3.16 TRANSPORTATION, CIRCULATION, AND PARKING

This section assesses the potential for implementation of the Orchard Park Redevelopment component of the 2018 LRDP to result in impacts related to transportation, at the project-specific level, that are not fully addressed in Section 3.16, "Transportation, Circulation, and Parking," of Volume 1 of this EIR.

Comments received on the NOP raised concerns regarding potential increases in congestion on the adjacent roadway network, primarily within the City of Davis. Other concerns included adequate provision of alternative transportation infrastructure, including bicycle, pedestrian, and bus facilities. As they pertain to implementation of the Orchard Park Redevelopment component of the 2018 LRDP, these impacts are described and addressed within this section.

3.16.1 Regulatory Setting

Plans, policies, regulations, and laws (applicable to and/or considered for the Orchard Park Redevelopment component) related to transportation are provided in Volume 1 of this EIR. As the regulatory setting provided in Volume 1 considers potential development, including the Orchard Park Redevelopment component, within the entirety of the UC Davis campus as envisioned through the 2018 LRDP, no additional regulatory setting is provided for the Orchard Park Redevelopment component.

3.16.2 Environmental Setting

Section 3.16, "Transportation, Circulation, and Parking," of Volume 1 describes the existing local and regional transportation facilities serving the UC Davis campus, including the Orchard Park site. The following existing transportation system information specific to the Orchard Park site supplements the environmental setting described in Volume 1.

ROADWAY SYSTEM

Vehicular access to and from the Orchard Park site is available via Orchard Park Drive and Orchard Park Road, which transitions to Orchard Park Circle at its western terminus near State Route (SR) 113. Both roadways are low volume two-lane roadways providing local access to on-campus housing in the northwest quadrant of the UC Davis central campus.

Vehicles traveling to/from SR 113 or the Russell Boulevard corridor can access the Orchard Park site at the Russell Boulevard/Orchard Park Drive intersection, a full access side-street stop-controlled intersection located near the northeast corner of the Orchard Park site. Vehicles traveling to/from the La Rue Road corridor or other on-campus locations can access the Orchard Park site via the Orchard Road/Orchard Park Drive intersection, an all-way stop controlled intersection near the southeast corner of the Orchard Park site. East of the Orchard Park site, Orchard Road connects with La Rue Road at a signalized intersection. From the La Rue Road/Orchard Road intersection, vehicles can travel north to the City of Davis or south towards the UC Davis core campus and Interstate 80 (I-80).

BICYCLE AND PEDESTRIAN FACILITIES

The Orchard Park site is served by an extensive network of bicycle and shared-use facilities. Class I bike paths in the immediate vicinity of the Orchard Park site connect to West Village (via the SR 113 bike/pedestrian overcrossing) and the central UC Davis campus. Class I bike paths are located on the south side of Orchard Road east of Orchard Park Drive, on the south side of Russell Boulevard, on the north side of Russell Boulevard between Guava Lane and Sycamore Lane, and on the west side of La Rue Road south of Russell Boulevard. Roadways with Class II bicycle lanes near the Orchard Park site include Orchard Road, Sycamore Lane, and Anderson Road.

Between the SR 113 overcrossing and La Rue Road, pedestrians are able to walk on the south side of Orchard Park Circle/Orchard Road on a combination of sidewalks and a shared-use path. Sidewalks are not available on the north side of Orchard Park Circle/Orchard Road except for the segment between Atrium Way and La Rue Road. Sidewalks are available on both sides of Orchard Park Drive between Russell Boulevard and Orchard Road; however, frequent driveway curb cuts and on-street parking areas interrupt the pedestrian realm. Sidewalks are not present on Orchard Park Drive south of Orchard Road except for within the immediate vicinity of The Colleges at La Rue Apartments.

Marked crosswalks are located on all vehicle approaches of the Orchard Road/Orchard Park Drive, Russell Boulevard/Sycamore Lane, and Russell Boulevard/Anderson Road. The La Rue Road/Orchard Road intersection operates with a pedestrian scramble phase, enabling pedestrians to cross the intersection in any direction. A marked crosswalk is provided for the Russell Boulevard shared-use path at Orchard Park Drive.

