



PUBLIC WORKS DEPARTMENT

809 Center Street ~ Room 201 ~ Santa Cruz, CA 95060 ~ (831) 420-5160

MEMORANDUM

TO: Traffic Impact Fee File

FROM: Dan Estranero, P.E. Associate Professional Engineer

DATE: February 23, 2024

SUBJECT: FY 2024 Traffic Impact Fee Increase to **\$5,027**

Background:

On August 24, 2022, the City Council adopted a revised Traffic Impact Fee (TIF) rate by resolution No. NS-30,032, which establishes the amount of the fee to address traffic impacts from development. The resolution allows for annual cost increases of 2% when the ENR Cost of Construction index is 2% or greater. This memorandum documents methodology for evaluating and increasing the TIF.

Resolution:

“...those fees are adjusted administratively on July 1, by 2% per annum if the change in the construction cost index for the preceding year is 2% or greater as determined by the Engineering News Record, the McGraw Hill Construction Weekly.”

Data:

Construction Cost Index History FY 2022

| JUL 21 | AUG 21 | SEP 21 | OCT 21 | NOV 21 | DEC 21 | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 12,237.00 | 12,463.00 | 12,464.00 | 12,464.00 | 12,467.00 | 12,481.00 | |
| JAN 22 | FEB 22 | MAR 22 | APR 22 | MAY 22 | JUN 22 | FYavg |
| 12,555.55 | 12,683.97 | 12,791.43 | 12,898.96 | 13,000.47 | 13,110.50 | 12,635.07 |

Construction Cost Index History FY 2023

| JUL 21 | AUG 21 | SEP 21 | OCT 21 | NOV 21 | DEC 21 | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 13,167.84 | 13,171.07 | 13,173.43 | 13,174.92 | 13,174.98 | 13,175.00 | |
| JAN 22 | FEB 22 | MAR 22 | APR 22 | MAY 22 | JUN 22 | FYavg |
| 13,175.03 | 13,175.93 | 13,176.30 | 13,229.57 | 13,288.27 | 13,345.00 | 13,202.28 |

Methodology:

The Construction Cost Index increase was calculated by taking the average cost index for FY 2023 and dividing by the average cost index for FY 2022.

$$a) \text{ FY 2024 Increase (\%)} = \left(\frac{FYavg(2023)}{FYavg(2022)} - 1 \right) \times (100) = \left(\frac{13,202.28}{12,635.07} - 1 \right) \times (100) = 4.49\%$$

*Where FYavg = Fiscal Year Average

FY2022 = July 2021 to June 2022

FY 2023 = July 2022 to June 2023

TIF Increase Calculation

Current TIF = \$4,928

Cost Increase = 2% x Current TIF = 2% x \$4,928 = \$98.56

Adjusted TIF = \$4,928 + 98.56 = \$5,026.56 = \$5,027 per PM peak hour trip

The Adjusted TIF is **effective February 23, 2024**. The TIF calculation form has been updated.

CITY OF SANTA CRUZ
CALIFORNIA

August 6, 2021

TO: Traffic Engineering and Transportation Planning Consultants

FROM: City Engineer and Transportation Manager

SUBJECT: **TRANSPORTATION STUDY REQUIREMENTS FOR DEVELOPMENT**

INTRODUCTION

The purpose of this memorandum is to describe the key elements and procedures appropriate for a Transportation Study Requirements (TS) for the City of Santa Cruz (City). This type of study is needed for the review of nearly all new or intensified development in the City. These guidelines will assure the consistency and quality of the work product. The City General Plan 2030 provides the following policy guidance.

General Plan policies identify that development pays its proportional share of the costs to expand infrastructure needed to serve new development, strive to maintain Level of Service, and to update the Traffic Impact Fee (TIF) program to ensure development pay for circulation system improvements.

NEED

City staff will determine a need for and level of TS based on an initial assessment of the transportation attributes, motor vehicle traffic generation, and parking generation of the proposed project. A TS will be required if a proposed project disrupts existing pedestrian, bicycle, or transit circulation. Projects that are estimated to generate 50 or more vehicle trips during the P.M. peak hour require a TS. At a minimum, the parking component of a TS will be required for any project not meeting the City's parking requirement for parking.

QUALIFICATIONS

A Professional Engineer in Civil Engineering or Traffic Engineering, as licensed by the State of California, may prepare a TS. In the instance where state transportation facilities are involved, a Professional Engineer will be required to supervise the work and sign and stamp it as required by Caltrans.

SCOPE OF WORK

The City Engineer and Transportation Manager, in consultation with the case Planner,

will determine a preliminary scope of work for a TS. The scope will be based on the Engineer's estimate of the potential effects of the proposed project. At a minimum the site access driveways, adjacent roadways and intersections and on-site circulation and parking attributes of the project will be evaluated. The scope of the analysis will expand as necessary to identify all likely impacts of the project. Any "critical" intersection receiving 25 additional trips per hour during A.M. or P.M. peak hours as a result of the project should be analyzed. The list of "critical" intersections is included in Exhibit A of these guidelines. **Notwithstanding the City's preliminary scope, the analyst is responsible for identifying all potential impacts associated with the proposed project. If the consultant anticipates or identifies effects, more than 25 new trips to critical intersections, beyond the preliminary scope, then the scope should be amended accordingly.**

DATA

Data for use in the TS must be current (within a two year period, unless evidence exists of significant changes in the project vicinity which may affect the analysis in which case new counts are recommended). Data for street traffic volumes, intersection traffic volumes, intersection levels of service, speed surveys, traffic signal timing plans, and traffic collisions are available from the Public Works Department. Past transportation impact studies are also available for review. These resources should be used to the extent possible. Included as part of Exhibit A are traffic volume estimates at buildout conditions, which are to be used for cumulative analysis.

