get a side access van; stating it is her opinion that rear access van was not successful.

Mr. Hartley responded to Ms. Zima that we have looked at the different vehicles and chosen to get rear access vehicles since the side access vehicles can only transport one wheel chair and two fewer passengers.

Director Moldow made a motion to replace the damaged van. Not to exceed \$45,000, second by Andre Torng. Approved by Committee unanimously.

Committee voted to direct staff to test the vehicle with the residents. Committee approved by consensus.

11. 2019 Early Release Bus Vehicle Purchases

Mr. Hartley gave an overview of the request and talked about staff recommendation.

Director Cush Bhada made motion to proceed with the purchasing process for the acquisition of four buses, seven cargo vans and an industrial scrubber included in the 2019 budget. Motion Second by Director Moldow. Approved by Committee unanimously.

Director Bhada and Mr. Hartley discussed noise in buses.

11a. Discussion of the Seven Day Fix Route

Director Frankel spoke about the closed meeting discussion held on October 30, 2018. Director Frankel requested to add to Future Agendas "Discussion of the Seven Day Fix-Route".

Items for Future Agendas:

12. Award of Contract for Bus Modeling Services

13. Bus Pre-Purchase Review Task Force

14. Federal Transit Administration 5310 Grant Requirements:

- Services Animals on Buses and Plan-A-Ride Vehicles
- Oxygen Generators and Respiratory Support Devices on Buses

Concluding Business:

15. Committee Member Comments

Director Frankel made motion to having monthly GRF Mobility & Vehicle Meeting starting January. Second by Director Bhada. Committee approved unanimously.

16. Date of Next Meeting – Wednesday, February 6, 2019

17. Adjournment

The meeting was adjourned at 1:48 pm.



Ray Gros, Chair
GRF Mobility & Vehicles Committee

STAFF REPORT

DATE: February 6, 2019
FOR: Mobility and Vehicles Committee
SUBJECT: Transportation and Maintenance Services Manager's Report

RECOMMENDATION

Receive and file report.

BACKGROUND

At each meeting of the Mobility and Vehicles Committee, the Transportation and Maintenance Services Manager provides information related to the Village transportation program and the operational costs of the Village vehicle maintenance program. The reports are varied each meeting and are submitted to the Committee to provide a broad spectrum of information on a variety of topics.

DISCUSSION

Ridership Trends for Plan A Ride and Easy Rider in 2018

When residents and their guests ride the Village buses or utilize the Plan-A-Ride program, their trips are tracked. Each time a rider enters a bus, the RFID chip on their Resident Identification Card records a 'trip'. Drivers record guests manually. Trips provided through the Plan-A-Ride program are tracked by the 'Ride Now' scheduling software.

In 2018, Plan-A-Ride provided a total of 34,577 rides, with the highest daily utilization occurring on Saturday and Sunday each week. The average monthly number of rides was 2,881 and with the implementation of the new Ride Now software system, monthly ridership has exceeded 3,000 since October 2018. See Attachment #1.

The Easy Rider fixed route program provided an average of 8,488 trips per month in 2018, with an annual total of 101,859 trips provided. See Attachment #2. This does not include those residents that participated in the Destination Shopping, monthly excursions or the weekly docent tours.

Vehicle Purchases/Repairs

The 2018 Ford Arboc bus with excessive noise is being repaired by A-Z Bus Sales to eliminate the noise problem.

GRF approved the supplemental funding request of \$45,000 to replace the Plan-A-Ride van that was damaged beyond repair. Purchasing Staff is currently obtaining bids.

The 2019 budget includes funding to purchase a total of 39 replacement vehicles, including four buses for the Transportation System. See Attachment #3

Grant Update

GRF currently owns and operates 16 buses. Fourteen of those were purchased utilizing Federal Transportation Administration (FTA) 5310 Grant Funds. The grants paid approximately 88% of the total purchase price. Two buses purchased within the past year were funded entirely from GRF Reserve Funds, with two grant-funded buses traded-in as part of the purchase. There are no restrictions on the use of the two new buses. The 5310 Grant program requires that grant-funded buses be operated for seven years or 200,000 miles before the title is transferred to the grant recipient and use restrictions expire.

Currently, four buses are no longer under grant restrictions and are owned by GRF. Three buses will reach the seven year service requirement in 2019, while the remaining seven buses will reach that milestone in 2021 or 2022. Staff is required to report the daily ridership and hours of operation of the buses in the grant program semi-annually to meet the contractual requirements set by the FTA. No fees may be charges to patrons that ride a bus that was purchased with grant funds until after the restrictions expire.

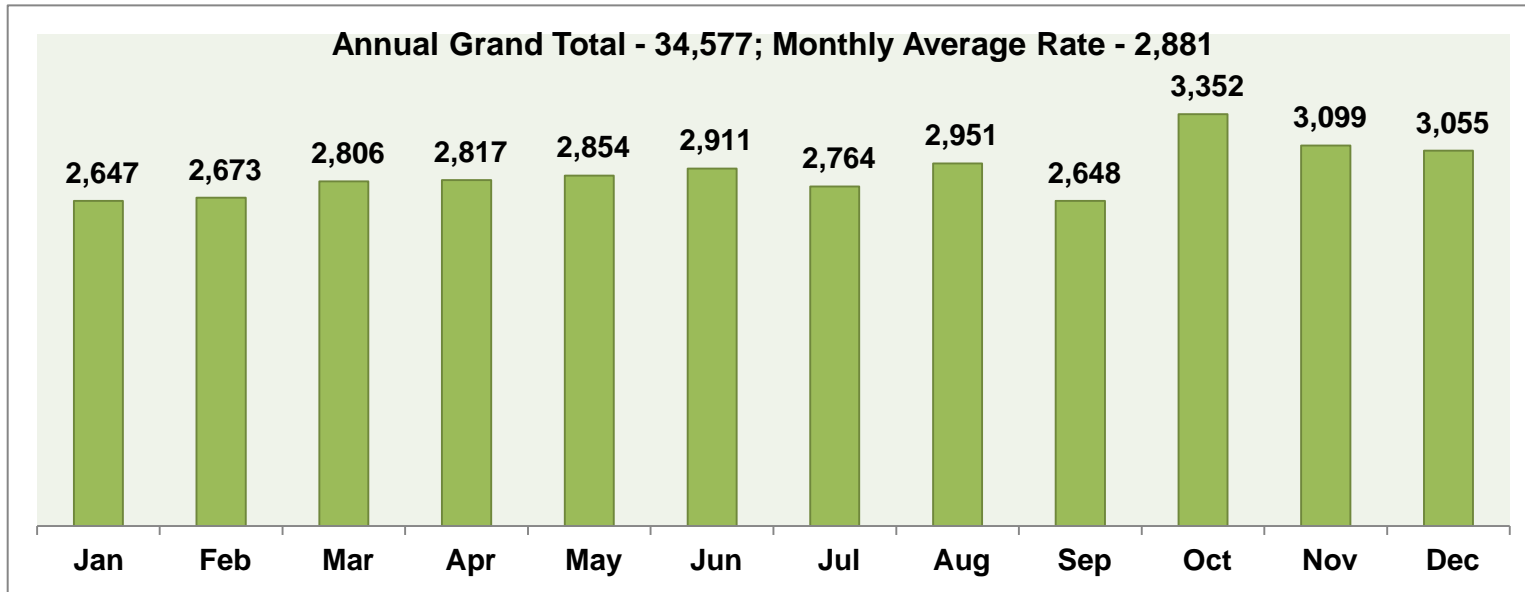
Prepared By: Chris Laugenour, Sr. Transportation & Maintenance Manager

ATTACHMENT(S):

ATT-1: Plan-A-Ride Year to Date Ridership

ATT-2: Easy Rider Year to Date Ridership

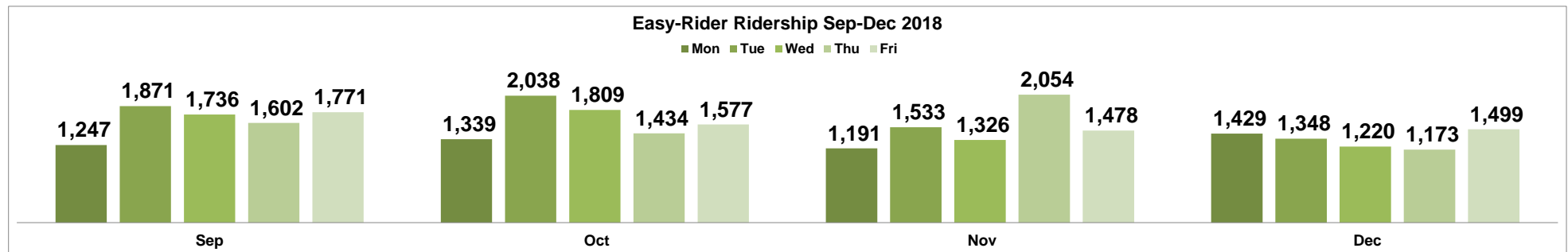
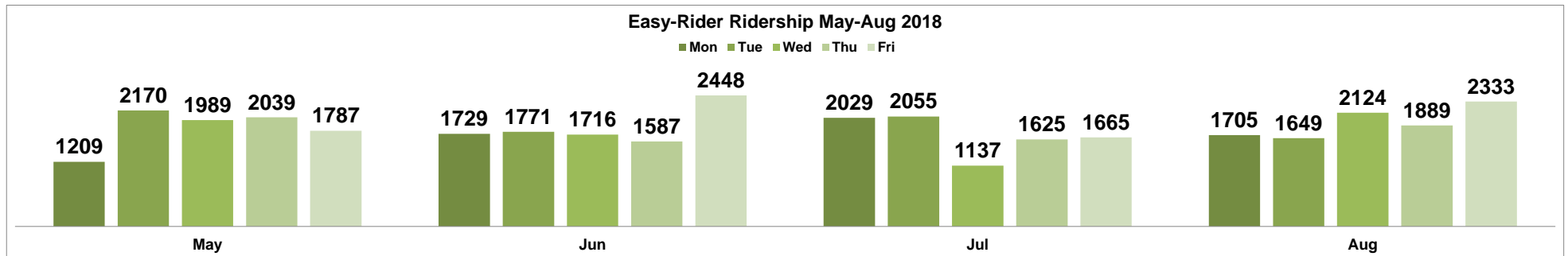
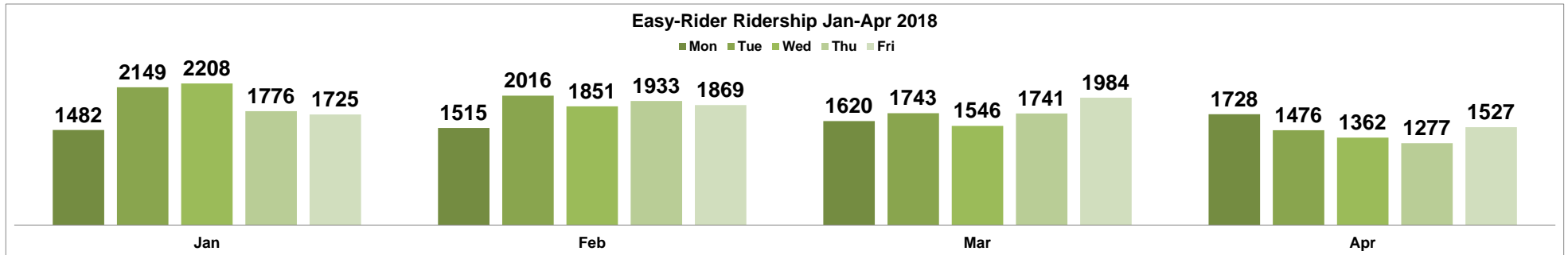
ATT-3: 2019 Approved Vehicle Purchases



	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Monthly Total
January	527	282	313	369	290	302	564	2,647
February	502	365	295	353	284	334	540	2,673
March	498	279	297	330	352	396	654	2,806
April	656	358	325	326	306	322	524	2,817
May	521	305	420	406	407	275	520	2,854
June	515	333	350	322	301	410	680	2,911
July	643	373	353	337	261	299	498	2,764
August	488	312	281	419	393	468	590	2,951
September	525	290	301	339	281	290	622	2,648
October	600	485	470	460	344	391	602	3,352
November	592	379	330	392	323	479	604	3,099
December	734	424	219	314	316	347	701	3,055
Grand Total	6,801	4,185	3,954	4,367	3,858	4,313	7,099	34,577

