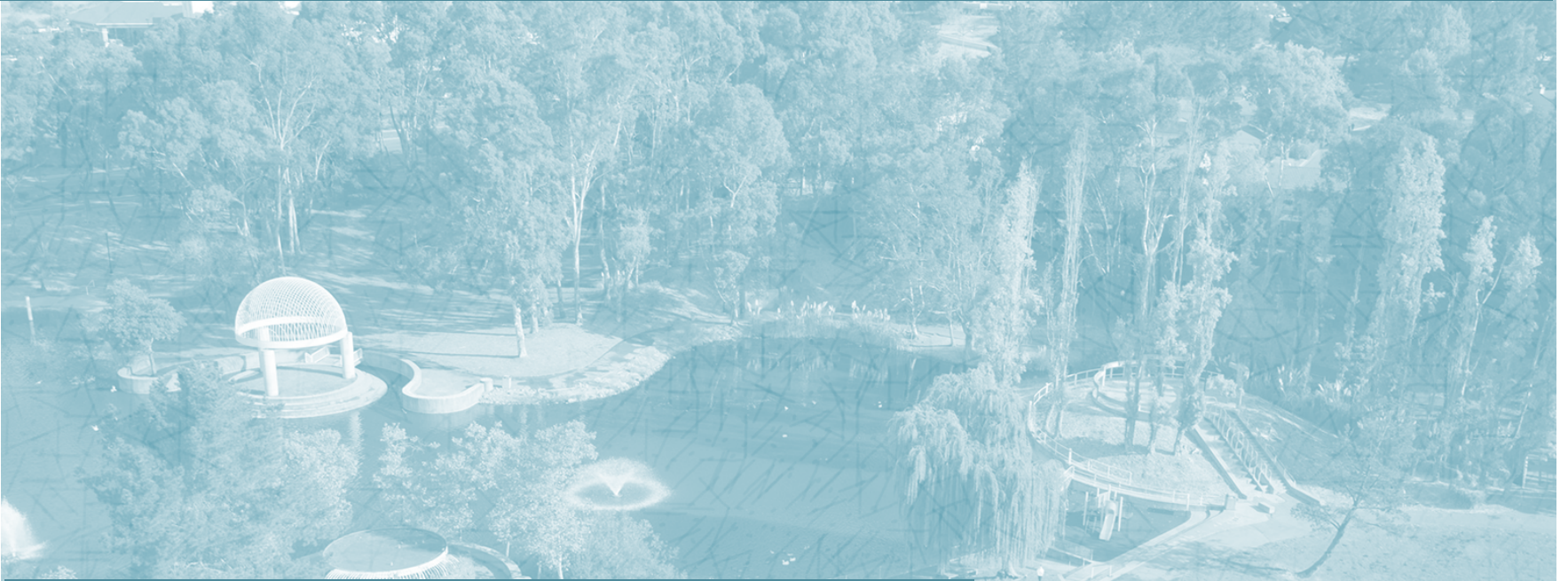


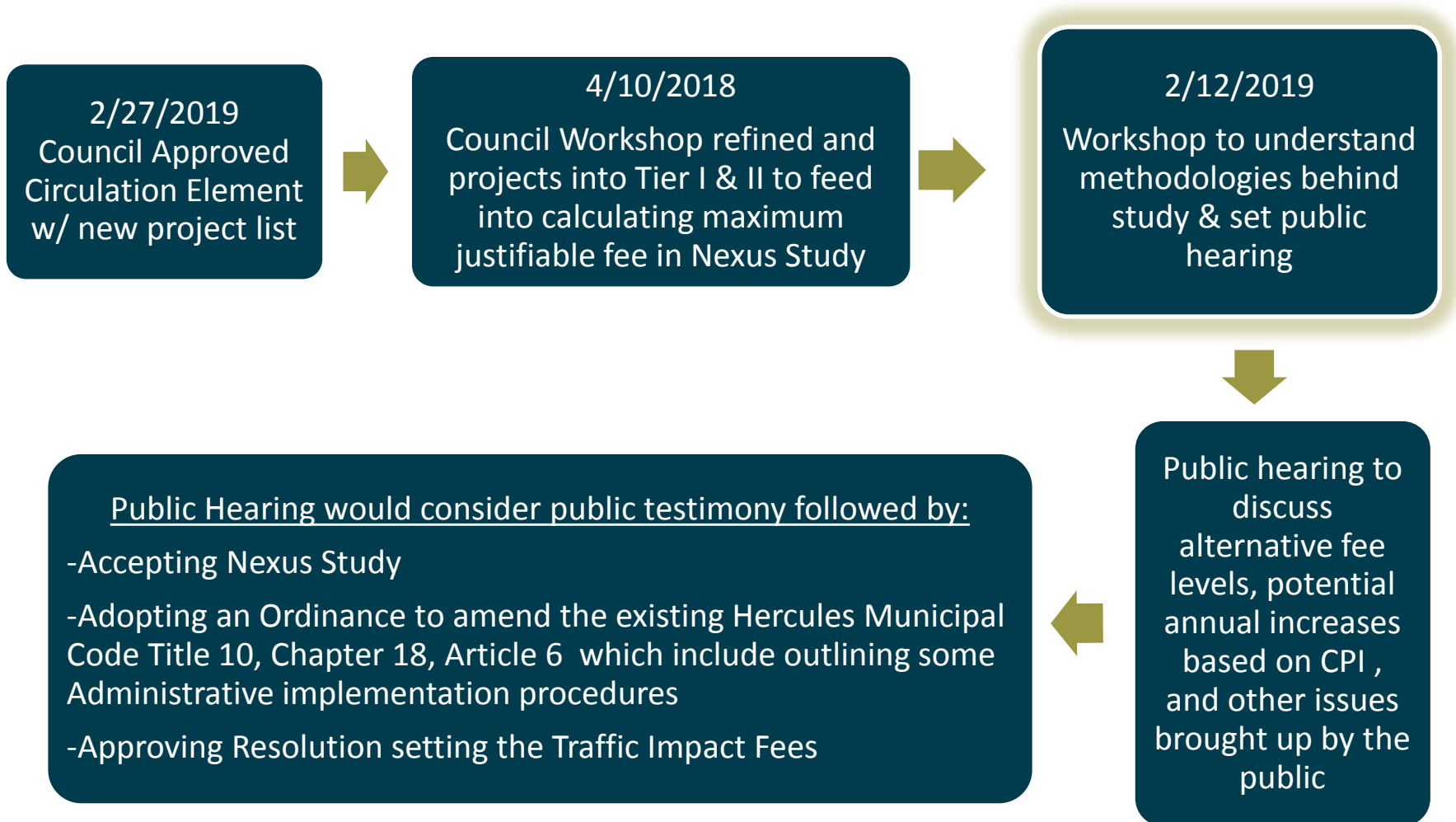
Hercules Transportation Impact Fee Nexus Study Workshop



Presentation to Hercules City Council

February 12, 2019

Project Status



Nexus Analysis Process

1

- Confirm project list

2

- Develop cost estimates

3

- Establish nexus

4

- Allocate costs

5

- Calculate maximum justifiable fees

Project List – Summary (In Fee Calculation)

- Intersection - \$746,000 (5 projects)
- Roadway - \$7,399,000 (2 projects)
- Bicycle & Pedestrian - \$5,296,000 (10 projects)
- Transit & Other - \$62,405,000
 - Regional Intermodal Transportation Center - \$53,600,000
 - RITC Parking Structure - \$8,500,000
 - Other transit - \$305,000 (2 projects)