The latest edition of "Trip Generation," published by the Institute of Transportation Engineers, should be the prime source for trip generation analysis. The formulas provided for trip generation rates should be considered where appropriate. Use of the average rates provided must be justified. Other sources may be approved by the City Engineer or Transportation Manager if data is considered more reliable or appropriate for the study.

The primary parking evaluation will be based on the City's Parking Ordinance or Downtown Parking Resolution and parking requirements for specified land uses. The latest edition of "Parking Generation", mentioned above, should also be used as a resource for the parking analysis. Other documented parking studies may be used with the prior approval of the City Engineer or Transportation Manager. To the extent reasonable the latest version of "Shared Parking" prepared by the Urban Land Institute shall be used for shared parking analysis.

CAPACITY ANALYSIS SCENARIOS

Capacity shall be analyzed for the following scenarios:

- Existing Traffic;
- Existing Traffic + Project Traffic;
- General Plan Buildout and Updated Traffic; and
- General Plan Buildout Traffic + Project Traffic where project traffic differs from General Plan assumptions

General Plan Buildout and Updated Traffic Volumes are provided in Exhibit A of this document. Typical study hours for capacity analysis of study intersections and study arterials are: Weekday A.M. peak hour and P.M. peak hour. In other cases, it may include weekend peak hour and project peak hour at the request of the City Engineer or Transportation Manager.

The consultant shall use the latest methodology in "Highway Capacity Manual," published by the Transportation Research Board, for capacity analysis of the transportation system. **The consultant must use Synchro software for the level of service analysis component.** Other analysis software may be used with supporting reasoning if approved by City staff. Level of service calculations shall be based on optimized split and timing conditions. Future traffic analysis will use a peak hour factor of .92 for the intersections analyzed.

CRITERIA TO DETERMINE TRANSPORTATION SIGNIFICANCE UNDER CEQA

- a) Conflict with a program, ordinance, or policy establishing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b) regarding criteria for analyzing transportation impacts.

The City's California Environmental Quality Act (CEQA) and CEQA Guidelines were revised on June 9, 2020 to comply with Senate Bill 743 (SB 743) to use vehicle miles of travel as a measure of significance in analyzing transportation impacts under CEQA as set forth in CEQA Guidelines section 15064.3(b). The City's VMT threshold and these guidelines will be used to evaluate projects for CEQA purposes. The County Travel Demand Model is available for use as needed by contacting Anais Schenk, Anais.Schenk@santacruzcounty.us at the County of Santa Cruz.

In accordance with Resolution No. NS-29,676, a project may be considered to be

significant if the VMT exceeds the following adopted thresholds of CEQA significance:

- Residential Projects: 15% below the county-wide per capita average VMT;
- Office and Service Projects: 15% below the county-wide per employee average VMT;
- Retail: no net increase in the total VMT; and
- All other land uses: no net increase in VMT

Certain projects will have a non-significant CEQA transportation impact based upon their project location and characteristics. These include:

- Small projects that generate less than 110 trips/day;
- Projects near high quality transit: within a ½ mile of a major transit stop (CPRC Section 21064.3) or a high quality transit corridor with a combined service interval frequency of 15 minutes or less during the morning and afternoon peak periods;
- Local serving retail;
- Local essential service;
- Map based screening; and
- Redevelopment projects that do not result in a net increase in VMT

Further information is provided in the attached City of Santa Cruz SB743 Implementation Guidelines completed by Kimley-Horn and Associates.

- c) Substantially increase hazards due to a geometric design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment); or
- d) Result in inadequate emergency access.

CRITERIA TO DETERMINE TRANSPORTATION EFFECTS AND CONFLICTS WITH GENERAL PLAN POLICIES

The following criteria will be used to measure non-CEQA effects on the transportation infrastructure consistent with General Plan policies. Generally the following criteria will be used to measure potential traffic effects and the need for improvements needed to maintain level of service and the performance of the circulation system.

- The project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit

and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

- The project traffic added to existing conditions would result in the level of service deteriorating below the City standard and would be more than 3% over existing total volume at the studied intersection. The City's current level of service standard is LOS D.
- The project traffic together with General Plan buildout and update traffic would result in a drop below the level of service standard of the City of Santa Cruz. (This is defined as a cumulatively considerable effect irrespective of the proportional increase to traffic volumes.).
- The project conflicts with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities).
- If the project site design does not have adequate parking or circulation capacity to accommodate the anticipated demand. (Parking demand shall be measured first using the City Parking requirements but may be adjusted using ITE 85 percentile parking generation rates and shared parking analysis factors at the discretion of the City Engineer and Transportation Manager). **The City Parking Ordinance allows reductions but these must be thoroughly substantiated and quantified in the analysis, and they are not generally all applicable to a project.**

TRAFFIC CONTROL DEVICES, PARKING CONTROL DEVICES, AND ROADWAY DESIGN FEATURES

The consultant will determine the need for new traffic control devices, parking control devices, and transportation design features based on standard traffic engineering practice.

MITIGATION MEASURES

For every significant impact identified as part CEQA review, the consultant shall identify and discuss mitigation measures that reduce the effects and impacts to less than significant levels. The consultant may identify a mitigation measure or develop a range of mitigation measures for each impact to improve the performance of the transportation system. Mitigation measures should be specific and feasible actions that

would actually change adverse transportation conditions. An effective mitigation measure should adequately avoid or minimize an effect or impact to a less-than-significant level. Mitigation measures should be consistent with local plans and policies. The consultant should review the City's TIF Program, which identifies circulation improvements for General Plan Buildout, for applicability.