Easy-Rider Ridership for 2018 - Breakdown by Day of Week

ATT-2



	Monday	Tuesday	Wednesday	Thursday	Friday	Monthly Total
January	1,482	2,149	2,208	1,776	1,725	9,340
February	1,515	2,016	1,851	1,933	1,869	9,184
March	1,620	1,743	1,546	1,741	1,984	8,634
April	1,728	1,476	1,362	1,277	1,527	7,370
May	1,209	2,170	1,989	2,039	1,787	9,194
June	1,729	1,771	1,716	1,587	2,448	9,251
July	2,029	2,055	1,137	1,625	1,665	8,511
August	1,705	1,649	2,124	1,889	2,333	9,700
September	1,247	1,871	1,736	1,602	1,771	8,227
October	1,339	2,038	1,809	1,434	1,577	8,197
November	1,191	1,533	1,326	2,054	1,478	7,582
December	1,429	1,348	1,220	1,173	1,499	6,669
GrandTotal	18,223	21,819	20,024	20,130	21,663	101,859

WORK CENTER	REPLACEMENT/ ADDITION	VEHICLE BEING REQUESTED	APPROVED BUDGET
Painting			
	Replacement	Ford Transit -150	\$ 43,115.00
	Replacement	Ford F250	\$ 41,200.00
	Replacement	Ford F250	\$ 41,200.00
	Addition	Ford Transit 250	\$ 43,100.00
	Addition	Ford Transit 250	\$ 43,100.00
	Addition	Ford Transit Box Van	\$ 43,100.00
	Addition	Ford F-250Flatbed w/ stakes	\$ 41,200.00
	Addition	Ford F-250Flatbed w/ stakes	\$ 41,200.00
	Addition	Ford F-350Flatbed w/ stakes	\$ 66,200.00
	Replacement	Ford Transit	\$ 43,115.00
	Replacement	Ford Transit	\$ 43,115.00
	Replacement	Ford Transit	\$ 43,115.00
	Replacement	Kawasaki mule	\$ 16,750.00
	Addition	Ford Transit 250	\$ 43,100.00
Damage Restoration and Outside			
	Replacement	Ford F150	\$ 43,115.00
Permits and Inspection			
	Replacement	Ford F150	\$ 43,115.00
Carpentry			
	Replacement	Ford F250	\$ 41,200.00
	Replacement	Ford F250	\$ 41,200.00
	Replacement	Ford F250	\$ 41,200.00
	Replacement	Ford F250	\$ 41,200.00
Electrical Appliance			
	Replacement	Ford F250	\$ 41,200.00
Landscape (Tree Crew)			
	Addition	660SJ JLG Telescopic Boom Lift	\$ 90,000.00
	Replacement	Passengar Transit	\$ 43,200.00
Landscape			
	Replacement	Ford F250	\$ 41,200.00
	Replacement	Kawasaki mule	\$ 16,750.00
	Replacement	Kawasaki mule	\$ 16,750.00
	Replacement	Kawasaki mule	\$ 16,750.00
Landscape (Irrigators, Drainage)			
	Replacement	Ford Transit	\$ 43,115.00
	Replacement	Trailer	\$ 16,750.00
Equestrian Center			
	Replacement	Ford F250	\$ 41,200.00
Golf Course Maint. Dept.			
	Replacement	Kawasaki mule	\$ 16,750.00
Paving			
	Replacement	Tralier	\$ 16,750.00
	Replacement	Trailer	\$ 16,750.00
	Replacement	Trailer	\$ 16,750.00
Transportation			
	Replacement	Ford Transit Bus	\$ 110,000.00
	Replacement	Ford Transit Bus	\$ 110,000.00
	Addition	Ford Transit Bus	\$ 110,000.00
	Addition	Ford Transit Bus	\$ 110,000.00
Custodial			
	Addition	Scrubber	\$ 70,000.00
Total		39 vehicles	\$ 1,787,555.00

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Staff Report

DATE: February 6, 2019

FOR: Mobility and Vehicles Committee

SUBJECT: Supplemental Funding to Award Contract for Bus Service Evaluation Study

Recommendation

The Board of Directors to authorize supplemental funding in the amount of \$46,200 to award a contract to Fehr & Peers to study potential changes to Laguna Woods Village bus services that will increase and ridership and improve travel convenience for Residents.

Background

On October 3, 2018, the Mobility and Vehicles Committee discussed the effectiveness of the existing fixed-route Easy Rider and reservation-based Plan-A-Ride services and unanimously voted to authorize issuance of a Request for Proposal (RFP) for a contractor to review bus services. The study will evaluate optimal efficiency and service quality, service delivery methods and alternatives, and equipment. On December 3, 2018, Staff formalized and issued the RFP and received three proposals on December 20, 2018.

Discussion

Upon review, Staff evaluated each proposal for expertise, understanding of community needs, experience with similar transportation systems and cost. After initial review, Staff identified the two top-rated consultants and conducted interviews with their key team members to evaluate their understanding of the project scope and assess each consultant's capacity to work effectively with Residents and Staff.

Upon final review, Staff identified Fehr & Peers as the most qualified consultant to conduct the study. Fehr & Peers has more than 30 years' experience in transportation and transit planning and will coordinate the study from its Irvine office. Fehr & Peers recently completed a similar study for Rossmoor Walnut Creek, a senior adult community that operates a transportation program similar to that of Laguna Woods Village. Rossmoor is very happy with the methodology, community focus and final report Fehr & Peers provided. Rossmoor has instituted Fehr & Peers' recommendations on a trial basis to improve its fixed routes and on-demand bus service. This recent study demonstrates Fehr & Peers' relevant background and experience in developing an applicable plan tailored to the specific needs of our Community.

Fehr & Peers offers Laguna Woods Village a unique and detailed approach to the community transit plan and will focus on the following:

- Facilitating a dialogue about goals and priorities for transit and assisting transit operators in understanding the range of outcomes associated with various approaches to service delivery;
- Using a grassroots approach to community engagement, as successful transportation programs respond to the unique mobility needs of the communities they serve. The

proposed community outreach approach will actively pursue input through a variety of engagement strategies, including in-person surveys and community workshops; and

- Adopting an innovative and realistic approach to service delivery, including collaborating with technology companies to reimagine transit service delivery strategies for clients, yet recognizing that solutions need to fit well with the Laguna Woods Village Community—striking balance between new ideas and technologies and practical applications for Residents.

Fehr & Peers is committed to maintaining an open communication with Staff and the Mobility and Vehicle Committee, proposes to finalize the study by the end of June and plans to present recommendations to the GRF Board at its July 2, 2019, meeting. This allows time to review recommendations and incorporate funding requirements into the 2020 budget process.

Financial Analysis

This study will cost approximately \$46,200 and would require supplemental funding from the contingency fund to proceed. Fehr & Peers is the most qualified consultant based on its recent experience with Roosmoor and other communities, and offers the lowest cost of all three submitted proposals.

Prepared By: Chris Laugenour, Sr. Transportation & Maintenance Manager

Reviewed By: Siobhan Foster, Chief Operating Officer
Betty Parker, Chief Financial Officer

Attachment(s):

ATT-1: Proposal from Fehr & Peers

Proposal to Develop a Short Range Transit Plan for Laguna Woods Village

December 20, 2018

Revised January 24, 2019

Jeremiah LaRose
j.larose@fehrandpeers.com
213.261.3079

Submitted by:

FEHR & PEERS

101 Pacifica
Suite 300
Irvine, CA 92618



January 24, 2019

Chris Laugenour
Laguna Woods Village
24351 El Toro Road
Laguna Woods, CA 92637

Subject: Proposal to Develop a Short Range Transit Plan for Laguna Woods Village

Dear Chris:

We are excited to submit the proposal to develop a Short Range Transit Plan for the Laguna Woods Village (LWV). We have recently completed a similar study for the Rossmoor community in Walnut Creek, CA, which operates a similar transportation program. We're familiar with the Laguna Woods Village area with an office in nearby Irvine and several staff members who live in the area. Our firm offers a unique approach to community transit planning focused around:

- *Facilitating a dialogue about goals and priorities for transit* – We have assisted a range of small- and mid-sized transit operators in understanding the range of outcomes associated with various approaches to service delivery. Guided by a strong understanding of travel markets and ridership, we will undertake a collaborative effort with LWV to develop an implementable plan that is tailored to the unique needs of the community.
- *A grassroots approach to community engagement* – Successful transportation programs respond to the unique mobility needs of the communities they serve. Our proposed community outreach approach will actively pursue input through a variety of engagement strategies, such as in-person surveys and community workshops, to build consensus around transit service enhancements.
- *An innovative and realistic approach to service delivery* – We have collaborated with several technology companies (such as Lyft and Chariot) to reimagine transit service delivery strategies for our clients. Yet, we recognize that our solutions need to fit well with the community at Laguna Woods Village – seeking a balance of new ideas and technologies and practical application for the residents.

We appreciate this opportunity to submit our proposal. I am an official authorized to offer, negotiate, and execute contracts on behalf of Fehr & Peers. This proposal represents a firm offer in effect for 90 days. If you have any questions about our proposal, please contact Jeremiah LaRose, our proposed project manager, at J.LaRose@fehrandpeers.com or by phone at **(213)-261-3079**.

Sincerely,

A handwritten signature in blue ink, appearing to read "Steve".

Steven J. Brown, P.E.

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1. Overview and Summary

Project Understanding

Fehr & Peers is excited to help Laguna Woods Village (LWV) evaluate potential changes to its bus services in the community, which is located in Laguna Woods, California. This section summarizes our understanding of the existing Laguna Woods Village transit services based on our local knowledge, review of available data, and conversations with the operating staff.

Purpose of the Study

The LWV seeks to develop a Short Range Transit Plan (SRTP) that will increase efficiency, grow ridership, and improve convenience of travel for residents. The SRTP will evaluate optimal efficiency and quality of service, service delivery methods and alternatives, and equipment. The study will evaluate all current services – the fixed-route ‘Easy Rider’ and the reservation-based ‘Plan-A-Ride’ service – and determine how these services support and overlap one another.

Understanding of Current Services

The Easy Ride and Plan-A-Ride transportation program provides mobility to over 16,000 residents in the Laguna Woods Village retirement community. The Easy Rider service carried an average of 1,780 riders monthly in 2018 (through August, based on data provided by Laguna Woods Village). Easy Rider serves four neighborhoods with an ‘East’ and ‘West’ route to provide a simplified



service concept for residents. Service operates 9:00 AM to 5:00 PM Monday through Friday.

Previously, the service operated included 11 routes, which were reduced for budgetary reasons, simplified, and rebranded with the current Easy Rider branding. With any potential reconfiguration of service, community support and clear understanding of the new service are a high priority.

A reservation-based service known as 'Plan-A-Ride' supplements the fixed-route network. It expands the hours of availability for transportation services and provides a greater level of service for those with special travel needs. Plan-A-Ride is available on Saturdays, Sundays, and holidays in addition to weekdays beginning earlier and ending later than the Easy Rider schedule. Reservations are made by phone and Laguna Woods Village employs a customized dispatching software that matches trip requests to pair customers together when possible.

Recently, the popularity of the Plan-A-Ride option is increasing for travelers who might otherwise be able to use the Easy Rider service. Demand for door-to-door transportation services is increasing nationwide and straining capacity of service providers, while fixed-route options often have capacity available. Although these services are intended to be complementary, they are in some ways competing for limited resources.

Summary of the Proposed Approach

The following section summarizes the conceptual and technical foundation behind our proposed approach. A detailed work plan is provided in Section 2.