Figure 2 - Project Locations



Intersection Improvements

Other Projects



City of Hercules Transportation Impact Fee Update
2019

Sources: Contra Costa County GIS, Census and DKS Associates

0 0.250.5 1 Miles

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

1. Signalize San Pablo Avenue & Tsushima
- 2.Reconfigure Sycamore Avenue cross section from Willow to San Pablo Avenue
3. San Pablo Avenue/John Muir Parkway to I-80 Improvements
- 4.Intersection improvements at Willow Avenue & Sycamore Avenue
- 5.Add third northbound through lane to San Pablo at Sycamore along NB San Pablo Approach
6. Pedestrian activated signal phase at Market Hall driveway across San Pablo Avenue
- *7. Update curb ramps to ADA standards at all marked crosswalks (multiple locations)
8. Hercules Creekside Trail from Alfred Noble to Sycamore Avenue
9. Multiuse path along San Pablo and Sycamore Avenues at Market Hall site
10. Pedestrian connection along Palm Avenue between Sycamore and Willow Avenues
11. Bay Trail gap closure and lighting
- *12. Expand bicycle network
13. Add sidewalk along Willow Avenue to Hercules Transit Center
14. Improve pedestrian connections to Hercules Transit Center - Sycamore Avenue to Willow
15. Extend sidewalk connections to Rodeo
16. Complete bicycle facilities on Willow Avenue between Hercules Transit Center and Mariner's Pointe (Class II or Class III)
- *17. Add lighting to Refugio Valley Trail
18. Remove crosswalk at north leg of San Pablo Avenue & Sycamore Avenue
- *19. Provide bus shelters along San Pablo Avenue
20. Parking garage serving Regional Intermodal Transit Center (RITC)
21. Complete Regional Intermodal Transit Center (RITC)
- *Not shown due to multiple locations

Project Cost Allocation

Roadway Projects

- Projects #1-5
- Percent of growth in traffic due to local trips, excluding through traffic (55-100%)

Transit, Bicycle, and Pedestrian Projects

- Expected proportion of future land use due to growth (27.44% in most cases except as listed below)
 - Parking garage project costs account for offsetting expected parking revenue
 - RITC allocated costs reduced by potential proportional fees collected under STMP

Project Cost Allocation

- Shown in Table 5 of Nexus Study
- \$75,846,000 total project costs
- \$25,312,405 allocated to fee
- Regional Intermodal Transportation Center:
 - Allocated cost reduced by expected fees paid under Subregional Transportation Mitigation Program (STMP)

| Project No. | Project Description | Allocation Basis | Cost Estimate | Percent Allocated to Hercules | Cost Allocated to Hercules |
|---------------|---|---|---------------------|-------------------------------|----------------------------|
| 1 | Signalize intersection of San Pablo Avenue & Tsushima Street | Percent of traffic volume growth due to local trips (future deficiency) | \$595,000 | 75.49 | \$449,147 |
| 2 | Reconfigure Sycamore Avenue cross section from Willow to San Pablo Ave | Percent of traffic volume growth due to local trips (future deficiency) | \$232,000 | 96.21 | \$223,205 |
| 3 | San Pablo Avenue/John Muir Parkway to I-80 Improvements | Percent of traffic volume growth due to local trips (future deficiency) | \$7,167,000 | 100.00 | \$7,166,985 |
| 4 | Intersection Improvements at Willow Avenue & Sycamore Avenue | Percent of traffic volume growth due to local trips (future deficiency) | \$91,000 | 96.57 | \$87,882 |
| 5 | Add 3rd northbound through lane to San Pablo Avenue at Sycamore | Percent of traffic volume growth due to local trips (future deficiency) | \$21,000 | 55.69 | \$11,694 |
| 6 | Install pedestrian-activated signal at Market Hall crosswalk | Percent growth DUEs | \$23,000 | 27.44 | \$6,310 |
| 7 | Upgrade or add ADA Curb Ramps | Percent growth DUEs | \$273,000 | 27.44 | \$74,900 |
| 8 | Hercules Creekside Trail from Alfred Noble to Sycamore Avenue | Included in STMP Fee | \$1,386,000 | 27.44 | \$380,264 |
| 9 | Multiuse path at Market Hall site | Percent growth DUEs | \$108,000 | 27.44 | \$29,631 |
| 10 | Pedestrian connection along Palm Ave between Sycamore and Willow Ave | Percent growth DUEs | \$284,000 | 27.44 | \$77,918 |
| 11 | Bay Trail gap closure and lighting | Percent growth DUEs | \$307,000 | 27.44 | \$84,229 |
| 12 | Expand bicycle network | Percent growth DUEs | \$26,000 | 27.44 | \$7,133 |
| 13 | Add sidewalk along Willow Avenue to Hercules Transit Center | Percent growth DUEs | \$889,000 | 27.44 | \$243,906 |
| 14 | Improve pedestrian connections to Hercules Transit Center - Sycamore Avenue to Willow | Percent growth DUEs | \$957,000 | 27.44 | \$262,563 |
| 15 | Extend sidewalk connections to Rodeo | Percent growth DUEs | \$635,000 | 27.44 | \$174,219 |
| 16 | Complete bicycle facilities between Mariner's Pointe and HTC | Percent growth DUEs | \$29,000 | 27.44 | \$7,956 |
| 17 | Add lighting to Refugio Valley Trail | Percent growth DUEs | \$675,000 | 27.44 | \$185,193 |
| 18 | Remove crosswalk at north leg of San Pablo Avenue & Sycamore Avenue | Percent growth DUEs | \$16,000 | 27.44 | \$4,390 |
| 19 | Provide bus shelters along San Pablo Avenue | Percent growth DUEs | \$32,000 | 27.44 | \$8,780 |
| 20 | Parking for Intermodal Transit Center | Percent growth DUEs | \$8,500,000 | 27.44 | \$2,332,064 |
| 21 | Complete Intermodal Transit Center/Rail Station | Percent growth DUEs less expected fee paid under STMP | \$53,600,000 | 27.44 | \$13,494,036 |
| Totals | | | \$75,846,000 | | \$25,312,405 |

