Appendix B

Transportation Demand Management Study

FEHR PEERS

MEMORANDUM

Date: March 31, 2015

To: Erik de Kok and Chris Mundhenk - Ascent

From: Bob Grandy, Tien-Tien Chan, and Teresa Whinery – Fehr & Peers

Subject: Technical Memorandum on Transportation Demand Management Programs

SF14-0793

This revised memorandum is intended to introduce the methodology in creating a Transportation Demand Management (TDM) Plan for the Nishi-Gateway Project, as well as initial estimates of which measures will provide the greatest reduction in Vehicle Miles Traveled (VMT).

POLICY ENVIRONMENT

The project exists in a policy environment that places a strong emphasis on future reductions in greenhouse gas (GHG) emissions and energy consumption, as well as an emphasis on safety for users of all modes and the creation of livable street design. Generally, the project is subject to the following guiding policies that relate to transportation:

- Reduce transportation carbon emissions from the Davis community 61% by 2035 compared to 2010. (Davis General Plan Transportation Element)
- Strive for carbon neutral transportation from new residential developments. (Davis General Plan)
- Offer a complete and integrated bikeway network on and off street that is accessible to and comfortable for people of all ages and abilities (Davis BAP)
- Apply best practices in designing sustainable/green streets, transit oriented development, and other circulation improvements to minimize travel. (Davis General Plan, Davis Climate Action and Adaptation Plan, UC Davis Climate Action Plan, SACOG Sustainable Communities Strategy)
- Encourage Davis resident passenger vehicles to use local biofuels. (Davis Climate Action and Adaptation Plan)
- Provide incentives and facilities for car and bike sharing programs. (Davis Climate Action and Adaptation Plan)

- Provide incentives for fuel efficient or alternative fuel vehicles (e.g. parking incentives). (Davis Climate Action and Adaptation Plan)
- Support electric vehicle infrastructure. (Davis General Plan)
- Consider establishing biofuels production facility. (Davis Climate Action and Adaptation Plan)
- Reduce VMT
    - 10% below 2010 by 2015 from households. (Davis Climate Action and Adaptation Plan)
    - 39% below 2010 by 2035 city wide. (Davis General Plan)
- Achieve at least the following mode share distribution for all trips by 2035. (Davis General Plan)
    - 10% of trips by walking.
    - 10% of trips by public transportation.
    - 30% of trips by bicycle.

Based on these policy guidelines, we recommend the following goal and objectives for the project's TDM plan:

Goal: Ensure that the project provides low-carbon transportation choices and enhances mobility and connectivity through the use of innovative designs, technologies, and programs.

- Objective 1: Reduce automobile dependency and reduce vehicle trips generated within the District, working towards the communitywide goal of achieving 50 percent non-single-occupancy-vehicle (SOV) mode share for all trips by 2035.
- Objective 2: Achieve substantial reductions in vehicle miles traveled (VMT) compared to existing conditions by 2020 and 2035.
- Objective 3: Achieve maximum connectivity and safety for pedestrians, bicycles, and transit users.
- Objective 4: Provide ample support for future residents or employees who may choose to own alternative fuel or "zero emission" vehicles, such as electric vehicles and fuel cell vehicles

MANAGING TRANSPORTATION DEMAND

To achieve the above goal and objectives, the project will likely need to implement a comprehensive set of design features and strategies intended to reduce VMT (and therefore GHG emissions), encourage the use of alternative modes, build safe infrastructure, and provide initial incentives and infrastructure for using electric vehicles.

EFFECTS ON TRAVEL BEHAVIOR FROM PROJECT DESIGN AND LOCTATION

Studies have shown that there is a cap on the total level of trip reduction that can be expected from combinations of demand management strategies in any TDM Plan. The current Nishi project profile includes several characteristics that will lead to reduced trip generation and VMT, when compared to projects of similar size and intensity in other parts of the Sacramento region. First, the project is designed at a fairly high residential and employment density, and incorporates multiple uses in a single site. Prior research conducted for the California Air Pollution Control Officers Association (CAPCOA) indicates that this sort of mixed use, higher density development can reduce VMT by 9 – 30%, before any other trip credits are applied[1].