Understanding Tradeoffs

Laguna Woods Village seeks to evaluate transportation program improvements that will increase ridership potentially by improving service convenience, reducing the transfers and wait times, while operating as efficiently and cost-effectively as possible. In transit planning, we call these the ridership and coverage goals:

- The **Ridership Goal** seeks to maximize transit ridership and productivity by focusing services in areas of highest demand – where are the most people coming from and going to?
- The **Coverage Goal** seeks to maximize the accessibility of transit services across a service area, ensuring that as many people as possible have the opportunity to take transit from their home and reach as many destinations as possible within the service area

Given fixed transportation resources, achieving both goals can be challenging, and tradeoffs are often required. Today's Easy Rider service maximizes coverage, with service on nearly every street in each neighborhood and direct connections to either of two commercial areas. The service is highly accessible to all residents, but riders boarding at the beginning of a route must wait longer to

reach a popular destination at the end, or must be savvy enough to transfer routes at the right opportunity. Moreover, passengers must plan their daily schedules around hourly timetables and short spans, rather than enabling the freedom to rely on transit for more spontaneous or unplanned trips.

Maximizing ridership and productivity above all else would result in a network design that differs substantially from today's service. Frequent service is critical to attracting ridership, so a ridership-oriented service would provide service every 15 minutes or better along key corridors throughout the day. Assuming resources are not available for all routes to run every 15 minutes, this could require a trade-off with service coverage – not all routes or areas could be served every 15 minutes, which could leave some areas with little or no service.

There are strong reasons to design systems around either the Ridership or Coverage goals, and there are no right answers in choosing to allocate resources between the two. Moreover, alternative service delivery methods like the increasingly popular Plan-A-Ride may present opportunities to achieve a better balance for customers, and technology enabling services like Lyft and Uber present new possibilities for cost-effective door-to-door service. Our role in this process is to help facilitate a clear dialogue with the Laguna Woods Village community and Board to design a transportation program that reflects its values and arrives at the right balance between these goals.



Facilitating a Community Dialogue

We are proposing an extensive community engagement effort to facilitate a community dialogue surrounding the key transit choices. This dialogue will provide a better understanding of the role of transit among the residents, as well as the tradeoffs associated with different transit service strategies. We understand the critical importance of reaching as many people in as many places as possible, and have proposed an outreach approach that seeks input in a wide variety of settings. Through this study, the Laguna Woods Village community will be encouraged to address the following choices:

- What factors would interest current non-riders in choosing to use the Easy Rider service?
- What kinds of services (fixed route, demand-responsive, technology-enabled, and/or paratransit) meet the needs of Laguna Woods Village residents?
- How should Laguna Woods Village balance its service between ridership and coverage goals?
- How important is Saturday, Sunday, and weekday morning/evening service relative to core weekday service?
- How much service is right for Laguna Woods Village?

Supplemented by our technical analysis, our goal is to help the Laguna Woods community understand and evaluate these choices and create a transit system tailored to its unique needs.

Looking Toward the Future

The field of transportation is changing rapidly as the technology, demographics, and economics of mobility evolves. Ride-hailing services like Uber and Lyft are reshaping how we travel by increasing the availability of relatively affordable, on-demand solo and shared rides. Public transit agencies are exploring technology-enabled on-demand services of their own, and partnerships with companies like Lyft to support their paratransit services. On-demand delivery services like Instacart and Postmates are reducing the need to run errands.

Fehr & Peers is at the forefront of this evolution. We partnered with Lyft to launch one of the nation's first on-demand shared ride services in Centennial, Colorado. We also partnered with Chariot to launch a demand-responsive shuttle service in Hayward. Our FP Think group directs research and development efforts to ensure our technical capabilities and relationships stay ahead of these changes.

Most importantly, we recognize that not everyone has been included in this changing landscape. In particular, seniors' needs must be considered in terms of smartphone use, willingness to try new services, and personal mobility challenges. The Rossmoor community in Walnut Creek was proactive in bridging this divide with a collaboration with GoGoGrandparent to provide more accessible and affordable Uber service within their community. Our SRTP approach will continue to critically

examine the opportunities, challenges, and possible solutions for using technology-enabled mobility services.

Lyft and Uber Want To Give Old Folks a Ride

Older adults miss doctor's appointments and risk social isolation because they lack transportation. Ride-hailing services are taking notice.



Past headline in Smithsonian Magazine

Transit is our Passion

We understand the tremendous benefits that great transit can bring to Laguna Woods Village. Transit provides freedom to travel places for people of all ages, abilities, and means. It supports lively, active, prosperous, and sustainable communities, and enables people to maintain a high quality of life. We genuinely enjoy facilitating the

process of transit network design and are excited to help the community develop a system that reflects its values.

Organization of the Study Effort

We have developed a work plan tailored to the unique needs of the Laguna Woods Village community. This approach intends to be fully responsive to the Scope of Work defined in the Request for Proposals, and based on our experience on previous projects. We would be pleased to further refine our approach and organization with input from Laguna Woods Village.

Our project manager will be Jeremiah LaRose, a Senior Transportation Planner at Fehr & Peers. Jeremiah has worked with transportation providers throughout California, including the nearby iShuttle network in Irvine, and presently for the Clean Air Express bus service in northern Santa Barbara County. Prior to joining Fehr & Peers, Jeremiah was the general manager and director of planning for COAST, a public transit agency in southeastern New Hampshire serving 14 cities and towns with both fixed-route and demand-response transit. Jeremiah will be supported by a team of transportation experts, including Steve Brown, who will serve as Principal-In-Charge, Daniel Jacobson, who will provide technical expertise based on his recently-completed transit study for the Rossmoor community, and Jessica Johnson, who will serve as lead planner. Both Daniel and Jessica have prior experience in public transit service operations and planning as well.



2. Detailed Work Plan

Task 1: Kickoff and Project Coordination

Task 1 summarizes our project management and coordination activities. Additional details on our management program can be found in Section 3.

Task 1.1 Kickoff Meeting

At the project outset, Fehr & Peers will facilitate a kickoff meeting with Laguna Woods Village staff. The kickoff meeting will address a variety of topics, including the proposed project work plan and schedule, data needs, the role of transit at Laguna Woods Village, goals and objectives, and desired outcomes of the SRTP. In advance of the kick-off meeting, the Fehr & Peers team will prepare a data needs list to expedite the data collection process.

We expect the kickoff meeting to highlight key opportunities, challenges, and tradeoffs for further analysis in this study, such as: the importance of maximizing ridership and efficiency versus maintaining coverage across Laguna Woods Village, or the need to target improvements to better serve existing riders versus attracting new riders.

We also understand that perception can be a key challenge for transportation services, in many different ways. For example, a seemingly small population of residents likely use the service heavily, while the majority of residents may use it very infrequently or not at all – what are the perceptions that contribute to the distinction between these groups? Another example is the

perception of service efficiency – with all buses departing from a single location simultaneously each our, the service may actually be aligned very efficiently to meet its current goals. However, to those unfamiliar with the service, this may seem wasteful as surely not every bus is full of riders each time. During the kick-off meeting process we'll explore staff perceptions and goals, and how those may differ from other stakeholders in the program including the Laguna Woods Village Board and the general residential population. This will inform key areas to address throughout the study.

Task 1.2 Project Coordination

Project coordination beyond the kickoff meeting will be designed around the preferences and availability of Laguna Woods Village staff. We have assumed participation in about four to six coordination meetings or calls totaling eight hours to discuss study progress, milestones, and deliverables. At the outset of this task, we will establish a list of data needs for the following tasks and submit to Laguna Woods Village staff. The data needs would include ridership, operating statistics, and operating expenses in order to evaluate the service as described in Task 2 and evaluate alternatives in Task 3. We'll also seek any prior evaluation data, including past service studies (if any), rider or resident surveys,

Task 1 Deliverables

Kickoff Meeting & Eight Hours of Coordination
Goals and Objectives Chapter



Task 2: Transit Choices

Task 2 will synthesize available data and surveys on the Laguna Woods Village transportation program to serve as the foundation of the network development and evaluation process (Task 3). We will analyze existing conditions, travel markets and projections, service performance, and rider and community perceptions of the Laguna Woods bus system through the following process.

Task 2.1 Market Analysis

Fehr & Peers will evaluate existing and potential travel markets for Laguna Woods Village bus services. The market analysis will be based upon a robust community outreach process supplemented by a review of demographics, trends, and other available data.

Community Engagement

We will survey the Laguna Woods community on key choices and priorities for their shuttle system. The survey will focus on where residents want to travel and when, and test their perceptions about travel by scheduled bus to determine what factors residents are willing to consider for riding the bus. At present, likely a very small fraction of residents use the service regularly, and so key lines of investigation are resident awareness and familiarity with the current offerings. The survey will also evaluate willingness/ability to use technology-enabled services like Uber and Lyft.

We recognize the need to engage as many people in as many places as possible. Therefore, our grassroots approach actively seeks community input via a variety of formats, including:

- **Event Outreach** – We will conduct outreach and surveys at a community transportation workshop. The event should be held in a place and time where many residents, especially non-riders, are likely to congregate. The workshop format will be developed with Laguna Woods Village staff to best suit the style of the intended audience.
- **Surveys** – We will develop a paper (if desired) and web-based survey for dissemination via Laguna Woods Village resident communication channels. News, flyers, email, the Laguna Woods Village website, NextDoor forums, and social media, are possible avenues. We will also conduct on-board surveys for Easy Rider and Plan-A-Ride customers.

Survey analysis will distinguish between existing regular riders, occasional riders, and never (or almost never) riders to assess how priorities align or differ between groups. Paratransit riders will be asked a special subset of questions to assess their needs, including the reason(s) for using paratransit service, the need for wheelchair accessible vehicles, and whether or not they also use regular transit or other ride services.

Survey results will play a key role in evaluating the performance of existing services (Task 2.3) relative to Laguna Woods Village's goals and objectives.

Task 2.2 Service Analysis

In tandem with Task 2.1, Fehr & Peers will evaluate the existing bus service, including ridership, reliability, adequacy of fleet and facilities, and community feedback.

Ridership and Reliability Analysis

A ridership and service reliability analysis will rely as much as possible on data provided by Laguna Woods Village. Reliability – how regularly buses arrive and depart at the scheduled time – can be a key factor in potential riders choosing to use or continue using the service. Reliability analysis can be conducted based on data that Laguna Woods Village may deliberately collect depending on the operation, or using technology on the vehicles such as GPS. Fehr & Peers will conduct limited observations of fixed-route trips on a typical weekday to supplement the data, and would be augmented by interviews with operating staff (below).

If additional data collection is needed (depending on the operations data available from LWV), Fehr & Peers will work with the Laguna Woods Village and bus operators to develop a travel log methodology to be administered by bus operators and dispatchers for paratransit and Plan-A-Ride services. This survey effort will document passenger boardings and alightings, passenger loads, and passenger wait times.

Bus Operator Focus Group

Fehr & Peers will conduct a focus group interview with bus operators to discuss key issues and observations. Potential conversation topics may include: ridership patterns, schedule adherence, reliability, and recovery time, safety of routing and passenger boarding and alighting, accommodation of mobility-impaired passengers, and Plan-A-Ride operations. The focus group interview will be conducted by Jeremiah LaRose, who has 11 years' experience as a commercial vehicle-licensed public transit bus operator including in paratransit and senior transportation contexts.

Rider and Community Engagement

Fehr & Peers will conduct surveys of existing and potential riders regarding Laguna Woods Village transportation services as detailed in the previous task (Task 2.1). In balance with the other needs for community engagement, the survey will include questions regarding the operation and reliability of service, assessing perceptions of riders and non-riders in contrast with one another.



Task 2.3 Performance Evaluation & Key Choices

Building upon Tasks 2.1 and 2.2, Fehr & Peers will evaluate the performance of fixed route, Plan-A-Ride, and paratransit services relative to community and rider needs, ridership potential, and Laguna Woods Village goals and objectives. We will analyze the following performance metrics:

- **Productivity** – ridership, passengers per hour, and passengers per mile
- **Mobility** – frequency, service span, travel time, and on-time performance
- **Accessibility** – including coverage of residences and destinations
- **Cost-Effectiveness** – including cost per boarding

Existing performance will be compared to study goals and objectives, as well as community and rider feedback to identify opportunities and challenges. Based on this comparison, we will summarize key choices for the Laguna Woods bus system to inform the network concept development and evaluation process (Task 3).