The Russell Boulevard/Sycamore Lane intersection provides direct access to the shared-use path on the south side of Russell Boulevard, and has a bicycle only signal phase. The Russell Boulevard/Anderson Road-La Rue Road intersection has a dedicated southbound left turn lane for cyclists that connects to the southeast corner of the intersection, allowing access to the shared-use path on the south side of Russell Boulevard. Bicycle and pedestrian access is also provided over SR 113 and under La Rue Road through grade-separated crossings.

3.16.3 Environmental Impacts and Mitigation Measures

SIGNIFICANCE CRITERIA

Refer to Section 3.16, “Transportation, Circulation, and Parking,” in Volume 1 for a discussion of applicable Significance Criteria.

ANALYSIS METHODOLOGY

Analytical methods for the assessment of potential transportation impacts are detailed in Section 3.16, “Transportation, Circulation, and Parking,” in Volume 1 of this EIR. Details specific to the Orchard Park Redevelopment component are provided below.

Roadway Operations

The project-level roadway impact analysis relies on a comparison of 2016 Baseline and 2016 Baseline plus Orchard Park Redevelopment intersection level of service (LOS). For 2016 Baseline plus Orchard Park Redevelopment conditions, a.m. and p.m. peak hour traffic volumes were developed for each study intersection that would potentially be affected by project-generated traffic. These represent a subset of the study intersections analyzed in Volume 1. The turning movement forecasts for each

intersection are contained in Appendix H. These forecasts were used to calculate a.m. and p.m. peak hour vehicle LOS for the eleven study intersections. Table 3.16-1 compares the intersection LOS results for 2016 Baseline and 2016 Baseline plus Orchard Park Redevelopment conditions.

All study intersections operate within acceptable thresholds in both the 2016 Baseline and the 2016 Baseline plus Orchard Park Redevelopment scenario.

Bicycle Facilities

The potential impact to bicycle facilities was evaluated based on whether the Orchard Park Redevelopment component would physically disrupt an existing facility or interfere with the implementation of a planned facility. In addition, the Orchard Park Redevelopment component was evaluated to determine if it would create potential conflicts with applicable policies, plans, or programs (as defined in the Regulatory Setting in Volume 1) supporting bicycle use such that the conflict could reduce bicycle trips or increase conflicts between bicyclists or other modes.

The Orchard Park Redevelopment component would include an off-street bike path that traverses east-west through the Orchard Park site from Orchard Park Drive to the on-site parking lot. A new bicycle, pedestrian, and emergency vehicle access route would be provided along the northwest edge of the Orchard Park site, connecting the Russell Boulevard shared-use path with the larger on-site parking lot. A new north-south bike path would also connect the proposed east-west bike path with Orchard Park Circle. The Orchard Park Redevelopment also proposes realigning the Russell Boulevard shared-use path at Orchard Park Drive to intersect the roadway at a 90-degree angle. Specific facilities that would accommodate new bicycle trips generated by the Orchard Park Redevelopment include Orchard Road/Orchard Park Circle, Sprocket Bikeway, Russell Boulevard, and Orchard Park Drive, as well as internal circulation facilities within the site.

Pedestrian Facilities

The potential impact to pedestrian facilities was evaluated based on whether the Orchard Park Redevelopment component would physically disrupt an existing facility or interfere with the implementation of a planned facility. In addition, the Orchard Park Redevelopment component was evaluated to determine if it would create potential conflicts with applicable policies, plans, or programs (as defined in the Regulatory Setting in Volume 1) supporting pedestrian travel such that the conflict could reduce walk trips or increase conflicts with other modes.

The site plan for the Orchard Park Redevelopment component includes new pedestrian pathways, sidewalks, and crosswalks throughout the site. Facilities likely to accommodate project-specific pedestrian demand associated with the Orchard Park Redevelopment component include Orchard Road/Orchard Park Circle, Russell Boulevard, La Rue Road, and Orchard Park Drive, as well as internal circulation facilities within the Orchard Park site.