Additionally, the project is unique in its location directly adjacent to a major research university, and its current plans to design a large portion of the on-site rental housing for students. Students typically travel fewer vehicle miles than other demographic groups, and are more likely to walk or bicycle to campus than to drive.

The project's location in Davis is also due some consideration. While the academic literature on the presence of bicycle facilities on mode share is somewhat lacking, Davis, with 60 miles in separated bicycle paths, has achieved a 22% bicycle mode share for commuter trips, a rate that not only substantially outpaces the rest of California, but is the highest of any city in the US according to a recent study conducted by the League of American Bicyclists[2].

The Nishi project includes 650 residential units, 325,000 square feet of R&D office uses, and 20,000 s.f. of ancillary retail uses on a 46.9 acre site. The proposed residential density is approximately 60 units per acre. The 650 residential units includes 440 multi-family rental units and 210 multi-family for sale units. The multi-family rental units will be designed primarily to serve UC Davis students, and 85 percent of the 1,500 beds in the rental units are assumed to be occupied by college students. Unitrans has also indicated that they will provide transit service through the project site if a connection is made to campus (i.e., to Old Davis Road) and the

[1] CAPCOA (2010). *Quantifying Greenhouse Gas Mitigation Measures.* Available at http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf. The findings in this report will be discussed in further detail later in this report.
[2] The League of American Bicyclists (2013), *Where We Ride: Analysis of bicycling in American cities".*

underpass of the Union Pacific rail line provides sufficient vertical clearance for their tallest buses. An average of approximately 1.8 vehicle parking spaces per unit (or approximately 0.5 spaces per student/bed) are proposed, which is lower than the 0.75 per student parking ratio provided in on-campus housing projects such as West Village, Colleges at La Rue Apartments, Orchard Park, and the Castilian Redevelopment Project (graduate student housing). The proximity of the project's rental units to campus suggest that students living in them will have travel characteristics similar to students in apartments in West Village or the Colleges at LaRue on the UC Davis campus.

Students in privately managed apartments on the UC Davis campus make most of their trips to campus via active transportation modes such as bicycling and walking (70%) or transit (19%) based on campus travel surveys.[3] Only about 11 percent of trips made to campus by students living in on-campus housing projects are made by auto. Parking is provided at these facilities, and surveys indicated that about 2.16 daily vehicle trips per student are made. Most of the daily vehicle trips made by students are during off-peak hours and are made for purposes such as shopping, visiting friends, off-campus work, recreational, etc. These vehicle trips don't tend to raise congestion levels, but do increase daily GHG emissions.

The remaining 88 multi-family rental and all 210 multi-family for sale units are assumed to be occupied by non-students. The project analysis assumes that 20 percent of the multi-family for sale units are occupied by UC Davis faculty or staff, which is the citywide average.

The multi-family for sale units will provide 1.5 parking spaces per unit. The residential uses will provide a total of 1,260 bicycle parking spaces.

The 325,000 s.f. of R&D office will provide a total of 820 vehicle parking spaces, or 2.52 spaces per 1,000 s.f. ,and 650 bicycle parking spaces. It is assumed that the employees will have a similar residence profile as other Davis employees, 54.6% of whom also live in Davis.

Tables 1 provides an estimate of the number of external project trips compared to total trips generated by the project, without implementation of additional TDM measures beyond those already incorporated in the project description and summarized above.

TABLE 1

ESTIMATED PROJECT TRIPS, WITHOUT TDM PROGRAM

Time Period	Total Trips	External Vehicle Trips	Percent of Non-Auto Trips
Daily	7,223	5,921	18.0%

[3] Castilian Redevelopment Project Traffic Impact Study, UC Davis, June 2012.

