

**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

430^A



FROM: TLMA – Transportation Dept.

SUBMITTAL DATE:
April 10, 2006

SUBJECT: Ordinance No. 824.2 - Proposed Amendment to the Transportation Uniform Mitigation Fee.

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve the findings in the 2005 Nexus Study; and
2. Adopt proposed Ordinance No. 824.2.

BACKGROUND: As a Member Agency of WRCOG, the County participated in the preparation of a certain "Western Riverside County Transportation Uniform Mitigation Fee Nexus Study", dated October 18, 2002 ("2002 Nexus Study") prepared pursuant to California Government Code, Section 66000 et seq., the Mitigation Fee Act. Based on this nexus study, the County adopted and implemented an ordinance authorizing its participation in the Transportation Uniform Mitigation Fee Program ("TUMF").

COUNTY COUNSEL

APR 04 2006

Departmental Concurrence

BY *George A. Johnson*

George A. Johnson
George A. Johnson
Director of Transportation

**FINANCIAL
DATA**

Current F.Y. Total Cost:	\$ 0.00	In Current Year Budget:	N/A
Current F.Y. Net County Cost:	\$ 0.00	Budget Adjustment:	NO
Annual Net County Cost:	\$ 0.00	For Fiscal Year:	2005/06

SOURCE OF FUNDS:

Positions To Be Deleted Per A-30	☐
Requires 4/5 Vote	☐

C.E.O. RECOMMENDATION:

APPROVE

County Executive Office Signature

Jennifer S. Saut

Dep't Recomm.: ☐ Consent ☒ Policy
Per Exec. Ofc.: ☐ Consent ☒ Policy

APR 13 2006 11:32

RECEIVED RIVERSIDE COUNTY

Prev. Agn. Ref.:

District: ALL

Agenda Number:

16.3

The Honorable Board of Supervisors
RE: Ordinance No. 824.2 - Proposed Amendment to the Transportation Uniform
Mitigation Fee
April 10, 2006
Page 2 of 2

Background Continued:

When the TUMF was implemented in July 2003, WRCOG was charged with preparing a comprehensive update within two years. With the assistance of its Member Agencies, WRCOG has completed an updated "Western Riverside County Transportation Fee Nexus Study" ("Nexus Study") for the purpose of updating the fees imposed by Ordinance No. 824.2.

In accordance with the Mitigation Fee Act, the Nexus Study establishes the following: (i) the reasonable relationship between the TUMF's use and the type of development project on which the fee is imposed; (ii) the reasonable relationship between the need for Regional System improvements and the type of development project on which the fee is imposed; and (iii) the reasonable relationship between the amount of the TUMF and the cost of the Regional System Improvements.

The Nexus Study also includes the revised growth forecast for the year 2030 which predicts an additional 403,265 households and 527,903 new jobs over the next 25 years. In addition, it evaluates the impacts of these new growth projections on the Regional System and discusses how traffic mobility will be maintained. Moreover, the Nexus Study includes a review of all the cost assumptions that were used to price the improvements of the Regional System.

On February 6, 2006, the WRCOG Executive Committee adopted the findings of the Nexus Study, the adjusted TUMF, and the template for the TUMF Ordinance and Resolution. The Nexus Study and the amended TUMF Ordinance and Resolution is now brought before the Board of Supervisors for its consideration.

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The Board of Supervisors of the County of Riverside ordains as follows:

Section 1. Title.

This Ordinance shall be known as the “Western Riverside County Transportation Uniform Mitigation Fee Program Ordinance of 2006” (“Ordinance”).

Section 2. Findings.

B. WRCOG with the assistance of its member agencies have now prepared an updated “Western Riverside County Transportation Fee Nexus Study” (“Nexus Study”) pursuant to California Government Code Section 66000 et seq., the Mitigation Fee Act, for the purpose of updating the fees imposed by Ordinance No. 824 and 824.1.

1 C. Consistent with its previous findings made in the adoption of Ordinance 824, the Board of
2 Supervisors has been informed and advised, and hereby finds, that future development within Western
3 Riverside County and the cities therein will result in traffic volumes exceeding the capacity of the
4 Regional System as it presently exists.

5 D. Consistent with its previous findings made in the adoption of Ordinance 824, the Board of
6 Supervisors has been further informed and advised, and hereby finds, that if the capacity of the Regional
7 System is not enlarged, the result will be substantial traffic congestion in all parts of Western Riverside
8 County, with unacceptable Levels of Service throughout Western Riverside County by 2030.

9 E. The Board of Supervisors has been further advised, and so finds that funding, in addition to
10 those fees adopted pursuant to the 2002 Nexus Study, will be inadequate to fund construction of the
11 Regional System. Absent an update of the "Transportation Uniform Mitigation Fee" ("TUMF") based on
12 the Nexus Study, existing and known future funding sources will be inadequate to provide necessary
13 improvements to the Regional System, resulting in an unacceptably high level of traffic congestion within
14 and around Western Riverside County.

15 F. The Board of Supervisors has reviewed the Nexus Study, and hereby finds that future
16 development within the County and Cities will substantially adversely affect the Regional System, and
17 that unless such development contributes to the cost of improving the Regional System, the Regional
18 System will operate at unacceptable levels of service.

19 G. The Board of Supervisors hereby finds and determines that the failure to mitigate growing
20 traffic impacts on the Regional System within Western Riverside County will substantially impair the
21 ability of public safety services (police and fire) to respond. The failure to mitigate impacts on the
22 Regional System will adversely affect the public health, safety and welfare.

23 H. The Board of Supervisors further finds and determines that there is a reasonable and
24 rational relationship between the use of the TUMF and the type of development projects on which the fees
25 are imposed because the fees will be used to construct the transportation improvements that are necessary
26 for the safety, health and welfare of the residential and non-residential users of the development projects
27 on which the TUMF will be levied.

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1 I. The Board of Supervisors finds and determines that there is a reasonable and rational
2 relationship between the need for the improvements to the Regional System and the type of development
3 projects on which the TUMF is imposed because it will be necessary for the residential and non-
4 residential users of such projects to have access to the Regional System. Such development will benefit
5 from the Regional System improvements and the burden of such development will be mitigated in part by
6 the payment of the TUMF.

7 J. The Board of Supervisors further finds and determines that the cost estimates set forth in
8 the Nexus Study are reasonable cost estimates for constructing the Regional System improvements, and
9 that the amount of the TUMF expected to be generated by new development will not exceed the total fair
10 share cost to such development.

11 K. The Board of Supervisors further finds that the cost estimates set forth in the Nexus Study
12 are reasonable cost estimates for the facilities that comprise the Regional System; and that TUMF
13 program revenues to be generated by new development will not exceed the total fair share of these costs.

14 L. L. The fees collected pursuant to this Ordinance shall be used to help pay for the construction
15 and acquisition of the Regional System improvements identified in the Nexus Study. The need for the
16 improvements is related to new development because such development results in additional traffic thus
17 creating the demand for the improvements.

18 M. By notice duly given and published, the Board of Supervisors set the time and place for a
19 public hearing on the Nexus Study and the fee proposed thereunder, and at least ten days prior to the
20 hearing, the County made the Nexus Study available to the public.

21 N. At the time and place set for the hearing, the Board of Supervisors duly considered that
22 data and information provided by the public relative to the cost of the services for which the fees are
23 proposed and all other comments, whether written or oral, submitted prior to the conclusion of the
24 hearing.

25 O. The Board of Supervisors finds that the Nexus Study proposes a fair and equitable method
26 for distributing a portion of the unfunded costs of improvements to the Regional System.

27 P. The Board of Supervisors hereby adopts the Nexus Study, which Study is attached hereto
28 as Exhibit "B", and incorporates it herein as though set forth in full.

1 Q. The Board of Supervisors hereby adopts this Ordinance to amend and supersede the
2 provisions of Ordinance No. 824 and Ordinance No. 824.1.

3 Section 3. Definitions.

4 For the purpose of this Ordinance, the following words, terms and phrases shall have the following
5 meanings:

6 A. **"Class 'A' Office"** means an office building that is typically characterized by high quality
7 design, use of high end building materials, state of the art technology for voice and data, on
8 site support services/maintenance, and often includes full service ancillary uses such as,
9 but not limited to a bank, restaurant/office coffee shop, health club, printing shop, and
10 reserved parking. The minimum requirements of an office building classified as Class 'A'
11 Office shall be as follows: (i) minimum of three stories (exception will be made for March
12 JPA, where height requirements exist); (ii) minimum of 15,000 square feet per floor; (iii)
13 steel frame construction; (iv) central, interior lobby; and (v) access to suites shall be from
14 inside the building unless the building is located in a central business district with major
15 foot traffic, in which case the first floor may be accessed from the street to provide
16 entrances/ exits for commercial uses within the building.

17 B. **"Class 'B' Office"** means an office building that is typically characterized by high quality
18 design, use of high end building materials, state of the art technology for voice and data, on
19 site support services/maintenance, and often includes full service ancillary uses such as,
20 but not limited to a bank, restaurant/office coffee shop, health club, printing shop, and
21 reserved parking. The minimum requirements of an office building classified as Class 'B'
22 Office shall be as follows: (i) minimum of two stories; (ii) minimum of 20,000 square feet
23 per floor; (iii) steel frame, concrete or masonry shell construction; (iv) central, interior
24 lobby; and (v) access to suites shall be from inside the building unless the building is
25 located in a central business district with major foot traffic, in which case the first floor
26 may be accessed from the street to provide entrances/exits for commercial uses within the
27 building.

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- 1 C. **“Development Project” or “Project”** means any project undertaken for the purpose of
2 development including the issuance of a permit for construction.
- 3 D. **“Gross Acreage”** means the total property area as shown on a land division map of record,
4 or described through a recorded legal description of the property. This area shall be
5 bounded by road rights of way and property lines.
- 6 E. **“Habitable Structure”** means any structure or part thereof where persons reside,
7 congregate or work and which is legally occupied in whole or part in accordance with
8 applicable building codes, and state and local laws.
- 9 F. **“Industrial Project”** means any development project that proposes any industrial or
10 manufacturing use allowed in the following Ordinance No. 348 zoning classifications: I-P,
11 M-S-C, M-M, M-H, M-R, M-R-A, A-1, A-P, A-2, A-D, W-E, or SP with one of the
12 aforementioned zones used as the base zone.
- 13 G. **“Low Income Residential Housing”** means residential units in publicly subsidized
14 projects constructed as housing for low-income households as such households are defined
15 pursuant to section 50079.5 of the Health and Safety Code. “Publicly subsidized projects,”
16 as the term is used herein, shall not include any project or project applicant receiving a tax
17 credit provided by the State of California Franchise Tax Board.
- 18 H. **“Multi Family Residential Unit”** means a development project that has a density of
19 greater than eight (8) residential dwelling units per gross acre.
- 20 I. **“Non-Residential Unit”** means retail commercial, service commercial and industrial
21 development which is designed primarily for non-dwelling use, but shall include hotels and
22 motels.
- 23 J. **“Recognized Financing District”** means a Financing District as defined in the TUMF
24 Administrative Plan as may be amended from time to time.
- 25 K. **“Residential Dwelling Unit”** means a building or portion thereof used by one (1) family
26 and containing but one (1) kitchen, which is designed primarily for residential occupancy
27 including single-family and multi-family dwellings. “Residential Dwelling Unit” shall not
28 include hotels or motels.

- 1 L. **“Retail Commercial Project”** means any development project that proposes any
2 commercial use not defined as a service commercial project allowed in the following
3 Ordinance No. 348 classifications: R-1, R-R, R-R-O, R-1-A, R-A, R-2, R-2-A, R-3, R-3-
4 A, R-T, R-T-R, R-4, R-5, R-6, C-1/C-P, C-T, C-P-S, C-R, C-O, R-V-C, C-V, W-2, R-D,
5 N-A, W-2-M, W-1, or SP with one of the aforementioned zones used as the base zone.
- 6 M. **“Service Commercial Project”** means any development project that is predominately
7 dedicated to business activities associated with professional or administrative services, and
8 typically consists of corporate offices, financial institutions, legal and medical offices.
- 9 N. **“Single Family Residential Unit”** means each residential dwelling unit in a development
10 that has a density of 8 units to the gross acre or less.

11 Section 4. Establishment of the Transportation Uniform Mitigation Fee.

12 A. **Adoption of TUMF Fee Schedule.**

- 13 i. There is hereby adopted the following TUMF fee schedule:
- 14 (1) \$9,693.00 per Single Family Residential Unit
- 15 (2) \$6,806.00 per Multi-Family Residential Unit
- 16 (3) \$2.27 per square foot of an Industrial Project
- 17 (4) \$12.49 per square foot of a Retail Commercial Project
- 18 (5) \$6.33 per square foot of a Service Commercial Project
- 19 (6) \$2.11 per square foot of a Class A Office project until June 30, 2007 plus
20 any CCI adjustments that may occur
- 21 (7) \$2.11 per square foot of a Class B Office project until June 30, 2007 plus
22 any CCI adjustments that may occur
- 23 ii. For non-residential projects, the fees set forth in Section 3.A. shall be phased in as
24 follows:
- 25 From July 1, 2006 to June 30, 2007, the fee schedule shall be as follows:
- 26 (1) \$1.58 per square foot of an Industrial Project
- 27 (2) \$8.51 per square foot of a Retail Commercial Project
- 28 (3) \$5.28 per square foot of a Service Commercial Project

- 1 (4) \$2.11 per square foot of a Class A Office project and Class B Office
2 project until June 30, 2007, plus any CCI adjustments that may
3 occur

4 From July 1, 2007 to June 30, 2008, the fee schedule shall be as follows:

- 5 (1) \$1.81 per square foot of an Industrial Project
6 (2) \$9.83 per square foot of a Retail Commercial Project
7 (3) \$5.63 per square foot of a Service Commercial Project

8 From July 1, 2008 to June 30, 2009, the fee schedule shall be as follows:

- 9 (1) \$2.04 per square foot of an Industrial Project
10 (2) \$11.16 per square foot of a Retail Commercial Project
11 (3) \$5.98 per square foot of a Service Commercial Project

12 From July 1, 2009, the fee schedule shall be as follows:

- 13 (1) \$2.27 per square foot of an Industrial Project
14 (2) \$12.49 per square foot of a Retail Commercial Project
15 (3) \$6.33 per square foot of a Service Commercial Project

16 **B. Fee Calculation.** The fees shall be calculated according to the calculation methodology set
17 forth in the Fee Calculation Handbook adopted July 14, 2003, as amended from time to time. The following
18 shall be observed for purposes of calculating the fee:

19 i. For non-residential projects, the fee rate utilized shall be based upon the
20 predominate use of the building or structure identified in the building permit or structure identified
21 in the building permit and as further specified in the TUMF Administrative Plan.

22 ii. For non-residential projects, the fee shall be calculated on the total square footage
23 of the building or structure identified in the building permit and as further specified in the TUMF
24 Administrative Plan.

25 **C. Fee Adjustment.** The fee schedule may be periodically reviewed and the amounts adjusted
26 by the WRCOG Executive Committee. By amendment to the Ordinance, the fees may be increased or
27 decreased to reflect changes in actual and estimated costs of the Regional System including, but not limited
28 to, debt service, lease payments and construction costs. The adjustment of the fees may also reflect changes

1 in the facilities required to be constructed, in estimated revenues received pursuant to this Ordinance, as well
2 as the availability or lack thereof of other funds with which to construct the Regional System. WRCOG shall
3 review the TUMF program no less than every four (4) years after the effective date of this Ordinance.

4 D. **Purpose.** The purpose of the TUMF is to fund those certain improvements to the Regional
5 System depicted on Exhibit "A" and identified in the Nexus Study, Exhibit "B".

6 E. **Applicability.** The TUMF shall apply to all new development within the WRCOG
7 Boundary of County, as identified by Exhibit "C", unless otherwise exempt hereunder.

8 F. **Exemptions.** The following new development shall be exempt from the TUMF:

- 9 i. Low income residential housing.
- 10 ii. Government/public buildings, public schools and public facilities.
- 11 iii. The rehabilitation and/or reconstruction of any habitable structure in use on or after
12 January 1, 2000 provided that the same or fewer traffic trips are generated as a result thereof.
- 13 iv. iv. Development Projects which are the subject of a Public Facilities Development
14 Agreement entered into pursuant to Government Code, Section 65864 et seq. prior to the effective
15 date of Ordinance 824, wherein the imposition of new fees are expressly prohibited provided that
16 if the term of such a Development Agreement is extended by amendment or by any other manner
17 after the effective date of Ordinance 824, the TUMF shall be imposed.
- 18 v. v. Guest Dwellings, as defined in Section 21.31 of Ordinance No. 348.
- 19 vi. vi. Additional single family residential units located on the same parcel pursuant to the
20 provisions of any agricultural zoning classifications set forth in Ordinance No. 348.
- 21 vii. vii. Kennels and Catteries established in connection with an existing single family
22 residential unit and as defined in Sections 21.20 and 21.40a or Ordinance No. 348.
- 23 viii. viii. Detached Second Units pursuant to Section 18.28a of Riverside County Ordinance
24 No. 348 and Attached Second Units pursuant to Section 18.28b of Ordinance No. 348.
- 25 ix. ix. The sanctuary building of a church or other house of worship, eligible for a
26 property tax exemption.

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x. Any nonprofit corporation or nonprofit organization offering and conducting full-time day school at the elementary, middle school or high school level for students between the ages of five and eighteen years.

G. **Credit.** Regional System improvements may be credited toward the TUMF in accordance with the TUMF Administrative Plan and the following:

Regional Tier

i. **Arterial Credits:** If a developer constructs arterial improvements identified on the Regional System, the developer shall receive credit for all costs associated with the arterial component based on approved unit cost assumptions for the Regional System. WRCOG staff must pre-approve any credit agreements that deviate from the standard WRCOG approved format.

ii. **Other Credits:** In special circumstances, when a developer constructs off-site improvements such as an interchange, bridge, or railroad grade separation, credits shall be determined by WRCOG and the County in consultation with the developer. All such credits must have prior written approval from WRCOG.

iii. The amount of the development fee credit shall not exceed the maximum amount determined by the most current unit cost assumptions for the Regional System or actual costs, whichever is less.

Local Tier

i. The local jurisdictions shall compare facilities in local fee programs against the Regional System and eliminate any overlap in its local fee program except where there is a Recognized Financing District has been established.

ii. If there is a Recognized Financing District established, the local agency may credit that portion of the facility identified in both programs against the TUMF in accordance with the TUMF Administrative Plan.

Section 5. Reimbursements.

Should the developer construct Regional System improvements in excess of the TUMF fee obligation, the developer may be reimbursed based on actual costs or the approved unit cost assumptions, whichever is less. Reimbursements shall be enacted through a three party agreement including the

1 developer, WRCOG, and the County, contingent on funds being available. In all cases, however,
2 reimbursements under such special agreements must coincide with construction of the transportation
3 improvements as scheduled in the five-year Capital Improvements Program adopted annually by
4 WRCOG.

5 Section 6. Procedures for the Levy, Collection and Disposition of Fees.

6 A. **Authority of the Building Department.** The Director of Building & Safety, or his/her
7 designee, is hereby authorized to levy and collect the TUMF and make all determinations required by this
8 Ordinance.

9 B. **Payment.** Payment of the fees shall be as follows:

10 i. The fees shall be paid at the time a certificate of occupancy is issued for the
11 Development Project or upon final inspection, whichever comes first (the "Payment Date").
12 However this section should not be construed to prevent payment of the Fees prior to issuance of an
13 occupancy permit or final inspection. Fees may be paid at the time application is made for a building
14 permit, and the fee payment shall be calculated based on the fee in effect at that time, provided the
15 developer tenders the full amount of his/her TUMF obligation. If the developer makes only a partial
16 payment prior to the Payment Date, the amount of the fee due shall be based on the TUMF fee
17 schedule in place on the Payment Date. The fees shall be calculated according to fee schedule set
18 forth in the Ordinance and the calculation methodology set forth in the Fee Calculation Handbook
19 adopted July 14, 2003, as amended from time to time.

20 ii. The fees required to be paid shall be the fee amounts in effect at the time of payment
21 is due under this Ordinance, not the date the Ordinance is initially adopted. The County shall not
22 enter into a development agreement which freezes future adjustments of the TUMF.

23 iii. If all or part of any development project is sold prior to payment of the fee, the
24 property shall continue to be subject to the requirement for payment of the fee. The obligation to pay
25 the fee shall run with the land and be binding on all the successors in interest to the property.

26 iv. Fees shall not be waived.

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1 C. **Disposition of Fees.** All fees collected hereunder shall be transmitted to the Executive
2 Director of WRCOG within thirty days for deposit, investment, accounting and expenditure in accordance
3 with the provisions of this Ordinance and the Mitigation Fee Act.

4 D. **Appeals.** Appeals shall be filed with WRCOG in accordance with the provisions of the
5 TUMF Administrative Plan. Appealable issues shall be the application of the fee, application of credits,
6 application of reimbursement, application of the legal action stay and application of exemption.

7 E. **Reports to WRCOG.** The Director of Building and Safety, or his/her designee, shall
8 prepare and deliver to the Executive Director of WRCOG, periodic reports as will be established under
9 Section 7 of this Ordinance.

10 Section 7. Appointment of the TUMF Administrator.

11 WRCOG is hereby appointed as the Administrator of the Transportation Uniform Mitigation Fee
12 Program. WRCOG is hereby authorized to receive all fees generated from the TUMF within the County,
13 and to invest, account for and expend such fees in accordance with the provisions of this Ordinance and
14 the Mitigation Fee Act. The detailed administrative procedures concerning the implementation of this
15 Ordinance shall be contained in the TUMF Administrative Plan adopted May 5, 2003 and as may be
16 amended from time to time. Furthermore, the TUMF Administrator shall use the Fee Calculation
17 Handbook adopted July 14, 2003, as amended from time to time, for the purpose of calculating a
18 developer's TUMF obligation. In addition to detailing the methodology for calculating all TUMF
19 obligations of different categories of new development, the purpose of the Fee Calculation Handbook is to
20 clarify for the TUMF Administrator, where necessary, the definition and calculation methodology for uses
21 not clearly defined in the respective TUMF ordinances.

22 WRCOG shall expend only that amount of the funds generated from the TUMF for staff support,
23 audit, administrative expenses, and contract services that are necessary and reasonable to carry out its
24 responsibilities and in no case shall the funds expended for salaries and benefits exceed one percent (1%)
25 of the annual net amount of revenue raised by the TUMF. The TUMF Administrative Plan further outlines
26 the fiscal responsibilities and limitations of the Administrator.

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Section 9. Judicial Review.

Section 10. Ordinance 824.

Section 11. Effective Date.

BOARD OF SUPERVISORS OF THE COUNTY
OF RIVERSIDE, STATE OF CALIFORNIA

ATTEST:

By: _____
Deputy
(SEAL)

APR 11 2006

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8.0 APPENDICES

The following Appendices incorporate the extent of materials used to support the development of the WRCOG TUMF Nexus Study and, where appropriate, specifically the 2005 Update. The respective Appendices also incorporate an explanation of the methodology and assumptions used to develop the various elements of the Nexus Study.

These Appendices represent a compilation of materials derived from a variety of technical resources. Each of the following Appendices relate to the development of a specific element of the Nexus Study. These Appendices are as follows:

Appendix A - List of TUMF Committees.

Appendix B - Western Riverside County Population and Employment Growth 2000 – 2030.

Appendix C - Western Riverside County Traffic Growth 2000 – 2030.

Appendix D - Western Riverside County Transit Person Trips 2000 – 2030.

Appendix E - Western Riverside County Regional System of Highways and Arterials Performance Measures.

Appendix F - TUMF Network Cost Assumptions.

Appendix G - TUMF 2005 Update Disposition of Network Change Requests

Appendix H - TUMF Network Cost Estimate and Evaluation

Appendix I - Western Riverside County Regional Trip Distribution.

Appendix J - Western Riverside County Regional Trip Purpose.

Appendix K - Residential Fee Calculation

Appendix L - Non-Residential Fee Calculation

Appendix A

List of TUMF Committees

WRCOG TUMF Policy Committee

Jeff Miller (Chairperson)	City of Corona
Marion Ashley (Vice-Chairperson)	County of Riverside
Bob Buster	County of Riverside
Gary Christmas	County of Riverside
Roger Berg	City of Beaumont
Beth Groves	City of Corona
Robin Lowe	City of Hemet
Charles White	City of Moreno Valley
Kelly Seyarto	City of Murrieta
Frank Hall	City of Norco
Ed Adkison	City of Riverside

WRCOG Technical Advisory Committee

Beth Groves (Chairperson)	City of Corona
Gary Christmas (Vice-Chairperson)	County of Riverside
Randy Anstine	City of Banning
Alan Kapanicas	City of Beaumont
Terrence Belanger	City of Calimesa
Bernie Strojny	City of Canyon Lake
Steve Temple	City of Hemet
Bob Brady	City of Lake Elsinore
Gene Rogers	City of Moreno Valley
Lori Moss	City of Murrieta
Jeff Allred	City of Norco
Hector Apodaca	City of Perris
Tom De Santis	City of Riverside
Barry McClellan	City of San Jacinto
Shawn Nelson	City of Temecula

WRCOG Public Works Committee

Bill Hughes (Chairperson)	City of Temecula
George Johnson (Vice-Chairperson)	County of Riverside
Duane Burk	City of Banning
Deepak Moorjani	City of Beaumont
Bob French	City of Calimesa
Habib Motlagh	City of Canyon Lake
Amad Qattan	City of Corona
Mike Gow	City of Hemet
Ken Sumalo	City of Lake Elsinore
Trent Pulliam	City of Moreno Valley
Jim Kinley	City of Murrieta
Bill Thompson	City of Norco
Ahmad Ansari	City of Perris
Tom Boyd	City of Riverside
Habib Motlaugh	City of San Jacinto
Dan Fairbanks	March Joint Powers Authority

Appendix B

Western Riverside County Population and Employment Growth 2000 – 2030

Although a variety of alternate demographic information was originally reviewed for the purpose of quantifying population and household growth in Western Riverside County, it was determined that the data developed and adopted to support the SCAG 2001 RTP represented the most widely accepted data available. For this reason, the SCAG 2001 RTP demographic information was used as the basis for quantifying the comparative demographic changes referenced in the original TUMF Nexus Study adopted in November 2002. Similarly, SCAG demographic data updated and revised to support the 2004 RTP Destination 2030 will be utilized to support this initial review of the TUMF Nexus.

SCAG 2004 RTP employment data for 2000 and 2030 was divided into ten employment sectors consistent with the NAICS Major Groups including Agricultural, Mining, Construction, Manufacturing, Transport/Utility, Wholesale, Retail, Financial/Insurance/Real Estate, Service and Government. For the purpose of the Nexus Study, the employment by NAICS Major Groups was aggregated to Industrial (Agricultural, Mining, Construction, Transport/Utility, Manufacturing, Wholesale), Retail (Retail), Service (Financial/Insurance/Real Estate, Service) and Government/Public Sector (Government). These four aggregated sector types were used as the basis for calculating the fee (as described in **Section 6.2** and **Appendix L**). A correspondence table detailing the various employment groupings and categories for each non-residential TUMF sector type is included in this Appendix.

EXHIBIT B-1

The following pages contain:

Western Riverside County 2000 Socioeconomic Data (SED) by Traffic Analysis Zone (SCAGTAZ)

Source: Southern California Association of Governments (SCAG), 2004 Regional Transportation Plan (RTP) – Destination 2030.

EXHIBIT B-1
WESTERN RIVERSIDE COUNTY 2000 SOCIOECONOMIC DATA BY SCAGTAZ (SCAG 2004 RTP)

SCAGTAZ	total pop	sf hh	mf hh	total hh	agri s1	mining s2	construct s3	manufact s4	trans/util s5	wholesale s6	retail s7	f.l.r.e s8	service s9	government s10	total emp
303010000	7,649	1,839	331	2,170	46	1	516	312	183	442	352	187	815	366	3,220
303020001	2,152	506	446	952	5	0	139	39	16	15	24	24	299	1,198	1,759
303020002	2,552	508	447	955	3	0	103	27	10	9	16	17	205	1,204	1,594
303030001	2,890	246	829	1,075	2	0	9	184	0	18	135	91	978	1,267	2,684
303030002	2,289	127	433	560	9	0	39	984	50	94	711	469	5,109	4,482	11,947
303040001	2,726	422	240	662	280	0	27	464	5	68	280	7	218	0	1,349
303040002	3,275	593	339	932	184	0	20	416	3	59	256	6	193	0	1,137
303050001	6,280	522	1,088	1,610	42	1	257	1,427	334	276	766	26	1,071	826	5,026
303050002	4,715	773	429	1,202	9	0	55	297	69	58	160	5	234	180	1,067
303060001	3,833	1,328	121	1,449	48	0	68	5	19	19	52	67	382	0	660
303060002	6,861	1,995	300	2,295	89	0	95	4	16	14	12	53	221	0	504
303070000	5,488	1,641	499	2,140	2	0	131	44	0	32	204	48	1,902	560	2,923
303080000	6,429	1,851	515	2,366	24	0	83	4	3	4	88	15	201	0	422
303090000	3,083	801	32	833	41	0	697	1,498	968	263	482	35	1,447	120	5,551
303100000	8,943	2,270	669	2,939	25	0	217	0	9	55	382	186	451	516	1,841
303110000	4,662	1,277	413	1,690	25	0	286	81	82	60	2,334	947	3,492	41	7,348
303120000	6,534	1,952	197	2,149	30	0	56	13	22	23	717	152	1,218	514	2,745
303130000	2,617	566	43	609	9	0	12	185	31	65	1,071	28	395	3,018	4,814
303140100	6,033	1,306	835	2,141	12	0	29	45	7	10	292	151	1,151	16	1,713
303140200	6,054	1,355	924	2,279	7	0	43	2	12	12	393	175	1,302	6	1,952
303150100	6,255	909	1,186	2,095	101	0	368	69	0	14	366	319	2,492	190	3,919
303150200	7,123	1,589	950	2,539	9	0	54	10	7	4	1,201	28	583	0	1,896
303160001	3,915	576	520	1,096	14	0	16	37	14	23	991	34	430	166	1,725
303160002	5,216	936	844	1,780	9	0	11	26	10	17	694	25	308	117	1,217
303170001	3,926	1,143	28	1,171	118	0	407	201	39	101	303	67	374	134	1,744
303170002	3,051	757	251	1,008	323	0	999	426	83	223	521	146	753	393	3,867
303170003	5,906	1,177	579	1,756	132	0	536	217	37	112	254	62	363	142	1,855
304010001	1,990	472	22	494	5	10	371	120	17	24	25	2	170	0	744
304010002	6,011	1,385	65	1,450	19	15	510	227	35	47	397	5	331	9	1,595
304020000	14,161	2,290	1,672	3,962	199	0	214	41	19	42	371	55	477	108	1,526
304030000	15,590	3,489	855	4,344	113	0	451	66	10	31	306	29	1,196	92	2,294
304040001	8,190	1,930	140	2,070	157	0	254	49	18	28	401	7	308	1	1,223
304040002	7,727	2,020	270	2,290	185	0	287	67	27	40	547	10	420	11	1,594
304050001	4,978	799	1,253	2,052	121	0	140	243	137	85	387	9	389	11	1,522
304050002	9,018	1,864	578	2,442	78	0	89	172	99	62	272	7	281	7	1,067
304060100	12,955	3,161	260	3,421	299	0	443	57	171	75	420	11	322	0	1,798
304060201	31	3	4	7	32	0	40	40	6	12	23	5	27	25	210
304060202	4,368	511	683	1,194	159	2	200	199	70	89	73	45	179	77	1,093
304060203	101	16	21	37	205	3	260	283	101	129	128	65	258	95	1,527
304060204	6	1	2	3	140	2	177	258	98	124	18	64	256	67	1,204
304070001	2,143	625	0	625	238	0	323	56	32	18	180	48	832	103	1,830
304070002	5,827	1,846	85	1,931	281	0	377	68	38	21	210	55	958	138	2,146
304080201	1,387	308	140	448	80	0	82	96	47	54	355	37	384	37	1,172
304080202	14,655	2,480	2,460	4,940	141	0	104	79	0	45	912	30	327	82	1,720
304080203	12,403	2,854	750	3,604	73	0	162	129	59	64	246	42	524	24	1,323
304080301	5,321	1,544	178	1,722	29	0	42	18	6	17	198	11	391	475	1,187
304080302	6,983	1,923	279	2,202	100	0	313	124	39	149	854	39	1,671	591	3,880
304080400	3,788	1,125	7	1,132	387	0	163	163	19	137	417	11	336	343	1,976
304080500	5,390	174	0	174	0	0	1	0	0	0	0	0	0	0	1
304090001	9,315	2,107	577	2,684	57	0	150	106	21	85	139	41	791	0	1,390
304090002	4,880	958	506	1,464	112	0	261	146	0	123	185	59	1,097	0	1,983
304100000	12,155	2,410	1,100	3,510	21	0	473	103	0	49	196	16	978	4	1,840
304110000	8,271	1,192	803	1,995	44	0	613	1,788	59	115	838	46	528	3	4,034
304120000	10,926	2,163	597	2,760	0	0	61	46	115	21	280	15	2,824	1,906	5,268
304130000	7,135	1,408	376	1,784	7	0	71	5	77	5	262	21	854	0	1,302
304140101	13,121	1,487	3,106	4,593	69	0	256	275	0	144	2,238	215	1,996	26	5,219
304140102	9,900	2,305	715	3,020	47	0	162	153	24	81	1,196	122	1,065	19	2,869
304140201	697	66	129	195	57	143	1,007	850	163	158	360	23	366	1	3,128
304140202	10,160	1,744	978	2,722	41	21	432	356	56	58	232	26	163	1	1,386
304140203	6,457	1,907	74	1,981	9	0	275	119	16	38	828	29	148	2	1,464
304150001	2,115	253	238	491	262	0	1,359	3,976	154	717	814	120	809	35	8,246
304150002	3	1	0	1	571	0	2,142	5,296	255	1,010	1,109	170	1,201	53	11,807
304160001	4,965	534	787	1,321	40	0	57	363	0	93	458	54	847	0	1,912
304160002	1,965	162	239	401	70	0	125	1,031	176	266	1,112	156	2,354	0	5,290
304170100	8,694	584	1,785	2,369	127	0	743	104	119	252	1,616	749	880	2,133	6,723
304170200	4,319	1,209	38	1,247	29	0	107	3	3	25	53	9	470	0	699
304180101	7,713	1,675	868	2,543	10	0	33	70	3	16	61	4	85	3	285
304180102	14,697	3,996	196	4,192	33	42	158	720	38	175	320	46	1,151	9	2,692
304180103	10,253	2,996	13	3,009	21	21	93	389	21	94	192	24	613	6	1,474
304180104	5,454	836	1,169	2,005	34	41	151	632	33	153	276	40	994	10	2,364
304180200	9,316	2,134	798	2,932	91	0	100	174	11	5	243	29	828	0	1,481
304190101	13,723	3,054	1,379	4,433	82	7	151	121	46	67	514	57	526	30	1,601
304190102	11,486	1,656	1,783	3,439	10	0	36	29	5	17	193	17	118	9	434
304190201	2,864	825	51	876	28	0	153	109	7	9	76	31	50	0	463
304190202	3,589	954	59	1,013	21	0	76	66	6	9	71	2	39	0	290
304190203	6,222	1,497	421	1,918	28	0	98	18	4	2	22	1	14	0	187
304190204	341	89	26	115	76	0	283	67	15	10	82	1	60	0	594
304190205	369	124	35	159	35	0	123	22	4	3	26	1	17	0	231

WESTERN RIVERSIDE COUNTY 2000 SOCIOECONOMIC DATA BY SCAGTAZ (SCAG 2004 RTP)

SCAGTAZ	total pop	sf hh	mf hh	total hh	agri s1	mining s2	construct s3	manufact s4	trans/util s5	wholesale s6	retail s7	f.i.r.e s8	service s9	government s10	total emp
304200101	2,897	884	27	911	19	0	45	12	2	2	19	1	22	0	122
304200102	12,150	3,337	280	3,617	63	0	347	64	272	15	572	10	166	1	1,510
304200103	6,275	1,505	349	1,854	98	0	304	126	37	25	285	18	302	1	1,196
304200201	2,232	677	42	719	14	1	23	22	19	13	0	6	18	4	120
304200202	2,155	496	246	742	9	0	15	15	13	9	0	4	13	3	81
304200203	1,203	265	134	399	38	1	67	55	37	30	12	13	50	14	317
304200204	3,639	800	199	999	38	2	64	58	47	33	44	16	48	12	362
304200205	3,334	674	313	987	9	0	15	8	6	4	5	2	5	3	57
304200206	3,596	324	624	948	12	0	21	12	8	6	7	3	6	3	78
304210001	719	274	165	439	81	3	132	78	56	38	124	19	559	22	1,112
304210002	346	67	41	108	116	4	190	130	0	66	38	33	1,149	35	1,761
304220101	7,270	1,461	1,946	3,407	5	0	25	20	10	14	19	8	41	103	245
304220102	4,707	1,559	120	1,679	2	0	10	5	0	6	4	4	24	62	117
304220103	6,488	1,408	789	2,197	73	0	495	595	356	498	540	275	1,111	2,402	6,345
304220200	1,646	96	174	270	0	0	291	0	0	0	23	61	1,392	0	1,767
304220301	189	11	49	60	61	0	609	2,653	540	651	1,471	407	2,981	792	10,165
304220302	1,356	31	534	565	16	0	169	800	157	189	437	119	882	202	2,971
304220303	9,218	253	3,862	4,115	9	0	94	437	87	104	239	66	491	118	1,645
304220401	5,782	1,538	279	1,817	1	0	34	7	60	12	280	7	215	161	777
304220402	7,238	1,870	319	2,189	8	35	81	24	0	37	460	89	546	41	1,321
304220403	4,097	1,205	12	1,217	3	5	13	4	5	5	74	16	81	1	207
304220404	15	2	0	2	1	0	11	7	5	3	11	1	19	38	96
304230001	2,341	406	318	724	161	0	92	104	13	103	155	6	184	152	970
304230002	3,569	783	283	1,066	154	0	84	73	6	51	82	2	106	30	588
304240001	366	88	29	117	2	0	2	2	0	1	0	0	4	0	11
304240002	16,981	3,687	1,451	5,138	30	0	164	18	40	98	258	87	860	18	1,573
304240003	3,490	919	46	965	15	0	86	7	14	36	89	33	299	12	591
304240004	7,126	1,890	116	2,006	19	0	113	6	10	26	45	24	169	19	431
304240005	5,842	1,655	31	1,686	28	0	150	20	36	89	235	80	778	16	1,432
304240006	3,953	1,043	8	1,051	12	0	63	7	15	41	155	37	366	6	702
304240007	500	141	53	194	5	0	9	4	4	2	2	1	15	1	43
304240008	2,125	595	0	595	14	0	78	7	16	37	65	34	319	11	581
304250101	2,162	403	197	600	7	1	51	103	17	29	159	14	146	57	584
304250102	1,207	258	73	331	15	0	72	375	0	113	926	62	590	97	2,250
304250103	6,731	1,129	684	1,813	22	0	74	288	28	82	550	46	412	42	1,544
304250201	8,049	1,757	253	2,010	15	0	117	51	67	12	155	55	398	466	1,336
304250202	8,639	1,964	199	2,163	41	0	287	248	376	69	1,280	313	2,481	586	5,681
304250203	6,341	1,353	368	1,721	20	0	146	93	136	25	417	113	868	447	2,265
304250204	6,614	1,117	620	1,737	14	0	101	61	88	16	258	73	553	327	1,491
304250205	6,233	1,145	613	1,758	30	0	194	146	219	40	720	172	1,415	456	3,392
304250301	4,540	961	217	1,178	83	0	101	132	33	37	660	57	890	130	2,123
304250302	7,409	1,646	371	2,017	49	0	61	67	16	18	315	28	411	90	1,055
304250303	9,564	2,233	200	2,433	71	0	85	113	28	33	608	49	776	106	1,869
304260101	16,106	3,898	350	4,248	23	0	92	70	62	36	23	65	845	129	1,345
304260102	312	122	11	133	13	0	51	24	17	11	6	20	82	84	308
304260103	1,396	389	28	417	16	0	63	35	27	17	18	25	218	102	521
304260104	1,668	440	40	480	2	0	9	11	0	6	12	10	205	11	266
304260105	3,409	883	79	962	4	0	14	9	7	6	17	10	80	22	169
304260106	267	77	7	84	2	0	9	9	9	6	20	10	139	11	215
304260107	979	283	20	303	9	0	34	29	26	14	30	25	385	44	596
304260108	374	103	7	110	4	0	15	9	7	6	6	5	71	26	149
304260109	25	7	0	7	4	0	14	19	16	11	46	20	259	18	407
304260110	403	97	26	123	10	0	29	25	8	14	35	25	90	27	263
304260111	80	0	27	27	6	5	24	25	7	14	18	11	22	22	154
304260201	584	132	38	170	58	0	107	418	9	12	345	1	498	9	1,457
304260202	2,882	554	223	777	19	1	48	90	7	21	83	4	127	22	422
304260203	199	19	6	25	31	0	61	240	6	8	200	1	291	3	841
304260204	564	125	36	161	74	0	153	631	16	25	522	4	762	3	2,190
304260300	14,609	3,090	744	3,834	50	0	32	184	13	5	340	28	688	0	1,340
304270200	16,890	6,772	1,588	8,360	38	15	271	101	0	24	1,401	117	1,084	28	3,079
304270301	16,140	5,108	354	5,462	49	2	851	129	40	73	519	67	1,112	13	2,855
304270302	1,422	288	208	496	84	4	453	37	34	60	345	74	590	16	1,697
304270303	1,590	422	136	558	27	0	277	56	35	98	181	7	232	0	913
304270304	5,461	1,311	421	1,732	9	0	79	12	7	20	19	1	44	0	191
304270305	433	113	36	149	15	0	128	13	6	17	18	1	31	0	229
304270306	77	23	7	30	10	0	96	13	7	21	12	2	44	0	205
304270501	961	308	158	466	80	0	128	164	0	72	68	9	112	2	635
304270502	484	0	246	246	0	0	27	96	5	21	37	4	62	0	252
304270503	0	0	0	0	0	0	20	80	5	18	30	3	52	0	208
304270504	1,105	191	140	331	170	0	126	144	1	18	70	4	78	14	625
304270505	3,483	627	404	1,031	172	0	108	56	4	12	31	1	37	2	423
304270506	907	191	122	313	220	0	165	245	19	82	97	4	138	5	975
304270507	3,269	613	313	926	245	0	183	251	0	54	78	6	126	5	948
304270508	3,703	541	707	1,248	408	0	297	258	0	62	113	3	159	5	1,305
304270509	2,581	429	547	976	76	0	55	66	2	9	53	2	41	22	326
304270600	6,051	1,153	328	1,481	36	0	19	7	0	0	265	6	269	0	602
304270701	1,646	208	373	581	26	0	82	33	65	7	182	23	146	0	564
304270702	4,255	387	1,317	1,704	55	0	163	51	116	12	121	3	177	0	698
304270703	1,407	318	172	490	53	0	188	111	271	27	209	6	455	0	1,320

WESTERN RIVERSIDE COUNTY 2000 SOCIOECONOMIC DATA BY SCAGTAZ (SCAG 2004 RTP)

SCAGTAZ	total pop	sf hh	mf hh	total hh	agri s1	mining s2	construct s3	manufact s4	trans/util s5	wholesale s6	retail s7	f.l.r.e s8	service s9	government s10	total emp
304270704	5,380	1,521	822	2,343	28	0	95	44	0	12	108	2	284	0	573
304280001	2,457	383	333	716	21	0	23	274	156	41	327	33	476	1,148	2,499
304280002	4,032	537	471	1,008	12	0	14	138	78	20	162	16	236	610	1,286
304290001	1,488	144	255	399	9	2	36	36	7	18	16	5	40	21	190
304290002	4,011	464	664	1,128	10	0	18	67	2	5	21	1	52	11	187
304290003	4,714	541	749	1,290	23	4	84	74	12	36	47	10	78	44	412
304290004	3,152	384	439	823	17	2	61	47	0	21	47	6	55	30	286
304290005	1,746	246	321	567	9	1	41	40	6	17	37	5	40	22	218
304290006	1,244	180	207	387	14	2	62	32	5	13	31	3	32	21	215
304290007	2,132	312	272	584	29	0	40	283	7	5	67	1	209	10	651
304290008	550	64	79	143	6	0	15	40	2	5	16	1	27	8	120
304290009	1,072	183	146	329	2	0	3	19	1	2	7	0	18	2	54
304300001	8,074	2,344	71	2,415	19	0	48	43	16	18	96	8	72	17	337
304300002	748	201	5	206	3	0	16	22	5	6	71	5	48	7	183
304300003	1,974	392	228	620	32	1	214	169	29	38	358	25	287	78	1,231
304300004	1,459	96	352	448	5	0	14	13	4	5	130	2	15	7	195
304300005	1,404	273	176	449	23	1	129	98	18	23	120	15	138	47	612
304300006	6,470	1,091	820	1,911	20	1	140	96	12	20	283	14	178	51	815
304300007	904	240	223	463	98	3	593	668	176	164	1,150	106	1,159	212	4,329
304300008	15,242	2,985	1,580	4,565	9	0	56	50	11	14	126	8	80	26	380
304319801	1,178	244	187	431	6	0	199	38	46	14	211	3	219	3	739
304319802	4,942	1,270	464	1,734	3	0	69	8	7	3	38	2	28	2	160
304319803	4,583	904	513	1,417	8	0	87	28	23	10	99	12	190	2	459
304319804	5,381	981	764	1,745	8	0	154	46	0	16	433	9	348	3	1,017
304319805	2,668	527	292	819	7	0	92	29	31	12	325	16	232	1	745
304320101	12,277	3,859	471	4,330	25	0	73	89	22	15	95	30	314	5	668
304320102	12,918	3,199	981	4,180	58	1	46	161	46	36	225	42	759	6	1,380
304320103	4,241	615	933	1,548	6	0	151	34	7	4	63	12	136	1	414
304320104	1,881	386	215	601	17	0	78	44	9	7	112	16	197	2	482
304320201	4,549	825	476	1,301	6	2	393	242	6	429	204	32	466	159	1,939
304320202	13,187	2,915	1,589	4,504	22	4	21	64	11	10	146	10	64	2	354
304320203	953	236	73	309	27	6	28	82	13	15	260	6	75	5	517
304320204	607	153	52	205	9	7	18	50	4	7	247	3	41	0	386
304320301	1,384	355	85	440	5	0	11	12	5	7	18	3	8	5	74
304320302	184	52	12	64	3	0	8	7	3	3	13	2	5	4	48
304320303	587	145	34	179	5	0	10	10	4	5	10	2	7	5	58
304320304	3,279	708	127	835	232	0	60	81	0	26	115	17	101	26	658
304320305	3,387	863	171	1,034	103	0	16	11	4	5	20	2	9	7	177
304320306	1,841	513	123	636	22	0	49	73	34	42	43	15	54	23	355
304320307	1,520	444	107	551	11	0	25	22	9	11	36	4	14	12	144
304320401	1,148	371	10	381	8	0	20	12	4	5	24	2	8	10	93
304320402	5,009	1,417	77	1,494	16	0	44	58	0	18	269	9	86	15	515
304320403	12,691	3,567	204	3,771	88	0	125	154	0	51	380	23	324	25	1,170
304320404	14,677	4,265	189	4,454	132	0	268	516	40	131	678	104	691	65	2,625
304320405	7,134	1,453	1,113	2,566	45	0	111	260	19	91	301	48	472	37	1,384
304320406	931	266	24	290	13	0	31	49	3	15	46	7	86	12	262
304320407	2,249	363	518	881	167	0	413	764	50	244	2,386	129	1,213	148	5,514
304320408	20,148	4,783	1,709	6,492	39	0	98	189	14	69	508	37	321	32	1,307
304320409	268	65	28	93	587	2	1,297	2,818	204	878	1,063	502	2,018	508	9,877
304320410	1,693	66	490	556	111	0	273	556	38	187	214	99	384	96	1,958
304320411	756	242	15	257	8	0	19	21	9	12	81	4	23	9	186
304320501	5,964	1,345	486	1,831	67	0	131	5	16	22	20	4	32	4	301
304320502	3,410	1,045	214	1,259	112	0	293	32	36	71	80	28	180	9	841
304320503	1,546	431	65	496	286	0	1,354	460	37	224	150	243	912	112	3,778
304320504	6,436	1,649	232	1,881	197	0	309	58	21	42	26	36	124	37	850
304330101	9,496	2,540	1,490	4,030	172	0	135	164	0	8	388	42	526	194	1,629
304330102	1,599	520	159	679	108	0	125	0	0	0	21	3	27	0	284
304330103	4,661	540	1,644	2,184	18	0	29	99	0	5	235	13	257	89	745
304330104	3,662	788	653	1,441	361	0	416	3	7	0	83	35	194	10	1,109
304330105	1,067	265	81	346	219	0	253	0	0	0	46	8	61	0	587
304330201	6,026	1,041	1,156	2,197	43	0	80	103	31	3	815	58	946	42	2,121
304330202	4,509	1,010	430	1,440	20	0	111	53	32	63	813	66	584	83	1,825
304330300	12,300	3,642	354	3,996	175	0	670	321	130	179	192	11	1,000	0	2,678
304340100	5,694	1,057	866	1,923	82	0	96	216	40	76	836	93	3,430	597	5,466
304340200	8,950	1,414	2,802	4,216	16	0	33	428	28	16	697	41	1,210	157	2,626
304350101	4,329	901	684	1,585	52	0	51	286	30	68	184	12	235	88	1,006
304350102	6,431	761	1,948	2,709	176	0	131	1,020	82	114	327	40	656	248	2,794
304350103	2,694	356	755	1,111	66	0	36	100	21	9	322	16	135	152	857
304350104	7,583	1,522	2,331	3,853	40	0	21	81	0	6	283	12	119	58	620
304350105	3,597	392	1,390	1,782	181	0	96	427	75	38	1,253	60	477	281	2,888
304350201	72	9	11	20	7	5	19	138	27	48	9	4	79	24	360
304350202	992	145	142	287	29	12	55	263	57	88	34	6	157	67	768
304350203	603	190	173	363	105	0	72	77	10	46	35	9	186	45	585
304350204	143	29	25	54	19	0	12	15	2	6	9	2	75	6	146
304350205	3,465	671	580	1,251	126	0	79	84	14	68	127	15	547	40	1,100
304350206	4,179	856	672	1,528	57	3	43	47	4	40	23	4	95	46	362
304350207	4,285	991	592	1,583	80	0	55	53	14	33	37	6	199	33	510
304360000	8,029	1,345	1,094	2,439	145	0	139	101	4	32	205	49	448	60	1,183
304370001	8,254	1,738	1,758	3,496	41	0	193	96	0	14	101	14	125	16	600

WESTERN RIVERSIDE COUNTY 2000 SOCIOECONOMIC DATA BY SCAGTAZ (SCAG 2004 RTP)

SCAGTAZ	total pop	sf hh	mf hh	total hh	agri s1	mining s2	construct s3	manufact s4	trans/util s5	wholesale s6	retail s7	f.i.r.e s8	service s9	government s10	total emp
304370002	3,110	553	680	1,233	72	0	348	247	177	56	373	43	196	24	1,536
304380200	5,039	1,385	562	1,947	52	0	252	143	80	9	347	34	380	0	1,297
304380301	3,194	764	534	1,298	222	5	372	110	31	74	69	21	239	63	1,206
304380302	6,355	1,591	998	2,589	106	0	305	28	8	71	36	37	188	35	814
304380501	210	51	23	74	0	0	0	0	0	0	10	24	18	0	52
304380502	704	90	200	290	5	0	33	22	1	4	6	3	21	1	96
304380503	481	53	205	258	16	2	57	38	7	5	31	4	73	4	237
304380504	1,431	250	273	523	14	0	33	56	7	1	87	3	133	77	411
304380505	84	16	16	32	68	0	185	222	17	3	278	10	253	387	1,423
304380506	409	75	59	134	32	0	137	129	9	3	85	8	102	177	682
304380507	101	26	18	44	8	0	105	72	9	3	55	3	85	67	407
304380508	33	9	5	14	0	0	1	0	0	0	3	6	10	0	20
304380601	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
304380602	1,010	195	137	332	69	0	6	110	116	2	301	5	399	7	1,015
304380603	1,438	259	177	436	14	0	1	8	4	0	140	0	37	1	205
304380604	294	78	25	103	10	0	8	7	6	2	36	2	39	6	116
304380605	3,880	1,866	371	2,237	15	0	6	18	6	3	61	3	176	20	308
304380606	404	70	50	120	28	0	3	20	13	5	43	1	42	2	157
304380607	1,082	201	142	343	95	0	0	41	38	0	36	1	69	0	280
304390000	5,445	1,474	315	1,789	6	0	39	9	18	4	50	20	286	1	433
304400000	1,997	304	338	642	36	0	227	641	18	87	441	32	726	393	2,601
304410001	356	130	0	130	3	0	18	25	7	17	0	4	16	19	109
304410002	7,258	1,919	574	2,493	31	0	65	45	15	40	430	92	708	453	1,879
304410003	3,872	611	1,086	1,697	37	0	79	56	18	50	720	109	845	547	2,461
304420000	4,834	1,137	284	1,421	0	0	106	118	10	6	228	11	526	1,417	2,422
304430000	3,720	728	249	977	45	0	30	568	107	185	99	21	117	21	1,193

TAZ Sic codes	total pop	sf hh	mf hh	total hh	agri S1	mining S2	construct S3	manufact S4	trans/util S5	wholesale S6	retail S7	f.i.r.e S8	service S9	government S10	total emp
Totals	1,193,862	262,904	118,278	381,182	16,422	454	43,123	53,762	10,893	15,630	74,356	12,047	121,520	39,556	387,763

Year 2000 Summary

Population	1,193,862
Households	
Single-Family Households	262,904
Multi-Family Households	118,278
Total Households	381,182
Employment	
Industrial	140,284
Retail	74,356
Service	133,567
Government/Public Sector	39,556
Total Employment	387,763

EXHIBIT B-2

The following pages contain:

Western Riverside County 2030 Plan Socioeconomic Data (SED) by Traffic Analysis Zone (SCAGTAZ)

Source: Southern California Association of Governments (SCAG), 2004 Regional Transportation Plan (RTP) – Destination 2030.

EXHIBIT B-2
WESTERN RIVERSIDE COUNTY 2030 PLAN SOCIOECONOMIC DATA BY SCAGTAZ (SCAG 2004 RTP)

SCAGTAZ	total pop	sf hh	mf hh	total hh	agri s1	mining s2	construct s3	manufact s4	trans/uttl s5	wholesale s6	retail s7	f.l.r.e s8	service s9	government s10	total emp
303010000	11,720	1,540	2,414	3,954	37	0	881	467	185	528	777	438	2,199	577	6,089
303020001	3,393	718	837	1,555	2	0	313	78	25	28	77	73	905	2,045	3,546
303020002	3,810	526	1,016	1,542	3	0	234	57	27	18	58	59	805	1,931	3,192
303030001	5,384	176	2,098	2,274	1	0	34	219	8	30	294	162	2,235	1,546	4,529
303030002	3,489	192	778	970	7	0	79	1,295	44	135	1,224	905	9,414	6,006	19,109
303040001	4,543	336	979	1,315	315	0	71	954	14	88	811	25	694	54	3,026
303040002	4,401	710	646	1,356	201	0	59	841	12	82	680	21	583	61	2,540
303050001	12,120	283	3,497	3,780	37	0	473	2,147	471	374	1,642	62	2,321	1,383	8,910
303050002	6,960	766	1,211	1,977	8	0	108	393	116	66	413	12	713	349	2,178
303060001	5,210	1,840	251	2,091	30	0	126	7	41	46	103	124	849	125	1,451
303060002	10,695	3,125	627	3,752	105	0	227	8	39	29	36	185	726	62	1,417
303070000	6,997	2,097	835	2,932	1	0	175	50	11	46	354	78	3,524	732	4,971
303080000	7,558	2,346	874	3,220	24	0	179	7	15	15	200	45	504	66	1,055
303090000	4,630	1,139	193	1,332	36	0	1,230	2,491	1,492	321	1,169	92	3,858	257	10,946
303100000	11,595	2,966	1,121	4,087	20	0	380	0	24	80	861	434	1,083	773	3,655
303110000	6,263	1,436	1,052	2,488	13	0	348	93	70	76	3,766	1,424	6,038	112	11,940
303120000	8,311	2,549	408	2,957	19	0	91	16	30	36	1,293	271	2,380	673	4,809
303130000	3,486	748	134	882	8	0	41	321	45	90	2,459	75	1,015	4,387	8,441
303140100	7,878	1,762	1,255	3,017	6	0	47	49	15	19	495	211	2,098	80	3,020
303140200	7,601	1,746	1,336	3,082	3	0	64	2	19	22	643	231	2,292	77	3,353
303150100	8,246	1,240	1,706	2,946	61	0	477	79	9	27	633	538	4,621	304	6,749
303150200	8,719	2,024	1,432	3,456	4	0	76	11	56	10	2,113	42	1,139	41	3,492
303160001	4,859	768	737	1,505	7	0	46	44	101	32	1,835	55	884	231	3,235
303160002	6,479	1,249	1,216	2,465	5	0	36	29	71	23	1,298	37	616	165	2,280
303170001	5,581	1,663	82	1,745	109	0	861	350	79	165	511	176	847	380	3,478
303170002	4,467	1,088	468	1,556	278	0	1,729	683	142	277	1,325	362	2,002	665	7,463
303170003	7,959	1,608	919	2,527	115	0	806	336	49	146	527	163	849	333	3,324
304010001	4,899	1,084	372	1,456	4	7	992	191	64	60	482	3	621	3	2,427
304010002	11,994	3,157	218	3,375	24	15	1,936	555	152	153	1,008	13	1,310	31	5,197
304020000	29,429	6,067	3,354	9,421	214	0	1,004	121	225	178	1,304	191	1,889	564	5,690
304030000	33,745	7,105	4,095	11,200	131	0	1,658	136	125	116	1,188	67	4,688	248	8,357
304040001	20,795	5,019	1,398	6,417	279	0	1,150	140	138	110	1,475	17	1,460	14	4,783
304040002	27,883	7,672	2,068	9,740	241	0	1,218	179	154	151	2,006	29	1,697	46	5,721
304050001	14,976	2,941	2,145	5,086	166	0	711	651	709	330	1,338	27	1,418	50	5,400
304050002	18,254	4,032	1,894	5,926	166	0	426	394	415	183	1,060	22	1,552	26	4,244
304060100	24,023	6,151	1,163	7,314	390	0	1,718	135	626	242	1,729	37	1,264	14	6,155
304060201	238	115	26	141	64	1	246	98	73	43	98	19	204	73	919
304060202	42,936	11,499	4,494	15,993	288	3	841	537	280	229	423	131	1,063	243	4,038
304060203	627	180	88	268	349	4	1,128	772	481	385	609	193	1,381	293	5,595
304060204	42	17	8	25	224	2	775	683	371	405	477	181	1,080	212	4,410
304070001	2,621	872	0	872	196	0	591	77	54	23	313	88	1,467	135	2,944
304070002	7,671	2,503	412	2,915	235	0	727	93	52	28	436	104	1,842	184	3,701
304080201	2,404	424	467	891	47	0	157	98	47	55	571	136	565	156	1,832
304080202	18,185	3,021	3,602	6,623	131	0	266	121	21	80	1,443	75	908	246	3,291
304080203	17,255	3,642	1,326	4,968	32	0	369	148	97	98	413	76	840	70	2,143
304080301	6,512	2,128	290	2,418	25	0	84	25	11	23	456	23	1,196	668	2,511
304080302	10,716	2,459	1,545	4,004	86	0	563	177	68	230	1,804	68	2,873	1,096	6,965
304080400	4,932	1,629	72	1,701	365	0	371	245	39	199	733	25	698	514	3,189
304080500	6,997	251	0	251	0	0	2	0	0	0	0	0	0	0	2
304090001	11,942	2,868	953	3,821	57	0	381	203	76	185	278	117	1,470	254	3,021
304090002	9,106	1,980	897	2,877	86	0	411	223	26	137	406	122	2,552	108	4,071
304100000	16,959	3,368	1,862	5,230	15	0	812	146	79	95	449	37	2,061	240	3,934
304110000	10,383	1,566	1,232	2,798	34	0	955	2,612	93	145	1,706	102	1,176	66	6,889
304120000	14,366	2,854	1,008	3,862	0	0	144	73	173	55	582	30	5,247	2,445	8,749
304130000	8,682	1,809	613	2,422	6	0	159	8	145	24	439	51	1,578	106	2,516
304140101	18,753	1,962	5,185	7,147	42	0	409	362	36	184	3,841	370	3,656	196	9,096
304140102	14,190	3,396	1,122	4,518	33	0	373	207	46	130	2,367	243	2,316	246	5,961
304140201	1,453	182	278	460	93	108	1,941	2,224	279	224	1,260	89	1,540	14	7,772
304140202	17,201	3,044	1,646	4,690	4	13	1,028	572	157	121	572	144	534	110	3,255
304140203	12,224	4,077	209	4,286	4	0	852	35	44	111	1,651	166	443	115	3,421
304150001	3,279	260	751	1,011	263	0	1,773	5,177	125	913	1,438	271	1,851	80	11,891
304150002	1,944	178	649	827	369	0	2,954	6,921	244	1,212	2,096	404	2,584	139	16,923
304160001	9,152	257	2,775	3,032	27	0	109	358	8	92	601	122	1,386	4	2,707
304160002	2,604	207	370	577	40	0	176	1,200	217	310	1,656	195	3,668	11	7,473
304170100	12,301	770	2,941	3,711	69	0	872	119	135	289	2,026	911	1,228	2,729	8,378
304170200	5,465	1,137	603	1,740	16	0	203	5	14	47	116	47	800	6	1,254
304180101	9,747	2,040	1,340	3,380	20	0	138	218	18	43	256	25	393	32	1,143
304180102	20,671	5,011	726	5,737	28	15	416	1,130	92	240	745	103	2,712	40	5,521
304180103	15,171	3,828	157	3,985	11	4	420	411	26	109	341	43	1,214	15	2,594
304180104	7,308	1,035	1,892	2,927	31	17	234	791	47	193	483	96	2,135	25	4,052
304180200	11,904	2,229	1,791	4,020	97	0	374	325	50	49	551	73	1,483	26	3,028
304190101	18,816	4,365	2,193	6,558	24	5	587	256	135	159	1,478	198	1,347	157	4,346
304190102	15,110	2,127	2,824	4,951	22	0	403	105	53	99	650	100	496	86	2,014
304190201	5,149	1,469	151	1,620	12	0	462	411	24	32	366	109	301	14	1,731
304190202	5,961	1,748	124	1,872	0	0	262	100	23	30	186	10	114	12	737
304190203	14,263	4,160	903	5,063	0	0	239	10	12	7	92	3	58	5	426
304190204	1,243	367	85	452	0	0	801	29	41	26	274	7	157	5	1,340
304190205	1,215	490	95	585	0	0	308	12	8	8	106	3	65	3	513
304200101	5,082	1,693	73	1,766	0	0	92	2	7	5	66	3	68	3	246
304200102	23,425	6,897	1,224	8,121	38	0	907	134	599	36	1,320	36	475	22	3,567
304200103	12,649	3,336	852	4,188	5	0	1,049	43	93	69	887	56	445	138	2,785
304200201	4,119	1,346	105	1,451	0	0	78	10	36	22	25	16	45	61	293
304200202	4,104	1,096	462	1,558	0	0	54	7	53	14	35	15	83	19	280
304200203	3,266	921	317	1,238	5	0	336	54	180	69	217	79	430	79	1,449
304200204	6,717	1,689	373	2											

WESTERN RIVERSIDE COUNTY 2030 PLAN SOCIOECONOMIC DATA BY SCAGTAZ (SCAG 2004 RTP)

SCAGTAZ	total pop	sf hh	mf hh	total hh	agri s1	mining s2	construct s3	manufact s4	trans/util s5	wholesale s6	retail s7	f.l.r.e s8	service s9	government s10	total emp
304210002	1,589	382	280	662	634	15	5,310	857	10	811	5,522	540	9,346	534	23,579
304220101	10,972	2,371	2,886	5,257	7	0	153	66	34	34	123	46	311	299	1,073
304220102	5,726	1,966	345	2,311	3	0	83	35	0	26	30	31	188	302	698
304220103	10,720	2,303	1,169	3,472	76	0	1,173	1,308	660	616	1,859	965	3,901	3,709	14,267
304220200	3,214	227	435	662	0	0	527	0	0	7	73	176	4,516	50	5,349
304220301	379	81	61	142	42	0	932	3,409	635	823	2,637	790	6,135	1,182	16,585
304220302	3,140	205	1,124	1,329	11	0	268	1,009	216	239	765	223	1,761	383	4,875
304220303	14,797	452	6,363	6,815	6	0	182	545	90	141	518	123	899	323	2,827
304220401	8,184	2,138	532	2,670	0	0	160	16	124	34	658	27	600	377	1,996
304220402	11,510	2,935	762	3,697	6	29	316	50	19	89	945	191	1,404	233	3,282
304220403	5,840	1,809	71	1,880	0	2	222	11	35	22	395	61	571	38	1,357
304220404	680	103	24	127	1	0	40	20	14	10	64	6	102	142	399
304230001	4,265	912	621	1,533	204	0	228	153	38	153	449	30	610	404	2,269
304230002	8,345	1,838	1,065	2,903	264	0	205	151	22	96	272	19	303	105	1,437
304240001	896	234	85	319	0	0	40	5	2	4	21	1	45	2	120
304240002	25,230	5,456	2,747	8,203	23	0	272	48	95	133	678	256	2,099	118	3,722
304240003	5,277	1,330	199	1,529	25	0	191	20	46	70	284	81	867	60	1,644
304240004	10,237	2,759	312	3,071	33	0	309	31	35	50	468	145	1,015	101	2,187
304240005	9,473	2,720	187	2,907	41	0	392	48	123	224	870	171	2,355	106	4,330
304240006	7,013	1,286	761	2,047	14	0	153	21	51	82	308	177	1,061	57	1,924
304240007	1,335	396	142	538	0	0	79	1	9	7	16	4	65	6	187
304240008	7,137	1,465	1,194	2,659	14	0	193	21	36	58	341	130	907	56	1,756
304250101	5,296	301	1,413	1,714	8	2	264	198	39	46	390	40	667	142	1,796
304250102	3,930	345	914	1,259	14	0	146	564	0	175	1,710	115	1,359	434	4,517
304250103	15,087	813	4,096	4,909	9	0	356	529	51	134	1,094	151	1,111	127	3,562
304250201	10,983	2,484	441	2,925	14	0	353	258	104	27	396	98	1,220	875	3,345
304250202	13,513	3,121	420	3,541	26	0	642	493	520	179	3,195	529	5,929	627	12,140
304250203	9,185	1,892	655	2,547	17	0	240	158	162	41	959	320	2,306	956	5,159
304250204	10,411	1,641	1,270	2,911	14	0	206	142	216	41	691	203	1,599	528	3,640
304250205	10,307	1,609	1,628	3,237	39	0	464	217	562	93	1,698	314	2,893	605	6,885
304250301	7,731	1,589	550	2,139	75	0	345	223	122	73	1,966	196	2,027	248	5,275
304250302	12,066	2,613	858	3,471	68	0	147	126	139	49	590	113	1,281	224	2,737
304250303	13,334	3,185	423	3,608	69	0	212	162	69	60	1,262	148	1,950	196	4,128
304260101	24,556	5,964	857	6,821	38	0	265	182	329	280	303	225	3,684	494	5,800
304260102	609	219	69	288	21	0	90	127	14	14	77	38	900	144	1,425
304260103	4,079	1,146	249	1,395	23	0	101	68	66	22	163	49	1,153	238	1,883
304260104	4,226	1,073	218	1,291	5	0	64	48	17	27	60	71	766	92	1,150
304260105	5,748	1,435	320	1,755	7	0	43	31	16	11	120	33	466	50	777
304260106	1,220	395	68	463	5	0	46	33	21	18	151	50	596	65	985
304260107	5,376	785	1,371	2,156	14	0	120	90	80	44	218	98	1,091	136	1,891
304260108	1,991	282	446	728	4	0	30	17	11	8	55	38	276	45	484
304260109	657	121	129	250	7	0	86	66	46	43	155	96	773	72	1,344
304260110	1,283	307	147	454	4	0	118	46	19	29	104	40	418	47	825
304260111	477	109	104	213	2	2	48	33	13	18	58	19	235	29	457
304260201	3,996	733	523	1,256	96	0	279	1,030	31	30	1,228	6	1,863	91	4,654
304260202	16,346	3,685	690	4,375	13	0	76	72	15	26	228	8	384	207	1,029
304260203	1,380	160	87	247	33	0	137	631	20	16	682	5	1,041	40	2,605
304260204	5,684	969	750	1,719	136	0	450	1,558	58	58	1,783	24	2,766	46	6,879
304260300	20,688	4,378	1,239	5,617	70	0	45	261	14	7	592	39	1,247	0	2,275
304270200	30,994	13,445	2,768	16,213	14	8	703	180	46	84	1,586	210	1,908	109	4,848
304270301	24,789	7,779	1,281	9,060	14	0	1,454	189	43	79	1,038	125	2,510	32	5,484
304270302	7,652	1,488	1,540	3,028	27	2	831	99	52	130	470	134	1,008	69	2,822
304270303	9,353	2,702	1,773	4,475	19	0	541	120	53	216	190	17	446	4	1,606
304270304	20,365	5,023	3,384	8,407	4	0	128	19	11	32	41	4	95	2	336
304270305	863	260	90	350	11	0	174	24	9	24	50	4	115	2	413
304270306	214	65	40	105	5	0	184	19	16	35	67	9	138	9	482
304270501	4,103	1,062	412	1,474	51	0	204	401	0	110	133	20	292	23	1,234
304270502	1,087	236	334	570	0	0	64	261	19	44	217	13	246	0	864
304270503	1,543	162	128	290	0	0	61	289	19	50	95	15	181	0	710
304270504	2,633	600	325	925	204	0	384	502	21	69	120	21	204	43	1,568
304270505	7,189	1,619	840	2,459	151	0	234	145	12	26	57	4	116	6	751
304270506	2,393	687	311	998	295	0	308	307	33	109	439	15	503	33	2,042
304270507	8,195	1,768	1,355	3,123	126	0	363	653	4	98	255	24	526	38	2,087
304270508	8,038	1,593	1,543	3,136	399	0	657	540	16	117	169	18	415	19	2,350
304270509	4,857	1,039	1,062	2,101	69	0	120	235	48	41	635	16	153	192	1,509
304270600	13,386	2,650	958	3,608	49	0	59	9	29	5	446	20	562	0	1,179
304270701	3,521	646	836	1,482	11	0	147	112	52	19	490	86	1,010	56	1,983
304270702	8,622	1,118	2,889	4,007	36	0	296	121	144	33	265	29	555	29	1,508
304270703	5,752	1,840	670	2,510	91	0	375	221	511	55	491	26	1,084	21	2,875
304270704	9,857	3,189	1,669	4,858	51	0	229	105	0	31	269	20	688	24	1,417
304280001	5,088	960	558	1,518	34	0	38	423	242	64	575	52	845	1,786	4,059
304280002	9,152	1,467	981	2,448	92	0	43	202	82	32	248	26	420	1,058	2,203
304290001	2,854	377	479	856	6	2	107	72	17	36	47	12	128	30	457
304290002	8,605	1,630	986	2,616	11	0	21	142	7	3	104	3	243	94	628
304290003	9,599	1,471	1,544	3,015	31	7	201	248	25	72	80	25	211	62	962
304290004	6,090	964	844	1,808	9	3	201	122	8	45	108	25	176	53	750
304290005	3,995	831	705	1,536	22	3	164	172	10	40	111	21	176	55	774
304290006	3,379	827	431	1,258	12	3	236	71	17	24	167	19	276	29	854
304290007	4,014	784	396	1,180	36	0	75	851	30	20	435	7	1,002	49	2,505
304290008	1,209	202	170	372	3	0	37	96	5	8	81	4	165	43	442
304290009	1,855	323	257	580	1	0	15	39	5	3	33	3	74	21	194
304300001	16,813	5,158	218	5,376	9	0	251	79	55	52	520	37	396	60	1,459
304300002	1,679	437	42	479	2	0	46	42	12	14	134	14	107	22	393
304300003	6,101	1,159	671	1,830	34	1	407	284	42	48	835	36	663	100	2,450
304300004	3,420	583	631	1,214	1	0	76	21	15	15	283	12	112	23	558
304300005	4,140	1,081	375	1,456	21	1	286	171	42	33	323	25	389	68	1,359
304300006	12,550	2,156	1,566	3,722	23	1	289	171	27	30	512	23	416	73	1,565
304300007															

WESTERN RIVERSIDE COUNTY 2030 PLAN SOCIOECONOMIC DATA BY SCAGTAZ (SCAG 2008 RTP)

SCAGTAZ	total pop	sf hh	mf hh	total hh	agri s1	mining s2	construct s3	manufact s4	trans/util s5	wholesale s6	retail s7	f.l.r.e s8	service s9	government s10	total emp
304319801	2,750	659	422	1,081	2	0	486	44	87	34	517	13	643	11	1,837
304319802	9,012	2,495	836	3,331	5	0	198	5	55	9	224	11	191	14	712
304319803	9,080	2,004	1,050	3,054	1	0	292	36	67	38	417	55	505	26	1,437
304319804	9,766	2,253	1,498	3,751	3	0	560	72	49	59	1,121	49	1,014	48	2,975
304319805	5,054	1,210	707	1,917	5	0	223	35	104	32	840	71	567	35	1,912
304320101	37,624	11,899	1,777	13,676	44	0	323	303	88	52	468	127	1,251	59	2,715
304320102	34,331	8,915	2,725	11,640	79	1	191	378	87	87	741	121	2,494	19	4,198
304320103	12,727	3,945	1,807	5,752	10	0	373	82	31	21	243	40	613	30	1,443
304320104	10,646	2,394	1,902	4,296	27	0	285	124	43	31	436	59	819	23	1,847
304320201	21,236	3,917	1,134	5,051	9	1	1,090	642	12	569	3,028	152	2,147	246	7,896
304320202	27,992	6,800	3,464	10,264	24	3	124	169	20	40	538	43	253	9	1,223
304320203	9,485	2,359	1,708	4,067	43	4	192	208	41	31	1,004	20	286	16	1,845
304320204	1,431	403	148	551	3	8	131	70	28	25	524	14	219	8	1,030
304320301	3,124	874	216	1,090	1	0	72	15	19	15	50	9	41	13	235
304320302	372	128	46	174	1	0	52	9	12	7	32	6	27	7	153
304320303	1,762	449	126	575	1	0	58	12	15	10	39	7	32	10	184
304320304	8,444	2,131	267	2,398	177	1	393	184	20	146	446	66	565	126	2,124
304320305	7,220	2,072	344	2,416	125	0	118	40	20	17	122	10	99	13	564
304320306	4,687	1,356	336	1,692	10	0	227	116	85	113	240	47	218	59	1,115
304320307	3,624	1,113	276	1,389	7	0	130	43	27	25	96	13	86	25	452
304320401	2,096	716	111	827	7	1	173	33	25	17	233	13	198	24	724
304320402	9,989	2,806	432	3,238	70	0	306	444	17	116	1,170	83	2,044	71	4,321
304320403	31,499	9,491	877	10,368	30	0	289	793	0	122	1,313	45	1,972	86	4,650
304320404	20,529	5,470	1,639	7,109	262	5	566	1,214	85	329	2,033	215	1,078	168	5,955
304320405	9,630	2,348	1,463	3,811	53	0	347	487	59	284	1,331	116	2,323	137	5,137
304320406	1,472	455	54	509	26	0	134	163	14	59	356	30	887	44	1,713
304320407	3,805	728	1,657	2,385	117	0	629	854	40	376	6,247	197	4,352	228	13,040
304320408	26,776	6,735	2,966	9,701	37	0	251	273	37	113	1,257	81	945	68	3,062
304320409	878	260	95	355	783	1	2,795	5,717	406	1,331	6,251	1,400	5,907	812	25,403
304320410	2,489	104	874	978	137	0	635	1,082	57	340	1,401	263	1,486	190	5,591
304320411	1,548	531	83	614	2	0	119	18	23	28	156	15	130	21	512
304320501	11,776	3,037	1,348	4,385	56	0	687	33	81	81	314	35	409	39	1,735
304320502	7,506	2,576	526	3,102	57	0	1,010	47	99	255	365	162	606	73	2,674
304320503	7,828	1,895	865	2,760	443	0	4,454	1,289	119	535	639	813	3,710	322	12,324
304320504	21,705	5,887	932	6,819	262	0	1,109	159	73	100	284	121	1,050	88	3,246
304330101	29,086	6,270	6,671	12,941	256	0	266	236	13	28	1,049	127	2,606	472	5,053
304330102	3,190	1,215	330	1,545	81	0	329	0	9	8	105	12	175	6	725
304330103	14,564	1,504	5,733	7,237	34	0	90	197	45	16	1,139	58	1,316	416	3,311
304330104	9,405	2,616	1,662	4,278	231	0	987	7	99	33	1,285	82	701	232	3,657
304330105	2,890	884	198	1,082	191	0	682	0	8	8	216	25	366	6	1,502
304330201	13,669	2,217	3,129	5,346	46	0	233	94	55	16	1,765	103	2,949	141	5,402
304330202	9,559	2,226	1,025	3,251	15	0	661	119	159	113	1,659	114	1,333	190	4,363
304330300	23,279	6,908	1,323	8,231	95	0	1,366	425	205	322	774	53	2,762	94	6,096
304340100	13,932	2,358	2,531	4,889	104	0	180	273	52	97	1,535	186	7,029	960	10,416
304340200	27,255	3,552	10,055	13,607	20	0	120	517	71	31	1,834	95	3,884	411	6,983
304350101	9,048	2,079	1,488	3,567	38	0	217	482	115	119	1,105	67	915	346	3,404
304350102	16,665	2,901	4,457	7,358	148	0	224	1,477	154	154	710	112	1,993	440	5,412
304350103	11,471	1,549	3,407	4,956	108	0	158	181	65	32	1,157	98	327	611	2,737
304350104	17,635	3,755	5,520	9,275	63	0	159	137	15	52	1,123	96	1,183	231	3,059
304350105	14,018	1,728	5,851	7,579	308	0	249	1,915	142	63	3,202	107	1,995	673	8,654
304350201	267	47	45	92	4	1	124	276	56	89	98	26	315	63	1,052
304350202	2,668	451	317	768	15	2	339	522	115	170	414	51	906	335	2,869
304350203	1,574	493	384	877	132	0	185	116	20	56	188	28	734	146	1,605
304350204	255	52	52	104	20	0	37	31	6	11	33	11	159	19	327
304350205	5,945	1,202	1,016	2,218	146	0	122	114	24	84	202	27	1,112	60	1,891
304350206	8,056	2,232	1,090	3,322	178	6	237	135	23	95	78	24	513	82	1,371
304350207	7,773	2,136	1,006	3,142	108	0	173	109	31	56	282	21	626	46	1,452
304360000	13,804	2,251	2,291	4,542	122	0	228	165	9	45	303	78	890	69	1,909
304370001	16,735	4,151	3,626	7,777	35	0	646	236	0	56	707	55	688	94	2,517
304370002	7,376	1,761	1,524	3,285	41	0	925	514	335	133	1,140	122	845	83	4,138
304380200	10,939	3,388	1,712	5,100	23	0	433	234	131	16	623	59	671	0	2,190
304380301	12,916	3,726	2,725	6,451	321	3	1,030	224	121	156	569	87	1,200	624	4,335
304380302	18,859	5,319	2,578	7,897	77	0	899	96	62	155	423	130	1,015	672	3,529
304380501	506	155	53	208	0	0	28	0	8	6	33	87	64	5	231
304380502	5,657	790	2,391	3,181	4	0	114	37	19	17	58	18	112	11	390
304380503	5,304	1,778	1,198	2,976	13	2	186	79	22	13	123	20	269	19	746
304380504	14,662	3,235	1,188	4,423	43	0	250	198	31	14	422	38	719	405	2,120
304380505	15,300	2,486	2,251	4,737	210	0	810	1,184	66	50	1,468	77	2,482	1,066	7,413
304380506	12,704	2,525	986	3,511	84	0	516	543	40	32	652	61	1,125	413	3,466
304380507	7,359	1,885	986	2,871	5	0	343	844	28	20	309	26	547	175	2,297
304380508	222	83	11	94	0	0	36	5	11	6	89	27	197	23	394
304380601	1,166	280	47	327	0	0	33	2	5	4	49	4	58	6	161
304380602	2,412	579	334	913	49	0	137	323	431	35	1,033	52	1,477	41	3,578
304380603	2,736	531	356	887	12	0	95	14	60	21	268	24	292	21	807
304380604	793	279	32	311	12	0	13	22	26	6	106	10	263	25	483
304380605	7,133	3,737	795	4,532	31	0	38	55	25	10	280	20	764	120	1,343
304380606	2,114	316	425	741	54	0	122	60	31	17	328	20	364	173	1,169
304380607	2,733	606	404	1,010	94	0	54	99	100	11	302	16	354	10	1,040
304390000	15,580	4,182	1,715	5,897	10	0	127	28	39	13	177	42	782	63	1,281

WESTERN RIVERSIDE COUNTY 2030 PLAN SOCIOECONOMIC DATA BY SCAGTAZ (SCAG 2004 RTP)

SCAGTAZ	total pop	sf hh	mf hh	total hh	agri \$1	mining \$2	construct \$3	manufact \$4	trans/util \$5	wholesale \$6	retail \$7	f.l.r.e \$8	service \$9	government \$10	total emp
304400000	7,103	942	1,985	2,927	74	0	538	1,323	48	214	1,028	87	1,866	809	5,987
304410001	1,050	463	10	473	2	0	235	80	83	87	224	44	421	75	1,251
304410002	14,369	3,032	2,496	5,528	28	0	155	71	38	66	985	221	1,725	963	4,252
304410003	7,278	1,700	1,745	3,445	34	0	193	89	19	79	1,777	266	2,216	1,181	5,854
304420000	9,458	1,805	1,328	3,133	0	0	249	183	22	10	581	27	1,393	2,969	5,434
304430000	8,294	1,196	1,246	2,442	60	0	153	1,089	246	363	350	80	466	79	2,886

Sic codes	total pop	sf hh	mf hh	total hh	agri \$1	mining \$2	construct \$3	manufact \$4	trans/util \$5	wholesale \$6	retail \$7	f.l.r.e \$8	service \$9	government \$10	total emp
Totals	2,400,017	542,931	310,118	853,049	17,938	333	111,217	96,334	24,043	28,287	197,494	28,927	335,364	75,729	915,666

Year 2030 Summary

Population	2,400,017
Households	542,931
	310,118
	853,049
Employment	
Industrial	278,152
Retail	197,494
Service	364,291
Government/Public Sector	75,729
Total Employment	915,666

EXHIBIT B-3

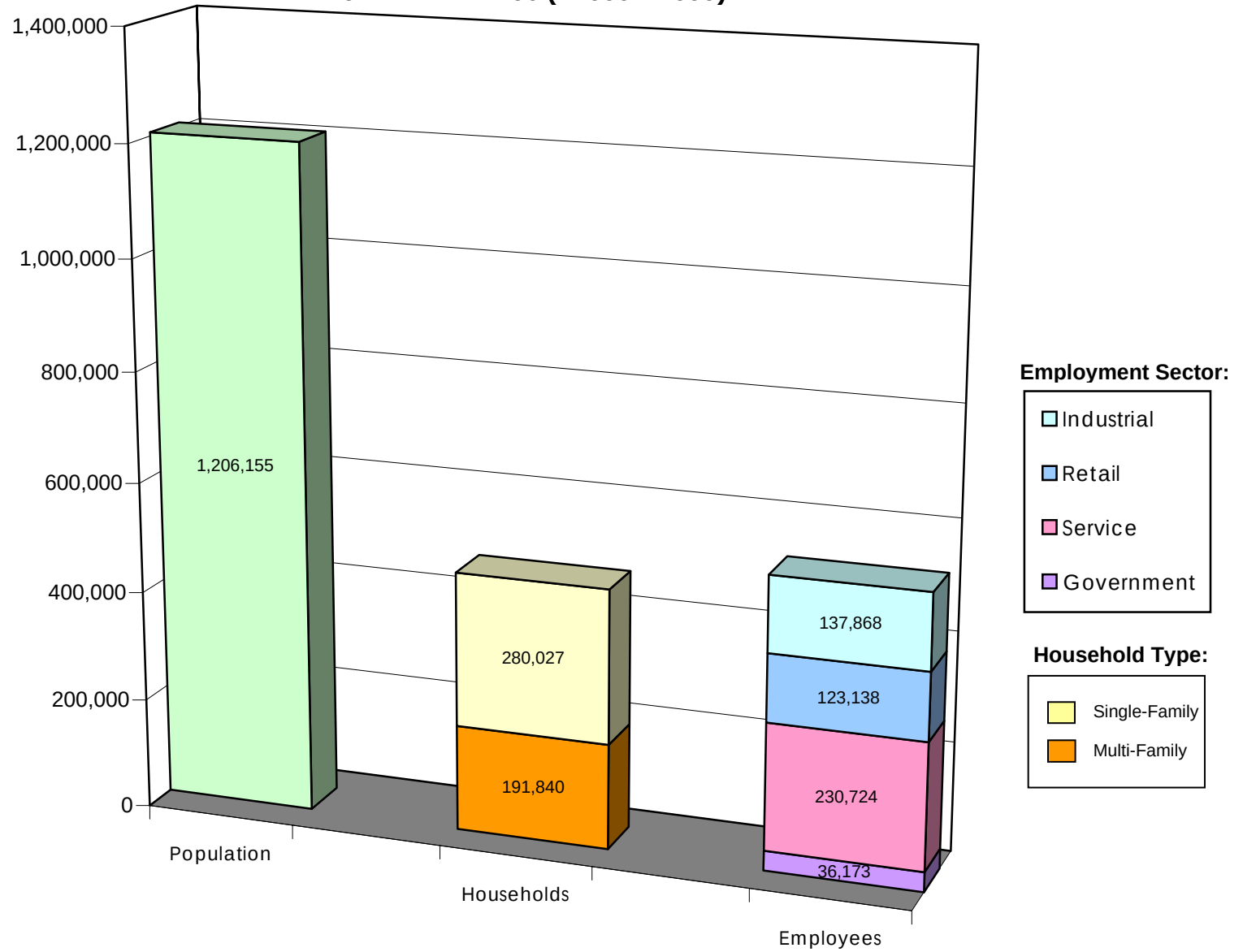
The following pages contain:

Western Riverside County Socioeconomic Data (SED) Growth - Additional Figures and Tables Illustrating Growth in Population, Households, and Employment

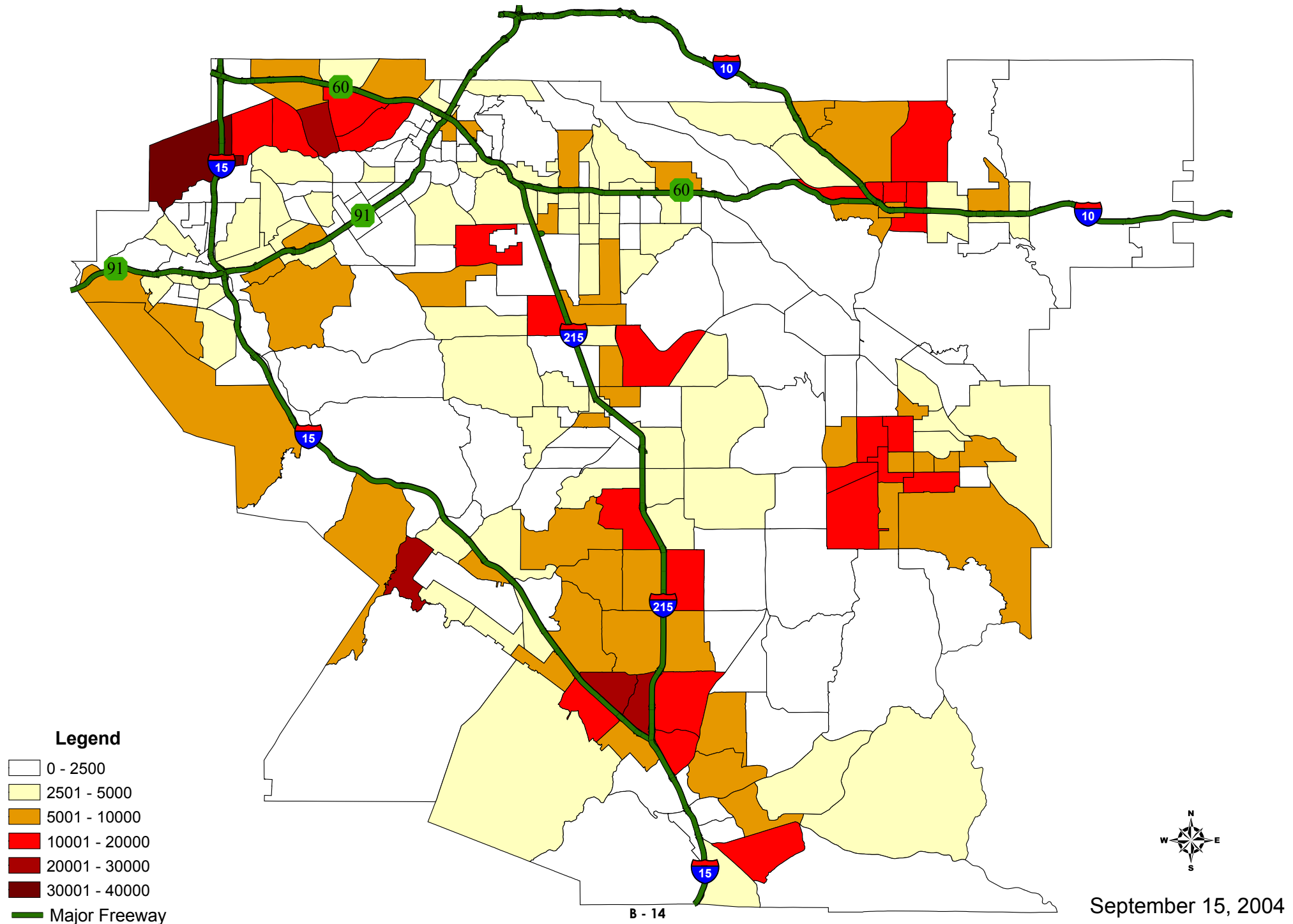
Source of Year 2000 to Year 2030 Growth (Updated Nexus): Southern California Association of Governments (SCAG), 2004 Regional Transportation Plan (RTP) – Destination 2030.