Transit Service and Facilities

The potential impact to transit service or facilities was evaluated based on whether the Orchard Park Redevelopment component would physically disrupt an existing facility/service or interfere with the implementation of a planned facility/service. In addition, the Orchard Park Redevelopment component was evaluated to determine if it would create potential conflicts with applicable policies, plans, or programs (as defined in the Regulatory Setting in Volume 1) supporting transit such that the conflict could reduce transit trips or increase conflicts with other modes.

The Orchard Park Redevelopment does not propose any new or modified transit service or facilities.

Table 3.16-1 Study Intersection Operations – 2016 Baseline and 2016 Baseline Plus Orchard Park Redevelopment Conditions

No.	Study Intersection	Control Type	Jurisdiction	2016 Baseline				2016 Baseline Plus Orchard Park Redevelopment			
				A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
5	Russell Boulevard/SR 113 Southbound (SB) Ramps	Signal	Caltrans	7	A	7	A	7	A	7	A
6	Russell Boulevard/SR 113 Northbound (NB) Ramps	Signal	Caltrans	19	B	35	D	18	B	41	D
7	Russell Boulevard/Orchard Park Drive	SSSC	City of Davis	3 (32)	A (D)	4 (27)	A (D)	5 (30)	A (D)	9 (58)	A (F)
8	Russell Boulevard/Sycamore Lane	Signal	City of Davis	21	C	20	B	20	C	21	C
9	Russell Boulevard/Anderson Road/La Rue Road	Signal	City of Davis	24	C	27	C	24	C	28	C
15	Orchard Road/Orchard Park Drive	AWSC	UC Davis	8	A	7	A	9	A	8	A
16	Orchard Road/La Rue Road	Signal	UC Davis	22	C	28	C	29	C	33	C
20	Hutchison Drive/SR 113 SB Ramps	SSSC	Caltrans	12 (24)	B (C)	2 (15)	A (B)	13 (36)	B (E)	2 (18)	A (C)
21	Hutchison Drive/SR 113 NB Ramps	SSSC	Caltrans	5 (29)	A (D)	3 (17)	A (C)	5 (32)	A (D)	3 (17)	A (C)
22	Hutchison Drive/Health Sciences Drive	Signal	UC Davis	7	A	7	A	8	A	7	A
23	Hutchison Drive/Extension Center Drive	SSSC	UC Davis	2 (30)	A (D)	2 (30)	A (D)	2 (32)	A (D)	2 (31)	A (D)

Notes:

1. Traffic Control: AWSC = all-way stop control; SSSC = side street stop control; Signal = traffic signal.
2. Signals, all-way stops and roundabouts: LOS based on average control delay in seconds. Side street stop controlled intersections: LOS given for the average intersection delay followed by the worst side-street movement in parentheses.

Bold text indicates study intersections that exceed acceptable LOS thresholds.

Source: Fehr & Peers 2018

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

Impact 3.16-1: Freeway level of service impacts.

Construction of the Orchard Park Redevelopment would increase local and regional vehicle travel, which would contribute unacceptable LOS F conditions on I-80. This impact would therefore be **significant**.

Portions of I-80 through the study area in Yolo and Solano counties operate at LOS F during peak periods. This has been documented through various Caltrans, SACOG, and MTC studies. Additional on-campus housing growth associated with the Orchard Park Redevelopment would generate new peak period vehicle trips that would contribute to future LOS F conditions.

OPR Mitigation Measure 3.16-1: Implement TDM strategies to reduce vehicle trips on I-80.

Implement 2018 LRDP Mitigation Measure 3.16-1.

Significance after Mitigation

Implementation of OPR Mitigation Measure 3.16-1 would reduce vehicle travel to and from campus on I-80. However, the level of delay reduction associated with TDM strategies is uncertain. Caltrans has identified the need for carpool lanes on I-80 between Richards Boulevard in Davis and West Sacramento to accommodate regional traffic growth, which includes the employee and student growth associated with UC Davis. The carpool lane project has already been incorporated into the 2016 SACOG MTP/SCS and is a fully funded project expected to be implemented by 2036. Roadway capacity expansion will lead to induced vehicle travel that will likely offset the short-term congestion relief benefits of the I-80 carpool lanes. Furthermore, LOS F conditions will continue to occur during peak periods on portions of I-80 in Yolo and Solano counties. Therefore, this impact would remain **significant and unavoidable**.