AM Peak Hour	610	434	28.8%
PM Peak Hour	702	535	23.8%

Source: Fehr & Peers, 2015

For detailed information on how the project's attributes were used to determine its trip generation, please refer to the trip generation section of the Nishi EIR transportation chapter.

TDM PROGRAM EFFECTS ON VEHICLE MILES TRAVELED

Vehicle miles of travel (VMT) is an estimate of travel within a given geographic area. VMT is a key factor that influences transportation greenhouse gas (GHG) emissions because the level of travel activity is a determinant of fuel consumption. California local and regional governments are working to develop and implement new policies to reduce VMT, in order to comply with AB 32 and SB 375.

VMT can be estimated for individual projects or at various other geographic (i.e., citywide, regional, etc.) scales. It is calculated by multiplying the number of daily vehicle trips by the length (in miles) of individual trips. VMT forecasts for large geographic areas are typically forecast using regional models. Project level VMT forecasts can be developed using other tools that estimate vehicle trip generation based on trip generation studies and average trip length based on travel surveys.

Research conducted for CAPCOA of the overall benefit of TDM programs indicate that there is an effective maximum benefit that can be achieved when combining strategies. The CAPCOA methodology generally indicates that all combined TDM strategies will not reduce VMT more than 35% below the baseline in "compact infill" areas and not more than 15% below the baseline in "suburban center" areas. While the Nishi-Gateway site best fits the CAPCOA definition of a suburban center, its unique location near UC Davis could indicate a higher potential for VMT reduction, especially if future tenants are students or have affiliations with the University. Additionally, the Nishi-Gateway project has already integrated a number of the candidate land use and transportation strategies, as described above. For those reasons, Fehr & Peers recommends **an overall target VMT reduction of 25%**

PRIMARY OPPORTUNITIES

In addition to building reductions in VMT, the project also must work to meet the community-wide goal of achieving at least 50% non-SOV mode share by 2035. This requires an additional 31% reduction in SOV mode share from Fehr & Peers initial travel behavior estimates. This ambitious goal will likely require similarly ambitious programs, some of which may be introduced as pilot programs. Fehr & Peers has identified the following program components – listed in order from least to most intensive from an implementation standpoint - as having the highest potential to further reduce peak hour trips, VMT, and GHG emissions:

- Bicycle Infrastructure and Incentives
- Transit Infrastructure and Incentives
- Work Force Housing
- Parking Pricing
- Formation of New Transportation Management Agency
- Innovative Electric Vehicle Infrastructure and Shared Fleet
- Compliance with a Vehicle Trip Cap

Parking Pricing

Parking pricing has been shown to be one of the most effective means of reducing vehicle trips. While market forces may require provision of enough parking for residents to store their cars, several pricing measures can create disincentives to drive for shorter trips or commute trips.

First, unbundling of parking pricing from the terms of the mortgage or lease requires residents and employers to consider whether having a dedicated parking space is worth the cost. A higher cost to park will typically reduce demand for parking by reducing car ownership among residents, and reducing driving among employees.

As a more innovative strategy, Fehr & Peers also proposes a pilot parking access program. In addition to a baseline monthly parking fee, residents and employees would pay for each time they access the parking lot, effectively causing individuals to pay a fee each time they choose to take a vehicle trip. The access fee would be variably priced, with higher costs charged during weekday peak travel periods and lower costs charged during off-peak periods and weekends. Gates would be provided at each parking facility access point to monitor trips and assign parking

costs based on arrival and departure times. Electronic signs would be posted at each access point indicating the current fee that is being charges, and this information would be provided to employees and residents. San Francisco and Los Angeles currently employ variable parking pricing for on-street meters in their downtown districts. SF Park also applies variable hourly pricing at public off-street garages. There is limited research available for this approach in private off-street parking facilities; however, the technology is available to make implementation feasible. Revenues generated by the variable pricing could be used for multiple purposes including funding the on-site transportation coordinator as well as providing incentives for transit and bicycle use. Since the gates would be located at parking facility access points, parking pricing would not impact traffic using West Olive Drive and/or the new connection to the UC Davis campus (should that project access alternative be approved).