Task 2 Deliverable:

Transit Choices Chapter

Choices Survey, Two Outreach Events, and Focus Group



Task 3: Network Concept Development & Evaluation

Following the completion of the Transit Choices assessment (Task 2), Fehr & Peers will develop, evaluate, and refine network concepts to arrive at a preferred alternative.

Task 3.1 Concept Development

Fehr & Peers will prepare up to three network concepts to illustrate alternative approaches to system operations. These concepts are intended to provide fully operational systems within a given budget to further the community dialogue, but are not yet intended to be formal proposals. Based on an initial review of the Laguna Woods Village bus network and study goals, these alternatives could include:

- **Optimize coverage** – Improve upon the existing service framework based upon community, operator, and Laguna Woods Village input.
- **Maximize productivity** – Consolidate service frequency along the highest ridership corridors.
- **On-demand** – Shift to a fully on-demand service via some combination of ride-hailing services (Uber, Lyft, etc.), ridematching, on-demand deliveries, and paratransit.

Each concept may serve a similar geographic area over a similar span, or concepts may differ between internally-

focused and externally-focused systems, or between service delivery methods.

The concepts presented will also consider the potential effects and trade-offs with the Plan-A-Ride program. Without changes to policy and eligibility, the less direct the Easy Rider routes are for residents interested in transportation services, the more potential riders will try to book trips on Plan-A-Ride. Fehr & Peers will align concepts for both services based on the outcomes of the transit choices.

In order to evaluate these effectively for the community engagement (below), they must be developed enough to have considered the operation from the rider perspective – including navigating from home to common destinations, and any potential wayfinding and branding changes that might be required. Fehr & Peers will sketch these out at a draft level and consider how to clearly explain the concepts in contrast with the existing service.

Potential Age Well Services Partnership

As part of the concept development, Fehr & Peers will provide a qualitative evaluation of the opportunities for partnering with Age Well Services, a senior and non-emergency medical transportation provider also operating in the area. Fehr & Peers will facilitate discussions between VMS staff and Age Well staff for up to two meetings. Our report will incorporate considerations for partial or full operation of Laguna Woods transportation services by Age Well.



Task 3.2 Concept Evaluation

Fehr & Peers will evaluate each network concept through community input and technical analysis using a methodology similar to that of Task 2.

Community & Rider Engagement

We will conduct a second round of community and rider engagement to solicit feedback on the proposed network concepts. This second round of community input is envisioned as another workshop, with an interactive component that gathers comment and feedback directly from the residents on the concept. Fehr & Peers will develop a clear and simple presentation to lay the foundation of the study, and underscore the purpose of the workshop to present concepts and receive community feedback before final plans are made.

Fehr & Peers will seek feedback from participants not only on the concepts themselves, but the apparent ease of understanding and usability. These concepts can be challenging to quantify, but are clearer when speaking directly with potential customers based on the way that they interact with the information being presented. We will pay close attention to the audience's grasp of the concepts and whether the trip-making choices and possible wayfinding changes are clear. We will ask quantifiable questions as much as possible and incorporate these with qualitative observations of the audience reception.

Performance Evaluation

We will evaluate the projected performance of each alternative using qualitative and quantitative measures in a manner consistent with Task 2.3. The performance evaluation will include conceptual estimates of cost, ridership, and other relevant metrics.

Task 3.3 Preferred Concept

Based on the results of Task 3.2, we will work with Laguna Woods Village to select and refine a preferred service concept.

Task 3 Deliverable: **Network Evaluation Chapter** **Concepts Survey**

Task 4: Strategies for Ridership

Regardless of the service concept selected, a transportation program success is driven by more than good design. People must understand the service being offered, and it must have some value to them over other alternatives. Fehr & Peers recently completed a major study in Los Angeles County evaluating the factors that influence people's choice to ride transit and what strategies agencies large and small can employ to attract new customers, retain existing riders, and regain past customers. We will develop strategies for Laguna Woods Village to maximize the resident utilization of the transportation program, even if no changes were ultimately made to the service itself.

Strategies that would fit Laguna Woods Village will be derived from the community engagement elements, survey responses, and outreach to the bus operations staff. For example, if awareness of how to use the Easy Rider service were lower than expected, Fehr & Peers would develop strategies to improve resident awareness such as "Meet a driver" events where a real Easy Rider driver would be available to meet and answer questions with residents at various events that already happen and have regular attendees.

Perhaps most importantly, the Preferred Concept for service changes must be communicated effectively to all residents. Current riders must understand how their service is or is not changing. For non-riders, this is an opportunity to market the service again to a population

that isn't choosing to use the current service. In either case, it can be a logistical challenge to ensure that everyone is aware of the new service, when it begins, and that outdated information is thoroughly scrubbed from any resources residents may seek out and replaced with familiar but clearly different information. For senior communities, it also often requires extra coordination to get the right word-of-mouth information flow so that staff throughout Laguna Woods Village, and likely even employees at the retail destinations, are fully aware of *when* and *how* service has changed, or at the very least that it is and who to direct the customer to for the latest information. A smooth rollout with clear information can make all the difference in acceptance of service changes, and potentially generate positive word-of-mouth to attract new customers. Fehr & Peers will incorporate a set of strategies specific to new service rollout.

Task 4 Deliverable: **Strategies for Ridership Chapter**



Task 5: Implementation Plan

Fehr & Peers will prepare an implementation plan to execute the preferred service concept in Task 3.3. The implementation plan will include a summary of operations, capital improvements, marketing, and funding:

- **Operations Improvements** – Changes to schedules and service delivery
- **Capital Improvements** – Changes to facilities, bus stops, and vehicle needs
- **Marketing and resident engagement strategies** – Methods of disseminating information and publicizing services to non-riders
- **Operating Cost** – Evaluation of the proposed service hours and levels in comparison with the existing budget

The implementation plan will pay special attention to how to optimize paratransit service around the preferred bus service alternative. No matter what network changes are pursued, we assume that some kind of paratransit service will persist.

The SRTP will provide a written and graphical summary of the proposed route network, including conceptual estimates of annual operating hours, costs, ridership potential, service coverage, bus stops (if changed as part of the preferred concept, and vehicle needs, strategies for marketing the system to residents, and a review of the cost implications.

We anticipate the report will include the following sections:

1. Introduction	Goals and Objectives
2. Transit Choices	Market Analysis Service Analysis Performance Assessment Key Choices
3. Alternative Concepts	Concept Development Concept Evaluation
4. Preferred Concept	Projected Performance and Cost
5. Implementation	Operations Improvements Ridership Strategies & Marketing Funding

We will provide a Draft SRTP to the Laguna Woods Village and incorporate one round of consolidated comments into a Final SRTP. We will present the final report to Laguna Woods Village board.

Task 5 Deliverables:

Draft Five Year Operating and Capital Plan
Final Five Year Operating and Capital Plan
Presentation to Laguna Woods Village Board






Proposed Project Schedule

We are proposing a six month schedule to execute the SRTP scope of work following contract award and the kick-off meeting. We are committed to delivering the SRTP in a timely manner and we welcome the opportunity to modify this schedule based on the needs of Laguna Woods Village. The months shown on the example schedule below would reflect the actual project kick-off.

In consideration of Laguna Woods Village budget cycle, Fehr & Peers will phase in earlier the tasks related to the future network concepts to inform the upcoming year budget development. The final report and development of ridership strategies task can follow the network concepts development without substantial effect on near-term budget projections. The final project presentation would follow the draft report and will be scheduled to fit the regular meeting schedule of the Board or other appropriate committees.





	Mar	Apr	May	Jun	Jul	Aug
Task 1: Kickoff & Coordination	 Kick-off Meeting (Staff)					
Task 2: Transit Choices	 Community Meeting	 Bus Operations Focus Group				
Task 3: Network Concepts			 Community Input			
Task 4: Strategies for Ridership						
Task 5: Implementation						 Presentation to Board

Cost Proposal

The following table describes our approximate level of effort by staff and task. Our project team has been kept small to ensure efficiency, familiarity, and commitment to the project. Our proposed price for this scope of work is \$46,800. Should the scope of work change, a project amendment may be necessary. Additional work can be completed on a time-and-materials basis at our regular billing rates.

Labor Allocation and Cost Proposal								
Task	Description of Work	Steven Brown Principal	Jeremiah LaRose Project Manager	Daniel Jacobson Technical Advisor	Jessica Johnson Planner	Graphics and Administrative Support	Hours by Task	Total Labor by Task
1	Kick-Off and Coordination	4	12	0	8	4	28	\$4,800
2	Transit Choices	6	24	4	12	12	76	\$10,670
3	Concepts and Evaluation	4	24	4	40	24	96	\$13,320
4	Strategies for Ridership	2	16	2	16	8	44	\$6,720
5	Implementation	2	16	2	16	12	48	\$7,280
Total Hours		18	92	12	92	60	274	
Total Labor								\$42,790
Direct Costs -								\$4,160
Project Total								\$46,800



3. Management Program

Organization

Fehr & Peers considers each potential assignment carefully, and only pursues projects to which we can commit the appropriate time, effort, and resources to provide excellent service. We are able to offer a small, dedicated, responsive team for this project, and can supplement it as-needed from our large pool of companywide resources. Our proposed project manager, Jeremiah LaRose, is committed to impeccable client service and quality control. Jeremiah will serve as the primary point of contact for this study and will involve other staff as needed. Our Principal-In-Charge, Steve Brown, will provide oversight, guidance, and familiarity with the Laguna Woods Village community.

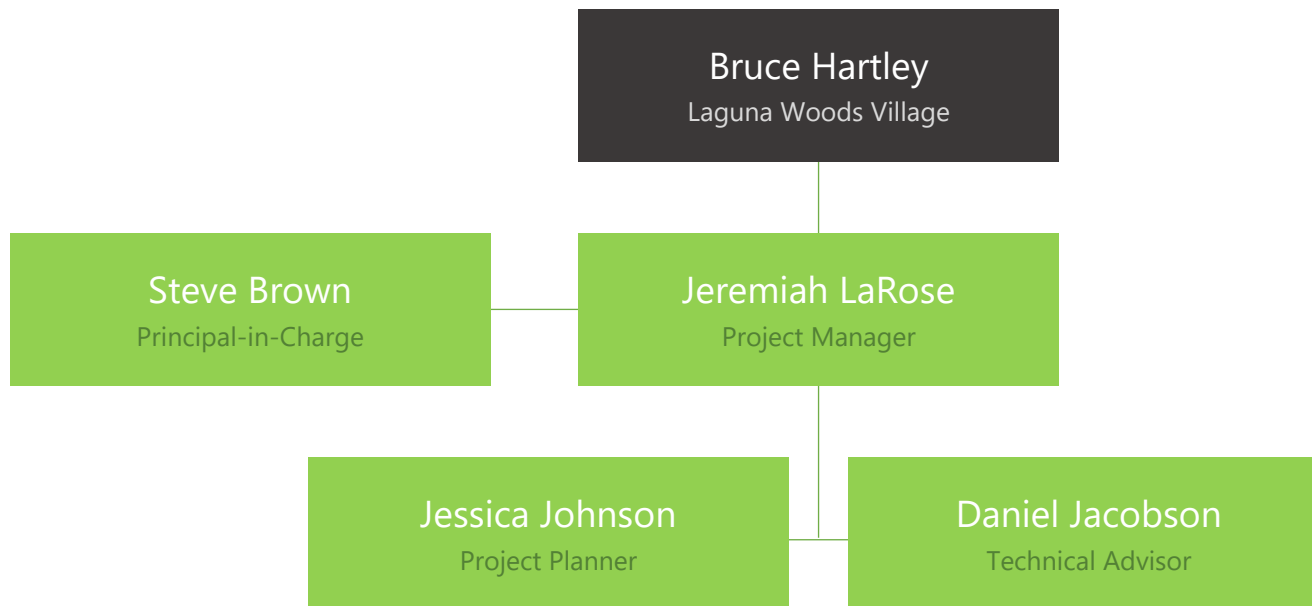
Fehr & Peers will work with Laguna Woods Village staff to identify expectations at project onset. By communicating clearly from the beginning, we are able to create a schedule, budget, and set of deliverables that works for all involved.

Included in this proposal are resumes for the core planning team anticipated to work regularly on the project, as well as staff whose role will be to support the outreach events. The team supporting outreach events will be made up of members of the Fehr & Peers Irvine office who are experienced with public engagement, and will have an opportunity to meet and work with VMS staff in advance of the outreach event.