Source of Year 2000 to Year 2025 Growth (Original Nexus): Southern California Association of Governments (SCAG), 2001 Regional Transportation Plan (RTP) and CETAP.

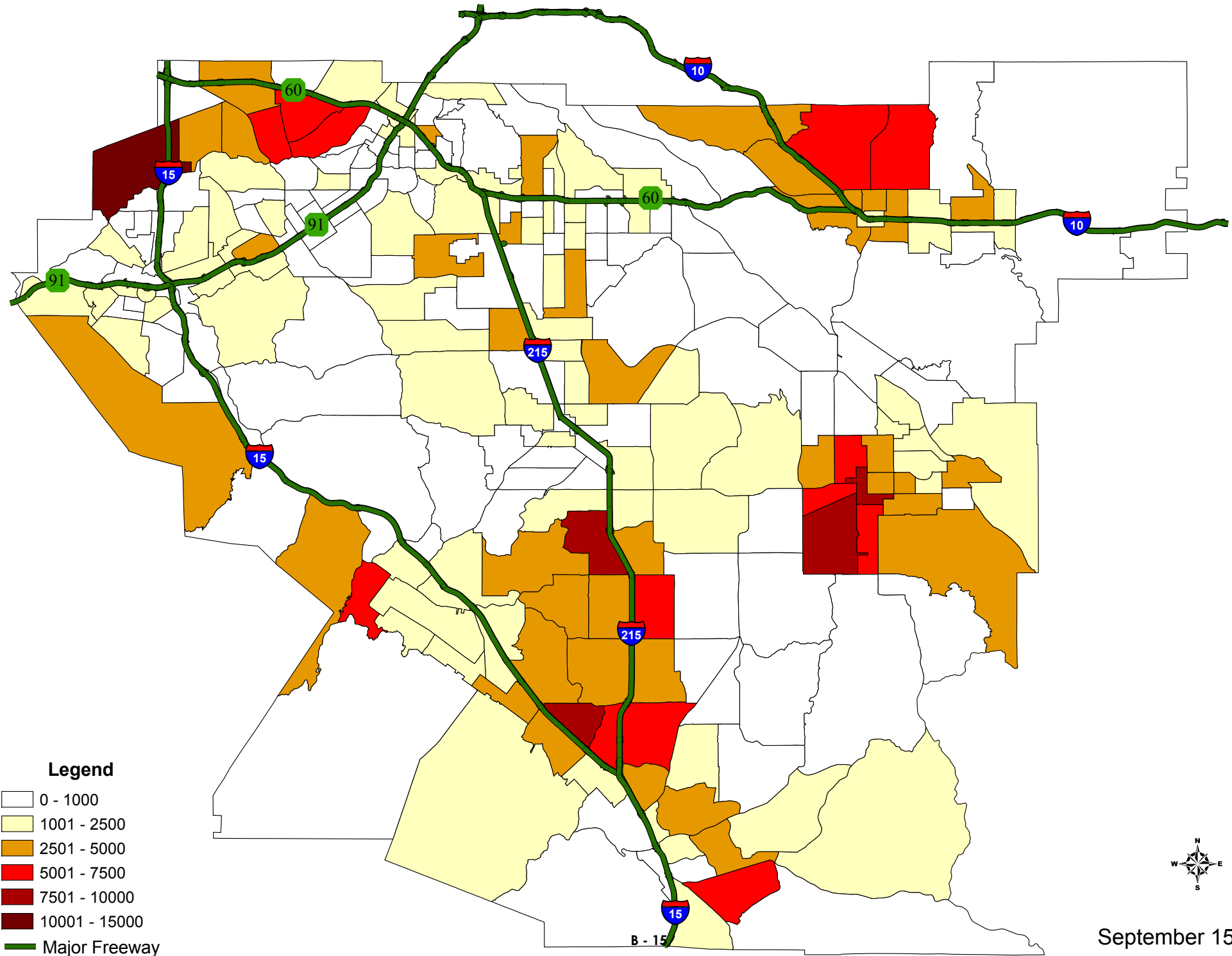
**EXHIBIT B-3
POPULATION, HOUSEHOLD, & EMPLOYMENT GROWTH IN WRCOG
UPDATED NEXUS (Y2000-Y2030)**



Y2000 TO Y2030 POPULATION GROWTH IN WRCOG (BY SCAGTAZ)



Y2000 TO Y2030 HOUSEHOLD GROWTH IN WRCOG (BY SCAGTAZ)



September 15, 2004

Y2000 TO Y2030 EMPLOYEE GROWTH IN WRCOG (BY SCAGTAZ)

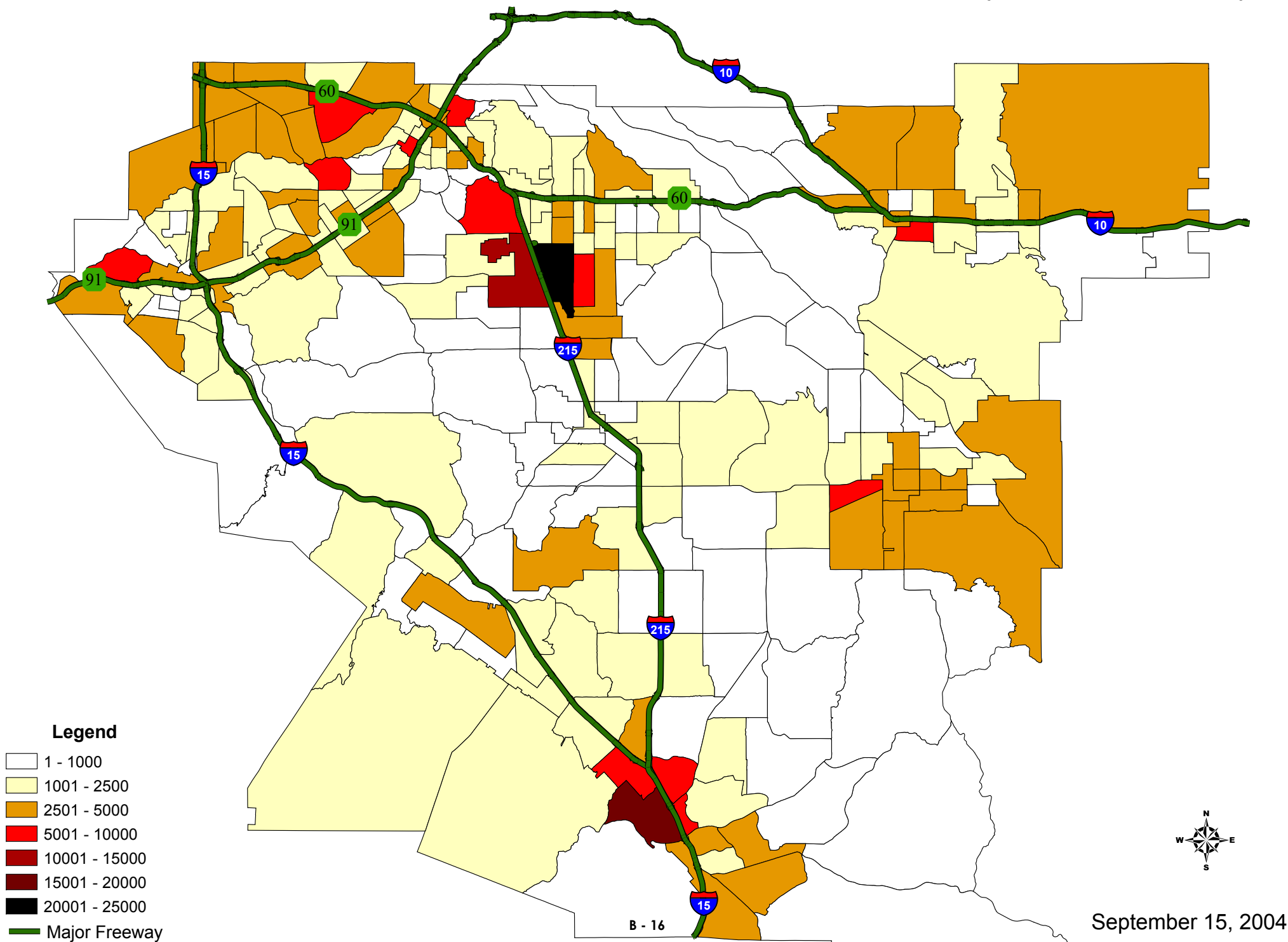


EXHIBIT B-3 (continued)
GROWTH IN POPULATION, HOUSEHOLDS, AND EMPLOYMENT IN WRCOG
(CURRENT NEXUS VERSUS UPDATED NEXUS)

Sector	Current Nexus Growth (2000-2025)	Updated Nexus Growth (2000-2030)	Difference (Updated minus Current)	% Difference	Current Nexus Annual Growth Rate	Updated Nexus Annual Growth Rate
Population	1,033,979	1,206,155	172,176	17%	2.5%	2.4%
Households						
Single-Family	243,839	280,027	36,188	15%	2.4%	2.4%
Multi-Family	73,849	191,840	117,991	160%	2.3%	3.3%
Total	317,688	471,867	154,179	49%	2.3%	2.7%
Employees						
Industrial	98,276	137,868	39,592	40%	2.2%	2.3%
Retail	91,560	123,138	31,578	34%	3.5%	3.3%
Service	197,429	230,724	33,295	17%	3.9%	3.4%
Government/Public Sector	43,223	36,173	-7,050	-16%	2.7%	2.2%
Total	430,488	527,903	97,415	23%	3.1%	2.9%

Notes:

- Current Nexus Population, Household, and Employment data from the SCAG 2001 RTP/CETAP
Split between multi-family and single-family households based on SCAG Year 2000 and Year 2020 data.
- Updated Nexus Population, Household, and Employment data from the SCAG 2004 RTP
- Table shows compounded annual growth rate

EXHIBIT B-3 (continued)
POPULATION, HOUSEHOLDS, AND EMPLOYMENT GROWTH IN WRCOG
(CURRENT NEXUS VERSUS UPDATED NEXUS)

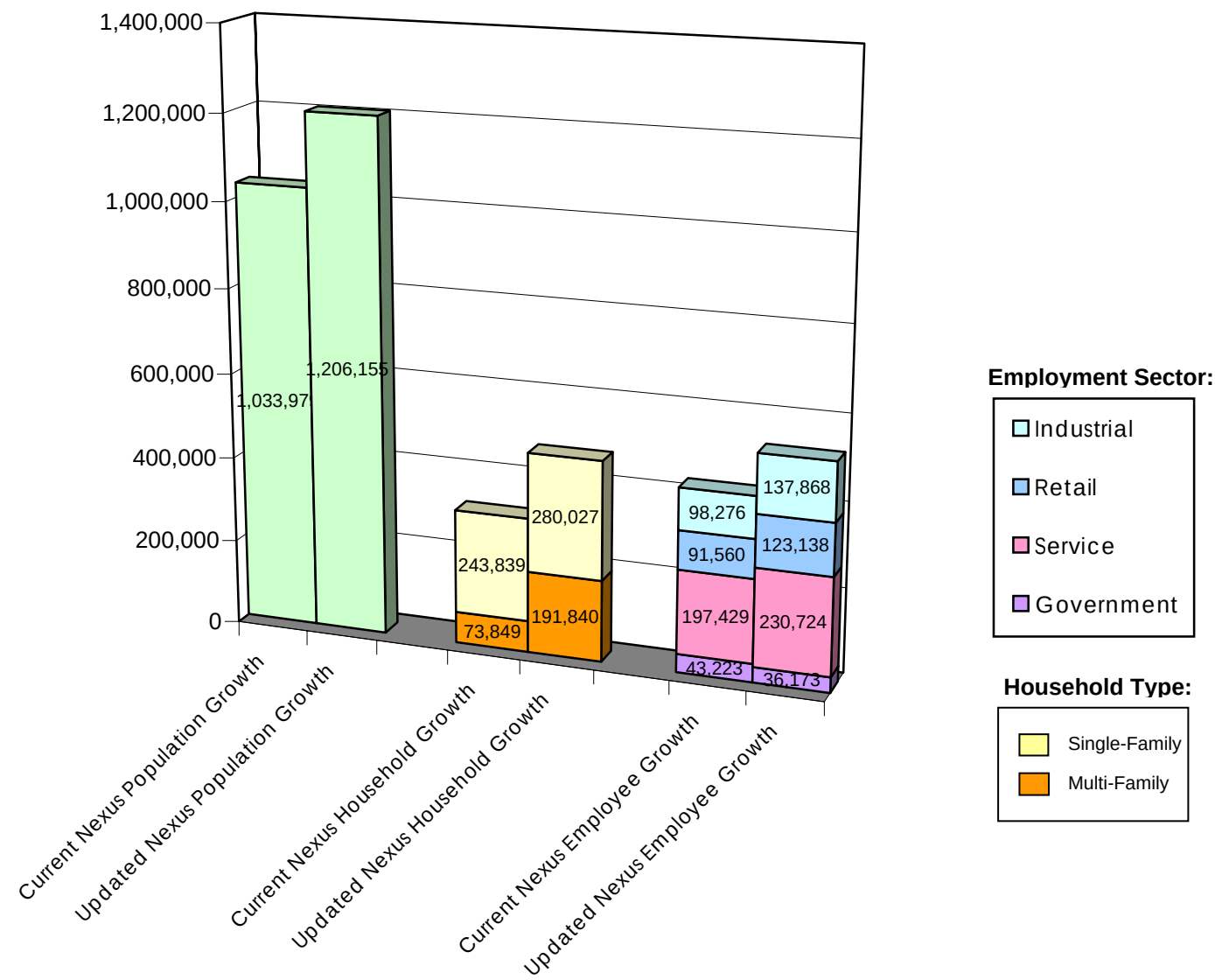


EXHIBIT B-3 (continued)
DIFFERENCE BETWEEN CURRENT NEXUS AND UPDATED NEXUS
SOCIOECONOMIC GROWTH IN WRCOG

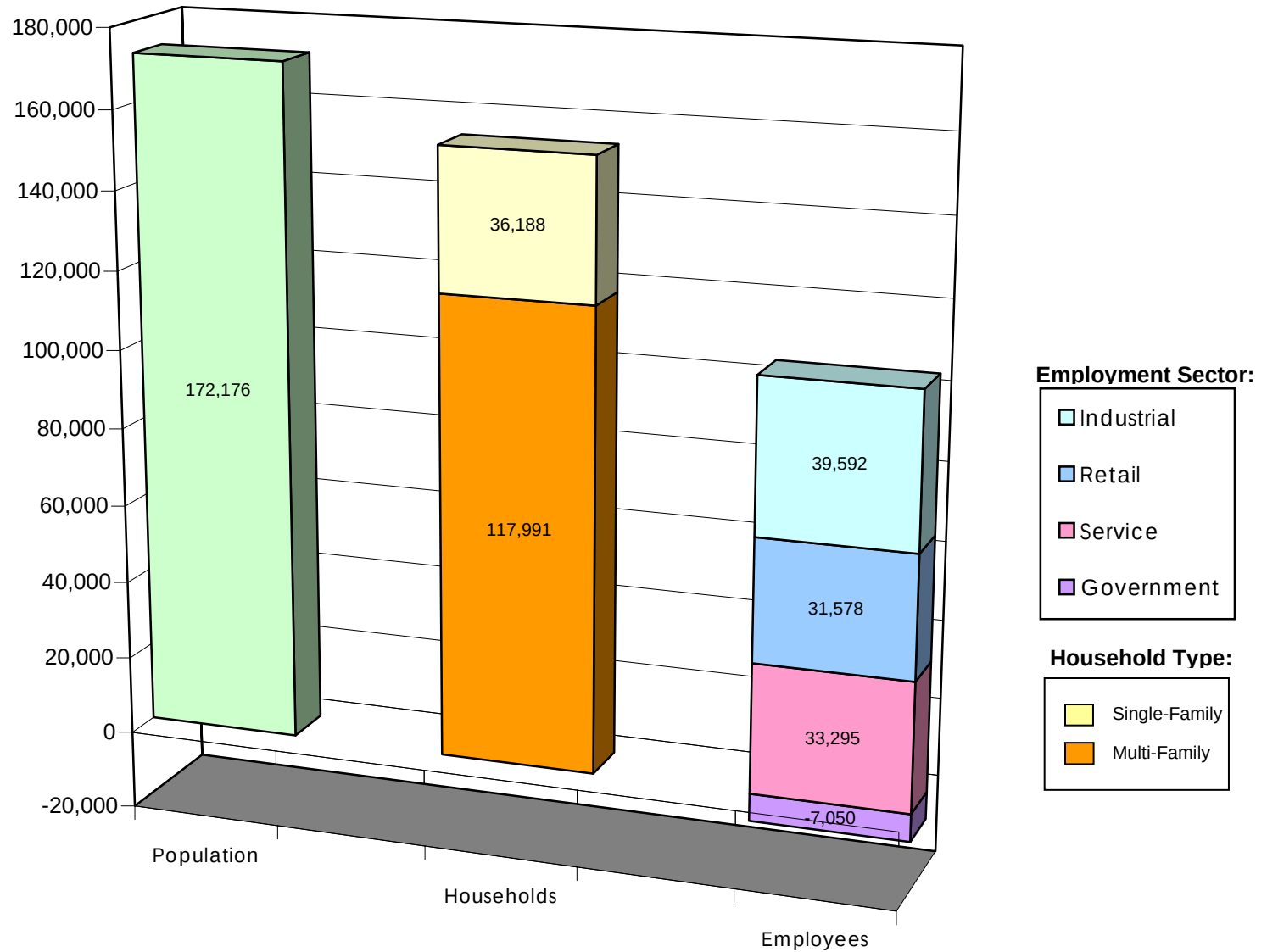


EXHIBIT B-4

The following pages contain:

TUMF Non-Residential Category Correspondence Tables

Sources: 1987 SIC Matched to 1997 NAICS - Major Groups (Two Digit), U.S. Census Bureau, July 1998;

Southern California Association of Governments (SCAG), 2004 Regional Transportation Plan (RTP) – Destination 2030.

EXHIBIT B-4 TUMF Non-Residential Category Correspondence Summary

TUMF Categories	SCAG Categories	SIC Major Groups	SIC Codes and Descriptions
Industry	Agriculture	01-09 Agriculture, Forestry and Fisheries	01 Agricultural production - crops
			02 Agricultural production - livestock
			07 Agricultural services
			08 Forestry
			09 Fishing, hunting and trapping
	Mining	10-14 Mineral Industries	10 Metal mining
			12 Coal mining
			13 Oil and gas extraction
			14 Nonmetallic minerals, except fuels
	Construction	15-19 Construction Industries	15 General building contractors
			16 Heavy construction contractors
			17 Special trade contractors
	Manufacturing	20-39 Manufacturing	20 Food and kindred products
			21 Tobacco manufactures
			22 Textile mill products
			23 Apparel and other textile products
			24 Lumber and wood products
			25 Furniture and fixtures
			26 Paper and allied products
			27 Printing and publishing
			28 Chemicals and allied products
			29 Petroleum and coal products
			30 Rubber and miscellaneous plastics products
			31 Leather and leather products
			32 Stone, clay, glass and concrete products
			33 Primary metal industries
			34 Fabricated metal products
			35 Industrial machinery and equipment
			36 Electrical and electronic equipment
			37 Transportation equipment
			38 Instruments and related products
			39 Miscellaneous manufacturing industries
	Transportation and Utilities	40-49 Transportation, Communication and Utilities	40 Railroads
			41 Local and interurban passenger transit
			42 Motor freight transportation and warehousing
			43 U.S. Postal Service
			44 Water transportation
			45 Transportation by air
			46 Pipelines, except natural gas
			47 Transportation services
			48 Communications
			49 Electric, gas and sanitary services
	Wholesale	50-51 Wholesale Trade	50 Wholesale trade - durable goods
			51 Wholesale trade - nondurable goods
Retail	Retail	52-59 Retail Trade	52 Building materials, hardware, garden supply and mobile home dealers
			53 General merchandise stores
			54 Food stores
			55 Automotive dealers and gasoline service stations
			56 Apparel and accessory stores
			57 Furniture, home furnishings and equipment stores
			58 Eating and drinking places
			59 Miscellaneous retail

TUMF Categories	SCAG Categories	SIC Major Groups	SIC Codes and Descriptions
Service	Finance, Insurance, and Real Estate	60-69 Finance, Insurance and Real Estate	60 Depository institutions 61 Nondepository credit institutions 62 Security, commodity brokers and services 63 Insurance carriers 64 Insurance agents, brokers and service 65 Real estate 67 Holding and other investment offices
	Service	70-89 Service Industries	70 Hotels, rooming houses, camps and other lodging places 72 Personal services 73 Business services 75 Automotive repair, services and parking 76 Miscellaneous repair services 78 Motion pictures 79 Amusement and recreational services 80 Health services 81 Legal services 82 Educational services 83 Social services 84 Museums, art galleries, botanical and zoological gardens 86 Membership organizations 87 Engineering and management services 88 Private households 89 Miscellaneous services
Government/ Public Sector	Government	90-99 Public Administration	91 Executive, legislative and general government 92 Justice, public order and safety 93 Finance, taxation, and monetary policy 94 Administration of human resources 95 Environmental quality and housing 96 Administration of economic programs 97 National security and international affairs

Sources: 1987 SIC Matched to 1997 NAICS - Major Groups (Two Digit), U.S. Census Bureau, July 1998
Western Riverside County Socioeconomic Data (SED) by Comprehensive Transportation Plan Traffic Analysis Zone (CTPTAZ), Southern California Association of Governments (SCAG), 2000

Notes: NAICS - North American Industry Classification System
SIC - U.S. Standard Industrial Classification

EXHIBIT B-4 (continued) TUMF Non-Residential Category Detailed SIC and NAICS Correspondence

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
Industrial	01-09 Agriculture, Forestry, and Fisheries					
	01 Agricultural Production - Crops					
			0111	Wheat	111140	Wheat Farming
			0112	Rice	111160	Rice Farming
			0115	Corn	111150	Corn Farming
			0116	Soybeans	111110	Soybean Farming
			0119	Cash Grains, NEC (oilseed farming, except soybeans)	111120	Oilseed (except Soybean) Farming
			0119	Cash Grains, NEC (dry pea and bean farms)	111130	Dry Pea and Bean Farming
			0119	Cash Grains, NEC (popcorn farming)	111150	Corn Farming
			0119	Cash Grains, NEC (oilseed and grain combination farms)	111191	Oilseed and Grain Combination Farming
			0119	Cash Grains, NEC (except popcorn, dry pea and bean, oilseed (except soybean), and oilseed and grain combination farms)	111199	All Other Grain Farming
			0131	Cotton	111920	Cotton Farming
			0132	Tobacco	111910	Tobacco Farming
			0133	Sugarcane and Sugar Beets (sugarcane farms)	111930	Sugarcane Farming
			0133	Sugarcane and Sugar Beets (sugar beet farms)	111991	Sugar Beet Farming
			0134	Irish Potatoes	111211	Potato Farming
			0139	Field Crops, Except Cash Grains, NEC (broom corn farming)	111199	All Other Grain Farming
			0139	Field Crops Except Cash Grains (sweet potatoes and yams), NEC	111219	Other Vegetable (except Potato) and Melon Farming
			0139	Field Crops, Except Cash Grains, NEC (hay farms)	111940	Hay Farming
			0139	Field Crops, Except Cash Grains, NEC (peanut farms)	111992	Peanut Farming
			0139	Field Crops, Except Cash Grains, NEC (except peanut, sweet potato, broom corn, yam and hay farms)	111998	All Other Miscellaneous Crop Farming
			0161	Vegetables and Melons	111219	Other Vegetable (except Potato) and Melon Farming
			0171	Berry Crops (strawberry farms)	111333	Strawberry Farming
			0171	Berry Crops (except strawberry farms)	111334	Berry (except Strawberry) Farming
			0172	Grapes	111332	Grape Vineyards
			0173	Tree Nuts	111335	Tree Nut Farming
			0174	Citrus Fruits (orange groves and farms)	111310	Orange Groves
			0174	Citrus Fruits (except orange groves and farms)	111320	Citrus (except Orange) Groves
			0175	Deciduous Tree Fruits (apple orchards and farms)	111331	Apple Orchards
			0175	Deciduous Tree Fruits (except apple orchards and farms)	111339	Other Noncitrus Fruit Farming
			0179	Fruits and Tree Nuts, NEC (combination farms)	111336	Fruit and Tree Nut Combination Farming
			0179	Fruits and Tree Nuts, NEC (except combination farms)	111339	Other Noncitrus Fruit Farming
			0181	Ornamental Floriculture and Nursery Products (nursery farming)	111421	Nursery and Tree Production
			0181	Ornamental Floriculture and Nursery Products (floriculture farming)	111422	Floriculture Production
			0182	Food Crops Grown Under Cover (growing mushrooms)	111411	Mushroom Production
			0182	Food Crops Grown Under Cover (except growing mushrooms)	111419	Other Food Crops Grown Under Cover
			0191	General Farms, Primarily Crop	111998	All Other Miscellaneous Crop Farming
	02 Agricultural Production - Livestock					
			0211	Beef Cattle Feedlots	112112	Cattle Feedlots
			0212	Beef Cattle, Except Feedlots	112111	Beef Cattle Ranching and Farming
			0213	Hogs	112210	Hog and Pig Farming
			0214	Sheep and Goats (sheep farms)	112410	Sheep Farming
			0214	Sheep and Goats (goat farms)	112420	Goat Farming
			0219	General Livestock, Except Dairy and Poultry	112990	All Other Animal Production
			0241	Dairy Farms (dairy heifer replacement farms)	112111	Beef Cattle Ranching and Farming
			0241	Dairy Farms (except dairy heifer replacement farms)	112120	Dairy Cattle and Milk Production
			0251	Broiler, Fryer, and Roaster Chickens	112320	Broilers and Other Meat Type Chicken Production
			0252	Chicken Eggs	112310	Chicken Egg Production
			0253	Turkeys and Turkey Eggs	112330	Turkey Production
			0254	Poultry Hatcheries	112340	Poultry Hatcheries
			0259	Poultry and Eggs, NEC	112390	Other Poultry Production
			0271	Fur-Bearing Animals and Rabbits	112930	Fur-Bearing Animal and Rabbit Production
			0272	Horses and Other Equines	112920	Horse and Other Equine Production
			0273	Animal Aquaculture (finfish farms)	112511	Finfish Farming and Fish Hatcheries
			0273	Animal Aquaculture (shellfish farms)	112512	Shellfish Farming
			0273	Animal Aquaculture (except finfish and shellfish farms)	112519	Other Animal Aquaculture
			0279	Animal Specialties, NEC (frog and alligator farms)	112519	Other Animal Aquaculture
			0279	Animal Specialties, NEC (apiculture)	112910	Apiculture
			0279	Animal Specialties, NEC (except apiculture, frog and alligator)	112990	All Other Animal Production
			0291	General Farms, Primarily Livestock and Animal Specialties	112990	All Other Animal Production
			Aux	Auxiliary Category to 1987 SIC	112130	Dual Purpose Cattle Ranching and Farming
	07 Agricultural Services					
			0711	Soil Preparation Services	115112	Soil Preparation, Planting, and Cultivating
			0721	Crop Planting, Cultivating, and Protecting	115112	Soil Preparation, Planting, and Cultivating
			0722	Crop Harvesting, Primarily by Machine	115113	Crop Harvesting, Primarily by Machine
			0723	Crop Preparation Services for Market, Except Cotton Ginning (except custom grain grinding)	115114	Postharvest Crop Activities (except Cotton Ginning)
			0723	Crop Preparation Services for Market, Except Cotton Ginning (custom grain grinding)	311119	Other Animal Food Manufacturing
			0724	Cotton Ginning	115111	Cotton Ginning
			0741	Veterinary Services for Livestock	541940	Veterinary Services
			0742	Veterinary Services for Animal Specialties	541940	Veterinary Services
			0751	Livestock Services, Except Veterinary (except custom slaughtering)	115210	Support Activities for Animal Production
			0751	Livestock Services, Except Veterinary (custom slaughtering)	311611	Animal (except Poultry) Slaughtering
			0752	Animal Specialty Services, Except Veterinary (boarding and training horses (except race horses), animal semen banks, and artificial insemination services for pets)	115210	Support Activities for Animal Production
			0752	Animal Specialty Services, Except Veterinary (pet care services, except veterinary)	812910	Pet Care (except Veterinary) Services
			0761	Farm Labor Contractors and Crew Leaders	115115	Farm Labor Contractors and Crew Leaders
			0762	Farm Management Services	115116	Farm Management Services

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			0781	Landscape Counseling and Planning (except horticultural)	541320	Landscape Architectural Services
			0781	Landscape Counseling and Planning (horticulture consulting)	541690	Other Scientific and Technical Consulting Services
			0782	Lawn and Garden Services	561730	Landscaping Services
			0783	Ornamental Shrub and Tree Services	561730	Landscaping Services
		08 Forestry				
			0811	Timber Tracts (short rotation woody crops)	111421	Nursery and Tree Production
			0811	Timber Tracts (long term timber farms)	113110	Timber Tract Operations
			0831	Forest Nurseries and Gathering of Forest Products (gathering maple sap)	111998	All Other Miscellaneous Crop Farming
			0831	Forest Nurseries and Gathering of Forest Products (forest products, except gathering of maple sap)	113210	Forest Nurseries and Gathering of Forest Products
			0851	Forestry Services	115310	Support Activities for Forestry
		09 Fishing, Hunting, and Trapping				
			0912	Finfish	114111	Finfish Fishing
			0913	Shellfish	114112	Shellfish Fishing
			0919	Miscellaneous Marine Products (plant aquaculture)	111998	All Other Miscellaneous Crop Farming
			0919	Miscellaneous Marine Products (cultured pearl production)	112512	Shellfish Farming
			0919	Miscellaneous Marine Products (catching sea urchins)	114112	Shellfish Fishing
			0919	Miscellaneous Marine Products (except plant aquaculture, cultured pearl production, and catching sea urchins)	114119	Other Marine Fishing
			0921	Fish Hatcheries and Preserves (finfish hatcheries)	112511	Finfish Farming and Fish Hatcheries
			0921	Fish Hatcheries and Preserves (shellfish hatcheries)	112512	Shellfish Farming
			0971	Hunting and Trapping, and Game Propagation	114210	Hunting and Trapping
	10-14 Mineral Industries					
		10 Metal Mining				
			1011	Iron Ores	212210	Iron Ore Mining
			1021	Copper Ores	212234	Copper Ore and Nickel Ore Mining
			1031	Lead and Zinc Ores	212231	Lead Ore and Zinc Ore Mining
			1041	Gold Ores	212221	Gold Ore Mining
			1044	Silver Ores	212222	Silver Ore Mining
			1061	Ferroalloy Ores, Except Vanadium (nickel)	212234	Copper Ore and Nickel Ore Mining
			1061	Ferroalloy Ores, Except Vanadium (other ferroalloys except nickel)	212299	All Other Metal Ore Mining
			1081	Metal Mining Services (except site preparation and related activities performed on a contract or fee basis and geophysical surveying and mapping)	213114	Support Activities for Metal Mining
			1081	Metal Mining Services (site preparation and related construction activities on a contract basis)	238910	Site Preparation Contractors
			1081	Metal Mining Services (geophysical surveying and mapping)	541360	Geophysical Surveying and Mapping Services
			1094	Uranium-Radium-Vanadium Ores	212291	Uranium-Radium-Vanadium Ore Mining
			1099	Miscellaneous Metal Ores, NEC	212299	All Other Metal Ore Mining
		12 Coal Mining				
			1221	Bituminous Coal and Lignite Surface Mining	212111	Bituminous Coal and Lignite Surface Mining
			1222	Bituminous Coal Underground Mining	212112	Bituminous Coal Underground Mining
			1231	Anthracite Mining	212113	Anthracite Mining
			1241	Coal Mining Services (except site preparation and related construction activities on a contract basis)	213113	Support Activities for Coal Mining
			1241	Coal Mining Services (site preparation and related construction activities on a contract basis)	238910	Site Preparation Contractors
		13 Oil and Gas Extraction				
			1311	Crude Petroleum and Natural Gas	211111	Crude Petroleum and Natural Gas Extraction
			1321	Natural Gas Liquids	211112	Natural Gas Liquid Extraction
			1381	Drilling Oil and Gas Wells	213111	Drilling Oil and Gas Wells
			1382	Oil and Gas Field Exploration Services (except geophysical mapping and surveying)	213112	Support Activities for Oil and Gas Operations
			1382	Oil and Gas Field Exploration Services (geophysical surveying and mapping)	541360	Geophysical Surveying and Mapping Services
			1389	Oil and Gas Field Services, NEC (except construction of field gathering lines, site preparation and related construction activities performed on a contract or fee basis)	213112	Support Activities for Oil and Gas Operations
			1389	Oil and Gas Field Services, NEC (construction of field gathering lines on a contract or fee basis)	237120	Oil and Gas Pipeline and Related Structures Construction
			1389	Oil and Gas Field Services, NEC (site preparation and related construction activities on a contract basis)	238910	Site Preparation Contractors
		14 Nonmetallic Minerals, Except Fuels				
			1411	Dimension Stone	212311	Dimension Stone Mining and Quarrying
			1422	Crushed and Broken Limestone	212312	Crushed and Broken Limestone Mining and Quarrying
			1423	Crushed and Broken Granite	212313	Crushed and Broken Granite Mining and Quarrying
			1429	Crushed and Broken Stone, NEC	212319	Other Crushed and Broken Stone Mining and Quarrying
			1442	Construction Sand and Gravel	212321	Construction Sand and Gravel Mining
			1446	Industrial Sand	212322	Industrial Sand Mining
			1455	Kaolin and Ball Clay	212324	Kaolin and Ball Clay Mining
			1459	Clay, Ceramic, and Refractory Minerals, NEC	212325	Clay and Ceramic and Refractory Minerals Mining
			1474	Potash, Soda, and Borate Minerals	212391	Potash, Soda, and Borate Mineral Mining
			1475	Phosphate Rock	212392	Phosphate Rock Mining
			1479	Chemical and Fertilizer Mineral Mining, NEC	212393	Other Chemical and Fertilizer Mineral Mining
			1481	Nonmetallic Minerals Services, Except Fuels (except geophysical surveying and mapping and site preparation and related construction activities performed on a contract or fee basis)	213115	Support Activities for Nonmetallic Minerals (except Fuels)
			1481	Nonmetallic Minerals Services, Except Fuels (site preparation and related construction activities on a contract basis)	238910	Site Preparation Contractors
			1481	Nonmetallic Minerals Services, Except Fuels (geophysical surveying and mapping)	541360	Geophysical Surveying and Mapping Services
			1499	Miscellaneous Nonmetallic Minerals, Except Fuels (bituminous limestone and bituminous sandstone)	212319	Other Crushed and Broken Stone Mining and Quarrying

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			1499	Miscellaneous Nonmetallic Minerals, Except Fuels (except bituminous limestone and bituminous sandstone)	212399	All Other Nonmetallic Mineral Mining
			15-19 Construction Industries			
			15 General Building Contractors			
			1521	General Contractors--Single Family Houses (except remodeling contractors)	236115	New Single-Family Housing Construction (except Operative Builders)
			1521	General Contractors - Single-Family Houses (remodeling)	236118	Residential Remodelers
			1522	General Contractors - Residential Buildings Other Than Single-Family (except remodeling contractors, hotel and motel construction contractors, and dormitory and barrack construction)	236116	New Multifamily Housing Construction (except Operative Builders)
			1522	General Contractors - Residential Buildings Other Than Single-Family (remodeling contractors)	236118	Residential Remodelers
			1522	General Contractors - Residential Buildings Other Than Single-Family (dormitory, barrack, hotel, and motel construction)	236220	Commercial and Institutional Building Construction
			1531	Operative Builders (residential operative builders)	236117	New Housing Operative Builders
			1531	Operative Builders (residential operative remodelers)	236118	Residential Remodelers
			1531	Operative Builders (Operative builders of industrial and manufacturing buildings except grain elevators, dry cleaning plants, and manufacturing and industrial warehouses)	236210	Industrial Building Construction
			1531	Operative Builders (grain elevator, dry cleaning plant, and manufacturing and industrial warehouse operative builders)	236220	Commercial and Institutional Building Construction
			1541	General Contractors Industrial Buildings and Warehouses (except grain elevators; drycleaning plants; and manufacturing, public, and industrial warehouses)	236210	Industrial Building Construction
			1541	General Contractors - Industrial Buildings and Warehouses (general contractors of grain elevators; dry cleaning plants; and manufacturing, industrial, and public warehouses)	236220	Commercial and Institutional Building Construction
			1542	General Contractors - Nonresidential Buildings, Other than Industrial Buildings and Warehouses	236220	Commercial and Institutional Building Construction
			16 Heavy Construction Contractors			
			1611	Highway and Street Construction, Except Elevated Highways	237310	Highway, Street, and Bridge Construction
			1622	Bridge, Tunnel, and Elevated Highway Construction (bridge and elevated highway construction)	237310	Highway, Street, and Bridge Construction
			1622	Bridge, Tunnel, and Elevated Highway Construction (tunnel construction)	237990	Other Heavy and Civil Engineering Construction
			1623	Water, Sewer, Pipeline, and Communications and Power Line Construction (water and sewer pipelines and related construction)	237110	Water and Sewer Line and Related Structures Construction
			1623	Water, Sewer, Pipeline, and Communications and Power Line Construction (gas and oil pipelines, mains, and pumping stations)	237120	Oil and Gas Pipeline and Related Structures Construction
			1623	Water, Sewer, Pipeline, and Communications and Power Line Construction (power and communications transmission lines)	237130	Power and Communication Line and Related Structures Construction
			1629	Heavy Construction, NEC (Industrial nonbuilding structures [except petrochemical plants and petroleum refineries])	236210	Industrial Building Construction
			1629	Heavy Construction NEC (irrigation systems, sewage treatment plants, and water treatment plants)	237110	Water and Sewer Line and Related Structures Construction
			1629	Heavy Construction, NEC (petrochemical plants and refineries)	237120	Oil and Gas Pipeline and Related Structures
			1629	Heavy Construction, NEC (power generation plants [except hydroelectric dams], transmission stations, and distribution)	237130	Power and Communication Line and Related Structures Construction
			1629	Heavy Construction, NEC (except industrial nonbuilding structures, irrigation systems, sewage and water treatment plants, petrochemical plants and refineries, power generation plants [except hydroelectric dams], transmission and distribution stations, right-of-way clearing, line slashing, blasting, and trenching)	237990	Other Heavy and Civil Engineering Construction
			1629	Heavy Construction, NEC (right-of-way clearing and line slashing, blasting, and trenching)	238910	Site Preparation Contractors
			17 Special Trade Contractors			
			1711	Plumbing, Heating, and Air-Conditioning (environmental control installation contractors)	238210	Electrical Contractors
			1711	Plumbing, Heating, and Air-Conditioning (except environmental controls installation; and septic tank, cesspool, and dry well construction)	238220	Plumbing, Heating, and Air-Conditioning Contractors
			1711	Plumbing, Heating, and Air-Conditioning (septic tank, cesspool, and dry well construction contractors)	238910	Site Preparation Contractors
			1721	Painting and Paper Hanging (traffic lane painting)	237310	Highway, Street, and Bridge Construction
			1721	Painting and Paper Hanging	238320	Paint and Wall Covering Contractors
			1731	Electrical Work (electrical work except burglar and fire alarm installation)	238210	Electrical Contractors
			1741	Masonry, Stone Setting, and Other Stone Work	238140	Masonry Contractors
			1742	Plastering, Drywall, Acoustical, and Insulation Work	238310	Drywall and Insulation Contractors
			1743	Terrazzo, Tile, Marble, and Mosaic Work (fresco work)	238310	Drywall and Insulation Contractors
			1743	Terrazzo, Tile, Marble, and Mosaic Work (except fresco work)	238340	Tile and Terrazzo Contractors
			1751	Carpentry Work (framing carpentry)	238130	Framing Contractors
			1751	Carpentry Work (finish carpentry)	238350	Finish Carpentry Contractors
			1752	Floor Laying and Other Floor Work, NEC	238330	Flooring Contractors
			1761	Roofing, Siding, and Sheet Metal Work (roofing contractors)	238160	Roofing Contractors
			1761	Roofing, Siding, and Sheet Metal Work (siding contractors)	238170	Siding Contractors
			1761	Roofing, Siding, and Sheet Metal Work (except roofing and siding work)	238390	Other Building Finishing Contractors
			1771	Concrete Work (concrete work except stucco work and asphalt, brick, and paving)	238110	Poured Concrete Foundation and Structure Contractors
			1771	Concrete Work (stucco work)	238140	Masonry Contractors
			1771	Concrete Work (asphalt, brick, and concrete paving)	238990	All Other Specialty Trade Contractors
			1781	Water Well Drilling	237110	Water and Sewer Line and Related Structures
			1791	Structural Steel Erection (structural steel work)	238120	Structural Steel and Precast Concrete Contractors

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			1791	Structural Steel Erection (curtain wall installation and metal turning installation)	238190	Other Foundation, Structure, and Building Exterior Contractors
			1791	Structural Steel Erection (cooling tower installation)	238220	Plumbing, Heating, and Air-Conditioning Contractors
			1793	Glass and Glazing Work	238150	Glass and Glazing Contractors
			1794	Excavation Work	238910	Site Preparation Contractors
			1795	Wrecking and Demolition Work	238910	Site Preparation Contractors
			1796	Installation or Erection of Building Equipment, NEC (scrubber, dust collection, and other industrial ventilation installation)	238220	Plumbing, Heating, and Air-Conditioning Contractors
			1796	Installation or Erection of Building Equipment, NEC (installation of equipment not elsewhere specified such as central vacuum cleaning systems and dumb waiters)	238290	Other Building Equipment Contractors
			1799	Special Trade Contractors, NEC (indoor swimming pool construction contractors)	236220	Commercial and Institutional Building Construction
			1799	Special Trade Contractors, NEC (anchored earth retention)	237990	Other Heavy and Civil Engineering Construction
			1799	Special Trade Contractors, NEC (glass tinting work)	238150	Glass and Glazing Contractors
			1799	Special Trade Contractors, NEC (forming contractors and ornamental metal work contractors)	238190	Other Foundation, Structure, and Building Exterior Contractors
			1799	Special Trade Contractors, NEC (building equipment installation contractors for service station equipment; boiler, duct, and pipe insulation; lightning rod installation; bowling alley equipment installation; church bell installation; and clock tower installation)	238290	Other Building Equipment Contractors
			1799	Special Trade Contractors, NEC (paint and wallpaper stripping and removing contractors)	238320	Paint and Wall Covering Contractors
			1799	Special Trade Contractors, NEC (countertop, residential-type, installation)	238350	Finish Carpentry Contractors
			1799	Special Trade Contractors, NEC (building finishing contractors for weather stripping and damp proofing, window covering fixture installation, bathtub refinishing, modular furniture installation, trade show exhibit installation and removal, and spectator seating installation)	238390	Other Building Finishing Contractors
			1799	Special Trade Contractors, NEC (dewatering contractors, test drilling for construction, and core drilling for construction)	238910	Site Preparation Contractors
			1799	Special Trade Contractors, NEC (except indoor swimming pool contractors; anchored earth retention contractors; glass tinting work; forming contractors; ornamental metal work contractors; lightning rod installation contractors; paint and wall paper removal contractors; countertop, residential-type, installation; miscellaneous residential building finishing contractors; dewatering contractors; test drilling for construction; and core drilling for construction)	238990	All Other Specialty Trade Contractors
			1799	Special Trade Contractors, NEC (power washing building exteriors, not associated with construction)	561790	Other Services to Buildings and Dwellings
			1799	Special Trade Contractors, NEC (asbestos abatement and lead paint removal contractors)	562910	Remediation Services
20-39 Manufacturing						
			20 Food and Kindred Products			
			2011	Meat Packing Plants	311611	Animal (except Poultry) Slaughtering
			2013	Sausages and Other Prepared Meat Products (except lard made from purchased materials)	311612	Meat Processed from Carcasses
			2013	Sausages and Other Prepared Meat Products (lard made from purchased materials)	311613	Rendering and Meat Byproduct Processing
			2015	Poultry Slaughtering and Processing (poultry slaughtering and processing)	311615	Poultry Processing
			2015	Poultry Slaughtering and Processing (egg processing)	311999	All Other Miscellaneous Food Manufacturing
			2021	Creamery Butter	311512	Creamery Butter Manufacturing
			2022	Natural, Processed, and Imitation Cheese	311513	Cheese Manufacturing
			2023	Dry, Condensed and Evaporated Dairy Products (liquid non-dairy creamer)	311511	Fluid Milk Manufacturing
			2023	Dry, Condensed and Evaporated Dairy Products (except liquid non-dairy creamer)	311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing
			2024	Ice Cream and Frozen Desserts	311520	Ice Cream and Frozen Dessert Manufacturing
			2026	Fluid Milk (except ultra-high temperature)	311511	Fluid Milk Manufacturing
			2026	Fluid Milk (ultra-high temperature)	311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing
			2032	Canned Specialties (except canned puddings)	311422	Specialty Canning
			2032	Canned Specialties (canned puddings)	311999	All Other Miscellaneous Food Manufacturing
			2033	Canned Fruits, Vegetables, Preserves, Jams, and Jellies	311421	Fruit and Vegetable Canning
			2034	Dried and Dehydrated Fruits, Vegetables and Soup Mixes (vegetable flour)	311211	Flour Milling
			2034	Dried and Dehydrated Fruits, Vegetables and Soup Mixes (except vegetable flour and soup mixes made from purchased dried and dehydrated ingredients)	311423	Dried and Dehydrated Food Manufacturing
			2034	Dried and Dehydrated Fruits, Vegetables, and Soup Mixes (soup mixes made from purchased dehydrated ingredients)	311999	All Other Miscellaneous Food Manufacturing
			2035	Pickled Fruits and Vegetables, Vegetable Sauces and Seasonings, and Salad Dressings (pickled fruits and vegetables)	311421	Fruit and Vegetable Canning
			2035	Pickled Fruits and Vegetables, Vegetable Sauces and Seasonings, and Salad Dressings (sauces and salad dressings)	311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing
			2037	Frozen Fruits, Fruit Juices, and Vegetables	311411	Frozen Fruit, Juice, and Vegetable Manufacturing
			2038	Frozen Specialties, NEC	311412	Frozen Specialty Food Manufacturing
			2041	Flour and Other Grain Mill Products	311211	Flour Milling
			2043	Cereal Breakfast Foods (cereal breakfast foods and related preparations except grain based coffee substitutes)	311230	Breakfast Cereal Manufacturing
			2043	Cereal Breakfast Foods (grain based coffee substitutes)	311920	Coffee and Tea Manufacturing

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			2044	Rice Milling	311212	Rice Milling
			2045	Prepared Flour Mixes and Doughs	311822	Flour Mixes and Dough Manufacturing from Purchased Flour
			2046	Wet Corn Milling (except refining purchased corn oil)	311221	Wet Corn Milling
			2046	Wet Corn Milling (refining purchased corn oil)	311225	Fats and Oils Refining and Blending
			2047	Dog and Cat Food	311111	Dog and Cat Food Manufacturing
			2048	Prepared Feeds and Feed Ingredients for Animals and Fowls, Except Dogs and Cats (except slaughtering animals for pet food)	311119	Other Animal Food Manufacturing
			2048	Prepared Feeds and Feed Ingredients for Animals and Fowls, Except Dogs and Cats (slaughtering animals for pet food)	311611	Animal (except Poultry) Slaughtering
			2051	Bread and Other Bakery Products, Except Cookies and Crackers	311812	Commercial Bakeries
			2052	Cookies and Crackers (unleavened bread and soft pretzels)	311812	Commercial Bakeries
			2052	Cookies and Crackers (except unleavened bread and pretzels)	311821	Cookie and Cracker Manufacturing
			2052	Cookies and Crackers (hard pretzels and snack pretzels, except	311919	Other Snack Food Manufacturing
			2053	Frozen Bakery Products, Except Bread	311813	Frozen Cakes, Pies, and Other Pastries Manufacturing
			2061	Cane Sugar, Except Refining	311311	Sugarcane Mills
			2062	Cane Sugar Refining	311312	Cane Sugar Refining
			2063	Beet Sugar	311313	Beet Sugar Manufacturing
			2064	Candy and Other Confectionery Products (chocolate confectionery)	311330	Confectionery Manufacturing from Purchased Chocolate
			2064	Candy and Other Confectionery Products (nonchocolate	311340	Nonchocolate Confectionery Manufacturing
			2066	Chocolate and Cocoa Products (except chocolate products, made from purchased chocolate)	311320	Chocolate and Confectionery Manufacturing from Cacao Beans
			2066	Chocolate and Cocoa Products (chocolate products made from purchased chocolate)	311330	Confectionery Manufacturing from Purchased Chocolate
			2067	Chewing Gum	311340	Nonchocolate Confectionery Manufacturing
			2068	Salted and Roasted Nuts and Seeds	311911	Roasted Nuts and Peanut Butter Manufacturing
			2074	Cottonseed Oil Mills (cottonseed processing)	311223	Other Oilseed Processing
			2074	Cottonseed Oil Mills (processing purchased cottonseed oil)	311225	Fats and Oils Refining and Blending
			2075	Soybean Oil Mills (soybean processing, except edible soybean oil)	311222	Soybean Processing
			2075	Soybean Oil Mills (processing purchased soybean oil)	311225	Fats and Oils Refining and Blending
			2076	Vegetable Oil Mills, Except Corn, Cottonseed, and Soybean (oilseed processing)	311223	Other Oilseed Processing
			2076	Vegetable Oil Mills, Except Corn, Cottonseed, and Soybean (processing purchased vegetable and oilseed oils)	311225	Fats and Oils Refining and Blending
			2077	Animal and Marine Fats and Oils (animal fats and oils)	311613	Rendering and Meat Byproduct Processing
			2077	Animal and Marine Fats and Oils (canned marine fats and oils)	311711	Seafood Canning
			2077	Animal and Marine Fats and Oils (fresh and frozen marine fats and oils)	311712	Fresh and Frozen Seafood Processing
			2079	Shortening, Table Oils, Margarine, and Other Edible Fats and Oils, NEC (processing soybean oil into edible cooking oils from soybeans crushed in the same establishment)	311222	Soybean Processing
			2079	Shortening, Table Oils, Margarine and Other Edible Fats and Oils, NEC (processing vegetable oils, except soybean, into edible cooking oils from oilseeds and vegetables crushed in the same establishment)	311223	Other Oilseed Processing
			2079	Shortening, Table Oils, Margarine, and Other Edible Fats and Oils, NEC (except processing vegetable and soybean oils into edible oils from oilseeds and vegetables crushed in the same establishment)	311225	Fats and Oils Refining and Blending
			2082	Malt Beverages (malt extract)	311942	Spice and Extract Manufacturing
			2082	Malt Beverages (except malt extract)	312120	Breweries
			2083	Malt	311213	Malt Manufacturing
			2084	Wines, Brandy, and Brandy Spirits	312130	Wineries
			2085	Distilled and Blended Liquors (apple jack)	312130	Wineries
			2085	Distilled and Blended Liquors (except apple jack)	312140	Distilleries
			2086	Bottled and Canned Soft Drinks and Carbonated Water (except bottled water)	312111	Soft Drink Manufacturing
			2086	Bottled and Canned Soft Drinks and Carbonated Water (bottled water)	312112	Bottled Water Manufacturing
			2087	Flavoring Extracts and Flavoring Syrups, NEC (coffee flavoring and syrups)	311920	Coffee and Tea Manufacturing
			2087	Flavoring Extracts and Flavoring Syrups, NEC (flavoring syrups and concentrates except coffee)	311930	Flavoring Syrup and Concentrate Manufacturing
			2087	Flavoring Extracts and Flavoring Syrups, NEC (flavoring extracts and natural food colorings)	311942	Spice and Extract Manufacturing
			2087	Flavoring Extracts and Flavoring Syrups, NEC (powered drink mix)	311999	All Other Miscellaneous Food Manufacturing
			2091	Canned and Cured Fish and Seafoods	311711	Seafood Canning
			2092	Prepared Fresh or Frozen Fish and Seafoods	311712	Fresh and Frozen Seafood Processing
			2095	Roasted Coffee	311920	Coffee and Tea Manufacturing
			2096	Potato Chips, Corn Chips, and Similar Snacks	311919	Other Snack Food Manufacturing
			2097	Manufactured Ice	312113	Ice Manufacturing
			2098	Macaroni, Spaghetti, Vermicelli and Noodles	311823	Dry Pasta Manufacturing
			2099	Food Preparations, NEC (reducing maple sap to maple syrup)	111998	All Other Miscellaneous Crop Farming
			2099	Food Preparations, NEC (rice, uncooked and packaged with other ingredients made in rice mills)	311212	Rice Milling
			2099	Food Preparations, NEC (marshmallow creme)	311340	Nonchocolate Confectionery Manufacturing
			2099	Food Preparations, NEC (bouillon and potatoes dried and packaged with other ingredients produced in dehydrating plants)	311423	Dried and Dehydrated Food Manufacturing
			2099	Food Preparations, NEC (dry pasta packaged with other ingredients made in dry pasta plants)	311823	Dry Pasta Manufacturing

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			2099	Food Preparations, NEC (tortillas)	311830	Tortilla Manufacturing
			2099	Food Preparations, NEC (peanut butter)	311911	Roasted Nuts and Peanut Butter Manufacturing
			2099	Food Preparations, NEC (tea)	311920	Coffee and Tea Manufacturing
			2099	Food Preparations, NEC (vinegar, prepared dip)	311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing
			2099	Food Preparations, NEC (spices, dry dip mix, dry salad dressing mix, and seasoning mix)	311942	Spice and Extract Manufacturing
			2099	Food Preparations, NEC (perishable prepared food)	311991	Perishable Prepared Food Manufacturing
			2099	Food Preparations, NEC (except bouillon, marshmallow creme, spices, peanut butter, perishable prepared foods, tortillas, tea and tea extracts, dry dip mix, prepared dips, dry salad dressing mix, seasoning mix, dried potatoes, pasta, and rice mixed with other ingredients in mills or dehydrating plants, reducing maple sap to maple syrup, wool grease, and vinegar)	311999	All Other Miscellaneous Food Manufacturing
			21 Tobacco Manufactures			
			2111	Cigarettes	312221	Cigarette Manufacturing
			2121	Cigars	312229	Other Tobacco Product Manufacturing
			2131	Chewing and Smoking Tobacco and Snuff	312229	Other Tobacco Product Manufacturing
			2141	Tobacco Stemming and Redrying (stemming and redrying tobacco)	312210	Tobacco Stemming and Redrying
			2141	Tobacco Stemming and Redrying (reconstituted tobacco)	312229	Other Tobacco Product Manufacturing
			22 Textile Mill Products			
			2211	Broadwoven Fabric Mills, Cotton	313210	Broadwoven Fabric Mills
			2221	Broadwoven Fabric Mills, Manmade Fiber and Silk	313210	Broadwoven Fabric Mills
			2231	Broadwoven Fabric Mills, Wool (Including Dyeing and Finishing) (except finishing wool fabric without weaving wool fabric)	313210	Broadwoven Fabric Mills
			2231	Broadwoven Fabric Mills, Wool (wool broadwoven fabric finishing without weaving fabric)	313311	Broadwoven Fabric Finishing Mills
			2231	Broadwoven Fabric Mills, Wool (wool fabric, except broadwoven, finishing without weaving fabric)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			2241	Narrow Fabric and Other Smallware Mills: Cotton, Wool, Silk and Manmade Fiber	313221	Narrow Fabric Mills
			2251	Women's Full-Length and Knee-Length Hosiery, Except Socks (dyeing and finishing sheer hosiery without knitting sheer hosiery)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			2251	Women's Full-Length and Knee-Length Hosiery, Except Socks (except dyeing and finishing sheer hosiery without knitting sheer hosiery)	315111	Sheer Hosiery Mills
			2252	Hosiery, NEC (dyeing and finishing hosiery, except sheer, without knitting hosiery)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			2252	Hosiery, NEC (girls' full length and knee length sheer hosiery)	315111	Sheer Hosiery Mills
			2252	Hosiery, NEC (except girls' full-length and knee-length sheer hosiery and dyeing and finishing hosiery without knitting hosiery)	315119	Other Hosiery and Sock Mills
			2253	Knit Outerwear Mills (dyeing and finishing knit outerwear without knitting outerwear)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			2253	Knit Outerwear Mills (except bath and lounging robes and dyeing and finish without knitting garments)	315191	Outerwear Knitting Mills
			2253	Knit Outerwear Mills (knitting bath or lounging robes)	315192	Underwear and Nightwear Knitting Mills
			2254	Knit Underwear and Nightwear Mills (dyeing and finishing underwear and nightwear without knitting garments)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			2254	Knit Underwear and Nightwear Mills (except dyeing and finishing underwear and nightwear without knitting garments)	315192	Underwear and Nightwear Knitting Mills
			2257	Weft Knit Fabric Mills (except finishing without knitting weft fabric)	313241	Weft Knit Fabric Mills
			2257	Weft Knit Fabric Mills (finishing weft fabric without knitting weft fabric)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			2258	Lace and Warp Knit Fabric Mills (except finishing lace or warp fabric without knitting lace or warp fabric)	313249	Other Knit Fabric and Lace Mills
			2258	Lace and Warp Knit Fabric Mills (finishing lace or warp fabric without knitting lace or warp fabric)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			2259	Knitting Mills, NEC (knitting weft fabric and fabricating textile products, such as bedspreads, curtains, or towels)	313241	Weft Knit Fabric Mills
			2259	Knitting Mills, NEC (knitting lace or warp fabric and fabricating textile products, such as bedspreads, curtains, or towels)	313249	Other Knit Fabric and Lace Mills
			2259	Knitting Mills, NEC (dyeing and finishing knit gloves and mittens without knitting gloves or mittens)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			2259	Knitting Mills, NEC (knitting gloves and mittens)	315191	Outerwear Knitting Mills
			2259	Knitting Mills, NEC (knitting girdles and allied foundation garments)	315192	Underwear and Nightwear Knitting Mills
			2261	Finishers of Broadwoven Fabrics of Cotton	313311	Broadwoven Fabric Finishing Mills
			2262	Finishers of Broadwoven Fabrics of Manmade Fiber and Silk	313311	Broadwoven Fabric Finishing Mills
			2269	Finishers of Textiles, NEC (linen fabric finishing)	313311	Broadwoven Fabric Finishing Mills
			2269	Finishers of Textiles, NEC (except linen fabric finishing)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			2273	Carpets and Rugs	314110	Carpet and Rug Mills
			2281	Yarn Spinning Mills	313111	Yarn Spinning Mills
			2282	Yarn Texturizing, Throwing, Twisting and Winding Mills	313112	Yarn Texturing, Throwing, and Twisting Mills
			2284	Thread Mills (except finishing thread without manufacturing thread)	313113	Thread Mills
			2284	Thread Mills (finishing thread without manufacturing thread)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			2295	Coated Fabrics, Not Rubberized	313320	Fabric Coating Mills
			2296	Tire Cord and Fabrics	314992	Tire Cord and Tire Fabric Mills
			2297	Nonwoven Fabrics	313230	Nonwoven Fabric Mills
			2298	Cordage and Twine (hemp rope made in spinning mills)	313111	Yarn Spinning Mills

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			2298	Cordage and Twine (except hemp rope made in spinning mills)	314991	Rope, Cordage, and Twine Mills
			2299	Textile Goods, NEC (hemp bags made in spinning mills)	313111	Yarn Spinning Mills
			2299	Textile Goods, NEC (spinning yarn of flax, hemp, jute, and ramie)	313111	Yarn Spinning Mills
			2299	Textile Goods, NEC (manufacturing thread of hemp, linen, and ramie)	313113	Thread Mills
			2299	Textile Goods, NEC (broadwoven fabrics of jute, linen, hemp, and ramie and hand woven fabrics)	313210	Broadwoven Fabric Mills
			2299	Textile Goods, NEC (narrow woven fabric of jute, linen, hemp, and ramie)	313221	Narrow Fabric Mills
			2299	Textile Goods, NEC (nonwoven felt)	313230	Nonwoven Fabric Mills
			2299	Textile Goods, NEC (finishing hard fiber thread and yarn without manufacturing thread or yarn)	313312	Textile and Fabric Finishing (except Broadwoven Fabric Mills)
			2299	Textile Goods, NEC (manufacturing other textile products)	314999	All Other Miscellaneous Textile Product Mills
			23 Apparel and Other Textile Products			
			2311	Men's and Boys' Suits, Coats, and Overcoats (contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2311	Men's and Boys' Suits, Coats, and Overcoats (except contractors)	315222	Men's and Boys' Cut and Sew Suit, Coat and Overcoat Manufacturing
			2321	Men's and Boys' Shirts, Except Work Shirts (contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2321	Men's and Boys' Shirts, Except Work Shirts (except contractors)	315223	Men's and Boys' Cut and Sew Shirt (except Work Shirt) Manufacturing
			2322	Men's and Boys' Underwear and Nightwear (contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2322	Men's and Boys' Underwear and Nightwear (except contractors)	315221	Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing
			2323	Men's and Boys' Neckwear (contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2323	Men's and Boys' Neckwear (except contractors)	315993	Men's and Boys' Neckwear Manufacturing
			2325	Men's and Boys' Separate Trousers and Slacks (contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2325	Men's and Boys' Separate Trousers and Slacks (except contractors)	315224	Men's and Boys' Cut and Sew Trouser, Slack and Jean Manufacturing
			2326	Men's and Boys' Work Clothing (contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2326	Men's and Boys' Work Clothing (except contractors)	315225	Men's and Boys' Cut and Sew Work Clothing Manufacturing
			2329	Men's and Boys' Clothing, NEC (contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2329	Men's and Boys' Clothing, NEC (except team athletic uniforms and contractors)	315228	Men's and Boys' Cut and Sew Other Outerwear Manufacturing
			2329	Men's and Boys' Clothing, NEC (team athletic uniforms except contractors)	315299	All Other Cut and Sew Apparel Manufacturing
			2331	Women's, Misses', and Juniors' Blouses and Shirts (contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2331	Women's, Misses', and Juniors' Blouses and Shirts (except contractors)	315232	Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing
			2335	Women's, Misses', and Juniors' Dresses (contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2335	Women's, Misses', and Juniors' Dresses (except contractors)	315233	Women's and Girls' Cut and Sew Dress Manufacturing
			2337	Women's, Misses', and Juniors' Suits, Skirts, and Coats (contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2337	Women's, Misses', and Juniors' Suits, Skirts, and Coats (except contractors)	315234	Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing
			2339	Women's, Misses', and Juniors' Outerwear, NEC (contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2339	Women's, Misses', and Juniors' Outerwear, NEC (except team athletic uniforms, scarves, and contractors)	315239	Women's and Girls' Cut and Sew Other Outerwear Manufacturing
			2339	Women's, Misses', and Juniors' Outerwear, NEC (team athletic uniforms except contractors)	315299	All Other Cut and Sew Apparel Manufacturing
			2339	Women's, Misses', and Juniors' Outerwear, NEC (scarves except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing
			2341	Women's, Misses', Children's, and Infants' Underwear and Nightwear (boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2341	Women's, Misses', Children's, and Infants' Underwear and Nightwear (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2341	Women's, Misses', Children's, and Infants' Underwear and Nightwear (boys' except contractors)	315221	Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing
			2341	Women's, Misses', Children's, and Infants' Underwear and Nightwear (women and girls' except contractors)	315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing
			2341	Women's, Misses', Children's, and Infants' Underwear and Nightwear (infants' except contractors)	315291	Infants' Cut and Sew Apparel Manufacturing
			2342	Brassieres, Girdles, and Allied Garments (contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2342	Brassieres, Girdles, and Allied Garments (except contractors)	315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing
			2353	Hats, Caps, and Millinery (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2353	Hats, Caps, and Millinery (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2353	Hats, Caps, and Millinery (except contractors)	315991	Hat, Cap, and Millinery Manufacturing
			2361	Girls', Children's, and Infants' Dresses, Blouses, and Shirts (boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2361	Girls', Children's, and Infants' Dresses, Blouses, and Shirts (girls' and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2361	Girls', Children's, and Infants' Dresses, Blouses, and Shirts (boys' shirts except contractors)	315223	Men's and Boys' Cut and Sew Shirt (except Work Shirt) Manufacturing
			2361	Girls', Children's, and Infants' Dresses, Blouses, and Shirts (girls' blouses and shirts except contractors)	315232	Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing
			2361	Girls', Children's, and Infants' Dresses, Blouses, and Shirts (girls' dresses except contractors)	315233	Women's and Girls' Cut and Sew Dress Manufacturing
			2361	Girls', Children's, and Infants' Dresses, Blouses, and Shirts (infants' except contractors)	315291	Infants' Cut and Sew Apparel Manufacturing

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			2369	Girls', Children's, and Infants' Outerwear, NEC (boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2369	Girls', Children's, and Infants' Outerwear, NEC (girls' and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2369	Girls', Children's, and Infants' Outerwear, NEC (boys' robes except contractors)	315221	Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing
			2369	Girls', Children's, and Infants' Outerwear, NEC (boys' suits and coats except contractors)	315222	Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing
			2369	Girls', Children's, and Infants' Outerwear, NEC (boys' trousers, slacks, and jeans except contractors)	315224	Men's and Boys' Cut and Sew Trouser, Slack and Jean Manufacturing
			2369	Girls', Children's, and Infants' Outerwear, NEC (boys' other outerwear except contractors)	315228	Men's and Boys' Cut and Sew Other Outerwear Manufacturing
			2369	Girls', Children's, and Infants' Outerwear, NEC (girls' robes except contractors)	315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing
			2369	Girls', Children's, and Infants' Outerwear, NEC (girls' suits, coats, jackets, and skirts except contractors)	315234	Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing
			2369	Girls', Children's, and Infants' Outerwear, NEC (girls' other outerwear except contractors)	315239	Women's and Girls' Cut and Sew Other Outerwear Manufacturing
			2369	Girls', Children's, and Infants' Outerwear, NEC (infants' except contractors)	315291	Infants' Cut and Sew Apparel Manufacturing
			2371	Fur Goods (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2371	Fur Goods (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2371	Fur Goods (except contractors)	315292	Fur and Leather Apparel Manufacturing
			2381	Dress and Work Gloves, Except Knit and All-Leather (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2381	Dress and Work Gloves, Except Knit and All-Leather (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2381	Dress and Work Gloves, Except Knit and All-Leather (except contractors)	315992	Glove and Mitten Manufacturing
			2384	Robes and Dressing Gowns (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2384	Robes and Dressing Gowns (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2384	Robes and Dressing Gowns (men's except contractors)	315221	Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing
			2384	Robes and Dressing Gowns (women's except contractors)	315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing
			2385	Waterproof Outerwear (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2385	Waterproof Outerwear (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2385	Waterproof Outerwear (men's and boys' water resistant or water repellent tailored overcoats, except made from rubberized fabric, plastics, etc. and contractors)	315222	Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing
			2385	Waterproof Outerwear (men's and boys' water resistant or water repellent nontailored outerwear, except made from rubberized fabric, plastics, etc. and contractors)	315228	Men's and Boys' Cut and Sew Other Outerwear Manufacturing
			2385	Waterproof Outerwear (women's and girls' water resistant or water repellent tailored coats, except made from rubberized fabric, plastics, etc. and contractors)	315234	Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing
			2385	Waterproof Outerwear (other women's and girls' water resistant or water repellent nontailored outerwear, except made from rubberized fabric, plastics, etc. and contractors)	315239	Women's and Girls' Cut and Sew Other Outerwear Manufacturing
			2385	Waterproof Outerwear (infants' waterproof outerwear made from rubberized fabric, plastics, etc. except contractors)	315291	Infants' Cut and Sew Apparel Manufacturing
			2385	Waterproof Outerwear (men's, boys', women's, and girls' waterproof outerwear made from rubberized fabric, plastics, etc. except contractors)	315299	All Other Cut and Sew Apparel Manufacturing
			2385	Waterproof Outerwear (accessories, such as aprons, bibs, and other miscellaneous waterproof items, made from rubberized fabric, plastics, etc. except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing
			2386	Leather and Sheep-Lined Clothing (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2386	Leather and Sheep-Lined Clothing (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2386	Leather and Sheep-lined Clothing (except contractors)	315292	Fur and Leather Apparel Manufacturing
			2387	Apparel Belts (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2387	Apparel Belts (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2387	Apparel Belts (except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing
			2389	Apparel and Accessories, NEC (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2389	Apparel and Accessories, NEC (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2389	Apparel and Accessories, NEC (garters and garter belts except contractors)	315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing
			2389	Apparel and Accessories, NEC (apparel, such as academic gowns, clerical outerwear, and band uniforms, except contractors)	315299	All Other Cut and Sew Apparel Manufacturing
			2389	Apparel and Accessories, NEC (accessories such as, handkerchiefs, arm bands, cummerbunds, suspenders, etc., except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing
			2391	Curtains and Draperies	314121	Curtain and Drapery Mills
			2392	Housefurnishings, Except Curtains and Draperies (except mops, dust rags, and bags)	314129	Other Household Textile Product Mills
			2392	Housefurnishings, Except Curtains and Draperies (blanket, laundry, and wardrobe bags)	314911	Textile Bag Mills