Workforce Housing

Many of the vehicle trips projected will be made by individuals who work at the R&D office or live in the multi-family for sale housing, with the highest auto mode share among employees working on-site but living outside of Davis. By working to help employees find housing on-site or near-site, work trip lengths would be shortened, thus making walk, bike, and transit trips more attractive.

Increasing the number of UC Davis faculty and staff who live in the multi-family for sale housing, from the 20% baseline to a higher level such as 60%, would significantly reduce VMT. Designating a portion of the multi-family for sale housing for occupancy by R&D office employees would accomplish similar reductions.

New Innovation Center Transportation Management Agency (TMA)

The Nishi-Gateway development is one of three proposed "Innovation Centers in Davis. These centers share several major similarities in land use – they are all proposed to include research and development office facilities. This presents an opportunity to either significantly expand services provided by the Yolo TMA or to form a new dedicated TMA that could coordinate employee-based transportation planning and trip reduction strategies between the three Innovation Centers. The nature of these centers creates high incentives for partnership between the private developers, future employers, and UC Davis, as the demographic profiles of their employees will likely be similar.

Vehicle Trip Cap

The Project's ambitious vehicle trip reduction goals may also justify the implementation of a vehicle trip cap, a maximum number of vehicles leaving or entering the site either daily or during peak hours, as a measure to monitor and modify the TDM program over time. This cap could be administered by the on-site transportation coordinator in cooperation with City and TMA staff. Implementation of advanced parking management strategies can assist with enforcing the trip cap, by providing both a way to monitor daily trips, as well as the necessary infrastructure to price parking according to demand at certain times of day. Since the parking gates would be located at facility access points, parking pricing would not impact traffic using West Olive Drive and/or the new connection to the UC Davis campus (should that project access alternative be approved).

Electric Vehicle Infrastructure & Shared Fleet

The project's location and emphasis on reducing GHG emissions creates an opportunity for state-of-the-practice electric vehicle infrastructure, including a potential shared electric vehicle fleet. In addition to providing charging stations for private electric vehicles, a shared electric vehicle fleet could provide several benefits. First, an internal car sharing fleet could be composed of more compact vehicles, leading to a reduction in parking costs as each vehicle would require less space. Second, these vehicles are more efficient and more environmentally friendly than gasoline-powered vehicles, and provide an easy alternative for performing local errands among populations who are less likely to bicycle. Over time, robust carsharing programs tend to reduce total VMT by allowing more households to opt to go without a car; if carsharing subsidies are provided, the combined benefit can be an up to 5% reduction in VMT. The shared electric vehicle fleet could be provided by an existing car share company or provided and maintained specifically for the project by the on-site transportation coordinator, building managers, and/or HOA.

Bicycle Infrastructure & Incentives

Davis's success at encouraging bicycle commuting has led to a bicycle mode share for commute trips of around 20%. Fehr & Peers estimates a daily combined walk/bicycle mode share rate of 23%, and peak hour mode share of 27 – 30% for the project without additional TDM strategies. In order to further build these numbers, and to maintain them in the future, Fehr & Peers recommends a strong focus on the project's interface with local bicycle infrastructure, including the provision of a bike share station (linked to the planned regional bike share system), safe and secure bike parking at every building, a bike repair facility, showers and lockers in the office

buildings, and enhanced connections to the UC Davis campus, downtown Davis and the Amtrak station.. This includes building a strong interface with transit, by locating the bike share station and new bus stop facilities at a common central location.