Staffing

Our staffing plan for this project is composed of passionate planners and engineers with the expertise and knowledge necessary to work with Laguna Woods Village and the Laguna Woods community to create a technically rigorous, innovative, and implementable SRTP. Our team members are specialists in bus and paratransit planning and community engagement, while also offering an interdisciplinary perspective in traffic engineering, bicycle and pedestrian safety, and complete streets design. Our small project team will ensure a level of efficiency, familiarity, and commitment to the project.



4. Professional Services Agreement

Requests & Comments

Fehr & Peers has reviewed the Form Agreement provided in the RFP and requests the following changes. Fehr & Peers contract review officer can provide additional justification by request.

P 3, §1.3 Performance to Satisfaction of VMS:

Change Requested:

“Consultant agrees to perform all the work ~~to the complete satisfaction of VMS in accordance with the applicable standard of care, and within the hereinafter specified. Evaluations of the work will be done by VMS.~~ If the quality of work is not in accordance with the standard of care satisfactory, VMS in its discretion has the right to:

Meet with Consultant to review the quality of the work and resolve the matters of concern;

(a) Require Consultant to repeat the work at no additional fee until it is satisfactory in accordance with the standard of care; and/or

(b) Terminate the Agreement as hereinafter set forth.”

Reason for Change: The duty of a professional is to perform its services with the skill and care that a reasonably careful [insert type of professional] would have used in similar circumstances. This is the standard of care. Whether or not a professional met the standard



of care is determined by neutral expert witnesses and not by clients. Any language that seeks to raise the customary standard of care indicates that we are to be judged by far more than the ordinary standard of practice. Not only does this increase our risk, but our professional liability insurance will not cover us for this increased exposure, since it represents an assumption of additional liability for which we would not otherwise be responsible.

P 10 §6.16:

“Consultant shall be responsible for its work and results under this Agreement. Consultant, when requested, shall furnish clarification and/or explanation as may be required by the Corporation's representative, regarding any services rendered under this Agreement at no additional cost to Corporation. In the event that ~~a negligent~~ error or omission attributable to Consultant occurs, then Consultant shall, at no cost to Corporation, provide all necessary design drawings, estimates and other Consultant professional services necessary to rectify and correct the matter ~~to the sole satisfaction of Corporation~~ and to participate in any meeting required with regard to the correction.”

Reason for Change: In line with our indemnity obligation, we would only pay for the costs to rectify non-conforming services, if we are negligent in the performance of our services, and not for just any error or omission that is not to Corporation's satisfaction. There has to be a negligence threshold to establish a definition for non-conforming services.

5. Qualifications & Resumes

About Fehr & Peers

Fehr & Peers is a multi-modal transportation planning and engineering firm headquartered in Walnut Creek, serving Orange County with three offices throughout Southern California. For over 30 years, we have used the latest research and innovative technology to engage and improve communities through our projects, using our knowledge to develop implementable plans and policy that address the needs of all transportation system users.

Fehr & Peers is recognized as a national expert in transit planning. We specialize in system plans, alternatives analysis, access plans, efficiency/optimization studies, and interface with emerging technologies (e.g. Uber, Lyft, and autonomous vehicles). We have prepared planning, ridership, conceptual station/stop design, paratransit strategies, and operations analysis in a range of environments. We have recently conducted short range transit plans for a number of small- to mid-sized operators such as Eureka Transit, the Emery Go-Round, Oakland B Shuttle, Palo Alto Shuttle, and City of Hayward.

“Our mission is to empower every employee to develop effective and innovative transportation solutions that
improve communities”



Project Qualifications

Laguna Woods Village presents a somewhat uncommon, but not unfamiliar challenge to Fehr & Peers as a populous and active retirement community. We've recently completed a similar study for the Golden Rain Foundation at Rossmoor in Walnut Creek, CA. Although both communities are built for residents aged 55 and up, there are unique qualities and local context that is specific to Laguna Woods Village. We'll call upon our experience with the Rossmoor study to guide us, but begin this study with eyes wide open for its own character and the needs and opportunities of the residents at Laguna Woods Village.

Local Experience

Fehr & Peers offers extensive local experience in Orange County. Two recent transit planning efforts, the **Irvine iShuttle Transit Plan** and the **Spectrum Shuttle Plan**, exemplify our approach to developing transit solutions that are appropriate to the local context and intended audience – each of these projects needed to best serve a specific population, and explored the balance of efficient operations with serving the most potential for ridership. In each project, we evaluated the existing service, the potential market for existing or potential services, developed new route proposals, and studied their opportunities and challenges in comparison with the current offerings.

Transit and Paratransit Experience

Fehr & Peers offers extensive transit and paratransit experience beyond Orange County as well. We have recently completed numerous service plans for small to mid-sized operators including the **Rossmoor Short Range Transit Plan**, **Eureka Transit Short Range Transit Plan**, the **Palo Alto Shuttle**, Oakland's **Broadway B Shuttle**, Emeryville's **Emery-Go-Round**, San Francisco's **Park Merced Shuttle**, Santa Clara's **Great America Shuttle**, Irvine's **iShuttle**, and future bus line ridership forecasting for **Culver City Bus** and **Santa Monica's Big Blue Bus**. Each of these plans provides a review of existing performance and potential network enhancements, including travel markets, ridership, costs, and capital improvements in a technically-rigorous yet accessible community-oriented format.

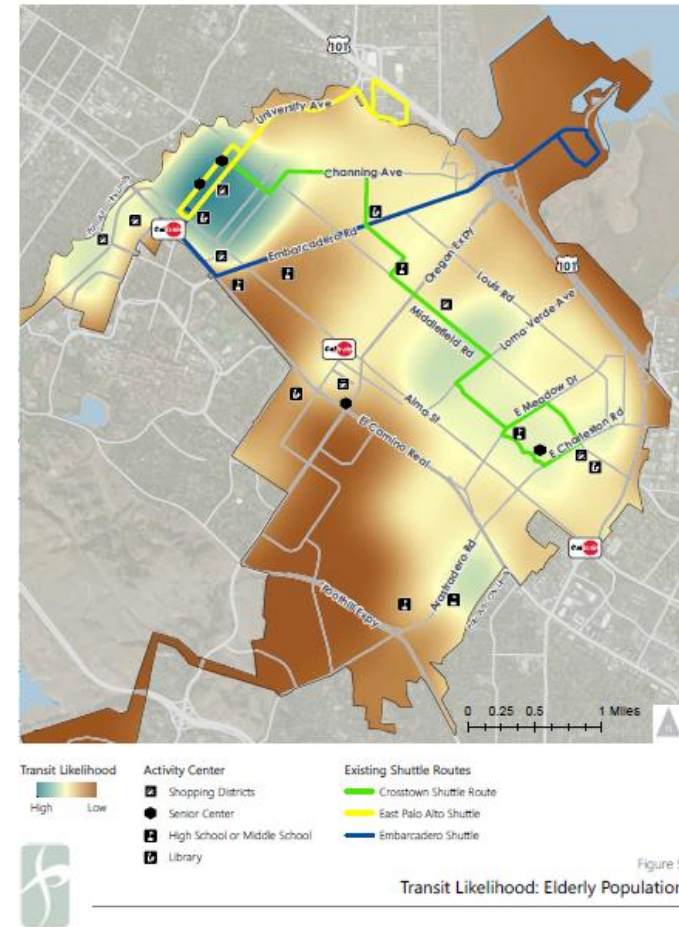
We offer transit analyses tailored to the unique needs and context of the communities we serve. The **Hayward Shuttle Feasibility Study** examined opportunities to provide shuttle service across the City of Hayward. After analyzing travel markets, ridership, and costs of implementing a service, we determined that a traditional shuttle service would not provide the productivity and responsiveness that the City sought to achieve. We facilitated a conversation with Chariot, a new technology-enabled, demand-responsive shuttle operator, which was

able to offer a more appropriate service. The City and Chariot plan to launch the shuttle service later this year.

Fehr & Peers recently completed a highly-unique study in collaboration with 17 public transit operators in Los Angeles County, including Metro and most of the sub-regional agencies. The **Ridership Growth Action Plan** evaluated data from all 17 agencies, trends across the County, and national research to understand what factors have influenced the national decline in transit ridership since 2013. Our final product included 38 strategies for recruiting new customers, reclaiming past customers, and retaining existing customers. Agencies can employ these strategies in combinations that best suit their service area and priorities. Most importantly, we worked closely with the leaders of these agencies to develop priorities and plans to continue the collaboration sub-regionally and County-wide to build and sustain a new foundation of transit riders.

Senior Transportation Experience

Our experience working with senior transportation needs spans the spectrum of our work, including transit service and access plans, pedestrian safety assessments, mobility plans, and development studies. In addition to the previously mentioned Rossmoor Short Range Transit Plan, Fehr & Peers recently engaged in an innovative transportation study for seniors in northern Colorado, the **Larimer County Senior Transportation Needs Study**. We analyzed opportunities to improve mobility, convenience, safety and ease of transportation options for



Transit likelihood analysis for seniors served by the Palo Alto Shuttle



seniors in the region, who encounter a lack of transportation options, infrequent transit services, and limited pedestrian facilities. We are leading a public outreach process to assess ways to better serve seniors with convenient, intuitive and safe transportation services, including considerations of new technology-enabled services like Uber, Lyft, and Instacart. We are preparing recommendations, priorities, and conceptual cost estimates for publication in a final report.

Innovative Project Experience

Fehr & Peers is a leader in innovative transportation projects that take advantage of emerging technology-enabled transportation services. In Centennial, Colorado, we led the development of the **Go Centennial Project**, the nation's first fully subsidized first- and last-mile ridesharing program, a public-private partnership between Lyft and the City of Centennial. Launched in August, 2016 the program is designed to help commuters get to/from their origins/destinations to the Dry Creek light rail station in Centennial, Colorado. We have since evaluated similar programs, such as **Go Dublin** in the Bay Area. The **Rossmoor Short Range Transit Plan** ultimately included recommendations to pilot a hybrid smartphone/traditional call-in on-demand service. The pilot launched this December with a resident training program.



Work Samples

We have included links to work samples below that demonstrates the breadth of our capabilities in technical analysis, community engagement, and visual communications. Additional work samples are available upon request.

Rossmoor Transit Recommendations:

<http://www.rossmoornews.com/wp-content/uploads/2018/02/RMN-02-28-18.pdf>

Rossmoor News coverage of the Board discussion on proposed on-demand service pilot (February 28, 2018)

City of Palo Alto Shuttle Study:

<https://www.cityofpaloalto.org/civicax/filebank/documents/43758>

Relevance: Technical analysis for shuttle fleet similar in size and operational characteristics to Rossmoor

References

The following clients can share their experiences working with Fehr & Peers. Additional references are available upon request.

John Boslet
The Irvine Company
949-720-2329

jboslet@irvinecompany.com

*Reference for project
management, shuttle studies
and route planning, local
experience*

Judith & Mark McCourt
Redhill Group
(949) 752-5900

jmccourt@redhillgroup.com

*Reference for project
management, transit market
evaluation and ridership
strategies, community
outreach*

Jeff Matheson
Golden Rain Foundation
(925) 988-7712
JMatheson@rossmoor.com

*Reference for senior
transportation planning,
transit route evaluation and
planning; project
management with Daniel
Jacobson of Fehr & Peers*

Resumes

Resumes for key staff are provided on the following pages.



Fehr & Peers led a shuttle plan for Oakland's Broadway Shuttle



Steven J. Brown, PE

Senior Principal

About

Mr. Brown is a Senior Principal with 30 years of experience in transportation planning and engineering. In addition to his 25 years of consulting experience, Mr. Brown was the Director of Transportation Planning for the City of Sacramento. He has managed projects in eight states that include the following disciplines: transportation master plans, traffic calming, environmental impact assessments, parking and circulation studies, bicycle and pedestrian facility plans, new-urbanist planning, freeway interchanges, intersection/signal designs and corridor studies. Mr. Brown earned a Master's Degree in Transportation from the University of California, Berkeley, and a Master's in Business Administration from Golden Gate University in San Francisco. He is a licensed traffic engineer in California.