Impact 3.16-2: Intersection level of service impacts.

Construction of the Orchard Park Redevelopment would increase local and regional vehicle travel, but not to the extent that would cause unacceptable LOS conditions at study intersections. This impact would therefore be **less than significant**.

Table 3.16-1 presents 2016 Baseline and 2016 Baseline plus Orchard Park Redevelopment intersection delay and LOS results. As shown, all study intersections would experience minor increases in delay because of the Orchard Park Redevelopment. However, all study intersections would still operate within acceptable thresholds.

Mitigation Measures

No mitigation measures are necessary.

Impact 3.16-3: Impacts to transit service and facilities.

The Orchard Park Redevelopment component would not physically disrupt an existing transit facility/service or interfere with the implementation of a planned transit facility/service. This impact would therefore be **less than significant**.

The Orchard Park Redevelopment does not include any proposed physical changes to existing transit service or facilities. The Orchard Park Redevelopment would not interfere with the implementation of planned transit service or facilities identified in the City of Davis General Plan, the City of Davis Short Range Transit Plan, or the Yolobus Short Range Transit Plan. It would also not interfere with planned regional transit projects identified in the SACOG MTP/SCS.

The Orchard Park site is situated near existing bus stops on Russell Boulevard and La Rue Road, and it is anticipated that new passenger demand generated by the Orchard Park Redevelopment component would be accommodated at existing bus stops.

New transit demand generated by the Orchard Park Redevelopment component could reach an estimated 80 daily passengers. Due to the proximity of the Orchard Park site to the core campus area and the distribution of anticipated Orchard Park Redevelopment ridership throughout the day, it is not expected that the Orchard Park Redevelopment component would adversely affect transit service operations (e.g., nearby Unitrans service on La Rue Road).

Mitigation Measures

No mitigation measures are necessary.

Impact 3.16-4: Impacts to bicycle facilities.

The Orchard Park Redevelopment component would increase bicycle, pedestrian, and automobile trips on the UC Davis campus and within the vicinity of the Orchard Park site, which could generate bicycle volumes that physically disrupt the use of existing facilities, increase the competition for physical space between the modes, and increase the risk of collisions. This impact would therefore be **significant**.

As an optional mitigation action under 2018 LRDP Mitigation Measure 3.16-4, UC Davis may determine that a project-level analysis of potential bicycle facility impacts is appropriate for specific development projects proposed in the 2018 LRDP that may adversely affect the bicycling environment. In the case of the Orchard Park Redevelopment, the combination of substantial project-related bicycle activity and high volumes of nearby background bicycle traffic justifies additional analysis. As such, this analysis considers the potential for the project to disrupt the bicycling environment in the following key areas:

- Orchard Park Circle/Orchard Road
- Orchard Park Drive
- Russell Boulevard
- Access to Health Sciences District

Student and employee housing growth associated with the Orchard Park Redevelopment component would generate up to approximately 800 new bicyclists commuting to the central campus on a daily

basis. As discussed in 2018 LRDP Impact 3.16-4, additional on-campus bicycle activity generated by on-campus housing growth (such as the Orchard Park Redevelopment component), together with increased automobile, transit, and pedestrian trips, could result in crowding on existing bicycle facilities and in shared right-of-way environments, particularly during peak travel periods such as the morning commute into the core campus area or passing periods between classes. Crowding would result in the competition for physical space between the modes, which in turn would increase the potential for collisions, including those involving bicyclists. Since the Orchard Park Redevelopment component includes several dwelling units for families, it is likely that project-related bicyclists would include children.