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			2392	Housefurnishings, Except Curtains and Draperies (dust rags)	314999	All Other Miscellaneous Textile Product Mills
			2392	Housefurnishings, Except Curtains and Draperies (floor and dust mops)	339994	Broom, Brush, and Mop Manufacturing
			2393	Textile Bags	314911	Textile Bag Mills
			2394	Canvas and Related Products	314912	Canvas and Related Product Mills
			2395	Pleating, Decorative and Novelty Stitching, and Tucking for the Trade (except apparel contractors)	314999	All Other Miscellaneous Textile Product Mills
			2395	Pleating, Decorative and Novelty Stitching, and Tucking for the Trade (men's and boy's apparel contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2395	Pleating, Decorative and Novelty Stitching, and Tucking for the Trade (women's, girls', and infants' apparel contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2396	Automotive Trimmings, Apparel Findings, and Related Products (textile products except automotive and apparel trimmings and findings, printing or embossing on apparel, and contractors)	314999	All Other Miscellaneous Textile Product Mills
			2396	Automotive Trimmings, Apparel Findings, and Related Products (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2396	Automotive Trimmings, Apparel Findings, and Related Products (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2396	Automotive Trimmings, Apparel Findings, and Related Products (apparel findings and trimmings, except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing
			2396	Automotive Trimmings, Apparel Findings, and Related Products (printing and embossing on fabric articles)	323113	Commercial Screen Printing
			2396	Automotive Trimmings, Apparel Findings, and Related Products (textile motor vehicle trimmings except contractors)	336360	Motor Vehicle Seating and Interior Trim Manufacturing
			2397	Schiffli Machine Embroideries	313222	Schiffli Machine Embroidery
			2399	Fabricated Textile Products, NEC (except apparel and accessories, automotive seat belts, seat and tire covers, and contractors)	314999	All Other Miscellaneous Textile Product Mills
			2399	Fabricated Textile Products, NEC (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			2399	Fabricated Textile Products, NEC (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			2399	Fabricated Textile Products, NEC (apparel and apparel accessories, except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing
			2399	Fabricated Textile Products, NEC (seat belts, and seat and tire covers)	336360	Motor Vehicle Seating and Interior Trim Manufacturing
			24 Lumber and Wood Products			
			2411	Logging	113310	Logging
			2421	Sawmills and Planing Mills, General (sawmills)	321113	Sawmills
			2421	Sawmills and Planing Mills, General (lumber manufacturing from purchased lumber, softwood cut stock, wood lath, fence pickets, and planing mill products)	321912	Cut Stock, Resawing Lumber, and Planing
			2421	Sawmills and Planing Mills, General (softwood flooring)	321918	Other Millwork (including Flooring)
			2421	Sawmills and Planing Mills, General (box lumber made from purchased lumber)	321920	Wood Container and Pallet Manufacturing
			2421	Sawmills and Planing Mills, General (kiln drying)	321999	All Other Miscellaneous Wood Product Manufacturing
			2426	Hardwood Dimension and Flooring Mills (hardwood dimension lumber made from logs or bolts)	321113	Sawmills
			2426	Hardwood Dimension and Flooring Mills (hardwood cut stock, resawing hardwood lumber, and planing purchased hardwood lumber except flooring)	321912	Cut Stock, Resawing Lumber, and Planing
			2426	Hardwood Dimension and Flooring Mills (hardwood flooring)	321918	Other Millwork (including Flooring)
			2426	Hardwood Dimension and Flooring Mills (wood furniture frames and finished furniture parts)	327215	Showcase, Partition, Shelving, and Locker Manufacturing
			2429	Special Product Sawmills, NEC (shingle mills, shakes)	321113	Sawmills
			2429	Special Product Sawmills, Not Elsewhere Classified (cooperage stock)	321920	Wood Container and Pallet Manufacturing
			2429	Special Product Sawmills, NEC (excelsior)	321999	All Other Miscellaneous Wood Product Manufacturing
			2431	Millwork (wood windows and doors)	321911	Wood Window and Door Manufacturing
			2431	Millwork (except wood doors and windows)	321918	Other Millwork (including Flooring)
			2434	Wood Kitchen Cabinets	337110	Wood Kitchen Cabinet and Countertop Manufacturing
			2435	Hardwood Veneer and Plywood	321211	Hardwood Veneer and Plywood Manufacturing
			2436	Softwood Veneer and Plywood	321212	Softwood Veneer and Plywood Manufacturing
			2439	Structural Wood Members, NEC (except trusses)	321213	Engineered Wood Member (except Truss) Manufacturing
			2439	Structural Wood Members, NEC (trusses)	321214	Truss Manufacturing
			2441	Nailed and Lock Corner Wood Boxes and Shook	321920	Wood Container and Pallet Manufacturing
			2448	Wood Pallets and Skids	321920	Wood Container and Pallet Manufacturing
			2449	Wood Containers, NEC	321920	Wood Container and Pallet Manufacturing
			2451	Mobile Homes	321991	Manufactured Home (Mobile Home) Manufacturing
			2452	Prefabricated Wood Buildings and Components	321992	Prefabricated Wood Building Manufacturing
			2491	Wood Preserving	321114	Wood Preservation
			2493	Reconstituted Wood Products	321219	Reconstituted Wood Product Manufacturing
			2499	Wood Products, NEC (wood containers, such as noncoopered vats and reed or straw baskets)	321920	Wood Container and Pallet Manufacturing
			2499	Wood Products, NEC (except wood containers, wood cooling towers, cork life preservers, mirror or picture frames, and laundry hampers of reed, rattan, and willow)	321999	All Other Miscellaneous Wood Product Manufacturing
			2499	Wood Products, NEC (wood cooling towers)	333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
			2499	Wood Products, NEC (laundry hampers of reed, rattan, and willow)	337125	Household Furniture (except Wood and Metal) Manufacturing
			2499	Wood Products, NEC (cork life preservers)	339113	Surgical Appliance and Supplies Manufacturing

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			2499	Wood Products, NEC (mirror and picture frames)	339999	All Other Miscellaneous Manufacturing
			25 Furniture and Fixtures			
			2511	Wood Household Furniture, Except Upholstered (except wood box spring frames)	337122	Nonupholstered Wood Household Furniture Manufacturing
			2511	Wood Household Furniture, Except Upholstered (wood box spring frames)(parts)	337215	Showcase, Partition, Shelving, and Locker Manufacturing
			2512	Wood Household Furniture, Upholstered	337121	Upholstered Household Furniture Manufacturing
			2514	Metal Household Furniture (upholstered)	337121	Upholstered Household Furniture Manufacturing
			2514	Metal Household Furniture (except upholstered metal furniture and metal box spring frames)	337124	Metal Household Furniture Manufacturing
			2514	Metal Household Furniture (metal box spring frames)	337215	Showcase, Partition, Shelving, and Locker Manufacturing
			2515	Mattresses, Foundations, and Convertible Beds (convertible beds)	337121	Upholstered Household Furniture Manufacturing
			2515	Mattresses, Foundations, and Convertible Beds (mattresses and foundations)	337910	Mattress Manufacturing
			2517	Wood Television, Radio, Phonograph, and Sewing Machine Cabinets	337129	Wood Television, Radio, and Sewing Machine Cabinet Manufacturing
			2519	Household Furniture, NEC	337125	Household Furniture (except Wood and Metal) Manufacturing
			2521	Wood Office Furniture	337211	Wood Office Furniture Manufacturing
			2522	Office Furniture, Except Wood	337214	Office Furniture (except Wood) Manufacturing
			2531	Public Building and Related Furniture (seats for motor vehicles)	336360	Motor Vehicle Seating and Interior Trim Manufacturing
			2531	Public Building and Related Furniture (except motor vehicle seats and blackboards)	337127	Institutional Furniture Manufacturing
			2531	Public Building and Related Furniture (blackboards)	339942	Lead Pencil and Art Good Manufacturing
			2541	Wood Office and Store Fixtures, Partitions, Shelving, and Lockers (counter tops)	337110	Wood Kitchen Cabinet and Countertop Manufacturing
			2541	Wood Office and Store Fixtures, Partitions, Shelving, and Lockers (wood lunchroom tables and chairs)	337127	Institutional Furniture Manufacturing
			2541	Wood Office and Store Fixtures, Partitions, Shelving, and Lockers (custom architectural millwork)	337212	Custom Architectural Woodwork and Millwork Manufacturing
			2541	Wood Office and Store Fixtures, Partitions, Shelving, and Lockers (except custom architectural millwork, counter tops, and lunchroom tables and chairs)	337215	Showcase, Partition, Shelving, and Locker Manufacturing
			2542	Office and Store Fixtures, Partitions, Shelving, and Lockers, Except Wood (lunchroom tables and chairs)	337127	Institutional Furniture Manufacturing
			2542	Office and Store Fixtures, Partitions, Shelving, and Lockers, Except Wood (except lunchroom tables and chairs)	337215	Showcase, Partition, Shelving, and Locker Manufacturing
			2591	Drapery Hardware and Window Blinds and Shades	337920	Blind and Shade Manufacturing
			2599	Furniture and Fixtures, NEC (except hospital beds)	337127	Institutional Furniture Manufacturing
			2599	Furniture and Fixtures, NEC (hospital beds)	339111	Laboratory Apparatus and Furniture Manufacturing
			26 Paper and Allied Products			
			2611	Pulp Mills (pulp producing mills only)	322110	Pulp Mills
			2611	Pulp Mills (pulp mills producing paper except newsprint)	322121	Paper (except Newsprint) Mills
			2611	Pulp Mills (pulp mills producing newsprint)	322122	Newsprint Mills
			2611	Pulp Mills (pulp mills producing paperboard)	322130	Paperboard Mills
			2621	Paper Mills (except newsprint mills)	322121	Paper (except Newsprint) Mills
			2621	Paper Mills (newsprint mills)	322122	Newsprint Mills
			2631	Paperboard Mills	322130	Paperboard Mills
			2652	Setup Paperboard Boxes	322213	Setup Paperboard Box Manufacturing
			2653	Corrugated and Solid Fiber Boxes	322211	Corrugated and Solid Fiber Box Manufacturing
			2655	Fiber Cans, Tubes, Drums, and Similar Products	322214	Fiber Can, Tube, Drum, and Similar Products Manufacturing
			2656	Sanitary Food Containers, Except Folding	322215	Nonfolding Sanitary Food Container Manufacturing
			2657	Folding Paperboard Boxes, including Sanitary (except paperboard backs for blister or skin packages)	322212	Folding Paperboard Box Manufacturing
			2671	Packaging Paper and Plastics Film, Coated and Laminated (except single-web and multi-web plastics packaging film and sheet)	322221	Coated and Laminated Packaging Paper and Plastics Film Manufacturing
			2671	Packaging Paper and Plastics Film, Coated and Laminated (single-web and multi-web plastics packaging film and sheet)	326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing
			2672	Coated and Laminated Paper, NEC	322222	Coated and Laminated Paper Manufacturing
			2673	Plastics, Foil, and Coated Paper Bags (except single web or multi-web plastic bags)	322223	Plastics, Foil, and Coated Paper Bag Manufacturing
			2673	Plastics, Foil, and Coated Paper Bags (single-web and multi-web plastics bags)	326111	Plastics Bag Manufacturing
			2674	Uncoated Paper and Multiwall Bags	322224	Uncoated Paper and Multiwall Bag Manufacturing
			2675	Die-Cut Paper and Paperboard and Cardboard (pasted, lined, laminated, or surface-coated paperboard)	322226	Surface-Coated Paperboard Manufacturing
			2675	Die-Cut Paper and Paperboard and Cardboard (die-cut paper and paperboard office supplies, such as file folders, tabulating cards, and report covers)	322231	Die-Cut Paper and Paperboard Office Supplies Manufacturing
			2675	Die-Cut Paper and Paperboard and Cardboard (except pasted, lined, laminated, or surface coated paperboard and die-cut paper and paperboard office supplies)	322299	All Other Converted Paper Product Manufacturing
			2676	Sanitary Paper Products	322291	Sanitary Paper Product Manufacturing
			2677	Envelopes	322232	Envelope Manufacturing
			2678	Stationery, Tablets, and Related Products	322233	Stationery, Tablet, and Related Product Manufacturing
			2679	Converted Paper and Paperboard Products, NEC (corrugated paper)	322211	Corrugated and Solid Fiber Box Manufacturing
			2679	Converted Paper and Paperboard Products, NEC (wallpaper and gift wrap paper)	322222	Coated and Laminated Paper Manufacturing

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			2679	Converted Paper and Paperboard Products, NEC (paper supplies for business machines, such as adding machine tape, and other paper office supplies)	322231	Die-Cut Paper and Paperboard Office Supplies Manufacturing
			2679	Converted Paper and Paperboard Products, NEC (except corrugated paper, wall paper, gift wrap paper, paper supplies for business machines, and other paper office supplies)	322299	All Other Converted Paper Product Manufacturing
			27 Printing and Publishing			
			2711	Newspapers: Publishing, or Publishing and Printing (except Internet newspaper publishing)	511110	Newspaper Publishers
			2711	Newspapers: Publishing, or Publishing and Printing (Internet newspaper publishing)	516110	Internet Publishing and Broadcasting
			2721	Periodicals: Publishing, or Publishing and Printing (except Internet periodical publishing)	511120	Periodical Publishers
			2721	Periodicals: Publishing, or Publishing and Printing (Internet periodical publishing)	516110	Internet Publishing and Broadcasting
			2731	Books: Publishing, or Publishing and Printing (except music books and Internet book publishing)	511130	Book Publishers
			2731	Books: Publishing, or Publishing and Printing (music books)	512230	Music Publishers
			2731	Books: Publishing, or Publishing and Printing (Internet book publishing)	516110	Internet Publishing and Broadcasting
			2732	Book Printing	323117	Book Printing
			2741	Miscellaneous Publishing (shopping news and advertising periodical publishing or publishing and printing except Internet)	511120	Periodical Publishers
			2741	Miscellaneous Publishing (technical manuals and books publishing or publishing and printing, except Internet)	511130	Book Publishers
			2741	Miscellaneous Publishing (directory publishers, except Internet publishers)	511140	Directory and Mailing List Publishers
			2741	Miscellaneous Publishing (except database, advertising periodicals, shopping news, technical manuals and books, and sheet music publishing or publishing and printing and Internet versions of these activities)	511199	All Other Publishers
			2741	Miscellaneous Publishing (sheet music publishing or publishing and printing)	512230	Music Publishers
			2741	Miscellaneous Publishing (miscellaneous Internet publishing)	516110	Internet Publishing and Broadcasting
			2752	Commercial Printing, Lithographic (except quick printing)	323110	Commercial Lithographic Printing
			2752	Commercial Printing, Lithographic (quick printing)	323114	Quick Printing
			2754	Commercial Printing, Gravure	323111	Commercial Gravure Printing
			2759	Commercial Printing, NEC (flexographic printing)	323112	Commercial Flexographic Printing
			2759	Commercial Printing, NEC (screen printing)	323113	Commercial Screen Printing
			2759	Commercial Printing, NEC (quick printing)	323114	Quick Printing
			2759	Commercial Printing, NEC (digital printing, except quick printing)	323115	Digital Printing
			2759	Commercial Printing, NEC (other commercial printing except flexographic, screen, digital, and quick printing)	323119	Other Commercial Printing
			2761	Manifold Business Forms	323116	Manifold Business Form Printing
			2771	Greeting Cards (lithographic printing of greeting cards)	323110	Commercial Lithographic Printing
			2771	Greeting Cards (gravure printing of greeting cards)	323111	Commercial Gravure Printing
			2771	Greeting Cards (flexographic printing of greeting cards)	323112	Commercial Flexographic Printing
			2771	Greeting Cards (screen printing of greeting cards)	323113	Commercial Screen Printing
			2771	Greeting Cards (other printing of greeting cards)	323119	Other Commercial Printing
			2771	Greeting Cards (publishing greeting cards except Internet greeting card publishers)	511191	Greeting Card Publishers
			2771	Greeting Cards (Internet greeting card publishers)	516110	Internet Publishing and Broadcasting
			2782	Blankbooks, Looseleaf Binders and Devices (checkbooks)	323116	Manifold Business Form Printing
			2782	Blankbooks, Looseleaf Binders and Devices (except checkbooks)	323118	Blankbook, Loose-leaf Binder, and Device Manufacturing
			2789	Bookbinding and Related Work	323121	Tradebinding and Related Work
			2791	Typesetting	323122	Prepress Services
			2796	Platemaking and Related Services	323122	Prepress Services
			28 Chemicals and Allied Products			
			2812	Alkalies and Chlorine	325181	Alkalies and Chlorine Manufacturing
			2813	Industrial Gases	325120	Industrial Gas Manufacturing
			2816	Inorganic Pigments (except bone and lamp black)	325131	Inorganic Dye and Pigment Manufacturing
			2816	Inorganic Pigments (bone and lamp black)	325182	Carbon Black Manufacturing
			2819	Industrial Inorganic Chemicals, NEC (recovering sulfur from natural gas)	211112	Natural Gas Liquid Extraction
			2819	Industrial Inorganic Chemicals, NEC (inorganic dyes)	325131	Inorganic Dye and Pigment Manufacturing
			2819	Industrial Inorganic Chemicals, NEC (except activated carbon and charcoal, alumina, recovering sulfur from natural gas, and inorganic dyes)	325188	All Other Basic Inorganic Chemical Manufacturing
			2819	Industrial Inorganic Chemicals, NEC (activated carbon and charcoal)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing
			2819	Industrial Inorganic Chemicals, NEC (alumina)	331311	Alumina Refining
			2821	Plastics Materials, Synthetic and Resins, and Nonvulcanizable Elastomers	325211	Plastics Material and Resin Manufacturing
			2822	Synthetic Rubber	325212	Synthetic Rubber Manufacturing
			2823	Cellulosic Manmade Fibers	325221	Cellulosic Organic Fiber Manufacturing
			2824	Manmade Organic Fibers, Except Cellulosic	325222	Noncellulosic Organic Fiber Manufacturing
			2833	Medicinal Chemicals and Botanical Products	325411	Medicinal and Botanical Manufacturing
			2834	Pharmaceutical Preparations	325412	Pharmaceutical Preparation Manufacturing
			2835	In Vitro and In Vivo Diagnostic Substances (except in-vitro diagnostic substances)	325412	Pharmaceutical Preparation Manufacturing
			2835	In Vitro and In Vivo Diagnostic Substances (in-vitro diagnostic substances)	325413	In-Vitro Diagnostic Substance Manufacturing
			2836	Biological Products, Except Diagnostic Substances	325414	Biological Product (except Diagnostic) Manufacturing

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			2841	Soaps and Other Detergents, Except Specialty Cleaners	325611	Soap and Other Detergent Manufacturing
			2842	Specialty Cleaning, Polishing, and Sanitation Preparations	325612	Polish and Other Sanitation Good Manufacturing
			2843	Surface Active Agents, Finishing Agents, Sulfonated Oils, and Assistants	325613	Surface Active Agent Manufacturing
			2844	Perfumes, Cosmetics, and Other Toilet Preparations (toothpaste, gel, and dentifrice powders)	325611	Soap and Other Detergent Manufacturing
			2844	Perfumes, Cosmetics, and Other Toilet Preparations (except toothpaste, gel, and dentifrice powders)	325620	Toilet Preparation Manufacturing
			2851	Paints, Varnishes, Lacquers, Enamels and Allied Products	325510	Paint and Coating Manufacturing
			2861	Gum and Wood Chemicals	325191	Gum and Wood Chemical Manufacturing
			2865	Cyclic Organic Crudes and Intermediates, and Organic Dyes and Pigments (aromatics)	325110	Petrochemical Manufacturing
			2865	Cyclic Organic Crudes and Intermediates, and Organic Dyes and Pigments (organic dyes and pigments)	325132	Synthetic Organic Dye and Pigment Manufacturing
			2865	Cyclic Organic Crudes and Intermediates and Organic Dyes and Pigments (except aromatics and organic dyes and pigments)	325192	Cyclic Crude and Intermediate Manufacturing
			2869	Industrial Organic Chemicals, NEC (aliphatics)	325110	Petrochemical Manufacturing
			2869	Industrial Organic Chemicals, NEC (fluorocarbon gases)	325120	Industrial Gas Manufacturing
			2869	Industrial Organic Chemicals, NEC (carbon bisulfide)	325188	All Other Basic Inorganic Chemical Manufacturing
			2869	Industrial Organic Chemicals, NEC (cyclopropane, diethylcyclohexane, naphthalene sulfonic acid)	325192	Cyclic Crude and Intermediate Manufacturing
			2869	Industrial Organic Chemicals, NEC (ethyl alcohol)	325193	Ethyl Alcohol Manufacturing
			2869	Industrial Organic Chemicals, NEC (except aliphatics, carbon bisulfide, ethyl alcohol, cyclopropane, diethylcyclohexane, naphthalene sulfonic acid, synthetic hydraulic fluids, and fluorocarbon gases)	325199	All Other Basic Organic Chemical Manufacturing
			2869	Industrial Organic Chemicals, NEC (synthetic hydraulic fluids)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing
			2873	Nitrogenous Fertilizers	325311	Nitrogenous Fertilizer Manufacturing
			2874	Phosphatic Fertilizers	325312	Phosphatic Fertilizer Manufacturing
			2875	Fertilizers, Mixing Only	325314	Fertilizer (Mixing Only) Manufacturing
			2879	Pesticides and Agricultural Chemicals, NEC	325320	Pesticide and Other Agricultural Chemical Manufacturing
			2891	Adhesives and Sealants	325520	Adhesive Manufacturing
			2892	Explosives	325920	Explosives Manufacturing
			2893	Printing Ink	325910	Printing Ink Manufacturing
			2895	Carbon Black	325182	Carbon Black Manufacturing
			2899	Chemicals and Chemical Preparations, NEC (table salt)	311942	Spice and Extract Manufacturing
			2899	Chemicals and Chemical Preparations, NEC (fatty acids)	325199	All Other Basic Organic Chemical Manufacturing
			2899	Chemicals and Chemical Preparations, NEC (frit and plastic wood fillers)	325510	Paint and Coating Manufacturing
			2899	Chemicals and Chemical Preparations, NEC (except frit, fatty acids, plastic wood fillers, and table salt)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing
			29 Petroleum and Coal Products			
			2911	Petroleum Refining	324110	Petroleum Refineries
			2951	Asphalt Paving Mixtures and Blocks	324121	Asphalt Paving Mixture and Block Manufacturing
			2952	Asphalt Felts and Coatings	324122	Asphalt Shingle and Coating Materials Manufacturing
			2992	Lubricating Oils and Greases	324191	Petroleum Lubricating Oil and Grease Manufacturing
			2999	Products of Petroleum and Coal, NEC	324199	All Other Petroleum and Coal Products Manufacturing
			30 Rubber and Miscellaneous Plastics Products			
			3011	Tires and Inner Tubes	326211	Tire Manufacturing (except Retreading)
			3021	Rubber and Plastics Footwear	316211	Rubber and Plastics Footwear Manufacturing
			3052	Rubber and Plastics Hose and Belting	326220	Rubber and Plastics Hoses and Belting Manufacturing
			3053	Gaskets, Packing, and Sealing Devices	339991	Gasket, Packing, and Sealing Device Manufacturing
			3061	Molded, Extruded, and Lathe-Cut Mechanical Rubber Goods	326291	Rubber Product Manufacturing for Mechanical Use
			3069	Fabricated Rubber Products, NEC (rubberizing fabric or purchased textile products)	313320	Fabric Coating Mills
			3069	Fabricated Rubber Products, NEC (bags made from rubberized fabric)	314911	Textile Bag Mills
			3069	Fabricated Rubber Products, NEC (rubber cut and sew outerwear)	315299	All Other Cut and Sew Apparel Manufacturing
			3069	Fabricated Rubber Products, NEC (bibs, bathing caps, related rubber accessories)	315999	Other Apparel Accessories and Other Apparel Manufacturing
			3069	Fabricated Rubber Products, NEC (rubber resilient floor coverings)	326192	Resilient Floor Covering Manufacturing
			3069	Fabricated Rubber Products, NEC (except rubberized fabric and garments, gloves, life vests, wet suits, accessories, such as bibs and bathing caps, rubber toys, bags made from rubberized fabric, rubber diaper covers, and rubber resilient floor coverings)	326299	All Other Rubber Product Manufacturing
			3069	Fabricated Rubber Products, NEC (rubber gloves, inflatable rubber lifejackets)	339113	Surgical and Appliance and Supplies Manufacturing
			3069	Fabricated Rubber Products, NEC (wet suits)	339920	Sporting and Athletic Goods Manufacturing
			3069	Fabricated Rubber Products, NEC (rubber toys, except dolls)	339932	Game, Toy, and Children's Vehicle Manufacturing
			3081	Unsupported Plastics Film and Sheet	326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing
			3082	Unsupported Plastics Profile Shapes	326121	Unlaminated Plastics Profile Shape Manufacturing
			3083	Laminated Plastics Plate, Sheet, and Profile Shapes	326130	Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing
			3084	Plastics Pipe	326122	Plastics Pipe and Pipe Fitting Manufacturing
			3085	Plastics Bottles	326160	Plastics Bottle Manufacturing
			3086	Plastics Foam Products (polystyrene foam products)	326140	Polystyrene Foam Product Manufacturing
			3086	Plastics Foam Products (except polystyrene foam products)	326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			3087	Custom Compounding of Purchased Plastics Resins	325991	Custom Compounding of Purchased Resins
			3088	Plastics Plumbing Fixtures	326191	Plastics Plumbing Fixture Manufacturing
			3089	Plastics Products, NEC (plastics sausage casings)	326121	Unlaminated Plastics Profile Shape Manufacturing
			3089	Plastics Products, NEC (pipe fittings)	326122	Plastics Pipe and Pipe Fitting Manufacturing
			3089	Plastics Products, NEC (except plastics pipe fittings, inflatable plastics life jackets, plastics furniture parts, and plastics sausage casings)	326199	All Other Plastics Product Manufacturing
			3089	Plastics Products, NEC (finished plastic furniture parts)	337215	Showcase, Partition, Shelving, and Locker Manufacturing
			3089	Plastics Products, NEC (inflatable plastic life jackets)	339113	Surgical Appliance and Supplies Manufacturing
			31 Leather and Leather Products			
			3111	Leather Tanning and Finishing	316110	Leather and Hide Tanning and Finishing
			3131	Boot and Shoe Cut Stock and Findings (except wood heels and metal buckles)	316999	All Other Leather Good Manufacturing
			3131	Boot and Shoe Cut Stock and Findings (wood heels)	321999	All Other Miscellaneous Wood Product Manufacturing
			3131	Boot and Shoe Cut Stock and Findings (metal buckles)	339993	Fastener, Button, Needle, and Pin Manufacturing
			3142	House Slippers	316212	House Slipper Manufacturing
			3143	Men's Footwear, Except Athletic	316213	Men's Footwear (except Athletic) Manufacturing
			3144	Women's Footwear, Except Athletic	316214	Women's Footwear (except Athletic) Manufacturing
			3149	Footwear, Except Rubber, NEC	316219	Other Footwear Manufacturing
			3151	Leather Gloves and Mittens (men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
			3151	Leather Gloves and Mittens (women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
			3151	Leather Gloves and Mittens (except contractors)	315992	Glove and Mitten Manufacturing
			3161	Luggage	316991	Luggage Manufacturing
			3171	Women's Handbags and Purses	316992	Women's Handbag and Purse Manufacturing
			3172	Personal Leather Goods, Except Women's Handbags and Purses (except nonprecious metal personal goods, such as card cases, cigar cases, and comb cases)	316993	Personal Leather Good (except Women's Handbag and Purse) Manufacturing
			3172	Personal Leather Goods, Except Women's Handbags and Purses (nonprecious metal personal goods, such as card cases, cigar cases, and comb cases)	339914	Costume Jewelry and Novelty Manufacturing
			3199	Leather Goods, NEC	316999	All Other Leather Good Manufacturing
			32 Stone, Clay, Glass and Concrete Products			
			3211	Flat Glass	327211	Flat Glass Manufacturing
			3221	Glass Containers	327213	Glass Container Manufacturing
			3229	Pressed and Blown Glass and Glassware, NEC	327212	Other Pressed and Blown Glass and Glassware Manufacturing
			3231	Glass Products Made of Purchased Glass	327215	Glass Product Manufacturing Made of Purchased Glass
			3241	Cement, Hydraulic	327310	Cement Manufacturing
			3251	Brick and Structural Clay Tile (except slumped brick)	327121	Brick and Structural Clay Tile Manufacturing
			3251	Brick and Structural Clay Tile (slumped brick)	327331	Concrete Block and Brick Manufacturing
			3253	Ceramic Wall and Floor Tile	327122	Ceramic Wall and Floor Tile Manufacturing
			3255	Clay Refractories	327124	Clay Refractory Manufacturing
			3259	Structural Clay Products, NEC	327123	Other Structural Clay Product Manufacturing
			3261	Vitreous China Plumbing Fixtures and China and Earthenware Fittings and Bathroom Accessories	327111	Vitreous China Plumbing Fixture and China and Earthenware Bathroom Accessories Manufacturing
			3262	Vitreous China Table and Kitchen Articles	327112	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing
			3263	Fine Earthenware (Whiteware) Table and Kitchen Articles	327112	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing
			3264	Porcelain Electrical Supplies	327113	Porcelain Electrical Supply Manufacturing
			3269	Pottery Products, NEC	327112	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing
			3271	Concrete Block and Brick	327331	Concrete Block and Brick Manufacturing
			3272	Concrete Products, Except Block and Brick (concrete pipe)	327332	Concrete Pipe Manufacturing
			3272	Concrete Products, Except Block and Brick (concrete products, except dry mix concrete and pipe)	327390	Other Concrete Product Manufacturing
			3272	Concrete Products, Except Block and Brick (dry mixture concrete)	327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing
			3273	Ready-Mixed Concrete	327320	Ready-Mix Concrete Manufacturing
			3274	Lime	327410	Lime Manufacturing
			3275	Gypsum Products	327420	Gypsum Product Manufacturing
			3281	Cut Stone and Stone Products	327991	Cut Stone and Stone Product Manufacturing
			3291	Abrasive Products (except steel wool with or without soap)	327910	Abrasive Product Manufacturing
			3291	Abrasive Products (steel wool with or without soap)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
			3292	Asbestos Products (except brake pads and linings)	327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing
			3292	Asbestos Products (asbestos brake linings and pads)	336340	Motor Vehicle Brake System Manufacturing
			3292	Asbestos Products (asbestos clutch facings, motor vehicle)	336350	Motor Vehicle Transmission and Power Train Parts Manufacturing
			3295	Minerals and Earths, Ground or Otherwise Treated (grinding, washing, separating, etc. of kaolin and ball clay)	212324	Kaolin and Ball Clay Mining
			3295	Minerals and Earths, Ground or Otherwise Treated (grinding, washing, separating, etc. of clay, ceramic, and refractory minerals nec)	212325	Clay and Ceramic and Refractory Minerals Mining
			3295	Minerals and Earths, Ground or Otherwise Treated (grinding, washing, separating, etc. of chemical and fertilizer minerals, nec)	212393	Other Chemical and Fertilizer Mineral Mining
			3295	Minerals and Earths, Ground or Otherwise Treated (grinding, washing, separating, etc. of nonmetallic minerals, nec)	212399	All Other Nonmetallic Mineral Mining
			3295	Minerals and Earths, Ground or Otherwise Treated (except grinding, washing, separating, etc. of nonmetallic minerals)	327992	Ground or Treated Mineral and Earth Manufacturing
			3296	Mineral Wool	327993	Mineral Wool Manufacturing

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			3297	Nonclay Refractories	327125	Nonclay Refractory Manufacturing
			3299	Nonmetallic Mineral Products, NEC (clay statuary)	327112	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing
			3299	Nonmetallic Mineral Products, NEC (moldings, ornamental and architectural plaster work, and gypsum statuary)	327420	Gypsum Product Manufacturing
			3299	Nonmetallic Mineral Products, NEC (except moldings, ornamental and architectural plaster work, clay statuary, and gypsum statuary)	327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing
			33 Primary Metal Industries			
			3312	Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills (coke ovens)	332419	All Other Petroleum and Coal Products Manufacturing
			3312	Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills (except coke ovens not integrated with steel mills and hot-rolling purchased steel)	331111	Iron and Steel Mills
			3312	Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills (hot-rolling purchased steel)	331221	Rolled Steel Shape Manufacturing
			3313	Electrometallurgical Products, Except Steel	331112	Electrometallurgical Ferroalloy Product Manufacturing
			3315	Steel Wiredrawing and Steel Nails and Spikes (steel wire drawing)	331222	Steel Wire Drawing
			3315	Steel Wiredrawing and Steel Nails and Spikes (nails, spikes, paper clips, and wire not made in wiredrawing plants)	332618	Other Fabricated Wire Product Manufacturing
			3316	Cold-Rolled Steel Sheet, Strip, and Bars	331221	Rolled Steel Shape Manufacturing
			3317	Steel Pipe and Tubes	331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel
			3321	Gray and Ductile Iron Foundries	331511	Iron Foundries
			3322	Malleable Iron Foundries	331511	Iron Foundries
			3324	Steel Investment Foundries	331512	Steel Investment Foundries
			3325	Steel Foundries, NEC	331513	Steel Foundries (except Investment)
			3331	Primary Smelting and Refining of Copper	331411	Primary Smelting and Refining of Copper
			3334	Primary Production of Aluminum	331312	Primary Aluminum Production
			3339	Primary Smelting and Refining of Nonferrous Metals, Except Copper and Aluminum	331419	Primary Smelting and Refining of Nonferrous Metal (except Copper and Aluminum)
			3341	Secondary Smelting and Refining of Nonferrous Metals (aluminum)	331314	Secondary Smelting and Alloying of Aluminum
			3341	Secondary Smelting and Refining of Nonferrous Metals (copper)	331423	Secondary Smelting, Refining, and Alloying of Copper
			3341	Secondary Smelting and Refining of Nonferrous Metals (except copper and aluminum)	331492	Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)
			3351	Rolling, Drawing, and Extruding of Copper	331421	Copper Rolling, Drawing, and Extruding
			3353	Aluminum Sheet, Plate, and Foil	331315	Aluminum Sheet, Plate, and Foil Manufacturing
			3354	Aluminum Extruded Products	331316	Aluminum Extruded Product Manufacturing
			3355	Aluminum Rolling and Drawing, NEC	331319	Other Aluminum Rolling and Drawing
			3356	Rolling, Drawing, and Extruding of Nonferrous Metals, Except Copper and Aluminum	331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding
			3357	Drawing and Insulating of Nonferrous Wire (aluminum wire drawing)	331319	Other Aluminum Rolling and Drawing
			3357	Drawing and Insulating of Nonferrous Wire (copper wire drawing)	331422	Copper Wire (except Mechanical) Drawing
			3357	Drawing and Insulating of Nonferrous Wire (wire drawing except copper or aluminum)	331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding
			3357	Drawing and Insulating of Nonferrous Wire (fiber optic cable-insulating only)	335921	Fiber Optic Cable Manufacturing
			3357	Drawing and Insulating of Nonferrous Wire (communication and energy wire, except fiber optic-insulating only)	335929	Other Communication and Energy Wire Manufacturing
			3363	Aluminum Die-Castings	331521	Aluminum Die-Casting Foundries
			3364	Nonferrous Die-Castings, Except Aluminum	331522	Nonferrous (except Aluminum) Die-Casting Foundries
			3365	Aluminum Foundries	331524	Aluminum Foundries (except Die-Casting)
			3366	Copper Foundries	331525	Copper Foundries (except Die-Casting)
			3369	Nonferrous Foundries, Except Aluminum and Copper	331528	Other Nonferrous Foundries (except Die-Casting)
			3398	Metal Heat Treating	332811	Metal Heat Treating
			3399	Primary Metal Products, NEC (iron ore recovery from open hearth slag)	331111	Iron and Steel Mills
			3399	Primary Metal Products, NEC (ferrous powder, paste, flakes, etc.)	331221	Rolled Steel Shape Manufacturing
			3399	Primary Metal Products, NEC (aluminum powder, paste, flakes, etc.)	331314	Secondary Smelting and Alloying of Aluminum
			3399	Primary Metal Products, NEC (copper powder, paste, flakes, etc.)	331423	Secondary Smelting, Refining, and Alloying of Copper
			3399	Primary Metal Products, NEC (nonferrous powder, paste, flakes, etc. except copper and aluminum)	331492	Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)
			3399	Primary Metal Products, NEC (nonferrous nails, brads, staples, tacks, etc. made from purchased nonferrous wire)	332618	Other Fabricated Wire Product Manufacturing
			3399	Primary Metal Products, NEC (laminating steel for the trade)	332813	Electroplating, Plating, Polishing, Anodizing and Coloring
			34 Fabricated Metal Products			
			3411	Metal Cans	332431	Metal Can Manufacturing
			3412	Metal Shipping Barrels, Drums, Kegs, and Pails	332439	Other Metal Container Manufacturing
			3421	Cutlery (except hedge shears and trimmers, tinners' snips, and similar nonelectric hand tools)	332211	Cutlery and Flatware (except Precious) Manufacturing
			3421	Cutlery (hedge shears and trimmers, tinners' snips, and similar nonelectric hand tools)	332212	Hand and Edge Tool Manufacturing
			3423	Hand and Edge Tools, Except Machine Tools and Handsaws	332212	Hand and Edge Tool Manufacturing
			3425	Saw Blades and Handsaws	332213	Saw Blade and Handsaw Manufacturing
			3429	Hardware, NEC (vacuum and insulated bottles, jugs, and chests)	332439	Other Metal Container Manufacturing

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			3429	Hardware, NEC (except fire hose nozzles, hose couplings, vacuum and insulated bottles, jugs and chests, fireplace fixtures, time locks, turnbuckles, pulleys, tackle blocks, luggage and utility racks, sleep sofa mechanisms and chair glides, traps, handcuffs and leg irons, ladder jacks, and other like metal products)	332510	Hardware Manufacturing
			3429	Hardware, NEC (turnbuckles and hose clamps)	332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing
			3429	Hardware, NEC (fire hose nozzles and hose couplings)	332919	Other Metal Valve and Pipe Fitting Manufacturing
			3429	Hardware, NEC (fireplace fixtures, traps, handcuffs and leg irons, ladder jacks, and other like metal products)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
			3429	Hardware, NEC (pulleys, tackle blocks, block and tackle assemblies)	333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing
			3429	Hardware, NEC (time locks)	334518	Watch, Clock, and Part Manufacturing
			3429	Hardware, NEC (luggage and utility racks)	336399	All Other Motor Vehicle Parts Manufacturing
			3429	Hardware, NEC (sleep sofa mechanisms and chair glides)	337215	Showcase, Partition, Shelving, and Locker Manufacturing
			3431	Enameled Iron and Metal Sanitary Ware	332998	Enameled Iron and Metal Sanitary Ware Manufacturing
			3432	Plumbing Fixture Fittings and Trim (except shower rods, lawn hose nozzles, and lawn sprinklers)	332913	Plumbing Fixture Fitting and Trim Manufacturing
			3432	Plumbing Fixture Fittings and Trim (lawn hose nozzles and lawn sprinklers)	332919	Other Metal Valve and Pipe Fitting Manufacturing
			3432	Plumbing Fixture Fittings and Trim (metal shower rods)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
			3433	Heating Equipment, Except Electric and Warm Air Furnaces	333414	Heating Equipment (except Warm Air Furnaces) Manufacturing
			3441	Fabricated Structural Metal	332312	Fabricated Structural Metal Manufacturing
			3442	Metal Doors, Sash, Frames, Molding, and Trim	332321	Metal Window and Door Manufacturing
			3443	Fabricated Plate Work (Boiler Shops) (fabricated plate work and metal weldments)	332313	Plate Work Manufacturing
			3443	Fabricated Plate Work (Boiler Shops) (power boilers and heat exchangers)	332410	Power Boiler and Heat Exchanger Manufacturing
			3443	Fabricated Plate Work (Boiler Shops) (heavy gauge tanks)	332420	Metal Tank (Heavy Gauge) Manufacturing
			3443	Fabricated Plate Work (Boiler Shops) (metal cooling towers)	333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
			3444	Sheet Metal Work (stamped metal skylights)	332321	Metal Window and Door Manufacturing
			3444	Sheet Metal Work (except sheet metal bins and vats, skylights, and sheet metal cooling towers)	332322	Sheet Metal Work Manufacturing
			3444	Sheet Metal Work (metal bins and vats)	332439	Other Metal Container Manufacturing
			3444	Sheet Metal Work (cooling towers, sheet metal)	333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
			3446	Architectural and Ornamental Metal Work	332323	Ornamental and Architectural Metal Work Manufacturing
			3448	Prefabricated Metal Buildings and Components	332311	Prefabricated Metal Building and Component Manufacturing
			3449	Miscellaneous Structural Metal Work (custom roll forming)	332114	Custom Roll Forming
			3449	Miscellaneous Structural Metal Work (fabricated bar joists and concrete reinforcing bars)	332312	Fabricated Structural Metal Manufacturing
			3449	Miscellaneous Structural Metal Work (curtain wall and metal plaster bases and lath)	332323	Ornamental and Architectural Metal Work Manufacturing
			3451	Screw Machine Products	332721	Precision Turned Product Manufacturing
			3452	Bolts, Nuts, Screws, Rivets, and Washers	332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing
			3462	Iron and Steel Forgings	332111	Iron and Steel Forging
			3463	Nonferrous Forgings	332112	Nonferrous Forging
			3465	Automotive Stampings	336370	Motor Vehicle Metal Stamping
			3466	Crowns and Closures	332115	Crown and Closure Manufacturing
			3469	Metal Stampings, NEC (except kitchen utensils, pots and pans for cooking, coins, and stamped metal boxes)	332116	Metal Stamping
			3469	Metal Stampings, NEC (kitchen utensils, pots, and pans for cooking)	332214	Kitchen Utensil, Pot, and Pan Manufacturing
			3469	Metal Stampings, NEC (stamped metal tool, cash, mail, and lunch boxes)	332439	Other Metal Container Manufacturing
			3471	Electroplating, Plating, Polishing, Anodizing, and Coloring	332813	Electroplating, Plating, Polishing, Anodizing and Coloring
			3479	Coating, Engraving, and Allied Services, NEC (except jewelry, silverware, and flatware engraving and etching)	332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers
			3479	Coating, Engraving, and Allied Services, NEC (precious metal jewelry engraving and etching)	339911	Jewelry (except Costume) Manufacturing
			3479	Coating, Engraving, and Allied Services, NEC (silver and plated ware engraving and etching)	339912	Silverware and Holloware Manufacturing
			3479	Coating, Engraving, and Allied Services, NEC (costume jewelry engraving and etching)	339914	Costume Jewelry and Novelty Manufacturing
			3482	Small Arms Ammunition	332992	Small Arms Ammunition Manufacturing
			3483	Ammunition, Except for Small Arms	332993	Ammunition (except Small Arms) Manufacturing
			3484	Small Arms	332994	Small Arms Manufacturing
			3489	Ordnance and Accessories, NEC	332995	Other Ordnance and Accessories Manufacturing
			3491	Industrial Valves	332911	Industrial Valve Manufacturing
			3492	Fluid Power Valves and Hose Fittings	332912	Fluid Power Valve and Hose Fitting Manufacturing
			3493	Steel Springs, Except Wire	332611	Spring (Heavy Gauge) Manufacturing
			3494	Valves and Pipe Fittings, NEC (except metal pipe hangers and supports)	332919	Other Metal Valve and Pipe Fitting Manufacturing
			3494	Valves and Pipe Fittings, NEC (metal pipe hangers and supports)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
			3495	Wire Springs (except watch and clock springs)	332612	Spring (Light Gauge) Manufacturing
			3495	Wire Springs (clock and watch springs)	334518	Watch, Clock, and Part Manufacturing

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			3496	Miscellaneous Fabricated Wire Products (potato mashers)	332214	Kitchen Utensil, Pot, and Pan Manufacturing
			3496	Miscellaneous Fabricated Wire Products (except shopping carts and potato mashers)	332618	Other Fabricated Wire Product Manufacturing
			3496	Miscellaneous Fabricated Wire Products (shopping carts made from purchased wire)	333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing
			3497	Metal Foil and Leaf (laminated aluminum foil rolls and sheets for flexible packaging uses)	322225	Laminated Aluminum Foil Manufacturing for Flexible Packaging Uses
			3497	Metal Foil and Leaf (foil and foil containers)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
			3498	Fabricated Pipe and Pipe Fittings	332996	Fabricated Pipe and Pipe Fitting Manufacturing
			3499	Fabricated Metal Products, NEC (powder metallurgy)	332117	Powder Metallurgy Part Manufacturing
			3499	Fabricated Metal Products, NEC (metal boxes)	332439	Other Metal Container Manufacturing
			3499	Fabricated Metal Products, NEC (safe and vault locks)	332510	Hardware Manufacturing
			3499	Fabricated Metal Products, NEC (metal aerosol valves)	332919	Other Metal Valve and Pipe Fitting Manufacturing
			3499	Fabricated Metal Products, NEC (other metal products)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
			3499	Fabricated Metal Products, NEC (metal automobile seat frames)	336360	Motor Vehicle Seating and Interior Trim Manufacturing
			3499	Fabricated Metal Products, NEC (metal furniture frames)	337215	Showcase, Partition, Shelving, and Locker Manufacturing
			35 Industrial Machinery and Equipment			
			3511	Steam, Gas, and Hydraulic Turbines, and Turbine Generator Set Units	333611	Turbine and Turbine Generator Set Units Manufacturing
			3519	Internal Combustion Engines, NEC (except stationary engine radiators)	333618	Other Engine Equipment Manufacturing
			3519	Internal Combustion Engines, NEC (stationary engine radiators)	336399	All Other Motor Vehicle Parts Manufacturing
			3523	Farm Machinery and Equipment (hand hair clippers for animals)	332212	Hand and Edge Tool Manufacturing
			3523	Farm Machinery and Equipment (corrals, stalls, and holding gates)	332323	Ornamental and Architectural Metal Work Manufacturing
			3523	Farm Machinery and Equipment (except corrals, stalls, holding gates, hand clippers for animals, and farm conveyors/elevators)	333111	Farm Machinery and Equipment Manufacturing
			3523	Farm Machinery and Equipment (farm conveyors and elevators)	333922	Conveyor and Conveying Equipment Manufacturing
			3524	Lawn and Garden Tractors and Home Lawn and Garden Equipment (nonpowered lawnmowers)	332212	Hand and Edge Tool Manufacturing
			3524	Lawn and Garden Tractors and Home Lawn and Garden Equipment (except nonpowered lawnmowers)	333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing
			3531	Construction Machinery and Equipment (except railway track maintenance equipment; winches, aerial work platforms; and automotive wrecker hoists)	333120	Construction Machinery Manufacturing
			3531	Construction Machinery and Equipment (winches, aerial work platforms, automobile wrecker hoists, locomotive cranes, and ship cranes)	333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing
			3531	Construction Machinery and Equipment (railway track maintenance equipment)	336510	Railroad Rolling Stock Manufacturing
			3532	Mining Machinery and Equipment, Except Oil and Gas Field Machinery and Equipment	333131	Mining Machinery and Equipment Manufacturing
			3533	Oil and Gas Field Machinery and Equipment	333132	Oil and Gas Field Machinery and Equipment Manufacturing
			3534	Elevators and Moving Stairways	333921	Elevator and Moving Stairway Manufacturing
			3535	Conveyors and Conveying Equipment	333922	Conveyor and Conveying Equipment Manufacturing
			3536	Overhead Traveling Cranes, Hoists, and Monorail Systems	333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing
			3537	Industrial Trucks, Tractors, Trailers, and Stackers (metal air cargo containers)	332439	Other Metal Container Manufacturing
			3537	Industrial Trucks, Tractors, Trailers, and Stackers (metal pallets)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
			3537	Industrial Trucks, Tractors, Trailers, and Stackers (except metal pallets and metal air cargo containers)	333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing
			3541	Machine Tools, Metal Cutting Types	333512	Machine Tool (Metal Cutting Types) Manufacturing
			3542	Machine Tools, Metal Forming Type	333513	Machine Tool (Metal Forming Types) Manufacturing
			3543	Industrial Patterns	332997	Industrial Pattern Manufacturing
			3544	Special Dies and Tools, Die Sets, Jigs and Fixtures, and Industrial Molds (industrial molds)	333511	Industrial Mold Manufacturing
			3544	Special Dies and Tools, Die Sets, Jigs and Fixtures, and Industrial Molds (except molds)	333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing
			3545	Cutting Tools, Machine Tool Accessories, and Machinist Precision Measuring Devices (precision measuring devices)	332212	Hand and Edge Tool Manufacturing
			3545	Cutting Tools, Machine Tool Accessories, and Machinists' Precision Measuring Devices (except precision measuring devices)	333515	Cutting Tool and Machine Tool Accessory Manufacturing
			3546	Power-Driven Handtools	333991	Power-Driven Hand Tool Manufacturing
			3547	Rolling Mill Machinery and Equipment	333516	Rolling Mill Machinery and Equipment Manufacturing
			3548	Electric and Gas Welding and Soldering Equipment (except transformers for arc-welding)	333992	Welding and Soldering Equipment Manufacturing
			3548	Electric and Gas Welding and Soldering Equipment (transformers for arc-welders)	335311	Power, Distribution, and Specialty Transformer Manufacturing
			3549	Metalworking Machinery, NEC	333518	Other Metalworking Machinery Manufacturing
			3552	Textile Machinery	333292	Textile Machinery Manufacturing
			3553	Woodworking Machinery	333210	Sawmill and Woodworking Machinery Manufacturing
			3554	Paper Industries Machinery	333291	Paper Industry Machinery Manufacturing
			3555	Printing Trades Machinery and Equipment	333293	Printing Machinery and Equipment Manufacturing
			3556	Food Products Machinery	333294	Food Product Machinery Manufacturing
			3559	Special Industry Machinery, NEC (nuclear control rod drive mechanisms)	332410	Power Boiler and Heat Exchanger Manufacturing

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			3559	Special Industry Machinery, NEC (cotton ginning machinery)	333111	Farm Machinery and Equipment Manufacturing
			3559	Special Industry Machinery, NEC (rubber and plastics manufacturing machinery)	333220	Plastics and Rubber Industry Machinery Manufacturing
			3559	Special Industry Machinery, NEC (semiconductor machinery manufacturing)	333295	Semiconductor Machinery Manufacturing
			3559	Special Industry Machinery, NEC (except rubber and plastics manufacturing machinery, semiconductor manufacturing machinery, and automotive maintenance equipment)	333298	All Other Industrial Machinery Manufacturing
			3559	Special Industry Machinery, NEC (automotive maintenance equipment)	333319	Other Commercial and Service Industry Machinery Manufacturing
			3561	Pumps and Pumping Equipment	333911	Pump and Pumping Equipment Manufacturing
			3562	Ball and Roller Bearings	333299	Ball and Roller Bearing Manufacturing
			3563	Air and Gas Compressors	333912	Air and Gas Compressor Manufacturing
			3564	Industrial and Commercial Fans and Blowers and Air Purification Equipment (air purification equipment)	333411	Air Purification Equipment Manufacturing
			3564	Industrial and Commercial Fans and Blowers and Air Purification Equipment (fans and blowers)	333412	Industrial and Commercial Fan and Blower Manufacturing
			3565	Packaging Machinery	333993	Packaging Machinery Manufacturing
			3566	Speed Changers, Industrial High-Speed Drives, and Gears	333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing
			3567	Industrial Process Furnaces and Ovens	333994	Industrial Process Furnace and Oven Manufacturing
			3568	Mechanical Power Transmission Equipment, NEC	333613	Mechanical Power Transmission Equipment Manufacturing
			3569	General Industrial Machinery and Equipment, NEC (textile fire hose)	314999	All Other Miscellaneous Textile Product Mills
			3569	General Industrial Machinery and Equipment, NEC (electric swimming pool heaters)	333414	Heating Equipment (except Warm Air Furnaces) Manufacturing
			3569	General Industrial Machinery and Equipment, NEC (except fire hoses and electric swimming pool heaters)	333999	All Other Miscellaneous General Purpose Machinery Manufacturing
			3571	Electronic Computers	334111	Electronic Computer Manufacturing
			3572	Computer Storage Devices	334112	Computer Storage Device Manufacturing
			3575	Computer Terminals	334113	Computer Terminal Manufacturing
			3577	Computer Peripheral Equipment, NEC (except plotter controllers and magnetic tape head cleaners)	334119	Other Computer Peripheral Equipment Manufacturing
			3577	Computer Peripheral Equipment, NEC (plotter controllers)	334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing
			3577	Computer Peripheral Equipment, NEC (magnetic tape head cleaners)	334613	Magnetic and Optical Recording Media Manufacturing
			3578	Calculating and Accounting Machinery, Except Electronic Computers (change making machines)	333311	Automatic Vending Machine Manufacturing
			3578	Calculating and Accounting Machinery, Except Electronic Computers (except point of sales terminals, change making machines and funds transfer devices)	333313	Office Machinery Manufacturing
			3578	Calculating and Accounting Machines, Except Electronic Computers (point of sale terminals and fund transfer devices)	334119	Other Computer Peripheral Equipment Manufacturing
			3579	Office Machines, NEC (except timeclocks, time stamps, pencil sharpeners, stapling machines, etc.)	333313	Office Machinery Manufacturing
			3579	Office Machines, NEC (time clocks and other time recording devices)	334518	Watch, Clock, and Part Manufacturing
			3579	Office Machines, NEC (pencil sharpeners, staplers and other office equipment)	339942	Lead Pencil and Art Good Manufacturing
			3581	Automatic Vending Machines	333311	Automatic Vending Machine Manufacturing
			3582	Commercial Laundry, Drycleaning, and Pressing Machines	333312	Commercial Laundry, Drycleaning, and Pressing Machine Manufacturing
			3585	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment (except motor vehicle air-conditioning)	333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
			3585	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment (motor vehicle air-conditioning)	336391	Motor Vehicle Air-Conditioning Manufacturing
			3586	Measuring and Dispensing Pumps	333913	Measuring and Dispensing Pump Manufacturing
			3589	Service Industry Machinery, NEC	333319	Other Commercial and Service Industry Machinery Manufacturing
			3592	Carburetors, Pistons, Piston Rings, and Valves	336311	Carburetor, Piston, Piston Ring, and Valve Manufacturing
			3593	Fluid Power Cylinders and Actuators	333995	Fluid Power Cylinder and Actuator Manufacturing
			3594	Fluid Power Pumps and Motors	333996	Fluid Power Pump and Motor Manufacturing
			3596	Scales and Balances, Except Laboratory	333997	Scale and Balance (except Laboratory) Manufacturing
			3599	Industrial and Commercial Machinery and Equipment, NEC (machine shops)	332710	Machine Shops
			3599	Industrial and Commercial Machinery and Equipment, NEC (grinding castings for the trade)	332813	Electroplating, Plating, Polishing, Anodizing and Coloring
			3599	Industrial and Commercial Machinery and Equipment, NEC (flexible metal hose)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
			3599	Industrial and Commercial Machinery and Equipment, NEC (carnival amusement park equipment)	333319	Other Commercial and Service Industry Machinery Manufacturing
			3599	Industrial and Commercial Machinery and Equipment, NEC (other industrial and commercial machinery and equipment)	333999	All Other Miscellaneous General Purpose Machinery Manufacturing
			3599	Industrial and Commercial Machinery and Equipment, NEC (water leak detectors)	334519	Other Measuring and Controlling Device Manufacturing
			3599	Industrial and Commercial Machinery and Equipment, NEC (gasoline, oil, and intake filters for internal combustion engines, except for motor vehicles)	336399	All Other Motor Vehicle Parts Manufacturing
			36 Electrical and Electronic Equipment			
			3612	Power, Distribution, and Specialty Transformers	335311	Power, Distribution, and Specialty Transformer Manufacturing

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			3613	Switchgear and Switchboard Apparatus	335313	Switchgear and Switchboard Apparatus Manufacturing
			3621	Motors and Generators	335312	Motor and Generator Manufacturing
			3624	Carbon and Graphite Products	335991	Carbon and Graphite Product Manufacturing
			3625	Relays and Industrial Controls	335314	Relay and Industrial Control Manufacturing
			3629	Electrical Industrial Apparatus, NEC	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing
			3631	Household Cooking Equipment	335221	Household Cooking Appliance Manufacturing
			3632	Household Refrigerators and Home and Farm Freezers	335222	Household Refrigerator and Home Freezer Manufacturing
			3633	Household Laundry Equipment	335224	Household Laundry Equipment Manufacturing
			3634	Electric Housewares and Fans (wall and baseboard heating units for permanent installation)	333414	Heating Equipment (except Warm Air Furnaces) Manufacturing
			3634	Electric Housewares and Fans (except wall and baseboard heating units for permanent installation, electronic cigarette lighters, and wall mount restroom hand dryers)	335211	Electric Housewares and Household Fan Manufacturing
			3634	Electric Housewares and Fans (electronic cigarette lighters)	339999	All Other Miscellaneous Manufacturing
			3635	Household Vacuum Cleaners	335212	Household Vacuum Cleaner Manufacturing
			3639	Household Appliances, NEC (household sewing machines)	333298	All Other Industrial Machinery Manufacturing
			3639	Household Appliances, NEC (floor waxing and floor polishing machines)	335212	Household Vacuum Cleaner Manufacturing
			3639	Household Appliances, NEC (except floor waxing and floor polishing machines, and household sewing machines)	335228	Other Major Household Appliance Manufacturing
			3641	Electric Lamp Bulbs and Tubes	335110	Electric Lamp Bulb and Part Manufacturing
			3643	Current-Carrying Wiring Devices	335931	Current-Carrying Wiring Device Manufacturing
			3644	Noncurrent-Carrying Wiring Devices (fish wire, electrical wiring tool)	332212	Hand and Edge Tool Manufacturing
			3644	Noncurrent-Carrying Wiring Devices (except fishwire, electrical wiring tool)	335932	Noncurrent-Carrying Wiring Device Manufacturing
			3645	Residential Electric Lighting Fixtures	335121	Residential Electric Lighting Fixture Manufacturing
			3646	Commercial, Industrial, and Institutional Electric Lighting Fixtures	335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing
			3647	Vehicular Lighting Equipment	336321	Vehicular Lighting Equipment Manufacturing
			3648	Lighting Equipment, NEC	335129	Other Lighting Equipment Manufacturing
			3651	Household Audio and Video Equipment	334310	Audio and Video Equipment Manufacturing
			3652	Phonograph Records and Prerecorded Audio Tapes and Disks (reproduction of all other media except video)	334612	Prerecorded Compact Disc (except Software), Tape, and Record Reproducing
			3652	Phonograph Records and Prerecorded Audio Tapes and Disks (integrated record companies, except duplication only)	512220	Integrated Record Production/Distribution
			3661	Telephone and Telegraph Apparatus (except consumer external modems)	334210	Telephone Apparatus Manufacturing
			3661	Telephone and Telegraph Apparatus (consumer external modems)	334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing
			3663	Radio and Television Broadcasting and Communications Equipment	334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
			3669	Communications Equipment, NEC	334290	Other Communications Equipment Manufacturing
			3671	Electron Tubes	334411	Electron Tube Manufacturing
			3672	Printed Circuit Boards	334412	Bare Printed Circuit Board Manufacturing
			3674	Semiconductors and Related Devices	334413	Semiconductor and Related Device Manufacturing
			3675	Electronic Capacitors	334414	Electronic Capacitor Manufacturing
			3676	Electronic Resistors	334415	Electronic Resistor Manufacturing
			3677	Electronic Coils, Transformers, and Other Inductors	334416	Electronic Coil, Transformer, and Other Inductor Manufacturing
			3678	Electronic Connectors	334417	Electronic Connector Manufacturing
			3679	Electronic Components, NEC (antennas)	334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
			3679	Electronic Components, NEC (radio headphones)	334310	Audio and Video Equipment Manufacturing
			3679	Electronic Components, NEC (printed circuit/electronic assembly manufacturing)	334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing
			3679	Electronic Components, NEC (other electronic components)	334419	Other Electronic Component Manufacturing
			3691	Storage Batteries	335911	Storage Battery Manufacturing
			3692	Primary Batteries, Dry and Wet	335912	Primary Battery Manufacturing
			3694	Electrical Equipment for Internal Combustion Engines	336322	Other Motor Vehicle Electrical and Electronic Equipment Manufacturing
			3695	Magnetic and Optical Recording Media	334613	Magnetic and Optical Recording Media Manufacturing
			3699	Electrical Machinery, Equipment, and Supplies, NEC (electronic teaching machines and flight simulators)	333319	Other Commercial and Service Industry Machinery Manufacturing
			3699	Electrical Machinery, Equipment, and Supplies, NEC (outboard electric motors)	333618	Other Engine Equipment Manufacturing
			3699	Electrical Machinery Equipment, and Supplies, NEC (laser welding and soldering equipment)	333992	Welding and Soldering Equipment Manufacturing
			3699	Electrical Machinery, Equipment, and Supplies, NEC (Christmas tree lighting sets, electric insect lamps, electric fireplace logs, and trouble lights)	335129	Other Lighting Equipment Manufacturing
			3699	Electrical Machinery, Equipment, and Supplies, NEC (other electrical industrial apparatus)	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing
			37 Transportation Equipment			
			3711	Motor Vehicles and Passenger Car Bodies (automobiles)	336111	Automobile Manufacturing
			3711	Motor Vehicles and Passenger Car Bodies (light trucks and utility vehicles)	336112	Light Truck and Utility Vehicle Manufacturing
			3711	Motor Vehicles and Passenger Car Bodies (heavy duty trucks)	336120	Heavy Duty Truck Manufacturing
			3711	Motor Vehicles and Passenger Car Bodies (kit car and other passenger car bodies)	336211	Motor Vehicle Body Manufacturing
			3711	Motor Vehicles and Passenger Car Bodies (military armored vehicles)	336992	Military Armored Vehicle, Tank, and Tank Component Manufacturing
			3713	Truck and Bus Bodies	336211	Motor Vehicle Body Manufacturing

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			3714	Motor Vehicle Parts and Accessories (dump truck lifting mechanisms and fifth wheels)	336211	Motor Vehicle Body Manufacturing
			3714	Motor Vehicle Parts and Accessories (gasoline engines and engine parts including rebuilt)	336312	Gasoline Engine and Engine Parts Manufacturing
			3714	Motor Vehicle Parts and Accessories (wiring harness sets, other than ignition; block heaters and battery heaters; instrument board assemblies; permanent defrosters; windshield washer-wiper mechanisms; cruise control mechanisms; and other electrical equipment for internal combustion engines)	336322	Other Motor Vehicle Electrical and Electronic Equipment Manufacturing
			3714	Motor Vehicle Parts and Accessories (steering and suspension parts)	336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing
			3714	Motor Vehicle Parts and Accessories (brake and brake systems, including assemblies)	336340	Motor Vehicle Brake System Manufacturing
			3714	Motor Vehicle Parts and Accessories (transmissions and power train parts, including rebuilding)	336350	Motor Vehicle Transmission and Power Train Parts Manufacturing
			3714	Motor Vehicle Parts and Accessories (except truck and bus bodies, trailers, engine and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, and motor vehicle transmission and power train parts)	336399	All Other Motor Vehicle Parts Manufacturing
			3715	Truck Trailers	336212	Truck Trailer Manufacturing
			3716	Motor Homes	336213	Motor Home Manufacturing
			3721	Aircraft (except research and development not producing prototypes)	336411	Aircraft Manufacturing
			3721	Aircraft (research and development not producing prototypes)	541710	Research and Development in the Physical, Engineering, and Life Sciences
			3724	Aircraft Engines and Engine Parts (except research and development not producing prototypes)	336412	Aircraft Engine and Engine Parts Manufacturing
			3724	Aircraft Engines and Engine Parts (research and development not producing prototypes)	541710	Research and Development in the Physical, Engineering, and Life Sciences
			3728	Aircraft Parts and Auxiliary Equipment, NEC (fluid power aircraft subassemblies)	332912	Fluid Power Valve and Hose Fitting Manufacturing
			3728	Aircraft Parts and Auxiliary Equipment, NEC (target drones)	336411	Aircraft Manufacturing
			3728	Aircraft Parts and Auxiliary Equipment, NEC (except fluid power aircraft subassemblies, target drones, and research and development not producing prototypes)	336413	Other Aircraft Part and Auxiliary Equipment Manufacturing
			3728	Aircraft Parts and Auxiliary Equipment, NEC (research and development not producing prototypes)	541710	Research and Development in the Physical, Engineering, and Life Sciences
			3731	Ship Building and Repairing (except repairs in floating drydocks)	336611	Ship Building and Repairing
			3731	Ship Building and Repairing (repair services provided by floating drydocks)	488390	Other Support Activities for Water Transportation
			3732	Boat Building and Repairing (boat building)	336612	Boat Building
			3732	Boat Building and Repairing (pleasure boat repair)	811490	Other Personal and Household Goods Repair and Maintenance
			3743	Railroad Equipment (locomotive fuel lubricating or cooling medium pumps)	333911	Pump and Pumping Equipment Manufacturing
			3743	Railroad Equipment (except locomotive fuel lubricating or cooling medium pumps)	336510	Railroad Rolling Stock Manufacturing
			3751	Motorcycles, Bicycles, and Parts	336991	Motorcycle, Bicycle, and Parts Manufacturing
			3761	Guided Missiles and Space Vehicles (except research and development not producing prototypes)	336414	Guided Missile and Space Vehicle Manufacturing
			3761	Guided Missiles and Space Vehicles (research and development not producing prototypes)	541710	Research and Development in the Physical, Engineering, and Life Sciences
			3764	Guided Missile and Space Vehicle Propulsion Units and Propulsion Unit Parts (except research and development not producing prototypes)	336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing
			3764	Guided Missile and Space Vehicle Propulsion Units and Propulsion Unit Parts (research and development not producing prototypes)	541710	Research and Development in the Physical, Engineering, and Life Sciences
			3769	Guided Missile and Space Vehicle Parts and Auxiliary Equipment, NEC (except research and development not producing prototypes)	336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing
			3769	Guided Missile and Space Vehicle Parts and Auxiliary Equipment, NEC (research and development not producing prototypes)	541710	Research and Development in the Physical, Engineering, and Life Sciences
			3792	Travel Trailers and Campers	336214	Travel Trailer and Camper Manufacturing
			3795	Tanks and Tank Components	336992	Military Armored Vehicle, Tank, and Tank Component Manufacturing
			3799	Transportation Equipment, NEC (wheelbarrows)	333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing
			3799	Transportation Equipment, NEC (automobile, boat, utility and light truck trailers)	336214	Travel Trailer and Camper Manufacturing
			3799	Transportation Equipment, NEC (trailer hitches)	336399	All Other Motor Vehicle Parts Manufacturing
			3799	Transportation Equipment, NEC (except automobile, boat, utility light truck trailers, trailer hitches, and wheelbarrows)	336999	All Other Transportation Equipment Manufacturing
			38 Instruments and Related Products			
			3812	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical Systems and Instruments	334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
			3821	Laboratory Apparatus and Furniture	339111	Laboratory Apparatus and Furniture Manufacturing
			3822	Automatic Controls for Regulating Residential and Commercial Environments and Appliances	334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use
			3823	Industrial Instruments for Measurement, Display, and Control of Process Variables; and Related Products	334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			3824	Totalizing Fluid Meters and Counting Devices	334514	Totalizing Fluid Meter and Counting Device Manufacturing
			3825	Instruments for Measuring and Testing of Electricity and Electrical Signals (automotive ammeters and voltmeters)	334514	Totalizing Fluid Meter and Counting Device Manufacturing
			3825	Instruments for Measuring and Testing of Electricity and Electrical Signals (except automotive instruments)	334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals
			3826	Laboratory Analytical Instruments	334516	Analytical Laboratory Instrument Manufacturing
			3827	Optical Instruments and Lenses	333314	Optical Instrument and Lens Manufacturing
			3829	Measuring and Controlling Devices, NEC (motor vehicle gauges)	334514	Totalizing Fluid Meter and Counting Device Manufacturing
			3829	Measuring and Controlling Devices, NEC (electronic chronometers)	334518	Watch, Clock, and Part Manufacturing
			3829	Measuring and Controlling Devices, NEC (except medical thermometers, electronic chronometers and motor vehicle gauges)	334519	Other Measuring and Controlling Device Manufacturing
			3829	Measuring and Controlling Devices, NEC (medical thermometers)	339112	Surgical and Medical Instrument Manufacturing
			3841	Surgical and Medical Instruments and Apparatus (tranquillizer guns)	332994	Small Arms Manufacturing
			3841	Surgical and Medical Instruments and Apparatus (operating room tables)	339111	Laboratory Apparatus and Furniture Manufacturing
			3841	Surgical and Medical Instruments and Apparatus (except tranquillizer guns and operating room tables)	339112	Surgical and Medical Instrument Manufacturing
			3842	Orthopedic, Prosthetic, and Surgical Appliances and Supplies (incontinent pads and bed pads)	322291	Sanitary Paper Product Manufacturing
			3842	Orthopedic, Prosthetic, and Surgical Appliances and Supplies (electronic hearing aids)	334510	Electromedical and Electrotherapeutic Apparatus Manufacturing
			3842	Orthopedic, Prosthetic, and Surgical Appliances and Supplies (except electronic hearing aids, incontinent pads, anatomical models, and bed pads)	339113	Surgical Appliance and Supplies Manufacturing
			3842	Orthopedic, Prosthetic, and Surgical Appliances and Supplies (anatomical models)	339999	All Other Miscellaneous Manufacturing
			3843	Dental Equipment and Supplies	339114	Dental Equipment and Supplies Manufacturing
			3844	X-Ray Apparatus and Tubes and Related Irradiation Apparatus	334517	Irradiation Apparatus Manufacturing
			3845	Electromedical and Electrotherapeutic Apparatus (except CT and CAT scanners)	334510	Electromedical and Electrotherapeutic Apparatus Manufacturing
			3845	Electromedical and Electrotherapeutic Apparatus (CT and CAT Scanners)	334517	Irradiation Apparatus Manufacturing
			3851	Ophthalmic Goods (intraocular lenses, i.e., surgical implants)	339113	Surgical Appliance and Supplies Manufacturing
			3851	Ophthalmic Goods (except intraocular lenses)	339115	Ophthalmic Goods Manufacturing
			3861	Photographic Equipment and Supplies (photographic films, paper, plates and chemicals)	325992	Photographic Film, Paper, Plate, and Chemical Manufacturing
			3861	Photographic Equipment and Supplies (except photographic film, paper, plates, and chemicals)	333315	Photographic and Photocopying Equipment Manufacturing
			3873	Watches, Clocks, Clockwork Operated Devices, and Parts	334518	Watch, Clock, and Part Manufacturing
			39 Miscellaneous Manufacturing Industries			
			3911	Jewelry, Precious Metal	339911	Jewelry (except Costume) Manufacturing
			3914	Silverware, Plated Ware, and Stainless Steel Ware (cutlery and flatware, nonprecious and precious plated)	332211	Cutlery and Flatware (except Precious) Manufacturing
			3914	Silverware, Plated Ware, and Stainless Steel Ware (precious metal plated hollowware)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
			3914	Silverware, Plated Ware, and Stainless Steel Ware (except nonprecious and precious plated metal cutlery, flatware, and hollowware)	339912	Silverware and Hollowware Manufacturing
			3915	Jewelers Findings and Materials and Lapidary Work (watch jewels)	334518	Watch, Clock, and Part Manufacturing
			3915	Jewelers' Findings and Materials, and Lapidary Work (except watch jewels)	339913	Jewelers' Material and Lapidary Work Manufacturing
			3931	Musical Instruments	339992	Musical Instrument Manufacturing
			3942	Dolls and Stuffed Toys	339931	Doll and Stuffed Toy Manufacturing
			3944	Games, Toys, and Children's Vehicles, Except Dolls and Bicycles (metal tricycles)	336991	Motorcycle, Bicycle, and Parts Manufacturing
			3944	Games, Toys, and Children's Vehicles, Except Dolls and Bicycles (except metal tricycles)	339932	Game, Toy, and Children's Vehicle Manufacturing
			3949	Sporting and Athletic Goods, NEC	339920	Sporting and Athletic Goods Manufacturing
			3951	Pens, Mechanical Pencils, and Parts	339941	Pen and Mechanical Pencil Manufacturing
			3952	Lead Pencils and Art Goods (drawing inks and india ink)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing
			3952	Lead Pencils, Crayons, and Artists' Materials (drafting tables and boards)	337127	Institutional Furniture Manufacturing
			3952	Lead Pencils, Crayons, and Artists' Materials (except drawing ink, india ink, drafting tables and drafting boards)	339942	Lead Pencil and Art Good Manufacturing
			3953	Marking Devices	339943	Marking Device Manufacturing
			3955	Carbon Paper and Inked Ribbons	339944	Carbon Paper and Inked Ribbon Manufacturing
			3961	Costume Jewelry and Costume Novelties, Except Precious Metal (except cuff links)	339914	Costume Jewelry and Novelty Manufacturing
			3961	Costume Jewelry and Costume Novelties, Except Precious Metal (nonprecious cuff links)	339993	Fastener, Button, Needle, and Pin Manufacturing
			3965	Fasteners, Buttons, Needles, and Pins	339993	Fastener, Button, Needle, and Pin Manufacturing
			3991	Brooms and Brushes	339994	Broom, Brush, and Mop Manufacturing
			3993	Signs and Advertising Specialties (screen printing purchased advertising specialties)	323113	Commercial Screen Printing
			3993	Signs and Advertising Specialties (signs)	339950	Sign Manufacturing
			3995	Burial Caskets	339995	Burial Casket Manufacturing
			3996	Linoleum, Asphalted-Felt-Base, and Other Hard Surface Floor Coverings, NEC	326192	Resilient Floor Covering Manufacturing

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description				
			3999	Manufacturing Industries, NEC (fur dressing and finishing)	316110	Leather and Hide Tanning and Finishing				
			3999	Manufacturing Industries, NEC (burnt wood articles)	321999	All Other Miscellaneous Wood Product Manufacturing				
			3999	Manufacturing Industries, NEC (matches)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing				
			3999	Manufacturing Industries, NEC (plastics products such as combs, hair curlers, etc.)	326199	All Other Plastics Product Manufacturing				
			3999	Manufacturing Industries, NEC (hand operated hair clippers for humans)	332211	Cutlery and Flatware (except Precious) Manufacturing				
			3999	Manufacturing Industries, NEC (tape measures)	332212	Hand and Edge Tool Manufacturing				
			3999	Manufacturing Industries, NEC (flocking metal products for the trade)	332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers				
			3999	Manufacturing Industries, NEC (other miscellaneous metal products, such as combs, hair curlers, etc.)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing				
			3999	Manufacturing Industries, NEC (beauty and barber shop equipment, except chairs)	333319	Other Commercial and Service Industry Machinery Manufacturing				
			3999	Manufacturing Industries, NEC (lamp shades of paper or textile)	335121	Residential Electric Lighting Fixture Manufacturing				
			3999	Manufacturing Industries, NEC (electric hair clippers for humans)	335211	Electric Housewares and Household Fan Manufacturing				
			3999	Manufacturing Industries, NEC (beauty and barber chairs)	337127	Institutional Furniture Manufacturing				
			3999	Manufacturing Industries, NEC (embroidery kits)	339932	Game, Toy, and Children's Vehicle Manufacturing				
			3999	Manufacturing Industries, NEC (other miscellaneous products not specially provided for previously)	339999	All Other Miscellaneous Manufacturing				
40-49 Transportation, Communication and Utilities										
			40 Railroads							
				4011	Railroads, Line-Haul Operating	482111	Line-Haul Railroads			
				4013	Railroad Switching and Terminal Establishments (short line railroads)	482112	Short Line Railroads			
				4013	Railroad Switching and Terminal Establishments (except short line railroads)	488210	Support Activities for Rail Transportation			
			41 Local and Interurban Passenger Transit							
					4111	Local and Suburban Transit (mixed mode)	485111	Mixed Mode Transit Systems		
					4111	Local and Suburban Transit (commuter rail)	485112	Commuter Rail Systems		
					4111	Local and Suburban Transit (bus and motor vehicle)	485113	Bus and Other Motor Vehicle Transit Systems		
					4111	Local and Suburban Transit (except mixed mode, commuter rail, airport transportation service, and bus and motor vehicle)	485119	Other Urban Transit Systems		
					4111	Local and Suburban Transit (airport transportation service)	485999	All Other Transit and Ground Passenger Transportation		
					4119	Local Passenger Transportation, NEC (limousine rental with driver and automobile rental with driver)	485320	Limousine Service		
					4119	Local Passenger Transportation, NEC (employee transportation)	485410	School and Employee Bus Transportation		
					4119	Local Passenger Transportation, NEC (special needs transportation)	485991	Special Needs Transportation		
					4119	Local Passenger Transportation, NEC (hearse rental with driver and carpool and vanpool operation)	485999	All Other Transit and Ground Passenger Transportation		
					4119	Local Passenger Transportation, NEC (sightseeing buses and cable and cog railways, except scenic)	487110	Scenic and Sightseeing Transportation, Land		
					4119	Local Passenger Transportation, NEC (land ambulance)	621910	Ambulance Services		
					4121	Taxis	485310	Taxi Service		
					4131	Intercity and Rural Bus Transportation	485210	Interurban and Rural Bus Transportation		
					4141	Local Bus Charter Service	485510	Charter Bus Industry		
					4142	Bus Charter Service, Except Local	485510	Charter Bus Industry		
					4151	School Buses	485410	School and Employee Bus Transportation		
					4173	Terminal and Service Facilities for Motor Vehicle Passenger Transportation	488490	Other Support Activities for Road Transportation		
					42 Motor Freight Transportation and Warehousing					
							4212	Local Trucking Without Storage (general freight)	484110	General Freight Trucking, Local
							4212	Local Trucking Without Storage (household goods moving)	484210	Used Household and Office Goods Moving
			4212	Local Trucking Without Storage (specialized freight)			484220	Specialized Freight (except Used Goods) Trucking, Local		
			4212	Local Trucking Without Storage (solid waste collection without disposal)			562111	Solid Waste Collection		
			4212	Local Trucking Without Storage (hazardous waste collection without disposal)			562112	Hazardous Waste Collection		
			4212	Local Trucking Without Storage (other waste collection without disposal)			562119	Other Waste Collection		
			4213	Trucking, Except Local (general freight, truckload)			484121	General Freight Trucking, Long-Distance, Truckload		
			4213	Trucking, Except Local (general freight, less than truckload)			484122	General Freight Trucking, Long-Distance, Less Than Truckload		
			4213	Trucking, Except Local (household goods moving)			484210	Used Household and Office Goods Moving		
			4213	Trucking, Except Local (specialized freight)			484230	Specialized Freight (except Used Goods) Trucking, Long-Distance		
			4214	Local Trucking With Storage (general freight)			484110	General Freight Trucking, Local		
			4214	Local Trucking With Storage (household goods moving)			484210	Used Household and Office Goods Moving		
			4214	Local Trucking With Storage (specialized freight)			484220	Specialized Freight (except Used Goods) Trucking, Local		
			4215	Courier Services, Except by Air (hub and spoke intercity delivery)			492110	Couriers		
			4215	Courier Services, Except by Air (local delivery)			492210	Local Messengers and Local Delivery		
			4221	Farm Product Warehousing and Storage			493130	Farm Product Warehousing and Storage		
			4222	Refrigerated Warehousing and Storage			493120	Refrigerated Warehousing and Storage		
			4225	General Warehousing and Storage (except self-storage and miniwarehouses)			493110	General Warehousing and Storage		
			4225	General Warehousing and Storage (miniwarehouses and self-storage units)			531130	Lessors of Miniwarehouses and Self-Storage Units		
			4226	Special Warehousing and Storage, NEC (warehousing in foreign trade zones)			493110	General Warehousing and Storage		