Expected Development (2040)

| Land Use Category | Units | 2010 Units | 2040 Units | Growth in Units | DUE ⁽²⁾ per Unit | 2040 DUEs | Growth in DUEs |
|--|--------------------|------------|------------|---|-----------------------------|---------------|----------------|
| Single-Family | DU ⁽¹⁾ | 6,631 | 6,809 | 178 | 1.00 | 6,809 | 178 |
| Multi-Family | DU | 1,432 | 4,506 | 3,074 | 0.57 | 2,549 | 1739 |
| Retail | KSF ⁽³⁾ | 178 | 802.5 | 624 | 1.35 | 1,080 | 840 |
| Office | KSF ⁽³⁾ | 864.875 | 1,169.875 | 305 | 1.17 | 1,370 | 357 |
| Industrial | KSF ⁽³⁾ | 570.6 | 945.6 | 375 | 1.09 | 1,031 | 409 |
| | | | | | Total: | 12,838 | 3,522 |
| 1. Dwelling Unit 2. Dwelling Unit Equivalent (DUE) 3. 1000 Square feet | | | | Percent Growth DUEs $= 3,522 / 12,838$ $= 0.2744$ | | | |

Fee Calculation

Nexus Based Fee Rates

| | |
|--|--------------|
| Cost of Improvements Allocated to Growth | \$25,312,405 |
| Current Fund Balance | \$202,220 |
| Unfunded Allocated Costs | \$25,110,185 |
| Growth in Dwelling Unit Equivalents (DUEs) | 3522 |
| Cost per DUE | \$7,128.96 |

| Land Use | Units | DUE per Unit | Fee per Unit* |
|---------------|---------------|--------------|---------------|
| Single-Family | Dwelling unit | 1.00 | \$7,129 |
| Multi-Family | Dwelling unit | 0.57 | \$4,033 |
| Retail | Square Feet | 0.00135 | \$9.59 |
| Office | Square Feet | 0.00117 | \$8.35 |
| Industrial | Square Feet | 0.00109 | \$7.77 |

*Fee per unit = (Cost per DUE) x (DUE per unit)

** Fees can be scaled to include other land use types

Hercules Traffic Impact Fees

| Land Use | 2009 Nexus Study (Maximum) | 2009 CC Adopted Fees (75% of maximum) | Fees Set in 2012 (20% of Maximum) | 2019 Nexus Study (Maximum) |
|--------------------|-------------------------------|--|---|----------------------------------|
| Single family unit | \$4,830 | \$3,634 | \$982 | \$7,129 |
| Multi family unit | \$2,965 | \$2,247 | \$603 | \$4,033 |
| Retail/Flex (sf) | \$9.86 | \$5.40 | \$2.01 | \$9.59 |
| Office (sf) | \$7.13 | \$5.36 | \$1.45 | \$8.35 |
| Industrial (sf) | \$4.69 | \$3.54 | \$4.766 | \$7.77 |