Project-related bicycle activity would be accommodated on the existing shared-use paths on Russell Boulevard, Orchard Road (east of Orchard Park Drive), and La Rue Road and bike lanes on Orchard Road. In addition to existing bicycle facilities, bicycle access to and from the Orchard Park site would be available on the following new bicycle facilities proposed within the Orchard Park site:

- East-west bike path between the on-site parking lot and Orchard Park Drive
- North-south bike path between the new east-west bike path and Orchard Park Circle
- North-south bike path along the northwest edge of the Orchard Park site between Russell Boulevard and the on-site parking lot

A considerable share of project-related bicycle trips would utilize existing bicycle facilities along Orchard Park Circle/Orchard Road for travel to the core campus area. Existing facilities include Class II bike lanes between the SR 113 bike/pedestrian overcrossing and Orchard Park Drive and a Class I bike path from Orchard Park Drive to La Rue Road. Along this route, existing eastbound bicycle volumes during the morning peak hour measures at 460 bicyclists. Bicycle volume growth attributed to the Orchard Park Redevelopment component could cause crowding on existing bicycle facilities along this segment, which in turn could increase the potential for bicycle-related collisions.

Access to the primary proposed student housing parking lot would be provided at the western terminus of Orchard Park Circle, increasing the number of vehicle trips traveling on Orchard Park Circle through the Orchard Park site. Where bicyclists cross Orchard Park Circle, increased vehicle traffic would affect conditions for bicyclists. All drivers accessing the parking lot would cross two bicycle crossings, including:

- The existing bike crossing connecting the westbound Orchard Park Circle Class II bike lane with the SR 113 bike/pedestrian overcrossing approach, immediately adjacent to the parking lot driveway; and
- The new bike crossing connecting the proposed internal north-south bike path with the eastbound Orchard Park Circle Class II bike lane.

At the all-way stop-controlled intersection of Orchard Park Circle and Orchard Park Drive, project-related bicycle volumes would increase the number of bicyclists traveling in both the east-west and the north-south directions. Substantial volumes of stop-sign non-compliance could increase the potential for bike-related collisions and disrupt the use of this facility for bicyclists.

Additional vehicle volumes generated by the Orchard Park Redevelopment component would increase the potential for bicycle-vehicle conflicts at the bike/pedestrian overcrossing approach from Orchard Park Circle. Bicyclists traveling in the westbound bike lane are currently required to cross Orchard Park Circle at an unmarked crossing to access the bridge on the south side of the roadway. Increased potential for conflicts with bicycles would also occur at this location because the existing bike path approach does not intersect Orchard Park Circle at a 90-degree angle, limiting sight lines

for approaching eastbound bicyclists and vehicles, particularly vehicles exiting the proposed resident parking lot to travel eastbound on Orchard Park Circle.

For bicyclists utilizing the Russell Boulevard shared-use path, access to the Orchard Park site would be provided off of Orchard Park Drive. Many drivers to/from the Orchard Park site would cross the Russell Boulevard bike path crossing of Orchard Park Drive. Additionally, the Orchard Park Redevelopment component would increase the number of bicyclists using the Russell Boulevard bike path. Currently, the Russell Boulevard bike path has horizontal curves that slow bicyclists approaching Orchard Park Drive. Currently, neither the west nor east bike path approach intersects Orchard Park Drive at a 90-degree angle. The approach angles make it difficult for bicyclists to see approaching vehicles on Orchard Park Drive, especially southbound approaching vehicles. Adding traffic to this bike path crossing would increase the potential for bicycle-vehicle conflicts. The Orchard Park Redevelopment component proposes to realign the west path approach to intersect Orchard Park Drive at a 90-degree angle, but the east path approach would remain as-is.

Additional project-related bicycle and pedestrian use of the Russell Boulevard shared-use path would increase the competition for physical space between bicyclists and pedestrians. The affected path segment is from SR 113 to La Rue Road, where path users would then connect with the extensive on-campus bicycle and pedestrian network. Increased use of this path segment would result in a higher potential for bicycle-bicycle and bicycle-pedestrian collisions.