Transit Infrastructure & Incentives

Just as the project can use bicycle infrastructure and promotion to build upon the City's larger successes, it also has the opportunity to build transit ridership. Currently, Unitrans ridership is heavily dominated by the student population (95% of all riders on Unitrans), due to free fares for students and a transit network centered around the University. This represents an opportunity to increase transit usage among non-students, including both future residents and employees. By providing a centrally located bus stop with state-of-the-practice amenities, as well as potential incentives such as transit subsidies, the development has the opportunity to build ridership numbers and encourage mode shift away from private automobiles. Unitrans has indicated a preliminary interest in working with the City and the property owner to provide direct transit service through the site.

The proximity of the project site to the Amtrak station also presents an opportunity to capture commute trips, both to the R&D office buildings and from the multi-family for sale residential units, on the Capitol Corridor trains that connect the Sacramento region with the San Francisco Bay Area with 32 round trips per day.

POTENTIAL TRANSPORTATION DEMAND MANAGEMENT STRATEGIES

Fehr & Peers has prepared the following list of Project Design Features (PDF) and Transportation Demand Management (TDM) strategies that may be considered by the project team for implementation with the Nishi-Gateway project. This list does not include any features that are already part of the project description, and therefore included in the baseline trip generation figures.

Fehr & Peers reviewed several sources to identify PDFs and TDM measures that would apply to the Nishi-Gateway project and reduce the amount of vehicle travel. These sources include:

- California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures*

- *Addressing Climate Change at the Project Level* from the California Attorney General's Office
- Technical Advisory on *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review* from the Governor's Office of Planning and Research (OPR)
- Senate Bill 375 – Research on Impacts of Transportation and Land Use Policies from the California Air Resources Board (CARB)

All of the strategies included in the Attorney General's list and OPR technical advisory were also covered in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*. The CAPCOA document also provides details regarding each strategy's effectiveness as measured by the potential percentage reduction in vehicle miles of travel (VMT). Therefore, the CAPCOA document is used as the primary source for the information provided in the tables below. The CARB research is also framed around VMT reductions and is a good supplemental resource in addition to CAPCOA.

The following table lists PDFs and TDM strategies along with a brief description, level of effectiveness as measured by its potential reduction in VMT, and the level of confidence in the VMT reduction estimate. Several strategies have a wide range in potential VMT reduction depending on project location and implementation of complementary TDM strategies. In the tables below, the strategies are numbered sequentially and identification (ID) numbers consistent with CAPCOA reference numbers (where applicable) are noted. The level of confidence is reflective of the amount of evidence supporting the VMT reduction estimate (level of effectiveness). Items with a low level of confidence (Tier 3) generally do not include VMT reduction estimates, as the research behind them has not yet found a conclusive effect on VMT. This project may provide an opportunity for additional research on TDM measures that could lead to a better quantification of strategy benefits.

Each entry also includes an explanation of the responsible party (typically one or more of the project developer, future employers, a transportation management agency, and the City), as well as a list of which objectives the measure most directly targets. Generally, items that lead to a reduction in VMT will also lead to a reduction in SOV mode share; however, the best way to monitor how the project meets its mode share goals is through regular travel surveys conducted on-site and proactive partnership with the developer, employers, and resident associations.

Upon development of a final set of TDM strategies to be incorporated into the project, Fehr & Peers will conduct full analysis of the expected effects on VMT.

Policies and Programs for Consideration in Nishi Gateway Transportation Demand Management Plan						
ID[1]	**TDM Measure**	**Description**	**Level of Effectiveness (VMT Reduction)**	**Level of Confidence**[2]	**Responsible Party**	**Objectives Targeted**
Land Use / Location						
1 (LUT-6)	Include On-Site Affordable Housing	Restrict a certain number of units for sale or lease at below-market rates.	0 – 0.6%	Tier 1	Developer	1, 2
Neighborhood / Site Enhancements						
2 (SDT-8)	Provide Electric Vehicle Parking	Provision of accessible electric vehicle parking and charging stations.	N/A	Tier 3	Developer	4
3 (N/A)[3]	Provide Bike Share Stations	Work with regional bikeshare program dedicate land for and install a bikeshare station on-site. Note that a strong program with good connections to Amtrak and Capitol Corridor service could see substantially more VMT reduction.	0.2 – 0.3%	Tier 2	Developer with Sacramento Bikeshare	1, 3