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			4226	Special Warehousing and Storage, NEC (fur storage)	493120	Refrigerated Warehousing and Storage
			4226	Special Warehousing and Storage, NEC (except fur storage and warehousing in foreign trade zones)	493190	Other Warehousing and Storage
			4231	Terminal and Joint Terminal Maintenance Facilities for Motor Freight Transportation	488490	Other Support Activities for Road Transportation
			43 United States Postal Service			
			4311	United States Postal Service	491110	Postal Service
			44 Water Transportation			
			4412	Deep Sea Foreign Transportation of Freight	483111	Deep Sea Freight Transportation
			4424	Deep Sea Domestic Transportation of Freight	483113	Coastal and Great Lakes Freight Transportation
			4432	Freight Transportation on the Great Lakes - St. Lawrence Seaway	483113	Coastal and Great Lakes Freight Transportation
			4449	Water Transportation of Freight, NEC	483211	Inland Water Freight Transportation
			4481	Deep Sea Transportation of Passengers, Except by Ferry (deep sea activities)	483112	Deep Sea Passenger Transportation
			4481	Deep Sea Transportation of Passengers, Except by Ferry (coastal activities)	483114	Coastal and Great Lakes Passenger Transportation
			4482	Ferries (coastal and Great Lakes)	483114	Coastal and Great Lakes Passenger Transportation
			4482	Ferries (inland)	483212	Inland Water Passenger Transportation
			4489	Water Transportation of Passengers, NEC (water taxi)	483212	Inland Water Passenger Transportation
			4489	Water Transportation of Passengers, NEC (airboats, excursion boats, and sightseeing boats)	487210	Scenic and Sightseeing Transportation, Water
			4491	Marine Cargo Handling (dock and pier operations)	488310	Port and Harbor Operations
			4491	Marine Cargo Handling (all but dock and pier operations)	488320	Marine Cargo Handling
			4492	Towing and Tugboat Services	488330	Navigational Services to Shipping
			4493	Marinas	713930	Marinas
			4499	Water Transportation Services, NEC (lighterage)	483211	Inland Water Freight Transportation
			4499	Water Transportation Services, NEC (lighthouse and canal operations)	488310	Port and Harbor Operations
			4499	Water Transportation Services, NEC (piloting vessels in and out of harbors and marine salvage)	488330	Navigational Services to Shipping
			4499	Water Transportation Services, NEC (all but lighthouse operations, piloting vessels in and out of harbors, boat and ship rental, marine salvage, lighterage, marine surveyor services, and canal operations)	488390	Other Support Activities for Water Transportation
			4499	Water Transportation Services, NEC (boat and ship rental, commercial)	532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing
			4499	Water Transportation Services, NEC (marine surveying services)	541990	All Other Professional, Scientific, and Technical Services
			45 Transportation by Air			
			4512	Air Transportation, Scheduled (passenger)	481111	Scheduled Passenger Air Transportation
			4512	Air Transportation, Scheduled (freight)	481112	Scheduled Freight Air Transportation
			4513	Air Courier Services	492110	Couriers
			4522	Air Transportation, Nonscheduled (passenger)	481211	Nonscheduled Chartered Passenger Air Transportation
			4522	Air Transportation, Nonscheduled (freight)	481212	Nonscheduled Chartered Freight Air Transportation
			4522	Air Transportation, Nonscheduled (using general purpose aircraft for a variety of passenger, freight, courier, and other uses)	481219	Other Nonscheduled Air Transportation
			4522	Air Transportation, Nonscheduled (sightseeing planes)	487990	Scenic and Sightseeing Transportation, Other
			4522	Air Transportation, Nonscheduled (air ambulance)	621910	Ambulance Services
			4581	Airports, Flying Fields, and Airport Terminal Services (private air traffic control)	488111	Air Traffic Control
			4581	Airports, Flying Fields, and Airport Terminal Services (air freight handling at airports, hangar operations, airport terminal services, aircraft storage, airports, and flying fields)	488119	Other Airport Operations
			4581	Airports, Flying Fields, and Airport Terminal Services (aircraft servicing and repairing)	488190	Other Support Activities for Air Transportation
			4581	Airports, Flying Fields, and Airport Terminal Services (airplane cleaning and janitorial services)	561720	Janitorial Services
			4581	Airports, Flying Fields, and Airport Terminal Services (aircraft upholstery repair)	811420	Reupholstery and Furniture Repair
			46 Pipelines, Except Natural Gas			
			4612	Crude Petroleum Pipelines	486110	Pipeline Transportation of Crude Oil
			4613	Refined Petroleum Pipelines	486910	Pipeline Transportation of Refined Petroleum Products
			4619	Pipelines, NEC	486990	All Other Pipeline Transportation
			47 Transportation Services			
			4724	Travel Agencies	561510	Travel Agencies
			4725	Tour Operators	561520	Tour Operators
			4729	Arrangement of Passenger Transportation, NEC (arrangement of carpools and vanpools)	488999	All Other Support Activities for Transportation
			4729	Arrangement of Passenger Transportation, NEC (except arrangement of vanpools and carpools)	561599	All Other Travel Arrangement and Reservation Services
			4731	Arrangement of Transportation of Freight and Cargo (except freight rate auditors, private mail centers, and tariff consultants)	488510	Freight Transportation Arrangement
			4731	Arrangement of Transportation of Freight and Cargo (freight rate auditors and tariff consulting)	541614	Process, Physical Distribution, and Logistics Consulting Services
			4741	Rental of Railroad Cars (grain leveling in railroad cars, grain trimming for railroad equipment, precooling of fruits and vegetables in connection with transportation, and railroad car cleaning, icing, ventilating, and heating)	488210	Support Activities for Rail Transportation
			4741	Rental of Railroad Cars (rental of railroad cars)	532411	Commercial Air, Rail, and Water Transportation
			4783	Packing and Crating	488991	Packing and Crating
			4785	Fixed Facilities and Inspection and Weighing Services for Motor Vehicle Transportation (marine cargo checkers)	488390	Other Support Activities for Water Transportation

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			4785	Fixed Facilities and Inspection and Weighing Services for Motor	488490	Other Support Activities for Road Transportation
			4789	Transportation Services, NEC (horse-drawn cabs and carriages)	487110	Scenic and Sightseeing Transportation, Land
			4789	Transportation Services, NEC (car loading and unloading; cleaning of railroad ballast; dining, parlor, sleeping, and other car operations; and railroad maintenance)	488210	Support Activities for Rail Transportation
			4789	Transportation Services, NEC (pipeline terminals and stockyards for transportation)	488999	All Other Support Activities for Transportation
			4789	Transportation Services, NEC (dining car operations on a fee or contract basis)	722310	Food Service Contractors
			48 Communications			
			4812	Radiotelephone Communications (paging carriers)	517211	Paging
			4812	Radiotelephone Communications (cellular carriers)	517212	Cellular and Other Wireless Telecommunications
			4812	Radiotelephone Communications (paging and cellular resellers)	517310	Telecommunications Resellers
			4813	Telephone Communications, Except Radiotelephone (except resellers)	517110	Wired Telecommunications Carriers
			4813	Telephone Communications, Except Radiotelephone (resellers)	517310	Telecommunications Resellers
			4822	Telegraph and Other Message Communications	517110	Wired Telecommunications Carriers
			4832	Radio Broadcasting Stations (networks)	515111	Radio Networks
			4832	Radio Broadcasting Stations (except networks)	515112	Radio Stations
			4833	Television Broadcasting Stations	515120	Television Broadcasting
			4841	Cable and Other Pay Television Services (cable networks)	515210	Cable and Other Subscription Programming
			4841	Cable and Other Pay Television Services (except cable and other subscription programming)	517510	Cable and Other Program Distribution
			4899	Communications Services, NEC (radio broadcasting operated by cab companies)	485310	Taxi Service
			4899	Communications Services, NEC (ship to shore broadcasting carriers)	517212	Cellular and Other Wireless Telecommunications
			4899	Communications Services, NEC (satellite communications)	517410	Satellite Telecommunications
			4899	Communications Services, NEC (except ship to shore broadcasting, satellite communications, pay telephone concession operators)	517910	Other Telecommunications
			4899	Communications Services, NEC (pay telephone concession operators)	812990	All Other Personal Services
			49 Electric, Gas and Sanitary Services			
			4911	Electric Services (hydroelectric power generation)	221111	Hydroelectric Power Generation
			4911	Electric Services (fossil fuel power generation)	221112	Fossil Fuel Electric Power Generation
			4911	Electric Services (nuclear electric power generation)	221113	Nuclear Electric Power Generation
			4911	Electric Services (other electric power generation)	221119	Other Electric Power Generation
			4911	Electric Services (electric power transmission and control)	221121	Electric Bulk Power Transmission and Control
			4911	Electric Services (electric power distribution)	221122	Electric Power Distribution
			4922	Natural Gas Transmission	486210	Pipeline Transportation of Natural Gas
			4923	Natural Gas Transmission and Distribution (distribution)	221210	Natural Gas Distribution
			4923	Natural Gas Transmission and Distribution (transmission)	486210	Pipeline Transportation of Natural Gas
			4924	Natural Gas Distribution	221210	Natural Gas Distribution
			4925	Mixed, Manufactured, or Liquefied Petroleum Gas Production and/or Distribution	221210	Natural Gas Distribution
			4931	Electric and Other Services Combined (hydroelectric power generation)	221111	Hydroelectric Power Generation
			4931	Electric and Other Services Combined (fossil fuel power generation)	221112	Fossil Fuel Electric Power Generation
			4931	Electric and Other Services Combined (nuclear power generation)	221113	Nuclear Electric Power Generation
			4931	Electric and Other Services Combined (other electric power generation)	221119	Other Electric Power Generation
			4931	Electric and Other Services Combined (electric power transmission and control)	221121	Electric Bulk Power Transmission and Control
			4931	Electric and Other Services Combined (electric power distribution)	221122	Electric Power Distribution
			4931	Electric and Other Services Combined (natural gas distribution)	221210	Natural Gas Distribution
			4932	Gas and Other Services Combined (natural gas distribution)	221210	Natural Gas Distribution
			4939	Combination Utilities, NEC (hydroelectric power generation)	221111	Hydroelectric Power Generation
			4939	Combination Utilities, NEC (fossil fuel power generation)	221112	Fossil Fuel Electric Power Generation
			4939	Combination Utilities, NEC (nuclear power generation)	221113	Nuclear Electric Power Generation
			4939	Combination Utilities, NEC (other electric power generation)	221119	Other Electric Power Generation
			4939	Combination Utilities, NEC (electric power transmission and control)	221121	Electric Bulk Power Transmission and Control
			4939	Combination Utilities, NEC (electric power distribution)	221122	Electric Power Distribution
			4939	Combination Utilities, NEC (natural gas distribution)	221210	Natural Gas Distribution
			4941	Water Supply	221310	Water Supply and Irrigation Systems
			4952	Sewerage Systems	221320	Sewage Treatment Facilities
			4953	Refuse Systems (hazardous waste treatment and disposal)	562211	Hazardous Waste Treatment and Disposal
			4953	Refuse Systems (solid waste landfills)	562212	Solid Waste Landfill
			4953	Refuse Systems (solid waste combustors and incinerators)	562213	Solid Waste Combustors and Incinerators
			4953	Refuse Systems (other nonhazardous waste treatment and disposal)	562219	Other Nonhazardous Waste Treatment and Disposal
			4953	Refuse Systems (materials recovery facilities)	562920	Materials Recovery Facilities
			4959	Sanitary Services, NEC (vacuuming of runways)	488119	Other Airport Operations
			4959	Sanitary Services, NEC (snow plowing and sweeping streets and highways)	488490	Other Support Activities for Road Transportation
			4959	Sanitary Services, NEC (mosquito eradication)	561710	Exterminating and Pest Control Services
			4959	Sanitary Services, NEC (cleaning parking lots and driveways)	561790	Other Services to Buildings and Dwellings
			4959	Sanitary Services, NEC (remediation services)	562910	Remediation Services
			4959	Sanitary Services, NEC (all but remediation services, malaria control, mosquito eradication, snow plowing, street sweeping, and airport runway vacuuming)	562998	All Other Miscellaneous Waste Management Services
			4961	Steam and Air-Conditioning Supply	221330	Steam and Air-Conditioning Supply

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			4971	Irrigation Systems	221310	Water Supply and Irrigation Systems
	50-51 Wholesale Trade					
		50 Wholesale Trade - Durable Goods				
			5012	Automobiles and Other Motor Vehicles (merchant wholesalers)	423110	Automobile and Other Motor Vehicle Merchant Wholesalers
			5012	Automobiles and Other Motor Vehicles (business to business electronic markets)	425110	Business to Business Electronic Markets
			5012	Automobiles and Other Motor Vehicles (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5013	Motor Vehicle Supplies and New Parts (merchant wholesalers except those selling via retail method)	423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers
			5013	Motor Vehicle Supplies and New Parts (business to business electronic markets)	425110	Business to Business Electronic Markets
			5013	Motor Vehicle Supplies and New Parts (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5013	Motor Vehicle Supplies and New Parts (auto parts sold via retail method)	441310	Automotive Parts and Accessories Stores
			5014	Tires and Tubes (merchant wholesalers except those selling via retail method)	423130	Tire and Tube Merchant Wholesalers
			5014	Tires and Tubes (business to business electronic markets)	425110	Business to Business Electronic Markets
			5014	Tires and Tubes (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5014	Tires and Tubes (tires and tubes sold via retail method)	441320	Tire Dealers
			5015	Motor Vehicle Parts, Used (merchant wholesalers except those selling via retail method)	423140	Motor Vehicle Parts (Used) Merchant Wholesalers
			5015	Motor Vehicle Parts, Used (business to business electronic markets)	425110	Business to Business Electronic Markets
			5015	Motor Vehicle Parts, Used (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5015	Motor Vehicle Parts, Used (used auto parts sold via the retail method)	441310	Automotive Parts and Accessories Stores
			5021	Furniture (merchant wholesalers except those selling via retail method)	423210	Furniture Merchant Wholesalers
			5021	Furniture (business to business electronic markets)	425110	Business to Business Electronic Markets
			5021	Furniture (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5021	Furniture (furniture sold via the retail method)	442110	Furniture Stores
			5023	Home furnishings (merchant wholesalers except those selling via retail method)	423220	Home Furnishing Merchant Wholesalers
			5023	Home furnishings (business to business electronic markets)	425110	Business to Business Electronic Markets
			5023	Home furnishings (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5023	Home furnishings (floor coverings sold via retail method)	442210	Floor Covering Stores
			5031	Lumber, Plywood, Millwork, and Wood Panels (merchant wholesalers)	423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers
			5031	Lumber, Plywood, Millwork, and Wood Panels (business to business electronic markets)	425110	Business to Business Electronic Markets
			5031	Lumber, Plywood, Millwork, and Wood Panels (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5031	Lumber, Plywood, Millwork, and Wood Panels (sold via retail method)	444110	Home Centers
			5032	Brick, Stone, and Related Construction Materials (merchant wholesalers except construction materials sold via retail method)	423320	Brick, Stone, and Related Construction Material Merchant Wholesalers
			5032	Brick, Stone, and Related Construction Materials (business to business electronic markets)	425110	Business to Business Electronic Markets
			5032	Brick, Stone, and Related Construction Materials (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5032	Brick, Stone, and Related Construction Materials (brick, stone, and related construction materials sold via retail method)	444190	Other Building Material Dealers
			5033	Roofing, Siding, and Insulation Materials (merchant wholesalers except those selling via retail method)	423330	Roofing, Siding, and Insulation Material Merchant Wholesalers
			5033	Roofing, Siding, and Insulation Materials (business to business electronic markets)	425110	Business to Business Electronic Markets
			5033	Roofing, Siding, and Insulation Materials (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5033	Roofing, Siding, and Insulation Materials (roofing, siding, and insulation materials sold via retail method)	444190	Other Building Material Dealers
			5039	Construction Materials, NEC (merchant wholesalers of prefabricated buildings and structural assemblies, wood)	423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers
			5039	Construction Materials, NEC (merchant wholesalers of construction materials, nec except wood prefabricated buildings and structural assemblies and merchant wholesalers selling via retail method)	423390	Other Construction Material Merchant Wholesalers
			5039	Construction Materials, NEC (business to business electronic markets)	425110	Business to Business Electronic Markets
			5039	Construction Materials, NEC (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5039	Construction Materials, NEC (glass sold via retail method)	444190	Other Building Material Dealers
			5043	Photographic Equipment and Supplies (merchant wholesalers)	423410	Photographic Equipment and Supplies Merchant Wholesalers
			5043	Photographic Equipment and Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5043	Photographic Equipment and Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5044	Office Equipment (merchant wholesalers except those selling office equipment via retail method)	423420	Office Equipment Merchant Wholesalers
			5044	Office Equipment (business to business electronic markets)	425110	Business to Business Electronic Markets
			5044	Office Equipment (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5044	Office Equipment (office equipment sold via retail method)	453210	Office Supplies and Stationary Stores
			5045	Computers and Computer Peripheral Equipment and Software (merchant wholesalers except those selling computers, equipment, and software via retail method)	423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers
			5045	Computers and Computer Peripheral Equipment and Software (business to business electronic markets)	425110	Business to Business Electronic Markets

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			5045	Computers and Computer Peripheral Equipment and Software (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5045	Computers and Computer Peripheral Equipment and Software (computers, peripherals, and software sold via retail method)	443120	Computer and Software Stores
			5046	Commercial Equipment, NEC (merchant wholesalers)	423440	Other Commercial Equipment Merchant Wholesalers
			5046	Commercial Equipment, NEC (business to business electronic markets)	425110	Business to Business Electronic Markets
			5046	Commercial Equipment, NEC (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5047	Medical, Dental and Hospital Equipment and Supplies (merchant wholesalers except those selling medical, dental, and hospital equipment and supplies via retail method)	423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers
			5047	Medical, Dental and Hospital Equipment and Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5047	Medical, Dental and Hospital Equipment and Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5047	Medical, Dental, and Hospital Equipment and Supplies (medical, dental, and hospital equipment and supplies sold via retail method)	446199	All Other Health and Personal Care Stores
			5048	Ophthalmic Goods (merchant wholesalers)	423460	Ophthalmic Goods Merchant Wholesalers
			5048	Ophthalmic Goods (business to business electronic markets)	425110	Business to Business Electronic Markets
			5048	Ophthalmic Goods (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5049	Professional Equipment and Supplies, NEC (merchant wholesalers except those selling religious and teacher's school supplies via retail method)	423490	Other Professional Equipment and Supplies Merchant Wholesalers
			5049	Professional Equipment and Supplies, NEC (business to business electronic markets)	425110	Business to Business Electronic Markets
			5049	Professional Equipment and Supplies, NEC (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5049	Professional Equipment and Supplies, NEC (religious and teacher's school supplies sold via retail method)	453210	Office Supplies and Stationery Stores
			5051	Metals Service Centers and Offices (merchant wholesalers)	423510	Metal Service Centers and Other Metal Merchant Wholesalers
			5051	Metals Service Centers and Offices (business to business electronic markets)	425110	Business to Business Electronic Markets
			5051	Metals Service Centers and Offices (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5052	Coal and Other Minerals and Ores (merchant wholesalers)	423520	Coal and Other Mineral and Ore Merchant Wholesalers
			5052	Coal and Other Minerals and Ores (business to business electronic markets)	425110	Business to Business Electronic Markets
			5052	Coal and Other Minerals and Ores (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5063	Electrical Apparatus and Equipment, Wiring Supplies and Construction Materials (merchant wholesalers except those selling electrical supplies, equipment, and apparatus via retail method)	423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers
			5063	Electrical Apparatus and Equipment, Wiring Supplies and Construction Materials (business to business electronic markets)	425110	Business to Business Electronic Markets
			5063	Electrical Apparatus and Equipment, Wiring Supplies and Construction Materials (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5063	Electrical Apparatus and Equipment, Wiring Supplies, and Construction Materials (electrical supplies, equipment, and apparatus sold via retail method)	444190	Other Building Material Dealers
			5064	Electrical Appliances, Television and Radio Sets (merchant wholesalers except those selling appliances, TVs, and radios via retail method)	423620	Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers
			5064	Electrical Appliances, Television and Radio Sets (business to business electronic markets)	425110	Business to Business Electronic Markets
			5064	Electrical Appliances, Television and Radio Sets (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5064	Electrical Appliances, Television and Radio Sets (household appliances sold via retail method)	443111	Household Appliance Stores
			5064	Electrical Appliances, Television and Radio Sets (television and radio sets sold via retail method)	443112	Radio, Television, and Other Electronics Stores
			5064	Electrical Appliances, Television and Radio Sets (ceiling fans sold via retail method)	444190	Other Building Material Dealers
			5065	Electronic Parts and Equipment, NEC (merchant wholesalers except those selling electronic parts and equipment via retail method)	423690	Other Electronic Parts and Equipment Merchant Wholesalers
			5065	Electronic Parts and Equipment, NEC (business to business electronic markets)	425110	Business to Business Electronic Markets
			5065	Electronic Parts and Equipment, NEC (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5065	Electronic Parts and Equipment, NEC (amateur radios, CB's, intercommunications equipment, public address equipment, and similar communications equipment sold via retail method)	443112	Radio, Television, and Other Electronics Stores
			5065	Electronic Parts and Equipment, NEC (modems and other computer components sold via retail method)	443120	Computer and Software Stores
			5072	Hardware (merchant wholesalers except those selling hardware via retail method)	423710	Hardware Merchant Wholesalers
			5072	Hardware (business to business electronic markets)	425110	Business to Business Electronic Markets
			5072	Hardware (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5072	Hardware (hardware sold via retail method)	444130	Hardware Stores
			5074	Plumbing and Heating Equipment and Supplies (Hydronics) (merchant wholesalers except those selling plumbing and hydronic heating equipment via retail method)	423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers
			5074	Plumbing and Heating Equipment and Supplies (Hydronics) (business to business electronic markets)	425110	Business to Business Electronic Markets
			5074	Plumbing and Heating Equipment and Supplies (Hydronics) (agents and brokers)	425120	Wholesale Trade Agents and Brokers

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			5074	Plumbing and Heating Equipment and Supplies (Hydronics)(plumbing and hydronic heating equipment sold via retail method)	444190	Other Building Material Dealers
			5075	Warm Air Heating and Air-Conditioning Equipment and Supplies (merchant wholesalers)	423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers
			5075	Warm Air Heating and Air-Conditioning Equipment and Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5075	Warm Air Heating and Air-Conditioning Equipment and Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5078	Refrigeration Equipment and Supplies (merchant wholesalers)	423740	Refrigeration Equipment and Supplies Merchant Wholesalers
			5078	Refrigeration Equipment and Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5078	Refrigeration Equipment and Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5082	Construction and Mining (Except Petroleum) Machinery and Equipment (merchant wholesalers)	423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers
			5082	Construction and Mining (Except Petroleum) Machinery and Equipment (business to business electronic markets)	425110	Business to Business Electronic Markets
			5082	Construction and Mining (Except Petroleum) Machinery and Equipment (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5083	Farm and Garden Machinery and Equipment (merchant wholesalers except those selling lawn and garden equipment via retail method)	423820	Farm and Garden Machinery and Equipment Merchant Wholesalers
			5083	Farm and Garden Machinery and Equipment (business to business electronic markets)	425110	Business to Business Electronic Markets
			5083	Farm and Garden Machinery and Equipment (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5083	Farm and Garden Machinery and Equipment (lawn and garden equipment sold via retail method)	444210	Outdoor Power Equipment Stores
			5084	Industrial Machinery and Equipment (merchant wholesalers)	423830	Industrial Machinery and Equipment Merchant Wholesalers
			5084	Industrial Machinery and Equipment (business to business electronic markets)	425110	Business to Business Electronic Markets
			5084	Industrial Machinery and Equipment (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5085	Industrial Supplies (merchant wholesalers of fluid power accessories)	423830	Industrial Machinery and Equipment Merchant Wholesalers
			5085	Industrial Supplies (merchant wholesalers of industrial supplies except fluid power accessories and merchant wholesalers selling industrial supplies via retail method)	423840	Industrial Supplies Merchant Wholesalers
			5085	Industrial Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5085	Industrial Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5085	Industrial Supplies (sold via retail method)	453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)
			5087	Service Establishment Equipment and Supplies (merchant wholesalers except those selling beauty and barber shop equipment and supplies via retail method)	423850	Service Establishment Equipment and Supplies Merchant Wholesalers
			5087	Service Establishment Equipment and Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5087	Service Establishment Equipment and Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5087	Service Establishment Equipment and Supplies (beauty and barber shop equipment and supplies sold via retail method)	446120	Cosmetics, Beauty Supplies, and Perfume Stores
			5088	Transportation Equipment and Supplies, Except Motor Vehicles (merchant wholesalers)	423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers
			5088	Transportation Equipment and Supplies, Except Motor Vehicles (business to business electronic markets)	425110	Business to Business Electronic Markets
			5088	Transportation Equipment and Supplies, Except Motor Vehicles (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5091	Sporting and Recreational Goods and Supplies (merchant wholesalers except those selling sporting and recreational goods via retail method)	423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers
			5091	Sporting and Recreational Goods and Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5091	Sporting and Recreational Goods and Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5091	Sporting and Recreational Goods and Supplies (sporting and recreational goods sold via retail method)	451110	Sporting Goods Stores
			5092	Toys and Hobby Goods and Supplies (merchant wholesalers except those selling toys and hobby goods and supplies via retail method)	423920	Toy and Hobby Goods and Supplies Merchant Wholesalers
			5092	Toys and Hobby Goods and Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5092	Toys and Hobby Goods and Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5092	Toys and Hobby Goods and Supplies (toys and hobby goods and supplies sold via retail method)	451120	Hobby, Toy, and Game Stores
			5093	Scrap and Waste Materials (merchant wholesalers)	423930	Recyclable Material Merchant Wholesalers
			5093	Scrap and Waste Materials (business to business electronic markets)	425110	Business to Business Electronic Markets
			5093	Scrap and Waste Materials (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5094	Jewelry, Watches, Precious Stones, and Precious Metals (merchant wholesalers except those selling jewelry and related goods via retail method)	423940	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
			5094	Jewelry, Watches, Precious Stones, and Precious Metals (business to business electronic markets)	425110	Business to Business Electronic Markets
			5094	Jewelry, Watches, Precious Stones, and Precious Metals (agents and brokers)	425120	Wholesale Trade Agents and Brokers

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			5094	Jewelry, Watches, Precious Stones, and Precious Metals (jewelry and related goods sold via retail method)	448310	Jewelry Stores
			5099	Durable Goods, NEC (merchant wholesalers except those selling miscellaneous durable goods via retail method)	423990	Other Miscellaneous Durable Goods Merchant Wholesalers
			5099	Durable Goods, NEC (business to business electronic markets)	425110	Business to Business Electronic Markets
			5099	Durable Goods, NEC (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5099	Durable Goods, NEC (gas lighting fixtures, rough timbers, and other wood or construction materials sold via retail method)	444190	Other Building Material Dealers
			5099	Durable Goods, NEC (ammunition and firearms sold via retail method)	451110	Sporting Goods Stores
			5099	Durable Goods, NEC (coin-operated game machines sold via retail method)	451120	Hobby, Toy, and Game Stores
			5099	Durable Goods, NEC (prerecorded audio and video tapes and discs sold via retail method)	451220	Prerecorded Tape, Compact Disc, and Record Stores
			51 Wholesale Trade - Nondurable Goods			
			5111	Printing and Writing Paper (merchant wholesalers except those selling printing and writing paper via retail method)	424110	Printing and Writing Paper Merchant Wholesalers
			5111	Printing and Writing Paper (business to business electronic markets)	425110	Business to Business Electronic Markets
			5111	Printing and Writing Paper (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5111	Printing and Writing Paper (printing and writing paper sold via retail method)	453210	Office Supplies and Stationery Stores
			5112	Stationery and Office Supplies (merchant wholesalers except those selling stationery and office supplies via retail method)	424120	Stationery and Office Supplies Merchant Wholesalers
			5112	Stationery and Office Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5112	Stationery and Office Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5112	Stationery and Office Supplies (stationery and office supplies sold via retail method)	453210	Office Supplies and Stationery Stores
			5113	Industrial and Personal Service Paper (merchant wholesalers except those selling industrial and personal service paper via retail method)	424130	Industrial and Personal Service Paper Merchant Wholesalers
			5113	Industrial and Personal Service Paper (business to business electronic markets)	425110	Business to Business Electronic Markets
			5113	Industrial and Personal Service Paper (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5113	Industrial and Personal Service Paper (industrial and personal service paper sold via retail method)	453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)
			5122	Drugs, Drug Proprietaries, and Druggists' Sundries (merchant wholesalers except those selling drugs and sundries via retail method)	424210	Drugs and Druggists' Sundries Merchant Wholesalers
			5122	Drugs, Drug Proprietaries, and Druggists' Sundries (business to business electronic markets)	425110	Business to Business Electronic Markets
			5122	Drugs, Drug Proprietaries, and Druggists' Sundries (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5122	Drugs, Drug Proprietaries, and Druggists' Sundries (drugs and sundries sold via retail method)	446110	Pharmacies and Drug Stores
			5122	Drugs, Drug Proprietaries, and Druggists' Sundries (cosmetics sold via retail method)	446120	Cosmetics, Beauty Supplies, and Perfume Stores
			5122	Drugs, Drug Proprietaries, and Druggists' Sundries (vitamins sold via retail method)	446191	Food (Health) Supplement Stores
			5131	Piece Goods, Notions, and Other Dry Goods (broadwoven converters)	313311	Broadwoven Fabric Finishing Mills
			5131	Piece Goods, Notions, and Other Dry Goods (piece goods converters, except broadwoven)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills
			5131	Piece Goods, Notions, and Other Dry Goods (merchant wholesalers except broadwoven and piece goods converters and merchant wholesalers selling piece goods, notions and other dry goods via retail method)	424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers
			5131	Piece Goods, Notions, and Other Dry Goods (business to business electronic markets)	425110	Business to Business Electronic Markets
			5131	Piece Goods, Notions, and Other Dry Goods (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5131	Piece Goods, Notions, and Other Dry Goods (piece goods, notions, and other dry goods sold via retail method)	451130	Sewing, Needlework, and Piece Goods Stores
			5136	Men's and Boys' Clothing and Furnishings (merchant wholesalers of athletic uniforms)	423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers
			5136	Men's and Boys' Clothing and Furnishings (merchant wholesalers except wholesaling athletic uniforms and uniforms and merchant wholesalers selling work clothing via retail method)	424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers
			5136	Men's and Boys' Clothing and Furnishings (business to business electronic markets)	425110	Business to Business Electronic Markets
			5136	Men's and Boys' Clothing and Furnishings (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5136	Men's and Boys' Clothing and Furnishings (men's and boys' apparel, except uniforms and work clothing, sold via retail method)	448110	Men's Clothing Stores
			5136	Men's and Boys' Clothing and Furnishings (uniforms and work clothing sold via retail method)	448190	Other Clothing Stores
			5137	Women's, Children's and Infants' Clothing and Accessories (merchant wholesalers of athletic uniforms)	423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers
			5137	Women's, Children's, and Infants' Clothing and Accessories (merchant wholesalers except wholesaling athletic uniforms and uniforms and merchant wholesalers selling work clothing via retail method)	424330	Women's, Children's, and Infants' Clothing and Accessories Merchant Wholesalers
			5137	Women's, Children's, and Infants' Clothing and Accessories (business to business electronic markets)	425110	Business to Business Electronic Markets

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			5137	Women's, Children's, and Infants' Clothing and Accessories (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5137	Women's, Children's, and Infants' Clothing and Accessories (selling a general line of womens clothing via retail method)	448120	Women's Clothing Stores
			5137	Women's, Children's and Infants' Clothing and Accessories (selling a general line of children's and infants' clothing via retail method)	448130	Children's and Infants' Clothing Stores
			5137	Women's, Children's, and Infants' Clothing and Accessories (uniforms and work clothing sold via retail method)	448190	Other Clothing Stores
			5139	Footwear (merchant wholesalers except those selling footwear via retail method)	424340	Footwear Merchant Wholesalers
			5139	Footwear (business to business electronic markets)	425110	Business to Business Electronic Markets
			5139	Footwear (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5139	Footwear (footwear sold via retail method)	448210	Shoe Stores
			5141	Groceries, General Line (merchant wholesalers except those selling general line groceries via retail method)	424410	General Line Grocery Merchant Wholesalers
			5141	Groceries, General Line (business to business electronic markets)	425110	Business to Business Electronic Markets
			5141	Groceries, General Line (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5141	Groceries, General Line (general line groceries sold via retail method)	445110	Supermarkets and Other Grocery (except Convenience) Stores
			5142	Packaged Frozen Foods (merchant wholesalers except those selling packaged frozen foods via retail method)	424420	Packaged Frozen Food Merchant Wholesalers
			5142	Packaged Frozen Foods (business to business electronic markets)	425110	Business to Business Electronic Markets
			5142	Packaged Frozen Foods (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5142	Packaged Frozen Foods (frozen food sold via retail method)	454390	Other Direct Selling Establishments
			5143	Dairy Products, Except Dried or Canned (merchant wholesalers except those selling dairy products via retail method)	424430	Dairy Product (except Dried or Canned) Merchant Wholesalers
			5143	Dairy Products, Except Dried or Canned (business to business electronic markets)	425110	Business to Business Electronic Markets
			5143	Dairy Products, Except Dried or Canned (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5143	Dairy Products, Except Dried or Canned (dairy products sold via retail method)	445299	All Other Specialty Food Stores
			5144	Poultry and Poultry Products (merchant wholesalers except those selling poultry and poultry products via retail method)	424440	Poultry and Poultry Product Merchant Wholesalers
			5144	Poultry and Poultry Products (business to business electronic markets)	425110	Business to Business Electronic Markets
			5144	Poultry and Poultry Products (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5144	Poultry and Poultry Products (poultry and poultry products sold via retail method)	445210	Meat Markets
			5145	Confectionery (merchant wholesalers except those selling confectionery via retail method)	424450	Confectionery Merchant Wholesalers
			5145	Confectionery (business to business electronic markets)	425110	Business to Business Electronic Markets
			5145	Confectionery (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5145	Confectionery (confectionery sold via retail method)	445292	Confectionery and Nut Stores
			5146	Fish and Seafoods (merchant wholesalers except those selling fish and seafoods via retail method)	424460	Fish and Seafood Merchant Wholesalers
			5146	Fish and Seafoods (business to business electronic markets)	425110	Business to Business Electronic Markets
			5146	Fish and Seafoods (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5146	Fish and Seafoods (fish and seafoods sold via retail method)	445220	Fish and Seafood Markets
			5147	Meats and Meat Products (boxed beef)	311612	Meat Processed from Carcasses
			5147	Meats and Meat Products (merchant wholesalers except boxed beef manufacturers and merchant wholesalers selling meats and meat products via retail method)	424470	Meat and Meat Product Merchant Wholesalers
			5147	Meats and Meat Products (business to business electronic markets)	425110	Business to Business Electronic Markets
			5147	Meats and Meat Products (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5147	Meat and Meat Products (meat and meat products sold via retail method)	445210	Meat Markets
			5148	Fresh Fruits and Vegetables (merchant wholesalers except those selling fresh fruits and vegetables via retail method)	424480	Fresh Fruit and Vegetable Merchant Wholesalers
			5148	Fresh Fruits and Vegetables (business to business electronic markets)	425110	Business to Business Electronic Markets
			5148	Fresh Fruits and Vegetables (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5148	Fresh Fruits and Vegetables (fresh fruits and vegetables sold via retail method)	445230	Fruit and Vegetable Markets
			5149	Groceries and Related Products, NEC (processed bottled water manufacturing)	312112	Bottled Water Manufacturing
			5149	Groceries and Related Products, NEC (merchant wholesalers except processed bottled water manufacturing and merchant wholesalers selling groceries and related products via retail method)	424490	Other Grocery and Related Products Merchant Wholesalers
			5149	Groceries and Related Products, NEC (business to business electronic markets)	425110	Business to Business Electronic Markets
			5149	Groceries and Related Products, NEC (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5149	Groceries and Related Products, NEC (groceries and related products, except pet food, sold via retail method)	445299	All Other Specialty Food Stores
			5149	Groceries and Related Products, NEC (pet food sold via retail method)	453910	Pet and Pet Supplies Stores
			5153	Grain and Field Beans (merchant wholesalers except those selling grains and field beans via retail method)	424510	Grain and Field Bean Merchant Wholesalers
			5153	Grain and Field Beans (business to business electronic markets)	425110	Business to Business Electronic Markets
			5153	Grain and Field Beans (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5153	Grain and Field Beans (grain and field beans sold via retail method)	444220	Nurseries, Garden Centers, and Farm Supply Stores
			5154	Livestock (merchant wholesalers)	424520	Livestock Merchant Wholesalers

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			5154	Livestock (business to business electronic markets)	425110	Business to Business Electronic Markets
			5154	Livestock (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5159	Farm-Product Raw Materials, NEC (merchant wholesalers except those selling farm product raw materials, nec via retail method)	424590	Other Farm Product Raw Material Merchant Wholesalers
			5159	Farm-Product Raw Materials, NEC (business to business electronic markets)	425110	Business to Business Electronic Markets
			5159	Farm-Product Raw Materials, NEC (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5159	Farm-Product Raw Materials, NEC (farm-product raw materials sold via retail method)	444220	Nurseries, Garden Centers, and Farm Supply Stores
			5162	Plastics Materials and Basic Forms and Shapes (merchant wholesalers except those selling plastics via retail method)	424610	Plastics Materials and Basic Forms and Shapes Merchant Wholesalers
			5162	Plastics Materials and Basic Forms and Shapes (business to business electronic markets)	425110	Business to Business Electronic Markets
			5162	Plastics Materials and Basic Forms and Shapes (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5162	Plastics Materials and Basic Forms and Shapes (plastics materials, forms, and basic shapes sold via retail method)	453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)
			5169	Chemicals and Allied Products, NEC (merchant wholesalers)	424690	Other Chemical and Allied Products Merchant Wholesalers
			5169	Chemicals and Allied Products, NEC (business to business electronic markets)	425110	Business to Business Electronic Markets
			5169	Chemicals and Allied Products, NEC (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5171	Petroleum Bulk Stations and Terminals (except petroleum sold via retail method)	424710	Petroleum Bulk Stations and Terminals
			5171	Petroleum Bulk Stations and Terminals (heating oil sold to final consumer)	454311	Heating Oil Dealers
			5171	Petroleum Bulk Stations and Terminals (LP gas sold to final consumer)	454312	Liquefied Petroleum Gas (Bottled Gas) Dealers
			5172	Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (merchant wholesalers)	424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
			5172	Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (business to business electronic markets)	425110	Business to Business Electronic Markets
			5172	Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5181	Beer and Ale (merchant wholesalers except those selling beer and ale via retail method)	424810	Beer and Ale Merchant Wholesalers
			5181	Beer and Ale (business to business electronic markets)	425110	Business to Business Electronic Markets
			5181	Beer and Ale (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5181	Beer and Ale (beer and ale sold via retail method)	445310	Beer, Wine, and Liquor Stores
			5182	Wine and Distilled Alcoholic Beverages (merchant wholesalers except those selling wine and distilled beverages via retail method)	424820	Wine and Distilled Alcoholic Beverage Merchant Wholesalers
			5182	Wine and Distilled Alcoholic Beverages (business to business electronic markets)	425110	Business to Business Electronic Markets
			5182	Wine and Distilled Alcoholic Beverages (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5182	Wine and Distilled Alcoholic Beverages (wine and distilled alcoholic beverages sold via retail method)	445310	Beer, Wine, and Liquor Stores
			5191	Farm Supplies (merchant wholesalers except those selling lawn and garden supplies via retail method)	424910	Farm Supplies Merchant Wholesalers
			5191	Farm Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5191	Farm Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5191	Farm Supplies (lawn and garden supplies sold via retail method)	444220	Nurseries, Garden Centers, and Farm Supply Stores
			5192	Books, Periodicals, and Newspapers (merchant wholesalers except those selling publications via retail method)	424920	Book, Periodical, and Newspaper Merchant Wholesalers
			5192	Books, Periodicals, and Newspapers (business to business electronic markets)	425110	Business to Business Electronic Markets
			5192	Books, Periodicals, and Newspapers (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5192	Books, Periodicals, and Newspapers (sold via retail method)	451211	Book Stores
			5193	Flowers, Nursery Stock, and Florists' Supplies (merchant wholesalers except those selling nursery stock via retail method)	424930	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers
			5193	Flowers, Nursery Stock, and Florists' Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5193	Flowers, Nursery Stock, and Florists' Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5193	Flowers, Nursery Stock, and Florists' Supplies (sold via retail method)	444220	Nurseries, Garden Centers, and Farm Supply Stores
			5194	Tobacco and Tobacco Products (merchant wholesalers except those selling tobacco and tobacco products via retail method)	424940	Tobacco and Tobacco Product Merchant Wholesalers
			5194	Tobacco and Tobacco Products (business to business electronic markets)	425110	Business to Business Electronic Markets
			5194	Tobacco and Tobacco Products (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5194	Tobacco and Tobacco Products (sold via retail method)	453991	Tobacco Stores
			5198	Paints, Varnishes, and Supplies (merchant wholesalers)	424950	Paint, Varnish, and Supplies Merchant Wholesalers
			5198	Paints, Varnishes, and Supplies (business to business electronic markets)	425110	Business to Business Electronic Markets
			5198	Paints, Varnishes, and Supplies (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5199	Nondurable Goods, NEC (merchant wholesalers of yarns, except industrial)	424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers
			5199	Nondurable Goods, NEC (merchant wholesalers of footwear cutstock)	424340	Footwear Merchant Wholesalers
			5199	Nondurable Goods, NEC (merchant wholesalers of plastics foam)	424610	Plastics Materials and Basic Forms and Shapes Merchant Wholesalers

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			5199	Nondurable Goods, NEC (merchant wholesalers except advertising specialties goods distributors, wholesaling footwear cutstock, wholesaling plastics foam, wholesaling industrial yarns and merchant wholesalers selling miscellaneous nondurable goods via the retail method)	424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers
			5199	Nondurable Goods, NEC (business to business electronic markets)	425110	Business to Business Electronic Markets
			5199	Nondurable Goods, NEC (agents and brokers)	425120	Wholesale Trade Agents and Brokers
			5199	Nondurable Goods, NEC (curios, statuary, gifts, novelties, and souvenirs sold via retail method)	453220	Gift, Novelty, and Souvenir Stores
			5199	Nondurable Goods, NEC (pets, pet supplies and tropical fish sold via retail method)	453910	Pet and Pet Supplies Stores
			5199	Nondurable Goods, NEC (smokers' supplies sold via retail method)	453991	Tobacco Stores
			5199	Nondurable Goods, NEC (advertising specialties goods distributors)	541890	Other Services Related to Advertising

Retail

52-59 Retail Trade						
52 Building Materials, Hardware, Garden Supply and Mobile Home Dealers						
			5211	Lumber and Other Building Materials Dealers (home center stores)	444110	Home Centers
			5211	Lumber and Other Building Materials Dealers (except home center stores)	444190	Other Building Material Dealers
			5231	Paint, Glass, and Wallpaper Stores (except glass)	444120	Paint and Wallpaper Stores
			5231	Paint, Glass, and Wallpaper Stores (glass)	444190	Other Building Material Dealers
			5251	Hardware Stores	444130	Hardware Stores
			5261	Retail Nurseries, Lawn and Garden Supply Stores (outdoor power equipment)	444210	Outdoor Power Equipment Stores
			5261	Retail Nurseries, Lawn and Garden Supply Stores (except outdoor power equipment)	444220	Nurseries, Garden Centers, and Farm Supply Stores
			5271	Mobile Home Dealers	453930	Manufactured (Mobile) Home Dealers
53 General Merchandise Stores						
			5311	Department Stores (except discount department stores and supercenters-general merchandise and groceries)	452111	Department Stores (except Discount Department Stores)
			5311	Department Stores (discount department stores)	452112	Discount Department Stores
			5331	Variety Stores	452990	All Other General Merchandise Stores
			5399	Miscellaneous General Merchandise Stores (warehouse clubs and supermarket/general merchandise combination)	452910	Warehouse Clubs and Supercenters
			5399	Miscellaneous General Merchandise Stores (except warehouse club and supermarket/general merchandise combination)	452990	All Other General Merchandise Stores
54 Food Stores						
			5411	Grocery Stores (except convenience stores, freezer plans, and grocery stores with substantial general merchandise)	445110	Supermarkets and Other Grocery (except Convenience) Stores
			5411	Grocery Stores (convenience stores without gas)	445120	Convenience Stores
			5411	Grocery Stores (convenience store with gas)	447110	Gasoline Stations with Convenience Stores
			5411	Grocery Stores (grocery stores and supermarkets selling substantial amounts of nonfood items)	452910	Warehouse Clubs and Supercenters
			5411	Grocery Stores (frozen food and freezer plan providers)	454390	Other Direct Selling Establishments
			5421	Meat and Fish (Seafood) Markets, Including Freezer Provisioners (meat except freezer provisioners)	445210	Meat Markets
			5421	Meat and Fish (Seafood) Markets, Including Freezer Provisioners (seafood)	445220	Fish and Seafood Markets
			5421	Meat and Fish (Seafood) Markets, Including Freezer Provisioners (freezer provisioners)	454390	Other Direct Selling Establishments
			5431	Fruit and Vegetable Markets (except temporary fruit and vegetable stands)	445230	Fruit and Vegetable Markets
			5431	Fruit and Vegetable Markets (temporary fruit and vegetable stands)	454390	Other Direct Selling Establishments
			5441	Candy, Nut, and Confectionery Stores (chocolate candy stores, preparing on premises)	311330	Confectionery Manufacturing from Purchased Chocolate
			5441	Candy, Nut, and Confectionery Stores (nonchocolate candy stores, preparing on premises)	311340	Nonchocolate Confectionery Manufacturing
			5441	Candy, Nut, and Confectionery Stores (except stores preparing candy on premises)	445292	Confectionery and Nut Stores
			5451	Dairy Products Stores	445299	All Other Specialty Food Stores
			5461	Retail Bakeries (bread, cake and related products baked and sold on premise)	311811	Retail Bakeries
			5461	Retail Bakeries (selling only)	445291	Baked Goods Stores
			5461	Retail Bakeries (snacks)	722213	Snack and Nonalcoholic Beverage Bars
			5499	Miscellaneous Food Stores (poultry and poultry products)	445210	Meat Markets
			5499	Miscellaneous Food Stores (except food supplement stores and poultry stores)	445299	All Other Specialty Food Stores
			5499	Miscellaneous Food Stores (food supplements)	446191	Food (Health) Supplement Stores
55 Automotive Dealers and Gasoline Service Stations						
			5511	Motor Vehicle Dealers (New and Used)	441110	New Car Dealers
			5521	Motor Vehicle Dealers (Used Only)	441120	Used Car Dealers
			5531	Auto and Home Supply Stores (auto supply stores)	441310	Automotive Parts and Accessories Stores
			5531	Auto and Home Supply Stores (tires and tubes)	441320	Tire Dealers
			5531	Auto and Home Supply Stores (other auto and home supply stores)	452990	All Other General Merchandise Stores
			5541	Gasoline Service Station (gasoline station with convenience store)	447110	Gasoline Stations with Convenience Stores
			5541	Gasoline Service Station (gasoline station without convenience store)	447190	Other Gasoline Stations
			5551	Boat Dealers	441222	Boat Dealers
			5561	Recreational Vehicle Dealers	441210	Recreational Vehicle Dealers

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			5571	Motorcycle Dealers	441221	Motorcycle Dealers
			5599	Automotive Dealers, NEC	441229	All Other Motor Vehicle Dealers
			56 Apparel and Accessory Stores			
			5611	Men's and Boys' Clothing and Accessory Stores (clothing stores)	448110	Men's Clothing Stores
			5611	Men's and Boys' Clothing and Accessory Stores (accessories)	448150	Clothing Accessories Stores
			5621	Women's Clothing Stores (except dress shops and bridal shops)	448120	Women's Clothing Stores
			5621	Women's Clothing Stores (dress shops and bridal shops)	448190	Other Clothing Stores
			5632	Women's Accessory and Specialty Stores (accessories)	448150	Clothing Accessories Stores
			5632	Women's Accessory and Specialty Stores (specialty stores)	448190	Other Clothing Stores
			5641	Children's and Infants' Wear Stores	448130	Children's and Infants' Clothing Stores
			5651	Family Clothing Stores	448140	Family Clothing Stores
			5661	Shoe Stores	448210	Shoe Stores
			5699	Miscellaneous Apparel and Accessory Stores (custom tailors)	315222	Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing
			5699	Miscellaneous Apparel and Accessory Stores (custom tailors)	315223	Men's and Boys' Cut and Sew Shirt (except Work Shirt) Manufacturing
			5699	Miscellaneous Apparel and Accessory Stores (custom dressmakers)	315233	Women's and Girls' Cut and Sew Dress Manufacturing
			5699	Miscellaneous Apparel and Accessory Stores (accessories)	448150	Clothing Accessories Stores
			5699	Miscellaneous Apparel and Accessory Stores (miscellaneous apparel except accessories and custom tailors)	448190	Other Clothing Stores
			57 Furniture, Home Furnishings and Equipment Stores			
			5712	Furniture Stores (custom wood cabinets)	337110	Wood Kitchen Cabinet and Countertop Manufacturing
			5712	Furniture Stores (custom made upholstered household furniture)	337121	Upholstered Household Furniture Manufacturing
			5712	Furniture Stores (custom made nonupholstered wood household furniture except cabinets)	337122	Nonupholstered Wood Household Furniture Manufacturing
			5712	Furniture Stores (except custom furniture and cabinets)	442110	Furniture Stores
			5713	Floor Coverings Stores	442210	Floor Covering Stores
			5714	Drapery, Curtain, and Upholstery Stores (custom drapes)	314121	Curtain and Drapery Mills
			5714	Drapery, Curtain, and Upholstery Stores (custom slipcovers)	314129	Other Household Textile Product Mills
			5714	Drapery, Curtain, and Upholstery Stores (drapery and curtain stores except primarily custom)	442291	Window Treatment Stores
			5714	Drapery, Curtain, and Upholstery Stores (upholstery materials)	451130	Sewing, Needlework, and Piece Goods Stores
			5719	Miscellaneous Homefurnishings Stores (manufacturing and selling pottery on site)	327112	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing
			5719	Miscellaneous Homefurnishings Stores (blinds and shades)	442291	Window Treatment Stores
			5719	Miscellaneous Homefurnishings Stores (except pottery and crafts made and sold on site and window furnishings)	442299	All Other Home Furnishings Stores
			5722	Household Appliance Stores	443111	Household Appliance Stores
			5731	Radio, Television, and Consumer Electronics Stores (automobile radios)	441310	Automotive Parts and Accessories Stores
			5731	Radio, Television, and Consumer Electronics Stores (except automobile radios)	443112	Radio, Television, and Other Electronics Stores
			5734	Computer and Computer Software Stores	443120	Computer and Software Stores
			5735	Record and Pre-recorded Tape Stores	451220	Pre-recorded Tape, Compact Disc, and Record Stores
			5736	Musical Instruments Stores	451140	Musical Instrument and Supplies Stores
			58 Eating and Drinking Places			
			5812	Eating Places (dinner theaters)	711110	Theater Companies and Dinner Theaters
			5812	Eating Places (full-service restaurants)	722110	Full-Service Restaurants
			5812	Eating Places (limited-service restaurants)	722211	Limited-Service Restaurants
			5812	Eating Places (cafeterias)	722212	Cafeterias
			5812	Eating Places (snack and nonalcoholic beverage bars)	722213	Snack and Nonalcoholic Beverage Bars
			5812	Eating Places (food service contractors)	722310	Food Service Contractors
			5812	Eating Places (caterers)	722320	Caterers
			5813	Drinking Places (Alcoholic Beverages)	722410	Drinking Places (Alcoholic Beverages)
			59 Miscellaneous Retail			
			5912	Drug Stores and Proprietary Stores	446110	Pharmacies and Drug Stores
			5921	Liquor Stores	445310	Beer, Wine, and Liquor Stores
			5932	Used Merchandise Stores (except pawn shops)	453310	Used Merchandise Stores
			5932	Used Merchandise Stores (pawnshops)	522298	All Other Nondepository Credit Intermediation
			5941	Sporting Goods Stores and Bicycle Shops	451110	Sporting Goods Stores
			5942	Book Stores	451211	Book Stores
			5943	Stationery Stores	453210	Office Supplies and Stationery Stores
			5944	Jewelry Stores	448310	Jewelry Stores
			5945	Hobby, Toy, and Game Stores	451120	Hobby, Toy, and Game Stores
			5946	Camera and Photographic Supply Stores	443130	Camera and Photographic Supplies Stores
			5947	Gift, Novelty, and Souvenir Shops	453320	Gift, Novelty, and Souvenir Stores
			5948	Luggage and Leather Goods Stores	448320	Luggage and Leather Goods Stores
			5949	Sewing, Needlework, and Piece Goods Stores	451130	Sewing, Needlework, and Piece Goods Stores
			5961	Catalog and Mail-Order Houses (electronic shopping web sites)	454111	Electronic Shopping
			5961	Catalog and Mail-Order Houses (electronic auctions)	454112	Electronic Auctions
			5961	Catalog and Mail-Order Houses (mail-order houses)	454113	Mail-Order Houses
			5962	Automatic Merchandise Machine Operators	454210	Vending Machine Operators
			5963	Direct Selling Establishments (except mobile food services and food wagons)	454390	Other Direct Selling Establishments
			5963	Direct Selling Establishments (mobile food services and food wagons)	722330	Mobile Food Services
			5983	Fuel Oil Dealers	454311	Heating Oil Dealers
			5984	Liquefied Petroleum Gas (Bottled Gas) Dealers	454312	Liquefied Petroleum Gas (Bottled Gas) Dealers
			5989	Fuel Dealers, NEC	454319	Other Fuel Dealers
			5992	Florists	453110	Florists
			5993	Tobacco Stores and Stands	453991	Tobacco Stores
			5994	News Dealers and Newsstands	451212	News Dealers and Newsstands
			5995	Optical Goods Stores (optical laboratories grinding lenses to prescription)	339115	Ophthalmic Goods Manufacturing
			5995	Optical Goods Stores (except labs grinding prescription lenses)	446130	Optical Goods Stores

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			5999	Miscellaneous Retail Stores, NEC (manufacture of orthopedic devices to prescription in a retail environment)	339113	Surgical Appliance and Supplies Manufacturing
			5999	Miscellaneous Retail Stores, NEC (typewriters and telephones)	443112	Radio, Television, and Other Electronics Stores
			5999	Miscellaneous Retail Stores, NEC (cosmetics and perfumes)	446120	Cosmetics, Beauty Supplies, and Perfume Stores
			5999	Miscellaneous Retail Stores, NEC (hearing aids and artificial limbs)	446199	All Other Health and Personal Care Stores
			5999	Miscellaneous Retail Stores, NEC (pet and pet supplies)	453910	Pet and Pet Supplies Stores
			5999	Miscellaneous Retail Stores, NEC (art dealer)	453920	Art Dealers
			5999	Miscellaneous Retail Stores, NEC (except art dealers, pet and pet supplies, hearing aids, artificial limbs, cosmetics, telephones, sunglasses, manufacture of orthopedic devices to prescription in a retail environment, and typewriters)	453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)
Service						
	60-69 Finance, Insurance and Real Estate					
		60 Depository Institutions				
			6011	Federal Reserve Banks	521110	Monetary Authorities - Central Bank
			6019	Central Reserve Depository Institutions, NEC	522298	All Other Nondepository Credit Intermediation
			6021	National Commercial Banks (banking)	522110	Commercial Banking
			6021	National Commercial Banks (credit card issuing)	522210	Credit Card Issuing
			6022	State Commercial Banks (commercial banking)	522110	Commercial Banking
			6022	State Commercial Banks (private and industrial banking)	522190	Other Depository Credit Intermediation
			6022	State Commercial Banks (credit card issuing)	522210	Credit Card Issuing
			6029	Commercial Banks, NEC	522110	Commercial Banking
			6035	Savings Institutions, Federally Chartered	522120	Savings Institutions
			6036	Savings Institutions, Not Federally Chartered	522120	Savings Institutions
			6061	Credit Unions, Federally Chartered	522130	Credit Unions
			6062	Credit Unions, Not Federally Chartered	522130	Credit Unions
			6081	Branches and Agencies of Foreign Banks (branches)	522110	Commercial Banking
			6081	Branches and Agencies of Foreign Banks (international trade financing)	522293	International Trade Financing
			6081	Branches and Agencies of Foreign Banks (agencies, except international trade financing)	522298	All Other Nondepository Credit Intermediation
			6082	Foreign Trade and International Banking Institutions (international trade financing)	522293	International Trade Financing
			6082	Foreign Trade and International Banking Institutions (except international trade financing)	522298	All Other Nondepository Credit Intermediation
			6091	Nondeposit Trust Facilities	523991	Trust, Fiduciary, and Custody Activities
			6099	Functions Related to Depository Banking, NEC (electronic funds transfer networks and clearinghouse associations)	522320	Financial Transactions Processing, Reserve, and Clearinghouse Activities
			6099	Functions Related to Depository Banking, NEC (except electronic funds transfer networks and clearinghouses, foreign currency exchanges, escrow and fiduciary agencies and deposit brokers)	522390	Other Activities Related to Credit Intermediation
			6099	Functions Related to Depository Banking, NEC (foreign currency exchange)	523130	Commodity Contracts Dealing
			6099	Functions Related to Depository Banking, NEC (escrow and fiduciary agencies)	523991	Trust, Fiduciary, and Custody Activities
		61 Nondepository Credit Institutions				
			6111	Federal and Federally-Sponsored Credit Agencies (trade banks)	522292	Real Estate Credit
			6111	Federal and Federally-Sponsored Credit Agencies (trade banks)	522293	International Trade Financing
			6111	Federal and Federally-Sponsored Credit Agencies (secondary market financing)	522294	Secondary Market Financing
			6111	Federal and Federally-Sponsored Credit Agencies (except trade banks, secondary market financing and Federal Land Banks)	522298	All Other Nondepository Credit Intermediation
			6141	Personal Credit Institutions (credit card issuing)	522210	Credit Card Issuing
			6141	Personal Credit Institutions (installment sales finance)	522220	Sales Financing
			6141	Personal Credit Institutions (except installment sales finance, industrial nondeposit banks, and credit card issuing)	522291	Consumer Lending
			6141	Personal Credit Institutions (industrial nondeposit banks)	522298	All Other Nondepository Credit Intermediation
			6153	Short-Term Business Credit Institutions, Except Agricultural (credit card issuing)	522210	Credit Card Issuing
			6153	Short-Term Business Credit Institutions, Except Agricultural (business sales finance)	522220	Sales Financing
			6153	Short-Term Business Credit Institutions, Except Agricultural (short term inventory credit and purchasing accounts receivable)	522298	All Other Nondepository Credit Intermediation
			6153	Short-Term Business Credit Institutions, Except Agricultural (credit card service)	522320	Financial Transactions Processing, Reserve, and Clearinghouse Activities
			6153	Short-Term Business Credit Institutions, Except Agricultural (except credit card service and issuing, short term inventory credit, purchasing accounts receivable, and business sales finance)	523910	Miscellaneous Intermediation
			6159	Miscellaneous Business Credit Institutions (finance leasing combined with sales financing)	522220	Sales Financing
			6159	Miscellaneous Business Credit Institutions (farm mortgage companies)	522292	Real Estate Credit
			6159	Miscellaneous Business Credit Institutions (trade banks)	522293	International Trade Financing
			6159	Miscellaneous Business Credit Institutions (secondary market financing)	522294	Secondary Market Financing
			6159	Miscellaneous Business Credit Institutions (except trade banks, farm mortgage companies, secondary market financing, and finance leasing combined with sales financing)	522298	All Other Nondepository Credit Intermediation
			6162	Mortgage Bankers and Loan Correspondents (mortgage bankers and originators)	522292	Real Estate Credit
			6162	Mortgage Bankers and Loan Correspondents (mortgage servicing)	522390	Other Activities Related to Credit Intermediation
			6163	Loan Brokers	522310	Mortgage and Nonmortgage Loan Brokers
	62 Security, Commodity Brokers and Services					

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			6211	Security Brokers, Dealers, and Flotation Companies (security dealers and underwriters)	523110	Investment Banking and Securities Dealing
			6211	Security Brokers, Dealers, and Flotation Companies (security brokers, note brokers)	523120	Securities Brokerage
			6211	Security Brokers, Dealers, and Flotation Companies (except security dealers and underwriters, and security, oil lease, and gas lease brokers)	523910	Miscellaneous Intermediation
			6211	Security Brokers, Dealers, and Flotation Companies (oil lease and gas lease brokers offices)	523999	Miscellaneous Financial Investment Activities
			6221	Commodity Contracts Brokers and Dealers (commodity dealers)	523130	Commodity Contracts Dealing
			6221	Commodity Contracts Brokers and Dealers (commodity brokers)	523140	Commodity Contracts Brokerage
			6231	Security and Commodity Exchanges	523210	Securities and Commodity Exchanges
			6282	Investment Advice (portfolio managers)	523920	Portfolio Management
			6282	Investment Advice (except portfolio managers)	523930	Investment Advice
			6289	Services Allied With the Exchange of Securities or Commodities, NEC (security custodians)	523991	Trust, Fiduciary, and Custody Activities
			6289	Services Allied With the Exchange of Securities or Commodities, NEC (except security custodians)	523999	Miscellaneous Financial Investment Activities
			63 Insurance Carriers			
			6311	Life Insurance (life insurers-direct)	524113	Direct Life Insurance Carriers
			6311	Life Insurance (burial insurance)	524128	Other Direct Insurance (except Life, Health, and Medical) Carriers
			6311	Life Insurance (reinsurers)	524130	Reinsurance Carriers
			6321	Accident and Health Insurance (disability insurers-direct)	524113	Direct Life Insurance Carriers
			6321	Accident and Health Insurance (health and medical insurers-direct)	524114	Direct Health and Medical Insurance Carriers
			6321	Accident and Health Insurance (reinsurers)	524130	Reinsurance Carriers
			6321	Accident and Health Insurance (self insurers)	525190	Other Insurance Funds
			6324	Hospital and Medical Service Plans (health and medical insurers-direct)	524114	Direct Health and Medical Insurance Carriers
			6324	Hospital and Medical Service Plans (reinsurers)	524130	Reinsurance Carriers
			6324	Hospital and Medical Service Plans (self insurers)	525190	Other Insurance Funds
			6331	Fire, Marine, and Casualty Insurance (fire, marine, and casualty insurers-direct, except contact lens insurance)	524126	Direct Property and Casualty Insurance Carriers
			6331	Fire, Marine, and Casualty Insurance (contact lens insurance)	524128	Other Direct Insurance (except Life, Health, and Medical) Carriers
			6331	Fire, Marine, and Casualty Insurance (reinsurers)	524130	Reinsurance Carriers
			6331	Fire, Marine, and Casualty Insurance (self insurers)	525190	Other Insurance Funds
			6351	Surety Insurance (financial responsibility insurers-direct)	524126	Direct Property and Casualty Insurance Carriers
			6351	Surety Insurance (warranty insurance, home)	524128	Other Direct Insurance (except Life, Health, and Medical) Carriers
			6351	Surety Insurance (reinsurers)	524130	Reinsurance Carriers
			6361	Title Insurance (title insurers-direct)	524127	Direct Title Insurance Carriers
			6361	Title Insurance (reinsurers)	524130	Reinsurance Carriers
			6371	Pension, Health, and Welfare Funds (managers)	523920	Portfolio Management
			6371	Pension, Health, and Welfare Funds (administrators)	524292	Third Party Administration of Insurance and Pension Funds
			6371	Pension, Health, and Welfare Funds (pension funds)	525110	Pension Funds
			6371	Pension, Health, and Welfare Funds (health and welfare funds)	525120	Health and Welfare Funds
			6371	Pension, Health, and Welfare Funds (profit sharing funds)	525990	Other Financial Vehicles
			6399	Insurance Carriers, NEC	524128	Other Direct Insurance (except Life, Health, and Medical) Carriers
			64 Insurance Agents, Brokers and Service			
			6411	Insurance Agents, Brokers, and Service (insurance agents and brokers)	524210	Insurance Agencies and Brokerages
			6411	Insurance Agents, Brokers, and Service (insurance claims adjusters)	524291	Claims Adjusting
			6411	Insurance Agents, Brokers, and Service (processors)	524292	Third Party Administration of Insurance and Pension Funds
			6411	Insurance Agents, Brokers, and Service (except processors, agents and brokers, and claims adjusters)	524298	All Other Insurance Related Activities
			65 Real Estate			
			6512	Operators of Nonresidential Buildings (except stadium and arena owners)	531120	Lessors of Nonresidential Buildings (except Miniwarehouses)
			6512	Operators of Nonresidential Buildings (stadium and arena owners)	711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities
			6513	Operators of Apartment Buildings	531110	Lessors of Residential Buildings and Dwellings
			6514	Operators of Dwellings Other Than Apartment Buildings	531110	Lessors of Residential Buildings and Dwellings
			6515	Operators of Residential Mobile Home Sites	531190	Lessors of Other Real Estate Property
			6517	Lessors of Railroad Property	531190	Lessors of Other Real Estate Property
			6519	Lessors of Real Property, NEC	531190	Lessors of Other Real Estate Property
			6531	Real Estate Agents and Managers (operating housing authorities)	531110	Lessors of Residential Buildings and Dwellings
			6531	Real Estate Agents and Managers (agents and brokers)	531210	Offices of Real Estate Agents and Brokers
			6531	Real Estate Agents and Managers (residential property managers)	531311	Residential Property Managers
			6531	Real Estate Agents and Managers (nonresidential property managers)	531312	Nonresidential Property Managers
			6531	Real Estate Agents and Managers (appraisers)	531320	Offices of Real Estate Appraisers
			6531	Real Estate Agents and Managers (except property managers, condominium associations, cemetery management, agents and brokers, operating housing authorities, and appraisers)	531390	Other Activities Related to Real Estate
			6531	Real Estate Agents and Managers (cemetery management)	812220	Cemeteries and Crematories
			6531	Real Estate Agents and Managers (condominium associations)	813990	Other Similar Organizations (except Business, Professional, Labor, and Political Organizations)

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Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			6541	Title Abstract Offices	541191	Title Abstract and Settlement Offices
			6552	Land Subdividers and Developers, Except Cemeteries	237210	Land Subdivision
			6553	Cemetery Subdividers and Developers	812220	Cemeteries and Crematories
			67 Holding and Other Investment Offices			
			6712	Offices of Bank Holding Companies	551111	Offices of Bank Holding Companies
			6719	Offices of Holding Companies, NEC	551112	Offices of Other Holding Companies
			6722	Management Investment Offices, Open-End	525910	Open-End Investment Funds
			6726	Unit Investment Trusts, Face-Amount Certificate Offices, and Closed-End Management Investment Offices	525990	Other Financial Vehicles
			6732	Educational, Religious, and Charitable Trusts	813211	Grantmaking Foundations
			6733	Trusts, Except Educational, Religious, and Charitable (managers)	523920	Portfolio Management
			6733	Trusts, Except Educational, Religious, and Charitable (administrators of private estates)	523991	Trust, Fiduciary, and Custody Activities
			6733	Trusts, Except Educational, Religious, and Charitable (vacation funds for employees)	525190	Other Insurance Funds
			6733	Trusts, Except Educational, Religious, and Charitable (personal trusts, estates, and agency accounts)	525920	Trusts, Estates, and Agency Accounts
			6792	Oil Royalty Traders (investing on own account)	523910	Miscellaneous Intermediation
			6792	Oil Royalty Traders (oil and gas royalty leasing)	533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
			6794	Patent Owners and Lessors	533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
			6798	Real Estate Investment Trusts	525930	Real Estate Investment Trusts
			6799	Investors, NEC (commodity contract trading companies)	523130	Commodity Contracts Dealing
			6799	Investors, NEC (venture capital companies, investment clubs, and speculators for own account)	523910	Miscellaneous Intermediation
			6799	Investors, NEC (commodity contract pool operators)	523920	Portfolio Management
			70-89 Service Industries			
			70 Hotels, Rooming Houses, Camps and Other Lodging Places			
			7011	Hotels and Motels (hotels, except casino hotels, and motels)	721110	Hotels (except Casino Hotels) and Motels
			7011	Hotels and Motels (casino hotels)	721120	Casino Hotels
			7011	Hotels and Motels (bed and breakfast inns)	721191	Bed-and-Breakfast Inns
			7011	Hotels and Motels (except hotels, motels, and bed and breakfast inns)	721199	All Other Traveler Accommodation
			7021	Rooming and Boarding Houses	721310	Rooming and Boarding Houses
			7032	Sporting and Recreational Camps	721214	Recreational and Vacation Camps (except Campgrounds)
			7033	Recreational Vehicle Parks and Campsites	721211	RV (Recreational Vehicle) Parks and Campgrounds
			7041	Organization Hotels and Lodging Houses, on Membership Basis (hotels)	721110	Hotels (except Casino Hotels) and Motels
			7041	Organization Hotels and Lodging Houses, on Membership Basis (except hotels)	721310	Rooming and Boarding Houses
			72 Personal Services			
			7211	Power Laundries, Family and Commercial	812320	Drycleaning and Laundry Services (except Coin-Operated)
			7212	Garment Pressing, and Agents for Laundries and Drycleaners	812320	Drycleaning and Laundry Services (except Coin-Operated)
			7213	Linen Supply	812331	Linen Supply
			7215	Coin-Operated Laundry and Drycleaning	812310	Coin-Operated Laundries and Drycleaners
			7216	Drycleaning Plants, Except Rug Cleaning	812320	Drycleaning and Laundry Services (except Coin-Operated)
			7217	Carpet and Upholstery Cleaning	561740	Carpet and Upholstery Cleaning Services
			7218	Industrial Launderers	812332	Industrial Launderers
			7219	Laundry and Garment Services, NEC (alteration and repair)	811490	Other Personal and Household Goods Repair and Maintenance
			7219	Laundry and Garment Services, NEC (except diaper service and clothing alteration and repair)	812320	Drycleaning and Laundry Services (except Coin-Operated)
			7219	Laundry and Garment Services, NEC (diaper service)	812331	Linen Supply
			7221	Photographic Studios, Portrait	541921	Photography Studios, Portrait
			7231	Beauty Shops (beauty and cosmetology schools)	611511	Cosmetology and Barber Schools
			7231	Beauty Shops (except beauty and cosmetology schools and manicure and pedicure salons)	812112	Beauty Salons
			7231	Beauty Shops (manicure and pedicure salons)	812113	Nail Salons
			7241	Barber Shops (barber colleges)	611511	Cosmetology and Barber Schools
			7241	Barber Shops (except barber colleges)	812111	Barber Shops
			7251	Shoe Repair Shops and Shoeshine Parlors (shoe repair shops)	811430	Footwear and Leather Goods Repair
			7251	Shoe Repair Shops and Shoeshine Parlors (hatcleaning and blocking shops)	812320	Drycleaning and Laundry Services (except Coin-Operated)
			7251	Shoe Repair Shops and Shoeshine Parlors (shoeshine parlors)	812990	All Other Personal Services
			7261	Funeral Services and Crematories (funeral homes and services)	812210	Funeral Homes and Funeral Services
			7261	Funeral Services and Crematories (crematories)	812220	Cemeteries and Crematories
			7291	Tax Return Preparation Services	541213	Tax Preparation Services
			7299	Miscellaneous Personal Services, NEC (formal wear and costume rental)	532220	Formal Wear and Costume Rental
			7299	Miscellaneous Personal Services, NEC (consumer credit and debt counseling services)	541990	All Other Professional, Scientific, and Technical Services
			7299	Miscellaneous Personal Services, NEC (babysitting bureaus)	561310	Employment Placement Agencies
			7299	Miscellaneous Personal Services, NEC (consumer bartering services)	561990	All Other Support Services
			7299	Miscellaneous Personal Services, NEC (diet and weight reducing services)	812191	Diet and Weight Reducing Centers
			7299	Miscellaneous Personal Services, NEC (personal care services)	812199	Other Personal Care Services
			7299	Miscellaneous Personal Services, NEC (valet parking services)	812930	Parking Lots and Garages

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			7299	Miscellaneous Personal Services, NEC (except diet and weight reducing services, personal care services, valet parking services, babysitting bureaus, debt and credit counseling, consumer bartering services, and formal wear and costume rental)	812990	All Other Personal Services
			73 Business Services			
			7311	Advertising Agencies	541810	Advertising Agencies
			7312	Outdoor Advertising Services	541850	Display Advertising
			7313	Radio, Television, and Publishers' Advertising Representatives	541840	Media Representatives
			7319	Advertising, NEC (using general purpose aircraft for aerial advertising and a variety of other services)	481219	Other Nonscheduled Air Transportation
			7319	Advertising, NEC (media buying services)	541830	Media Buying Agencies
			7319	Advertising, NEC (display advertising, aerial advertising using special purpose aircraft, such as blimps)	541850	Display Advertising
			7319	Advertising, NEC (advertising materials distributor)	541870	Advertising Material Distribution Services
			7319	Advertising, NEC (except media buying, display advertising, except adjustment and collection services)	541890	Other Services Related to Advertising
			7322	Adjustment and Collection Services	561440	Collection Agencies
			7323	Credit Reporting Services	561450	Credit Bureaus
			7331	Direct Mail Advertising Services (mailing list compilers)	511140	Directory and Mailing List Publishers
			7331	Direct Mail Advertising Services (except mailing list compilers)	541860	Direct Mail Advertising
			7334	Photocopying and Duplicating Services (quick printing)	323114	Quick Printing
			7334	Photocopying and Duplicating Services (except quick printing)	561439	Other Business Service Centers (including Copy Shops)
			7335	Commercial Photography (using general purpose aircraft for aerial photography and a variety of other services)	481219	Other Nonscheduled Air Transportation
			7335	Commercial Photography (except using general purpose aircraft for aerial photography and a variety of other services)	541922	Commercial Photography
			7336	Commercial Art and Graphic Design	541430	Graphic Design Services
			7338	Secretarial and Court Reporting (secretarial services)	561410	Document Preparation Services
			7338	Secretarial and Court Reporting (court reporting services)	561492	Court Reporting and Stenotype Services
			7342	Disinfecting and Pest Control Services (exterminating and pest control)	561710	Exterminating and Pest Control Services
			7342	Disinfecting and Pest Control Services (except exterminating and pest control)	561720	Janitorial Services
			7349	Building Cleaning and Maintenance Services, NEC (janitorial services)	561720	Janitorial Services
			7349	Building Cleaning and Maintenance Services, NEC (services to buildings and dwellings, except janitorial services)	561790	Other Services to Buildings and Dwellings
			7352	Medical Equipment Rental and Leasing (home health furniture and equipment rental and leasing)	532291	Home Health Equipment Rental
			7352	Medical Equipment Rental and Leasing (medical machinery and equipment, except home health furniture and equipment, rental and leasing)	532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing
			7353	Heavy Construction Equipment Rental and Leasing (rental of construction equipment [except cranes] with operator)	238910	Site Preparation Contractors
			7353	Heavy Construction Equipment Rental and Leasing (crane rental with operator)	238990	All Other Specialty Trade Contractors
			7353	Heavy Construction Equipment Rental and Leasing (heavy construction equipment rental without operators)	532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing
			7359	Equipment Rental and Leasing, NEC (appliances; TVs, VCRs, and other consumer electronic equipment rental)	532210	Consumer Electronics and Appliances Rental
			7359	Equipment Rental and Leasing, NEC (except aircraft; industrial truck and equipment; TV, VCR, and other consumer electronic equipment; appliances; general rental centers; portable toilets; office machines; oil field and oil well drilling equipment; and home and garden equipment rental and leasing)	532299	All Other Consumer Goods Rental
			7359	Equipment Rental and Leasing, NEC (general rental centers and home and garden equipment rental centers)	532310	General Rental Centers
			7359	Equipment Rental and Leasing, NEC (aircraft rental and leasing)	532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing
			7359	Equipment Rental and Leasing, NEC (oil field and well drilling equipment)	532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing
			7359	Equipment Rental and Leasing, NEC (office machine rental and leasing)	532420	Office Machinery and Equipment Rental and Leasing
			7359	Equipment Rental and Leasing, NEC (industrial truck and equipment rental and leasing)	532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing
			7359	Equipment Rental and Leasing, NEC (portable toilet rental)	562991	Septic Tank and Related Services
			7361	Employment Agencies (executive placement services)	541612	Human Resources and Executive Search Consulting Services
			7361	Employment Agencies (except executive placement services)	561310	Employment Placement Agencies
			7363	Help Supply Services (temporary help services)	561320	Temporary Help Services
			7363	Help Supply Services (employee leasing services, professional employer organizations)	561330	Professional Employer Organizations
			7371	Computer Programming Services	541511	Custom Computer Programming Services
			7372	Prepackaged Software (mass reproduction of software)	334611	Software Reproducing
			7372	Prepackaged Software (software publishing)	511210	Software Publishers
			7373	Computer Integrated Systems Design	541512	Computer Systems Design Services
			7374	Computer Processing and Data Preparation and Processing Services	518210	Data Processing, Hosting, and Related Services
			7375	Information Retrieval Services (Internet service providers and Internet access providers)	518111	Internet Service Providers
			7376	Computer Facilities Management Services	541513	Computer Facilities Management Services
			7377	Computer Rental and Leasing	532420	Office Machinery and Equipment Rental and Leasing
			7378	Computer Maintenance and Repair (sales locations providing supporting repair services as major source of receipts)	443120	Computer and Software Stores
			7378	Computer Maintenance and Repair (except sales locations providing supporting repair services as major source of revenue)	811212	Computer and Office Machine Repair and Maintenance

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			7379	Computer Related Services, NEC (disk conversion services)	518210	Data Processing, Hosting, and Related Services
			7379	Computer Related Services, NEC (computer systems consultants)	541512	Computer Systems Design Services
			7379	Computer Related Services, NEC (except computer systems consultants and disk conversion services)	541519	Other Computer Related Services
			7381	Detective, Guard, and Armored Car Services (detective services)	561611	Investigation Services
			7381	Detective, Guard, and Armored Car Services (guard services)	561612	Security Guards and Patrol Services
			7381	Detective, Guard, and Armored Car Services (armored car services)	561613	Armored Car Services
			7382	Security Systems Services	561621	Security Systems Services (except Locksmiths)
			7383	News Syndicates (except independent news correspondents)	519110	News Syndicates
			7383	News Syndicates (independent news correspondents)	711510	Independent Artists, Writers, and Performers
			7384	Photofinishing Laboratories (except one-hour)	812921	Photofinishing Laboratories (except One-Hour)
			7384	Photofinishing Laboratories (one-hour)	812922	One-Hour Photofinishing
			7389	Business Services, NEC (tobacco sheeting service)	312229	Other Tobacco Product Manufacturing
			7389	Business Services, NEC (sponging, shrinking, etc. fabric for tailors and dress makers, batik work)	313311	Broadwoven Fabric Finishing Mills
			7389	Business Services, NEC (embroidery of advertising on shirts and rug binding for the trade)	314999	All Other Miscellaneous Textile Product Mills
			7389	Business Services, NEC (aerosol packaging, solvent recovery service-contract)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing
			7389	Business Services, NEC (yacht brokers)	425120	Wholesale Trade Agents and Brokers
			7389	Business Services, NEC (driving services, e.g., auto or truck delivery and pilot car services)	488490	Other Support Activities for Road Transportation
			7389	Business Services, NEC (post office contract stations)	491110	Postal Service
			7389	Business Services, NEC (recording studios)	512240	Sound Recording Studios
			7389	Business Services, NEC (audio taping services)	512290	Other Sound Recording Industries
			7389	Business Services, NEC (microfilm services)	518210	Data Processing, Hosting, and Related Services
			7389	Business Services, NEC (press clipping services and stock photo agencies)	519190	All Other Information Services
			7389	Business Services, NEC (credit card and check validation service)	522320	Financial Transactions Processing, Reserve, and Clearinghouse Activities
			7389	Business Services, NEC (process services, patent agents, notaries public, paralegal services)	541199	All Other Legal Services
			7389	Business Services, NEC (drafting service)	541340	Drafting Services
			7389	Business Services, NEC (home and building inspection services)	541350	Building Inspection Services
			7389	Business Services, NEC (map making services)	541370	Surveying and Mapping (except Geophysical) Services
			7389	Business Services, NEC (interior design)	541410	Interior Design Services
			7389	Business Services, NEC (industrial design)	541420	Industrial Design Services
			7389	Business Services, NEC (fashion, furniture, and other design services)	541490	Other Specialized Design Services
			7389	Business Services, NEC (distribution of telephone directories on a fee or contract basis)	541870	Advertising Material Distribution Services
			7389	Business Services, NEC (sign painting and lettering, showcard painting, mannequin decorating service and other advertising related business services)	541890	Other Services Related to Advertising
			7389	Business Services, NEC (translation and interpretation services)	541930	Translation and Interpretation Services
			7389	Business Services (appraisers except insurance and real estate, outplacement services, and miscellaneous professional, scientific, and technical services)	541990	All Other Professional, Scientific, and Technical Services
			7389	Business Services, NEC (radio transcription services)	561410	Document Preparation Services
			7389	Business Services, NEC (telephone answering services)	561421	Telephone Answering Services
			7389	Business Services, NEC (telemarketing bureaus and telephone soliciting)	561422	Telemarketing Bureaus
			7389	Business Services, NEC (private mail centers and mailbox rental)	561431	Private Mail Centers
			7389	Business Services, NEC (other business service centers, except private mail centers and mailbox rental)	561439	Other Business Service Centers (including Copy Shops)
			7389	Business Services, NEC (tax collection for federal, state, or local agencies)	561440	Collection Agencies
			7389	Business Services, NEC (recovery and repossession services)	561491	Repossession Services
			7389	Business Services, NEC (business support services except telephone answering, telemarketing bureaus, private mail centers and repossession services)	561499	All Other Business Support Services
			7389	Business Services, NEC (convention and visitors bureaus, tourist information bureaus)	561591	Convention and Visitors Bureaus
			7389	Business Services, NEC (reservation systems for hotels, restaurants, and time-share condominium exchanges)	561599	All Other Travel Arrangement and Reservation Services
			7389	Business Services, NEC (swimming pool cleaning and maintenance)	561790	Other Services to Buildings and Dwellings
			7389	Business Services, NEC (packaging and labeling services)	561910	Packaging and Labeling Services
			7389	Business Services, NEC (convention and trade show services)	561920	Convention and Trade Show Organizers
			7389	Business Services, NEC (other support services except packaging and labeling, convention and trade shows services, convention and visitor bureaus, tourist information bureaus)	561990	All Other Support Services
			7389	Business Services, NEC (promoters of air shows, heritage festivals, and ethnic festivals with facilities)	711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities
			7389	Business Services, NEC (promoters of air shows, heritage festivals, and ethnic festivals without facilities)	711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities
			7389	Business Services, NEC (agents and brokers for authors and artists and speaker bureaus)	711410	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures
			7389	Business Services, NEC (apparel pressing service for the trade)	812320	Drycleaning and Laundry Services (except Coin-Operated)
			7389	Miscellaneous Business Services (bail bonding)	812990	All Other Personal Services
			75 Automotive Repair, Services and Parking			