STMP Fees

| Land Use | WCCTAC Original 2005 | WCCTAC (indexed to present) | WCCTAC Maximum Potential Fee | WCCTAC Board Recommended fee (75% of maximum) |
|-----------------------|-------------------------|-----------------------------------|------------------------------------|--|
| Single family unit | \$2,595 | \$3,697 | \$7,252 | \$5,439 |
| Multi family unit | \$1,648 | \$2,348 | \$3,572 | \$2,679 |
| Retail/Flex (sf) | \$3.51 | \$5.00 | \$11.63 | \$8.72 |
| Office (sf) | \$1.82 | \$2.59 | \$8.79 | \$6.59 |
| Industrial (sf) | \$2.45 | \$3.49 | \$6.59 | \$5.56 |

Notes:

1. Reflects the 2005 STMP Fee Schedule.
2. Reflects the 2005 STMP Fee Schedule if it had been consistently indexed to year 2018. The index is based on the Engineering-News Record Construction Cost Index for the San Francisco Bay Area.
3. The WCCTAC Board recommended during the September 28, 2018 meeting that fee levels be set at 75 percent of the maximum potential fee calculations.

Next Steps/Considerations

1. Set public hearing with appropriate notifications
2. Hold public hearing and consider approving Nexus Study and fee rates
3. Consider adopting fee ordinance at a public hearing
 - Fee level might consider a reduced rate
 - Construction cost index might be applied annually
 - Fees can be scaled for particular land uses (e.g. hotels, fast food drive-throughs, gas stations, storage facilities)

DKS

Questions?





Project List from Circulation Element

| Nexus Study Number | CE Map Ref. | Mode | Type | Standard or Policy | Project Description | Time frame | Tier* |
|--------------------|-------------|------|--------------|--------------------|--|------------|-------|
| 1 | S1 | Auto | Intersection | 1.A.1 | Signalize San Pablo Avenue & Tsushima; allow full access to Tsushima | near-term | I |
| 2 | R1 | Auto | Intersection | 1.A.1 | Reconfigure Sycamore Avenue cross section between Willow and San Pablo Avenues to 7 lanes | long-term | I |
| 3 | R2 | Auto | Roadway | 1.A.1 | Double right turn lanes from NB San Pablo Avenue to SR-4 and I-80 ramps | long-term | I |
| Not included | S2 | Auto | Intersection | 1.A.1 | Signalize intersection of San Pablo & Linus Pauling; add turn lanes | long-term | II |
| Not included | S3 | Auto | Intersection | 1.A.1 | Signalize and improve intersection at Willow (near Foxborro) at two SR-4 ramps; add turn lanes | long-term | III |
| Not included | R3 | Auto | Ramp | 1.A.1 | Relocate EB SR-4 hook ramps at Willow further east | long-term | III |
| Not included | R4 | Auto | Roadway | 1.A.1 | Widen Willow Avenue to 4 travel lanes; intersection improvements at Willow & Palm | long-term | III |

* Reflects Council input

Project List from Circulation Element

| Nexus Study Number | CE Map Ref. | Mode | Type | Standard or Policy | Project Description | Time frame | Tier* |
|--------------------------------|-------------|------|-----------------------|--------------------|--|------------|-------|
| Not included | S4 | Auto | Intersection | 1.A.1 | Signalize or roundabout at intersection of Sycamore Avenue and Palm Avenue | long-term | III |
| Not included | S5 | Auto | Arterial/Intersection | 1.A.1/1.C.3 | Signalize intersection of Willow & Canterbury; include pedestrian phase | long-term | III |
| Not included but in CTP | R5 | Auto | Ramp | 1.A.1 | Relocate EB I-80 off to exit at Creekside Center driveway; retime signal; upgrade curb ramps to ADA standards | long-term | II |
| 4 | INT3 | Auto | Roadway | 1.A.1 | Willow Avenue & Sycamore Avenue intersection improvements (lengthened left turn lane) | long-term | I |
| 5 | INT4 | Auto | Intersection | 1.A.1 | Add third stacking through lane to San Pablo & Sycamore along NB San Pablo Approach along Kinders shopping center | near-term | I |
| Not included, not well defined | N/A | Auto | Traffic Calming | 3.A.3 | Evaluate local and collector streets with a history of speed related collisions for traffic calming measures (to address newly anticipated cut-through traffic from new development) | long-term | I |