Education

Bachelor of Science in Civil Engineering with Honors,
University of California, Berkeley, 1985
Master of Science in Transportation, University of
California at Berkeley, 1987
Masters in Business Administration, Golden Gate
University, 1998

Registrations

Licensed Traffic Engineer, State of California (TR1510)

Professional Affiliations

Member of Bicycle Sub-Committee of NCUTCD, 1995/96
Institute of Transportation Engineers (ITE):
Member, Northern California Section President 2000-2001
Co-chair ITE District 6 Conference, 2004

Publications

US Traffic Calming Manual, co-authored with Reid Ewing,
APA & ASCE, 2009
Skinny Streets, co-authored with Reid Ewing, ULI July 2007
Traffic Calming Revisited, co-authored with Reid Ewing
and Aaron Hoyt, ITE Journal November 2005
Traffic Calming Revisited, TRB Conference, 2004
Community Based Street Design Standards, co-authored
with Gwen Owens, ITE District 6 Conference, 1998
Measurable Traffic Calming Results, co-authored with
Martin Hanneman & Ken Grehm, ITE District 6 Annual
Conference, 1999

Project Experience

Irvine Spectrum Transit Study

Fehr & Peers developed a transit plan for the Spectrum Area of Irvine, with a focus on connecting housing, retail, employment, and educational sites to the Metrolink service at the Irvine Transportation Center.

Irvine Transit Vision

Fehr & Peers provided the City of Irvine with a visionary study that identified a citywide, comprehensive, affordable transit shuttle system. The study, conducted during 2008 and 2009, expanded upon the shuttle operating in the Irvine Business Complex and proposed shuttle for the Irvine Spectrum. The study included an analysis of the current transit system, including: performance measurements, comparisons to peer cities (both within Orange County and elsewhere), and untapped opportunities; an evaluation of potential new shuttle routes and service strategies, and recommendations to enhance the operations and amenities of all shuttles operating in Irvine. The concept recommendations were developed after a review of various transit vision



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101 Pacifica
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Irvine, CA 92618
(949) 268-6300

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alternatives, system goals and objectives, planning challenges, and a cost-benefit analysis of various types of service. The overall process was a collaborative effort between the City of Irvine and various stakeholders including the Orange County Transportation Authority (OCTA). The study became the foundation for the City of Irvine's revised OCTA Go Local application to compete for \$1 billion in funds from Renewed Measure M. In May 2010, the California Transportation Commission (CTC) gave final approval to \$121 million in public transit funding for the Irvine Transit Vision.

Revelle College Parking Garage Access Study

Fehr & Peers evaluated the traffic impacts of a proposed parking garage at Revelle College on the UCSD campus. Our analysis considered intersection operations during peak commute hours as well as during special events. In addition, the project included closure of an existing campus entrance. Our evaluation of this closure included impact analysis of rerouted trips, potential cut-through problems and safety issues.

El Toro Trip Generation Analysis

Fehr & Peers provided multi-modal transportation support for the El Toro Base Redevelopment. Our activities covered three primary tasks:

- Analysis of the proposed land use plan (for the TOD and education node) to determine the amount of trips that will be generated based upon its smart growth orientation. The key variables that were tested in this analysis were: density, diversity (mix of uses), and design. The analysis showed how many trips would occur by alternative mode and/or remain internal to the site; thereby reducing the automobile impacts.
- Development of recommended infrastructure to support alternative modes, ranging from neighborhood electric vehicles to shuttle buses.
- Review of the external funding opportunities (grants, foundations, government funds) and suggestions on how they might be leveraged to the benefit of the project.

Mobility Strategies for County Corridors

Fehr & Peers was the lead firm on this landmark study to develop and evaluate ideas for enhancing mobility in the 11 most congested corridors in Sacramento County, a total of 55 miles of arterial roadways. Enhancing mobility was

defined by reducing travel times and improved travel time reliability; increasing the people-moving capacity and improving safety for all users of the transportation system.

Fehr & Peers facilitated the involvement of an advisory team comprised of government representatives and transportation advocates. The study provided an exhaustive list of ideas and quantitatively evaluated the most promising strategies. These results were presented in a short-list of strategies for each corridor that can be pursued as funding, partnering and development opportunities arise.



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Jeremiah LaRose

Senior Transportation Planner

About

Jeremiah LaRose is an experienced, multi-modal transportation planner with a background in transit service planning and operations. Prior to joining Fehr & Peers, Jeremiah served as the Manager of Operations & Planning for COAST, a small-urban public transit agency in New Hampshire. In that role, Jeremiah worked with stakeholders in 14 communities including helping to launch a volunteer-driven program to improve senior mobility in under-served communities. Jeremiah served on the Board of Trustees for the Wentworth Home, a retirement and assisted-living facility in an historic building in Dover, NH.

With Fehr & Peers, Jeremiah has helped transit clients make the most of their data to understand their current customers and develop services and marketing strategies to attract new customers, evaluate the safety of buses sharing the road with more vulnerable travelers on bicycle, and studied how transit projects have influenced life in Los Angeles County.

Education

Master of Urban Planning, University of California, Los Angeles, Luskin School of Public Affairs 2015

National Transit Institute Courses (2009-2012)
Various topic areas

Bachelor of Arts, Music, University of New Hampshire, Durham, NH, 2006

Affiliations

American Planning Association (APA)

Project Experience

Clean Air Express Short Range Transit Plan

Jeremiah is currently leading a study for the Santa Barbara County Association of Government's "Clean Air Express" bus service that provides commuter connections from northern Santa Barbara County to jobs near the City and UC Santa Barbara. The Clean Air Express service will receive its first-ever comprehensive service analysis after several decades of successful operation. The SRTP is evaluating ridership and operations performance to examine potential changes to service offerings including expansion of new times or lines. Our study will incorporate an extensive "non-rider" survey to explore awareness of the long-running service and what factors might influence these potential customers to try the bus. Jeremiah is serving as the project manager.

Ridership Growth Action Plan

Fehr & Peers conducted a study managed jointly by Metro and Los Angeles County Municipal [Transit] Operators Association (LACMOA) representatives from 16 agencies to identify solutions to address ridership declines across Los Angeles County. Alongside data from the participating agencies and Countywide demographics, the study paired an extensive outreach effort with numerous focus



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groups and an extensive rider/non-rider survey with over 4,000 respondents. The data and rider/non-rider perceptions were the foundation of 38 strategies agencies could employ to begin growing ridership across the County. Jeremiah was the lead planner and a key point of contact with the GMs and CEOs of the participating agencies.

Irvine iShuttle and Spectrum Transit (multiple)

The Irvine Company has sought assistance several times in recent years to evaluate and plan for the iShuttle commuter connection to Metrolink and Amtrak trains near the Irvine train station and other circulator shuttles in Irvine. Fehr & Peers has supported The Irvine Company throughout this effort by modeling shuttle routes in response to office developments and planned land use changes, and evaluated the service operations. Our plans have helped The Irvine Company, the City of Irvine, OCTA and others determine how best to provide first/last-mile access from commuter rail to work and home locations in Irvine. Most recently, Jeremiah has served as the project manager for studies on extending access to new office developments while minimizing disruption for existing customers.

Metro Bike-Bus Interface Study

Fehr & Peers evaluated bus and bike interactions in a variety of settings across Los Angeles County using many data sources, and most importantly, extensive focus group and survey efforts with bus operators, bicyclists, and planners. Jeremiah leveraged his background as both a bus operator and service planner in the community engagement work.

Quality of Life Study for Metro

Fehr & Peers led the preparation of the Quality of Life study for Metro. The study took a deep dive into data on Metro performance to evaluate the benefits to Los Angeles County quality of life driven by Metro's investments from 2008, when Measure R

was passed, until 2015. Jeremiah helped develop several county-wide metrics recommended to Metro, related to collision data, transit ridership and service frequency, and measures of environmental and social justice.

Culver City Line-by-Line Analysis

Fehr & Peers conducted a travel market analysis and ridership forecasting exercise for Culver CityBus. The travel market analysis incorporates both Big Data and the regional travel model. The ridership forecasting analysis uses a direct ridership forecasting approach. The travel market analysis informed a Comprehensive Service Plan, describing service implementation and revisions for the next several years. Fehr & Peers conducted ridership forecasts for various scenarios. Jeremiah conducted the travel market analysis and developed the direct ridership forecast model.

Experience Prior to Fehr & Peers

As the Manager of Operations & Planning, Jeremiah led the implementation of two Congestion Mitigation & Air Quality (CMAQ) grant-funded services for COAST, a public transit operator in New Hampshire. One of these services was known as Dover FasTrans, a community circulator network with three routes operating during the grant-funding period (one route survives today). These routes provided much needed community connections to underserved neighborhoods and included service to senior centers, assisted living facilities, and medical offices. A target demographic were senior residents near the route who were more likely to be home during the service hours and could benefit from improved mobility options.





Daniel Jacobson

Senior Transportation Planner

About

Daniel Jacobson is a senior transportation planner focusing on strategic planning for transit, station access, land use, and complete streets projects. He excels at helping clients resolve challenges at all stages of project development. Daniel brings a passionate, problem-solving approach to transportation projects in order to achieve meaningful, implementable outcomes.

Education

Bachelor of Arts, with Honors, Urban Studies
Stanford University

Expertise

- Transit Planning
- Complete Streets Planning/Design
- Station Area Planning
- Campus Master Planning
- Transportation Impact Analysis

Project Experience

SamTrans Express Bus Study, San Francisco Peninsula, CA, 2017-present)

As project manager, Daniel co-led a feasibility study to reintroduce express bus service along the US-101 corridor on the Peninsula. SamTrans ceased operations of express buses in 2010 amid declining

ridership associated with the Great Recession and competition from BART and Caltrain. The agency is considering reintroduction of express services in coordination with the US-101 Managed Lanes project. Daniel identified opportunity travel markets underserved by regional transit and tech shuttles by analyzing StreetLight GPS data, the C/CAG model, and previous express bus ridership patterns. Based on this analysis, Daniel led the development of route concepts and ridership forecasts.

Rossmoor Short Range Transportation Plan (Walnut Creek, CA, 2017)

As project manager, Daniel led a Short Range Transit Plan (S RTP) for the Rossmoor senior living community in Walnut Creek. As one of the largest senior communities in California, Rossmoor operates fixed route, dial-a-bus, and paratransit services. The S RTP evaluated opportunities to increase residents' mobility as well as service productivity. Community engagement represented a key focus of the S RTP process, including surveys distributed on-board, online, and in the local newspaper, as well as outreach at community events. Daniel led an innovative analysis to redesign the bus network as an on-demand service enabled by both phone- and app-based booking. The S RTP culminated in a procurement process for a new on-demand transit software platform to improve the efficiency and responsiveness of booking, dispatch, and routing bus services.



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Eureka Transit Line by Line Analysis (2017-ongoing)

As lead planner, Daniel is helping Eureka Transit rethink its bus network to meet the evolving mobility needs of the City. The agency presently operates five one-way loop routes across the City. The study is evaluating the implementation of a frequent network that operates service every 15 minutes across the City.

VTA Light Rail Effectiveness Project North First Street Study, (San Jose, CA, 2015-2016)

As deputy project manager, Daniel led a multi-disciplinary team to develop and evaluate concepts for infrastructure and operational changes for VTA Light Rail service on North First Street. The project intends to increase the speed and reliability of the existing light rail system while provide complete streets enhancements. The project included analysis of slow speed zones within the corridor, conceptual design for fencing and gating the right-of-way, enhancing bicycle and pedestrian access, and implementing transit signal priority.

Caltrain Business Plan (San Francisco Peninsula, CA, 2018-present)

As technical team lead, Daniel managed a multidisciplinary team develop a 25 year business strategy to grow Caltrain service. The project analyzed Caltrain's market potential, rail operations, infrastructure needs, and interface with the communities it serves. In particular, Daniel focused on quantifying expected demand for expanded Caltrain service, synthesizing corridor opportunities and constraints into service plans, and communicating results to project partners and agency leadership.