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			7513	Truck Rental and Leasing Without Drivers	532120	Truck, Utility Trailer, and RV (Recreational Vehicle) Rental and Leasing
			7514	Passenger Car Rental	532111	Passenger Car Rental
			7515	Passenger Car Leasing	532112	Passenger Car Leasing
			7519	Utility Trailers and Recreational Vehicle Rental	532120	Truck, Utility Trailer, and RV (Recreational Vehicle) Rental and Leasing
			7521	Automobile Parking	812930	Parking Lots and Garages
			7532	Top, Body, and Upholstery Repair Shops and Paint Shops	811121	Automotive Body, Paint, and Interior Repair and Maintenance
			7533	Automotive Exhaust System Repair Shops	811112	Automotive Exhaust System Repair
			7534	Tire Retreading and Repair Shops (rebuilding tires and retreaded tire manufacturing)	326212	Tire Retreading
			7534	Tire Retreading and Repair Shops (tire repair)	811198	All Other Automotive Repair and Maintenance
			7536	Automotive Glass Replacement Shops	811122	Automotive Glass Replacement Shops
			7537	Automotive Transmission Repair Shops	811113	Automotive Transmission Repair
			7538	General Automotive Repair Shops	811111	General Automotive Repair
			7539	Automotive Repair Shops, NEC (except automotive air-conditioning repair)	811118	Other Automotive Mechanical and Electrical Repair and Maintenance
			7539	Automotive Repair Shops, NEC (automotive air-conditioning repair)	811198	All Other Automotive Repair and Maintenance
			7542	Carwashes	811192	Car Washes
			7549	Automotive Services, Except Repair and Carwashes (towing)	488410	Motor Vehicle Towing
			7549	Automotive Services, Except Repair and Carwashes (automotive window tinting)	811122	Automotive Glass Replacement Shops
			7549	Automotive Services, Except Repair and Carwashes (lubricating service, automotive)	811191	Automotive Oil Change and Lubrication Shops
			7549	Automotive Services, Except Repair and Carwashes (except automotive lubricating, automotive window tinting, and towing services)	811198	All Other Automotive Repair and Maintenance
			76 Miscellaneous Repair Services			
			7622	Radio and Television Repair Shops (household antenna installation and household-type satellite dish installation)	238290	Other Building Equipment Contractors
			7622	Radio and Television Repair Shops (new retail sales combined with repair-repair services as major source of receipts)	443112	Radio, Television, and Other Electronics Stores
			7622	Radio and Television Repair Shops (stereo, TV, VCR, and radio repair)	811211	Consumer Electronics Repair and Maintenance
			7622	Radio and Television Repair Shops (telecommunication equipment repair)	811213	Communication Equipment Repair and Maintenance
			7623	Refrigeration and Air-Conditioning Services and Repair Shops (new retail sales combined with repair-repair services as major source of receipts)	443111	Household Appliance Stores
			7623	Refrigeration and Air-Conditioning Services and Repair Shops (commercial refrigerator equipment repair)	811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
			7623	Refrigeration and Air-Conditioning Service and Repair Shops (except commercial refrigeration equipment repair, and sales locations with repair as major source of receipts)	811412	Appliance Repair and Maintenance
			7629	Electrical and Electronic Repair Shops, NEC (new retail sales combined with repair-repair services as major source of receipts)	443111	Household Appliance Stores
			7629	Electrical and Electronic Repair Shops, NEC (other consumer electronic equipment, except business and office machines, telephones, and appliances-repair and maintenance)	811211	Consumer Electronics Repair and Maintenance
			7629	Electrical and Electronic Repair Shops, NEC (business and office machine repair, electrical)	811212	Computer and Office Machine Repair and Maintenance
			7629	Electrical and Electronic Repair Shops, NEC (telephone set repair)	811213	Communication Equipment Repair and Maintenance
			7629	Electrical and Electronic Repair Shops, NEC (electrical measuring instrument repair and calibration, medical electrical equipment repair)	811219	Other Electronic and Precision Equipment Repair and Maintenance
			7629	Electrical and Electronic Repair Shops, NEC (electrical appliance repair, washing machine repair, electric razor repair)	811412	Appliance Repair and Maintenance
			7631	Watch, Clock, and Jewelry Repair (new retail sales combined with repair-repair services as major source of receipts)	448310	Jewelry Stores
			7631	Watch, Clock, and Jewelry Repair (except new retail sales combined with repair services)	811490	Other Personal and Household Goods Repair and Maintenance
			7641	Reupholstery and Furniture Repair	811420	Reupholstery and Furniture Repair
			7692	Welding Repair	811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
			7694	Armature Rewinding Shops (remanufacturing)	335312	Motor and Generator Manufacturing
			7694	Armature Rewinding Shops (repair)	811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
			7699	Repair Shops and Related Services, NEC (farriers)	115210	Support Activities for Animal Production
			7699	Repair Shops and Related Services, NEC (boiler cleaning, chipping, and scaling)	238220	Plumbing, Heating, and Air-Conditioning Contractors
			7699	Repair Shops and Related Services, NEC (custom picture framing shops)	442299	All Other Home Furnishings Stores
			7699	Repair Shops and Related Services, NEC (new power tool retail sales combined with repair-repair services as major source of receipts)	444130	Hardware Stores
			7699	Repair Shops and Related Services, NEC (new lawn and garden equipment retail sales combined with repair-repair services as major source of receipts)	444210	Outdoor Power Equipment Stores

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			7699	Repair Shops and Related Services, NEC (new bicycle retail sales combined with repair-repair services for bicycles as major source of receipts)	451110	Sporting Goods Stores
			7699	Repair Shops and Related Services, NEC (ship scaling)	488390	Other Support Activities for Water Transportation
			7699	Repair Shops and Related Services, NEC (locksmith shops)	561622	Locksmiths
			7699	Repair Shops and Related Services, NEC (furnace, duct, gutter, and drain cleaning services)	561790	Other Services to Buildings and Dwellings
			7699	Repair Shops and Related Services, NEC (cesspool and septic tank cleaning)	562991	Septic Tank and Related Services
			7699	Repair Shops and Related Services, NEC (sewer cleaning and rodding)	562998	All Other Miscellaneous Waste Management Services
			7699	Repair Shops and Related Services, NEC (taxidermists and antique repair and restoration, except antique car restoration)	711510	Independent Artists, Writers, and Performers
			7699	Repair Shops and Related Services, NEC (camera repair)	811211	Consumer Electronics Repair and Maintenance
			7699	Repair Shops and Related Services, NEC (typewriter repair, refilling or recycling ink jet cartridges)	811212	Computer and Office Machine Repair and Maintenance
			7699	Repair Shops and Related Services, NEC (dental instrument repair, laboratory instrument repair, medical equipment and other electronic and precision equipment repair, except typewriters)	811219	Other Electronic and Precision Equipment Repair and Maintenance
			7699	Repair Shops and Related Services, NEC (other non-automotive transportation equipment and industrial machines and equipment, and sharpening commercial blades)	811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
			7699	Repair Shops and Related Services, NEC (lawnmower repair shops, sharpening and repairing knives, saws and tools)	811411	Home and Garden Equipment Repair and Maintenance
			7699	Repair Shops and Related Services, NEC (gas appliance repair service, sewing machine repair, stove repair shops, and other non-electrical appliance)	811412	Appliance Repair and Maintenance
			7699	Repair Shops and Related Services, NEC (leather goods repair shops, luggage repair shops, pocketbook repair shops)	811430	Footwear and Leather Goods Repair
			7699	Repair Shops and Related Services, NEC (except industrial, electronic, home and garden, appliance, and leather goods)	811490	Other Personal and Household Goods Repair and Maintenance
			78 Motion Pictures			
			7812	Motion Picture and Video Tape Production	512110	Motion Picture and Video Production
			7819	Services Allied to Motion Picture Production (reproduction of video)	334612	Prerecorded Compact Disc (except Software), Tape, and Record Reproducing
			7819	Services Allied to Motion Picture Production (teleproduction and postproduction services)	512191	Teleproduction and Other Postproduction Services
			7819	Services Allied to Motion Picture Production (except casting bureaus, wardrobe and equipment rental, talent payment services, teleproduction and other postproduction services, reproduction of videos, independent film directors, and other independent motion picture production related services)	512199	Other Motion Picture and Video Industries
			7819	Services Allied to Motion Picture Production (wardrobe rental for motion picture film production)	532220	Formal Wear and Costume Rental
			7819	Services Allied to Motion Picture Production (motion picture equipment rental)	532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing
			7819	Services Allied to Motion Picture Production (talent payment services)	541214	Payroll Services
			7819	Services Allied to Motion Picture Production (motion picture consulting)	541690	Other Scientific and Technical Consulting Services
			7819	Services Allied to Motion Picture Production (casting bureaus)	561310	Employment Placement Agencies
			7819	Services Allied to Motion Picture Production (film directors and related motion picture production services, independent)	711510	Independent Artists, Writers, and Performers
			7822	Motion Picture and Video Tape Distribution (prerecorded video tape and cassette wholesalers)	423990	Other Miscellaneous Durable Goods Merchant Wholesalers
			7822	Motion Picture and Video Tape Distribution (except video tape and cassette wholesalers)	512120	Motion Picture and Video Distribution
			7829	Services Allied to Motion Picture Distribution (commercial distribution film libraries)	512120	Motion Picture and Video Distribution
			7829	Services Allied to Motion Picture Distribution (except commercial film distribution libraries and film archives)	512199	Other Motion Picture and Video Industries
			7829	Services Allied to Motion Picture Distribution (film archives)	519120	Libraries and Archives
			7832	Motion Picture Theaters, Except Drive-In	512131	Motion Picture Theaters (except Drive-Ins)
			7833	Drive-In Motion Picture Theaters	512132	Drive-In Motion Picture Theaters
			7841	Video Tape Rental	532230	Video Tape and Disc Rental
			79 Amusement and Recreational Services			
			7911	Dance Studios, Schools, and Halls (dance instructors, and professional and other dance schools)	611610	Fine Arts Schools
			7911	Dance Studios, Schools, and Halls (except instruction)	713990	All Other Amusement and Recreation Industries
			7922	Theatrical Producers (Except Motion Picture) and Miscellaneous Theatrical Services (producers of radio programs)	512290	Other Sound Recording Industries
			7922	Theatrical Producers (Except Motion Picture) and Miscellaneous Theatrical Services (theatrical equipment rental)	532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing
			7922	Theatrical Producers (Except Motion Picture) and Miscellaneous Theatrical Services (casting agencies and television employment agencies)	561310	Employment Placement Agencies
			7922	Theatrical Producers (Except Motion Picture) and Miscellaneous Theatrical Services (theatrical ticket agencies)	561599	All Other Travel Arrangement and Reservation Services
			7922	Theatrical Producers (Except Motion Pictures) and Miscellaneous Theatrical Services (theater companies, opera companies)	711110	Theater Companies and Dinner Theaters
			7922	Theatrical Producers (Except Motion Pictures) and Miscellaneous Theatrical Services (ballet and dance companies)	711120	Dance Companies
			7922	Theatrical Producers (Except Motion Picture) and Miscellaneous Theatrical Services (theater operators)	711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities

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			7922	Theatrical Producers (Except Motion Picture) and Miscellaneous Theatrical Services (theatrical promoters)	711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities
			7922	Theatrical Producers (Except Motion Picture) and Miscellaneous Theatrical Services (theatrical agents)	711410	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures
			7922	Theatrical Producers (Except Motion Picture) and Miscellaneous Theatrical Services (theatrical costume design)	711510	Independent Artists, Writers, and Performers
			7929	Bands, Orchestras, Actors, and Other Entertainers Entertainment Groups (musical groups, musical artists, and orchestras)	711130	Musical Groups and Artists
			7929	Bands, Orchestras, Actors, and Entertainment Groups, (except musical groups, musical artists, orchestras, actors, and actresses)	711190	Other Performing Arts Companies
			7929	Bands, Orchestras, Actors, and Other Entertainers and Entertainment Groups (actors and actresses)	711510	Independent Artists, Writers, and Performers
			7933	Bowling Centers	713950	Bowling Centers
			7941	Professional Sports Clubs and Promoters (professional sports clubs)	711211	Sports Teams and Clubs
			7941	Professional Sports Clubs and Promoters (stadium operators promoting events in their own facilities)	711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities
			7941	Professional Sports Clubs and Promoters (sports promoters)	711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities
			7941	Professional Sports Clubs and Promoters (sports agents)	711410	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures
			7948	Racing, Including Track Operations (track operations)	711212	Racetracks
			7948	Racing, Including Track Operations (except track operators)	711219	Other Spectator Sports
			7991	Physical Fitness Facilities	713940	Fitness and Recreational Sports Centers
			7992	Public Golf Courses	713910	Golf Courses and Country Clubs
			7993	Coin-Operated Amusement Devices (amusement arcades)	713120	Amusement Arcades
			7993	Coin-Operated Amusement Devices (slot machine operators)	713290	Other Gambling Industries
			7993	Coin-Operated Amusement Devices (except amusement arcades and slot machine operators)	713990	All Other Amusement and Recreation Industries
			7996	Amusement Parks	713110	Amusement and Theme Parks
			7997	Membership Sports and Recreation Clubs (flying clubs primarily providing a variety of flying services to the public using general purpose aircraft)	481219	Other Nonscheduled Air Transportation
			7997	Membership Sports and Recreation Clubs (flying fields operated by aviation clubs)	488119	Other Airport Operations
			7997	Membership Sports and Recreation Clubs (golf clubs)	713910	Golf Courses and Country Clubs
			7997	Membership Sports and Recreation Clubs (recreation clubs with facilities)	713940	Fitness and Recreational Sports Centers
			7997	Membership Sports and Recreation Clubs (recreation clubs without facilities)	713990	All Other Amusement and Recreation Industries
			7999	Amusement and Recreation Services, NEC (scenic transport operations, land)	487110	Scenic and Sightseeing Transportation, Land
			7999	Amusement and Recreation Services, NEC (charter fishing)	487210	Scenic and Sightseeing Transportation, Water
			7999	Amusement and Recreation Services, NEC (aerial tramways, scenic and amusement)	487990	Scenic and Sightseeing Transportation, Other
			7999	Amusement and Recreation Services, NEC (canoe, pleasure boats, bicycles, motorcycles, moped, go carts, etc. rental)	532292	Recreational Goods Rental
			7999	Amusement and Recreation Services, NEC (ticket agencies)	561599	All Other Travel Arrangement and Reservation Services
			7999	Amusement and Recreation Services, NEC (baseball, basketball, bowling, gymnastic, judo, karate, parachute, scuba and skin diving, skating, ski, swimming, tennis, and other sports instruction; and sports instructional schools and camps)	611620	Sports and Recreation Instruction
			7999	Amusement and Recreation Services, NEC (bridge instruction, yoga instruction, and similar nonathletic instruction)	611699	All Other Miscellaneous Schools and Instruction
			7999	Amusement and Recreation Services, NEC (circus companies and traveling carnival shows)	711190	Other Performing Arts Companies
			7999	Amusement and Recreation Services, NEC (professional athletes)	711219	Other Spectator Sports
			7999	Amusement and Recreation Services, NEC (state fairs, agriculture fairs and county fairs with facilities)	711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities
			7999	Amusement and Recreation Services, NEC (state fairs, agriculture fairs and county fairs without facilities)	711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities
			7999	Amusement and Recreation Services, NEC (caverns and miscellaneous commercial parks)	712190	Nature Parks and Other Similar Institutions
			7999	Amusement and Recreation Services, NEC (casinos, except hotel casinos)	713210	Casinos (except Casino Hotels)
			7999	Amusement and Recreation Services, NEC (lottery, bingo, bookie, and other gambling operations)	713290	Other Gambling Industries
			7999	Amusement and Recreation Services, NEC (skiing facilities)	713920	Skiing Facilities
			7999	Amusement and Recreation Services, NEC (nonmembership fitness and recreational sports centers)	713940	Fitness and Recreational Sports Centers
			7999	Amusement and Recreation Services, NEC (except circuses, traveling carnivals, professional athletes, caverns and other commercial parks, skiing facilities, casinos and other gambling operations, nonmembership fitness and recreational sports centers, sports instruction, sports equipment rental, ticket agencies, charter fishing, state fairs, agriculture fairs, county fairs, operation of fishing lakes, phrenologists services, and amusement services)	713990	All Other Amusement and Recreation Industries
			7999	Amusement and Recreation Services, NEC (phrenologists services)	812990	All Other Personal Services
			80 Health Services			

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			8011	Offices and Clinics of Doctors of Medicine (except mental health specialists, HMO medical centers, and ambulatory surgical and emergency centers)	621111	Offices of Physicians (except Mental Health Specialists)
			8011	Offices and Clinics of Doctors of Medicine (mental health specialists)	621112	Offices of Physicians, Mental Health Specialists
			8011	Offices and Clinics of Doctors of Medicine (HMO Medical Centers)	621491	HMO Medical Centers
			8011	Offices and Clinics of Doctors of Medicine (ambulatory surgical and emergency centers)	621493	Freestanding Ambulatory Surgical and Emergency Centers
			8021	Offices and Clinics of Dentists	621210	Offices of Dentists
			8031	Offices and Clinics of Doctors of Osteopathy (except mental health specialists)	621111	Offices of Physicians (except Mental Health Specialists)
			8031	Offices and Clinics of Doctors of Osteopathy (mental health specialists)	621112	Offices of Physicians, Mental Health Specialists
			8041	Offices and Clinics of Chiropractors	621310	Offices of Chiropractors
			8042	Offices and Clinics of Optometrists	621320	Offices of Optometrists
			8043	Offices and Clinics of Podiatrists	621391	Offices of Podiatrists
			8049	Offices and Clinics of Health Practitioners, NEC (mental health practitioners except physicians)	621330	Offices of Mental Health Practitioners (except Physicians)
			8049	Offices and Clinics of Health Practitioners, NEC (physical, occupational, recreational and speech therapists, and audiologists)	621340	Offices of Physical, Occupational Speech Therapists, and Audiologists
			8049	Offices and Clinics of Health Practitioners, NEC (except mental health practitioners, physical, occupational, speech therapists, and audiologists)	621399	Offices of All Other Miscellaneous Health Practitioners
			8051	Skilled Nursing Care Facilities (except continuing care retirement communities and mental retardation hospitals)	623110	Nursing Care Facilities
			8051	Skilled Nursing Care Facilities (mental retardation hospitals)	623210	Residential Mental Retardation Facilities
			8051	Skilled Nursing Care Facilities (continuing care retirement communities)	623311	Continuing Care Retirement Communities
			8052	Intermediate Care Facilities (except continuing care retirement communities and mental retardation facilities)	623110	Nursing Care Facilities
			8052	Intermediate Care Facilities (mental retardation facilities)	623210	Residential Mental Retardation Facilities
			8052	Intermediate Care Facilities (continuing care retirement communities)	623311	Continuing Care Retirement Communities
			8059	Nursing and Personal Care Facilities, NEC (except continuing care retirement communities, psychiatric convalescent homes with health care, and homes for the mentally retarded with health care)	623110	Nursing Care Facilities
			8059	Nursing and Personal Care Facilities, NEC (homes for the mentally retarded with health care)	623210	Residential Mental Retardation Facilities
			8059	Nursing and Personal Care Facilities, NEC (continuing care retirement communities)	623311	Continuing Care Retirement Communities
			8062	General Medical and Surgical Hospitals	622110	General Medical and Surgical Hospitals
			8063	Psychiatric Hospitals	622210	Psychiatric and Substance Abuse Hospitals
			8069	Specialty Hospitals, Except Psychiatric (children's hospitals)	622110	General Medical and Surgical Hospitals
			8069	Specialty Hospitals, Except Psychiatric (substance abuse hospitals)	622210	Psychiatric and Substance Abuse Hospitals
			8069	Specialty Hospitals, Except Psychiatric (except children's and substance abuse hospitals)	622310	Specialty (except Psychiatric and Substance Abuse) Hospitals
			8071	Medical Laboratories (except diagnostic imaging centers)	621511	Medical Laboratories
			8071	Medical Laboratories (diagnostic imaging centers)	621512	Diagnostic Imaging Centers
			8072	Dental Laboratories	339116	Dental Laboratories
			8082	Home Health Care Services	621610	Home Health Care Services
			8092	Kidney Dialysis Centers	621492	Kidney Dialysis Centers
			8093	Specialty Outpatient Facilities, NEC (respiratory therapy clinics and offices)	621399	Offices of All Other Miscellaneous Health Practitioners
			8093	Specialty Outpatient Facilities, NEC (family planning centers)	621410	Family Planning Centers
			8093	Specialty Outpatient Facilities, NEC (mental health facilities)	621420	Outpatient Mental Health and Substance Abuse Centers
			8093	Specialty Outpatient Facilities, NEC (except family planning centers, mental health centers, and respiratory therapy clinics and offices)	621498	All Other Outpatient Care Centers
			8099	Health and Allied Services, NEC (medical artists)	541430	Graphic Design Services
			8099	Health and Allied Services, NEC (medical photography)	541922	Commercial Photography
			8099	Health and Allied Services, NEC (childbirth preparation)	621410	Family Planning Centers
			8099	Health and Allied Services, NEC (blood and organ banks)	621991	Blood and Organ Banks
			8099	Health and Allied Services, NEC (except blood and organ banks, medical artists, medical photography, and childbirth preparation classes)	621999	All Other Miscellaneous Ambulatory Health Care Services
			81 Legal Services			
			8111	Legal Services	541110	Offices of Lawyers
			82 Educational Services			
			8211	Elementary and Secondary Schools	611110	Elementary and Secondary Schools
			8221	Colleges, Universities, and Professional Schools	611310	Colleges, Universities, and Professional Schools
			8222	Junior Colleges and Technical Institutes	611210	Junior Colleges
			8231	Libraries	519120	Libraries and Archives
			8243	Data Processing Schools (except computer repair training)	611420	Computer Training
			8243	Data Processing Schools (computer repair training)	611519	Other Technical and Trade Schools
			8244	Business and Secretarial Schools	611410	Business and Secretarial Schools
			8249	Vocational Schools, NEC (aviation schools, excluding flying instruction)	611512	Flight Training
			8249	Vocational Schools, NEC (vocational apprenticeship training)	611513	Apprenticeship Training
			8249	Vocational Schools, NEC (except aviation and flight training and apprenticeship training)	611519	Other Technical and Trade Schools
			8299	Schools and Educational Services, NEC (professional and management development training)	611430	Professional and Management Development Training

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			8299	Schools and Educational Services, NEC (flying instruction)	611512	Flight Training
			8299	Schools and Educational Services, NEC (cooking and modeling schools)	611519	Other Technical and Trade Schools
			8299	Schools and Educational Services, NEC (art, drama, and music schools)	611610	Fine Arts Schools
			8299	Schools and Educational Services, NEC (baton instruction)	611620	Sports and Recreation Instruction
			8299	Schools and Educational Services, NEC (language schools)	611630	Language Schools
			8299	Schools and Educational Services, NEC (exam preparation and tutoring)	611691	Exam Preparation and Tutoring
			8299	Schools and Educational Services, NEC (automobile driving instruction)	611692	Automobile Driving Schools
			8299	Schools and Educational Services, NEC (except professional and management training, aviation and flight training, fine arts schools, language schools, exam preparation and tutoring, automobile driving schools, and educational support services)	611699	All Other Miscellaneous Schools and Instruction
			8299	Schools and Educational Services NEC (educational support services)	611710	Educational Support Services
			83 Social Services			
			8322	Individual and Family Social Services (child and youth services)	624110	Child and Youth Services
			8322	Individual and Family Social Services (services for the elderly and disabled)	624120	Services for the Elderly and Persons with Disabilities
			8322	Individual and Family Social Services (except services for children, youth, elderly, and disabled; community food assistance services; housing services (except temporary), emergency and relief services, and government parole or probation offices)	624190	Other Individual and Family Services
			8322	Individual and Family Social Services (community food assistance services)	624210	Community Food Services
			8322	Individual and Family Social Services (temporary shelter)	624221	Temporary Shelters
			8322	Individual and Family Social Services (housing services except temporary shelter)	624229	Other Community Housing Services
			8322	Individual and Family Social Services (emergency and relief services)	624230	Emergency and Other Relief Services
			8322	Individual and Family Social Services (government parole and probation offices)	922150	Parole Offices and Probation Offices
			8331	Job Training and Vocational Rehabilitation Services	624310	Vocational Rehabilitation Services
			8351	Child Day Care Services	624410	Child Day Care Services
			8361	Residential Care (homes for the mentally handicapped with incidental health care)	623210	Residential Mental Retardation Facilities
			8361	Residential Care (mental health and substance abuse facilities)	623220	Residential Mental Health and Substance Abuse
			8361	Residential Care (homes for the elderly)	623312	Homes for the Elderly
			8361	Residential Care (except mental health and substance abuse facilities, homes for the elderly, and homes for the mentally handicapped with incidental health care)	623990	Other Residential Care Facilities
			8399	Social Services, NEC (voluntary health organizations)	813212	Voluntary Health Organizations
			8399	Social Services, NEC (grantmaking and giving)	813219	Other Grantmaking and Giving Services
			8399	Social Services, NEC (human rights organizations)	813311	Human Rights Organizations
			8399	Social Services, NEC (environment, conservation, and wildlife advocacy)	813312	Environment, Conservation and Wildlife Organizations
			8399	Social Services, NEC (except human rights, environment, conservation and wildlife advocacy organizations, grantmaking and giving, and voluntary health organizations)	813319	Other Social Advocacy Organizations
			84 Museums, Art Galleries, Botanical and Zoological Gardens			
			8412	Museums and Art Galleries (except historic and heritage sites)	712110	Museums
			8412	Museums and Art Galleries (historic and heritage sites)	712120	Historical Sites
			8422	Arboreta and Botanical or Zoological Gardens (except nature parks and reserves)	712130	Zoos and Botanical Gardens
			8422	Arboreta and Botanical or Zoological Gardens (nature parks and reserves)	712190	Nature Parks and Other Similar Institutions
			86 Membership Organizations			
			8611	Business Associations	813910	Business Associations
			8621	Professional Membership Organizations	813920	Professional Organizations
			8631	Labor Unions and Similar Labor Organizations	813930	Labor Unions and Similar Labor Organizations
			8641	Civic, Social, and Fraternal Associations (taxpayers' associations, tenants' advocacy associations, temperance organizations)	813319	Other Social Advocacy Organizations
			8641	Civic, Social, and Fraternal Associations (except condominium and homeowner associations, taxpayers associations, tenants advocacy associations, temperance organizations, and Indian and Alaska Native Tribal Councils)	813410	Civic and Social Organizations
			8641	Civic, Social, and Fraternal Associations (condominium and homeowner associations)	813990	Other Similar Organizations (except Business, Professional, Labor, and Political Organizations)
			8641	Civic, Social, and Fraternal Associations (Indian and Alaska Native Tribal Councils)	921150	American Indian and Alaska Native Tribal Governments
			8651	Political Organizations	813940	Political Organizations
			8661	Religious Organizations	813110	Religious Organizations
			8699	Membership Organizations, NEC (travel motor clubs)	561599	All Other Travel Arrangement and Reservation Services
			8699	Membership Organizations, NEC (humane societies)	813312	Environment, Conservation and Wildlife Organizations
			8699	Membership Organizations, NEC (except humane societies, farm business organizations, athletic associations, and travel motor clubs)	813410	Civic and Social Organizations
			8699	Membership Organizations, NEC (farm business organizations)	813910	Business Associations
			8699	Membership Organizations, NEC (athletic associations)	813990	Other Similar Organizations (except Business, Professional, Labor, and Political Organizations)

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
			87 Engineering and Management Services			
			8711	Engineering Services	541330	Engineering Services
			8712	Architectural Services	541310	Architectural Services
			8713	Surveying Services (geophysical surveying)	541360	Geophysical Surveying and Mapping Services
			8713	Surveying Services (except geophysical surveying)	541370	Surveying and Mapping (except Geophysical) Services
			8721	Accounting, Auditing, and Bookkeeping Services (auditing accountants)	541211	Offices of Certified Public Accountants
			8721	Accounting, Auditing, and Bookkeeping Services (payroll services)	541214	Payroll Services
			8721	Accounting, Auditing, and Bookkeeping Services (other accounting services)	541219	Other Accounting Services
			8731	Commercial Physical and Biological Research	541710	Research and Development in the Physical, Engineering, and Life Sciences
			8732	Commercial Economic, Sociological, and Educational Research (social sciences and humanities)	541720	Research and Development in the Social Sciences and Humanities
			8732	Commercial Economic, Sociological, and Educational Research (market research and opinion research)	541910	Marketing Research and Public Opinion Polling
			8733	Noncommercial Research Organizations (physical, engineering, and life sciences)	541710	Research and Development in the Physical, Engineering, and Life Sciences
			8733	Noncommercial Research Organizations (social sciences and humanities)	541720	Research and Development in the Social Sciences and Humanities
			8734	Testing Laboratories (except veterinary testing laboratories)	541380	Testing Laboratories
			8734	Testing Laboratories (veterinary testing laboratories)	541940	Veterinary Services
			8741	Management Services (single-family housing construction management)	236115	New Single-Family Housing Construction (except Operative Builders)
			8741	Management Services (multifamily housing construction management)	236116	New Multifamily Housing Construction (except Operative Builders)
			8741	Management Services (residential remodeling construction management)	236118	Residential Remodelers
			8741	Management Services (industrial building and nonbuilding structure construction management)	236210	Industrial Building Construction
			8741	Management Services (commercial and institutional building construction management)	236220	Commercial and Institutional Building Construction
			8741	Management Services (construction management of water, sewer, and related structure construction projects)	237110	Water and Sewer Line and Related Structures Construction
			8741	Management Services (construction management of oil and gas pipelines and related structure construction projects)	237120	Oil and Gas Pipeline and Related Structures Construction
			8741	Management Services (construction management of power generation [except hydroelectric] facilities, and transmission and distribution station construction projects)	237130	Power and Communication Line and Related Structures Construction
			8741	Management Services (highway, street, and bridge construction management)	237310	Highway, Street, and Bridge Construction
			8741	Management Services (construction management for other heavy and civil engineering construction)	237990	Other Heavy and Civil Engineering Construction
			8741	Management Services (except construction management)	561110	Office Administrative Services
			8742	Management Consulting Services (administrative management and general management consulting)	541611	Administrative Management and General Management Consulting Services
			8742	Management Consulting Services (human resources and personnel management consulting)	541612	Human Resources and Executive Search Consulting Services
			8742	Management Consulting Services (marketing consulting)	541613	Marketing Consulting Services
			8742	Management Consulting Services (manufacturing management, physical distribution, and site location consulting)	541614	Process, Physical Distribution, and Logistics Consulting Services
			8743	Public Relations Services	541820	Public Relations Agencies
			8744	Facilities Support Management Services	561210	Facilities Support Services
			8748	Business Consulting Services, NEC (urban planners and industrial development organizations)	541320	Landscape Architectural Services
			8748	Business Consulting Services, NEC (traffic consultants)	541330	Engineering Services
			8748	Business Consulting Services, NEC (except educational testing and consulting, economic consulting, safety and security, agriculture consulting, environmental consulting firms, urban planning and industrial development organizations)	541618	Other Management Consulting Services
			8748	Business Consulting Services, NEC (safety, security, agriculture, and economic consultants)	541690	Other Scientific and Technical Consulting Services
			8748	Business Consulting Services, NEC (educational test development and evaluation services, educational testing services, and educational consultants)	611710	Educational Support Services
			Aux	Auxiliary Category to 1987 SIC	541120	Offices of Notaries
			Aux	Auxiliary Category to 1987 SIC	551114	Corporate, Subsidiary, and Regional Managing Offices
			88 Private Households			
			8811	Private Households	814110	Private Households
			89 Miscellaneous Services			
			8999	Services, NEC (record production)	512210	Record Production
			8999	Services, NEC (music publishing)	512230	Music Publishers
			8999	Services, NEC (Internet broadcasting, special interest web sites, entertainment sites, and interactive game sites)	516110	Internet Publishing and Broadcasting
			8999	Services, NEC (Internet web search portals)	518112	Web Search Portals
			8999	Services, NEC (actuarial consulting)	541612	Human Resources and Executive Search Consulting Services
			8999	Services, NEC (environmental consultants)	541620	Environmental Consulting Services
			8999	Services, NEC (scientific and related consulting services)	541690	Other Scientific and Technical Consulting Services
			8999	Services, NEC (weather forecasting services)	541990	All Other Professional, Scientific, and Technical Services
			8999	Services, NEC (authors, artists, and related technical services, independent)	711510	Independent Artists, Writers, and Performers

TUMF	U.S. Standard Industrial Classification (SIC) System (1987)				North American Industry Classification System (NAICS) (2002)	
Category	Major Groups	Minor Groups	Category Codes	Category Description	Category Codes	Category Description
Government/Public Sector						
	90-99 Public Administration					
		91 Executive, Legislative and General Government				
			9111	Executive Offices	921110	Executive Offices
			9121	Legislative Bodies	921120	Legislative Bodies
	9131		Executive and Legislative Office Combined	921140	Executive and Legislative Offices, Combined	
	9199		General Government, NEC	921190	Other General Government Support	
		92 Justice, Public Order and Safety				
			9211	Courts	922110	Courts
			9221	Police Protection	922120	Police Protection
			9222	Legal Counsel and Prosecution	922130	Legal Counsel and Prosecution
			9223	Correctional Institutions	922140	Correctional Institutions
			9224	Fire Protection	922160	Fire Protection
			9229	Public Order and Safety, NEC	922190	All Other Justice, Public Order, and Safety Activities
	93 Finance, Taxation and Monetary Policy					
		9311	Public Finance, Taxation, and Monetary Policy	921130	Public Finance Activities	
	94 Administration of Human Resources					
		9411	Administration of Educational Programs	923110	Administration of Education Programs	
		9431	Administration of Public Health Programs	923120	Administration of Public Health Programs	
		9441	Administration of Social, Human Resource and Income Maintenance Programs	923130	Administration of Human Resource Programs (except Education, Public Health, and Veteran's Affairs Programs)	
		9451	Administration of Veterans' Affairs, Except Health and Insurance	923140	Administration of Veteran's Affairs	
	95 Environmental Quality and Housing					
		9511	Air and Water Resource and Solid Waste Management	924110	Administration of Air and Water Resource and Solid Waste Management Programs	
		9512	Land, Mineral, Wildlife, and Forest Conservation	924120	Administration of Conservation Programs	
		9531	Administration of Housing Programs	925110	Administration of Housing Programs	
		9532	Administration of Urban Planning and Community and Rural Development	925120	Administration of Urban Planning and Community and Rural Development	
	96 Administration of Economic Programs					
		9611	Administration of General Economic Programs	926110	Administration of General Economic Programs	
		9621	Regulation and Administration of Transportation Programs (government air traffic control)	488111	Air Traffic Control	
		9621	Regulation and Administration of Transportation Programs (except air traffic control)	926120	Regulation and Administration of Transportation Programs	
		9631	Regulation and Administration of Communications, Electric, Gas, and Other Utilities	926130	Regulation and Administration of Communications, Electric, Gas, and Other Utilities	
		9641	Regulation of Agricultural Marketing and Commodities	926140	Regulation of Agricultural Marketing and Commodities	
		9651	Regulation, Licensing, and Inspection of Miscellaneous Commercial Sectors	926150	Regulation, Licensing, and Inspection of Miscellaneous Commercial Sectors	
		9661	Space Research and Technology	927110	Space Research and Technology	
	97 National Security and International Affairs					
		9711	National Security	928110	National Security	
		9721	International Affairs	928120	International Affairs	

Source: 2002 NAICS-US Matched to 1987 SIC, U.S. Census Bureau, January 2001 Revisions
NAICS - North American Industry Classification System
SIC - U.S. Standard Industrial Classification

Appendix C

Western Riverside County Traffic Growth 2000 – 2030

Existing (2000) and future (2030) traffic data were derived from the SCAG Regional Transportation Model networks developed in support of the SCAG 2004 RTP. The model area of coverage, level of roadway network and traffic analysis zone detail, and application on other regional transportation study efforts represented the appropriate tool for evaluating traffic growth as part of the Nexus Study.

The forecasts of existing and future congestion levels were derived from the Year 2000 and Year 2030 Baseline (no project)¹ scenarios, respectively. The 2030 Baseline (no project) forecasts were used rather than the 2030 Plan forecasts because the 2030 Plan roadway network includes several transportation improvements that are part of the regional plan proposed in the 2004 RTP, but are uncommitted (meaning that their implementation is dependent on securing funding and approval). Inclusion of the uncommitted improvements masks the congestion effects of increasing travel. Inclusion of these improvements and the resultant masking is not appropriate for this particular discussion that is aimed at identifying the effects of increasing travel that would result if improvements are not funded and built. Please note that the socioeconomic and trip table data used to calculate the TUMF fee correspond to the 2030 Plan forecasts.

The WRCOG TUMF study area was extracted from the greater SCAG model network for the purpose of calculating the following measures for Western Riverside County only. They quantify traffic growth impacts for each of the two scenarios. They were calculated using the layer information link calculation capabilities of Citilabs Viper Software.

- Total daily vehicle miles of travel (VMT),
- Total daily VMT on facilities experiencing LOS D or worse.
- Total daily VMT on facilities experiencing LOS E or worse.
- Total daily vehicle hours of travel (VHT),
- Total combined daily vehicle hours of delay (VHD), and
- Speed in miles per hour.

The following formulas were used to calculate the respective values.

- $VMT = \text{Link Distance} * \text{Total Daily Volume}$

¹ “Baseline (No-Project) growth represents a trend projection that assumes continuation of existing land-use policies, and completion of regional transportation projects that are already committed for funding. This projection excludes consideration of growth proposed in this RTP, and projects that are proposed in the Plan over and beyond the committed projects, including Maglev and other corridor improvement projects.” (Source: SCAG 2004 RTP, Destination 2030)

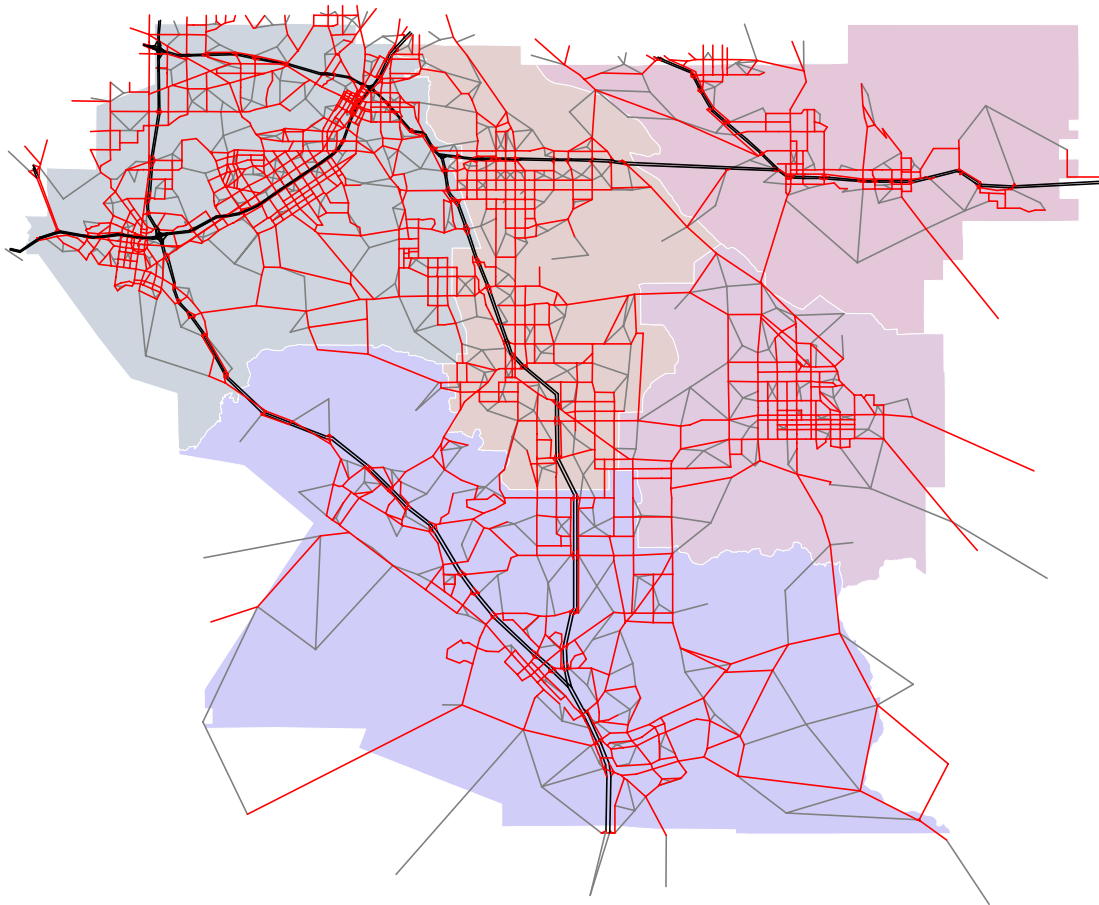
- $VMT_{LOSD} = VMT$ (on links where Daily Volume to Capacity Ratio (V/C) exceeded 0.62)
- $VMT_{LOSE} = VMT$ (on links where Daily V/C exceeded 0.82)
- $VHT = \text{Average Loaded (Congested) Link Travel Time} * \text{Total Daily Volume}$
- $VHD = VHT - (\text{Freeflow (Uncongested) Link Travel Time} * \text{Total Daily Volume})$
- $SPEED = \text{Link Distance} / \text{Average Loaded (Congested) Link Travel Time}$

LOS Thresholds for LOS D and E are based on the Transportation Research Board 2000 Edition of the Highway Capacity Manual (HCM 2000) LOS Maximum V/C Criteria for Multilane Highways with 45 mph Free Flow Speed (Exhibit 21-2, Chapter 21, Page 21-3).

The SCAG Regional Transportation Model that was used to develop these measures, breaks down its roadway network into functional categories called assignment groups. The measures were calculated selectively for all facilities, arterials only, and freeways only by including and excluding different assignment groups. For the calculation of measures on “all facilities”, only the centroid connectors (assignment group 6) were excluded. Arterial values excluded assignment groups 0, 1, 5, 6 and 8 being all mixed-flow to carpool lane connector ramps, freeways, carpool lanes, centroid connectors, and freeway-to-freeway connector ramps, respectively. Freeways were defined as including only assignment groups 0, 1, 5, and 8.

The calculated values were compared to assess the total change between 2000 and 2030, and the average annual change between 2000 and 2030. The results were recorded from the Viper layer information results dialog box and were tabulated in **Table 3.1** of the Nexus Study – 2005 Update. Plots of the network extents and screen shots of the respective results dialog boxes are included in this appendix as Exhibits **C-1** through **C-4**.

EXHIBIT C-1
WRCOG EXTRACTED NETWORK BY FACILITY TYPE
YEAR 2000

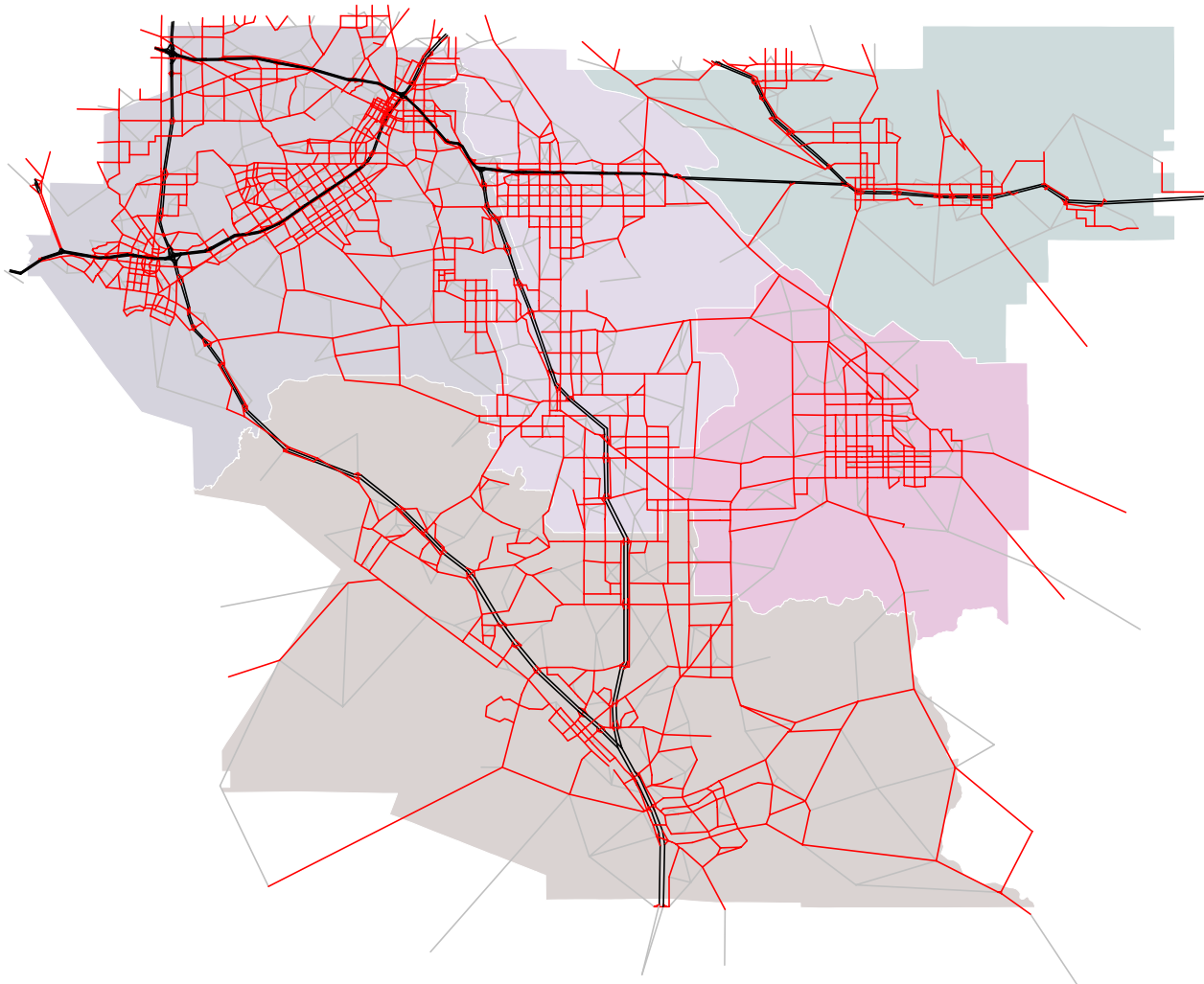


Facility Type

- ASGNGRP=0; Mixed-Flow to HOV Connectors
- ASGNGRP=1; Freeways
- ASGNGRP=2; Principal Arterials
- ASGNGRP=3; Minor Arterials
- ASGNGRP=4; Major Collectors
- ASGNGRP=5; HOV
- ASGNGRP=6; Centroid Connectors
- ASGNGRP=7; Freeway On and Off Ramps
- ASGNGRP=8; Freeway to Freeway Connectors

Based on SCAG 2004 RTP

EXHIBIT C-2
WRCOG EXTRACTED NETWORK BY FACILITY TYPE
YEAR 2030 BASELINE SCENARIO



Facility Type

- ASGNGRP=0; Mixed-Flow to HOV Connectors
- ASGNGRP=1; Freeways
- ASGNGRP=2; Principal Arterials
- ASGNGRP=3; Minor Arterials
- ASGNGRP=4; Major Collectors
- ASGNGRP=5; HOV
- ASGNGRP=6; Centroid Connectors
- ASGNGRP=7; Freeway On and Off Ramps
- ASGNGRP=8; Freeway to Freeway Connectors

EXHIBIT C-3
VIPER SCREEN SHOWING NETWORK ATTRIBUTES
YEAR 2000 SCENARIO (DAILY, AM, MD, PM, NT)

YR2000 DAILY

Layer Information

File Information

Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI	Type	TP+ NET
Date	11/9/2004 11:44:38 AM	Size	812565

Statistics (Active/Total)

Node	3072/3305	Link	8778/8778
Zone	366/492		

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
------	---------	---------	-------	----------	---------	----------

Link Attributes: 50

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VMT	0	251187	3.2189E7	6445	3667.01	4994.42
VMT_FwYHOV	0	251187	2.02565E7	657	2307.65	30831.9
VMTLOSDF	0	251187	2.39628E7	1555	2729.88	15410.2
VMTLOSDF_FwYHOV	0	251187	1.87585E7	572	2136.99	32794.5
VMTLOSEF	0	179999	1.6715E7	856	1904.2	19526.9
VMTLOSEF_FwYHOV	0	179999	1.39992E7	400	1594.8	34998

EXHIBIT C-3 (CONTINUED)

YR2000 AM

 **Layer Information**   

File Information

Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI	Type	TP+ NET
Date	2/2/2006 2:32:50 PM	Size	484887

Statistics (Active/Total)

Node	3072/3105	Link	8778/8778
Zone	366/366		

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
Link Attributes: 32						
Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VMT	0	61818.5	6.43651E6	6283	733.255	1024.43
VHT	0	2262.6	153273	6283	17.461	24.3948
VHD	0	1651.26	31673.2	2614	3.60825	12.1167
SPEED	0	72	258312	6946	29.4272	37.1885
VMT_FwYHOV	0	61818.5	3.91591E6	655	446.105	5978.49
VHT_FwYHOV	0	2262.6	78393.6	655	8.9307	119.685
VHD_FwYHOV	0	1651.26	18475.8	518	2.10479	35.6677
SPEED_FwYHOV	0	72	36866.4	658	4.19987	56.028

EXHIBIT C-3 (CONTINUED)

YR 2000 MD (MID-DAY)

 **Layer Information** 

File Information

Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI	Type	TP+ NET
Date	2/2/2006 2:45:54 PM	Size	493716

Statistics (Active/Total)

Node	3072/3105	Link	8778/8778
Zone	366/366		

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
Link Attributes: 32						
Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VMT	0	67886.8	1.00905E7	6103	1149.52	1653.37
VHT	0	1084.91	206346	6103	23.5071	33.8105
VHD	0	341.717	18550.3	2014	2.11328	9.2107
SPEED	0	72	266637	6946	30.3756	38.3871
VMT_FwYHOV	0	67886.8	6.39733E6	657	728.791	9737.18
VHT_FwYHOV	0	1084.91	109000	657	12.4174	165.905
VHD_FwYHOV	0	222.97	11181.4	497	1.2738	22.4978
SPEED_FwYHOV	0	72	39069.3	658	4.45082	59.3758

EXHIBIT C-3 (CONTINUED)

YR2000 PM

Layer Information

File Information

Name

G:\TUMFManagement\NexusReview\SCAG 2004RTI

Type

TP+ NET

Date

2/2/2006 2:48:34 PM

Size

497960

Statistics (Active/Total)

Node

3072/3105

Link

8778/8778

Zone

366/366

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
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Link Attributes: 32

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VMT	0	71086.8	1.01708E7	6376	1158.67	1595.17
VHT	0	2581.83	252943	6376	28.8156	39.6712
VHD	0	1776.49	60397.1	3207	6.8805	18.8329
SPEED	0	72	252069	6946	28.716	36.2898
VMT_FwYHOV	0	71086.8	6.17865E6	657	703.879	9404.33
VHT_FwYHOV	0	2581.83	129619	657	14.7663	197.289
VHD_FwYHOV	0	1776.49	35234.8	585	4.01399	60.2304
SPEED_FwYHOV	0	72	34569.8	658	3.93823	52.5377

EXHIBIT C-3 (CONTINUED)

YR2000 NT (NIGHT)

 **Layer Information** 

File Information

Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI	Type	TP+ NET
Date	2/2/2006 2:51:54 PM	Size	471964

Statistics (Active/Total)

Node	3072/3105	Link	8778/8778
Zone	366/366		

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
Link Attributes: 32						
Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VMT	0	51522.2	5.49069E6	5844	625.506	939.544
VHT	0	776.086	99109.6	5844	11.2907	16.9592
VHD	0	46.145	314.832	128	0.0358661	2.45963
SPEED	0	72	275665	6946	31.404	39.6868
VMT_FwYHOV	0	51522.2	3.76435E6	599	428.84	6284.4
VHT_FwYHOV	0	776.086	57728.7	599	6.57652	96.3751
VHD_FwYHOV	0	12.881	166.823	40	0.0190047	4.17057
SPEED_FwYHOV	0	72	42337.6	658	4.82314	64.3428

EXHIBIT C-4
VIPER SCREEN SHOWING NETWORK ATTRIBUTES
YEAR 2030 BASELINE SCENARIO (DAILY, AM, MD, PM, NT)

YR2030 BASELINE – DAILY

Layer Information

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□
X

File Information

Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI	Type	TP+ NET
Date	11/9/2004 11:34:40 AM	Size	892879

Statistics (Active/Total)

Node	3178/3411	Link	8981/8981
Zone	366/492		

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
------	---------	---------	-------	----------	---------	----------

Link Attributes: 51

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VCDAILY_NEW	0	3.0526	4725.9	7047	0.52621	0.670625
VMT	0	490734	5.5256E7	7006	6152.54	7886.95
VMT_FWYHOV	0	490734	3.23163E7	826	3598.3	39123.9
VMTLOSDF	0	490734	4.81015E7	3408	5355.91	14114.3
VMTLOSDF_FWYHOV	0	490734	3.22176E7	710	3587.3	45376.8
VMTLOSEF	0	490734	4.37293E7	2339	4869.09	18695.7
VMTLOSEF_FWYHOV	0	490734	3.20393E7	690	3567.45	46433.8

EXHIBIT C-4 (CONTINUED)

YR2030 BASELINE - AM

Layer Information

File Information
Name G:\TUMFManagement\NexusReview\SCAG 2004RTI Type TP+ NET
Date 2/2/2006 3:34:10 PM Size 440483

Statistics (Active/Total)
Node 3178/3211 Link 8981/8981
Zone 366/366

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VHT	0	7169.17	453247	6857	50.4673	66.0999
VHD	0	4891.87	234056	4648	26.0612	50.3563
VHT_FwYHOV	0	7169.17	192978	821	21.4873	235.052
VHD_FwYHOV	0	4891.87	97438.7	700	10.8494	139.198

Link Attributes: 28

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VHT	0	7169.17	453247	6857	50.4673	66.0999
VHD	0	4891.87	234056	4648	26.0612	50.3563
VHT_FwYHOV	0	7169.17	192978	821	21.4873	235.052
VHD_FwYHOV	0	4891.87	97438.7	700	10.8494	139.198

YR2030 BASELINE – MD (MID-DAY)

Layer Information

File Information
Name G:\TUMFManagement\NexusReview\SCAG 2004RTI Type TP+ NET
Date 2/2/2006 3:37:26 PM Size 441187

Statistics (Active/Total)
Node 3178/3211 Link 8981/8981
Zone 366/366

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VHT	0	2633.18	405757	6650	45.1794	61.016
VHD	0	1445.5	86445.2	3882	9.62535	22.2682
VHT_FwYHOV	0	2633.18	194961	819	21.7082	238.048
VHD_FwYHOV	0	673.33	44544.1	678	4.95981	65.6992

Link Attributes: 27

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VHT	0	2633.18	405757	6650	45.1794	61.016
VHD	0	1445.5	86445.2	3882	9.62535	22.2682
VHT_FwYHOV	0	2633.18	194961	819	21.7082	238.048
VHD_FwYHOV	0	673.33	44544.1	678	4.95981	65.6992

EXHIBIT C-4 (CONTINUED)

YR2030 BASELINE - PM

 **Layer Information** 

File Information

Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI	Type	TP+ NET
Date	2/2/2006 3:39:38 PM	Size	446597

Statistics (Active/Total)

Node	3178/3211	Link	8981/8981
Zone	366/366		

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
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Link Attributes: 27

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VHT	0	6748.43	702728	6958	78.2461	100.996
VHD	0	4717.89	360001	5323	40.0847	67.6312
VHT_FwyHOV	0	6748.43	316949	824	35.291	384.647
VHD_FwyHOV	0	4717.89	169046	715	18.8226	236.428

YR2030 BASELINE – NT (NIGHT)

 **Layer Information** 

File Information

Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI	Type	TP+ NET
Date	2/2/2006 3:41:44 PM	Size	412382

Statistics (Active/Total)

Node	3178/3211	Link	8981/8981
Zone	366/366		

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
------	---------	---------	-------	----------	---------	----------

Link Attributes: 27

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VHT	0	1542.71	178891	6069	19.9188	29.4761
VHD	0	91.79	2588.15	650	0.288181	3.98177
VHT_FwyHOV	0	1542.71	99971.6	760	11.1315	131.542
VHD_FwyHOV	0	87.7975	1250.7	191	0.13926	6.54816

Appendix D

Western Riverside County Transit Person Trips

Exhibits D-1 and **D-2** contain transit person-trips for the Year 2000 and Year 2030 Plan scenarios as derived from the SCAG 2004 RTP model. These tables support the discussion of transit trip growth contained in **Section 3.2**. Transit person trips internal to Western Riverside County, (both originating and destined within) were aggregated to obtain total transit person trips occurring within Western Riverside County. The total transit person trips within Western Riverside County for 2030 was then compared with that for 2000 to determine the total share of transit trips that could be attributed to new growth.

EXHIBIT D-1
2000 TRANSIT PERSON TRIPS BY WRCOG TUMF ZONE
TOTAL OF ALL TRIP PURPOSES

FROM	TO						TOTAL
	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	
Northwest	10,380	692	20	15	35	5,925	17,066
Central	1,667	3,652	77	89	240	1,410	7,134
Pass Area	71	118	406	40	2	244	881
Hemet / San Jacinto	130	227	88	1,174	83	45	1,746
Southwest	93	202	1	15	1,214	5	1,530
Outside WRCOG	2,779	207	138	12	2		3,138
TOTAL	15,120	5,099	729	1,344	1,576	7,627	31,495
SUM OF TRIPS ORIGINATING IN AND DESTINED FOR WRCOG (shaded cells only):							20,730

Based on the SCAG 2004 Regional Transportation Plan, Year 2000 scenario.

EXHIBIT D-2
2030 TRANSIT PERSON TRIPS BY WRCOG TUMF ZONE
TOTAL OF ALL TRIP PURPOSES

FROM	TO						TOTAL
	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	
Northwest	24,284	2,189	60	30	80	16,068	42,711
Central	4,828	8,529	179	192	476	4,454	18,657
Pass Area	303	424	2,395	102	7	1,077	4,307
Hemet / San Jacinto	303	657	145	4,334	251	162	5,852
Southwest	460	864	12	171	5,619	680	7,805
Outside WRCOG	14,523	1,915	628	118	142	0	17,325
TOTAL	44,700	14,578	3,419	4,947	6,573	22,440	96,657
SUM OF TRIPS ORIGINATING IN AND DESTINED FOR WRCOG (shaded cells only):							56,891

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

Appendix E

Western Riverside County Regional System of Highways and Arterials Performance Measures

An integral element of the Nexus Study was the designation of the Western Riverside County Regional System of Highways and Arterials (also referred to as the “TUMF Network”). This network of regionally significant highways represents those arterial and collector highway and roadway facilities that primarily support inter-community trips in Western Riverside County and supplement the regional freeway system, and represents the extents of the network of highways and roadways that would be eligible for TUMF funded improvements. The Regional System of Highways and Arterials does NOT include the freeways of Western Riverside County which primarily serve inter-regional trips.

The designation of the Regional System of Highways and Arterials was initiated with the identification of highways and roadways that met certain specified guidelines as defined by the WRCOG Public Works Committee. The guidelines are defined in **Section 4.1** of the Nexus Report, and include:

1. Arterial highway facilities proposed to have a minimum of four lanes at future buildout (not including freeways).
2. Facilities that serve multiple jurisdictions and/or provide connectivity between communities both within and adjoining Western Riverside County.
3. Facilities with forecast traffic volumes in excess of 20,000 vehicles per day by 2025.
4. Facilities with forecast volume to capacity ratio of 0.82 (LOS E) or greater in 2025.
5. Facilities that accommodate regional fixed route transit services.
6. Facilities that provide direct access to major commercial, industrial, institutional, recreational or tourist activity centers, and multi-modal transportation facilities (such as airports, railway terminals and transit centers).

Candidate facilities were identified by overlaying various transportation system and land use plots depicting parameters consistent with those defined by the specified guidelines. These plots included existing and proposed numbers of lanes, network volumes and volume to capacity ratio (LOS) derived from SCAG CTP Model networks developed by Transcore to support the ongoing Western Riverside County CETAP study, and existing land use information provided by SCAG. These plots have been included in this Appendix as **Exhibit E-1**. Fixed route transit service information was provided by the Riverside County Regional Transportation Authority (RTA).

These various data inputs were overlaid and reviewed leading the definition of a segmented skeletal network of highways and roadways for further consideration.

The skeletal network was further enhanced to reflect regional connectivity and access to activity center considerations. An initial draft Regional System of Highways and Arterials was developed and subsequently distributed to the County of Riverside and each City in Western Riverside County for review in the context of their respective City General Plan Circulation Elements, primarily to confirm existing and future number of lanes and appropriateness of the facilities identified. The initial draft network was subsequently revised to consolidate appropriate General Plan Circulation Elements, including the identification of proposed new facilities as alternatives to existing facilities. It should be pointed out that the Regional System of Highways and Arterials does not represent a simple compilation of regional General Plan Circulation Elements, but rather incorporates the elements of regional General Plan Circulation Elements that are necessary for mitigating the cumulative regional traffic impacts of new development within the horizon year of the TUMF program.

The consolidated list of proposed network improvements (along with associated initial cost estimates) was subsequently distributed to each of the WRCOG jurisdictions, individual landowners, and other stakeholders including representatives of the development community through the Building Industry Association (BIA) for review. The review of the consolidated list of improvements (and associated costs) prompted a series of five peer review workshop meetings to specifically review each segment of roadway identified and the associated improvements to mitigate the traffic impacts of new development. One peer review workshop meeting was held for each of the five zones in the WRCOG region with meetings held at the Riverside County Assessors Office between June 27, 2002 and July 18, 2002. The peer review workshop meetings involved representatives from WRCOG, the respective zone jurisdictions and the BIA. The peer review workshops culminated in the development (by consensus of the groups) of a revised list of proposed network improvements (and associated costs) more accurately reflecting the improvements necessary to mitigate the cumulative regional traffic impacts of new development.

Following the peer review, the initial Regional System of Highways and Arterials was reviewed and endorsed by the TUMF Technical Advisory Committee, the TUMF Policy Committee and the WRCOG Executive Committee and utilized as the basis for developing the original TUMF Nexus Study in October 2002.

As part of the 2005 Update of the TUMF Nexus Study, the Regional System of Highways and Arterials was validated using more current data derived from the SCAG 2004 RTP Model. The TUMF Network was compared to outputs from the updated regional model to ensure candidate facilities remained consistent with the original guidelines and could satisfactorily contribute to meeting the intents of the TUMF program. These updated model output plots are also included in this appendix as **Exhibit E-2**.

Although the TUMF Network was reviewed as part of the Nexus Update, there were no significant changes to the composition of the network that was

originally adopted by the WRCOG Executive Committee. The Regional System of Highways and Arterials is included as **Figure 4.1** in the Nexus Study report.

EXHIBIT E-1

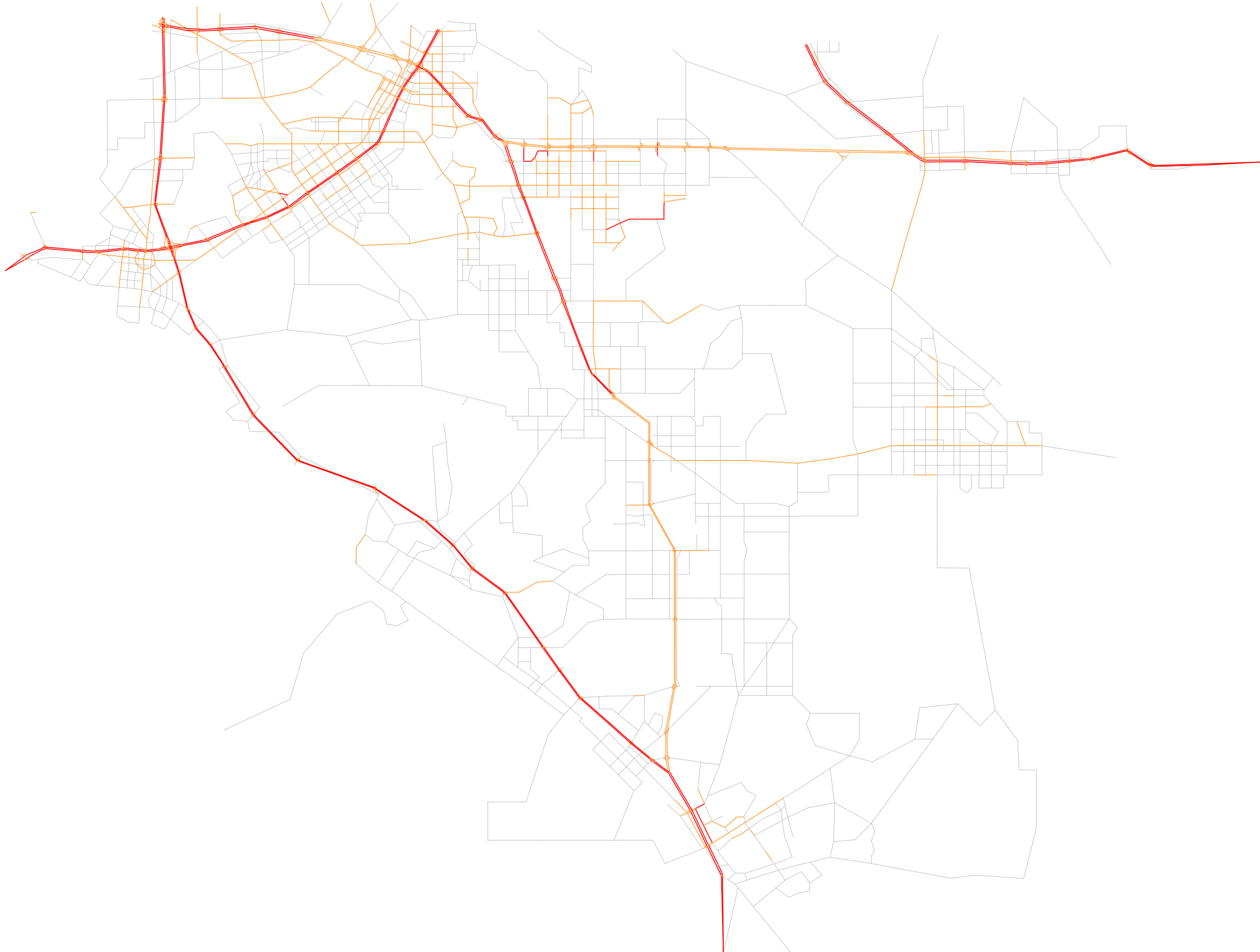
The following pages contain:

Original TUMF Nexus Study (October 18, 2002) Regional System of Highways and Arterials Performance Measure Plots

Sources: Southern California Association of Governments (SCAG), Comprehensive Transportation Plan (CTP) Model outputs for CETAP provided by Transcore, 2002

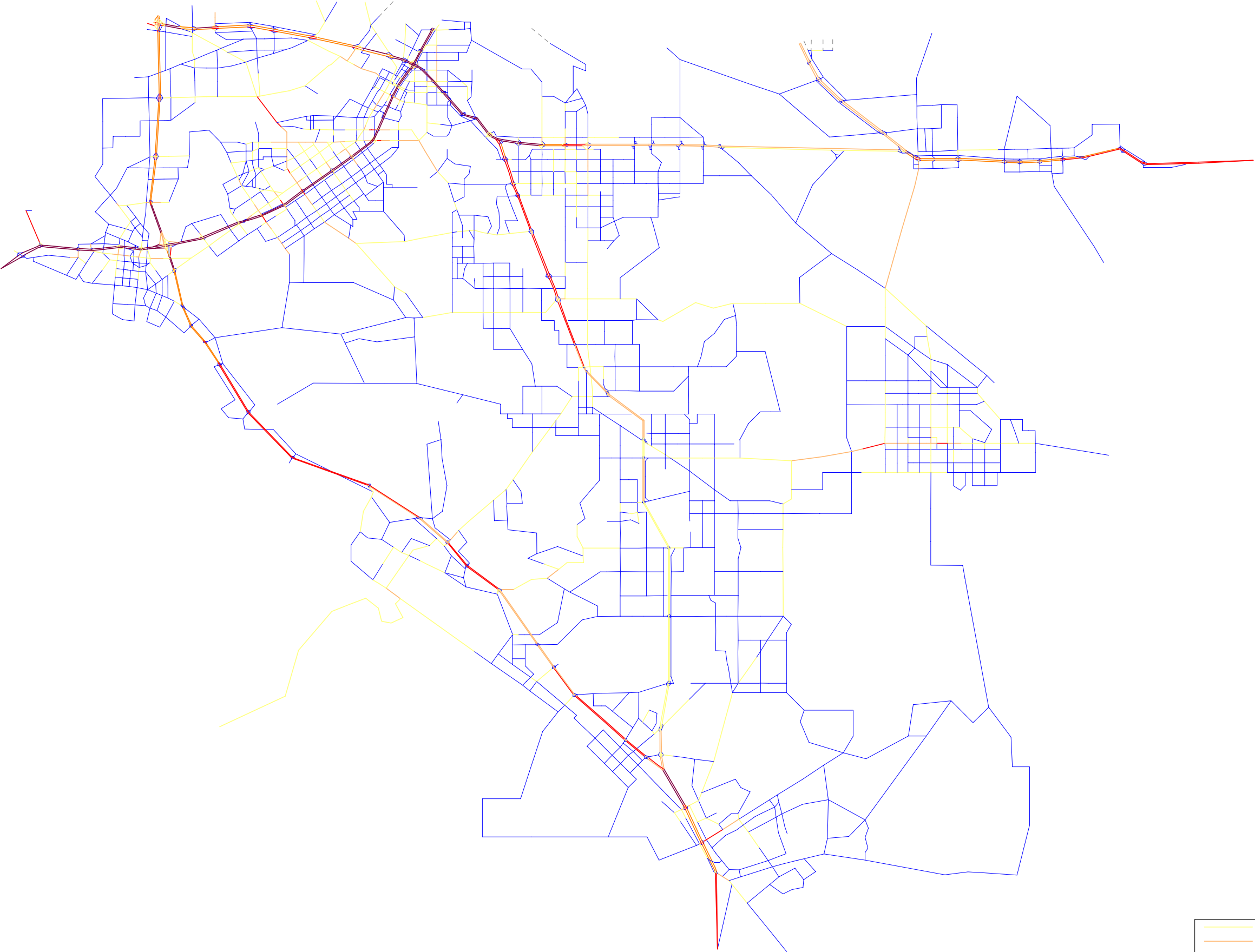
Southern California Association of Governments (SCAG), Existing Landuse Type (SCAGCode), 1997

2000 TUMF EXISTING NETWORK
NUMBER OF LANES



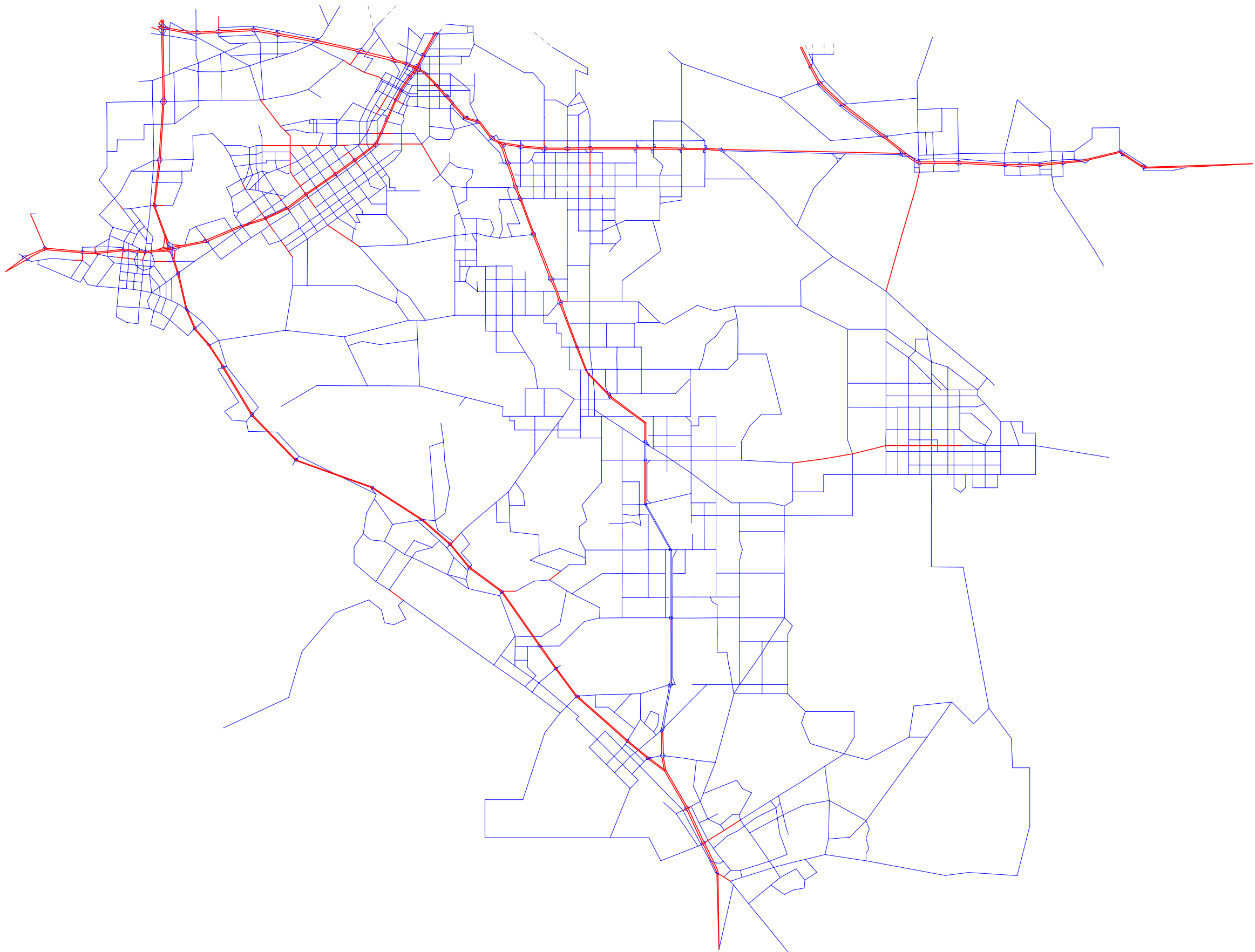
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- LINKGRP2=2
- LINKGRP2>=3

2000 TUMF EXISTING NETWORK
VOLUME (ADT)



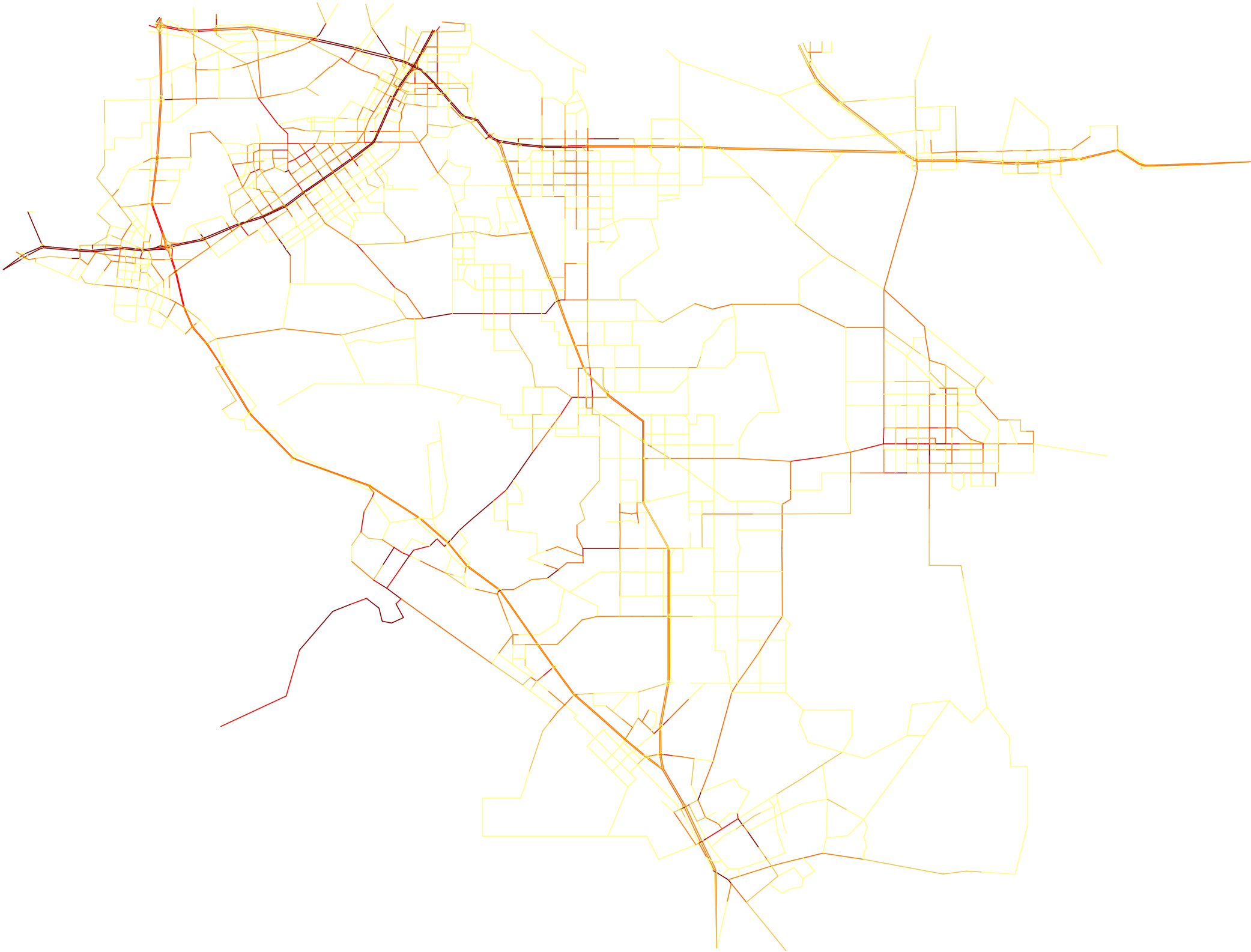
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- TOTALVOLDAILY+TOTALVOLDAILY.R>20000
- TOTALVOLDAILY+TOTALVOLDAILY.R>30000
- TOTALVOLDAILY+TOTALVOLDAILY.R>40000
- TOTALVOLDAILY+TOTALVOLDAILY.R>50000