The consultant should discuss improvements and programs, funding, implementation responsibilities, and implementation schedule. The consultant should identify monitoring objectives for the City to ensure project compliance with mitigation measures. The consultant should calculate the traffic impact fee required for the project based on the City's methodology.

REPORT

For consistency, the TS report should follow the City's format as reflected in the attached outline. **A preliminary component of the full report will be a memorandum to the City Engineer and Transportation Manager which will include a project description, a summary of the assumptions used in the report (e.g. trip generation, trip distribution, parking generation) and a statement of findings that no substantial effect is anticipated beyond the original scope of the study.** The City Engineer and Transportation Manager shall notify consultant of acceptance of this preliminary report prior to consultant initiating further work on the study. The full report will culminate first in an administrative draft with two (2) hard copies and an electronic file for review by City staff and once approved in a final TS report to the City including two (2) hard copies and an electronic file.

CITY OF SANTA CRUZ TRANSPORTATION IMPACT REQUIREMENTS REPORT OUTLINE

This report outline is presented for consultants and others preparing transportation impact studies for the City of Santa Cruz. It should be noted that the outline below is all-inclusive. Certain traffic studies will not require all of the elements described below. The City Engineer and Transportation Manager will decide what elements are necessary for the analysis including study intersections and or arterials.

Cover Page

- i. Table of Contents
- ii. List of Tables, Figures, or Exhibits

I. Introduction

- A. Project Description (Including operating parameters and site plan)*
- B. Project Neighborhood Description
- C. Executive Summary (*for complex studies as requested by City Engineer*)
 - 1. Findings
 - 2. Recommendations
- D. Organization of Report
- E. Analysis Methodology

II. Existing Transportation Conditions

- A. Study Area Transportation System
- B. Roadway Facilities
 - 1. Intersections (*LOS*)
 - 2. Safety issues
- C. Transit Services
- D. Bikeway Facilities
- E. Pedestrian Facilities
- F. Parking Facilities (*On street and on-site inventory and usage*)
- G. Programmed Transportation Improvements

III. Project Assumptions

- A. Project Trip Generation *
- B. Project Trip Distribution *
- C. Project Modal Split * (*If modal split is applied*)
- D. Project Study Intersections* (***Including statement of findings that no substantial effect is anticipated beyond the original scope of the study***)

IV. Existing Plus Project Traffic Analysis

- A. Roadway Facilities Capacity (LOS)
 - 1. Intersections
 - 2. Arterials
- B. Traffic Safety Analysis
- C. Mitigation Measures Recommended
 - 1. Traffic Control Devices
 - 2. Roadway design features
- D. Site Circulation
 - 1. Site access
 - 2. Internal vehicular and pedestrian circulation
 - 3. Service and delivery vehicle access
 - 4. Emergency vehicle access
 - 5. Alternative transportation facilities
- E. Site Improvements and Mitigation Measures

V. Cumulative Traffic Analysis (General Plan Buildout and Update)

- A. Roadway Facilities Analysis (LOS)
 - 1. Intersections

VI. Cumulative Plus Project Traffic Analysis

- A. Roadway Facilities Analysis (LOS)
 - 1. Intersections
- B. Traffic Safety Analysis
- C. Mitigation Measures Recommended
 - 1. Traffic Control Devices
 - 2. Roadway design features

VII. Parking Analysis

- A. Parking Requirement City Code
- B. Parking Demand Estimate (ITE "Parking Generation")
- C. Shared Parking Analysis
- D. Site Parking (Autos and Bikes)
- E. Adjacent Parking Conditions
- F. Site Modifications Recommended

VII. Alternative Transportation Analysis

- A. Transit Services
- B. Bikeway Facilities
- C. Pedestrian Facilities
- D. Recommended Modifications or Measures (Including Transportation System Management)

IX. Vehicle Miles Traveled (VMT) Analysis and Mitigation

- A. VMT Residential Component
- B. VMT Office and Service Use Component
- C. VMT Retail Use Component
- D. VMT Other Uses
- E. Mitigation Measures

X. Findings and Recommendations

- A. Site Plan and Improvements
- B. Transportation Effects
- C. Recommendations to address Transportation Effects
- D. VMT and Impacts Under CEQA
- E. Mitigation Measures to address Significant Impacts Under CEQA

XI. Appendices

- A. References
- B. Data
- C. Worksheets
- D. Drawings
- E. Warrant Analyses

* The items noted will be included in a memorandum to the City Engineer and must be approved prior to further analysis.

City of Santa Cruz - Public Works
Traffic Impact Fee Estimate Form*
FY24

This form is based on the approved Citywide Traffic Impact Fee resolution and is used to estimate traffic impact fees. Land uses not identified in this table shall be estimated on a case by case basis by the staff of the Public Works Department. Where a traffic study is prepared for a proposed project the trip generation estimate made in that study may be used at the discretion of the decision making body.