The conceptual site plan may conflict with the following planned bicycle improvement identified in the UC Davis Bicycle Plan:

- Build a bike path from the east end of the Orchard Park bike bridge to the Russell Boulevard bike path parallel to State Highway 113 to provide a direct and less congested bike path (Medium priority).

Exclusion of this facility would not only limit bicycle access to and from the Orchard Park site, but also for through bicyclists traveling between off-site campus destinations.

The concentration of graduate students expected to live at the Orchard Park site would increase demand for bicycle facilities between the Orchard Park site and complementary land uses, such as the Health Sciences District and King Hall. Currently, the only available north-south bicycle facility within the vicinity of the Orchard Park site is the La Rue Road shared-use path, located approximately ¼ mile east of the Orchard Park site. Accessing the path from the Orchard Park site requires a significant out-of-direction movement, diminishing the likelihood of Orchard Park Redevelopment residents utilizing the path for north-south travel. The most direct route from the Orchard Park site to the Health Sciences District follows Orchard Park Drive, Extension Center Drive, and the unnamed roadway along the western edge of the UC Davis Student Farm south to Hutchison Drive. However, this route lacks designated bicycle facilities, and the segment south of Extension Center Drive is not currently accessible by Hutchison Drive.

The Orchard Park Redevelopment would not interfere with the implementation of planned bicycle facilities identified in the City of Davis General Plan or the City of Davis Beyond Platinum Bicycle Action Plan. It would also not interfere with planned regional bicycle projects identified in the SACOG MTP/SCS.

OPR Mitigation Measure 3.16-4a: Improve the east-west bicycle connection across the Orchard Park site between the SR 113 bike/pedestrian overcrossing and Orchard Park Drive.

UC Davis shall improve the east-west bicycle connection across the Orchard Park site between the SR 113 bike/pedestrian overcrossing and Orchard Park Drive to accommodate project-generated bicycle and vehicle trips. Potential improvement alternatives include:

1) Install a shared-use path on the south side of Orchard Park Circle between the SR 113 bike/pedestrian overcrossing and Orchard Park Drive, either as a conversion of the existing sidewalk facility or a new parallel facility south of the existing sidewalk. Realign the east overcrossing approach with the new shared-use path and retrofit the existing overcrossing access at Orchard Park Circle to form a 90-degree angle. Install a new bicycle crossing on Orchard Park Circle to connect the proposed internal north-south bike path with the new Orchard Park Circle shared-use path. Design of the path should consider potential effects on established vegetation on the south side of Orchard Park Circle.

2) Provide on-street bicycle facilities (e.g., bike lanes, protected bike lanes, etc.) along Orchard Park Circle. Design the transition of Orchard Park Circle at the west entrance to the proposed parking lot to prioritize bicycle access and safety. Use of a roundabout, slip ramp, t-intersection for cars, or other type of mode separation may be appropriate.

3) Replace the existing bike lanes with a two-way Class IV cycletrack on the south side of Orchard Park Circle. This option may require reconstruction of the north or south curb and gutter to ensure adequate right-of-way for two travel lanes and the cycletrack.

4) Modify the site plan to close Orchard Park Circle to vehicle traffic. Remove the existing speeds humps and convert Orchard Park Circle to bicycle-only. Restructure the internal circulation network to allow for a centralized vehicle loading and parking access configuration, including an internal east-west vehicle connection between Orchard Park Drive and the proposed large resident parking lot. For internal roadways, consider utilizing shared-space design principles to encourage low vehicle speeds and activate use of the roadways as a communal space.

5) Close Orchard Park Circle to vehicle traffic. Remove the existing speeds humps and convert Orchard Park Circle to bicycle-only.

6) UC Davis shall modify the existing traffic control along Orchard Road/Orchard Park Circle, including at the Orchard Road/Orchard Park Drive intersection, as the volume and mix of traffic changes to provide a desirable environment for walking and bicycling.