2000 TUMF EXISTING NETWORK
VOLUMES GREATER THAN OR EQUAL TO 20,000



— TOTALVOLDAILY+TOTALVOLDAILY.R>=20000

2000 TUMF EXISTING NETWORK
LEVEL OF SERVICE (LOS)



- LOS A (VCDAILY<=.260)
- LOS B (VCDAILY>=.261)
- LOS C (VCDAILY>=.431)
- LOS D (VCDAILY>=.621)
- LOS E (VCDAILY>=.821)
- LOS F (VCDAILY>=1.00)

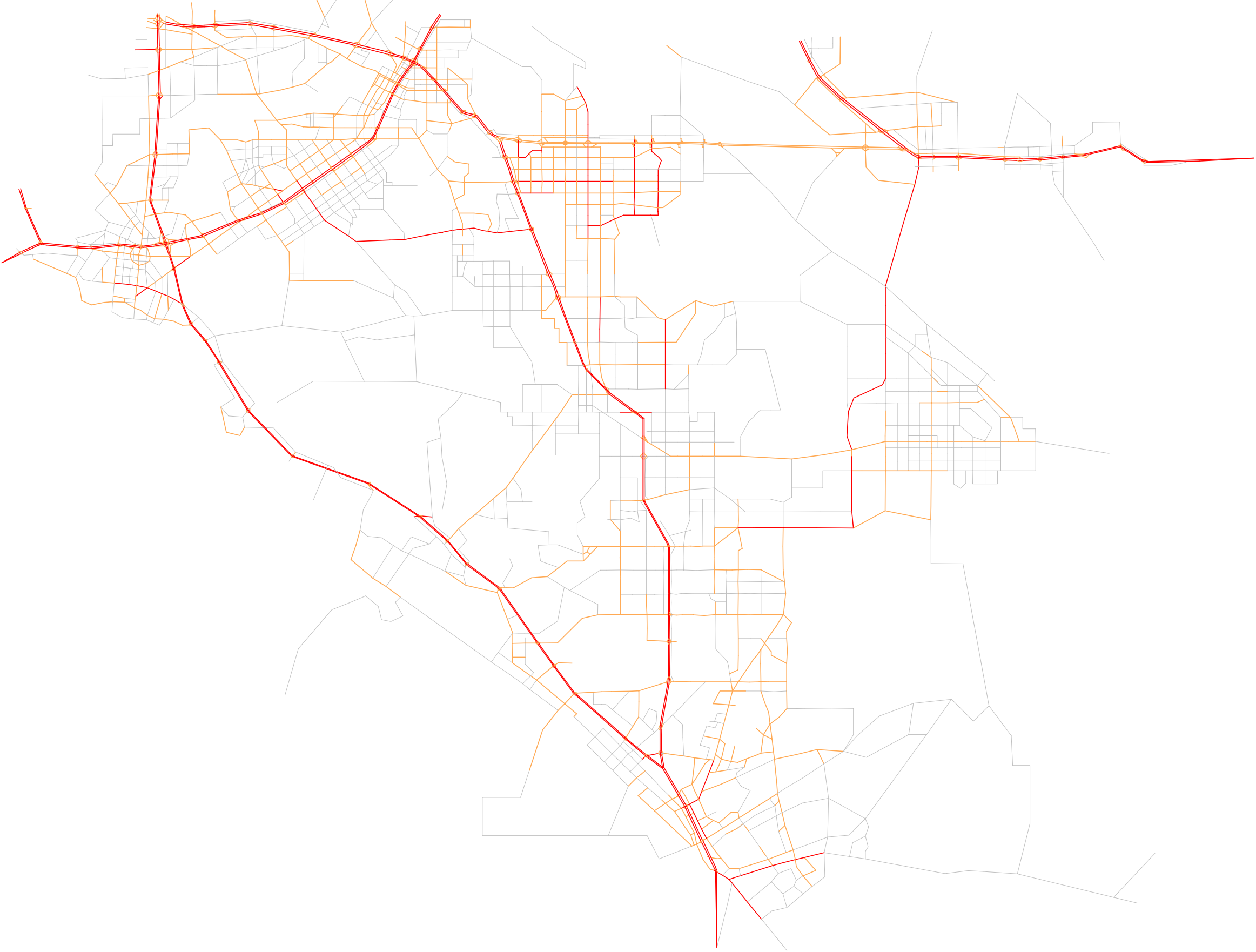
**2000 TUMF EXISTING NETWORK
LEVEL OF SERVICE (LOS) E AND F**



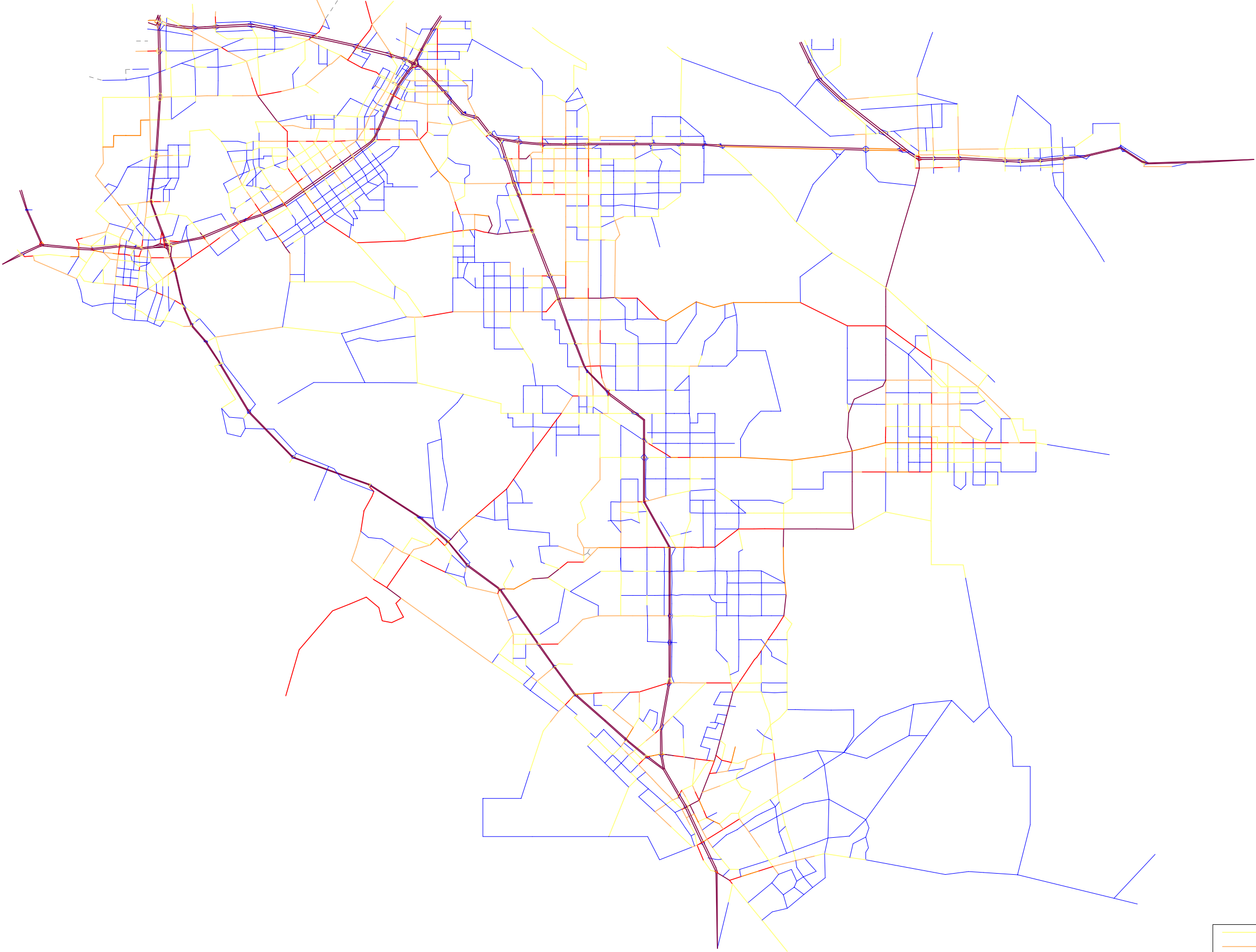
— LOS E (VCDAILY>=.821)
— LOS F (VCDAILY>=1.00)

**WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE**

2025 TUMF NO BUILD NETWORK
NUMBER OF LANES

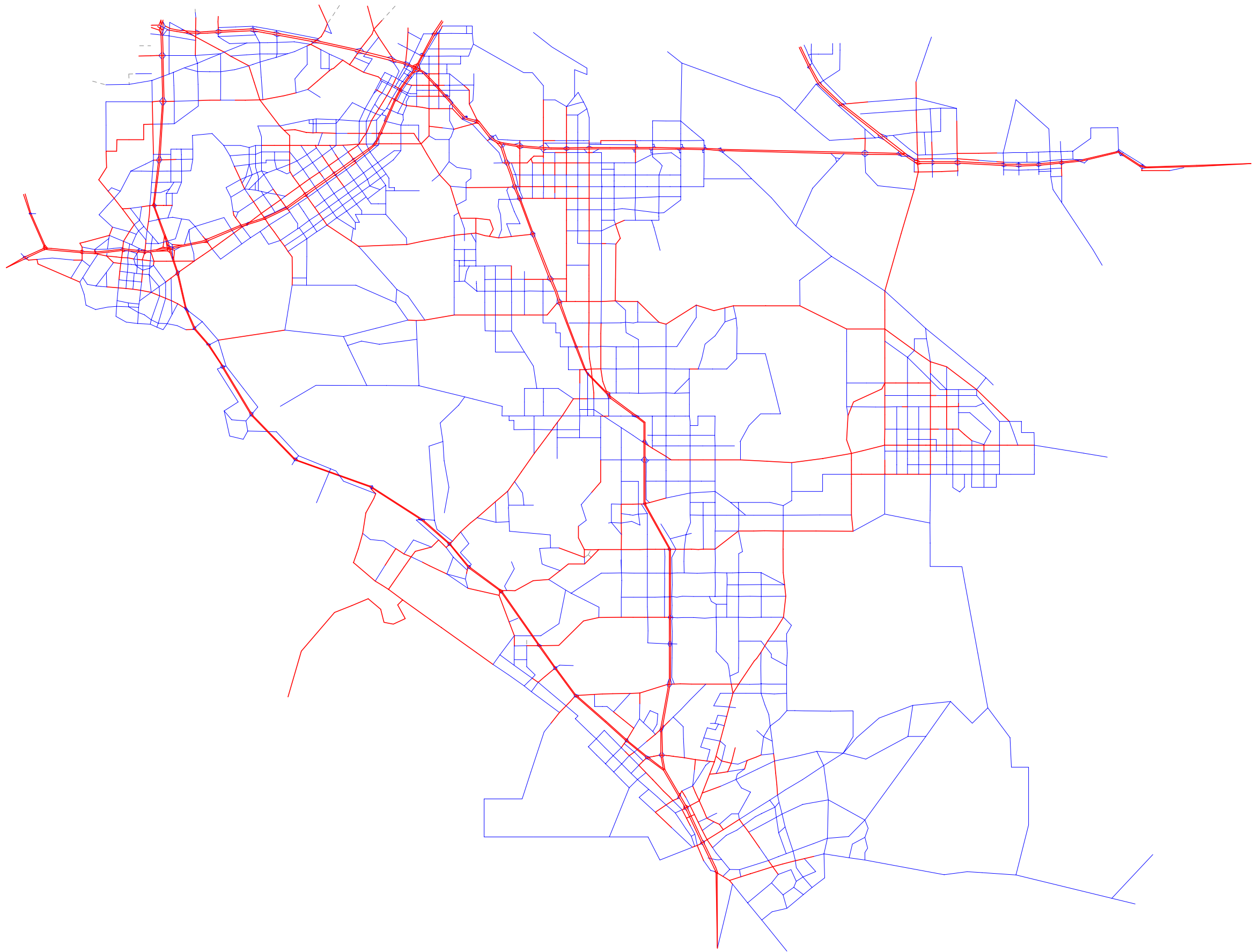


2025 TUMF NO BUILD NETWORK
TOTAL DAILY VOLUMES (ADT)

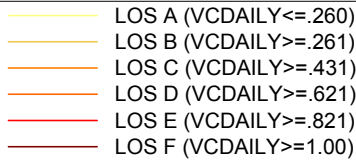
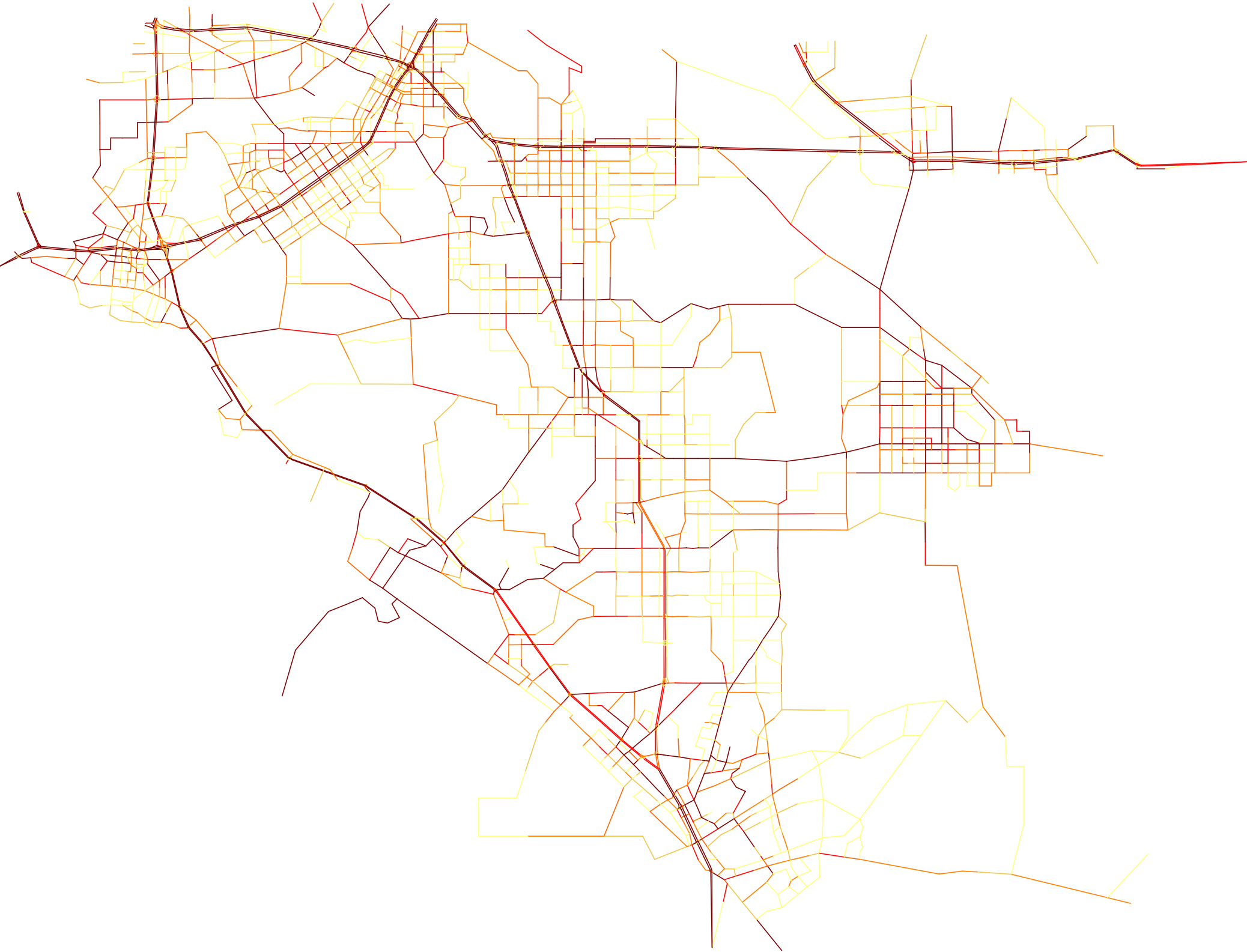


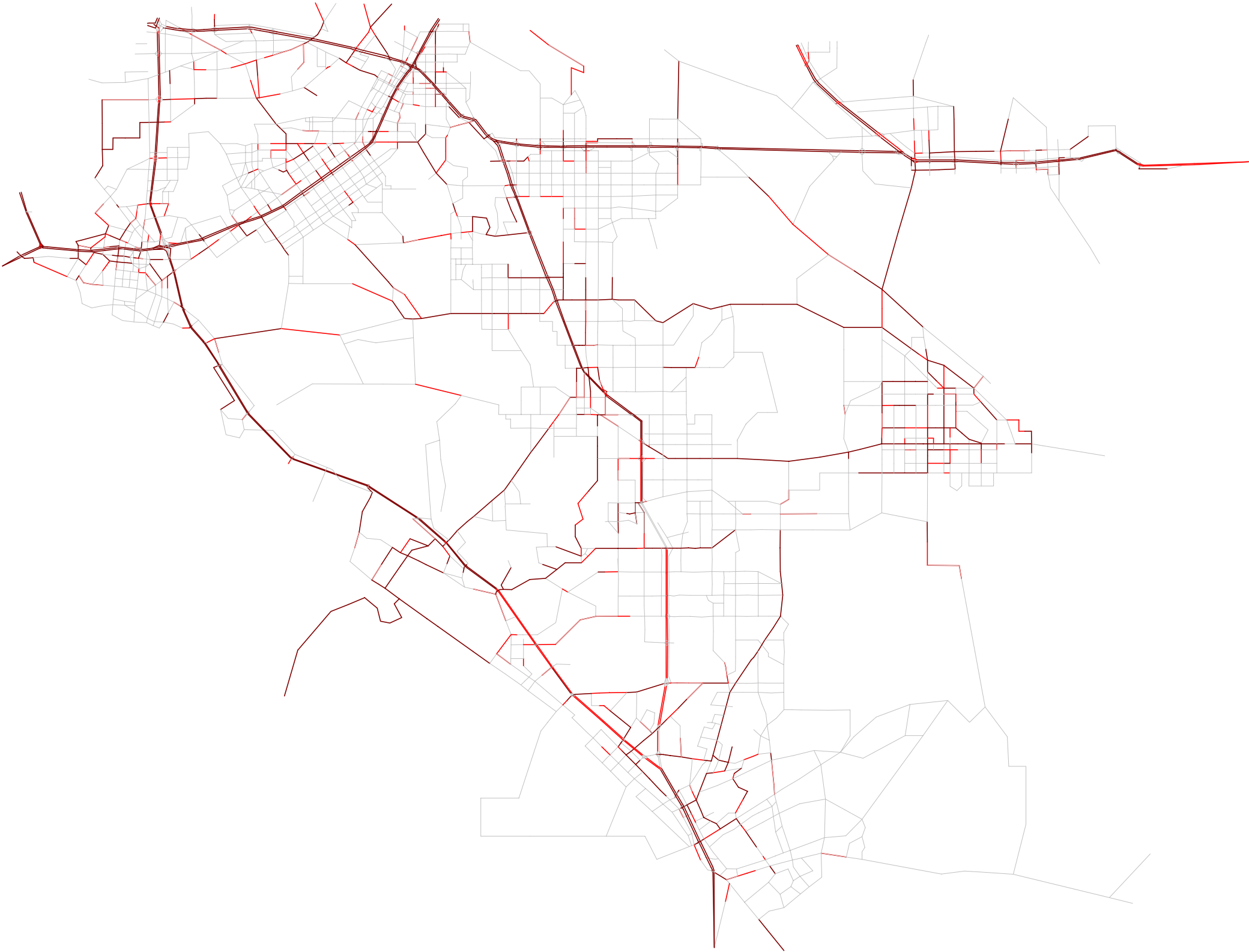
- TOTALVOLDAILY+TOTALVOLDAILY.R>10000
- TOTALVOLDAILY+TOTALVOLDAILY.R>20000
- TOTALVOLDAILY+TOTALVOLDAILY.R>30000
- TOTALVOLDAILY+TOTALVOLDAILY.R>40000
- TOTALVOLDAILY+TOTALVOLDAILY.R>50000

2025 TUMF NO BUILD NETWORK
TOTAL DAILY VOLUME GREATER THAN OR EQUAL TO 20,000



— TOTALVOLDAILY+TOTALVOLDAILY.R>=20000

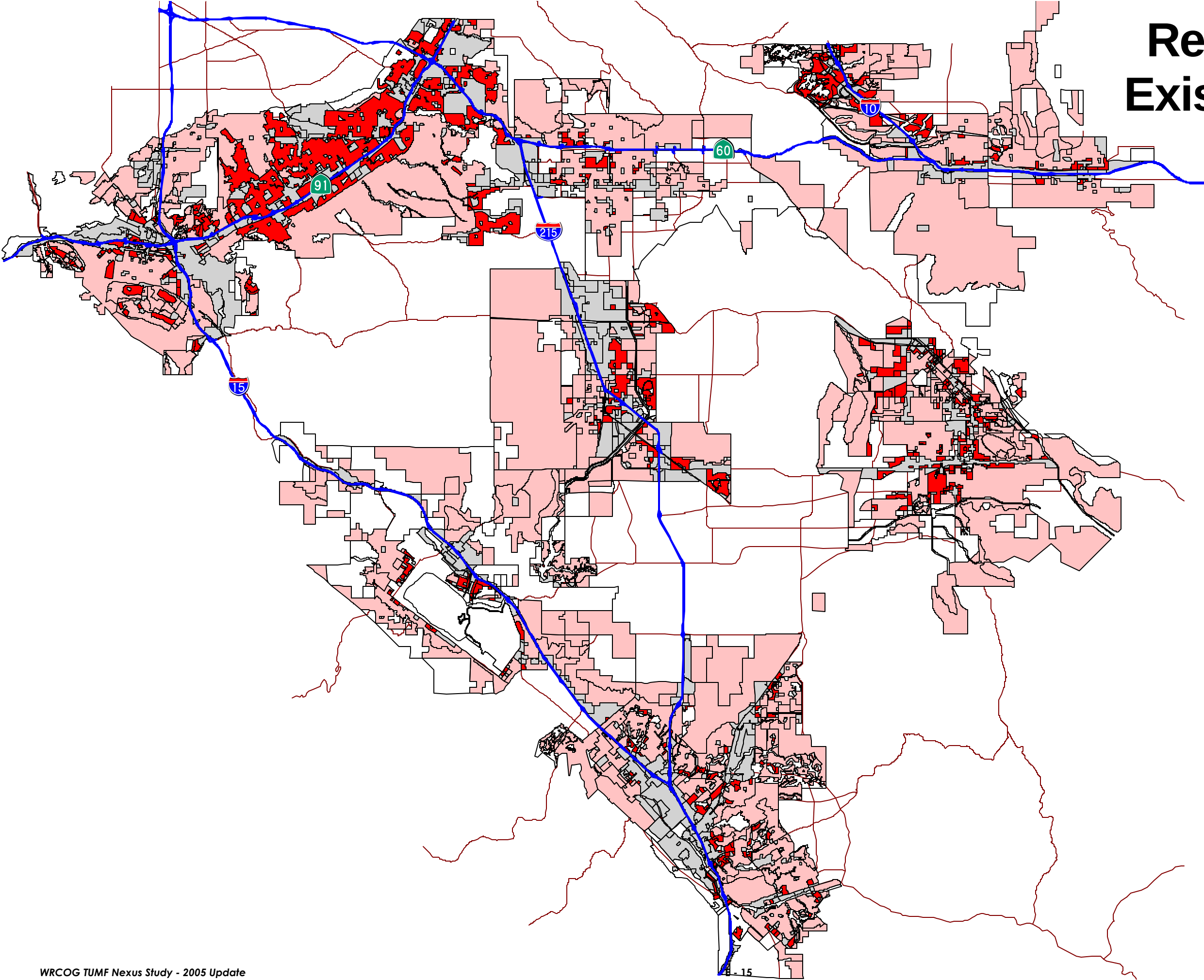




LOS E (VCDAILY>=.821)
LOS F (VCDAILY>=1.00)

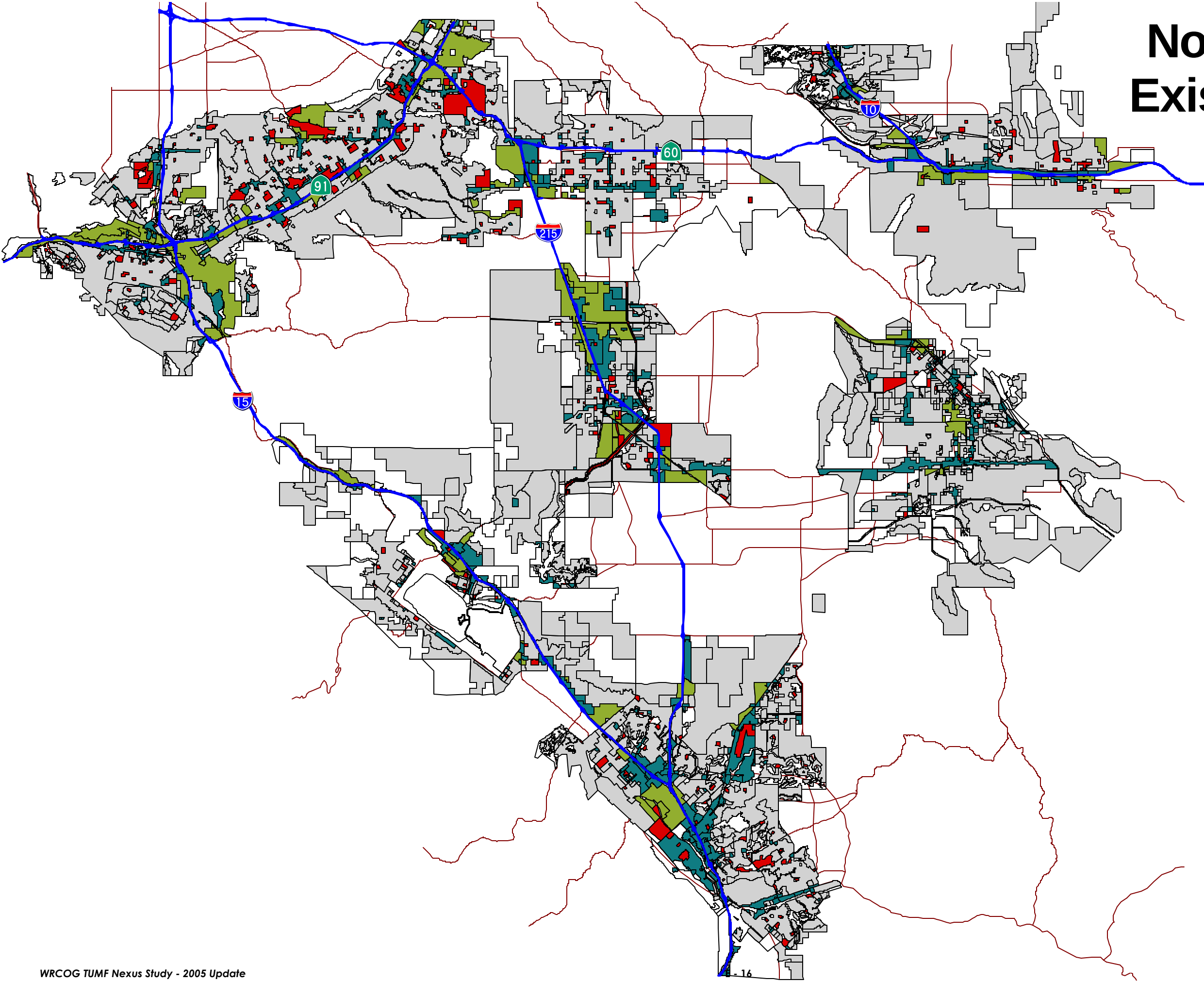
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE

Residential Existing Landuse



- Freeways
- Landuse (SCAGCode 1997)
- Industrial
- Open Space/Recreation
- Low Density Residential
- Med-High Residential
- Public/Institutional
- Commercial
- Specific Plans
- Arterial Highways

Non- Residential Existing Landuse



- Freeway
Landuse (SCAGCode 1997)
- Industrial
 - Open Space/Recreation
 - Low Density Residential
 - Med-High Residential
 - Public/Institutional
 - Commercial
 - Specific Plans
 - Arterial Highways

Adopted: February 6, 2006

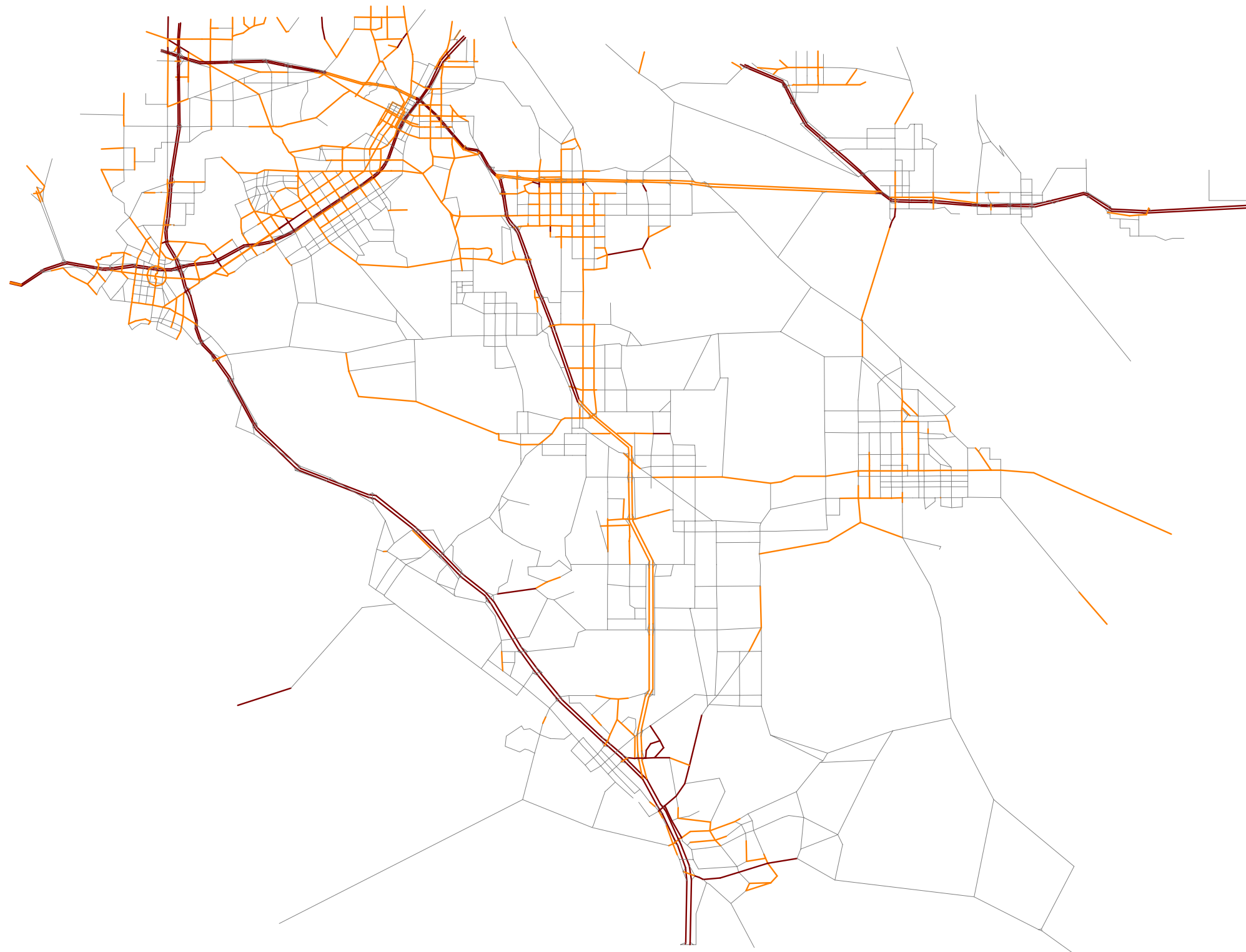
EXHIBIT E-2

The following pages contain:

***TUMF Nexus Study 2005 Update Regional System of Highways and Arterials
Performance Measure Plots***

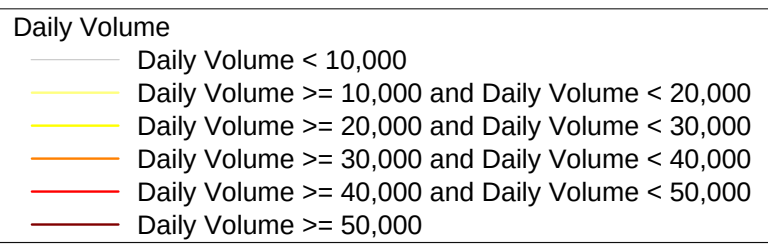
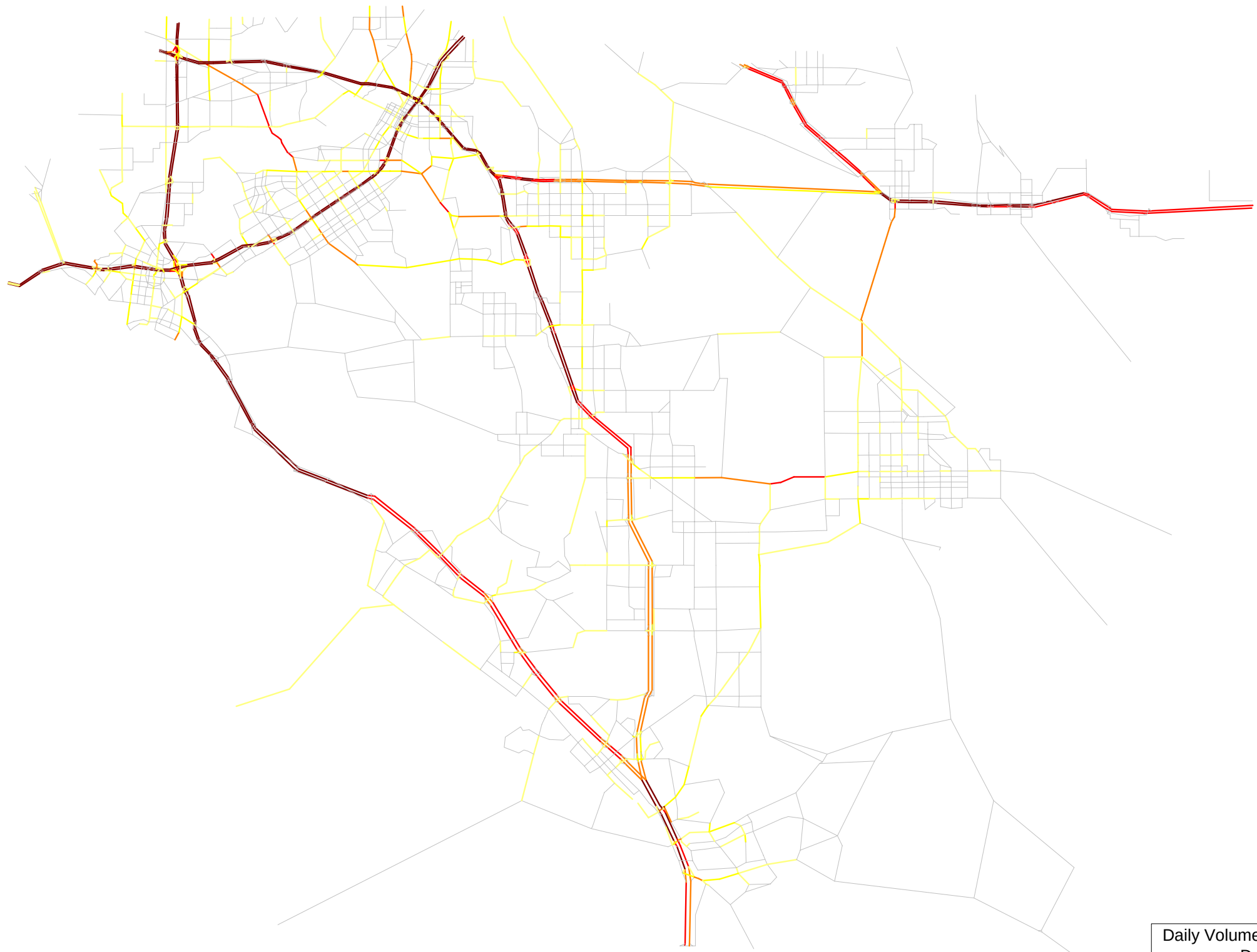
***Sources: Southern California Association of Governments (SCAG), 2004 Regional
Transportation Plan Model***

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
YEAR 2000 NETWORK - NUMBER OF LANES PER DIRECTION



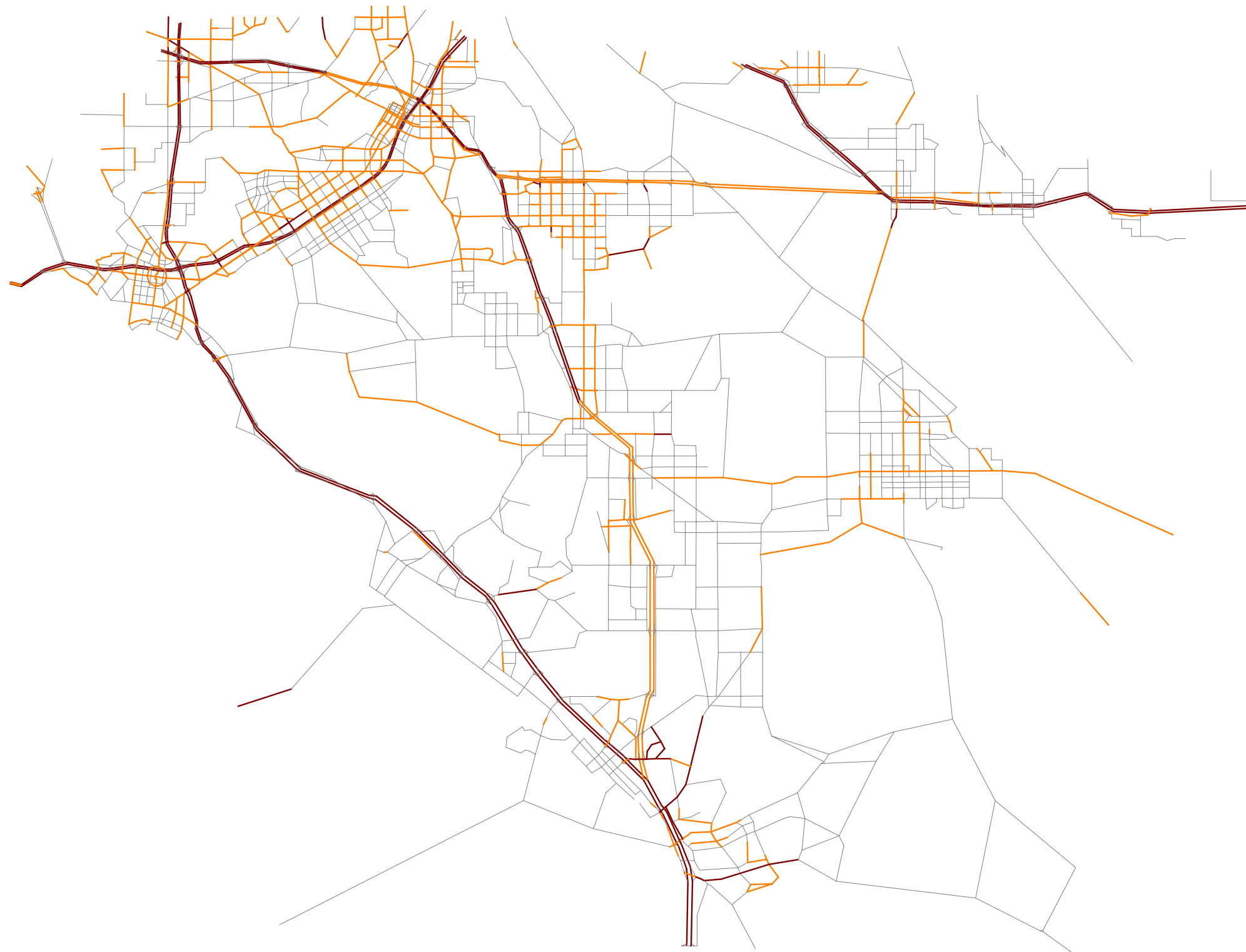
Number of Lanes Per Direction
 1 lane
 2 lanes
 3 or more lanes
 Based on SCAG 2004 RTP

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
YEAR 2000 NETWORK BY DAILY VOLUME



Based on SCAG 2004 RTP
Printed 9/21/2004

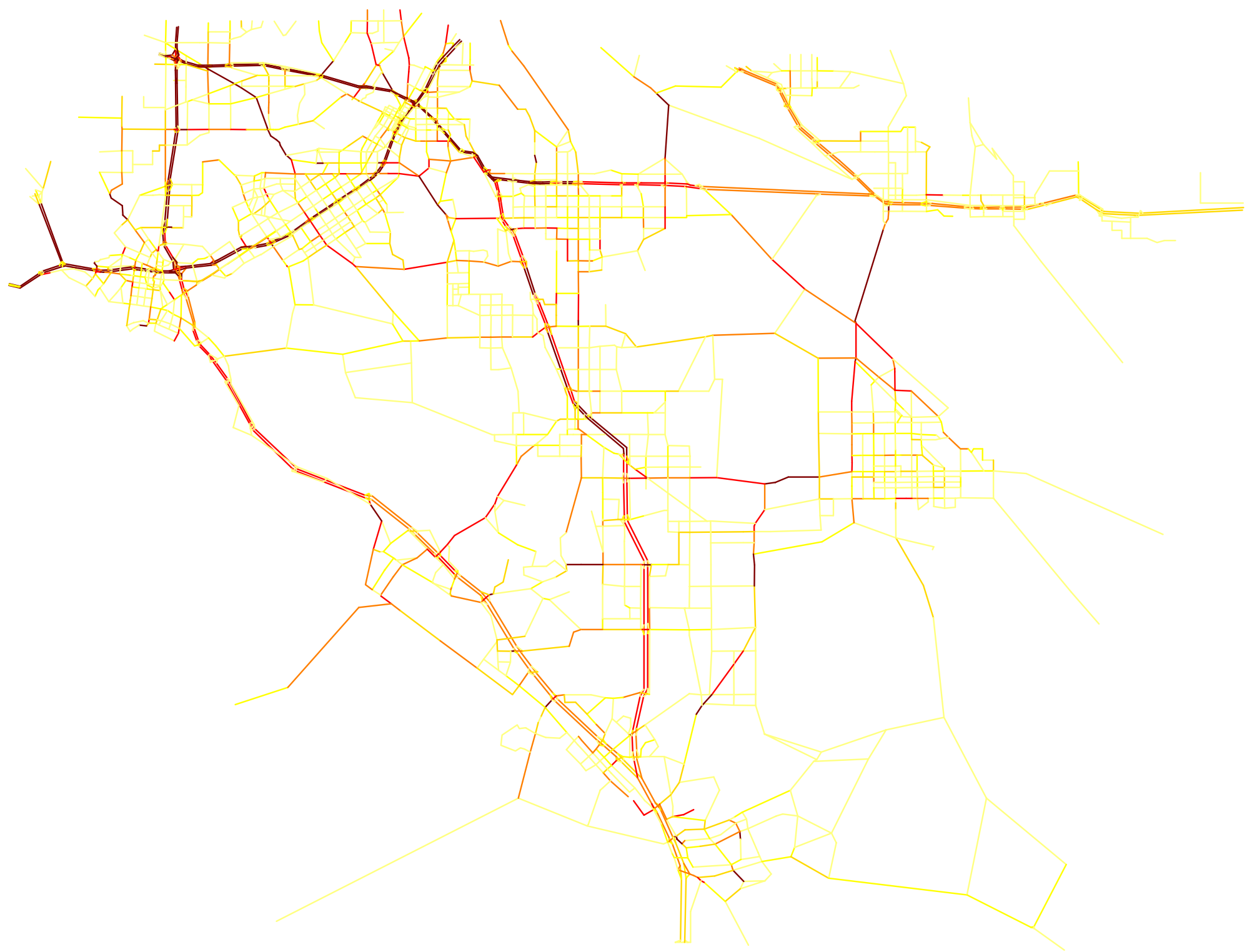
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
YEAR 2000 NETWORK - NUMBER OF LANES PER DIRECTION



Number of Lanes Per Direction
 1 lane
 2 lanes
 3 or more lanes

Based on SCAG 2004 RTP
 Printed 9/21/2004

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
YEAR 2000 NETWORK BY DAILY LEVEL OF SERVICE (LOS)



Daily Level of Service (LOS)	
—	LOS A ($V/C < 0.261$)
—	LOS B ($V/C \geq 0.261$ and $V/C < 0.431$)
—	LOS C ($V/C \geq 0.431$ and $V/C < 0.621$)
—	LOS D ($V/C \geq 0.621$ and $V/C < 0.821$)
—	LOS E ($V/C \geq 0.821$ and $V/C < 1.000$)
—	LOS F ($V/C \geq 1.000$)

Based on SCAG 2004 RTP
Printed 9/27/2004

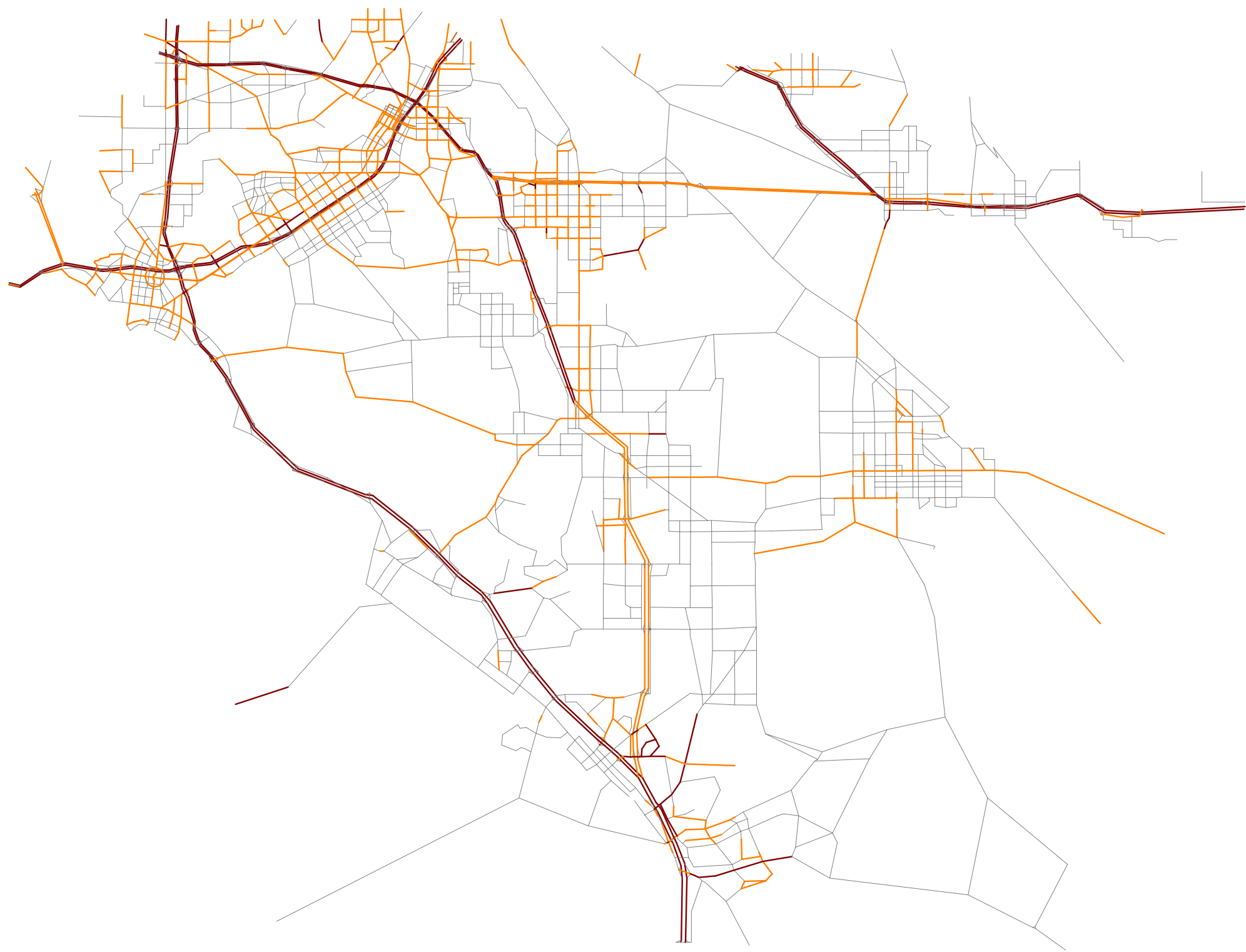
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
YEAR 2000 NETWORK - DAILY LEVEL OF SERVICE (LOS) E & F



Daily Level of Service (LOS) E & F
— LOS A - D ($V/C < 0.821$)
— LOS E ($V/C \geq 0.821$ and $V/C < 1.0$)
— LOS F ($V/C \geq 1.0$)

Based on SCAG 2004 RTP
Printed 9/27/2004

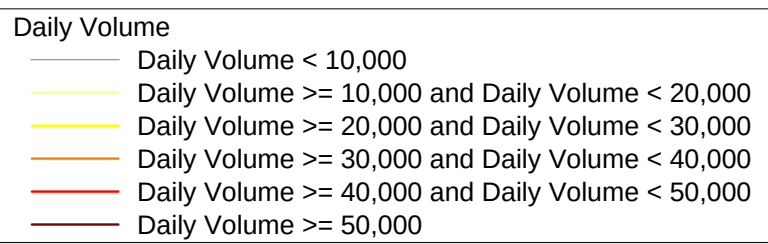
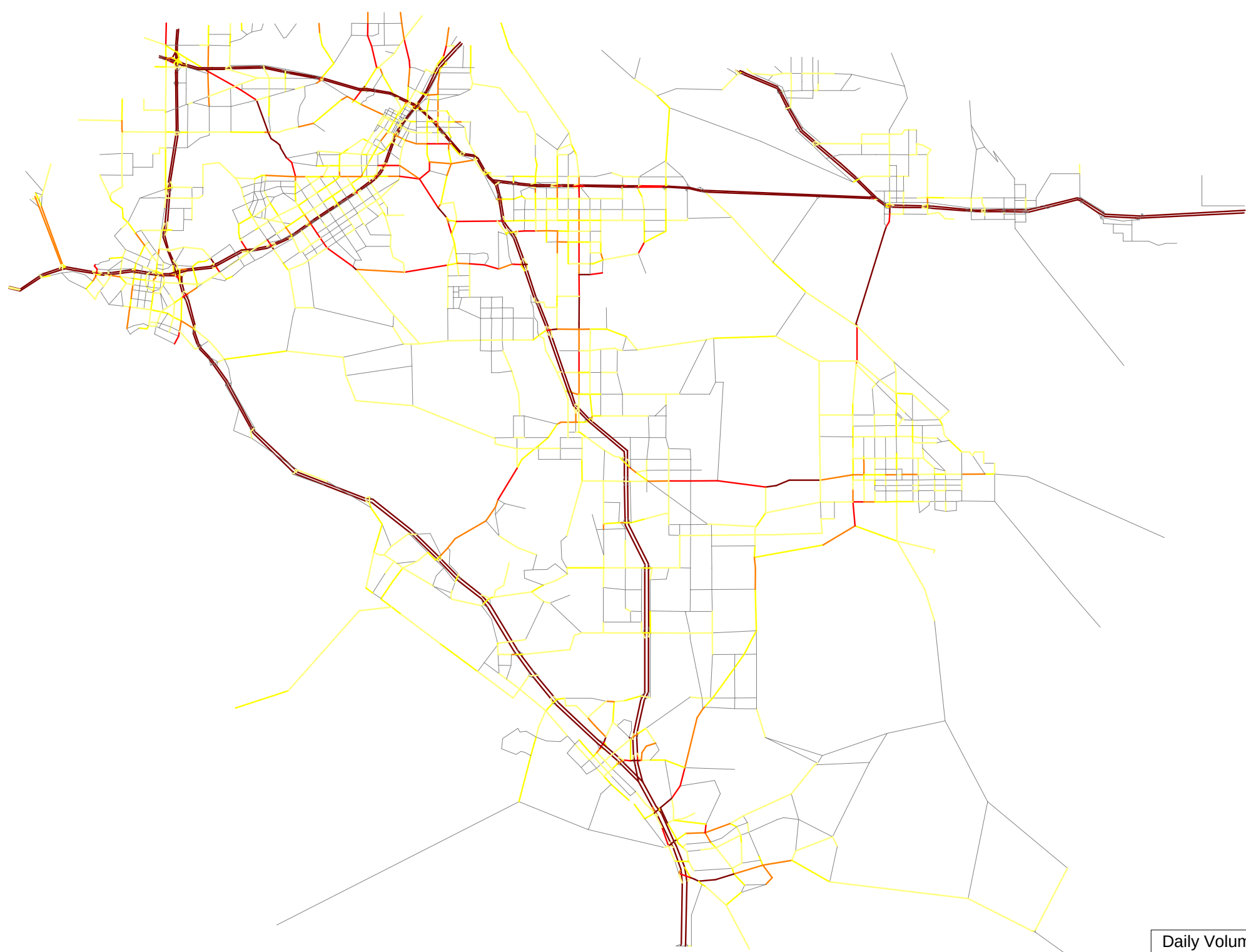
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
YEAR 2030 BASELINE NETWORK - NUMBER OF LANES PER DIRECTION



Number of Lanes Per Direction
— 1 lane
— 2 lanes
— 3 or more lanes

Based on SCAG 2004 RTP
Printed 9/21/2004

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
YEAR 2030 BASELINE NETWORK BY DAILY VOLUME



Based on SCAG 2004 RTP
Printed 9/21/2004

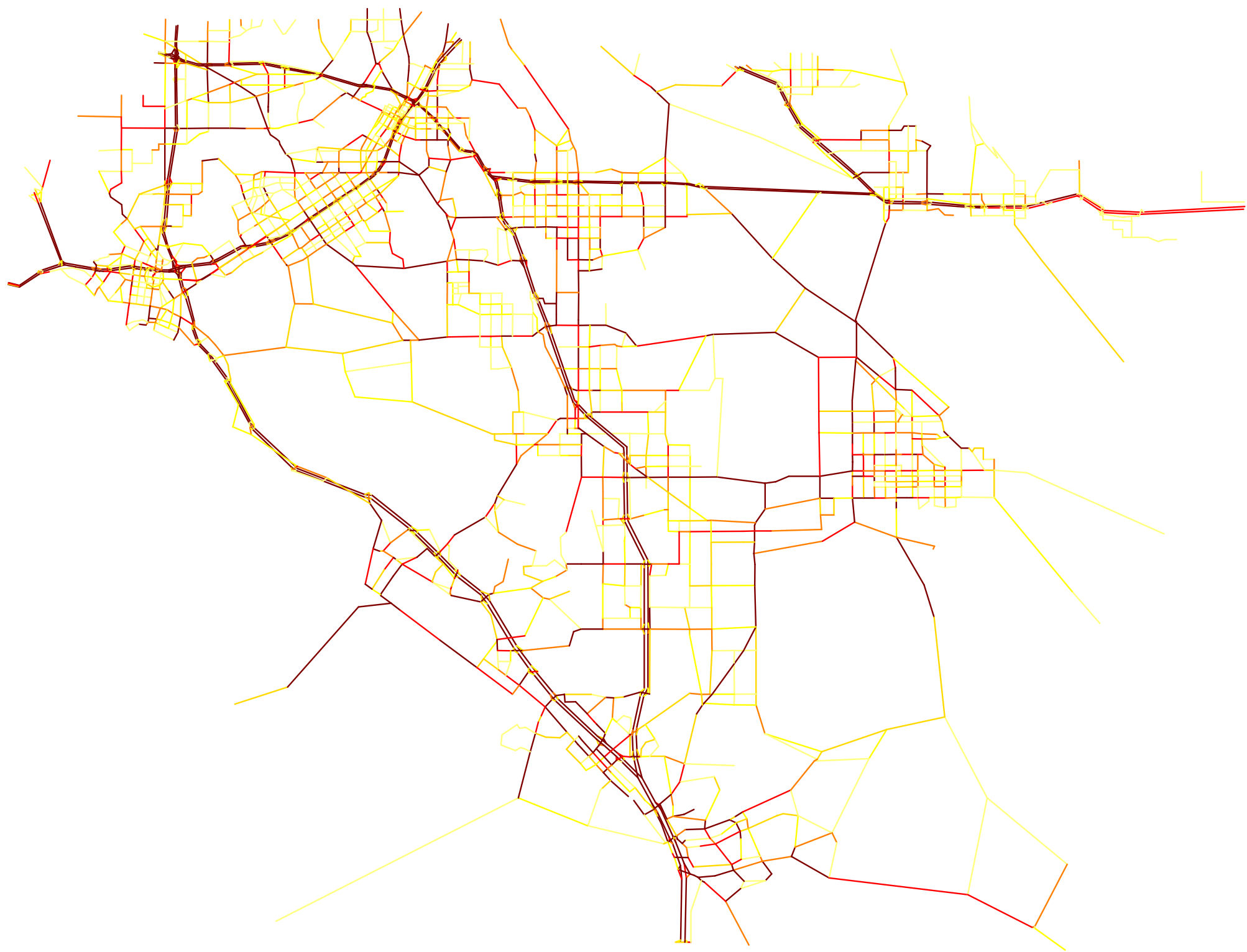
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
YEAR 2030 BASELINE NETWORK - DAILY VOLUMES GREATER THAN OR EQUAL TO 20,000



Daily Volume $\geq 20,000$
Daily Volume $< 20,000$
Daily Volume $\geq 20,000$

Based on SCAG 2004 RTP
Printed 9/21/2004

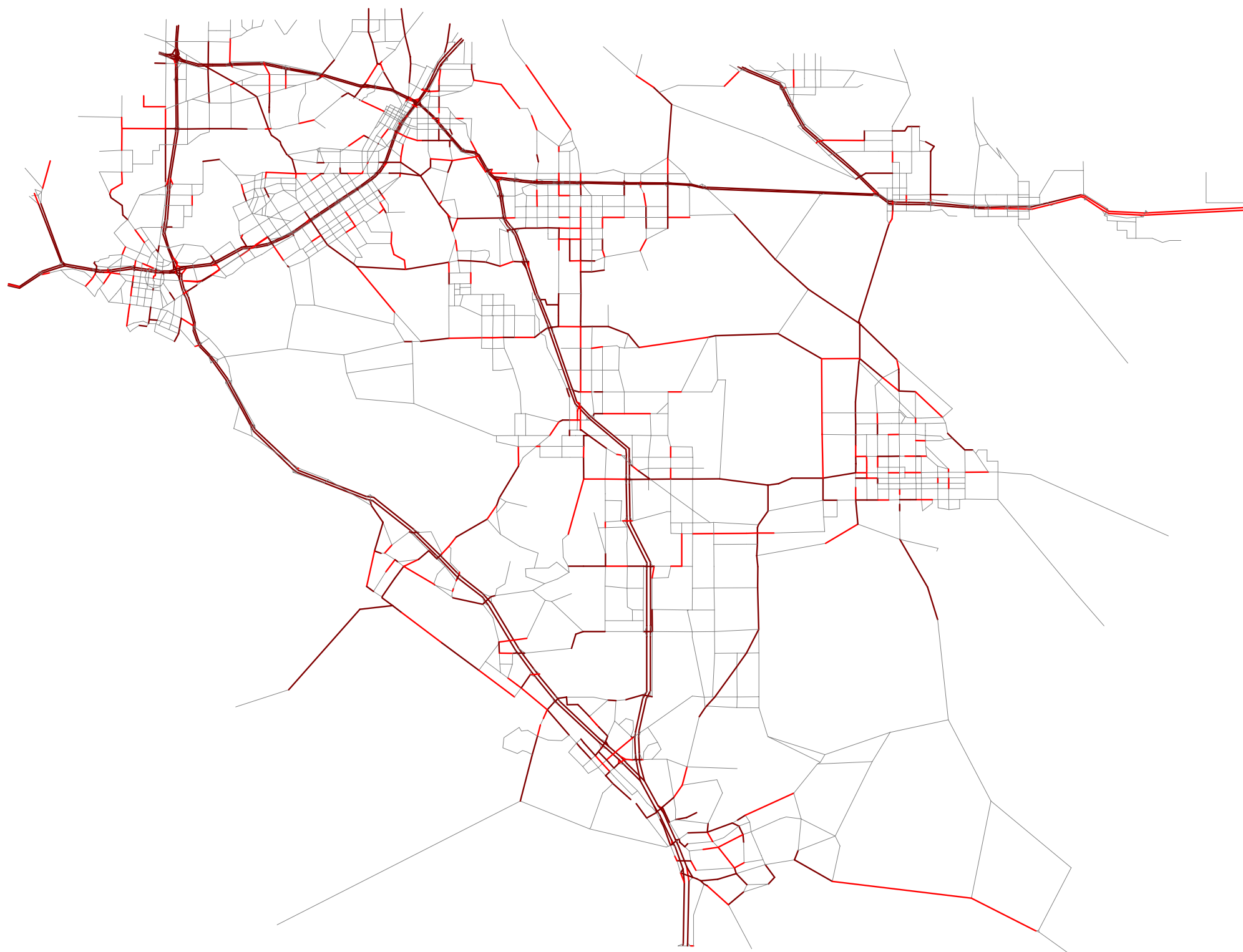
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
YEAR 2030 BASELINE NETWORK BY DAILY LEVEL OF SERVICE (LOS)



Daily Level of Service (LOS)	
—	LOS A ($V/C < 0.261$)
—	LOS B ($V/C \geq 0.261$ and $V/C < 0.431$)
—	LOS C ($V/C \geq 0.431$ and $V/C < 0.621$)
—	LOS D ($V/C \geq 0.621$ and $V/C < 0.821$)
—	LOS E ($V/C \geq 0.821$ and $V/C < 1.000$)
—	LOS F ($V/C \geq 1.000$)

Based on SCAG 2004 RTP
Printed 9/27/2004

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
YEAR 2030 BASELINE NETWORK - DAILY LEVEL OF SERVICE (LOS) E & F



Daily Level of Service (LOS) E & F
— LOS A - D ($V/C < 0.821$)
— LOS E ($V/C \geq 0.821$ and $V/C < 1.0$)
— LOS F ($V/C \geq 1.0$)

Based on SCAG 2004 RTP
Printed 9/27/2004

Appendix F

TUMF Network Cost Assumptions.

For the purpose of calculating a “fair share” fee to be applied to new development under the TUMF program, it is necessary to develop planning level estimates of the cost to complete improvements to the endorsed Regional System of Highways and Arterials to adequately accommodate future traffic growth. The planning level cost estimates were established by applying unit cost values to the proposed changes identified in the future Regional System of Highways and Arterials during the designation of the network extents.

Unit cost values were developed for various eligible improvement types that all provide additional capacity needed to mitigate the cumulative regional traffic impacts of new development to facilities on the Regional System of Highways and Arterials. Eligible improvement types include:

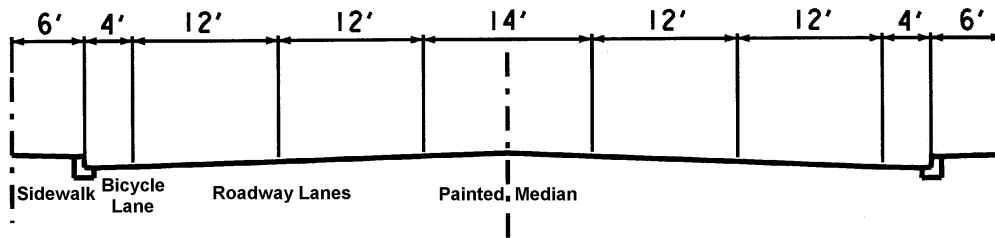
1. Construction of additional Network roadway lanes;
2. Construction of new Network roadway segments;
3. Expansion of existing Network bridge structures;
4. Construction of new Network bridge structures;
5. Expansion of existing Network interchanges with freeways;
6. Construction of new Network interchanges with freeways;
7. Grade separation of existing Network at-grade railroad crossings;
8. Expansion of existing Network-to-Network intersections.

Because roadway improvement standards vary considerably between respective jurisdictions, a typical roadway standard for the TUMF Network was recommended by the Public Works Committee (PWC) as the basis for developing the TUMF Network cost estimate. The typical roadway standard assumes the following standard design characteristics that are consistent with the minimum requirements of the Caltrans Highway Design Manual:

- 12 foot wide asphaltic concrete roadway lanes;
- 14 foot painted median (or dual center left turn lane);
- 4 foot wide bike lanes (on the roadway);
- curb and gutter with accompanying roadway stormwater drainage;
- 6 foot wide sidewalks.

A cross-section of the Typical Roadway Standard is illustrated in **Figure F-1**.

Figure F-1. Typical Roadway Standard Cross-Section



It is recognized that the typical roadway standard is not appropriate in all potential TUMF Network locations. Where appropriate, typical design standards could be substituted with design elements such as open swale drainage and paved roadway shoulders with no curbing that would typically cost less than the implementation of the Typical Roadway Standard. Roadway improvements in excess of the Typical Roadway Standard (including, but not limited to, Portland concrete cement (PCC) roadway lanes, raised barrier medians, parking lanes, landscaping, streetlighting, aesthetic pavement treatments, separate bicycle paths, etc.) are not eligible for TUMF funding and will be the responsibility of the local funding agency.

Unit cost estimates for the implementation of TUMF Network improvements were developed based on the unit cost to accomplish the Typical Roadway Standard. For simplicity, the roadway unit cost was assumed to provide for the full depth reconstruction (including grading) of 16 feet of new pavement per lane (to accommodate a minimum 12 foot lane and ancillary treatments). The unit cost was assumed to include the following construction elements:

- Sawcut of existing pavement
- Removal of existing pavement
- Roadway excavation and embankment
- 10" thick class 2 aggregate base
- 4.0" thick asphaltic concrete surface
- Concrete curb, gutter and drainage improvements

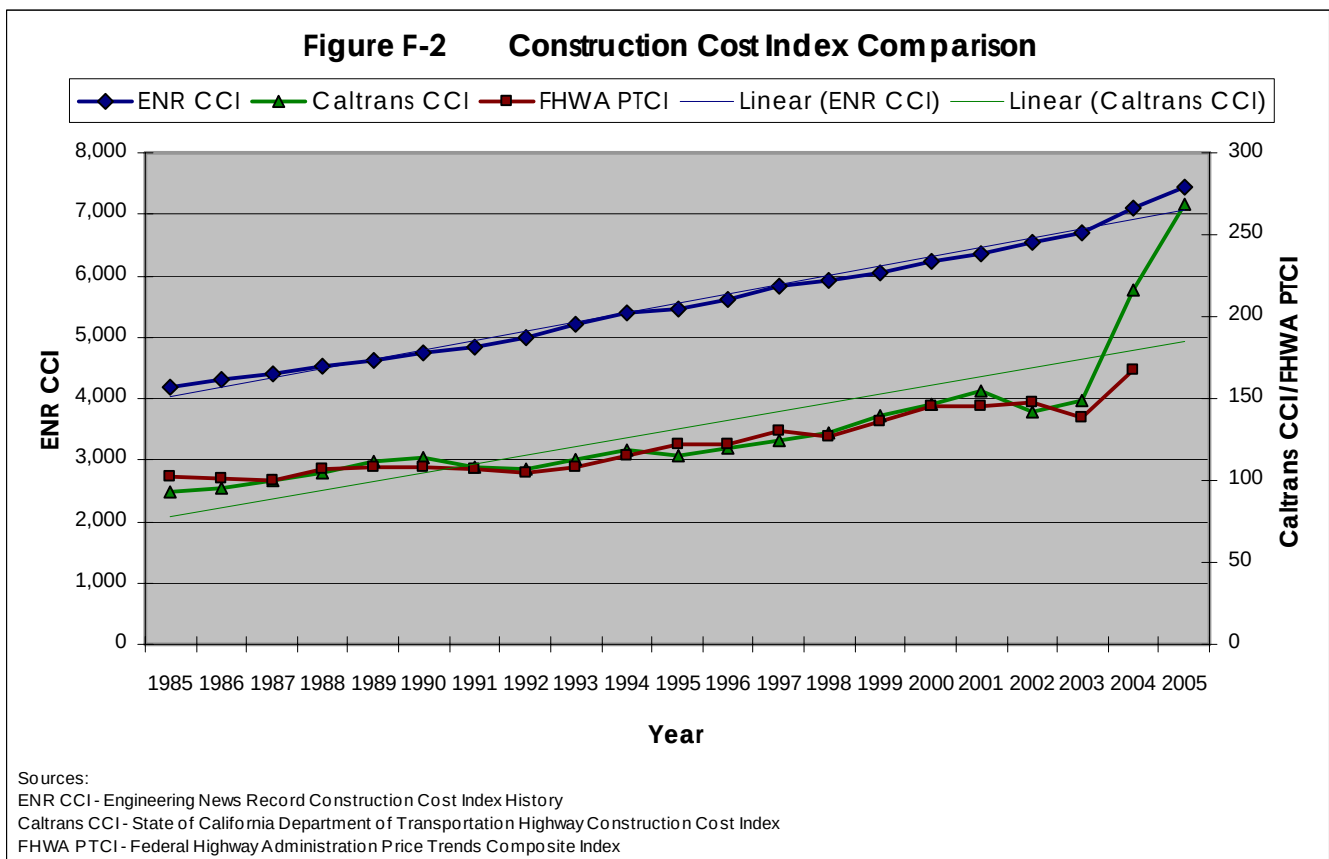
Unit cost values were developed based on unit costs prepared for the Coachella Valley Association of Governments (CVAG) Regional Arterial Cost Estimates (RACE), which was completed in 1999. Unit cost prices for RACE were obtained by summarizing bids received by the County of Riverside Transportation Department for actual projects in Riverside County in 1998. Unit costs specifically from the Coachella Valley were subsequently reviewed to account for local variations in project costs. The CVAG RACE cost estimates were summarized and this summary is included in this Appendix

For the original TUMF Nexus Study, the RACE unit cost values were inflated to reflect an increase of 2.7%, which is the increase in the Engineering News Record (ENR) Construction Cost Index (CCI) for the year 2000. The ENR CCI represents

the most widely accepted standard index for assessing changes in construction material and labor costs over time based on a monthly survey of the largest metropolitan markets in the United States. ENR builds its construction cost index by developing a twenty city average of the combined costs for the following labor and materials:

The use of the national ENR CCI represents a more stable index over time by reducing the influence of local short term fluctuations in the supply of materials and labor. The application of a more stable index for adjusting TUMF cost assumption values to reflect inflation was recommended by the Public Works Committee to reduce the potential for erratic fluctuation in the TUMF network costs and fees, particularly during the annual adjustment of the program fees to reflect inflation.

Figure F-2 compares the ENR CCI with the Caltrans Highway CCI and the FHWA Price Trends Composite Index from 1985 to 2005. The comparison of the three indices illustrates the greater stability of the ENR CCI over a twenty-year time frame compared to the remaining two indices. **Figure F-2** also includes linear trend lines for both the ENR CCI and the Caltrans Highway CCI. As can be seen in the graph, the linear trend for the two indices is almost identical despite the greater volatility of the Caltrans index. The ENR CCI History table is included in this Appendix.



The inflated RACE values were subsequently compared to the unit cost values developed by WRCOG and The Keith Companies (TKC) as part of the SATISFY 2020 Summary of Cost Estimates for the Southwest District of Western Riverside County (also included in this Appendix). These initial unit cost values reflecting a composite of RACE and SATISFY 2020 were consolidated to provide a typical improvement cost for each eligible TUMF improvement type. This consolidation and refinement of the initial unit cost data was completed to simplify the process for estimating a planning level cost for the entire Regional System of Highways and Arterials.

The consolidated unit cost values include typical per mile or lump sum costs for each of the eligible improvement construction element. These construction elements include new roadways, bridge improvements, interchange improvements and railroad grade separation improvements. Unit costs for roadway construction were inflated by 50% and 100% to account for variations in construction cost (and in particular, roadway excavation and embankment cost) associated with construction on rolling and mountainous terrain, respectively. The consolidated unit cost values were subsequently compared to those developed by SCAG as part of the Community Link 21 2001 RTP Update for consistency.

Right-of-way acquisition costs were determined based on the cost to acquire 18 feet of right-of-way per lane of new roadway improvement. Right-of-way unit costs were assumed to include the following elements:

- Land acquisition
- Documentation and legal fees
- Relocation and demolition costs and condemnation compensation requirements
- Utility relocation
- Environmental mitigation

The right-of-way acquisition unit cost was initially derived from the RACE and SATISFY 2020 cost estimate, which was developed for a predominately rural and suburban landuse area in the Coachella Valley and southwestern Riverside County. To account for wide variations in landuse throughout Western Riverside County, the initial right-of way unit cost of \$450,000 per lane per mile (which represents the median SATISFY 2020 ROW unit cost and is consistent with the average of the RACE ROW Unit Costs for the middle and highest price ranges) was adjusted to reflect these variations. The initial right-of way cost was reduced by 33%, and increased by 33% and 100% to account for variations in right-of-way costs associated with rural (undeveloped), suburban (developed residential) and urban (developed commercial/residential mixed) landuses, respectively.

To finalize the planning level cost estimate for use in the original TUMF Nexus Study, the unit costs were reviewed by the TUMF PWC, and a joint peer review workshop meeting of the PWC and representatives of BIA. Subsequent to this review, the unit costs were revised slightly to reflect the collective experience of the City and County Public Works Directors and the representatives of the BIA.

The original TUMF Nexus Study unit cost assumptions are included in **Table 4.1** of the Nexus Study report.

The unit cost assumptions were subsequently applied to the TUMF Network improvements identified to mitigate the cumulative regional transportation impacts of future new development. The resultant cost value was tabulated for each unique segment of the network, by improvement type. A separate cost estimate was generated for improvements to the existing network-to-network intersections and added to summary table. Similarly, a separate cost estimate was generated for regional transit improvements based on information provided by RTA and added to the TUMF Network Cost Estimate table included in the original Nexus Study.

Cost estimates were also developed for the original TUMF Nexus Study to reflect the costs for improving the infrastructure serving public transportation, including construction of transit centers, bus stop upgrades, and capital improvements needed to develop express bus service within the region. The transit unit cost data was derived from the RTA Fiscal Year 2001-2002 Legislative Program, the SCAG Draft 2001 RTP Cost Estimation Methodology, the RTA Connections Long Range Strategic Plan (Nelson/Nygaard Consulting, November 17, 1999), and RTA Transit Capital Costs: Regional Benefits (September 2002). The same percentage factors used for the TUMF network cost estimate were added for planning, engineering, and contingency costs associated with transit capital improvement projects.

For the purposes of the TUMF Nexus update, the unit cost assumptions were reviewed to assess the validity of the original unit cost assumptions, and in particular the influence of construction cost and land acquisition cost increases on the unit cost assumptions. In addition, supplemental categories have been added to the cost assumptions to better delineate the costs associated with constructing complex interchange improvements and the necessity to mitigate the cumulate multi-species habitat impacts of TUMF arterial highway improvements in accordance with the recently adopted Riverside County Multi-Species Habitat Conservation Plan (MSHCP).

An additional interchange improvement category was added to the TUMF unit cost assumptions to more closely reflect the higher cost associated with completing large scale, complex arterial to freeway interchanges in Western Riverside County. This complex new/full reconstruction interchange category effectively doubled the TUMF share for constructing a limited number of large arterial interchange projects. A second additional interchange improvement category was added to provide for the construction of arterial to arterial interchanges where traditional at-grade signalized intersections were not likely to be able to manage demand. This category allocates a lump sum amount for these interchange projects apportioned equally between each of the approaching arterial roadways. The inclusion of the two new interchange

categories as part of the TUMF update results in the following hierarchy of interchange improvements included in the program:

- Complex new or fully reconstructed interchange improvements (code 1)
- New or fully reconstructed interchange improvements (code 2)
- Major or partially reconstructed interchange improvements (code 3)
- Minor individual ramp interchange improvements (code 4)
- Arterial to arterial interchange improvements (code 5)

Section 8.5.1 of the Riverside County Integrated Project (RCIP) Multiple Species Habitat Conservation Plan (MSHCP) adopted by the Riverside County Board of Supervisors on June 17, 2003 states that “each new transportation project will contribute to Plan implementation. Historically, these projects have budgeted 3% - 5% of their construction costs to mitigate environmental impacts.” This provision is reiterated in the MSHCP Final Mitigation Fee Nexus Report (David Taussig and Associates, Inc., July 1, 2003) section 5.3.1.2 which states that “over the next 25 years, regional infrastructure projects are expected to generate approximately \$250 million in funding for the MSHCP” based on mitigation at 5% of construction costs. To clearly demonstrate compliance with the provisions of the MSHCP, the TUMF program will incorporate a cost element to account for the required MSHCP contribution to mitigate the multi-species habitat impacts of constructing TUMF projects. In accordance with the MSHCP Nexus Report, an amount equal to 5% of the construction cost for new TUMF network lanes, bridges and railroad grade separations will be specifically included as part of TUMF program with revenues to be provided to the Western Riverside County Regional Conservation Authority (RCA) for the acquisition of land identified in the MSHCP. The relevant sections of the MSHCP document and the MSHCP Nexus Report are included in this Appendix as **Exhibits F-6** and **F-7**, respectively.

The original construction costs for the TUMF program were revised to reflect the actual increase in the ENR CCI for the period from October 2002 (the original TUMF Nexus Study adoption date) to January 2006 (the most recent information available prior to the WRCOG Executive Committee adoption of the TUMF Nexus Study – 2005 Update). Based on the review of the ENR CCI, the original construction unit cost estimates were increased by approximately 16.4%.

Acknowledging the unique, sustained rate of increase in land values in the Inland Empire of Southern California, including Western Riverside County, the original right-of-way costs were revised to reflect the actual increase in land values according to the National Association of Realtors (NAR) Median Sales Price of Existing Single Family Homes in the Riverside/San Bernardino Metropolitan Statistical Area from the fourth quarter 2002 median to the third quarter 2005 median (the most recently published value of this index at the time of adoption of the 2005 Nexus Update). Based on the review of the NAR Median Sales Price of Existing Single Family Homes, the original right-of-way cost estimates were increased by approximately 102%. The updated right-of-way costs were then subsequently reduced to exclude consideration for cumulative regional

environmental mitigation which has now been identified as specific TUMF unit costs as part of this Nexus update. A table summarizing the recent history of the NAR Median Sales Price of Existing Single Family Homes in the Riverside/San Bernardino Metropolitan Statistical Area is include in this Appendix

Table 4.1 summarizes the unit cost estimate assumptions used to develop the TUMF network cost estimate, including a comparison of the original TUMF unit cost assumptions and the current revised unit cost assumptions developed as part of the 2005 Update of the TUMF Nexus Study. Cost estimates are provided in current year values as indicated.

EXHIBIT F-1

Regional Arterial Cost Estimate (RACE) Final Report 1999 Update
Parsons Brinckerhoff/Coachella Valley Association of Governments
April 1999

CHAPTER 2

CONSTRUCTION COSTS

INTRODUCTION

This chapter describes the methodology used to update the construction unit costs for the 1999 RACE. The unit costs are used to estimate costs for uniform road segment projects defined in the CVAG Transportation Project Prioritization Study (TPPS). This methodology is consistent with the previous RACE update. The cost estimating methodology develops unit prices, contingency cost estimates and right of way costs in 1998 dollars. In addition to the bid-level construction costs, the estimates include percent add-ons for engineering, design, construction management, owner's administrative costs and contingencies.

CURRENT CONSTRUCTION COST UNIT PRICES

Prices for the current construction costs were obtained from summary bids of previous projects provided by the County of Riverside Transportation Department. Unit prices from bids on projects located in the Coachella Valley were used to reflect local variations and experiences. The Cost estimates are intended to reflect the current costs for similar arterial projects in the Coachella Valley area using current estimating cost data in 1998 dollars. Table 2-1 lists the construction unit prices to be used in the estimate. Estimates include bid-level construction unit costs (Column A), percent add-ons for engineering, design, construction management and owner's administrative costs (Column B) and contingencies (Column C). Column D of Table 2-1 presents the total unit price which will be used to develop level of improvement standard (LOIS) costs.