Property Address: _____

APN: _____

Applicant: _____

Appl/Permit #: _____

Completed by: _____

Date: _____

| Land use (ITE Land Use Code) | Trip Gen. Rate per PM Peak Hr A** | Unit of Measure | Prop. Project Details B | Existing Uses C | Project Trips D = A x (B-C) |
|---|---|--------------------|-------------------------------|-----------------------|-----------------------------------|
| Single family residence (210) | 1.01 | Unit | | | |
| Apartment (220) | 0.62 | Unit | | | |
| Condo/ Townhouse (270) | 0.62 | Unit | | | |
| Senior Housing (251) | 0.27 | Unit | | | |
| SRO (220 / 1 vehicle) | 0.61 | Unit | | | |
| Hotel/Motel (320) | 0.58 | Room | | | |
| Office (710) | 1.5 | 1,000 sf gfa*** | | | |
| Medical Office (720) | 3.57 | 1,000 sf gfa*** | | | |
| Retail (814) | 2.3 | 1,000 sf gfa*** | | | |
| Retail Building Materials/ Large items (812) | 4.5 | 1,000 sf gfa*** | | | |
| Supermarket (850) | 7 | 1,000 sf gfa*** | | | |
| Convenience Market (852) | 24.1 | 1,000 sf gfa*** | | | |
| Service Station (944) | 9.7 | Pump station | | | |
| General Light Industrial (110) | 0.97 | 1,000 sf gfa*** | | | |
| Manufacturing (140) | 0.7 | 1,000 sf gfa*** | | | |
| Warehousing (150) | 0.32 | 1,000 sf gfa*** | | | |
| Mini-warehouse (151) | 0.02 | Storage unit | | | |
| Congregate Care (253) | 0.2 | Dwelling Unit | | | |
| Assisted living (254) | 0.22 | Bed | | | |
| All Suites Hotel (311) | 0.6 | Room | | | |
| Multiplex Movie theater (445) | 13.6 | Screen | | | |

| | | | | | |
|--|-------|-----------------|-------------------------|--|--|
| Free-Standing Discount (815) | 5 | 1,000 sf gfa*** | | | |
| Nursery (817) | 7.5 | Acre | | | |
| Auto Parts Store (843) | 5.1 | 1,000 sf gfa*** | | | |
| Apparel Store (876) | 3.3 | 1,000 sf gfa*** | | | |
| Pharmacy no drive-thru (880) | 7.2 | 1,000 sf gfa*** | | | |
| Furniture Store (890) | 0.45 | 1,000 sf gfa*** | | | |
| Walk-In Bank | 12.13 | 1,000 sf gfa*** | | | |
| Quality restaurant (931) | 7.5 | 1,000 sf gfa*** | | | |
| High Turnover Sit Down Restaurant (932) | 9.5 | 1,000 sf gfa*** | | | |
| Fast Food w/o Drive Thru (933) | 18.3 | 1,000 sf gfa*** | | | |
| Fitness | 3.53 | 1,000 sf gfa*** | | | |
| Restaurant | 0.26 | Per seat | | | |
| Comment: This is a preliminary estimate. | | | Total trips: D | | |
| | | | CW TIF = \$5,027 X D | | |
| | | | Downtown: CW TIF X 60% | | |
| | | | Soquel: CW TIF X 82.7% | | |
| | | | Water: CW TIF X 84% | | |
| | | | Ocean: CW TIF X 92.2% | | |
| | | | Mission: CW TIF X 86.2% | | |
| | | | Total TIF | | |

* This form is used to estimate traffic impact fees of development based on submitted preliminary plans. Actual fees will be calculated based on final plans and uses submitted at the time of a building permit. The fee will be based on the per trip cost (may include an annual cost of construction inflation factor) at the time of submittal.

**Source Institute of Transportation Engineers "Trip Generation". Rates have been adjusted to reflect pass-by-trips diverted from existing traffic stream

*** Square foot gross floor area.

Auto Parts, Apparel, Pharmacy, and High turnover Restaurant reduced by 15% for pass-by trips. Fast food, Supermarkets and Coffee Shop were reduced by 30% for pass-by trips.

Exhibit A
City of Santa Cruz
Critical Intersections and
General Plan Buildout and Updated Traffic Volumes

City of Santa Cruz General Plan Traffic with Downtown Amendments
Level of Service and Mitigation Study Intersections
Proposed General Plan Buildout Cumulative

| Intersection | Control | Cumulative Delay | Cumulative Mitigation | Mitigated LOS | Mitigated Delay | Estimated Cost |
|-------------------------------------|--------------|------------------|---|---------------|-----------------|----------------|
| #2901 Western_Dr/High_St | Stop | 227.7 | TWLT | D | 35 | Done |
| #2902 Bay-Coolidge/High | Signal/Rndbt | 103.3 | Add wsbd l | D | 50.1 | \$ 2,000,000 |
| #2903 Moore/High | Signal | 5.3 | | | | |
| #2904 High/Laurent | 4-way stop | 196.3 | Signalize | B | 13.3 | \$ 400,000 |
| #2905 River/Potrero | Signal | 19.7 | | | | |
| #2906 River-Hwy_9/Hwy_1 | Signal | 244.5 | Ebnd 2l 3t 1r, wbnd 2l 3t 1r, nbnd 1tl 1t 2r, sbnd 2l 1tl 1t 1r | F | 104.3 | \$ 6,000,000 |
| #2907 River/Fern | Stop | OVER | Signalize no l esbd | B | 14.3 | \$ 500,000 |
| #2908 River/Encinal | Signal | 202.7 | Ebnd 1l 1tr 1r, wbnd 1l 1tr, nbnd 1l, 1t, 1r, sbnd 1l,1t, 1tr | D | 37.9 | \$ 300,000 |
| #2909 Ocean-Hwy_17/Plymouth-Ocean_B | Signal | 36.9 | | | | |
| #2910 Market/Goss-Isbel | 4-way stop | 16.8 | | | | |
| #2911 N.Branciforte/Goss | 4-way stop | 18.9 | | | | |
| #2912 Morrissey_Bld/Fairmount_Av | Signal | 10.3 | | | | |
| #2913 Bay/Nobel-Iowa | Signal | 13 | | | | |
| #2914 Bay_St/Escalona_Dr | 2-way stop | OVER | Escalona right turns only | C | 24.9 | \$ 100,000 |
| #2915 Bay_St/King_St | Signal | 53.4 | | | | |
| #2916 King_St/Laurel_St | 4-way stop | 55.6 | Add ebnd r | D | 34.1 | \$ 100,000 |
| #2917 Storey/King | 3-way stop | 93.2 | Add sbnd l | D | 29.3 | \$ 100,000 |
| #2918 Shaffer/Highway_1 | Stop | 18.9 | | | | |
| #2919 Western/Highway_1 | Signal | 24.6 | | | | |
| #2920 Swift/Mission | Signal | 72.2 | Add nbnd r overlap | C | 31 | \$ 100,000 |
| #2921 Miramar/Mission | Signal | 41.7 | | | | |
| #2922 Almar-Younglove/Mission | Signal | 25.2 | | | | |
| #2923 Bay/Mission | Signal | 222.5 | 1l,2t,1r,nbnd 1l,1t,1r, sbnd 2l,1t,1r | F | 81.2 | \$ 4,000,000 |
| #2924 Laurel/Mission | Signal | 119.1 | Add Ebnd r | F | 109 | \$ 2,000,000 |
| #2925 Mission/Walnut | Signal | 52.5 | | | | |
| #2926 King/Mission | Signal | 155.4 | Ebnd no l, 2t, 1tr, wbnd 1l, 1t, 1tr,nbnd 1ltr, sbnd 2l 1ltr | E | 65.9 | \$ 500,000 |
| #2927 Chestnut/Mission | Signal | 164.8 | Ebnd 2l, 2t, 1r, wbnd 1l,1t, 1r, nbnd 1l, 1t, 1tr, sbnd 1l,2t, 2r | F | 164.6 | \$ 4,000,000 |
| #2928 N_Pacific/River | Signal | 14.3 | | | | |
| #2929 Center/Mission | Signal | 22.3 | | | | |