Notes: TMA = Transportation Management Agency.
[1] ID numbers are consistent with CAPCOA reference numbers.
[2] Tier 1 = VMT reduction effectiveness has been quantified with significant evidence;
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[3] Measure was not included in CAPCOA, and has only preliminary data available.

Policies and Programs for Consideration in Nishi Gateway Transportation Demand Management Plan						
ID[1]	**TDM Measure**	**Description**	**Level of Effectiveness (VMT Reduction)**	**Level of Confidence**[2]	**Responsible Party**	**Objectives Targeted**
4 (N/A)[3]	Provide Bike Share Membership	Provide subsidized or free bikeshare membership for residents and/or employees.	0.2 – 0.3%	Tier 2	Developer and/or Future Employers	1
5 (N/A[3])	Multi-Modal Wayfinding Signage	Develop signage designed for bicyclists, pedestrians, and transit users in addition to motorists	N/A	Tier 3	Developer, City	3
Commute Trip Reduction Programs						
6 (TRT-1)	Implement Commute Trip Reduction Program - Voluntary	Employee assistance and incentives to reduce single occupant vehicle travel; Program consists of ride-matching, preferential carpool parking, flexible work schedules for carpools, part-time transportation coordinator; bike end of trip facilities; Program does not require monitoring or reporting	1 - 6% commute VMT only	Tier 1	Developer, Future Employers, TMA	1, 2

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ID[1]	**TDM Measure**	**Description**	**Level of Effectiveness (VMT Reduction)**	**Level of Confidence**[2]	**Responsible Party**	**Objectives Targeted**
7 (TRT-3)	Provide Ride-Sharing Programs	Formal rideshare matching service within organization or through TMA; Designated preferential parking	1 - 8% commute VMT only	Tier 2	Developer and/or Partnership with TMA	1, 2
8 (TRT-4)	Implement Subsidized or Discounted Transit Program (Employees) (cross-ref to ID N/A re resident transit passes)	Discounted daily or monthly public transit passes for employees working at the site	0.3 - 10% commute VMT only	Tier 1	Future Employers and/or Partnership with TMA	1, 2
9 (TRT-5)	Provide End of Trip Facilities	Provision of showers, changing rooms, lockers, repair services and other facilities for cyclists and active transportation users.	0.6%	Tier 2	Developer	3

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10 (TRT-6)	Encourage Telecommuting and Alternative Work Schedules	Flexible schedules, compressed work weeks or working remotely at or closer to home; Strategies to reduce the number of commute trips	0.07 - 5.5% commute VMT only	Tier 1	Future Employers	2
11 (TRT-7)	Implement Commute Trip Reduction Marketing	New employee orientations, event promotions and publications regarding commute trip reduction measures.	0.8 - 4% commute VMT only	Tier 2	Developer, Future Employers, TMA	1, 2
12 (TRT-7B)	Hire Transportation Coordinator	Hire a full-time transportation / tdm coordinator to implement tdm strategies for the residents and office development. Be the liaison to the residents, employers, employees, and TMA (if applicable).	0.8 - 4% commute VMT only	Tier2	Developer, TMA	1, 2