Station Planning for 25th Avenue Grade Separation (San Mateo, CA, 2015)

As deputy project manager, Daniel led a review of station access priorities for a redesigned Hillside Station as a part of the 25th Avenue Grade Separation

project. Daniel evaluated existing and future needs for buses, shuttles, kiss-and-ride, bicyclists, and pedestrians. Daniel worked closely with Caltrain staff to analyze strategies to accommodate passengers during construction of the new station and associated grade separations.

Broadway Urban Circulator Study (Oakland, CA, 2013-2014)

As deputy project manager, Daniel led a transit enhancement study along Broadway in Oakland. Daniel collaborated with BART, AC Transit, Capitol Corridor, WETA, the City of Oakland, and community stakeholders to develop short- and long-term transit enhancement strategies, including both enhanced bus and streetcar concepts.

Hayward Shuttle Feasibility Study (Hayward, CA, ongoing)

Daniel conducted a peer review of shuttle systems to guide the development of a shuttle service in Hayward, CA. The shuttle service intends to provide a first-last mile connection to BART for residents and industrial employment centers.

Park Merced Shuttle Plan (San Francisco, CA, 2016)

Daniel developed a shuttle service plan for the Park Merced community in San Francisco. The shuttle would connect the mixed-use community of approximately 9,000 housing units with the Daly City BART Station and local shopping destinations. The service plan described the proposed operations, costs, and potential ridership for the service.





Jessica Johnson

Transportation Planner

About

Ms. Johnson has been an integral member of the Orange County office since 2016. Prior to joining she earned over two years of experience working as Mobility Manager for a regional transportation authority in South Carolina. At Fehr & Peers she has been a key contributor to various transit planning projects, including the University of California-Irvine Shuttle Study. Ms. Johnson is excited to bring her skills and experience in transportation and transit safety assessment to this project.

Education

Master's in Transportation Planning, South Carolina State University, 2013

Bachelor of Science in Physics, South Carolina State University, 2010

Project Experience

University of California-Irvine Shuttle Study, Irvine, CA

Fehr & Peers performed an assessment of the University of California Irvine Anteater transit system. The focus of the study was to evaluate the safety conditions of the bus stops and their locations for passengers, drivers, pedestrians, and cyclists. The team then provided recommendations that will enhance and improve the safety for both shuttle users and adjacent roadway users. Ms. Johnson served as Project Manager for this effort.

Santa Ana Safe Routes to School Plan, Santa Ana, CA

Fehr & Peers is part of a team that is developing a Safe Routes to School plan for the City of Santa Ana. The City will use this plan to pursue grant funding to increase safety near its schools. We are leading walk audits at

elementary, intermediate, and high schools to document existing conditions and develop Safe Routes to School corridors, which are streets connecting multiple schools that the City will prioritize improvements at. The corridors are also informed by bilingual (English and Spanish) conversations with parents, students, and staff about their experiences traveling to and from school. Ms. Johnson assisted with conducting the walks audits to identify potential improvements that will increase pedestrian safety.

City of Beaumont General Plan Update, Beaumont, CA

Fehr & Peers assisted the City of Beaumont in its General Plan Update. Specifically, Fehr & Peers completed the Mobility Element of the General Plan and completed the transportation section of the EIR for General Plan approval. Ms. Johnson researched and documented existing multimodal transportation conditions in the City of Beaumont. She also contributed to drafting the Plan's Existing Conditions, Mobility Element, and Transportation Impact Analysis Report.

Agua Caliente Casino Resort Transportation Impact Study, Rancho Mirage, CA

Fehr & Peers prepared a transportation impact study, parking study, internal circulation review, and site access recommendations for the proposed hotel expansion and retail project at Agua Caliente Casino Resort and Spa in Rancho Mirage, California. We are assisting the project team in developing up to three project alternatives for consideration in the traffic analysis. Ms. Johnson was instrumental in developing the traffic analysis for this project.



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Jolene Hayes, AICP

Senior Associate

About

Ms. Hayes recently joined the Orange County office of Fehr & Peers with 18 years of experience in local, regional and statewide transportation, land use and goods movement planning, environmental analysis, and implementation. She has had the opportunities to assist the Ports of Long Beach, Los Angeles, Oakland and Charleston with transportation planning and funding issues, as well as the opportunity to assist private supply chain participants analyze markets in California, Arizona and Michigan. In her previous role as Transportation Development Manager at the Port of Long Beach, California, she managed environmental impact analyses, planning studies, funding efforts and conducted detailed analyses for a variety of projects, such as the replacement of the Gerald Desmond Bridge and the closely-related 710 Major Corridor Study, as well as the soon-to-be released Pier B On-Dock Rail Support Facility. She has also planned, prioritized and pursued funding for transportation projects while working for the cities of Pasadena and Irvine. In all of Ms. Hayes' city positions, she represented the cities on major corridor studies and RTP updates, participated in reviewing/commenting on legislation, and successfully applied for and managed regional, state and federal funds (including TIGER and TIFIA loans) for small-scale and mega projects alike in Southern California. She is well-versed in local, regional and national issues and understands the importance of balancing the movement of goods and people on railways, roadways and waterways from a local, port, regional, state and national perspective.

Education

M.C.R.P., City and Regional Planning, University of Texas at Arlington, 1999
B.A., Political Science, 1997, University of Texas at Arlington

Affiliations

Transportation Research Board Intermodal Freight Committee (ATO45) – Vice Chair
Transportation Research Board Issues in Major U.S. Cities (ABE30) – Former Member
Transportation Research Board Transportation Programming, Planning, and Systems Evaluation (ADA50) – Former Member
American Planning Association
Institute of Transportation Engineers
Women's Transportation Seminar, Orange/Los Angeles Counties
Urban Land Institute – Public Sector Chair for ULI Orange County Young Leaders Group (2006 – 2008)

Professional Certifications

American Institute of Certified Planners

Areas of Expertise

Local, Regional, State & National Policy
Multimodal Planning & Analysis
Economic Impact Analysis
Funding & Grant Strategies

Project Experience

Ms. Hayes worked on the following projects with her former firms.

Port of Long Beach Land Use Study, Long Beach, CA

This project, which is nearing completion, involves the development of a land-based Visio tool connected by Excel to a number of different Port models, including PortTAM (Ports of LA/LB Transportation Analysis Model),

emissions, revenue, dredging, capital expenditures, and water quality. The tool provides the Port with the anticipated results associated with different terminal development plans – from financial to environmental outcomes to guide the Port's decision-making. Ms. Hayes acted as one of three lead roles on the project (Long Beach Lead) charged with landside road and rail connections and stakeholder engagement, including internal port commissioners, executive staff and staff from all divisions, the three rail operators (PHL, UPRR, and BNSF), port tenants, port labor, and community and environmental justice groups.

I-5/SR 99 Goods Movement Corridor Study

This project involves the freight analysis of two primary north/south corridors in California, I-5 and SR 99. The segments, approximately 200-miles each, provide important connections for trucks serving major agricultural production in the Central Valley, as well as connectivity for cargo moving to/from other states, such as Arizona, Nevada, Oregon and Washington. As the Project Manager, Ms. Hayes assembled a team focused on opportunities for improving the efficiency and safety of goods moving through these corridors, including bottleneck relief, safety improvements, mode shift solutions (from SR 99 to I-5 and from truck to train), and ITS solutions (ramp meters, travel alerts, WIM, real-time truck parking availability, inland cargo depots and truck platooning). Benefits of each opportunity are assessed against a set of performance metrics (developed by the stakeholders), segregated by project readiness, and aligned with funding options. Ms. Hayes' former firm was the prime consultant, and Fehr & Peers is on the team.

Alameda County Transportation Commission Freight Study, Alameda County, CA

Developed technical reports, including baseline conditions, needs assessment, and a project/program/policy evaluation plan for addressing freight deficiencies in Alameda County.

San Gabriel Valley Council of Governments Mobility Matrix, LACMTA, Los Angeles, CA

Ms. Hayes was Project Manager for this effort, which involved identifying regionwide priorities and developing a plan for implementation. This project included the development of goals, strategies and performance metrics to guide the evaluation of projects and programs for

inclusion in a local sales tax measure, as well as the long range regional transportation plan.

Union Pacific Railroad Intermodal Container Transfer Facility (ICTF), Ports of Los Angeles and Long Beach

Ms. Hayes was the technical advisor to the ICTF Joint Powers Authority charged with managing the development of the Environmental Impact Report for the modernization and expansion of the existing rail yard. This project is currently on hold pending resolution of BNSF's proposed SCIG project, which is adjacent to the ICTF.

FHWA Intermodal Connectors Case Studies, FHWA, Southern California

Developed two case studies, including one of primary intermodal freight connectors at the Port of Long Beach, and the selection and analysis of a possible secondary set of intermodal freight connectors serving a major industrial warehouse area in the City of Industry, CA that provide access to UP's Industry Rail Yard and system redundancy to SR 60, one of the heaviest truck corridors in the Los Angeles Basin.

Harbor Trucking Association Truck Turn-Time Study Technical Review

Ms. Hayes advised on the methodology and analysis of truck queuing and turn-times at marine terminals in the Ports of Long Beach and Los Angeles. HTA members provided GPS data. The data was collected upon trucks entering/exiting geofences that were created at appropriate locations.

International Council on Clean Transportation (ICCT), United States

Ms. Hayes was the advisor to ICCT on the program development of a port environmental incentive program focused on encouraging/incentivizing port operators to reduce impacts on communities, especially economically disadvantaged residents living in communities near ports.

National Cooperative Freight Research Project No. 37, United States, Transportation Research Board

Ms. Hayes served as a researcher on port disruptions on supply chain resiliency. Tasks included 20 interviews with industry representatives who have experienced a variety of port disruptions due to weather or other operational impairments, as well as a case study focused on a planned 14-week closure of a major inland waterway in the Pacific Northwest.

TIGER VI Capital Grant Application

Port of Charleston, South Carolina for rehabilitation and improvements to Wando Welch Terminal.

TIGER VI Planning Grant Application

Providence, Rhode Island for construction of the Providence Station Transit Center.

Transportation Infrastructure Finance and Innovation Act (TIFIA) Letter of Interest and subsequent Application

Ms. Hayes, jointly with the Finance Division, prepared a \$200 million Letter of Interest and received an invitation to submit an application. Submitted application in December 2012 for the Gerald Desmond Bridge Replacement Project.

Rail Impact Analysis Methodology, Port of Long Beach

Ms. Hayes spearheaded and led the development of rail impact analysis guidelines for proposed port projects that were anticipated to add rail traffic to the Class I rail lines throughout the Southern California region. In response to litigation, the Ports of Long Beach and Los Angeles determined that the two ports needed to develop a consistent methodology. She initiated a national search for relevant impact assessment guidelines and thresholds, identified a variety of approaches, and in coordination with the Port of LA, developed an appropriate level of analysis based on relevance to the Los Angeles region, defensibility (involved significant legal guidance from Long Beach and Los Angeles City Attorney's Offices), and data availability (rail and roadway traffic counts, future projections, planned improvements, etc.).

Gerald Desmond Bridge Replacement Project, Port of Long Beach, CA

Ms. Hayes managed the CEQA/NEPA traffic impact analysis, conducted tolling sensitivity analysis, and coordinated final approvals with Caltrans/FHWA necessary to initiate design-build procurement. She acted as the Owner's Representative for the Design-Build Contract Request for Qualifications (RFQ) and managed all FHWA Major Projects' requirements (federal aid projects over \$500 million), including the Initial Financial Plan, Project Management Plan, FTIP/funding authorizations, and the Cost Estimate Review, as well as justification/approval to include the bikeway as an eligible cost for reimbursement. Ms. Hayes pursued and managed complex federal, state and local funding sources, including HBRR, STP, SAFETEA-

LU, federal appropriations, Los Angeles County Metro funds, SHOPP, Proposition 1B TCIF, and TIFIA.

Environmental Analysis: Gerald Desmond Bridge, Pier B Rail Yard On-Dock Support Facility, Pier S Marine Terminal Project, and Middle Harbor Marine Terminal Redevelopment Project, Port of Long Beach, CA

Ms. Hayes led the development of the transportation impact analysis, including roadway and rail impacts for the proposed major marine container terminal development and dredging project. This involved updating PortTAM (the Port's focused travel demand model), identifying related projects and future improvements, and identifying the baselines and future analysis years for each project. She developed the project-specific protocols and managed the preparation of the traffic/rail impact studies.