| Intersection | Control | Cumulative Delay | Cumulative Mitigation | Mitigated LOS | Mitigated Delay | Estimated Cost |
|--------------------------------------|------------|------------------|---|---------------|-----------------|----------------|
| #2930 Pacific/Water-Mission | Signal | 24.8 | | | | |
| #2931 River/Water | Signal | 49.4 | | | | |
| #2932 Ocean/Washburn-Keenan | Signal | 13.3 | | | | |
| #2933 Ocean/Water | Signal | 172.7 | Ebnd 2l, 2t, 1r, wbnd 1l,2t, 1r, nbnd 1l, 2t, 1r, sbnd 2l, 2t, 1r | F | 135.1 | \$ 4,000,000 |
| #2934 Market/Water | Signal | 34.2 | | | | |
| #2935 N_Branciforte/Water | Signal | 76.1 | Add ebnd l, nbnd r & sbnd r | E | 57.2 | \$ 2,000,000 |
| #2936 Seabright/Water | Stop | OVER | Extend TWLTL & add nbnd r | E | 40.4 | \$ 100,000 |
| #2937 Morrissey/Soquel/Water | Signal | 43.2 | | | | |
| #2938 Frederick/Soquel | Signal | 55.7 | Add nbnd r overlap | D | 38.5 | \$ 250,000 |
| #2939 Hagemann-Trevethan/Soquel | Signal | 11.4 | | | | |
| #2940 Park/Soquel | Signal | 20.6 | | | | |
| #2941 Capitola_Rd/Soquel_Av | Signal | 25.4 | | | | |
| #2942 La_Fonda_Av/Soquel_Av | Signal | 10.8 | | | | |
| #2943 California_Ave/Bay | 3-way stop | 188.5 | Allow nbnd t free | E | 38.3 | \$ 250,000 |
| #2944 California_St/Bay | 3-way stop | OVER | Allow sbnd t free | B | 13.9 | \$ 250,000 |
| #2945 California_St/Laurel_St | Signal | 33.5 | | | | |
| #2946 Chestnut/Laurel | Signal | 31.9 | | | | |
| #2947 Center/Laurel | Signal | 25.3 | | | | |
| #2948 Cedar/Laurel | 2-way stop | 27.3 | | | | |
| #2949 Pacific/Laurel | Signal | 46 | | | | |
| #2950 Front/Laurel | Signal | 41.8 | | | | |
| #2951 Front/Metro_Center | Signal | 2.6 | | | | |
| #2952 Front/Cathcart | Signal | 9 | | | | |
| #2953 Front/Soquel | Signal | 33.3 | | | | |
| #2954 Front/Cooper | Signal | 9.7 | | | | |
| #2955 River_S/Soquel | Signal | 19.1 | | | | |
| #2956 Riverside-Dakota/Soquel | Signal | 7.5 | | | | |
| #2957 Ocean_St/Soquel_Av | Signal | 51.3 | | | | |
| #2958 Branciforte/Soquel | Signal | 67 | Esbnd 1 l, 1t, 1 tr, wsbnd 1l, 1tr no spll phase | C | 24.8 | \$ 250,000 |
| #2959 Seabright/Soquel | Signal | 42.4 | | | | |
| #2960 San_Lorenzo_Blvd/Broadway(Laur | Signal | 19.2 | | | | |
| #2961 Ocean_St/Broadway | Signal | 95.1 | Prohibit lfts from Ocean | D | 38.2 | \$ 50,000 |
| #2962 S_Branciforte/Broadway | Signal | 18.2 | | | | |
| #2963 Seabright/Broadway | Signal | 29.7 | | | | |