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13 (TRT-8)	Implement Preferential Parking Permit Program	Convenient, reserved parking for employees who rideshare; May include reduced parking fees	N/A	Tier 3	Developer	1, 2
14 (TRT-9)	Implement Car-Sharing Program	On-demand access to a fleet of shared-vehicles; User fees are typically collected through an annual membership, mileage and hourly rates. May include subsidy of membership to an already established program with reserved space on-site, preferably on-street via a road dedication or parking space lease.	0.4 – 0.7%	Tier 1	Developer and/or Future Employers	2, 3
15 (N/A)[3]	Provide Subsidized Car-Share Memberships	Provide free car-share memberships to employees and residents	1 – 4%	Tier 2	Developer and/or Future Employers	2, 3

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ID[1]	**TDM Measure**	**Description**	**Level of Effectiveness (VMT Reduction)**	**Level of Confidence**[2]	**Responsible Party**	**Objectives Targeted**
16 (TRT-10)	Implement a School Pool Program	Incentivized rideshare matching for K-12 students and their parents.	7.2 - 15.8% school VMT only	Tier 2	Developer with City, Local Schools, TMA	1, 2
17 (TRT-11)	Provide Employer-Sponsored Vanpool	Purchased or leased vans for commute use and the formation of vanpools	0.30 - 7% commute VMT only	Tier 1	Future Employers	1, 2
18 (N/A)[3]	Subscription Bus Service to Destination Employers	Shuttle/bus service for commute use of employees of major employers. Shuttle/bus service will provide an alternative for employees to reach their place of employment. Partnership with local public transit may also provide similar benefits.	N/A	Tier 1	Developer and/or TMA	1, 2

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19 (N/A)[3]	Workforce Housing/Subsidized Mortgage Program	Providing workforce housing or a program that subsidizes mortgages for employees that live within the project can increase the amount of residents that live and work within the community. There may be opportunity for collaboration with the University.	0.3 – 6%	Tier 1	Developer and Future Employers; Potentially UC Davis	2
20 (N/A)[3]	Alternative Transportation Promotional Programs	Includes subsidies and marketing efforts to encourage ridesharing, bicycling, walking, and using transit.	N/A	Tier 3	Developer via TMA Partnership	1, 2
21 (N/A)[3]	Residential Transit Passes	Provide a free local and/or regional transit pass to all residents.	N/A	Tier 3	Developer and/or Future Employers	1, 2

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22 (N/A)[3]	Real-Time Transit Displays	Provide real-time transit displays (e.g. TransitScreen) at residential and office building lobbies that provide real-time arrival/departure information for public transit, private shuttles, carshare and bikeshare availability, and nearby taxis or transportation network company services (i.e., Ubers, Lyft, etc)	N/A	Tier3	Developer, Unitrans	3
23 (N/A)[3]	Guaranteed Ride Home	Provides employees working at the development with a guaranteed ride home at no cost to them if they have a qualified emergency and used alternative transportation to get to work that day.	N/A	Tier 3	Developer, Future Employers, and/or TMA	1, 2

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24 (N/A)[3]	Annual Monitoring	Conduct annual survey of all employees and residents to determine overall mode share and usage of TDM programs. Adjust existing TDM programs accordingly. This may include conducting counts, and be part of a trip cap program.	N/A	Tier 3	Developer and/or TMA	1, 2
Transit System Improvements						
25 (TST-2)	Implement Transit Access Improvements and Centralized Transit Hub	Pedestrian and bicycle mobility improvements near transit facilities; transit shelter improvements and amenities. This may include a centralized transit hub for the site. This hub could include co-location of multiple other strategies, such as a bikeshare station, real-time transit displays, and others.	N/A	Tier 3	Developer and Unitrans	1, 3

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Policies and Programs for Consideration in Nishi Gateway Transportation Demand Management Plan						
ID[1]	**TDM Measure**	**Description**	**Level of Effectiveness (VMT Reduction)**	**Level of Confidence**[2]	**Responsible Party**	**Objectives Targeted**
26 (TST-3)	Expand Transit Network	Comprehensive transit network with convenient and proximate access to project site; Well-connected internal network linking land use and activity centers; Connections to transit facilities external to the site	0.10 - 5%	Tier 1	Developer and Unitrans	1, 3
27 (TST-3B)	Modify Unitrans Bus Route	Work with Unitrans to explore revising the alignment of Route W (that connects the UCD Silo Terminal to South Davis) through the project site with a stop at the center of the development.	N/A	Tier 3	Developer and Unitrans	1, 3