Implementation of any one of alternatives 1 through 5, together with the implementation of alternative 6, would enhance the east-west bicycle connection across the Orchard Park site between the SR 113 bike/pedestrian overcrossing and Orchard Park Drive. New shared-use paths should be sufficiently sized to prevent crowding and minimize the potential for conflicts between bicyclists and pedestrians. The bicycle facility improvements described above should be constructed prior to the occupancy of new Orchard Park dwelling units.

OPR Mitigation Measure 3.16-4b: Improve the Russell Boulevard shared-use path between the SR 113 northbound ramps and La Rue Road.

UC Davis shall improve the Russell Boulevard shared-use path between the SR 113 northbound ramps and La Rue Road to accommodate project-generated bicycle and pedestrian trips traveling to central campus. Potential improvement alternatives include:

1) Widen the existing shared-use path to accommodate bicyclists and pedestrians within a shared facility. Consider installing special pavement treatment or striping to clearly demarcate pedestrian and bicycle zones.

2) Physically separate bicyclists and pedestrians by constructing new pedestrian pathways parallel to the existing shared-use path.

3) Install pedestrian-scale lighting to improve visibility.

4) Reconfigure the Russell Boulevard bike path east approach to Orchard Park Drive so that the bike path approach intersects Orchard Park Drive at a 90-degree angle. The reconfiguration should maintain horizontal curves to slow bicyclists approaching Orchard Park Drive.

Implementation of any one of alternatives 1 through 3, together with the implementation of alternative 4, would enhance the Russell Boulevard shared-use path between the SR 113 northbound ramps and La Rue Road. New shared-use paths should be sufficiently sized to prevent crowding and minimize the potential for conflicts between bicyclists and pedestrians. The bicycle facility improvements described above should be constructed prior to the occupancy of new Orchard Park dwelling units.

OPR Mitigation Measure 3.16-4c: Improve the north-south bicycle connection between the Orchard Park site and the Health Sciences District.

UC Davis shall improve the north-south bicycle connection between the Orchard Park site and the Health Sciences District. Potential improvement alternatives include:

1) Install new bicycle facilities on Orchard Park Drive between Orchard Park Circle and Extension Center Drive, on Extension Center Drive between Orchard Park Drive and the UC Davis Student Farm, and on the connecting unnamed road between Extension Center Drive and Hutchison Drive. New bicycle facilities could include a mixture of on-street bike lanes and off-street shared-use paths, as feasible. From Hutchison Drive, bicyclists would connect with the existing bike lanes on Health Science Drive into the Health Sciences District.

2) Install new bicycle facilities on Orchard Park Drive between Orchard Park Circle and Extension Center Drive and on Extension Center Drive between Orchard Park Drive and Hutchison Drive. From Hutchison Drive, bicyclists would connect with the existing shared-use path on La Rue Road. New bicycle facilities could include a mixture of on-street bike lanes and off-street shared-use paths, as feasible.

3) Install new shared-use path from Orchard Park Circle to the Hutchison Drive/Health Science Drive intersection. The path could parallel the SR 113 frontage or traverse through the student farms.

Implementation of any one of alternatives 1 through 3 would provide a contiguous north-south bicycle route for project-generated bicycle trips traveling to the Health Sciences District. The bicycle facility improvements described above should be constructed prior to the occupancy of new Orchard Park dwelling units.

Significance after Mitigation

Implementation of OPR Mitigation Measures 3.16-4a and 3.16-4c would reduce potential significant impacts associated with bicycle facilities to a less-than-significant level by supporting bicycling to and from the Orchard Park site and minimizing conflicts between bicycles and other travel modes.

Implementation of OPR Mitigation Measure 3.16-4b would address significant impacts associated with bicycle facilities by supporting bicycling to and from the Orchard Park site and minimizing conflicts between bicycles and other travel modes. However, some improvements or modifications could be subject to final approval and actions by the City of Davis and their implementation cannot be guaranteed. This condition would cause the impact to remain significant and unavoidable.

As noted above, due to uncertainties regarding the ability for the aforementioned mitigation measures to reduce impacts to bicycle facilities, bicycle facility impacts on the Russell Boulevard shared-use path between the SR 113 northbound ramps and La Rue Road would be considered **significant and unavoidable**.