Sarah Brandenburg, PE

Principal

About

Sarah Brandenburg has 18 years of experience with Fehr & Peers and is a licensed Traffic Engineer. Sarah served as the Operations Manager of the Los Angeles office for over seven years, and is currently the Regional Principal-in-Charge of Southern California. Sarah has managed a variety of complex studies, such as transportation impact studies, EIR transportation sections, transportation planning studies, and corridor studies focused on roadway operations, transit and active transportation. Key projects include the City of Los Angeles Mobility Plan 2035 EIR, Beverly Hills On-Call Transportation Services, Westside Mobility Plan, and Hollywood Community Plan Update. Sarah's ability to work closely with clients, complete a high-quality technical analysis, and clearly communicate study findings have been and will continue to be critical to project success.

Education

Bachelor of Science, Civil and Environmental Engineering,
Cal Poly San Luis Obispo

Professional Registration

Licensed Traffic Engineer, State of California (#2213)

Publications and Presentations

Taking Micro-Simulation Models to a New Level, Institute of Transportation Engineers District 6 Annual Meeting, July 2002

Balancing Bicycle and Pedestrian Mobility, ADA Requirements & Interchange Design, Institute of Transportation Engineers National Meeting, August 2004

Project Experience

SR-14 Interchange Forecasts, Lancaster, CA

Fehr & Peers is applying a systematic approach to develop traffic forecasts for the planned interchange improvements along the SR-14 corridor using the latest version of the SCAG 2012 RT/SCS travel model applied in Northern LA County area. Applying a uniform approach to generating traffic forecasts for the infrastructure studies along SR-14 ensures consistency between the future forecast projections and allows the City to test the phasing of improvements. Sarah is the Project Manager and Principal in Charge.

Environmental Documentation Support for SR-138

As part of a team, Fehr & Peers is responsible for managing and preparing the traffic forecasts and travel demand modeling along with the traffic operations analysis for the SR 138 corridor between I-5 and SR-14 in North Los Angeles County. A refined version of the 2012 SCAG RTP Model was used to develop the future traffic forecasts in consideration of projected growth and transportation improvements in the area. Sarah served as the Project Manager.

Antelope Valley Area Plan

Fehr & Peers prepared the traffic study to quantify potential impacts of the proposed land use changes under the Plan for inclusion in the EIR impact analysis. We used using the travel demand forecasting model that was prepared for Metro's SR-138 corridor study to develop future forecasts and worked with Los Angeles County and the consulting team on the Area Plan analysis. Sarah served as the Project Manager and Principal in Charge.

Mobility 2035, City of LA Mobility Element

Fehr & Peers, with Sarah as the EIR project manager, led a team to update the General Plan Mobility Element for the City of Los Angeles. From a selection of alternative approaches, the City chose to implement a multimodal layered-network with a context sensitive overlay to update its street classification system. Fehr & Peers used its previous work on the LA Street Classification and Benchmarking System study to develop concepts for a layered network and create new street standards. Through an extensive social media campaign and a series of meetings and workshops, Fehr & Peers framed the conversation in terms of transportation choices, where options and tradeoffs are clearly defined to reflect both aspirational goals and the constraints of conditions on the ground. This framing allows for the productive exchange of ideas between the public and the City. The Fehr & Peers team also worked with the City to prepare a Streetscape Manual that identifies required improvements associated with each street type and addresses the existing disconnects between policy goals and current street standards. Throughout the project, our team performed outreach and branding related to public engagement for the Mobility Element (called LA2B). In Phase 2 of the Mobility Plan update, Fehr & Peers led the team to prepare the technical analysis and EIR required for plan adoption. The City's Travel Demand Model, developed by our team, was used to develop non-traditional performance measures to quantify the benefits of the City's new layered network. As part of this effort, our team geo-coded all of the planned and pending transportation improvement projects in the City that can be used by staff going forward. LA2B created a new vision for mobility in the City of LA and provide the environmental clearance needed for implementation.

Westside Mobility Plan, City of Los Angeles

Fehr & Peers, with Sarah as the project manager, led a multi-disciplinary team to develop a long-term comprehensive Mobility Plan for the Westside of the City of Los Angeles, California. The study included six major components: development of a state-of-the-art travel demand model; a mobility and rail connectivity study including the potential for north/south rail transit connections from the LAX area through the Westside and integration of transit, highway, bicycle and pedestrian modes; a comprehensive Westside parking study; updates to the Coastal Transportation Corridor and the West Los

Angeles Transportation Specific Plans (including trip fee nexus studies for each); and a livable boulevards study addressing the integration of urban design/streetscape and transportation planning. The study included a substantial public outreach program to engage the community throughout the process. The Westside Mobility Plan blueprint is intended to serve as a catalyst for future action to improve transportation on the Westside.

Wilmington EMPOWER Mobility & Action Plan, City of Los Angeles

Fehr & Peers, with Sarah as the project manager, led the Wilmington EMPOWER study. EMPOWER combined community input and our team's technical expertise to identify mobility challenges and opportunities for the Wilmington area. A comprehensive Mobility Plan to serve the community through 2035 along with an Action Plan outlining six to eight near-term transportation improvements was developed by our team. As part of this effort, Fehr & Peers led Technical Advisory Committee (TAC) meetings at appropriate milestones throughout the study process. A comprehensive public outreach effort was formulated to engage the community in the study and gather input through an on-line MetroQuest survey. The outreach activities provided an overview of the study and gathered input from the community on various mobility topics, such as transit, bicyclists and pedestrians, trip reduction strategies and roadway infrastructure. We also developed an EMPOWER website to increase project exposure and expand access to the residential and business surveys. All public outreach materials were created in both English and Spanish. Fehr & Peers developed an informational brochure on traveling in the Wilmington area with useful and practical tips on using active modes of transportation and transit to reduce environmental impacts through personal mobility decisions.



Spencer Reed, PE

Associate

About

Spencer Reed is an Associate with Fehr & Peers and has over 6 years of experience in transportation engineering and planning. He brings a wide variety of skills and an innovative analytical perspective to all of his projects. His project and technical experience includes microsimulation modeling, traffic impact studies, travel demand modeling, conceptual design, and bicycle and pedestrian planning. Spencer understands that various projects have a wide range of needs and he maintains a steadfast commitment to the efficiency and reliability of results. This devotion is represented in multiple projects throughout the greater Los Angeles area and southern California. Using a combination of experience, data, and innovation; Spencer has been able to provide thoughtful solutions to all aspects of his projects. In having the opportunity to work on many challenging projects with a wide variety of clients and stakeholders, Spencer has developed a reputation of balancing client goals with stakeholder concerns. It is through this balancing, that Spencer has committed to help improve communities in which he works.

Education

Bachelor of Science, Civil Engineering, California State Polytechnic University, San Luis Obispo, 2011

Affiliations

American Society of Civil Engineers (ASCE)
Institute of Transportation Engineers (ITE)

Professional Registration

Registered Civil Engineer, California (83432)

Project Experience

Anaheim Center City Parking

Fehr & Peers is assisting the City of Anaheim with a comprehensive parking management plan for their Center District, which takes a detailed look at overall parking operations of parking facilities including surface lots, structures, and on-street spaces serving a variety of users in the District. The plan reviews existing and future parking supply and demand both from a program (shared parking pool) and from a micro-level operations perspective. We are developing a user-friendly parking tool to allow City staff to track parking demand and ratios vis-à-vis existing and proposed new development in the Center District. Fehr & Peers will recommend strategies and solutions to optimize the use of parking resources. Spencer is the project manager and responsible for every aspect of the project work. Spencer developed the calibrated parking model and lead the team responsible for the design of the Excel based tool.

Leisuretown Traffic Study

Fehr & Peers conducted a traffic and parking study to be included as part of the environmental documentation for the Leisuretown Project in Anaheim, California. The project included a small production brewery, tasting room, coffee shop, restaurant, outdoor gardens, and a swimming pool. The traffic study considered the effect of all of the project traffic parking off-site and utilizing Polly The Trolley to get to the project site. The Polly The Trolley service was reviewed and a rerouting was recommended to accommodate visitors to the project site. Spencer was the project manager and responsible for the technical analysis, project coordination, and documentation. He led an effort to develop a site specific trip generation calculation for the brewery. In addition, Spencer helped the client achieved the development goal and minimize intersection impacts.



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Dupont Pedestrian Crossing

Fehr & Peers undertook a pedestrian midblock crossing evaluation on Dupont Drive between Michelson Drive and Von Karman Avenue in Irvine, California. Fehr & Peers reviewed multiple midblock crossing options and conducted a midblock crossing warrant analysis utilizing the methods identified in the California Manual on Uniform Traffic Control Devices. A conceptual design was prepared for recommending a pedestrian hybrid beacon crossing treatment. Spencer was the project manager for the project and responsible for crossing treatment review, sight distance calculations, and conceptual design.

City of Hope Specific Plan and Environmental Impact Report

As part of a team, Fehr & Peers is conducting a traffic study for the City of Hope in Duarte, California. We are reviewing the transportation and circulation components of the City of Hope Master Plan documentation, the transportation analysis of the Duarte Station Specific Plan, and other relevant documents to facilitate discussion of plan goals related to transportation and circulation, as well as a discussion of a framework for a phased implementation of transportation improvements over the course of the buildout of the Master Plan. We are developing a framework for an implementation process for transportation improvements associated with a given level of project trips. The specific framework is being developed in partnership with the Cities of Duarte and Irwindale, but the goal of this aspect of the implementation plan is a process by which the cities can quickly determine the transportation measures required to support a given level of development for a particular phase of the Master Plan buildout. The transportation analysis includes traffic and parking analysis, evaluation of employee commute services, Pedestrian, Bicycle & Transit Access and a Pedestrian Safety Evaluation. Spencer is the project manager and responsible for the project documentation, city meetings, and client meetings. Spencer oversees multiple staff to ensure the technical analysis is being completed at the Cities request. In addition, Spencer is developing a project threshold limit to help advise the City on the maximum limits of the project size before developing potential significant impacts.

South Bay Galleria Environmental Impact Report

Fehr & Peers supported the City of Redondo Beach in the preparation of a Transportation Impact Analysis to be

included in the EIR for the South Bay Galleria Project. The project consists of the addition of retail, residential, hotel, restaurant, and office space to the existing South Bay Galleria. The project will result in a mixed-use project consisting of 1.138 million square feet of commercial space, 300 residential units, 150 hotel rooms, and 50 thousand square feet of office space. The analysis consists of intersection LOS analysis at 32 intersections with consideration of the methodology requirements of the cities of Redondo Beach, Lawndale, Torrance, and Caltrans. Spencer was the project manager and responsible for every aspect of the project work. At the request of the client, Spencer oversaw the development of a transportation model that would allow for variation in the location and size of the land use parameters. In addition, Spencer worked with multiple city agencies to ensure analysis requirements met the needs of each jurisdiction.

Apple Campus 2

Fehr & Peers assisted the City of Cupertino in the preparation of a Transportation Impact Analysis to be included in the EIR for the proposed Apple Campus 2 project. The proposed project will replace approximately 2.7 million square feet (s.f.) of existing partially occupied office space spread over multiple buildings, including some buildings formerly owned by Hewlett-Packard. In the buildings' place will be a unique circular 2.82 million-s.f. building located in the northern part of the project site and 0.30 million s.f. of research facilities along the eastern side of Tantau Avenue - for a total size of 3.12 million s.f. The project description includes closure of Pruneridge Avenue between Tantau Avenue and Wolfe Road.

The study analyzed over 50 intersections and ten freeway segments on I-280 and SR 85. The analysis also focused on pedestrian, bicycle, and access, including mobility measures to reduce the impact of the proposed closure of Pruneridge Avenue. Fehr & Peers worked closely with City staff to determine the adequate level of analysis and to provide innovative mitigation measures. Spencer developed a microsimulation model of the proposed Apple Campus 2 project area to determine the extent and severity of traffic queues and delays at the surrounding intersections. Model development included creation, calibration, and analysis determination. The model was used to develop a variety of physical improvements at the project site and surrounding intersections.





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