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[2] Tier 1 = VMT reduction effectiveness has been quantified with significant evidence;
Tier 2 = VMT reduction effectiveness has been quantified with limited evidence;
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Policies and Programs for Consideration in Nishi Gateway Transportation Demand Management Plan						
ID[1]	**TDM Measure**	**Description**	**Level of Effectiveness (VMT Reduction)**	**Level of Confidence**[2]	**Responsible Party**	**Objectives Targeted**
28 (TST-4)	Increase Transit Service Frequency/Speed	Reduced headways; Increased reliability; Limited stop service; Implementation of operational improvements such as transit signal priority and queue jumping. These specific improvements could be applied to a modified version of Unitrans Route W or Route M (which is within walking distance of the project).	0.02 - 2%	Tier 1	Developer and Unitrans	1, 2, 3
29 (TST-6)	Provide Local Shuttles	Smaller vehicles provide direct connections to the UC Davis Silo and/or MU Terminals, Downtown Davis, the Davis train station, shopping centers, medical office complexes, and/or residential areas	N/A	Tier 3	Developer, Potentially TMA	1, 3

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Policies and Programs for Consideration in Nishi Gateway Transportation Demand Management Plan						
ID[1]	**TDM Measure**	**Description**	**Level of Effectiveness (VMT Reduction)**	**Level of Confidence**[2]	**Responsible Party**	**Objectives Targeted**
Parking Programs						
30 (PDT-1)	Limit Parking Supply	Intentional reduction in minimum parking requirements, and implementation of shared parking provisions (for instance, mixing employee parking spaces with resident parking spaces). Suggested options for the Nishi-Gateway project include creating a shared visitor parking area (shared jointly by residential, office, and retail visitors) and/or a shared parking area for employees/residential tenants of adjacent buildings.	5 – 7%	Tier 1	Developer	1, 2
31 (PDT-2A)	Unbundle Parking Costs	Require tenants / homeowners / employees to pay separately for a dedicated parking space or parking permit, so that the cost of parking is not built into a flat monthly lease payment.	2.6 – 7%	Tier 1	Developer, Future Employers	1, 2

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Policies and Programs for Consideration in Nishi Gateway Transportation Demand Management Plan						
ID[1]	**TDM Measure**	**Description**	**Level of Effectiveness (VMT Reduction)**	**Level of Confidence**[2]	**Responsible Party**	**Objectives Targeted**
32 (PDT-2B)	Parking Access Fees	In addition to flat daily and monthly parking charges, entry and exit fees will be charged with a discount during off-peak periods. An alternative for consideration for the Nishi project would be to gate residential parking areas and implement variable parking pricing for residents. The variable pricing could include a base monthly fee and additive fees based on the number of daily trips (which impact GHG/air quality) and peak hour trips (which impact congestion) made. The revenue generated by parking fees could support other ongoing travel programs.	N/A	Tier 1	Developer	1, 2
33 (PDT-3)	Implement Market Price Public Parking	For visitors and the general public, require a market-rate fee to park on-street or in shared structures.	2 – 3%	Tier 1	Developer	1, 2

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Policies and Programs for Consideration in Nishi Gateway Transportation Demand Management Plan						
ID[1]	**TDM Measure**	**Description**	**Level of Effectiveness (VMT Reduction)**	**Level of Confidence**[2]	**Responsible Party**	**Objectives Targeted**
34 (N/A)[3]	Shared Parking / Space-Efficient Parking	Innovative parking programs including shared use parking, satellite parking, and alternate pricing for long-term vs. short-term parking.	N/A	Tier 3	Developer	1

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