| Intersection | Control | Cumulative Delay | Cumulative Mitigation | Mitigated LOS | Mitigated Delay | Estimated Cost |
|--|------------|------------------|--|---------------|-----------------|--|
| #2964 Pacific-Center/W_Cliff-Pacific | Rndbt | 15.5 | | | | |
| #2965 W_Cliff/Bay | 3-way stop | 25.9 | | | | |
| #2966 Pacific/Beach | 3-way stop | 44.8 | Roundabout | C | | \$ 1,500,000 |
| #2967 Cliff/Beach | 3-way stop | 13.4 | | | | |
| #2968 Riverside/Beach | Signal | 7.3 | | | | |
| #2969 Riverside/Second-Leibrandt | 2-way stop | 7.8 | | | | |
| #2970 Riverside/3rd_St | Signal | 47.4 | | | | |
| #2971 Riverside/San_Lorenzo_Bld | Signal | 38 | | | | |
| #2972 Ocean_St/E_Cliff_Dr | Signal | 120.8 | Add sbnd r | D | 49.1 | \$ 100,000 |
| #2973 Seabright/Murray | Signal | 64.8 | ADD wsbnd r, nbnd r & sbnd r | E | 64.5 | \$ 1,000,000 |
| #2974 Swift/Delaware | 4-way stop | 407.5 | Roundabout/Signal | C | 25.1 | \$ 1,000,000 |
| #2975 Seventh/Soquel | Signal | 26.5 | | | | |
| #2976 Seventh/Capitola | Signal | 27.8 | | | | |
| #2977 Seventh/Brommer | 4-way stop | 34.6 | | | | |
| #2978 Seventh/Eaton | Signal | 46.8 | | | | |
| #2979 Seventh/E_Cliff | 3-way stop | 16.7 | | | | |
| | | | Subtotal Citywide | | | \$ 30,850,000 |
| Beach /Pacific | 3/way Stop | Beach Plan | Roundabout (included above) | | | \$ - |
| Beach/ Cliff | 2-way stop | Beach Plan | Signalize for Pedestrians | | | \$ 200,000 |
| Riverside /Second | 2-way stop | Beach Plan | Per Riverside plan | | | \$ 250,000 |
| WCliff/Bay | 3-way stop | Beach Plan | Signalize | | | \$ 300,000 |
| | | | Subtotal w Beach Area | | | \$ 31,600,000 |
| Front Street /Soquel Avenue | Signal | Downtown | Add 2nd wbnd left turn lane | | | \$ 539,100 |
| Front Street/Laurel Street | Signal | Downtown | Widen west leg | | | \$ 539,100 |
| Pacific Avenue/Laurel Street | Signal | Downtown | Add sbnd left turn lane | | | \$ 281,700 |
| Front Street Two-Way Left Turn Lane | Striping | Downtown | Add TWLT | | | \$ 152,100 |
| | | | Subtotal w Downtown | | | \$ 32,830,300 |
| | | | Add Contingency | 20% | | \$ 6,566,060 |
| | | | Add Alternative Transportation | 15% | | \$ 4,924,545 |
| | | | Add Neighborhhood Improve | 5% | | \$ 1,641,515 |
| | | | Subtotal w Cont & Alt Trans | | | \$ 44,732,120 |
| | | | Less City Share | 15% | | \$ 6,709,818 |
| | | | Total Traffic Impact Fee | | | \$ 38,022,302 |
| <div> <div> Total PM Peak hour trip generation pending projects 1,662 + trip generation for neighborhoods 7,178 plus University peak hour trips growth of 836 trips </div> <div> equals 9331 trips per hour </div> </div> | | | | | | |
| <div> <div> plus Downtown Plan 293 trips plus 130 Center 80 trips </div> <div> at 90% </div> </div> | | | | | | TIF/ Peak hour trip \$ 4,482 (with 10% increase) |