* Reflects Council input

Project List from Circulation Element

| Nexus Study Number | CE Map Ref. | Mode | Type | Standard or Policy | Project Description | Time frame | Tier* |
|--------------------|--------------------|----------|------------------|--------------------|--|----------------------|-------|
| 6 | INT5 | Bike/Ped | Safety | 4.D.4 | Pedestrian activated signal phase at Market Hall driveway across San Pablo Avenue | near-term | I |
| 7 | see nexus appendix | Bike/Ped | ADA | 1.G.2 | Update curb ramps to ADA standards at all marked crosswalks | long-term | I |
| 8 | | Bike/Ped | Bike/Ped | 1.C.1 | Hercules Creekside Trail and Boardwalk along Refugio Creek between Sycamore Avenue and ITC (directly adjacent to streets not through wetlands) | near-term | I |
| 9 | | Bike/Ped | Complete Streets | 4.D.1 | Add multiuse path along San Pablo and Sycamore Avenues at Market Hall site | near-term | I |
| 10 | | Bike/Ped | Connectivity | 1.C.4.b | Improve pedestrian and bicycle access under BNSF railway via Palm | conceptually defined | I |

* Reflects Council input

Project List from Circulation Element

| Nexus Study Number | CE Map Ref. | Mode | Type | Standard or Policy | Project Description | Time frame | Tier* |
|--------------------|-------------|----------|--------------|--------------------|--|----------------------|-------|
| 10 | | Bike/Ped | Connectivity | 1.C.4.b | Improve pedestrian and bicycle access under BNSF railway via Palm | conceptually defined | I |
| 11 | | Bike/Ped | Connectivity | 1.C.1 | Complete Bay Trail through Hercules (Bayfront Area) | near-term | I |
| 12 | | Bike/Ped | Connectivity | 1.C.4a | Expand bicycle network to serve all elementary schools and major employment centers; fill in gaps in bicycle network | long-term | II |
| 13 | | Bike/Ped | Connectivity | 1.C.4b | Add/Improve sidewalk facilities on Willow Ave from Palm to connect to HTC | long-term | I |
| 14 | BP1 | Bike/Ped | Connectivity | 1.C.1 | Improve pedestrian connections to Hercules Transit Center - Sycamore Avenue at Creekside Center to Willow | near-term | I |
| 15 | | Bike/Ped | Connectivity | 1.C.1 | Extend pedestrian connections to Rodeo along San Pablo | near-term | I |

* Reflects Council input

Project List from Circulation Element

| Nexus Study Number | CE Map Ref. | Mode | Type | Standard or Policy | Project Description | Time frame | Tier* |
|--------------------|-------------|----------|------------------|--------------------|--|------------|-------|
| Not included | | Bike/Ped | Connectivity | 3.A.2 | Create better network of sidewalks and pedestrian connections between neighborhoods | near-term | III |
| 16 | | Bike/Ped | Connectivity | 1.C | Complete bicycle facilities on Willow Avenue between Hercules Transit Center and Mariner's Pointe (Class II lanes or Class III sharrows) | near-term | I |
| 17 | | Bike/Ped | Safety | 4.D.5 | Add lighting as needed for safety along Refugio Valley Trail and San Francisco Bay Trail | long-term | II |
| 18 | | Bike/Ped | Safety | 1.C.5, 4.D.4 | Remove crosswalk over San Pablo from north approach for safety | near-term | I |
| Not included | | Bike/Ped | Safety/Community | 4.D.1 | Patterned or enhanced crosswalks (along San Pablo) | near-term | II |
| 19 | | Transit | Amenity | 4.C.5 | Provide shelters along WESTCAT Route J line on San Pablo with real-time arrival signs | near-term | I |

* Reflects Council input

Project List from Circulation Element

| Nexus Study Number | CE Map Ref. | Mode | Type | Standard or Policy | Project Description | Time frame | Tier* |
|--------------------|-------------|---------|--------------------|--------------------|---|------------|-------|
| Not included | | Transit | Connectivity | 4.C.4 | Transit signal priority along San Pablo, Sycamore, & Willow Avenues | long-term | I |
| 20 | | Transit | Rail/Rapid Transit | 4A | Parking for Intermodal Transit Center | long-term | I |
| 21 | | Transit | Transit Facility | 4A | Complete Intermodal Transit Center/Rail Station | near-term | I |

* Reflects Council input