TABLE 2-1
CONSTRUCTION COST UNIT PRICE
Coachella Valley Regional Arterial Cost Estimate Update
APRIL 1999

DESCRIPTION	UNIT	A UNIT COST	B E,D,CM & OAC 20%	C CONTINGENCY VARIABLE	D TOTAL A+B+C
Sawcut Existing Pavement	LF	\$1.70	\$0.34	\$0.68	\$2.72
Remove Existing Roadway	SF	\$1.15	\$0.23	\$0.46	\$1.84
Class 2 Aggregate Base 7" Thk.	SF	\$0.70	\$0.14	\$0.21	\$1.05
Class 2 Aggregate Base 10" Thk.	SF	\$0.85	\$0.17	\$0.26	\$1.28
Asphaltic Concrete 1.5" Thk.	SF	\$0.55	\$0.11	\$0.17	\$0.83
Asphaltic Concrete 4.0" Thk.	SF	\$1.46	\$0.29	\$0.44	\$2.19
Asphaltic Concrete 5.0" Thk.	SF	\$1.85	\$0.37	\$0.56	\$2.78
Seal Alligator and Block Cracks	LF	\$0.60	\$0.12	\$0.30	\$1.02
Roadway Excavation	CY	\$10.00	\$2.00	\$3.00	\$15.00
Roadway Embankment	CY	\$12.00	\$2.40	\$3.60	\$18.00
Concrete Curb	LF	\$12.00	\$2.40	\$2.40	\$16.80
Concrete Curb & Gutter	LF	\$14.00	\$2.80	\$2.80	\$19.60
Concrete Sidewalk 4" Thk x 6' Wide	SF	\$2.50	\$0.50	\$0.50	\$3.50
Median Concrete Paving & Curbs	LF	\$31.00	\$6.20	\$6.20	\$43.40
New Bridge Structure	SF	\$115.00	\$23.00	\$34.50	\$172.50
Widen Existing Bridge Structure	SF	\$130.00	\$26.00	\$39.00	\$195.00
Traffic Signalization	EA	\$120,000.00	\$24,000.00	\$24,000.00	\$168,000.00
Fine Grade, Pulverize Asphaltic Concrete	SF	\$0.50	\$0.10	\$0.20	\$0.80
Mill Existing Roadway	SF	\$0.35	\$0.07	\$0.14	\$0.56

Column B = Engineering, Design, Construction Management & Owners Administrative Costs

Column C = Contingencies for Removal & Demolition Work, Roadway Surface & Subsurface Work, Existing Surface Restoration, Concrete Site Work, Bridgework and Signalization

Existing Interchange Widening	\$	-	\$	-	\$	-	\$ 8,000,000.00
Interstate Freeway Interchange	\$	-	\$	-	\$	-	\$ 11,500,000.00
New Flyover	\$	-	\$	-	\$	-	\$ 1,750,000.00
Highway 86 Interchanges	\$	-	\$	-	\$	-	\$ 5,500,000.00

Engineering, Design, Construction Management and Owner's Administrative Costs (Table 2-1, Column B)

The percent add-on for this item is maintained at 20%. Recent experiences indicate that Engineering, Design and Construction Management are generally running at 18 - 20% of cost. The assumption of 3 - 5% for Owner's Administrative Costs is accurate. Consequently, it is believed that the composite figure of 20% is appropriate for this project.

Contingency Variable (Table 2-1, Column C)

Contingency is a percent add-on factor applied to a cost estimate. Contingency is used to account for the absence of detailed design or insufficient design or other information such as subsurface or topographic information. Variable contingencies have been applied to the construction costs in this estimate depending on the nature of the specific items. Some items will have a higher contingency than others because the potential for changes in costs is greater. The categories and percentages for contingency variables used in the 1993 RACE update have been maintained. In addition, right of way unit costs will be treated similar to the three-tier structure used in the 1993 RACE. These right of way unit costs are reflected in Chapter 3. The following contingency percent add-ons are included and are the same as those presented in the 1993 RACE.

- | | |
|---------------------------------------|-----|
| • Removal and Demolition Work | 40% |
| • Roadway Surface and Subsurface Work | 30% |
| • Existing Surface Restoration | 50% |
| • Concrete Site Work | 20% |
| • Bridgework | 30% |
| • Signalization | 20% |

Miscellaneous Costs

A percent add-on of 15% will be added to the construction cost subtotal to cover those items not included in the specific items of work in the cost estimate. Those add-ons may include, but are not limited to, items such as signage, lighting, handicap requirements, bus shelters, and delineation. In addition, bridges have a 5% add-on for miscellaneous costs.

Traffic Maintenance

A percent add-on of 2% will be added to the construction cost subtotal to cover the cost to maintain the flow of traffic during construction of these projects. This number shall include temporary detours, flagmen, barricades and other incidental costs associated with this work. Similarly, construction of new bridges incurs a 2% increased cost for traffic maintenance. In addition, interchanges have been given a 5% traffic maintenance add-on due to the level of freeway/expressway traffic to be maintained during construction.

Utility Relocations

A percent add-on of 2% will be added to the construction cost subtotal to cover the cost for unidentified utility relocation work that will be required due to the resurfacing, widening and other roadwork. This percent add-on may include, but is not limited to, water, sewer, storm, gas, underground and overhead electrical line work.

Environmental Mitigation

A percent add-on of 1% will be added to the construction cost subtotal to cover any costs which may be incurred with any environmental mitigation impacts that are associated with the project.

ARTERIAL LEVEL OF IMPROVEMENT STANDARDS (LOIS)

A level of improvement standard (LOIS) represents a unique improvement to the buildable project segments defined in the CVAG Transportation Project Prioritization Study (TPPS). A unique improvement is defined as one of the following: adding a lane of pavement, sealing an existing roadway surface, removing and replacing pavement lanes, constructing new roadway segments, widening existing bridges, constructing new bridges, widening existing freeway interchanges or constructing new freeway interchanges. The 1993 RACE methodology is applied here to update the LOIS templates, as necessary, using the updated 1998 unit costs presented earlier.

Each LOIS template represents a composite cost of the aggregated 1998 construction unit costs for the individual elements of the specified improvement per linear foot of roadway. In addition, the add-on percentages for miscellaneous costs, traffic maintenance, utility relocations and environmental mitigation are included. The LOIS templates are based on

the construction unit costs presented in Table 2-1. For freeway interchanges and flyovers, the 1993 total costs were updated to 1998 costs using an annual inflation rate of 2.5% compounded over the five-year period. A total of fifty eight (58) improvements were identified and are presented in Appendix A of this document.

Improvement standards for two, four and six lane roadways vary between all participating cities and the county. The RACE estimates are based on several consistent improvement characteristics to provide CVAG with a consistent basis to evaluate reimbursement requests from various jurisdictions. Roadway improvement characteristics are assumed to include 12 foot wide lanes, 10 foot wide parking lanes, curb and gutter, and a 6 foot wide sidewalk. Reimbursable right of way assumptions for the finished roadway width were based on the TPPS's right of way requirements.

Level of Improvement Standard (LOIS) Determination

Each LOIS provides a cost for a unique roadway improvement. Four pieces of information determine the appropriate LOIS (or multiple LOIS) to be used: the existing number of lanes, existing roadway surface condition, number of lanes at full improvement and each segment's estimated Travel Index (TI).

Improvement to Existing Lanes. Existing lanes were evaluated, during the field survey, to determine the cost of work needed on an existing surface. The roadway surface condition is used to determine the amount of resurfacing or the need to replace existing roadway, which is included in this cost estimate. Surface condition ratings were updated for all segments. Surface condition ratings were then translated into a typical improvement and incorporated in the LOIS templates based on the following table.

Surface Condition		Typical
Rating	Score	Improvement
Excellent	1	Seal alligator/block cracks
Good	2	Seal alligator/block cracks
Fair	3	Seal alligator/block cracks
Poor	4	Asphaltic concrete 1.5" thick
Very Poor	5	Remove and replace lanes

Lane Additions. The number of lane additions to be funded is determined by the number of lanes recommended in the CVATS study (adopted 1987). Depth of base and surface material is determined by a road's Travel Index (TI). TI used in the original RCTC Measure

A cost estimate (RCTC, 1988) are used for the RACE cost estimate. This provides a tool to develop planning level cost estimates and does not create a requirement for construction. (Note: actual TI's used in design work will vary; the measured TI should be used in actual design related cost estimates.)

Travel Index	Aggregate Base	Asphaltic Concrete
8.5	7" THK.	4.0" THK.
10.0	10" THK.	5.0" THK.

LOIS Improvement Cost. A subtotal of construction costs is calculated from unit costs based on the improvements. Miscellaneous costs, traffic maintenance costs, utility relocation costs, and environmental mitigation costs are calculated on the subtotal and added to provide a total construction cost per linear foot. This total LOIS improvement cost is then multiplied by the length of improvement needed. The total construction cost for a buildable project is the sum of all contributing LOIS unit costs multiplied by the improvement length.

LOIS Selection. The appropriate LOIS template selection for each buildable segment was based on its review, from the TPPS, for current improvement needs including surface condition and the estimated Travel Index. Based on this review, one or more LOIS were selected to reflect the improvements needed to meet CVAG requirements.

Each segment was examined in terms of roadway surface condition, number of lane additions and daily traffic volumes. An LOIS template was chosen which matched these three elements. For example, segment GAT2 (Vista Chino to Whitewater River Crossing) has a FAIR surface condition, has two lanes, needs four (4) additional lanes and the daily volume is 15,343 vehicles per day (vpd). The FAIR roadway condition requires the sealing of cracks, and a daily volume above 10,000 vpd corresponds to a TI of 10.0. Consequently, LOIS template E (Seal Existing Road Surface 24' Wide and Add Four Additional 12' Wide Lanes with a TI = 10.0) matched appropriately and was assigned as the proposed improvement for the GAT2 segment.

At other segments, such as GAT6 (Salvia Road to and including the I-10 Interchange), two LOIS templates were required to properly describe the proposed improvement. This segment (GAT6) has a FAIR surface condition, has two lanes, needs two (2) additional lanes and the daily volume is 15,343 vpd. The proposed improvement consists of both LOIS template D (Seal Existing Road Surface 24' Wide and Add Two Additional 12' Wide Lanes with a TI = 10.0) and LOIS template BRF (Existing Interchange Widening).

Consequently, appropriate LOIS were assigned to the various roadway segments in a similar manner.

MAJOR FACILITY COST ESTIMATES

Special level of improvement standards have been developed for major structures throughout the Coachella Valley including interchanges on freeways or state routes, parkways, bridge widenings and new bridges. The standards are presented as part of the LOIS template appendix and are identified as BRA through BRI. It should be noted that engineering, construction management, owner's costs and contingency are calculated separately for these larger facilities.

Bridge Improvements

Cost assumptions for new two, four, and six lane bridges are described in improvement standards BRA, BRB and BRC, respectively. These LOIS are based on Caltrans' improvement standards, and are per linear foot of bridge. The bridge LOIS templates include sidewalks. The cost to widen existing bridges over storm channels and the Whitewater River have improvement standards based upon the number of lanes, with the additional two or four lanes which must be added to the structure (LOIS BRD and BRE).

CONSTRUCTION COST ESTIMATES

The construction cost estimates for buildable projects defined in the CVAG Transportation Project Prioritization Study (TPPS) were developed from 1998 construction cost unit prices and cost per linear foot Level of Improvement Standards (LOIS). Planning level construction costs were calculated for each buildable segment by selecting an appropriate and representative LOIS, which provides a cost per linear foot, and multiplying this cost by the segment length. These estimates provide a guide to the approximate construction cost of an improvement. The selection of an appropriate LOIS for a particular roadway segment is based on a combination of four variables which include:

- existing number of lanes;
- number of lanes at full improvement (CVATS recommended future number of lanes);
- current roadway surface condition; and

- an estimated Travel Index based on the roadway segment's average daily traffic (ADT) volumes.

The TPPS data used for LOIS selection are presented in Appendix B. However, it should be noted that the number of lane additions used may differ from the required improvements presented in the System Continuity Table 4-2 found in Chapter 4 of the TPPS. The System Continuity improvement requirements were provided by the local jurisdictions, whereas the lane additions used to determine the construction costs were taken from the recommendations of the CVATS study (adopted 1987). A single buildable project segment may have multiple LOIS improvements. Based on the review of each roadway segment, a single or multiple LOIS was selected to reflect the improvements needed to meet CVAG requirements on the regional arterial system. The construction cost estimate for each segment reflects the contributing cost of all potential improvement needs. The selected LOIS for each buildable project and its estimated construction cost are presented in Table 2-2. The total planning level construction cost estimate is about \$591 million (1998 dollars).

CHAPTER 3

RIGHT OF WAY COSTS

RIGHT OF WAY UNIT COSTS

Right of way unit costs were determined using the same methodology applied to the 1993 Regional Arterial Cost Estimate (RACE) update. Based on the very limited information provided by the participating jurisdictions, it was determined that land acquisition costs did not change from 1993 levels. The right of way unit cost estimate presented below provides a planning level assumption which may vary considerably depending on the growth in the area and the type of property in question.

A three tiered cost structure was again developed for properties throughout the valley with prices ranging from a low of \$1.00 to a high of \$7.00 per square foot. The three areas are generally described as follows:

- Area 1 - consists of Desert Hot Springs, areas north of the Interstate 10 (I-10) Freeway and areas south easterly of Indio.
- Area 2 - consists of areas south of I-10 and north of Gerald Ford Drive between Palm Springs and Indio.
- Area 3 - consists of areas along the Route 111 corridor from Palm Springs to La Quinta, between Palm Canyon Drive and Gene Autry Trail and between Route 111 and Gerald Ford Drive.

Area 1 has the lowest right of way cost at \$1.00 per square foot, which is equivalent to \$43,560 per acre. Area 2, which is the middle price range, has an estimated price of \$4.00 per square foot, or \$174,240 per acre. Area 3, the highest priced area, is estimated at a rate of \$7.00 per square foot, or \$304,920. This represents a rough average cost for improved commercial and residential properties of the rapidly developing areas close to the Route 111 corridor and roughly as far north as Gerald Ford Drive. In the Rancho Mirage area, a valuation study estimated the fair market land value for residential lots at prices ranging from \$2.00 to \$4.00 per square foot. However, in this area of the valley, commercial lot prices range from \$7.50 to \$9.50 per square foot.

RIGHT OF WAY COST ESTIMATES

The amount of right of way required for building the identified improvements was determined for each roadway segment and is presented in Chapter 3 of the TPPS document. The required right of way was developed from the CVATS recommended alternative and is based on minimum right of way requirements identified for each of the three CVATS road types (primary, major and secondary). These right of way widths are used as minimum standards to identify the amount of right of way needed to provide the CVATS number of lanes. It should be noted that they do not reflect each local jurisdiction's circulation plans.

This square footage was compared to the currently available right of way, which is owned by the local jurisdiction. The resulting difference is the amount of right of way square footage needed to be acquired for each buildable project, in order to meet the minimum CVATS right of way requirements. The right of way cost estimates for each buildable project were calculated from the appropriate unit cost and the square footage needed.

In some cases, segments have the minimum CVATS required number of lanes but not the minimum CVATS required right of way. For these segments, construction costs equal \$0. Consequently, right of way costs are assumed to be \$0, as no lanes are needed, and therefore right of way does not need to be purchased.

The resulting cost estimates for the arterial roadways are presented in Table 3-1. The total cost of right of way acquisition is estimated at about \$37 million (1998 dollars).

EXHIBIT F-2

Construction Cost Index History **Engineering News Record**

HOW ENR BUILDS THE INDEX: 200 hours of common labor at the 20-city average of common labor rates, plus 25 cwt of standard structural steel shapes at the mill price prior to 1996 and the fabricated 20-city price from 1996, plus 1.128 tons of Portland cement at the 20-city price, plus 1,088 board-ft of 2 x 4 lumber at the 20-city price.

The 20 U.S. cities that ENR maintains cost data on are: Atlanta, Baltimore, Birmingham, Boston, Chicago, Cincinnati, Cleveland, Dallas, Denver, Detroit, Kansas City, Los Angeles, Minneapolis, New Orleans, New York, Philadelphia, Pittsburgh, St. Louis, San Francisco, Seattle. ENR also tracks cost data for Montreal and Toronto, Canada.

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	ANNUAL CHANGE
1990	4680	4685	4691	4693	4707	4732	4734	4752	4774	4771	4787	4777	4732	2.5%
1991	4777	4773	4772	4766	4801	4818	4854	4892	4891	4892	4896	4889	4835	2.2%
1992	4888	4884	4927	4946	4965	4973	4992	5032	5042	5052	5058	5059	4985	3.1%
1993	5071	5070	5106	5167	5262	5260	5252	5230	5255	5264	5278	5310	5210	4.5%
1994	5336	5371	5381	5405	5405	5408	5409	5424	5437	5437	5439	5439	5408	3.8%
1995	5443	5444	5435	5432	5433	5432	5484	5506	5491	5511	5519	5524	5471	1.2%
1996	5523	5532	5537	5550	5572	5597	5617	5652	5683	5719	5740	5744	5620	2.7%
1997	5765	5769	5759	5799	5837	5860	5863	5854	5851	5848	5838	5858	5825	3.6%
1998	5852	5874	5875	5883	5881	5895	5921	5929	5963	5986	5995	5991	5920	1.6%
1999	6000	5992	5986	6008	6006	6039	6076	6091	6128	6134	6127	6127	6060	2.4%
2000	6130	6160	6202	6201	6233	6238	6225	6233	6224	6259	6266	6283	6221	2.7%
2001	6281	6273	6280	6286	6288	6319	6404	6389	6391	6397	6410	6390	6343	2.0%
2002	6462	6462	6502	6480	6512	6532	6605	6592	6589	6579	6578	6563	6538	3.0%
2003	6581	6640	6627	6635	6642	6694	6695	6733	6741	6771	6794	6782	6694	2.4%
2004	6825	6862	6957	7017	7065	7109	7126	7188	7298	7314	7312	7308	7115	6.3%
2005	7297	7298	7309	7355	7398	7415	7422	7479	7540	7563	7630	7647	7446	4.7%
2006	7660													

EXHIBIT F-3

SATISFY 2020 Summary of Cost Estimates
Western Riverside Council of Government (WRCOG) and The Keith Companies
(TKC) 2000

SATISFY 2020
Summary of Cost Estimates
Backbone System + Ultimate ROW

FACILITY	Agency	Additional Lanes	Adjusted Miles	nterm Improvemen Unit Cost Per Lane mile	Adjusted Construction Cost	Additional lanes	ROW Cost factor Per Lane mile	Adjusted ROW Cost	Funded	Subtotal by segment	Unassigned Funds
Adams Avenue											
Cherry St to Murrieta City Boundary	Temecula	2	0.125	\$850,000	\$212,500	4	\$500,000	\$250,000		\$462,500	
Murrieta City Boundary to De Luz Rd	Murrieta	2	1.7	\$850,000	\$2,890,000	4	\$500,000	\$3,400,000		\$6,290,000	
De Luz Rd to Brown St	Murrieta	2	0.25	\$850,000	\$425,000	4	\$500,000	\$500,000		\$925,000	
Brown St to Murrieta Hot Springs Rd	Murrieta	2	0.35	\$850,000	\$595,000	6	\$500,000	\$1,050,000		\$1,645,000	
Antelope Road											
Newport Rd to Clinton Keith Rd	County	2	5.8	\$533,887	\$6,193,089	2	\$400,000	\$4,640,000		\$10,833,089	
Anza Road											
Pala Rd to .25 mile past Peppercorn Dr	Temecula	0	1	\$533,887	\$0	2	\$400,000	\$800,000		\$800,000	
.25 mile past Peppercorn Dr to Nighthawk Pass	County	2	2.5	\$533,887	\$2,669,000	2	\$400,000	\$2,000,000		\$4,669,000	
Nighthawk Pass to Rancho Calif Rd	County	0	0.75	\$533,887	\$0	0	\$400,000	\$0		\$0	
Baxter Road											
I-15 to Susan Dr (6)	County	2	0.75	\$533,887	\$801,000	4	\$400,000	\$1,200,000	\$875,000	\$1,126,000	
Susan Dr to La Estrella Rd	County	2	0.45	\$550,000	\$495,000	4	\$400,000	\$720,000		\$1,215,000	
La Estrella Rd to City of Murrieta Boundary	County	2	2	\$533,887	\$2,136,000	4	\$400,000	\$3,200,000		\$5,336,000	
City of Murrieta Boundary to Clinton Keith Rd	Murrieta	2	0.5	\$550,000	\$550,000	4	\$500,000	\$1,000,000		\$1,550,000	
Benton Road											
SR 79 to Washington Rd	County	0	2.56	\$542,573	\$0	2	\$400,000	\$2,048,000		\$2,048,000	
Borel Road											
Washington St to Benton Rd	County	0	3.75	\$850,000	\$0	0	\$500,000	\$0		\$0	
Briggs Road											
Newport Rd to Helene Dr	County	0	2	\$451,175	\$0	2	\$400,000	\$1,600,000		\$1,600,000	
Helene Dr to Gardner Ln	County	0	1	\$451,175		4		\$0			
Gardner Ln to Clinton Keith	County	0	3.5	\$451,175		2		\$0			
Bundy Canyon Road/Scott Road											
Mission Tr to SR 79 (6)	County	2	12.68	\$533,887	\$27,079,000	4	\$400,000	\$20,288,000	\$4,050,000	\$43,317,000	
Roadway/Drainage Improvements (1)							\$400,000	\$0		\$0	\$3,000,000
Butterfield Stage Road											
Anza Rd to Nighthawk Pass	County	0	0.75	\$533,887	\$0	0	\$400,000	\$0		\$0	
Nighthawk Pass to City of Temecula Boundary	County	0	0.63	\$533,887	\$0	4	\$400,000	\$1,008,000		\$1,008,000	
City of Temecula Boundary to SR 79	Temecula	0	0.25	\$850,000	\$0	2	\$500,000	\$250,000		\$250,000	
SR 79 to De Portola Rd	Temecula	2	0.25	\$533,887	\$266,944	0	\$400,000	\$0		\$266,944	
De Portola Rd to 0.3 mile south of Stonefield Ln	Temecula	0	0.9	\$533,887	\$0	2	\$400,000	\$720,000		\$720,000	
0.3 mile south of Stonefield Ln to Stonefield Ln	Temecula	2	0.3	\$533,887	\$320,332	0	\$400,000	\$0		\$320,332	
Stonefield Ln to Avenida Lestonniac	Temecula	0	0.8	\$533,887	\$0	4	\$400,000	\$1,280,000		\$1,280,000	
Avenida Lestonniac to Rancho California Rd	Temecula	2	0.25	\$533,887	\$266,944	0	\$400,000	\$0		\$266,944	
Rancho Calif Rd to Nicolas Rd	Temecula	2	2.25	\$533,887	\$2,402,492	4	\$400,000	\$3,600,000		\$6,002,492	
Nicolas Rd to Borel Rd	County	2	2	\$533,887	\$2,136,000		\$400,000	\$0		\$2,136,000	
N. Roadway/frontage improvements (6)					\$0		\$400,000	\$0		\$0	\$2,969,000
S. Roadway/frontage/bridge improvements (6)					\$0		\$400,000	\$0		\$0	\$3,491,000
California Oaks Road											
Jefferson Ave to Clinton Keith Rd	Murrieta	0	2.5	\$0	\$0	0	\$400,000	\$0		\$0	

Clinton Keith Road								\$0		\$0
Bear Creek to I-15	County	0	1.85		\$0	2	\$400,000	\$1,480,000		\$1,480,000
I-15 to City of Murrieta Boundary	County	2	2.25	\$533,887	\$2,402,492	2	\$400,000	\$1,800,000	\$126,458	\$4,076,034
City of Murrieta Boundary to California Oaks Rd	Murrieta	2	0.95	\$533,887	\$1,014,385	2	\$400,000	\$760,000		\$1,774,385
California Oaks Rd to I-215	Murrieta	0	1.15	\$533,887	\$0	0	\$500,000	\$0		\$0
I-215 to Antelope Rd	Murrieta	4	0.98	\$550,000	\$2,156,000	2	\$500,000	\$980,000	\$149,542	\$2,986,458
Antelope Rd to City of Murrieta Boundary	Murrieta	4	0.9	\$550,000	\$1,980,000	4	\$500,000	\$1,800,000	\$1,058,400	\$2,721,600
City of Murrieta Boundary to SR 79 (6)	County	4	2.77	\$542,573	\$6,012,000	4	\$400,000	\$4,432,000	\$2,991,600	\$7,452,400
Coal Road								\$0		\$0
Lake St to Pierce	Lake Elsinore	2	1.75	\$450,000	\$1,575,000	6	\$500,000	\$5,250,000		\$6,825,000
Peirce to Toro Rd	Lake Elsinore	2	1.25	\$550,000	\$1,375,000	4	\$500,000	\$2,500,000		\$3,875,000
Toro Rd to SR 74	County	2	1.25	\$850,000	\$2,125,000	2	\$500,000	\$1,250,000		\$3,375,000
Collier Avenue								\$0		\$0
Riverside Dr to SR 74	Lake Elsinore	2	0.5	\$550,000	\$550,000	4	\$500,000	\$1,000,000		\$1,550,000
Corydon Street								\$0		\$0
Grand Ave to Lemon St Southbound Lane(s)	Lake Elsinore	1	1.5	\$850,000	\$1,275,000	1	\$500,000	\$750,000		\$2,025,000
Grand Ave to Lemon St Northbound Lane(s)	Lake Elsinore	1	1.5	\$542,573	\$814,000	1	\$400,000	\$600,000		\$1,414,000
Date Street/ Cherry St								\$0		\$0
Diaz Rd to I-15	Temecula	4	0.8	\$850,000	\$2,720,000	4	\$500,000	\$1,600,000		\$4,320,000
I-15 to Temecula City Limits	Temecula	4	1.45	\$550,000	\$3,190,000	4	\$500,000	\$2,900,000		\$6,090,000
Temecula City Limits to SR 79	Temecula	0	1	\$850,000	\$0	4	\$500,000	\$2,000,000		\$2,000,000
De Portola Road								\$0		\$0
Santiago Rd to Margarita Rd	Temecula	0	2.5	\$0	\$0	0	\$500,000	\$0		\$0
Margarita Rd to Butterfield Stage Rd	Temecula	0	1.5	\$0	\$0	0	\$500,000	\$0		\$0
Butterfield Stage Rd to City of Temecula Boundary	Temecula	0	0.33	\$850,000	\$0	2	\$500,000	\$330,000		\$330,000
City of Temecula Boundary to Linda Rosea Rd	County	0	0.42	\$533,887	\$0	0	\$400,000	\$0		\$0
Linda Rosea Rd to Anza Rd	County	0	1	\$533,887	\$0	2	\$400,000	\$800,000		\$800,000
Roadway + 1/2 width improvements (6)					\$0		\$400,000	\$0		\$1,714,000
Diaz Road								\$0		\$0
Cherry St to Via Dos Picos	Temecula	0	1.25	\$550,000	\$0	2	\$400,000	\$1,000,000		\$1,000,000
Via Dos Picos to Rancho Calif. Rd	Temecula	2	0.75	\$850,000	\$1,275,000	2	\$500,000	\$750,000		\$2,025,000
Rancho Calif. Rd to By-Pass	Temecula	4	0.75	\$550,000	\$1,650,000	4	\$500,000	\$1,500,000		\$3,150,000
Elm Street								\$0		\$0
Jefferson Ave to Ynez Rd	Murrieta	4	0.6	\$550,000	\$1,320,000	4	\$500,000	\$1,200,000		\$2,520,000
Front Street								\$0		\$0
Via Montezuma to Rancho Calif	Temecula	0	1.5		\$0	0	\$400,000	\$0		\$0
Grand Avenue								\$0		\$0
Lakeshore Dr to Lake Elsinore City Boudary	Lake Elsinore	2	0.85	\$533,887	\$908,000	4	\$400,000	\$1,360,000		\$2,268,000
Lake Elsinore City Boundary to Toft	County	2	1.35	\$533,887	\$1,441,495	4	\$400,000	\$2,160,000		\$3,601,495
Toft to Riverside Dr.	Lake Elsinore	2	1	\$850,000	\$1,700,000	2	\$500,000	\$1,000,000		\$2,700,000
Riverside Dr to Bonnie Lea Dr.	Lake Elsinore	2	0.31	\$550,000	\$341,000	4	\$500,000	\$620,000		\$961,000
Bonnie Lea Dr. to Booth St	County	2	2.75	\$533,887	\$2,936,000	4	\$400,000	\$4,400,000		\$7,336,000
Booth St to Vail St	Lake Elsinore	2	0.05	\$533,887	\$53,389	4	\$400,000	\$80,000		\$133,389
Vail St to Ontario Way	County	2	1.2	\$533,887	\$1,281,329	4	\$400,000	\$1,920,000		\$3,201,329
Ontario Way to Scales Way	Lake Elsinore	2	0.1	\$533,887	\$106,777	4	\$400,000	\$160,000		\$266,777
Scales Way to Corydon St	County	2	3.6	\$533,887	\$3,843,986	4	\$400,000	\$5,760,000		\$9,603,986
Corydon St to Clinton Keith Rd	County	2	4	\$533,887	\$4,271,000	2	\$400,000	\$3,200,000		\$7,471,000
Holland Road								\$0		\$0
Murrieta Rd to Hanover Rd	County	2	2.08	\$451,176	\$1,877,000	2	\$400,000	\$1,664,000		\$3,541,000
Hanover Rd to Briggs Rd	County	2	1.4	\$451,176	\$1,263,000	4	\$400,000	\$2,240,000		\$3,503,000
Briggs Rd to Leon Rd	County	2	1.01	\$451,176	\$911,000	2	\$400,000	\$808,000		\$1,719,000
Haun Road								\$0		\$0

Newport Rd to Keller Rd	County	2	4	\$850,000	\$6,800,000	4	\$500,000	\$8,000,000	\$14,800,000
Hunter Road								\$0	\$0
Los Alamos Rd to Sommersville Rd	Murrieta	2	0.5			2		\$0	\$0
Sommerville Rd to Murrieta City Boundary	Murrieta	2	0.5	\$850,000	\$850,000	2	\$500,000	\$500,000	\$1,350,000
Murrieta City Boundary to SR 79	County	0	1.5			2		\$0	\$0
Jefferson Avenue		0						\$0	\$0
Nutmeg St to California Oaks Rd	Murrieta	2	1.5	\$550,000	\$1,650,000	4	\$500,000	\$3,000,000	\$4,650,000
California Oaks Rd to Elm St	Murrieta	0	2.5		\$0	4	\$400,000	\$4,000,000	\$4,000,000
Elm St to Date St	Murrieta	0	0.5	\$550,000	\$0	4	\$400,000	\$800,000	\$800,000
Date St to Murrieta City Boundary	Murrieta	0	0.3			0		\$0	\$0
Murrieta City Boundary to Cherry St	Temecula	0	0.2			0		\$0	\$0
Keller Road								\$0	\$0
I-215 to Menifee Rd	County	2	1	\$850,000	\$1,700,000	2	\$500,000	\$1,000,000	\$2,700,000
Menifee Rd to Briggs Rd	County	2	1	\$451,176	\$902,000	4	\$400,000	\$1,600,000	\$2,502,000
Briggs Rd to SR 79	County	2	2.46	\$451,176	\$2,220,000	4	\$400,000	\$3,936,000	\$6,156,000
Jackson Avenue								\$0	\$0
Elm St to Murrieta Hot Springs Rd	Murrieta	2	1.2	\$550,000	\$1,320,000	4	\$400,000	\$1,920,000	\$3,240,000
Lake Street								\$0	\$0
I-15 to Lakeshore Dr	Lake Elsinore	2	2.75	\$550,000	\$3,025,000	4	\$500,000	\$5,500,000	\$8,525,000
Lakeshore Drive								\$0	\$0
Lake St to Lucern St	Lake Elsinore	2	5	\$850,000	\$8,500,000	2	\$500,000	\$5,000,000	\$13,500,000
Lucern St to Railroad Canyon Rd	Lake Elsinore	2	0.75	\$550,000	\$825,000	4	\$500,000	\$1,500,000	\$2,325,000
Leon Road								\$0	\$0
Newport Rd to Holland Rd	County	0	1.74	\$451,176	\$0	2	\$400,000	\$1,392,000	\$1,392,000
Holland Rd to Scott Rd	County	2	2	\$451,176	\$1,804,704	2	\$400,000	\$1,600,000	\$3,404,704
Scott Rd to SR 79 (6)	County	0	5.1	\$451,176	\$0	2	\$400,000	\$4,080,000	\$4,080,000
Los Alamos Road						0		\$0	\$0
Jefferson Ave to I-15	Murrieta	0	0.4	\$550,000	\$0	4	\$500,000	\$800,000	\$800,000
I-15 to Whitewood Rd	Murrieta	0	1.75	\$550,000	\$0	4	\$500,000	\$3,500,000	\$3,500,000
Whitewood Rd to Clinton Keith Rd	Murrieta	0	1.75	\$850,000	\$0	4	\$500,000	\$3,500,000	\$3,500,000
Malaga Road								\$0	\$0
Mission Tr to I-15	County	2	0.25	\$850,000	\$425,000	2	\$500,000	\$250,000	\$675,000
Margarita Road								\$0	\$0
Murrieta Hot Springs to City of Temecula Boundary	County	0	0.82	\$533,887	\$0	2	\$400,000	\$656,000	\$656,000
City of Temecula Boundary to Solana Wy	Temecula	0	2.18	\$850,000	\$0	2	\$500,000	\$2,180,000	\$2,180,000
Solana Wy to SR 79 S.	Temecula	0	4.5	\$0	\$0	2	\$400,000	\$3,600,000	\$3,600,000
Roadway Improvements + Frontage (4)					\$0		\$400,000	\$0	\$3,060,000
Roadway Improvements + Frontage (5)					\$0		\$400,000	\$0	\$1,319,000
Menifee Road								\$0	\$0
Scott Rd to Garboni Rd	County	2	1	\$533,887	\$1,068,000	2	\$400,000	\$800,000	\$1,868,000
Garboni Rd to Craig Rd	County	2	0.5	\$533,887	\$534,000	4	\$400,000	\$800,000	\$1,334,000
Craig Rd to Newport Rd	County	2	1.54	\$533,887	\$1,644,000	2	\$400,000	\$1,232,000	\$2,876,000
Scott Rd to Clinton Keith Rd	County	2	3.09	\$533,887	\$3,299,000	4	\$400,000	\$4,944,000	\$8,243,000
Mission Trail								\$0	\$0
Railroad Canyon Rd to Malaga Rd	Lake Elsinore	2	0.75	\$533,887	\$801,000	2	\$400,000	\$600,000	\$1,401,000
Malaga Rd to Lemon St Southbound Lane(s)	Lake Elsinore	1	1.5	\$533,887	\$801,000	2	\$400,000	\$1,200,000	\$2,001,000
Malaga Rd to Lemon St Northbound Lane(s)	Lake Elsinore	1	1.5	\$533,887	\$801,000	2	\$400,000	\$1,200,000	\$2,001,000
Lemon St to Palomar St	County	2	1.27	\$533,887	\$1,356,000	2	\$400,000	\$1,016,000	\$2,372,000
Murrieta Hot Springs								\$0	\$0
Jefferson Ave to I-15	Murrieta	0	0.5	\$850,000	\$0	2	\$500,000	\$500,000	\$1,114,071
I-15 to I-215	Murrieta	0	0.75			2		\$0	\$0
I-215 to Jackson Ave	Murrieta	0	0.55	\$533,887	\$0	2	\$400,000	\$440,000	\$440,000
Jackson Ave to Murrieta City Boundary	Murrieta	2	0.75	\$533,887	\$800,831	2	\$400,000	\$600,000	\$1,400,831

Murrieta City Boundary to SR 79	County	2	1.2	\$533,887	\$1,281,329	2	\$400,000	\$960,000	\$489,929	\$1,751,400	
SR 79 to Calistoga Dr	County	0	0.77	\$533,887	\$0	0	\$400,000	\$0		\$0	
Calistoga Dr to City of Temecula Boundary	County	2	0.5	\$533,887	\$534,000	2	\$400,000	\$400,000		\$934,000	
City of Temecula Boundary to existing Butterfield Stage Rd	County	2	1.25	\$850,000	\$2,125,000	2	\$500,000	\$1,250,000		\$3,375,000	
Butterfield Stage Rd to Realigned Butterfield Stage Rd	County	2	0.5	\$533,887	\$534,000	4	\$400,000	\$800,000		\$1,334,000	
MHSR East Roadway Improvements + Frontage (4)					\$0		\$400,000	\$0	\$4,775,000	(\$4,775,000)	
Murrieta Road								\$0		\$0	
Scott Rd to Newport Rd (6)	County	2	3.15	\$533,887	\$3,363,000	2	\$400,000	\$2,520,000	\$4,041,000	\$1,842,000	
Newport Road/Patton Road								\$0		\$0	
Goetz Rd to Murrieta Rd (3)	County	2	1.78	\$533,887	\$1,901,000	2	\$400,000	\$1,424,000		\$3,325,000	\$6,500,000
Murrieta Rd to I-215 (3)	County	0	2	\$533,887	\$0	2	\$400,000	\$1,600,000		\$1,600,000	\$1,197,000
I-215 to Menifee Rd	County	0	1			2		\$0		\$0	
Menifee Rd to SR 79 (3)	County	2	4.1	\$533,887	\$4,378,000	4	\$400,000	\$6,560,000		\$10,938,000	\$13,079,000
Nicolas Road								\$0		\$0	
SR 79 to Joseph Rd	Temecula	0	1.25	\$0	\$0	0	\$400,000	\$0		\$0	
Joseph Rd to Butterfield Stage Rd	Temecula	2	1.75	\$850,000	\$2,975,000	0	\$400,000	\$0		\$2,975,000	
ROW Acquisition					\$0		\$400,000	\$0	\$127,000	(\$127,000)	
Nutmeg Street								\$0		\$0	
Clinton Keith to Jefferson Ave	Murrieta	0	1.75	\$850,000	\$0	2	\$500,000	\$1,750,000		\$1,750,000	
Adams Ave to Morning Glory Dr	Murrieta	0	1	\$550,000	\$0	2	\$500,000	\$1,000,000		\$1,000,000	
Morning Glory to Clinton Keith Rd	Murrieta	0	1.5	\$850,000	\$0	2	\$500,000	\$1,500,000		\$1,500,000	
Pala Road								\$0		\$0	
SR 79 S to Via Consuelo	Temecula	0	1	\$550,000	\$0	4	\$500,000	\$2,000,000		\$2,000,000	
Via Consuelo to Wolf Valley Road	Temecula	0	1.17	\$850,000	\$0	2	\$500,000	\$1,170,000		\$1,170,000	
Wolf Valley Road to Anza Rd Northbound Lane(s)	Temecula	0	1.15	\$850,000	\$0	1	\$500,000	\$575,000		\$575,000	
Wolf Valley Road to Anza Rd Southbound Lane(s)	Temecula	0	0.01	\$533,887	\$0	1	\$400,000	\$4,000		\$4,000	
Anza Rd to SATISFY Boundary	County	0	1.5		\$0	0	\$400,000	\$0		\$0	
Palomar Road								\$0		\$0	
Mission Tr to Clinton Keith Rd (6)	County	2	3	\$533,887	\$3,203,000	4	\$400,000	\$4,800,000		\$5,303,000	\$2,700,000
Clinton Keith Rd to City of Murrieta Boundary	County	2	0.75	\$533,887	\$801,000	2	\$400,000	\$600,000		\$1,401,000	
City of Murrieta Boundary to Nutmeg St	Murrieta	2	0.75	\$533,887	\$801,000	2	\$400,000	\$600,000		\$1,401,000	
Palomar Drainage Imp. (1)	Murrieta				\$0		\$400,000	\$0		\$0	\$2,000,000
Rancho Way								\$0		\$0	
Diaz Rd to Ynez Rd	Temecula	4	0.5	\$550,000	\$1,100,000	4	\$500,000	\$1,000,000		\$2,100,000	
Ynez Rd to Margarita Rd	Temecula	4	0.5	\$550,000	\$1,100,000	4	\$500,000	\$1,000,000		\$2,100,000	
Railroad Canyon Road								\$0		\$0	
Lakeshore Dr to Goetz Rd (less 1 mi built) (4)	Lake Elsinore	0	5	\$850,000	\$0	2	\$500,000	\$5,000,000		\$5,000,000	\$1,463,000
Rainbow Canyon Road								\$0		\$0	
SATISFY Boundary to Pala Rd	Temecula	1	3.5	\$850,000	\$2,975,000	1	\$500,000	\$1,750,000		\$4,725,000	
Rancho California Road								\$0		\$0	
City Boundary to Front St	Temecula	0	1		\$0	0	\$400,000	\$0		\$0	
Front St to Margarita Rd	Temecula	0	2	\$850,000	\$0	2	\$500,000	\$2,000,000		\$2,000,000	
Margarita Rd to Butterfield Stage Rd	Temecula	0	2		\$0	0	\$400,000	\$0		\$0	
Butterfield Stage Rd to Monte De Oro Rd	County	0	3.5	\$533,887	\$0	1	\$400,000	\$1,400,000		\$1,400,000	
Monte De Oro Rd to Borel Rd	County	0	2		\$0	1	\$400,000	\$800,000		\$800,000	
Riverside Drive								\$0		\$0	
Grand Ave to Collier Ave	Lake Elsinore	2	3	\$550,000	\$3,300,000	4	\$500,000	\$6,000,000		\$9,300,000	
SR 74								\$0		\$0	
Collier Av to Lake Elsinore Boundary(1)	Lake Elsinore	2	0.5	\$850,000	\$850,000	4	\$500,000	\$1,000,000		\$1,850,000	
Lake Elsinore Boundary(1) to Boundary (2)	County	2	0.45	\$850,000	\$765,000	4	\$500,000	\$900,000		\$1,665,000	

Lake Elsinore Boundary(2) to Boundary(3)	Lake Elsinore	2	1.25	\$850,000	\$2,125,000	4	\$500,000	\$2,500,000		\$4,625,000
Boundary(3) to SATISFY boundary	County	2	3	\$550,000	\$3,300,000	4	\$500,000	\$6,000,000		\$9,300,000
SR 79 (Winchester)								\$0		\$0
Diaz Rd to Jefferson Ave	Temecula	0	0.5		\$0	0	\$400,000	\$0		\$0
Jefferson Ave to I-15	Temecula	0	0.25		\$0	0	\$400,000	\$0		\$0
I-15 to Nicolas Rd (6)	Temecula	0	1.75	\$850,000	\$0	0	\$500,000	\$0		\$0
Nicolas Rd to City of Temecula Boundary	Temecula	0	0.38	\$0	\$0	0	\$400,000	\$0		\$0
City of Temecula Boundary to Auld Briggs Rd	County	0	2	\$850,000	\$0	0	\$400,000	\$0		\$0
Auld Briggs Rd to Keller Rd	County	4	2.75	\$850,000	\$9,350,000	4	\$400,000	\$4,400,000		\$13,750,000
Keller Rd To Newport Rd	County	0	5.45	\$533,887	\$0	4	\$400,000	\$8,720,000		\$8,720,000
ROW Acquisition (5)					\$0		\$400,000	\$0	\$762,000	(\$762,000)
SR 79 S.								\$0		\$0
I-15 to Pala Rd	Temecula	2	1.25	\$450,000	\$1,125,000	2	\$500,000	\$1,250,000		\$2,375,000
Pala Rd to Butterfield Stage Rd	Temecula	0	2.75		\$0	0	\$400,000	\$0		\$0
Butterfield Stage Rd to Temecula City Boundary	Temecula	2	0.25	\$850,000	\$425,000	2	\$500,000	\$250,000	\$7,400,000	(\$6,725,000)
Temecula City Boundary to Anza Rd	County	2	1.2	\$850,000	\$2,040,000	2	\$500,000	\$1,200,000		\$3,240,000
Roadway Improvements (5)		0			\$0		\$400,000	\$0	\$10,544,000	(\$10,544,000)
Washington Street								\$0		\$0
Borel Rd to Benton Rd	County	2	1.15	\$533,887	\$1,227,940	2	\$400,000	\$920,000		\$2,147,940
Benton Rd to Scott Rd (6)	County	0	3.6	\$533,887	\$0		\$400,000	\$0	\$4,050,000	(\$4,050,000)
Roadway/Drainage Improvements (1)	County				\$0		\$400,000	\$0		\$0
Western By-Pass								\$0		\$0
Diaz Rd to I-15	County	2	4.75	\$550,000	\$5,225,000	4	\$500,000	\$9,500,000		\$14,725,000
Ynez Road						0		\$0		\$0
SR 79 to Rancho Calif. Rd	Temecula	0	2.75	\$0	\$0	2	\$400,000	\$2,200,000		\$2,200,000
Rancho Calif Rd to Santiago Rd	Temecula	0	1.25	\$850,000	\$0	2	\$500,000	\$1,250,000		\$1,250,000
SR 79 to Murrieta City Boundary	Temecula	2	1.2	\$450,000	\$1,080,000	6	\$500,000	\$3,600,000		\$4,680,000
Murrieta City Boundary to Elm St	Murrieta	2	0.25	\$450,000	\$225,000	6	\$500,000	\$750,000		\$975,000
SUBTOTAL					\$201,041,956			\$274,157,000	\$42,554,000	\$429,944,956
										\$47,918,000

INTERCHANGES

I-15										
California Oaks Road Interchange (E)	Murrieta	0		\$8,000,000				\$5,899,000		\$2,101,000
Bundy Canyon Roads interchange (E)	County	4		\$8,000,000				\$6,504,000		\$1,496,000
By-Pass/SR 79 S. Interchange (E)	Temecula	2		\$8,000,000						\$8,000,000
Clinton Keith Rd Interchange (E)	County	2		\$8,000,000				\$4,423,000		\$3,577,000
Coal Road Interchange (Nichols Rd) (E)	Lake Elsinore	4		\$8,000,000						\$8,000,000
DateSt/ Cherry St (N)	Temecula	4		\$11,500,000				\$3,750,000		\$7,750,000
Lake Street Interchange (E)	Lake Elsinore	4		\$8,000,000						\$8,000,000
Railroad Canyon Rd Interchange	Lake Elsinore			\$8,000,000						\$8,000,000
Rancho California Road Interchange (E)	Temecula	2		\$8,000,000						\$8,000,000
SR 74 Interchange (E)	Lake Elsinore	4		\$8,000,000						\$8,000,000
Olive St. (N)	Lake Elsinore			\$11,500,000						\$11,500,000
I-215										\$0
Clinton Keith Rd Interchange (E)	Murrieta	0		\$8,000,000				\$6,504,000		\$1,496,000
Los Alamos Road Interchange (E)	Murrieta	2		\$8,000,000				\$6,504,000		\$1,496,000
Keller Road Interchange (N)	County	4		\$11,500,000						\$11,500,000
Scott Road Interchange (E)	County	4		\$8,000,000						\$8,000,000
SUBTOTAL					\$130,500,000					\$96,916,000

OVERCROSSING

Los Alamos Road (E)	Murrieta	4	\$7,800,000	\$2,000,000	\$5,800,000
Malaga Rd (E)	Lake Elsinore	4	\$7,800,000		\$7,800,000
Rancho Way (N)	Temecula	4	\$11,040,000		\$11,040,000
Holland Rd (E)	County	2	\$7,800,000		\$7,800,000
Cherry St at Murrieta Hot Springs Rd (flyover) (N)	County		\$11,040,000		\$11,040,000
Elm St (N)	Murrieta	4	\$11,040,000		\$11,040,000
SUBTOTAL			\$56,520,000		\$54,520,000

BRIDGE IMPROVEMENTS

Clinton Keith Rd at Warm Springs Creek	County		\$6,900,000	\$813,000	\$6,087,000
Nutmeg Rd at Murrieta Creek (1)	Murrieta		\$6,900,000	\$306,000	\$6,594,000
Hunter Rd at Warm Springs Creek	Murrieta		\$6,900,000		\$6,900,000
Jefferson Rd at Warm Springs Creek (1)	Murrieta		\$6,900,000	\$250,000	\$6,650,000
Winchester Rd at Murrieta Creek (1)	Temecula		\$6,900,000	\$500,000	\$6,400,000
Margarita Rd at Santa Gertrudis Creek (1)	Temecula		\$6,900,000	\$3,571,000	\$3,329,000
Margarita Rd at Long Canyon (1)	Temecula		\$6,900,000	\$4,401,000	\$2,499,000
Pala Rd at Temecula Creek (1)	Temecula		\$6,900,000	\$5,693,000	\$1,207,000
Elm St at Warm Springs Creek	Murrieta		\$6,900,000	\$750,000	\$6,150,000
SUBTOTAL			\$62,100,000		\$45,816,000

MAJOR IMPROVEMENT COST SUB

TOTAL					\$197,252,000
TOTAL					\$627,196,956

E= existing

N= new

Construction cost estimates and ROW cost estimates provided by TKC

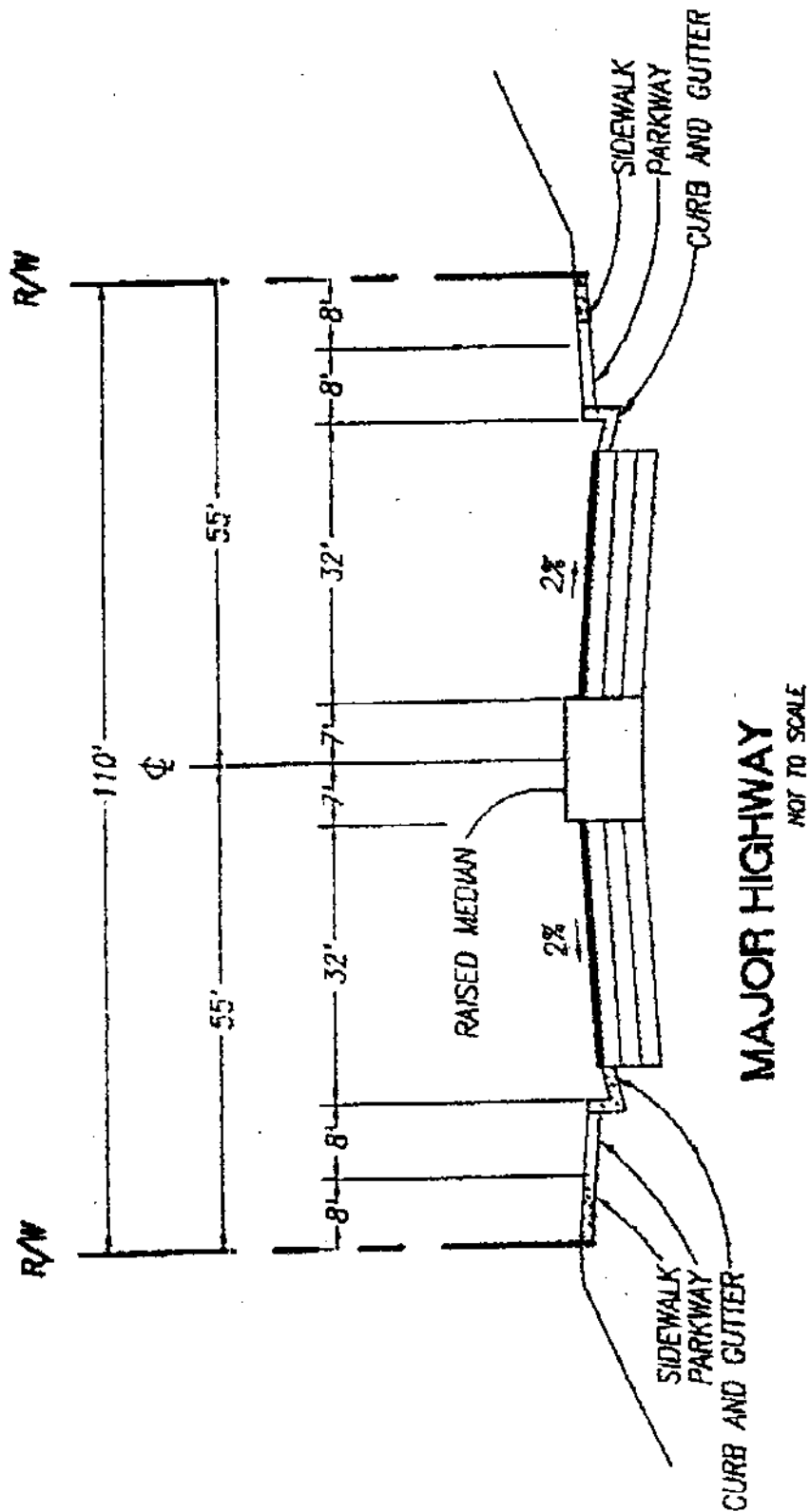
TKC estimates based on composite data from Riverside County, WRCOG, and CETAP program

1. Funded estimates pursuant to Southwest Road & Bridge Benefit District
2. Funded estimates pursuant to California Oaks Road & Bridge Benefit District
3. Funded estimates pursuant to Menifee Road & Bridge Benefit District
4. Funded estimates pursuant to Assessment District 161
5. Funded estimates pursuant to Assessment District 159
6. Funded estimates pursuant to jurisdiction

WPCOG**Per Lane Mile Cost Opinion**

		Roadway Length		Roadway Paving Width		Roadway Paving Lanes		Subtotal Highway		Main Highway	
		5280		32		2		5280		60	
ITEMS											
01)	GRADING/EXCAVATION 3FT DEEP	CY	\$	2.00	18,773	\$	37,547	49,280	\$	98,560	
02)	6" SIDEWALK	SF	\$	2.35				63,360	\$	148,896	
03)	A-8 MONO CURB & GUTTER	LF	\$	14.00				10,560	\$	147,840	
04)	A-8 CURB ONLY	LF	\$	9.00				10,560	\$	95,040	
05)	6" AC OVER 12" BASE (FULL LIFT)	SF	\$	2.25	168,960	\$	380,160	316,800	\$	712,800	
06)	STRIPING	LF	\$	2.00	5,280	\$	10,560	5,280	\$	10,560	
07)	STREET SIGNS	EA	\$	275.00	5	\$	1,375	5	\$	1,375	
08)	STREET LIGHTS	EA	\$	3,000.00	18	\$	54,000	18	\$	54,000	
09)	ELECTRICAL/CONDUIT	LF	\$	22.00	5,280	\$	116,160	5,280	\$	116,160	
10)	STORM DRAIN STRUCTURES	LS	\$	1	200,000	\$	200,000	400,000	\$	400,000	
11)	SAWCUT AND REMOVE PAVING	SF	\$	3.00	5,280	\$	15,840	NONE			
12)	BRIDGE STRUCTURES				NONE		NONE	NONE			
13)	TRAFFIC SIGNALS				NONE		NONE	NONE			
14)	LANDSCAPING				NONE		NONE	NONE			
SUBTOTAL							\$ 815,642			\$ 1,785,231	
					Lanes		2				
					Per Lane Mile		\$ 407,821			\$ 446,308	

Source: TKC



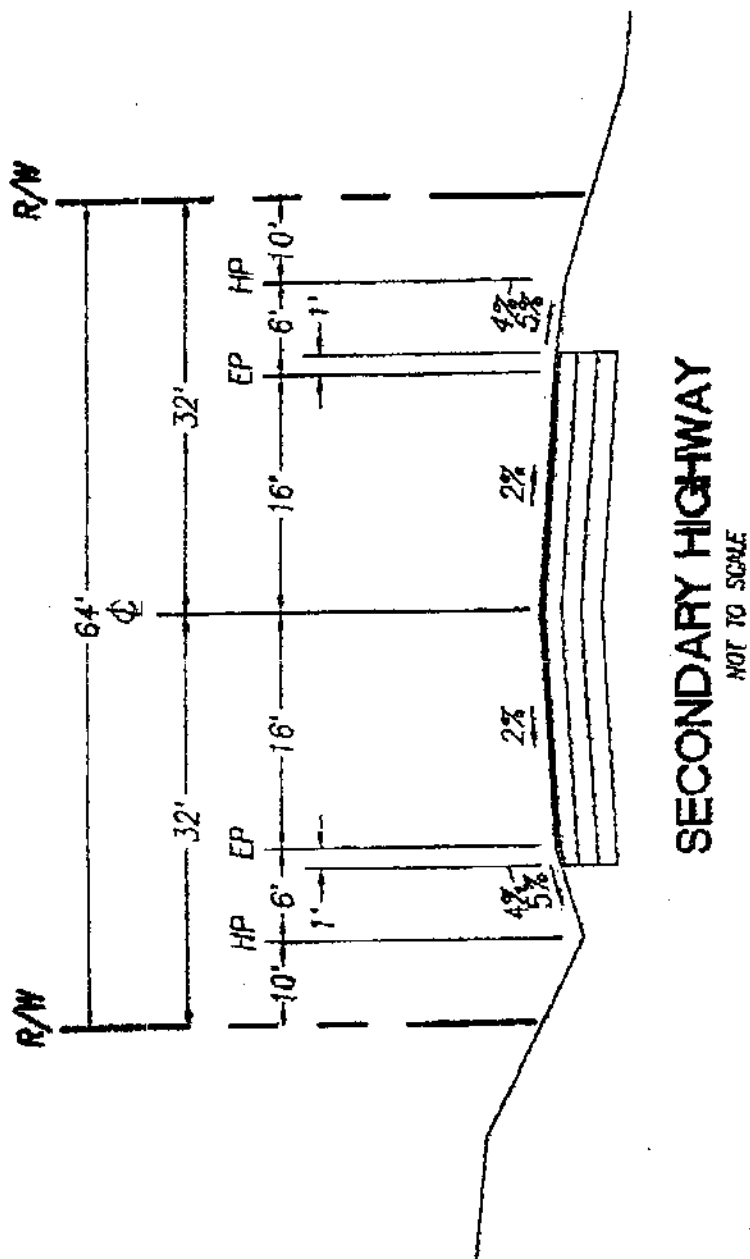


EXHIBIT F-4

Draft 2001 Regional Transportation Plan – Technical Appendix (Appendix F – Finance)

Southern California Association of Governments (SCAG) 2000

6. Local Consensus
 7. Ballot Measure by County CTC/Extension of local sales tax
3. ***Adjust the state fuel excise tax rate and user-fees to maintain historical purchasing power.*** To ensure adequate revenues for the RTP, SCAG proposes a five cents fuel tax increase in 2010 with an additional penny per year adjustment until 2015. By the year 2010, it will have also been about 16 years since the motor vehicle fuel tax was last increased in California. Clearly, there will be a statewide interest in increasing fuel tax revenues to offset the continuing decline in the revenue's purchasing power. An alternative would be to secure authorization for a regional fuel tax, similar to the authorization obtained by the San Francisco region. A regional fuel tax, under current constitutional provisions, would require a two-thirds vote of the regional electorate to be implemented. However, by characterizing the charge as a user-fee, the region may be able to bypass the two-thirds requirement.

SCAG is currently pursuing efforts to further study potential decreases in transportation revenues. Assembly Concurrent Resolution 32 (Dutra) requests that the California Transportation Commission (CTC), in consultation with the California Department of Transportation (Caltrans) and regional planning agencies, prepare a study focusing on declining transportation revenues and remedies to address potential funding shortfalls.

Milestone	Action(s)	Year(s)
1.	Introduce ACR 32 (Dutra)	2001
2.	Study of transportation funding	2002-2003
3.	Subsequent revision of the Regional Transportation Plan to develop blueprint program of expenditures	2002-2009
4.	Develop state/regional consensus	2002-2009
5.	Evaluate whether to pursue state of regional fuel tax initiative	2005

Cost Estimation Methodology for Draft 2001 RTP Projects

Public cost information, for individual projects associated with the Draft 2001 RTP, were provided by the staff of implementing agencies and/or local county transportation commissions. Because many of these cost estimates were developed using a variety of techniques, they vary in detail and accuracy depending on the level of planning and the availability of information.

Where public cost information was not available (or not provided by implementing agencies), capital, operations and maintenance, as well as any associated revenue dollars were estimated for projects given descriptions as to location, extent of construction or service, and any other relevant information.

A system-level cost estimation approach was utilized. That is, cost estimates for candidate projects were generated from local project cost experience. Basic cost assumptions were derived by contacting appropriate city and county agencies as well as local county transportation commissions conducting similar work efforts or considering comparable aspects of local projects. This technique is primarily useful for long-range planning purposes requiring financial constraint, but lacking sufficient information to estimate detailed quantities and unit costs.

In system-level cost estimating, the basic unit of cost estimation for highway projects is miles of roadway constructed, reconstructed or resurfaced. The basic units for intersection work are the number of intersections improved and lane miles of highway added. For transit projects, the basic unit of cost estimation may include miles of track to be constructed or the number of vehicles to be purchased.

Although detailed engineering estimates are required on an individual project basis for funding allocation purposes, this system-level approach provides a reasonable range of costs for a package of projects given that costs will vary with location issues and design considerations. The following provides some of the cost assumptions utilized for the Draft 2001 RTP. The cost information is provided by mode on a per unit basis.

Mode	Cost Item	Unit	Average Est. Cost (1997 \$ unless otherwise noted)
HOV	Restriping and minimal median reconstruction	Lane Mile	\$ 1,100,000 to \$ 2,000,000
	Basic median reconstruction	Lane Mile	\$ 2,100,000 to \$ 4,000,000
	General lane addition (<i>median reconstruction, some right of way acquisition and minimal bridgework</i>)	Lane Mile	\$ 4,200,500 to \$ 4,400,000 Note: According to Caltrans Dist. 8, high estimate can reach \$10M.
	Transitway construction and extensive reconstruction efforts	Lane Mile	\$ 27,000,000
	Major reconstruction efforts (e.g. segments of I-5)	Lane Mile	\$ 34,000,000
	Intermediate general reconstruction	Lane Mile	\$ 11,000,000
	Maintenance	Lane Mile	\$ 25,000
HOV Connectors	Freeway connector	Per Direction	\$ 32,000,000 to \$ 47,000,000
Mixed Flow	Freeway lanes - assume same costs as HOV lane additions	Lane Mile	\$ 4,200,500 to \$ 4,400,000 Note: According to Caltrans Dist. 8, high estimate can reach \$10M.
	Maintenance	Lane Mile	\$ 25,000

Mode	Cost Item	Unit	Average Est. Cost (1997 \$ unless otherwise noted)
Arterials	The cost estimate includes intersection and signal work. This unit cost should be increased by approximately 76% to account for average cost of ROW, contingency, utility relocation, etc. <i>(Estimates may vary by as much as 30% depending on location and type of arterial).</i>	Lane Mile	\$ 1,100,000 to \$ 1,900,000* *The high range includes ROW, etc.
Arterial HOV	This cost should be increased by about 76% to account for average cost of ROW, contingency, utility, relocation, etc.	Lane Mile	\$ 325,000
Busway / Transitway	Busway construction	Lane Mile	\$ 16,000,000 to \$ 27,000,000
	Aerial structure with full grade separation	Lane Mile	\$ 74,000,000
	Bus Capital, 12 year lifecycle	Per Bus	\$ 370,000
	Operations	Per Passenger Mile	23 cents
Interchange/ Ramps	Basic Interchange project		\$ 21,000,000
	Freeway to freeway project		\$ 79,000,000
	Typical ramp project with improvements to two directions		\$ 4,600,000
	Ramp project with improvement to one direction		\$ 2,300,000
Toll Lanes	Same cost as Mixed Flow and HOV	Lane Mile	\$ 4,200,500 to \$ 10,000,000
Truck Lanes	Truck Lane	Lane Mile	\$ 27,000,000
	Interchange (depends on location and age of freeway)		\$ 16,000,000 to \$ 32,000,000
	Maintenance per year	Lane Mile	\$ 32,000
	Note: On routes with public subsidy, trucks pay roughly 30% of construction costs.		
Intermodal & Goods Movement	Bridge		\$ 10,500,000
	Grade Separation	Per Separation	\$ 14,000,000 to \$ 20,000,000
	Parking space at transit station	Per Space	\$ 3,200
	Rail Platform		\$ 970,000

Mode	Cost Item	Unit	Average Est. Cost (1997 \$ unless otherwise noted)
	Bus Transfer Facility		\$ 370,000
	Intermodal facility		\$ 53,000,000
	Annual O&M	Per Rail Station	\$ 67,000
	O&M for parking	Per Space	\$ 120
Commuter Rail	5 car consists train set	Per Train Set	\$ 12,000,000
	Construct rail line	Per Mile	\$3.6 to \$5.2 million per mile (single track)
	Rehab of rail line	Per Mile	\$1.8 to \$3.2 million per mile (single track)
	O&M alternative 1	Per Train Mile	\$47 (<i>Metrolink – roughly 1,809,500 annual train miles for 28 train sets</i>)
	O&M alternative 2	Per Passenger Mile	30 cents
	O&M alternative 3	Per Train Per Year	\$ 2,500
	Revenues		46% to 53% farebox recovery
Urban Rail	Light rail construction including station development	per mile	\$ 42,000,000 to \$ 67,000,000
	Aerial structures including station development	per mile	\$ 81,000,000
	(subway w/station) Heavy rail construction including limited tunneling and station development	per mile	\$ 280,000,000
	Rail Cars	per car	\$ 3,700,000
	(5 cars consist train set) Light rail trains to run on traditional freight lines.	per train with 5 passenger cars	\$ 17,000,000
	O&M alternative	per passenger mile	39 cents
	O&M light rail	per vehicle hour	\$ 500
	O&M heavy rail	per vehicle hour	\$ 1,200,000
	Revenues		15% to 30% farebox

Mode	Cost Item	Unit	Average Est. Cost (1997 \$ unless otherwise noted)
High Speed and Other Rail	Track construction	per mile	\$ 24,000,000
	Right-of-way	per mile per track	\$ 2,000,000
	Station and parking lot costs are same as Intermodal & Goods Movement.		
	O&M for parking	per space	\$ 120
	6 car consist train set with engine and cab car.	per train set	\$ 17,000,000
	O&M	per pass mile	29 cents
Bus Transit	Bus Capital, 12 year lifecycle	per bus	\$ 370,000 to \$ 390,000
	Operating	per hour	\$ 50 to \$ 70
	Revenues		26% farebox
	note: assume Express service 6.5 hours of operation, 5 days/week, 51 weeks/year		
	Rapid Bus Capital	per mile	\$ 500,000 (Note: LACMTA estimate)
	Rapid Bus O&M	per mile	\$ 310,000 (Note: LACMTA estimate)
	Rapid Bus (Capital/O&M)	per mile	\$ 11,000,000 (Orange County estimate includes extensive infrastructure work)

Sources: Caltrans Local District Offices, Metrolink, LACMTA, and other local CTCs.

EXHIBIT F-5

Median Sales Price of Existing Single Family Homes in the Riverside/San Bernardino Metropolitan Statistical Area History
National Association of Realtors (NAR)

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Annual
2001					156.7
2002				191.6	176.5
2003		212.6	228.9	239.4	221.0
2004	258.9	294.5	311.7	322.4	296.4
2005	343.4	367.6	387.3		

Source: <http://realtor.org/research.nsf/Pages/MetroPrice>

EXHIBIT F-6

Riverside County Integrated Project (RCIP) Multiple Species Habitat Conservation Plan (MSHCP)

adopted by the Riverside County Board of Supervisors on June 17, 2003

Section 8.0 MSHCP Funding/Financing of Reserve Assembly and Management

8.0 MSHCP Funding/Financing of Reserve Assembly and Management



8.5 LOCAL FUNDING PROGRAM

The following local funding plan describes the local commitment for funding Reserve Assembly, Management, and Monitoring.

The local funding program includes funding from a variety of sources, including but not limited to, regional funding resulting from the importation of waste into landfills in Riverside County, mitigation for regional public infrastructure projects, mitigation for private infrastructure projects, mitigation for private Development, funds generated by local or regional incentive programs that encourage compact growth and the creation of transit-oriented communities, and dedications of lands in conjunction with local approval of private development projects.

The local funding program will fund the local portion of:

- Land acquisition
- Management
- Monitoring
- Adaptive Management
- Plan administration

8.5.1 Funding Sources

Local funding sources include funding from both public and private developers and regional entities in an effort to spread the financial burden of the MSHCP over a broad base. The mix of funding sources provides an equitable distribution of the cost for local mitigation under the MSHCP. In addition to equitably distributing mitigation for local projects, utilizing a mixture of funding sources will help ensure the long-term viability of the local funding program because a temporary decline in funding from one source may be offset by increases from another. The proposed local funding sources are described below and include:

- Local Development Mitigation Fees
- Density Bonus Fees
- Regional Infrastructure Project Contribution
- Landfill Tipping Fees

8.0 MSHCP Funding/Financing of Reserve Assembly and Management



- Other Potential New Revenue Sources

➤ **Local Development Mitigation Fees**

New Development affects the environment directly through construction activity and cumulatively through population bases that result from Development. Government Code Section 66000 et seq. allows cities and counties to charge new Development for the costs of mitigating the impacts of new Development. The Cities and County will implement a Development Mitigation Fee pursuant to the MSHCP; this fee will be one of the primary sources of funding the implementation of the MSHCP. The fee ordinance adopted by the Cities and the County will provide for an annual CPI adjustment based upon the Consumer Price Index for “All Urban Consumers” in the Los Angeles-Anaheim-Riverside Area, measured as of the month of December in the calendar year which ends in the previous Fiscal Year. There will also be a provision for the fee to be reevaluated and revised should it be found to insufficiently cover mitigation of new Development. A fee of approximately \$1,500 per residential unit (or an equivalent fee per acre) and \$4,800 per acre of commercial or industrial Development was used in the revenue projection shown in *Appendix B-05* of this document. The projected revenues from the Development Mitigation Fee are anticipated to be approximately \$540 million over the next 25 years. A nexus study is required to demonstrate that the proposed fee is proportionate to the impacts of the new Development.

➤ **Density Bonus Fees**

The New Riverside County General Plan creates a number of incentive plans that have the potential both to further the goals of the County’s General Plan and to facilitate the implementation of the MSHCP. *Section 8.4.2* above discusses the use of the Rural Incentive Program to aid in the Conservation of lands through non-acquisition means. An additional component of the Incentive Program enables developers to acquire the right to develop at an additional 25% increase in density by providing enhancements to their projects and by paying a “Density Bonus Fee.” The fee is anticipated to be \$3,000 – \$5,000 per additional unit. This program offers a significant incentive to developers when compared with the typical cost of creating a new buildable lot.

The Density Bonus program is new to Riverside County, and it is, therefore, difficult to project annual revenues. The Local Funding Program assumes that between 10% and 20% of the residential units built in the unincorporated County area will participate in the incentive program and that only 50% of the revenues of the program will be committed to the MSHCP, with the remaining portion staying in the local community in which the additional units are located to provide additional

8.0 MSHCP Funding/Financing of Reserve Assembly and Management



amenities that will help offset the greater density. Of the 330,000 units projected to be built over the next 25 years, 10% (or 33,000 units) are assumed to be built utilizing the Density Bonus Fee resulting in \$132,000,000 in revenues of which 50% (or \$66,000,000) will be allocated to the MSHCP.

➤ Regional Infrastructure Project Contribution

Regional infrastructure projects directly affect the environment not only through the effect they have on species and their Habitats, but also by facilitating continued new Development. It is appropriate, therefore, for regional infrastructure projects to contribute to Plan implementation . Four general categories of infrastructure projects have been identified:

- Transportation Infrastructure
- Regional Utility Projects
- Local Public Capital Construction Projects
- Regional Flood Control Projects

Transportation Infrastructure

The RCIP has identified the need for approximately \$12 billion in new transportation infrastructure to support the Development proposed for the next 25 years. Each new transportation project will contribute to Plan implementation . Historically, these projects have budgeted 3% – 5% of their construction costs to mitigate environmental impacts. The local funding program anticipates that more than one-half of the \$12 billion cost of contribution to acquisition of Additional Reserve Lands will be funded locally and will result in approximately \$371 million in contribution over the next 25 years as discussed below.

▶ Riverside County's ½ cent sales tax for Transportation

In 1988, Riverside County voters approved a measure to increase local sales tax by ½ cent to fund new transportation projects (Measure A). The sales tax measure is due to be reauthorized in 2002. Under the reauthorization, \$121 million will be allocated as local contribution under the MSHCP. (For further information on the sales tax measure, see *Section 13.5* of the MSHCP Implementing Agreement and *Appendix B-07* of this document).

8.0 MSHCP Funding/Financing of Reserve Assembly and Management



Regional Utility Projects

As Riverside County's population doubles over the next 25 years, new regional utility infrastructure will be required. Since the utilities are not Permittees under the MSHCP, they may choose to mitigate under the Plan or seek their own regulatory permits. In either case, their mitigation will be focused on the objectives of the MSHCP and will contribute to the local implementation funding. No estimate of the number of projects or the scope or costs is available at this time; consequently, no estimate of mitigation funding has been made. The Permittees expect that regional utility projects will contribute to the implementation of the MSHCP and provide an additional contingency should other revenue sources not generate the projected levels of funding or should implementation costs be higher than projected.

Local Public Capital Construction Projects

Local public capital construction projects may include construction of new schools, universities, City or County administrative facilities, jails, courts, juvenile facilities, parks, libraries, or other facilities that serve the public. These projects will be mitigated under the MSHCP and will utilize a per acre mitigation fee based on the fee then in place for private, commercial and industrial Development. No attempt has been made to estimate the number or magnitude of these projects. The Permittees expect that local public construction projects will contribute to the implementation of the MSHCP and provide an additional contingency should other revenue sources not generate the projected levels of funding or should implementation costs be higher than projected.

Regional Flood Control Projects

Flood control projects will receive coverage under the MSHCP for both new capital construction and for the maintenance of existing and new facilities. Preliminary estimates from the Riverside County Flood Control and Water Conservation District indicate that they will likely budget approximately \$15 M in projects annually. Based on using 3% of capital costs, the District would be expected to contribute approximately \$450,000 to \$750,000 annually to MSHCP implementation. Since many flood control projects serve existing developed communities and therefore have less impacts than projects adding capacity to serve new Development and may provide some conservation value especially in terms of Constrained Linkages, the District's contributions may average something below the 5% level on average.

8.0 MSHCP Funding/Financing of Reserve Assembly and Management



➤ Landfill Tipping Fees

Riverside County has utilized revenues from public and private landfills in Riverside County to generate funding for conservation and open space projects for over a decade. In 1990, the County utilized \$1 per ton tipping fee assessed all waste deposited in County landfills to fund the acquisition of the Santa Rosa Plateau and approximately \$260,000 annually to fund the operation of the County Park and Open Space Districts. More recently, the County has negotiated agreements with two private landfills in the County to commit \$1 per ton on all waste imported from outside Riverside County to Conservation within Riverside County.

El Sobrante Landfill

This privately owned landfill was permitted to expand its capacity to 10,000 tons per day in 2001. In approving the landfill expansion, the Riverside County Board of Supervisors authorized fifty cents per ton of the County's portion of the revenue from the landfill expansion to be applied to Conservation in addition to the \$1 per ton that was committed under the landfill agreement. The projection of the annual tonnage and revenue for Conservation included in *Appendix B-09* of this document reflects the \$1.5 per ton commitment to Conservation. Over the life of the landfill, 60 million tons of imported waste are allowed. Sixty million tons at \$1.5 per ton will generate \$90 million for Conservation. The Cash Flow Analysis in *Appendix B-10* of this document reflects the annual revenues from the El Sobrante Landfill.

County Landfills

The County Board of Supervisors, beginning in 1990, authorized \$1 per ton for all in-county waste deposited in County landfills to go toward habitat and open space Conservation. After adjusting for the debt service on the Santa Rosa Plateau acquisition and an annual commitment to the Park and Open Space District, there is a projected annual balance of \$400,000 that can be applied to additional Conservation under the MSHCP. *Appendix B-09* of this document includes a projection of tonnage from in-County waste at County landfills. The Cash Flow Analysis in *Appendix B-10* of this document reflects the annual revenues from the County landfills. Over the next 25 years, County landfills will contribute approximately \$10 million to the implementation of the MSHCP.

8.0 MSHCP Funding/Financing of Reserve Assembly and Management



Eagle Mountain

In 1997, the County approved the use of the old Kaiser mine at Eagle Mountain in eastern Riverside County as a regional landfill to serve primarily Los Angeles County. Subsequently, the Los Angeles County Sanitation District has acquired the rights to the Eagle Mountain Landfill and intends to begin operation of the landfill within the next decade. At this time, litigation is still pending that could prohibit the development of the landfill. The Development Agreement with the County would require the payment of \$1 per ton for Conservation if the landfill is developed. Conservation needs in the Coachella Valley would have first priority over the revenues from the Eagle Mountain Landfill; however, some portion of the revenues would be available to support Conservation needs in Western Riverside County. The Permittees expect that the Eagle Mountain Landfill will provide funding to support implementation of the MSHCP over the life of the MSHCP. However, no revenue from the Eagle Mountain Landfill has been projected in the funding program at this time. These potential revenues provide a contingency should other revenue sources not generate the projected levels of funding or should implementation costs be higher than projected.

➤ Potential New Revenue Sources

The County and Cities may levy assessments to pay for services that directly benefit the property on which the fee is levied. Under current law, a local election may be required to initially levy the assessment or to confirm the assessment if a protest is filed. No such assessments are currently projected for the MSHCP. As the MSHCP Conservation Area is developed, however, its value as open space and for recreation opportunities may lend itself to a local funding program for ongoing management and enhancement. In more urban areas, which Western Riverside County will be in 25 years, local voters routinely approve such funding programs.

Other revenue opportunities may be realized over the next 25 years. The County, Cities, and RCA will explore new revenue sources to support the acquisition of the MSHCP Conservation Area and its long-term management and enhancement. A goal of any new fee would be to spread a portion of the costs for the MSHCP across as broad a regional base as possible.

8.0 MSHCP Funding/Financing of Reserve Assembly and Management



**TABLE 8-5
LOCAL PUBLIC/REGIONAL FUNDING SOURCES**

Source Anticipated	\$ Range	Requirements to Implement	Responsible Party
Private Funding Sources:			
Cities and County	\$539.6M	Approval of County Ordinance	County
Development Mitigation Fees		Approval of City(ies) Ordinance	Cities
Density Bonus Fees	\$66M	Approval of General Plan	County
Public Funding Sources			
Local Roads	\$121M	Approval of Measure A, local agreement on allocation	RCTC/County
Other Transportation	\$250M	% of new road construction	RCTC/County
Other infrastructure Projects	\$unknown	Project-by-project negotiation	County and Cities
El Sobrante Landfill	\$90M	In place	County
County Landfills	\$10M	In place	County
Eagle Mountain Landfill	\$unknown	In place pending start-up	County
New Regional funding	\$unknown	Voter approval	County and Cities
TOTAL LOCAL FUNDS	\$1,076.6M		

8.6 ADEQUACY OF FUNDING

The Permittees and the Wildlife Agencies will annually evaluate the performance of the funding mechanisms and, notwithstanding other provisions of the MSHCP, will develop any necessary modifications to the funding mechanisms to address additional funding needs. Additionally, this annual evaluation will include an assessment of the funding plan and anticipate funding needs over the ensuing 18 months for the purpose of identifying any potential deficiencies in cash flow. If deficiencies are identified through this evaluation, then the Permittees and the Wildlife Agencies will develop strategies to address any additional funding needs consistent with the terms and conditions of the MSHCP.

EXHIBIT F-7

MSHCP Final Mitigation Fee Nexus Report
David Taussig and Associates, Inc., July 1, 2003

Section 5.3 Funding Sources for Program Costs

5.3. FUNDING SOURCES FOR PROGRAM COSTS

The local funding program includes revenues from mitigation for local transportation projects, mitigation for regional infrastructure, landfill tipping fees, and local development mitigation fees, as discussed in Sections 5.3.1 through 5.3.4 and summarized in Section 5.3.5. These revenue sources are committed to finance the total MSHCP program costs as described in Section 5.2.

5.3.1 MITIGATION FOR REGIONAL AND LOCAL INFRASTRUCTURE

Transportation, utility, and public capital construction projects are the three general categories of regional and local infrastructure projects, which mitigate for their impacts under the MSHCP. Expected contributions from these sources are discussed in this section of the Nexus Report.