Cumulative Buildout Volumes City of Santa Cruz Critical Intersections

3/19/2020

| # | Intersection | NORTHE | NORTHE | NORTHE | SOUTHE | SOUTHE | SOUTHE | EASTBN | EASTBN | EASTBN | WESTBN | WESTBN | WESTBN | TOTAL | SOURCE |
|----|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------------|
| | | LEFT | THRU | RIGHT | LEFT | THRU | RIGHT | LEFT | THRU | RIGHT | LEFT | THRU | RIGHT | | |
| 1 | Western/High | 240 | 0 | 94 | 0 | 0 | 0 | 0 | 755 | 164 | 61 | 448 | 0 | 1762 | GP |
| 2 | Bay/High | 174 | 508 | 55 | 515 | 882 | 68 | 178 | 380 | 275 | 113 | 309 | 269 | 3726 | GP |
| 3 | Moore/High | 24 | 7 | 17 | 45 | 21 | 41 | 9 | 880 | 35 | 24 | 661 | 21 | 1785 | GP |
| 4 | Laurent/High | 16 | 49 | 16 | 32 | 24 | 16 | 34 | 856 | 38 | 14 | 735 | 30 | 1860 | GP |
| 5 | River/Potrero | 90 | 766 | 86 | 272 | 737 | 103 | 129 | 10 | 76 | 197 | 9 | 255 | 2730 | GP |
| 6 | River/Hwy. 1 | 99 | 454 | 726 | 1109 | 545 | 571 | 490 | 2350 | 86 | 561 | 1862 | 693 | 9546 | Downtown Plan |
| 7 | River/Fern | 410 | 1112 | 0 | 0 | 1564 | 43 | 1 | 0 | 106 | 0 | 0 | 0 | 3236 | GP |
| 8 | River/Encinal | 576 | 563 | 111 | 8 | 488 | 145 | 210 | 6 | 1047 | 117 | 6 | 15 | 3292 | GP |
| 9 | Ocean-Hwy. 17/Plymouth | 405 | 654 | 0 | 186 | 1101 | 239 | 71 | 208 | 495 | 127 | 97 | 55 | 3638 | Ocean Ext |
| 10 | Market/Isbel-Goss | 47 | 154 | 147 | 202 | 114 | 1 | 4 | 192 | 36 | 63 | 77 | 218 | 1255 | GP |
| 11 | North Branciforte/Goss | 220 | 70 | 95 | 3 | 113 | 61 | 40 | 312 | 295 | 33 | 74 | 1 | 1317 | GP |
| 12 | Morrissey/Fairmount | 53 | 794 | 28 | 53 | 862 | 108 | 160 | 89 | 127 | 24 | 27 | 82 | 2407 | GP |
| 13 | Bay/Nobel-Iowa | 100 | 717 | 98 | 42 | 1168 | 56 | 39 | 49 | 129 | 65 | 45 | 41 | 2549 | GP |
| 14 | Bay/Escalona | 27 | 811 | 41 | 145 | 1108 | 70 | 61 | 43 | 40 | 49 | 33 | 62 | 2490 | GP |
| 15 | Bay/King | 148 | 723 | 160 | 194 | 972 | 110 | 61 | 161 | 100 | 98 | 97 | 167 | 2991 | GP |
| 16 | King/Laurel | 171 | 69 | 60 | 36 | 62 | 10 | 20 | 430 | 154 | 67 | 262 | 15 | 1356 | GP |
| 17 | Storey/King | 0 | 0 | 0 | 551 | 0 | 53 | 26 | 380 | 0 | 0 | 278 | 88 | 1376 | GP |
| 18 | Route 1/Shaffer Rd | 62 | 0 | 80 | 0 | 0 | 0 | 0 | 690 | 51 | 38 | 536 | 0 | 1457 | GP |
| 19 | Western/Hwy. 1 | 19 | 113 | 205 | 203 | 86 | 44 | 27 | 451 | 25 | 88 | 382 | 232 | 1875 | GP |
| 20 | Swift/Mission | 96 | 76 | 692 | 67 | 42 | 16 | 30 | 721 | 82 | 452 | 637 | 117 | 3028 | GP |
| 21 | Miramar/Mission | 111 | 31 | 164 | 103 | 15 | 137 | 95 | 1991 | 58 | 178 | 1428 | 89 | 4400 | GP |
| 22 | Almar-Younglove/Mission | 38 | 1 | 276 | 45 | 0 | 44 | 0 | 1808 | 24 | 219 | 1468 | 2 | 3925 | GP |
| 23 | Bay/Mission | 146 | 170 | 133 | 454 | 194 | 157 | 166 | 2178 | 109 | 222 | 1692 | 348 | 5969 | 190 W Cliff |
| 24 | Laurel/Mission | 412 | 223 | 41 | 33 | 285 | 23 | 51 | 2259 | 487 | 77 | 1886 | 48 | 5825 | GP |
| 25 | Walnut/Mission | 125 | 151 | 59 | 78 | 146 | 85 | 145 | 2012 | 182 | 41 | 1791 | 41 | 4856 | GP |
| 26 | King-Union/Mission | 20 | 6 | 19 | 1161 | 1 | 4 | 0 | 2556 | 3 | 14 | 1987 | 217 | 5988 | GP |
| 27 | Chestnut-Hwy. 1/Mission | 138 | 332 | 46 | 71 | 497 | 1822 | 2436 | 1060 | 42 | 33 | 849 | 93 | 7419 | Downtown Plan |
| 28 | N. Pacific/RIVER | 226 | 31 | 59 | 44 | 26 | 17 | 20 | 659 | 382 | 32 | 713 | 51 | 2260 | GP |
| 29 | Center/Mission | 98 | 0 | 621 | 0 | 0 | 0 | 0 | 843 | 64 | 423 | 691 | 0 | 2740 | GP |
| 30 | Front-Pacific/Mission-Water | 0 | 0 | 0 | 64 | 371 | 221 | 263 | 1133 | 165 | 166 | 893 | 39 | 3315 | Downtown Plan |
| 31 | River/Water | 111 | 384 | 252 | 312 | 426 | 58 | 82 | 1166 | 62 | 204 | 958 | 346 | 4361 | GP |
| 32 | Ocean/Kennan-Washburn | 39 | 1540 | 52 | 59 | 1733 | 11 | 40 | 0 | 53 | 47 | 0 | 39 | 3613 | GP |