Impact 3.16-5: Impacts to pedestrian facilities.

The Orchard Park Redevelopment component would increase bicycle, pedestrian, and automobile trips on the UC Davis campus and within the vicinity of the Orchard Park site, which could generate pedestrian volumes that physically disrupt the use of existing facilities, increase the competition for physical space between the modes, and increase the risk of collisions. This impact would therefore be **significant**.

As an optional mitigation action under 2018 LRDP Mitigation Measure 3.16-5, UC Davis may determine that a project-level analysis of potential pedestrian facility impacts is appropriate for specific development projects proposed in the 2018 LRDP that may adversely affect the pedestrian environment. In the case of the Orchard Park Redevelopment, the combination of substantial project-related pedestrian activity and high volumes of nearby background pedestrian traffic justifies additional analysis. As such, this analysis considers the potential for the project to disrupt the nearby pedestrian environment.

Student and employee housing growth associated with the Orchard Park Redevelopment component would accommodate approximately 1,400 new on-campus student residents (plus associated family members) who would generate a variety of walking trips throughout the day. Since the Orchard Park Redevelopment component includes several dwelling units for families, it is likely that project-related pedestrians would include children. Additional pedestrian activity generated by the Orchard Park Redevelopment component, together with increased automobile, transit, and pedestrian trips, could result in crowding on existing pedestrian facilities and in shared right-of-way environments. Crowding would result in the competition for physical space between the modes, particularly at pedestrian crossing locations, which in turn would increase the potential for collisions, including those involving pedestrians.

The site plan identifies an extensive network of pedestrian pathways and shared-use paths serving Orchard Park residents and visitors. These include new sidewalks along the entirety of the Orchard Park site frontages on Orchard Park Circle and Orchard Park Drive, as well as internal walkways providing pedestrian access to new dwelling units and community facilities. The Orchard Park Redevelopment component also includes two new marked pedestrian crossings on Orchard Park Drive connecting the Orchard Park site with the Russell Park Apartments.

Pedestrian travel to off-site destinations would be accommodated on existing adjacent pedestrian facilities, including the shared-use path on the south side of Orchard Road east of Orchard Park Drive, the Russell Boulevard shared-use path, and off-street pathways immediately east of the Orchard Park site through the Russell Park Apartments. However, sidewalks do not exist or are discontinuous at several locations near the Orchard Park site:

- The north side of Orchard Road between Orchard Park Drive and La Rue Road
- Both sides of Orchard Park Drive between Orchard Road and Extension Center Drive
- Both sides of Extension Center Drive between Orchard Park Drive and Hutchison Drive

These pedestrian network gaps would limit pedestrian travel between the Orchard Park site and other on-campus destinations. The lack of pedestrian facilities along these corridors would require pedestrians to mix with other modes, increasing the potential for pedestrian-involved collisions. While sidewalks exist for pedestrian connections in these general areas near the Orchard Park site, not all destinations are served by direct pedestrian routes, forcing some pedestrians to either walk in the street or complete out of direction travel in order to reach a desired destination.

The Orchard Park Redevelopment would not interfere with the implementation of planned pedestrian facilities identified in the City of Davis General Plan or planned regional pedestrian projects identified in the SACOG MTP/SCS.

OPR Mitigation Measure 3.16-5: Construct new pedestrian facilities to close existing pedestrian network gaps.

UC Davis shall construct new pedestrian facilities and close pedestrian network gaps in the following locations:

1) The north side of Orchard Road between Orchard Park Drive and La Rue Road.

2) One or both sides of Orchard Park Drive between Orchard Road and Extension Center Drive.

3) One or both sides of Extension Center Drive between Orchard Park Drive and Hutchison Drive.

The pedestrian facility improvements described above shall be constructed prior to the occupancy of new Orchard Park dwelling units.

Significance after Mitigation

Implementation of OPR Mitigation Measure 3.16-5 would reduce potential significant impacts associated with pedestrian facilities to a **less-than-significant** level by supporting walking to and from the Orchard Park site and minimizing conflicts between pedestrians and other travel modes.