| 33 | Ocean/Water | 203 | 1359 | 96 | 522 | 1448 | 399 | 495 | 1578 | 162 | 168 | 1008 | 339 | 7777 | Downtown Plan |
| 34 | Market/Water | 0 | 0 | 0 | 507 | 0 | 189 | 223 | 1836 | 0 | 0 | 1170 | 128 | 4053 | GP |
| 35 | N. Branciforte/Water | 322 | 323 | 78 | 41 | 219 | 129 | 458 | 1273 | 470 | 101 | 930 | 50 | 4394 | GP |
| 36 | Seabright/Water | 60 | 0 | 49 | 0 | 0 | 0 | 0 | 1353 | 121 | 23 | 1021 | 0 | 2627 | GP |
| 37 | Morrissey/Water-Soquel | 19 | 127 | 30 | 293 | 233 | 75 | 535 | 1695 | 38 | 63 | 1489 | 36 | 4633 | GP |
| 38 | Frederick/Soquel | 146 | 0 | 433 | 0 | 0 | 0 | 0 | 1755 | 93 | 226 | 1416 | 0 | 4069 | GP |
| 39 | Hagemann-Trevethan/Soquel | 77 | 14 | 34 | 74 | 14 | 86 | 69 | 2092 | 53 | 22 | 1503 | 24 | 4062 | GP |
| 40 | Park/Soquel | 53 | 18 | 26 | 128 | 7 | 70 | 39 | 2147 | 30 | 12 | 1409 | 28 | 3967 | GP |
| 41 | Capitola/Soquel | 708 | 16 | 77 | 47 | 25 | 28 | 20 | 920 | 1149 | 79 | 672 | 25 | 3766 | GP |
| 42 | La Fonda/Soquel | 1 | 1 | 1 | 52 | 0 | 76 | 97 | 763 | 2 | 2 | 524 | 69 | 1588 | GP |
| 43 | Bay/California Ave | 269 | 0 | 47 | 0 | 0 | 0 | 0 | 656 | 204 | 64 | 608 | 0 | 1848 | GP |
| 44 | Bay/California St | 0 | 0 | 0 | 263 | 0 | 95 | 132 | 597 | 0 | 0 | 466 | 420 | 1973 | GP |
| 45 | California/Laurel | 35 | 224 | 326 | 23 | 169 | 29 | 11 | 828 | 30 | 168 | 752 | 20 | 2615 | GP |
| 46 | Chestnut/Laurel | 141 | 59 | 95 | 26 | 72 | 76 | 111 | 982 | 91 | 79 | 866 | 28 | 2626 | GP |
| 47 | Center/Laurel | 62 | 94 | 56 | 133 | 77 | 50 | 30 | 965 | 65 | 56 | 823 | 58 | 2469 | GP |
| 48 | Cedar/Laurel | 0 | 0 | 14 | 0 | 0 | 116 | 68 | 1195 | 26 | 0 | 898 | 94 | 2411 | GP |
| 49 | Pacific/Laurel | 59 | 96 | 44 | 97 | 59 | 63 | 162 | 1075 | 44 | 64 | 982 | 91 | 2836 | 508 Front TIA |
| 50 | Front/Laurel | 4 | 228 | 254 | 202 | 366 | 262 | 165 | 996 | 29 | 227 | 830 | 195 | 3758 | 508 Front TIA |
| 51 | Front/Metro Center | 14 | 661 | 20 | 0 | 833 | 17 | 14 | 0 | 19 | 6 | 0 | 11 | 1595 | 508 Front TIA |
| 52 | Front/Cathcart | 116 | 569 | 0 | 0 | 805 | 317 | 193 | 0 | 111 | 0 | 0 | 0 | 2111 | 508 Front TIA |
| 53 | Front/Soquel | 46 | 523 | 243 | 193 | 649 | 75 | 70 | 262 | 44 | 498 | 314 | 79 | 2996 | 508 Front TIA |
| 54 | Front/Cooper | 79 | 504 | 0 | 0 | 668 | 78 | 148 | 0 | 148 | 0 | 0 | 0 | 1625 | GP |
| 55 | River S./Soquel | 0 | 0 | 0 | 445 | 0 | 161 | 0 | 602 | 0 | 0 | 619 | 178 | 2005 | GP |
| 56 | Riverside-Dakota/Soquel (new | 36 | 17 | 39 | 29 | 2 | 72 | 13 | 960 | 3 | 3 | 689 | 17 | 1880 | GP |
| 57 | Ocean/Soquel | 318 | 817 | 296 | 353 | 611 | 269 | 259 | 601 | 129 | 188 | 424 | 83 | 4348 | GP |
| 58 | Branciforte/Soquel | 56 | 143 | 79 | 58 | 170 | 116 | 163 | 843 | 112 | 101 | 579 | 34 | 2454 | GP |
| 59 | Seabright/Soquel | 217 | 45 | 223 | 90 | 128 | 70 | 32 | 1075 | 125 | 179 | 585 | 16 | 2785 | GP |
| 60 | San Lorenzo/Laurel-Broadway | 498 | 0 | 33 | 0 | 0 | 0 | 0 | 858 | 542 | 0 | 693 | 0 | 2624 | GP |
| 61 | Ocean/Broadway | 12 | 521 | 89 | 230 | 699 | 296 | 253 | 534 | 47 | 102 | 443 | 118 | 3344 | GP |
| 62 | S. Branciforte/Broadway | 70 | 51 | 9 | 115 | 77 | 104 | 75 | 725 | 64 | 8 | 433 | 75 | 1806 | GP |
| 63 | Seabright/Broadway | 171 | 242 | 51 | 10 | 269 | 112 | 184 | 394 | 253 | 47 | 183 | 13 | 1929 | GP |
| 64 | Pacific Avenue/Center | 18 | 166 | 549 | 34 | 162 | 214 | 0 | 0 | 0 | 444 | 172 | 62 | 1821 | 190 W Cliff |
| 65 | West Cliff/Bay | 54 | 383 | 0 | 0 | 432 | 414 | 421 | 0 | 58 | 0 | 0 | 0 | 1762 | 190 W Cliff |
| 66 | Pacific/Beach | 21 | 120 | 35 | 116 | 149 | 239 | 548 | 235 | 48 | 0 | 0 | 0 | 1511 | 190 W Cliff |
| 67 | Cliff/Beach | 0 | 0 | 0 | 186 | 0 | 0 | 229 | 426 | 0 | 0 | 0 | 0 | 841 | GP |
| 68 | Riverside/Beach | 0 | 0 | 0 | 96 | 0 | 0 | 0 | 339 | 0 | 0 | 0 | 0 | 435 | GP |
| 69 | Riverside/Second | 0 | 0 | 0 | 43 | 164 | 117 | 0 | 0 | 5 | 2 | 7 | 0 | 338 | GP |