5.3.1.1. Transportation Infrastructure

Riverside County's ½ Cent Sales Tax for Transportation

Under the reauthorization of Measure A, \$121 million will be allocated as local mitigation under the MSHCP.¹⁰⁷

5.3.1.2. Regional Infrastructure

Over the next 25 years, regional infrastructure projects are expected to generate approximately \$250 million in funding for the MSHCP.¹⁰⁸

5.3.1.3. Regional Utility Projects

Public utilities are not Permittees, and therefore have the option to mitigate under the MSHCP or under separate regulatory permits. Mitigation for public utility projects will focus on the objectives of the MSHCP and will contribute to the Local Implementation Funding. No estimate of the number of projects or the scope or costs is available at this time, therefore no estimate of mitigation funding has been made.

¹⁰⁷ The Measure A contribution consists of approximately \$70 million for CETAP projects and approximately \$51 million for "Named Highway Projects" excluding State and Caltrans. Reference is made to Section 13.5 of the IA and Appendix B-07 of Volume I of the Draft MSHCP for further information on the sales tax measure.

¹⁰⁸ Based on \$5 billion in costs and 5% mitigation. Refer to Appendix B-08 of Volume I of the Draft MSHCP for additional information.

5.3.1.4. Local Public Capital Construction Projects

Local public capital construction projects may include construction of new schools, universities, City or County administrative facilities, jails, courts, juvenile facilities, parks, libraries, or other facilities that serve the public. These projects will be mitigated under the MSHCP and pay the same per acre mitigation fee as the fee then in place for private, commercial and industrial Development. No attempt has been made to estimate the number or magnitude of these projects.

5.3.2 LANDFILL TIPPING FEES

The County has committed monies from landfill tipping fees collected from waste imported from outside Riverside County for Habitat conservation.¹⁰⁹ Approximately \$90 million is expected to be generated from the privately owned El Sobrante Landfill. Once operation begins, revenues from the Eagle Mountain Landfill will also contribute to MSHCP implementation, but no revenues have been projected yet.

5.3.3 SUMMARY OF FUNDING SOURCES

As discussed in Sections 5.3.1 through 5.3.3 above, Table 5-3 summarizes the anticipated revenue sources, the requirements for implementation, and the responsible party for approval of implementation by private and public funding sources.

Table 5-3
Mix of Anticipated Revenue Sources

Source Anticipated	\$ Range	Requirements to Implement	Responsible Party
Public Funding Sources:			
Local Roads	\$121,000,000	Approval of Measure A, local agreement on allocation	RCTC/County
Regional Infrastructure	\$250,000,000	% of new infrastructure construction	County/other agencies
El Sobrante Landfill	\$90,000,000	In place	County
TOTAL LOCAL FUNDS	\$461,000,000		

¹⁰⁹ El Sobrante's contribution assumes 60 million tons of imported waste at \$1.50 per ton. Reference is made to Section 8.5.1 and Appendix B-09 of Volume I of the Draft MSHCP.

The use of a variety of funding sources ensures long-term viability of the overall funding program, as a temporary revenue decline from one source may be offset by revenue increases by others.

5.4. COMPARISON OF PROGRAM COSTS WITH ANTICIPATED REVENUE SOURCES

The LDMF may only be used for Habitat acquisition and program administration. Expected revenues of \$461 million from mitigation for local transportation projects, mitigation for regional infrastructure projects, and landfill tipping fees will be used to fund management, adaptive management, and biological monitoring (the “Other Program Costs”). Table 5-4 sets forth the costs for these activities versus expected revenues.

Table 5-4
Other Program Costs versus Expected Revenues – First 25 Years

Other Program Costs	Amount
Conservation Area Management (152,000 acres)	\$110,984,500
Adaptive Management (152,000 acres)	\$44,500,000
Biological Monitoring (152,000 acres)	\$34,700,000
Total Other Program Costs	\$190,184,500
Expected Revenues	Amount
Local Roads	\$121,000,000
Regional Infrastructure	\$250,000,000
El Sobrante Landfill	\$90,000,000
Total Expected Revenues	\$461,000,000
<i>Difference</i>	\$270,815,500

As indicated in Table 5-4 and Figure 5.1, there is a surplus of approximately \$270.8 million. This amount is not sufficient to fund habitat acquisition and program administration, consequently, the LDMF is an essential component of the overall funding program as expected revenues from mitigation for local transportation projects, mitigation for regional infrastructure, and landfill tipping fees will not cover all of the MSHCP program costs.

Appendix G

TUMF 2005 Update Disposition of Network Change Requests

As part of the TUMF Nexus Study 2005 Update, the list of proposed improvements to mitigate the cumulative regional impacts of new development in the TUMF Network Cost Estimate table included in the original Nexus Study was reviewed for accuracy. In particular, the Network Cost table was reviewed to correct any previous program oversights and, where necessary, to incorporate further improvements to accommodate the additional projected traffic growth associated with new development occurring as a result of extending the program horizon year from 2025 to 2030.

To assist in the review of the Network Cost Estimate table, participating local jurisdictions, private developers and the Riverside County Transportation Commission were asked to submit requests for changes to the TUMF Network. A total of 228 written requests to modify specific elements of the TUMF Network were received with an estimated cumulative value of \$1.78 billion (based on interim cost assumptions effective mid 2005).

The specific project requests were screened by the WRCOG Public Works Directors subcommittee for consistency with TUMF network guidelines during a series of regular meetings conducted in late 2004 and early 2005. The preliminary recommendations of the subcommittee were subsequently reviewed by representatives of the public and private sectors including members of the subcommittee, other local agency representatives, representatives of the development community and other interested parties at a series of four workshop meetings conducted in March 2005.

Based on the findings of the request screening and workshop reviews, elements of specific projects were revised to reflect only necessary network corrections, modifications to project assumptions and to incorporate a limited number of additional segment improvements. Approximately \$762 million in projects (43% of the value of the change requests initially submitted) were eliminated as a result of the screening and cooperative review process. The matrix summarizing the disposition of the requests received as part of the TUMF Nexus Update is included as **Exhibit G-1** in this Appendix.

The focus of the network review associated with the 2005 Nexus Update was primarily to make corrections and modifications to existing facilities on the Regional System of Highways and Arterials. However, one facility that had not been previously identified as part of the TUMF program was added to the list of TUMF Network improvements as part of the 2005 Update. The inclusion of the Mid-County Parkway as part of the TUMF Network is intended to distinguish between the existing Cajalco Road/Ramona Expressway corridor and the evolving Mid-County Parkway. During the preparation of the original TUMF Nexus Study, the Mid-County Parkway was not sufficiently defined to be identified as a

stand alone project and at that time the Cajalco/Ramona corridor was included to encompass the existing arterial highway alignment and any future corridor improvements that could include a new parallel facility such as the Mid-County Parkway. With more specific information becoming available on the characteristics of the Mid-County Parkway, the 2005 Update was viewed as an appropriate opportunity to consider the merits of this project (or part of this project) for inclusion in the TUMF program.

The initial screening of the Cajalco/Ramona corridor as part of the 2005 Nexus Update indicated 2030 Baseline forecasts volumes ranging from less than 10,000 vehicles per day (vpd) to over 50,000 vpd based on outputs from the SCAG 2004 RTP Model. The 2030 Baseline forecasts indicated levels of service (LOS) ranging from B to F along the Cajalco/Ramona corridor commensurate with the forecast volumes. SCAG 2030 RTP traffic forecasts also show segments of SR-74 exceeding 30,000 vpd and exceeding LOS F. Although LOS E and F was observed along Ramona Expressway, SR-74 and eastern portions of Cajalco Road, the SCAG 2030 Baseline forecasts provided marginal support for additional improvements for Mid-County Parkway.

Supplemental information supporting the inclusion of Mid-County Parkway was submitted by RCTC utilizing information being developed as part of the Mid-County Parkway EIR/EIS. In particular, supplemental forecast traffic data was provided by RCTC based on outputs from a version of the SCAG 2004 RTP Model modified to reflect Mid-County Parkway and future development activity within the vicinity of Mid-County Parkway. The modified version of the SCAG 2004 RTP Model was approved by SCAG for use on the Mid-County Parkway EIR/EIS in April 2004 and was approved by Caltrans for the same purpose in May 2004. The modified version of the model provides year 2030 forecasts for the study corridor. These forecasts are subsequently inflated by a growth factor of 1.9% per year to the year 2035 in order to meet Federal Highway Administration requirements for the EIR/EIS.

Data derived from the modified version of the SCAG 2004 RTP Model were subsequently utilized to support the traffic analysis for the Mid-County Parkway EIR/EIS. Key findings of the Mid-County Parkway traffic analysis are as follows:

- Average Daily Traffic forecasts for 2035 along Mid-County Parkway range from approximately 60,000 vpd on the east and west ends of the project to approximately 100,000 vpd in the area near I-215. This supports the need for a four to eight lane limited access parkway with the number of lanes needed varying by location along the Mid-County Parkway corridor and by project alignment alternative.
- The Mid-County Parkway design concept provides for operation of Cajalco Road/Ramona Expressway as a separate facility to provide local access. Average Daily Traffic forecasts for 2035 along the Cajalco Road/Ramona Expressway roadway range from below 10,000 vpd in the area south of Lake Mathews to over 30,000 vpd in the City of Perris. This supports the need for a

two to six lane surface street, with the number of lanes varying along the Cajalco/Ramona corridor and by project alignment alternative.

Exhibit G-2 reflects the supplemental information provided by RCTC in support of the inclusion of Mid-County Parkway in the TUMF Network improvements. Based on the supplemental information provided by RCTC, specific provisions for improvements to Mid-County Parkway (in addition to improvements on Cajalco and Ramona) have been included as part of the Nexus Study. The Mid-County Parkway is intended to provide an inter-regional high-level arterial connection across the central portion of Western Riverside County to supplement the existing corridors including Cajalco/Ramona and SR-74. Proposed improvements to Cajalco/Ramona and SR-74 are intended to partially respond to the impacts of new development on these respective facilities. The limited scope of the Mid-County Parkway identified in the 2005 Nexus Update (when compared to the overall plans for the corridor as proposed by RCTC) is intended to represent the incremental share of the Mid-County Parkway necessary to mitigate the cumulative regional impacts of new development through the center of Western Riverside County.

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Multiple Zones Network Upgrades or Additions															
RCTC	Multiple (Central / Northwest / San Jacinto)	Backbone	Mid-County Parkway (CETAP)(Cajalco/Ramona)East/West CETAP	I-15 to SR-79	Recommend the TUMF reassess the value for these segments.	Add Mid-County Parkway, future land 2/4, two new type 2 (\$45M) interchanges.	2030 baseline forecasts show volume <10K->50K and LOS B-F on Cajalco/Ramona. 2030 baseline network shows Cajalco/Ramona as 2 or 4 lane facility. RCTC 2030 forecasts show volume 81K-151K	Add Mid-County Parkway, future land 2/4, two new type 2 (\$45M) interchanges.	\$266,667,000		Move item to PWC for consideration	Pending RCTC clarification, add separate line item for Cajalco/Ramona Expressway and keep interchanges at Type 2.	WRCOG,RCTC, County, Attorney met to discuss CETAP Corridor programming & funding issue; waiting for Attorney clarification before adding as separate line item	WRCOG,RCTC, County, Attorney met to discuss CETAP Corridor programming & funding issue; Take to City Managers & July 28 PWC before adding as separate line item	
									\$266,667,000	RCTC Fiscal Impacts					
Central/Northwest/Hemet/San Jacinto	Multiple (Central / Northwest / San Jacinto)	Backbone	Cajalco/Ramona Expressway	I-15 to SR-79	Recommend the TUMF reassess the value for these segments.	Keep Cajalco/Ramona Expressway name and funding as reflected on original Network, upgrade costs on Network. Change landuse to type 2 within city limits and change two old type 2 (\$10M) interchanges to two new type 2 (\$22.5M) interchanges	2030 baseline forecasts show volume <10K->50K and LOS B-F on Cajalco/Ramona. 2030 baseline network shows Cajalco/Ramona as 2 or 4 lane facility.	Keep Cajalco/Ramona Expressway name and funding as reflected on original Network, upgrade costs on Network. Change landuse to type 2 within city limits and change two old type 2 (\$10M) interchanges to two new type 2 (\$22.5M) interchanges	\$31,136,000		Move item to PWC for consideration	Keep Cajalco/Ramona Expressway name and funding as reflected on original Network, upgrade costs on Network. Change future lanes to 6, change landuse to type 2 and change two old type 2 (\$10M) interchanges to two new type 2 (\$22.5M) interchanges	Keep Cajalco/Ramona Expressway name and funding as reflected on original Network, upgrade costs on Network. Change landuse to type 2 within city limits and change two old type 2 (\$10M) interchanges to two new type 2 (\$22.5M) interchanges	Keep Cajalco/Ramona Expressway name and funding as reflected on original Network, upgrade costs on Network. Change landuse to type 2 within city limits and change two old type 2 (\$10M) interchanges to two new type 2 (\$22.5M) interchanges	
									\$31,136,000	Zone Fiscal Impacts					
									\$297,803,000						
Multiple Zone Preliminary Fiscal Impact to Program Eliminated from Further Consideration/Duplicate Entries															
Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation			
RCTC	Multiple (Central / Northwest)	Transit	Peris Valley Metrolink Line	Downtown Riverside to South Peris	These locations should be added to the transit section of the Nexus Study: Spruce, UCR, Alessandro, Ramona, Peris, and South Peris.	Add new Sub-Regional Transit Center category (unit cost to be determined) and identify 6 eligible facilities in nexus transit component	Stations on the proposed Metrolink Peris Valley Line will serve as sub-regional transit centers facilitating transfer between various transit modes	Add new Sub-Regional Transit Center category (unit cost to be determined) and identify 6 eligible facilities in nexus transit component	Unknown	More information to clarify what to include. Under RTA transit component	Not recommended for inclusion in TUMF. RTA indicates only Peris Station to serve as multi-modal. Peris Multi modal currently reflected in TUMF				
Lewis (County)	Multiple (Central / Northwest / San Jacinto)	Backbone	Mid County Parkway	I-15 to SR-79	Add contingency language for a freeway if this alternative is pursued.	Provide for future upgrade to freeway facility	TUMF program is not intended to cover upgrade to freeway facilities (SR-60 and SR-71 upgrade to freeway facilities were previously excluded from program)	Rename Cajalco/Ramona to Mid-County Parkway, change future lanes to 6, change landuse to type 2 and change two old type 2 (\$10M) interchanges to two new type 1 (\$45M) interchanges. Evaluate additional new alignments, interchange and bridge needs as necess	Duplicate	Duplicate					
Central Zone Network Corrections															
Moreno Valley	Central	Backbone	Alessandro	Nason to Moreno Beach	Reduce lane additions from 4 to 2	Reduce from 6 to 4 future lanes		Reduce from 6 to 4 future lanes	(\$3,410,000)		Move item to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	
Moreno Valley	Central	Secondary	Eucalyptus	Towngate to Frederick	Reduce lane additions from 4 to 2	Reduce from 6 to 4 future lanes		Reduce from 6 to 4 future lanes	(\$2,346,000)		Correction: Move item to PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Moreno Valley	Central	Secondary	Lasselle	SR-60 to Eucalyptus	Delete segment	Reduce from 4 to 2 future lanes		Reduce from 4 to 2 future lanes	(\$1,757,000)		Correction: Move item to PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Moreno Valley	Central	Secondary	Sunnymead	Frederick to Peris	Reduce lane additions from 2 to 0	Reduce from 6 to 4 future lanes		Reduce from 6 to 4 future lanes	(\$10,765,000)		Correction: Move item to PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Moreno Valley	Central	Secondary	Redlands	SR-60 interchange	Increase funding to \$31 million	Change interchange to new type 2 (\$22.5M)	2030 baseline forecasts show volume 20K to 30K and LOS F on Redlands. Current nexus has old interchange type 1 (\$20M)	Change interchange to new type 2	None		Move item to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	
Moreno Valley	Central	Backbone	Gilman Springs	SR-60 interchange	Increase funding to \$14 million	Change interchange to new type 3 (\$11.5M)	2030 baseline forecasts show volume 10K to 20K and LOS D on Gilman Springs. Current nexus has old interchange 2 (\$10M)	Change interchange to new type 3	None		Move item to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	
Moreno Valley	Central	Secondary	Lasselle	Alessandro to JFK	Add 2 lanes	Increase from 4 to 6 future lanes	2030 baseline forecasts show volume 10K-20K and LOS D-E	Increase from 4 to 6 future lanes	\$3,420,000	Nexus should show 2 existing lanes, increasing to 4 future lanes - CORRECTION	Move item to PWC for 2 additional lanes - total of only 4 future lanes, 6 lanes are not consistent with city G.P.	Support Recommendation	Support Recommendation	Support Recommendation	C
Peris	Central	Secondary	Nuevo	Murieta to Dunlap	Section is 6 lanes and should indicate a bridge across Peris Valley Channel	Change future lanes from 4 to 6 and add 300' bridge	2030 baseline forecasts show volume <10K and LOS C on Nuevo. Peris Valley ADP includes \$2,210,640 toward the cost for this bridge	Do not change future lanes and add 300' bridge with \$2,210,640 obligated funds	\$1,958,000	Support recommendation	Support Recommendation, pending the arrival of Flood Control letter clarifying that obligated fees cover existing work only. Once received, the adjustment will be \$4,468,000 less \$2,690,000 = \$1,958,000 updated fiscal impact of addition of bridge.	Support Recommendation	Support Recommendation, Flood Control sent letter clarifying that obligated fees cover existing work only. Adjustment will be \$4,468,000 less \$2,690,000 = \$1,958,000 updated fiscal impact of addition of bridge.		A
Peris	Central	Backbone	Ramona	Peris to Evans	Add cost of 300' bridge widening over Peris Valley Channel	Add 300' bridge		Add 300' bridge	\$1,958,000		Move item to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	B
Peris	Central	Backbone	Ramona	Evans to Rider	Currently, there are 4 existing lanes	Change existing lanes from 2 to 4		Change existing lanes from 2 to 4	(\$5,707,000)		Move item to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	
Peris	Central	Secondary	Evans	Placentia to Nuevo	Currently, there are no existing lanes. Table should reflect 4 new lanes.	Change existing lanes from 2 to 0		Change existing lanes from 2 to 0	\$4,180,000		Correction: Move item to PWC for consideration to add 2 future lanes, total 4 correction of existing lanes	Support Recommendation	Support Recommendation	Support Recommendation	A
Peris	Central	Secondary	Evans	Morgan to Ramona	All 6 lanes existing	Change existing lanes from 2 to 6		Change existing lanes from 2 to 6	(\$1,820,000)		Correction: Move to PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Peris	Central	Secondary	Evans	Nuevo to I-215	Need 6 new lanes and 400' bridge at the San Jacinto River/Peris Valley Channel crossing.	Increase from 4 to 6 future lanes and add 400' bridge	Segment not shown in 2030 baseline	Do not change future lanes and add 400' bridge	\$5,220,000	Support recommendation	Move item to PWC for consideration for 400' bridge only	Support Recommendation	Support Recommendation	Support Recommendation	B
Peris	Central	Secondary	Evans	Morgan to Placentia	6 lanes required Placentia to Rider, 6 lanes exist Morgan to Rider	Change existing lanes from 2 to 6 Morgan to Rider and change future lanes from 4 to 6 Placentia to Rider	2030 baseline forecasts show volume <10K and LOS A on Evans	Change existing lanes from 2 to 6 Morgan to Rider and do not change future lanes Placentia to Rider	(\$1,366,000)		Move item to PWC for consideration for 2 additional lanes from Morgan to Rider	Support Recommendation	Support Recommendation	Support Recommendation	B
Peris	Central	Secondary	Placentia	Indian to Evans	Add 300' bridge crossing at Peris Valley Channel.	Add 300' bridge		Add 300' bridge	\$1,958,000		Move to the PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	C
RCTC	Central	Backbone	SR-74 (4th)	I-215 Interchange	Recommendation to consider this interchange 50% zone and 50% regional. Can the identification of the IC in both zone and regional programs raise the TUMF maximum value to \$20 million?	Reclassify SR-74/4th from I-215 to Ethanac as a backbone facility and change interchange to new type 2 (\$22.5M)	This effectively duplicates a previous submission. 2030 baseline forecasts show volume 20K-40K and LOS D-F on SR-74. Current nexus has old interchange type 2 (\$10M) and 70% existing need	Per the duplicate submission, reclassify SR-74/4th from I-215 to Ethanac as a backbone facility and change interchange to new type 2 (\$22.5M)	\$4,785,000		Move to the PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside County	Central	Backbone	Center	I-215 to Mt Vernon	This segment should be shown in the Central zone	Change zone designation from Northwest to Central		Change zone designation from Northwest to Central	None		CORRECTION - Move to PWC for consideration and combine with CETAP corridor in Moreno Valley	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside County	Central	Secondary	Murieta	Ethanac to Newport	TUMF shows existing lanes and expansion to 4 - new bypass is proposed with 4 lanes and a bridge needs to be shown	Change existing lanes to 0, add 200' bridge and change from Southwest to Central zone	Duplicate of previous request. 2030 baseline forecasts show volume <10K-40K and LOS B-F on Murieta. Murieta currently exists as minor arterial roadway between Ethanac and Newport	No change in existing lanes from current nexus, add 200' bridge and change zone to Central	\$5,443,000	Support recommendation	Move to PWC for consideration to add 200' bridge only	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside County	Central	Secondary	Briggs	SR-74 to Simpson	Should be in Central zone	Change from Southwest to Central zone		Change from Southwest to Central zone	None		Correction: Move to PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside County	Central	Secondary	Murieta	Ethanac to Newport	Should be in Central zone	Change from Southwest to Central zone		Change from Southwest to Central zone	None		Correction: Move to PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	B
Riverside County	Central	Backbone	Menifee	SR-74 to Simpson	Segment should include BNSF grade separation	Add type 1 railroad crossing		Add type 1 railroad crossing	\$30,300,000		Move to PWC for consideration pending RCTC funding for grade separation - add corrected segment (1.12 mi.)	Support Recommendation	Support Recommendation	Support Recommendation	B
Riverside County	Central	Backbone	Reche Canyon	San Bernardino County line to Reche Vista	Need to show mountainous topo	Change topography to type 3		Change topography to type 3	\$3,379,000		Correction: Move to PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	A
Riverside County	Central	Secondary	Nuevo	Dunlap to Menifee	Include bridge over San Jacinto River and bridge over Peris Channel	Add 400' bridge widening	Bridge over Peris Channel is not in this segment and has been submitted as part of a previous submittal. Only the bridge over San Jacinto River is in this segment	Add 400' bridge widening	\$2,610,000		Move to PWC for consideration to add 400' bridge only	Support Recommendation	Support Recommendation	Support Recommendation	C
									\$38,040,000						

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Central Zone Network Upgrades or Additions															
Perris	Central	Backbone	SR-74	I-215 to Ethanac	Consideration should be given to classifying this interchange as a backbone and funding should be increased for the upgrading.	Reclassify SR-74/4th from I-215 to Ethanac as a backbone facility and change interchange to new type 2 (\$22.5M)	2030 baseline forecasts show volume 20K-40K and LOS D-F on SR-74. Current nexus has old interchange type 2 (\$10M) and 70% existing need	Reclassify SR-74/4th from I-215 to Ethanac as a backbone facility and change interchange to new type 2 (\$22.5M)	\$29,362,000		Move item to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Perris	Central	Backbone	Ethanac	Murieta to Sherman	Currently shown as 4 lanes; should be shown as 2 lanes. Shall be 6 lanes from Murieta to I-215 with 2 lanes added to I-215 crossing and modify ramps	Change existing lanes from 4 to 2. Change future lanes from 4 to 6 for segment Murieta to I-215. Change interchange to new type 3 (\$11.5M)	Adjoining segment of SR-74 show 2030 baseline volumes > 30K and LOS F. Ethanac will provide more direct connection between E and W segments of SR-74	Change existing lanes from 4 to 2. Change future lanes from 4 to 6 for segment Murieta to I-215. Change interchange to new type 3 (\$11.5M)	\$18,470,000		Move item to PWC for consideration	Support Recommendation for corrections of existing lanes and interchange, but not 2 future lanes	Support Recommendation for corrections of existing lanes and interchange, but not 2 future lanes	Support Recommendation for corrections of existing lanes and interchange, but not 2 future lanes	A (2 to 4 lns) B (4 to 6 lns)
Perris	Central	Backbone	Ethanac	Keystone to Goetz	Shall be 6 lanes and requires a 400' bridge at the San Jacinto River crossing.	Change future lanes from 4 to 6 and add 400' bridge	Adjoining segment of SR-74 show 2030 baseline volumes > 30K and LOS F. Ethanac will provide more direct connection between E and W segments of SR-74	Change future lanes from 4 to 6 and add 400' bridge	\$5,220,000		Move item to PWC for consideration	Support Recommendation to add bridge, but not future lanes	Support Recommendation to add bridge, but not future lanes	Support Recommendation to add bridge, but not future lanes	B(2 to 4 lns) C(4 to 6 lns)
Perris	Central	Secondary	Nuevo	I-215 Interchange	Reevaluate interchange construction cost	Change interchange to new type 3 (\$11.5M)	2030 baseline forecasts show volume 30K - 40K and LOS F on Nuevo. Current nexus has old interchange type 3 (\$2M)	Change interchange to new type 3 (\$11.5M)	\$13,412,000		Move item to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	B
Moreno Valley	Central	Secondary	Pigeon Pass	Cantairini to Ironwood	Rename as 'Pigeon Pass Road/CETAP Project.' Add 2 lanes for Cantairini segment.	Realign and rename segment to reflect Pigeon Pass/ CETAP corridor with 4 future lanes	Current nexus included these facilities as placeholders for CETAP comidor	Realign and rename segment to reflect Pigeon Pass/ CETAP corridor with 4 future lanes	(\$10,543,181)	Recommend to same limits	Move item to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	
Moreno Valley	Central	Secondary	Cantairini	Reche Canyon to Pigeon Pass											
Moreno Valley	Central	Secondary	Center	Mt. Vernon to Reche Canyon											
Moreno Valley	Central	Secondary	Center	Mt. Vernon to I-215											
Moreno Valley	Central	Secondary	Cactus	I-215 Interchange	Increase funding to \$20M and redesignate to Central Zone	Change interchange to new type 2 (\$22.5M) and designate as Central Zone	2030 baseline forecasts show volume > 40K and LOS F on Cactus. Cactus from I-215 to Heacock is currently listed in Central Zone	Change interchange to new type 2	\$29,362,000	Also redesignate to Central Zone	Move item to PWC for consideration and move to Central Zone	Support Recommendation	Support Recommendation	Support Recommendation	A
Moreno Valley	Central	Secondary	Nason	SR-60 Interchange	Increase funding to \$21 million	Change interchange to new type 2 (\$22.5M)	2030 baseline forecasts show volume 10K to 20K and LOS F on Nason	Change interchange to new type 2	\$15,950,000		Move item to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Moreno Valley	Central	Secondary	Moreno Beach	SR-60 Interchange	Increase funding to \$32 million	Change interchange to new type 2 (\$22.5M)	2030 baseline forecasts show volume 20K to 30K and LOS D on Moreno Beach	Change interchange to new type 2	\$15,950,000		Move item to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Perris	Central	Backbone	Ramona	I-215 Interchange	Cost of interchange shall be reconsidered	Change interchange to new type 2 (\$22.5M)	2030 baseline forecasts show volume >50K and LOS F on Ramona	Change interchange to new type 2 (\$22.5M)	\$15,950,000		Move item to PWC for consideration less pending RCTC program funds if any	Support Recommendation	Support Recommendation	Support Recommendation	A
Perris	Central	Secondary	Placentia	I-215 Interchange	Increase cost to convert bridge to interchange.	Change interchange to new type 2 (\$22.5M)	2030 baseline forecasts show volume 10K - 20K and LOS B - D on Placentia. Current nexus has old interchange type 3 (\$2M)	Change interchange to new type 2 (\$22.5M)	\$29,362,000		Do not add if part of RCTC Mid-County Parkway - On hold pending further information	Support Recommendation	Support Recommendation	Support Recommendation	A
Perris	Central	Backbone	Goetz	Ethanac to Case	Shall be 6 lanes and include bridge widening at San Jacinto River	Change future lanes from 4 to 6 and add 400' bridge	2030 baseline forecasts show volume 10K-30K and LOS E-F on Goetz	Change future lanes from 4 to 6 and add 400' bridge	\$2,610,000		Move to the PWC for consideration of the addition of segment	Support Recommendation to add bridge, but not future lanes	Support Recommendation to add bridge, but not future lanes	Support Recommendation to add bridge, but not future lanes	C
Riverside County	Central	Proposed	Oleander	Nandina to I-215	Add general plan facility to relieve Van Buren and Cajalco	Add a future 4 lane segment to TUMF network	Request paired with Nandina from Washington to Oleander (Northwest). Oleander is currently part of the TUMF network east of I-215 and continues approximately 1000' west of I-215 to Harvill. 2030 baseline network shows volumes <10K and LOS A-C on Nandina f	Do not add new segment to TUMF network	\$13,412,000	Serves March Inland Port and not showing up because not in model network. Consider at Zone Committee	Move to PWC for consideration to delete the 4-lane future segment and to add type 3 interchange at Oleander	Support Recommendation	Support Recommendation	Support Recommendation	B
									\$178,516,815						

June 9 PWC Recommended changes															
Moreno Valley	Central	Proposed	Day	SR-60 Interchange	Add to system. Fund to \$20 million	Add Day St to Network and include SR 60 interchange as type 2	2030 baseline forecasts show volume < 20K and LOS < C on Day. Day is not currently part of network and serves as collector/minor arterial	Do not add new segment to TUMF network	\$32,625,000	seeking interchange ramp improvement only (\$11.5M). Moreno Valley feels this is regional project worthy of consideration by zone committee	Move item to PWC for consideration for ramp improvement only	Do Not Support	Do Not Support	Do Not Support	
Perris	Central	Backbone	Ethanac	Goetz to Murieta	Shall be 6 lanes	Change future lanes from 4 to 6	Adjoining segment of SR-74 show 2030 baseline volumes > 30K and LOS F. Ethanac will provide more direct connection between E and W segments of SR-74	Change future lanes from 4 to 6	\$3,289,000		Move item to PWC for consideration	Do Not Support addition of future lanes	Do Not Support addition of future lanes	Do Not Support addition of future lanes	A (2 to 4 lns) B (4 to 6 lns)
Perris	Central	Backbone	Perris	Ramona to Nuevo	Shall be 6 lanes	Change future lanes from 4 to 6	2030 baseline forecasts show volume 30K-50K and LOS E-F on Perris	Change future lanes from 4 to 6	\$8,334,000		Move item to PWC for consideration	Do Not Support addition of future lanes	Do Not Support addition of future lanes	Do Not Support addition of future lanes	B
Perris	Central	Backbone	Perris	Oleander to Ramona	Shall be 6 lanes	Change future lanes from 4 to 6	2030 baseline forecasts show volume >50K and LOS F on Perris	Change future lanes from 4 to 6	\$2,862,000		Move item (less the STIP obligation) to PWC for consideration	Do Not Support addition of future lanes	Do Not Support addition of future lanes	Do Not Support addition of future lanes	A
Perris	Central	Secondary	Ellis	SR-74 to I-215	Segment is 6 lanes.	Increase from 2 to 6 future lanes	2030 baseline forecasts show volume <20K and LOS A-F on Ellis (highest volume and LOS F from Goetz to Case)	Increase from 2 to 4 future lanes	\$24,871,000		Move item to PWC for consideration less pending DIF funding - need more information	Do Not Support addition of future lanes	Do Not Support addition of future lanes	Do Not Support addition of future lanes	C
Riverside	Central	Proposed	Day	SR-60 to Alessandro	This segment should be added to the network. The interchange should be included as an interchange type 2 project.	Add a new segment to TUMF network including 4 future lanes and new type 3 (\$11.5M) interchange	2030 baseline forecasts show volume <10K and LOS A-B on Day. Day currently serves as a minor arterial/collector street between SR-60 and Alessandro (freeway access to subregional shopping mall)	Do not add new segment to TUMF network	\$32,625,000	Defer to zone committee	Move to PWC for consideration. NW Zone supports recommendation to not add. Transfer to Central Zone. Could not reach consensus - defer to PWC for further consideration	Do Not Support	Do Not Support	Do Not Support	
Riverside	Central	Proposed	Day	Eucalyptus to Alessandro	This segment needs to be widened from 2 to 4 lanes.	Add a new segment to TUMF network including 4 future lanes	This segment is not included in 2030 baseline network. 2030 baseline forecasts show volume <10K and LOS A-B on Day. Day currently serves as a minor arterial/collector street north of Alessandro	Do not add new segment to TUMF network	\$36,093,000	Defer to zone committee	Move to PWC for consideration. Limits located in Central Zone. Defer to Overall meeting.	Do Not Support addition of future lanes	Do Not Support addition of future lanes	Do Not Support addition of future lanes	
Lewis (Perris)	Central	Backbone	Ethanac	SR-74 to Matthews	Lane configuration should be corrected to 8 future lanes to comply with the County General Plan	Change future lanes to 8	Partial duplication of previous submittals. Adjoining segment of SR-74 show 2030 baseline volumes > 30K and LOS F. Ethanac will provide more direct connection between E and W segments of SR-74	Change future lanes to 6	\$24,352,000		Move to PWC for consideration to add 6 future lanes pending further information. Remove any funding duplications.	Do Not Support addition of future lanes	Do Not Support addition of future lanes	Do Not Support addition of future lanes	

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Central Zone Existing Needs Methodology															
Perris	Central	Backbone	Perris	Nuevo to 11th	Shall be 6 lanes and why is 'D' shown as maximum TUMF share	Change future lanes from 4 to 6 and review the existing need and bridge cost for this segment	2030 baseline forecasts show volume 10K-20K and LOS D-E on Perris. Current nexus has 100% existing need for this segment and identifies 300' bridge crossing of I-215. Revised 2000 baseline shows LOS F from 4th to 11th only	Change future lanes from 4 to 6, revise existing need and reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		On hold pending existing need analysis if part of RCTC Med-County Parkway.				B

Central Zone Preliminary Fiscal Impact to Program Eliminated from Further Consideration/Duplicate Entries															
Requesting Jurisdiction	Zone	Segment			Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation			
		Type	Name	Limits											
Moreno Valley	Central	Secondary	Nason	Ironwood to Alessandro	Reduce lane additions from 4 to 2	Reduce from 6 to 4 future lanes	Current nexus show only 4 future lanes	No change from current nexus	None					Do not support	
Moreno Valley	Central	Proposed	Day	SR-60 Interchange	Add to system. Fund to \$20 million	Add Day St to Network and include SR-60 interchange as type 2	2030 baseline forecasts show volume < 20K and LOS < C on Day. Day is not currently part of network and serves as collector/minor arterial	Do not add new segment to TUMF network	Unknown	seeking interchange ramp improvement only (\$11.5M). Moreno Valley feels this is regional project worthy of consideration by zone committee	Do not add segment			Do not support	
Moreno Valley	Central	Secondary	Redlands	Locust to Alessandro	Reduce lane additions from 4 to 2	Reduce from 6 to 4 future lanes	Current nexus show only 4 future lanes	No change from current nexus	None					Do not support	
Moreno Valley	Central	Secondary	Cactus	I-215 Interchange	Increase funding to \$20 million	Change interchange to new type 2 (\$22.5M)	DUPLICATE REQUEST	Change interchange to new type 2	None		Duplicate			Do not support	
Moreno Valley	Central	Proposed	Nason	Cactus to Iris	Add 4 lanes	Add a future 6 lane segment to TUMF network	Assumes existing 2 lane segment. Nason is currently part of the TUMF network north of Alessandro and primarily serves as a collector south of Alessandro. 2030 baseline network does not include Nason south of Alessandro	Do not add new segment to TUMF network	None	Support recommendation				Do not support	
Moreno Valley	Central	Proposed	Iris	Lasselle to Kitching	Add 2 lanes	Add a future 6 lane segment to TUMF network	Assumes existing 4 lane segment. Iris is not currently part of the TUMF network and primarily serves as minor arterial w/ Moreno Beach connecting from SR-60 to Perris. 2030 baseline forecasts show volume 20K-30K and LOS D	Add new segment to secondary TUMF network with 6 future lanes for Iris from Moreno Beach to Perris	Unknown		Move item to PWC for consideration to NOT add segment - does not meet minimum criteria			Do not support	
Moreno Valley	Central	Proposed	Iris	Kitching to Perris	Add 4 lanes	Add a lane segment to TUMF network and add 2 future lanes	Assumes existing 2 lane segment. Iris is not currently part of the TUMF network and primarily serves as minor arterial w/ Moreno Beach connecting from SR-60 to Perris. 2030 baseline forecasts show volume 10K-20K and LOS F			Unknown	Move item to PWC for consideration to NOT add segment - does not meet minimum criteria - in City's DIF			Do not support	
Moreno Valley	Central	Proposed	Moreno Beach	SR-60 to Alessandro	Add 4 lanes	Add a future 6 lane segment to TUMF network	Assumes existing 2 lane segment. Moreno Beach is currently part of the TUMF network north of SR-60 and primarily serves as minor arterial w/ Iris connecting from SR-60 to Perris. 2030 baseline forecasts show volume 10K-30K and LOS D-F			Unknown	Move item to PWC for consideration to NOT add segment - does not meet minimum criteria - in City's DIF			Do not support	
Moreno Valley	Central	Proposed	Moreno Beach	Alessandro to Cactus	Add 4 lanes	Add a future 6 lane segment to TUMF network	Assumes existing 2 lane segment. Moreno Beach is currently part of the TUMF network north of SR-60 and primarily serves as minor arterial w/ Iris connecting from SR-60 to Perris. 2030 baseline forecasts show volume 20K-30K and LOS F	Add new segment to secondary TUMF network with 6 future lanes for Moreno Beach from SR-60 to Iris	Unknown		Move item to PWC for consideration to NOT add segment - does not meet minimum criteria - in City's DIF			Do not support	
Moreno Valley	Central	Proposed	Moreno Beach	Cactus to JFK	Add 2 lanes	Add a future 6 lane segment to TUMF network	Assumes existing 4 lane segment. Moreno Beach is currently part of the TUMF network north of SR-60 and primarily serves as minor arterial w/ Iris connecting from SR-60 to Perris. 2030 baseline forecasts show volume 20K-30K and LOS F			Unknown	Move item to PWC for consideration to NOT add segment - does not meet minimum criteria - in City's DIF			Do not support	
Perris	Central	Secondary	Evans	Oleander to Ramona	Section is 6 lanes	Change future lanes from 4 to 6	2030 baseline forecasts show volume <10K and LOS A on Evans	Do not change future lanes	None	Support recommendation				Do not support	
Perris	Central	Backbone	Goetz	Ethanac to Case	Shall be 6 lanes and include bridge widening at San Jacinto River	Change future lanes from 4 to 6 and add 400' bridge	2030 baseline forecasts show volume 10K-30K and LOS E-F on Goetz	Change future lanes from 4 to 6 and add 400' bridge	\$11,198,000		Do not add the bridge			Do not support	C
RCTC	Central	Secondary	SR-74 (4th)	Ethanac to I-215	This segment should be reviewed to determine if this should be upgraded from the secondary system to the backbone system.	Reclassify SR-74/4th from I-215 to Ethanac as a backbone facility and change interchange to new type 2 (\$22.5M)	This duplicates a previous submission. 2030 baseline forecasts show volume 20K-40K and LOS D-F on SR-74. Current nexus has old interchange type 2 (\$10M) and 70% existing need	Reclassify SR-74/4th from I-215 to Ethanac as a backbone facility and change interchange to new type 2 (\$22.5M)	Duplicate					Do not support	
Garrett Group (County)	Central	Secondary	Nuevo	Dunlap to Menifee	Identify this bridge as an element of TUMF network	Add 400' bridge widening	Duplicate of a previous submittal.	Add 400' bridge widening	Duplicate					Do not support	
Garrett Group (County)	Central	Proposed	10th	C to Orange	This is a new request to include this bridge in the TUMF network.	Add a new segment to the TUMF network with 4 future lanes and include 225' bridge	This segment is not included in 2030 baseline network. 10th currently serves as a local street	Do not add new segment to TUMF network	None	Support recommendation				Do not support	
Lewis (County)	Central	Backbone	Ramona	I-215 to Bridge	Lane configuration should be corrected to 8 future lanes to comply with the County General Plan and increase bridge cost for 8 lanes	Change future lanes to 8	Partial duplication of previous submittal. 2030 baseline forecasts show volume <10K->50K and LOS B-F on Cajalco/Ramona. 2030 baseline network shows Cajalco/Ramona as 2 or 4 lane facility. RCTC 2030 forecasts show volume 81K-151K	Rename Cajalco/Ramona to Mid-County Parkway, change future lanes to 6, change landuse to type 2 and change two old type 2 (\$10M) interchanges to two new type 1 (\$45M) interchanges. Evaluate additional new alignments, interchange and bridge needs as necess	Duplicate					Do not support	
Lewis (County)	Central	Backbone	Menifee	Ramona to SR-74	Lane configuration should be corrected to 6 future lanes to comply with the County General Plan	Change future lanes to 6	Segment north of Nuevo is not included in 2030 baseline network. 2030 baseline forecast show volume <10K-20K and LOS C-E on Menifee south of Nuevo. Current Nexus shows increase from 2 existing to 4 future lanes	No change from current nexus	None	Support recommendation				Do not support	
Lewis (Perris)	Central	Secondary	SR-74	I-215 to Ethanac	Upgrade this segment to backbone and increase interchange cost to \$20M	Reclassify SR-74/4th from I-215 to Ethanac as a backbone facility and change interchange to new type 2 (\$22.5M)	Duplicate of previous submittal. 2030 baseline forecasts show volume 20K-40K and LOS D-F on SR-74. Current nexus has old interchange type 2 (\$10M) and 70% existing need	Reclassify SR-74/4th from I-215 to Ethanac as a backbone facility and change interchange to new type 2 (\$22.5M)	None		Duplicate			Do not support	
Lewis (County)	Central	Secondary	Nuevo	Dunlap to Menifee	Lane configuration should be corrected to 6 future lanes to comply with the County General Plan and include bridge widening	Change future lanes to 6 and add 300' bridge	Duplication of previous submittal. 2030 baseline forecasts show volume <10K and LOS C on Nuevo.	Do not change future lanes and add 300' bridge with \$2,210,640 obligated funds	Duplicate					Do not support	

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Northwest Zone Network Corrections															
Corona	Northwest	Backbone	Foothill	Lincoln to I-15	Existing lane should be 2 from California to I-15. Increase from 2 lanes to 4 lanes from California to I-15.	Change existing lanes from 4 to 2 from California to I-15		Change existing lanes from 4 to 2 from California to I-15	\$3,127,000		CORRECTION - Move to the PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Corona	Northwest	Backbone	Foothill	Lincoln to Paseo Grande	Increase bridge from 150 to 300	Increase bridge length to 300'		Increase bridge length to 300'	\$1,958,000		Move to the PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Corona	Northwest	Secondary	Ontario	Main to I-15	TUMF shows incremental lane increase of 1 - the other assumed lane does not exist and 2 should be shown in TUMF	Adjust the incremental lane change from 1 to 2	Various sections of this segment do currently exist with 3 lanes in one direction	Reconcile this segment to more accurately reflect the existing lane configuration and future lane change	(\$1,844,000)	Support recommendation	CORRECTION - Move to the PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	B
Corona	Northwest	Secondary	Main	Parkridge to SR-91	Increase from 4 to 6 lanes from Grand to SR-91 to allow adequate turning lane(s) to freeway on and off ramps.	Reduce existing lanes from 6 to 4 from Grand to SR-91		Reduce existing lanes from 6 to 4 from Grand to SR-91	\$627,000		CORRECTION - Move to the PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	B
Corona	Northwest	Secondary	Magnolia	6th to BNSF RR	Increase bridge from 250 to 300	Increase bridge length to 300'		Increase bridge length to 300'	\$326,000		Move to the PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	B
Corona	Northwest	Secondary	Main	Parkridge to Hidden Valley	Increase from 4 to 6 lanes, consistent with the City of Corona updated General Plan to improve Main Street capacity.	Increase from 4 to 6 future lanes	2030 baseline forecasts show volume 30K-40K and LOS F	Increase from 4 to 6 future lanes	None		Move to the PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	C
Riverside	Northwest	Backbone	Alessandro	Barton to Grande	Completed to six lanes	Change existing lanes to 6		Change existing lanes to 6	(\$7,150,532)	Trautwein to Barton is 6 lanes. Barton to I-215 is 4 lanes. Correct segment description.	CORRECTION - Move to the PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside	Northwest	Backbone	Van Buren	Orange Terrace to Trautwein	Completed third westbound lane	Change incremental lane increase to 1		Change incremental lane increase to 1	(\$2,228,000)		Move to the PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside	Northwest	Secondary	Canyon Crest	Alessandro to Central	TUMF should reflect the only portion of this segment remaining to be widened to 4 lanes is between Via Vista and Country Club Drive	Reconcile segment to reflect 2 existing lanes from Via Vista and Country Club	Current nexus shows segment from Central to Alessandro with 2 existing lanes	Reconcile segment to reflect 2 existing lanes from Via Vista and Country Club	(\$4,821,000)		CORRECTION - Move to the PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside	Northwest	Backbone	Alessandro	Trautwein to I-215	This section is currently 6 lanes; no further widening is necessary.	Change existing lanes to 6		Change existing lanes to 6	(\$12,740,000)		CORRECTION - Move to the PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside County	Northwest	Backbone	Van Buren	SR-60 to Santa Ana River	Add bridge structure at Pyrite Channel	Add 200' bridge		Add 200' bridge	\$1,174,500		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	B
Riverside County	Northwest	Secondary	Archibald	San Bernardino County to Riverside	Show 1,800' bridge	Increase bridge length to 1,800'	Bridge crossing at Santa Ana River	Increase bridge length to 1,800'	\$10,440,000		Move to PWC for consideration to 1,200' bridge only	Support Recommendation	Support Recommendation	Support Recommendation	A
Riverside County	Northwest	Secondary	Gavilan	Cajalco to Santa Rosa Mine	Correct misspelling of Gavilan, existing 2 lanes to 4 from Cajalco to Multiview and new 4 lane roadway from Multiview to Santa Rosa Mine considering proximity to Mid-County Parkway	Correct misspelling of Gavilan, change future lanes to 4 from Cajalco to Multiview and change existing lanes to 0 and future lanes to 4 from Multiview to Santa Rosa Mine	2030 baseline forecasts show volume 10K-20K and LOS B on Gavilan. Current nexus shows existing and future lanes at 2	Correct misspelling of Gavilan and do not change from current nexus	None		CORRECTION - Move to PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside County	Northwest	Secondary	Temescal Canyon	Ontario to Indian Truck Trail	Need to reflect General Plan alignment east of I-15 to 4 lanes	Reflect realignment from I-15 to Park Canyon on TUMF exhibits and change existing lanes to 0 and future lanes to 4 for this segment	2030 baseline forecasts show volume <10K-20K and LOS B on Temescal Canyon.	Reflect realignment from I-15 to Park Canyon on TUMF exhibits and change existing lanes to 0 and future lanes to 2 for this segment	\$944,000	Support recommendation	Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
									(\$10,187,032)						

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Northwest Zone Network Upgrades or Additions															
Corona	Northwest	Backbone	Green River	Dominguez Ranch to Palisades	Increase from 4 to 6 lanes to increase the capacity at build-out to comply with the City of Corona updated General Plan.	Increase from 4 to 6 future lanes	2030 baseline forecasts show volume 20K-30K and LOS E	Increase from 4 to 6 future lanes	None		Do not add to the TUMF network	Do not add to the TUMF network	Do not add to the TUMF network	Support Recommendation to increase from 4 to 6 lanes to increase the capacity at build-out with no fiscal impacts	
March JPA	Northwest	Backbone	Van Buren	I-215 Interchange	A network correction is necessary based on results of PSR to adjust funding for the interchange.	Change interchange to new type 1 (\$45M)	2030 baseline forecasts show volume >40K and LOS F on Van Buren	Change interchange to new type 1 (\$45M)	\$62,712,000		Move to the PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Riverside	Northwest	Secondary	Market	SR-60 Interchange	Include as an interchange type 3 project.	Add new type 4 (\$2.25M) interchange	2030 baseline forecasts show volume 10K-30K and LOS C-F on Market. Current nexus does not include interchange improvements at SR-60	Add new type 4 (\$2.25M) interchange	\$3,263,000		Move to the PWC for consideration pending Caltrans funding	Support Recommendation	Support Recommendation	Support Recommendation	B
Riverside	Northwest	Secondary	Tyler	SR-91 Interchange	Add interchange improvements at SR-91/Tyler interchange	Add new type 2 interchange	Request made for addition at PWC meeting February 10, 2005	Add new type 2 (\$22.5M) interchange	\$32,625,000	Supplemental request added to list at PWC	Move to PWC for consideration to add new type 1 interchange only	Support Recommendation	Support Recommendation	Support Recommendation	A
Riverside County	Northwest	Backbone	Schliesman	San Bernardino County to I-15	Should be expanded to 6 lanes, add bridge over Cucamonga Creek, will be realigned from Cleveland to I-15 and change landuse to type 1	Change future lanes to 6, add 200' bridge, change landuse to type 1 (urban) and reflect realignment on TUMF exhibits	2030 baseline forecasts does not include Schliesman. Schliesman shown with 4 future lanes in current nexus. Landuse type consistent with type 2 (suburban). Current nexus shows landuse type 3 (rural)	Change future lanes to 6, add 200' bridge (SBCL to Harrison), change landuse to type 2 (suburban) and reflect realignment on TUMF exhibits	\$14,096,000		Move to PWC for consideration.	Support Recommendation to add bridge and change land use, but not future lanes	Support Recommendation to add bridge and change land use, but not future lanes	Support Recommendation to add bridge and change land use, and 6 future lanes	A
Riverside County	Northwest	Backbone	Schliesman	I-15 Interchange	Show as 'super interchange' due to proximity with Santa Ana River	Change interchange to new type 1 (\$45M)	2030 baseline forecasts does not include Schliesman. Interchange shown as old type 1 (\$20M) in current nexus	Change interchange to new type 1 (\$45M)	\$33,350,000		Move to PWC for consideration.	Support Recommendation	Support Recommendation	Support Recommendation	A
Riverside County	Northwest	Backbone	Van Buren	Bellevue Interchange	Per general plan show interchange/overcrossing at \$10M	Add new interchange type 3 (\$11.5M) and reduce TUMF intersection count by one	2030 baseline forecasts show volume 40K-50K and LOS F on Van Buren and volumes 10K-20K and LOS D-E on Bellevue	Add new interchange type 3 (\$11.5M) and reduce TUMF intersection count by one	\$15,267,500		Move to PWC for consideration to include as new arterial interchange category (Type 4 Interchange @\$2.5M total cost assigned to each arterial street)	On hold pending RCTC clarification	WRCOG,RCTC, County, Attorney met to discuss CETAP Corridor programming & funding issue: Take to City Managers & Attorney clarification before adding as separate line item	WRCOG,RCTC, County, Attorney met to discuss CETAP Corridor programming & funding issue: Take to City Managers & Attorney clarification before adding as separate line item	A
Riverside County	Northwest	Secondary	Limonite	Hamner to Etiwanda	Show major interchange modification of \$10M	Change interchange to new type 3 (\$11.5M)	2030 baseline forecasts show volume 10K-40K and LOS D-F on Limonite. Current nexus shows old interchange type 3 (\$2M)	Change interchange to new type 3 (\$11.5M)	\$9,388,400		Move to PWC for consideration pending existing need methodology	Support Recommendation	Support Recommendation	Support Recommendation	A
Riverside County	Northwest	Secondary	Rubidoux	SR-60 Interchange	Need to add \$10 M interchange modification	Add new interchange type 3 (\$11.5M)	2030 baseline forecasts show volume 20K->50K and LOS E-F on Rubidoux.	Add new interchange type 3 (\$11.5M)	\$15,007,500		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
									\$185,709,400						
June 9 PWC Recommended changes															
Riverside County	Northwest	Secondary	Archibald	San Bernardino County to Riverside	Show 6 lanes	Change future lanes to 6	2030 baseline forecasts show volume 10K-40K and LOS D-F on Archibald. Current nexus shows future lanes at 4	Change future lanes to 6	\$16,414,000		Move to PWC for consideration	Do Not Support addition of future lanes	Do Not Support addition of future lanes	Do Not Support addition of future lanes	A
Riverside County	Northwest	Secondary	Harley John	Washington to Cajalco	TUMF shows incremental lane increase of 1 - the other lane does not exist	Change increase lanes to 2	Current nexus shows 2 existing lanes and 4 future lanes with only 1 increased lanes due to assumed improvements to be completed by developer. County has advised these improvements do not exist	Change increase lanes to 2	\$1,736,000		Move to PWC for consideration	Do not support	Do not support	Do not support	C

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Northwest Zone Existing Needs Methodology															
Riverside	Northwest	Backbone	Arlington	North to Magnolia	TUMF program should be revised to include the cost to mitigate the incremental congestion on these streets due to new development.	Re-evaluate existing need of 5%	Current nexus shows existing need from Van Buren to Hillside (5%). Revised 2000 baseline shows LOS F in this segment	Reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration - Pending existing need methodology				
Riverside	Northwest	Backbone	Arlington	Magnolia to Alessandro	TUMF program should be revised to include the cost to mitigate the incremental congestion on these streets due to new development.	Re-evaluate existing need of 20%	Current nexus shows existing need from Magnolia to Victoria (20%). Revised 2000 baseline shows LOS D-E in this segment and LOS F from Victoria to Alessandro	Reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration - Pending existing need methodology				
Riverside	Northwest	Backbone	Van Buren	Santa Ana River to Mockingbird Canyon	TUMF program should be revised to include the cost to mitigate the incremental congestion on these streets due to new development.	Re-evaluate existing need of 25%	Current nexus shows existing need from Santa Ana River to Arlington, Colorado to California and Magnolia to Indiana (25%). Revised 2000 baseline shows LOS F from Santa Ana River to Arlington, Magnolia to Victoria and Dufferin to Mockingbird Canyon (LOS	Reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration - Pending existing need methodology				
Riverside	Northwest	Secondary	Central	SR-91 to Magnolia	TUMF program should be revised to include the cost to mitigate the incremental congestion on these streets due to new development.	Re-evaluate existing need of 100%	Current nexus shows 100% existing need. Revised 2000 baseline shows LOS F in this segment and LOS F from SR-91 to Victoria	Reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration - Pending existing need methodology				
Riverside	Northwest	Secondary	Iowa	Center Street to Third	TUMF program should be revised to include the cost to mitigate the incremental congestion on these streets due to new development.	Re-evaluate existing need of 20%	Current nexus shows existing need from Marlborough to Spruce (20%). Revised 2000 baseline shows LOS E from Palmyrita to Columbia and LOS F from University to MLK	Reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration - Pending existing need methodology				
Riverside	Northwest	Secondary	La Sierra	Arlington to SR-91	TUMF program should be revised to include the cost to mitigate the incremental congestion on these streets due to new development.	Re-evaluate existing need of 25%	Current nexus shows existing need from Campbell to Gramercy. Revised 2000 baseline shows LOS F in this segment and from Magnolia to SR-91 and LOS E from Cypress to Campbell	Reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration - Pending existing need methodology				
Riverside	Northwest	Secondary	La Sierra	SR-91 to Victoria	TUMF program should be revised to include the cost to mitigate the incremental congestion on these streets due to new development.	Re-evaluate existing need of 30%	Current nexus shows existing need from SR-91 to Indiana. Revised 2000 baseline shows LOS F from SR-91 to Victoria	Reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration - Pending existing need methodology				
Riverside	Northwest	Secondary	Madison	SR-91 to Victoria	TUMF program should be revised to include the cost to mitigate the incremental congestion on these streets due to new development.	Re-evaluate existing need of 70%	Current nexus shows existing need from SR-91 to Lincoln. Revised 2000 baseline shows no existing need on Madison	Eliminate existing need and reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration - Pending existing need methodology. Fiscal Impact was \$12,638, 000 prior to Existing Needs Methodology evaluation.				
Riverside	Northwest	Secondary	Main	First to Placentia	TUMF program should be revised to include the cost to mitigate the incremental congestion on these streets due to new development.	Re-evaluate existing need of 30%	Current nexus shows existing need from SR-60 to Santa Ana River. Revised 2000 baseline shows LOS F from Columbia to Santa Ana River	Reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration - Pending existing need methodology				
Riverside County	Northwest	Secondary	Limonite	Etiwanda to Van Buren	Should be shown as 6 lanes	Change future lanes to 6	2030 baseline forecasts show volume 10K-40K and LOS D-F on Limonite. Current nexus shows future lanes at 4	Change future lanes to 6	See Network Existing Needs Programmatic Figures		Move to PWC for consideration pending existing need methodology. Fiscal Impact was \$7,477,000 prior to Existing Needs Methodology evaluation.				A
Riverside County	Northwest	Secondary	Limonite	Hamner to Etiwanda	Should not be \$2,794,000 obligated funds, add 2000' bridge over San Jacinto River and add bridge over Peris Channel	Eliminate \$2,794,000 obligated funds and add 2000' and 200' bridges	Partial duplication of previous addressed submittal. Segment currently programmed in NW Zone FY05-09 1IP. Segment does not include bridge crossings. Segment identified with 30% existing need in current nexus and revised 2000 baseline shows 100% existing	Eliminate \$2,794,000 obligated funds and update existing need in accordance with reevaluated methodology for entire program	See Network Existing Needs Programmatic Figures		Move to PWC for consideration - Pending Existing Need Methodology - No change in obligated \$2.7 M as reflected in current Nexus. Eliminate any duplication	This is existing needs Methodology	This is existing needs Methodology	This is existing needs Methodology	
Riverside County	Northwest	Secondary	Armstrong	San Bernardino County to Valley	Should not be 40% existing need	Re-evaluate existing need of 40%	Revised 2000 baseline shows no existing need on Armstrong (100% existing need on Valley from Mission to Armstrong)	Eliminate 40% existing need for Armstrong and reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration pending existing need methodology. Fiscal Impact was \$2,268,400 prior to Existing Needs Methodology evaluation.				C
Riverside County	Northwest	Secondary	Valley	Armstrong to Mission	Not 100% existing need	Re-evaluate existing need of 100%	Revised 2000 baseline shows 100% existing need on Valley from Mission to Armstrong)	Reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration pending existing need methodology				

Northwest Preliminary Fiscal Impact to Program Eliminated from Further Consideration/Duplicate Entries															
Requesting Jurisdiction	Zone	Segment			Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation			
		Type	Name	Limits											
Corona	Northwest	Proposed	Indiana	Neece to All American	Add a 2-lane divided collector, from 0 to 2 lanes.	Add a new 2 lane segment to TUMF network	Indiana is not currently part of the TUMF network and primarily serves as a local collector street	Do not add new segment to TUMF network	None	Support recommendation				Do not support	
Corona	Northwest	Backbone	Green River	Dominguez Ranch to Palisad	Increase from 4 to 6 lanes to increase the capacity at build-out to comply with the City of Corona updated General Plan.	Increase from 4 to 6 future lanes	2030 baseline forecasts show volume 20K-30K and LOS E	Increase from 4 to 6 future lanes	Unknown		Do not add to the TUMF network			Do not support	
Corona	Northwest	Proposed	Bedford Canyon	Eagle Glen to Weirick	Add a divided collector from 0 to 2 lanes to improve capacity consistent with the City of Corona updated General Plan.	Add a new 2 lane segment to TUMF network	Bedford Canyon is not currently part of the TUMF network and primarily serves as a local collector street	Do not add new segment to TUMF network	Unknown	Defer to zone committee	Do not add to the TUMF network			Do not support	
Corona	Northwest	Proposed	Bedford Canyon	El Cerrito to Georgetown	Currently an unimproved 2-lane road	Add a future 4 lane segment to TUMF network	Bedford Canyon is not currently part of the TUMF network and primarily serves as a local collector street	Do not add new segment to TUMF network	Unknown	Defer to zone committee	Do not add to the TUMF network			Do not support	
Riverside County	Northwest	Proposed	Nandina	Washington to Oleander	Add general plan facility to relieve Van Buren and Cajalco	Add a future 4 lane segment to TUMF network	Request paired with Oleander from Nandina to I-215 (Central). Nandina exists as a 2 lane collector between Parsons and Clark and is generally an unpaved local road outside this core segment. 2030 baseline network shows volumes <10K and LOS A-C on Nandina	Do not add new segment to TUMF network	Unknown	Access to March Inland Port. Defer to zone committee	Do not add to the TUMF network			Do not support	
Riverside County	Northwest	Secondary	La Sierra	Victoria to El Sobrante	TUMF shows existing 4 lanes - only 2 exist and should be shown in TUMF.	Change existing lanes from 4 to 2	Current nexus was corrected previously to show 2 existing lanes for this segment	No change from current nexus	None					Do not support	
Riverside County	Northwest	Secondary	Limonite	Hamner to Etiwanda	Improvements from Pat's Ranch Road to Wineville can be deleted	Change existing lanes from 2 to 3 from Pats Ranch to Wineville	Current nexus shows only 1 additional lane to be added for entire segment. Segment currently programmed in NW Zone FY05-09 1IP	No change from current nexus	None					Do not support	
Riverside County	Northwest	Secondary	Rubidoux	Mission to Cedar	Verify this was a funded project. Consider bridge widening over the 60 Freeway	Add 300' bridge widening	Current nexus does not show any future lane increase for this segment and therefore no bridge cost can be eligible	No change from current nexus	None	Interchange shown below will substitute for this request				Do not support	
Riverside County	Norhwest	Backbone	Cajalco	I-15 to I-215	Provide for a 6 lane parkway within a 220 foot ROW and intersections, interchnages and bridges to be identified	Rename Cajalco/Ramona to Mid-County Parkway, change future lanes to 6, change landuse to type 2 and change two old type 2 (\$10M) interchanges to two new type 1 (\$45M) interchanges	Duplicate of previous RCTC request. May need to evaluate specific segments requiring new alignments (0 existing lanes) and additional interchange and bridge needs.	Rename Cajalco/Ramona to Mid-County Parkway, change future lanes to 6, change landuse to type 2 and change two old type 2 (\$10M) interchanges to two new type 1 (\$45M) interchanges. Evaluate additional new alignments, interchange and bridge needs as necess	Duplicate					Do not support	
Riverside County	Northwest	Backbone	Van Buren	Jurupa Interchange	Per general plan show interchange/overcrossing at \$10M	Add new interchange type 3 (\$11.5M)	2030 baseline forecasts show volume >50K and LOS F on Van Buren and volumes <10K and LOS A on Jurupa. Jurupa is not currently included on TUMF network	Do not add new interchange type 3 (\$11.5M)	None	Support recommendation				Do not support	
Riverside County	Northwest	Secondary	Hamner	Bellevgrave to Mission	TUMF shows 2 lanes existing, should show 4 additional lanes	Change increase lanes to 4	Current nexus shows 2 existing lanes and 6 future lanes with only 2 increased lanes due to split roadway jurisdiction with San Bernardino County which does not participate in TUMF	No change from current nexus	None	Support recommendation				Do not support	

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Riverside County	Northwest	Secondary	Limonite	Hamner to Etiwanda	Should be 2 additional lanes and TUMF shows 1	Change increase lanes to 2	Partial duplication of previous addressed submittal. Current nexus shows only 1 additional lane to be added for entire segment. Segment currently programmed in NW Zone FY05-09 TIP	No change from current nexus	None					Do not support	
Riverside County	Northwest	Backbone	Van Buren	I-215 Interchange	Interchange should be shown as 'super-interchange'	Change interchange to new type 1 (\$45M)	Duplication of previously addressed submittal. 2030 baseline forecasts show volume >40K and LOS F on Van Buren	Change interchange to new type 1 (\$45M)	Duplicate					Do not support	
Riverside	Northwest	Backbone	Van Buren	Indiana to 1200 ft. south of R	Completed third southbound lane	Change incremental lane increase to 1	Segment length is < 1/4 mile	No change from current nexus	None		No change			Do not support	
Riverside	Northwest	Proposed	Day	SR-60 to Alessandro	This segment should be added to the network. The interchange should be included as an interchange type 2 project	Add a new segment to TUMF network including 4 future lanes and new type 3 (\$11.5M) Interchange.	2030 baseline forecasts show volume <10K-20K and LOS <A-B on Day. Day currently serves as a minor arterial/collector street between SR-60 and Alessandro (freeway acces to subregional shopping mall) on Temescal Canyon.	Do not add new segment to TUMF network	Unknown	Defer to zone committee	Do not add to the TUMF Network			Do not support	
Riverside	Northwest	Proposed	Day	Eucalptus to Alessandro	This segment needs to be widened from 2 to 4 lanes.	Add a new segment to TUMF network including 4 future lanes	This segment is not included on the 2030 baseline network. 2030 baseline forecasts show volume <10K-20K and LOS <A-B on Day. Day currently serves as a minor arterial/collector street between SR-60 and Alessandro	Do not add new segment to TUMF network	Unknown	Defer to zone committee	Do not add to the TUMF Network			Do not support	
Riverside	Northwest	Proposed	Collett	Pierce to Buchanan	This segment should be added to the network.	Add a new segment to TUMF network including 4 future lanes	This segment is not included in 2030 baseline network. 2030 baseline forecasts show volume <10K and LOS A-B on Collett and Promenade. Collett and Promenade currently serve as collector streets	Do not add new segment to TUMF network	Unknown	Defer to zone committee	Do not add to the TUMF network			Do not support	
Lennar (March JPA)	Northwest	Backbone	Van Buren	I-215 Interchange	Classify critical interchange to the \$20 million range	Change interchange to new type 1 (\$45M)	Duplicate of previous submittal. 2030 baseline forecasts show volume >40K and LOS F on Van Buren	Change interchange to new type 1 (\$45M)	Duplicate					Do not support	
Lennar (March JPA)	Northwest	Backbone	Van Buren	I-215 Interchange	Classify critical interchange to the \$20 million range	Change interchange to new type 1 (\$45M)	Duplicate of previous submittal. 2030 baseline forecasts show volume >40K and LOS F on Van Buren	Change interchange to new type 1 (\$45M)	Duplicate					Do not support	
Lewis (County)	Northwest	Backbone	Schleisman	San Bernardino County to I-15	Should be expanded to 6 lanes	Change future lanes to 6	Partial duplicate of previous submittal. 2030 baseline forecasts does not include Schleisman. Schlesman shown with 4 future lanes in current nexus.	Change future lanes to 6, add 200' bridge (SBCL to Harrison), change landuse to type 2 (suburban) and reflect realignment on TUMF exhibits	Duplicate					Do not support	

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Pass Zone Network Corrections															
Banning	Pass	Secondary	Ramsey Street	I-10 to Fields	TUMF provides funding for two lanes only. Need to evaluate this facility as a a four -lane facility. Add a 300' bridge required to traverse the San Gorgoni River.	Increase from 2 to 4 future lanes, add 300' bridge	2030 baseline forecasts show volume <10K and LOS <C on parallel local street. 2030 baseline forecast volume on I-10 <100K and LOS E/F	Retain 2 future lanes and add 300' bridge at San Gorgioni River	\$1,957,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	B
Banning	Pass	Secondary	Sun Lakes Boulevard	Highland Home to Sunset	Add funding for three bridges totaling 200' necessary to extend Sun Lakes Blvd. This roadway should also be included as a new 4-lane facility.	Increase from 2 to 4 future lanes, add 200' bridges	2030 baseline forecasts show volume 10K-20K and LOS D on existing Sun Lakes Blvd	Increase to 4 future lanes and add 200' bridges	\$5,944,000		Move to PWC for consideration for the addition of 2 bridges	Support Recommendation	Support Recommendation	Support Recommendation	A
Beaumont	Pass	Secondary	14th	I-10 to Oak View	Should be shown as 2 lanes with 6 future lanes.	Change existing lanes to 2		Change existing lanes to 2	\$2,487,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Beaumont	Pass	Secondary	San Timoteo	San Bernardino County to I-10	Central Overland is being replaced by J Street and should be replaced as limits for San Timoteo segments.	Correct limits for San Timoteo segments		Correct limits for San Timoteo segments	None		CORRECTION - Move to the PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
									\$10,388,000						
Pass Zone Network Upgrades or Additions															
Calimesa	Pass	Secondary	Cherry Valley	I-10 Interchange	Increase interchange construction costs to refelct full reconstruction of facility.	Change interchange to new type 2 (\$22.5M)	2030 baseline forecasts show volume 10K to 20K and LOS E on Cherry Valley	Change interchange to new type 2	\$15,950,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
									\$15,950,000						
June 9 PWC Recommended changes															
Riverside County	Pass	Backbone	SR-79 (Beaumont/Lambs Canyon)	I-10 to Gilman Springs	Should be 6 lanes	Change future lanes to 6	2030 baseline forecasts show volumes 40K-50K and LOS E-F on SR-79. Current nexus shows 4 future lanes on SR-79	Change future lanes to 6	\$23,876,000		Move to PWC for consideration	Do Not Support addition of future lanes	Do Not Support addition of future lanes	Do Not Support addition of future lanes	A
Pass Zone Preliminary Fiscal Impact to Program Eliminated from Further Consideration/Duplicate Entries															
Requesting Jurisdiction	Zone	Segment			Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation			
		Type	Name	Limits											
Beaumont	Pass	Secondary	14th	Highland Springs to Pennsylvania	Should be shown as a new roadway with 4 future lanes.	Change future lanes to 4	Current nexus shows future lanes at 2 . 2030 baseline forecast shows volume <10K and LOS A-C	No change from current nexus	Unknown	Defer to zone committee	No change from curent Nexus			Do not support	
Beaumont	Pass	Secondary	14th	I-10 to Pennsylvania	Nancy is no longer planned to extend to 14th Street and should be replaced with Oak View	Correct limits for 14th segments	Limits were corrected in Nexus during March 2004 program correction	No change from current nexus	None					Do not support	
Riverside County	Pass	Proposed	Main	Apache Trail to I-10	Add \$10 M interchange and grade separation over Main Street	Add a new segment to TUMF network including 4 future lanes and new type 3 (\$11.5) interchange	2030 baseline forecasts show volumes < 10K and LOS A-B on Main (Cabazon).	Do not add new segment to TUMF network	Unknown	Defer to zone committee	Move item to PWC to NOT add segment - does not meet minimum critena			Do not support	B

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Hemet/San Jacinto Zone Network Corrections															
Hemet	Hemet-San Jacinto	Secondary	Sanderson	Ramona Expressway to Domenigoni Pass	Convert from Secondary to Backbone	Convert from Secondary to Backbone	Hemet-San Jacinto Zone TAC supported conversion - (7.45 miles). The Hemet/San Jacinto Bypass (Backbone facility) will run parallel to Sanderson.	No change from current nexus	None			Support Recommendation	Support Recommendation	Support Recommendation	A
Hemet	Hemet-San Jacinto	Backbone	Domenigoni	State to Sanderson	From 4 to 6 Lanes	Add 2 future lanes	2030 baseline shows volume 20K-30K and LOS D	No change from current nexus	None			Support Recommendation	Support Recommendation	Support Recommendation	B
Hemet	Hemet-San Jacinto	Backbone	SR-74	Winchester to Warren	From 4 to 6 Lanes	Add 2 future lanes	Current nexus shows future lanes at 6	No change from current nexus	None			Support Recommendation	Support Recommendation	Support Recommendation	B
Hemet	Hemet-San Jacinto	Secondary	State Street	Stetson to Florida	From 2 to 4 Lanes	Add 2 future lanes	Current nexus shows future lanes at 4	No change from current nexus	None			Support Recommendation	Support Recommendation	Support Recommendation	B
Hemet	Hemet-San Jacinto	Backbone	Domenigoni Parkway at St John's/Salt Creek	State to Sanderson	Add bridge	Add bridge	Ties into interchange at Aqueduct and Railroad/Hemet Channel	Add 110' bridge (City of Hemet to provide estimated bridge length)	\$495,000						B
Riverside County	Hemet-San Jacinto	Backbone	Domenigoni	SR-79 to Warren	Include 800' bridge widening over Salt Creek	Add 800' bridge widening		Add 800' bridge widening	\$5,220,000		Move to PWC for consideration pending further information from the County regarding bridge location east or west of SR-79	Support Recommendation	Support Recommendation	Support Recommendation	B
Riverside County	Hemet-San Jacinto	Backbone	SR-79	Domenigoni to Keller	CETAP corridor with 6 lanes on 220' ROW	Change limits of segment from Domenigoni to Keller and change landuse to type 2	Current nexus shows future lanes at 6 from Patton to Keller with landuse type 3	Change limits of segment from Domenigoni to Keller and change landuse to type 2	\$5,309,049	Support recommendation	Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Riverside County	Hemet-San Jacinto	Backbone	SR-79 (Sanderson)	Gilman Springs to Ramona	Bridge needs to show 2,600' not 1,000' and expand to 6 lanes	Increase bridge length to 2,600'	2030 baseline forecasts show volumes 10K-20K and LOS E-F on Ramona. Current nexus shows 6 future lanes on SR-79 (Sanderson)	Increase bridge length to 2,600'	\$6,525,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	C
									\$	17,549,049					

Hemet/San Jacinto Zone Network Upgrades or Additions

June 9 PWC Recommended changes

RCTC	Hemet-San Jacinto	Backbone	SR-79 (San Jacinto Bypass / Hemet Bypass)	Sanderson to Winchester	Consider realignment of SR-79 and its proposed connections with east/west arterials Ramona, SR-74 and Domenigoni	Change limits to Ramona to Winchester and add 3 new type 2 (\$22.5) interchanges at SR-79/Ramona, SR-79/SR-74 and SR-79/Domenigoni and reduce TUMF intersection count by three	SR-79/Ramona Interchange duplicates previous request. 2030 baseline forecasts does not include SR-79 San Jacinto Bypass. SR-79 shown with 6 future lanes in current nexus. 2030 baseline shows volume 40K-50K and LOS F on SR-79, volumes 10K-20K and LOS E-	Change limits to Ramona to Winchester and add 3 new type 2 (\$22.5) interchanges at SR-79/Ramona, SR-79/SR-74 and SR-79/Domenigoni and reduce TUMF intersection count by three. Revise alignment as shown in current nexus.	\$77,269,000		Per the recommendation/On hold, pending if it is part of RCTC Mid-County Parkway ???	On hold pending RCTC clarification	WRCOG,RCTC, County, Attorney met to discuss CETAP Corridor programming & funding issue. Take to City Managers & Attorney clarification before adding as separate line item	WRCOG,RCTC, County, Attorney met to discuss CETAP Corridor programming & funding issue. Take to City Managers & July 28 PWC before adding as separate line item	A
									\$	77,269,000					

June 9 PWC Recommended changes

San Jacinto	Hemet-San Jacinto	Backbone	SR-79 (Sanderson)	Gilman Springs to Ramona	Add interchange at Ramona	Add new type 2 (\$22.5) interchange at SR-79/Ramona and reduce TUMF intersection count by one	2030 baseline forecasts show volume 40K-50K and LOS F on SR-79 and volumes 10K-20K and LOS E-F on Ramona. SR-79 and Ramona both shown with 6 future lanes in current nexus	Add new interchange type 2 (\$22.5) at SR-79/Ramona and reduce TUMF intersection count by one	\$32,285,000		Move to PWC for consideration to remove from TUMF Nexus if duplicate with RCTC project ???	On hold pending RCTC clarification	WRCOG,RCTC, County, Attorney met to discuss CETAP Corridor, waiting for Attorney clarification before adding as separate line item	Duplication	???
Hemet	Hemet-San Jacinto	Secondary	Sanderson at Hemet Channel	RR Tracks to Acacia	Add bridge (box culvert)	Add bridge	Box Culverts are included as part of the arterial segment construction cost component and are not considered to be a separate bridge cost.	No change from current nexus	None			Do not support		Do not support	A
Hemet	Hemet-San Jacinto	Secondary	Sanderson (Eaton and Commonwealth)	Menlo and Esplanade	Add bridge (box culvert)	Add bridge	Box Culverts are included as part of the arterial segment construction cost component and are not considered to be a separate bridge cost.	No change from current nexus	None			Do not support		Do not support	A
Hemet	Hemet-San Jacinto	Backbone	SR-74	California and Aqueduct	Add bridge (box culvert)	Add bridge	Box Culverts are included as part of the arterial segment construction cost component and are not considered to be a separate bridge cost.	No change from current nexus	None			Do not support		Do not support	A
Hemet	Hemet-San Jacinto	Secondary	State Street	Pepper Creek/Chambers	Add bridge (box culvert)	Add bridge	Box Culverts are included as part of the arterial segment construction cost component and are not considered to be a separate bridge cost.	No change from current nexus	None			Do not support		Do not support	A
Hemet	Hemet-San Jacinto	Secondary	State Street at Avery Canyon	Chambers and Domenigoni Parkway	Add bridge (box culvert)	Add bridge	Box Culverts are included as part of the arterial segment construction cost component and are not considered to be a separate bridge cost.	No change from current nexus	None			Do not support		Do not support	A
Hemet	Hemet-San Jacinto	Secondary	Esplanade	Cawston and Sanderson	Add bridge (box culvert)	Add bridge	Box Culverts are included as part of the arterial segment construction cost component and are not considered to be a separate bridge cost.	No change from current nexus	None			Do not support		Do not support	C

Hemet/San Jacinto Preliminary Fiscal Impact to Program Eliminated from Further Consideration/Duplicate Entries

Requesting Jurisdiction	Zone	Segment			Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation			
		Type	Name	Limits											
Riverside County	Hemet-San Jacinto	Secondary	McCall	Menifee to Warren	Show 4 future lanes	Change future lanes to 4	2030 baseline forecasts include McCall as two lane facility and show volumes 10K-20K and LOS D. Current nexus shows future lanes at 2	No change from current nexus	None	Support recommendation				Do not support	
Riverside County	Hemet-San Jacinto	Backbone	SR-79 (San Jacinto/Hemet Bypass)	Sanderson to Winchester	Check overlap with Measure A and add grade separations at 74, Domenigoni, Salt Creek, San Diego Aqueduct and Ramona	Change limits to Ramona to Winchester, add 3 new type 2 (\$22.5) interchanges at SR-79/Ramona, SR-79/SR-74 and SR-79/Domenigoni, reduce TUMF intersection count by three and add two 200' bridges	Partial duplication of previous requests. 2030 baseline forecasts does not include SR-79 San Jacinto Bypass. SR-79 shown with 6 future lanes in current nexus. 2030 baseline shows volume 40K-50K and LOS F on SR-79, volumes 10K-20K and LOS E-F on Ramona.	Change limits to Ramona to Winchester, add 3 new type 2 (\$22.5) interchanges at SR-79/Ramona, SR-79/SR-74 and SR-79/Domenigoni, reduce TUMF intersection count by three and add two 200' bridges	Duplicate					Do not support	
Riverside County	Hemet-San Jacinto	Backbone	Ramona	I-215 to Sanderson	CETAP corridor with 6 lanes on 220' ROW	Rename Cajalco/Ramona to Mid-County Parkway, change future lanes to 6, change landuse to type 2 and change two old type 2 (\$10M) interchanges to two new type 1 (\$45M) interchanges	Duplicate of previous RCTC request. May need to evaluate specific segments requiring new alignments (0 existing lanes) and additional interchange and bridge needs.	Rename Cajalco/Ramona to Mid-County Parkway, change future lanes to 6, change landuse to type 2 and change two old type 2 (\$10M) interchanges to two new type 1 (\$45M) interchanges. Evaluate additional new alignments, interchange and bridge needs as necess	Duplicate					Do not support	
San Jacinto	Hemet-San Jacinto	Backbone	SR-79 (San Jacinto Bypass)	Sanderson to SR-74	Add interchange at Sanderson, Cottonwood and Esplanade	Add 3 new type 2 (\$22.5) interchange at SR-79/Sanderson, SR-79/Cottonwood and SR-79 Esplanade and reduce TUMF intersection count by one	2030 baseline forecasts does not include SR-79 San Jacinto Bypass. SR-79 shown with 6 future lanes in current nexus. Proposed improvements would result in SR-79 serving as freeway level facility	Do not add 3 new interchanges along SR-79 (San Jacinto Bypass) and retain current TUMF intersection count for SR-79/Sanderson intersection	None	Support recommendation				Do not support	
San Jacinto	Hemet-San Jacinto	Backbone	SR-79 (San Jacinto Bypass / Hemet Bypass)	Sanderson to Winchester	The segments and alignment shown are incorrect and need to be reviewed.	Revise alignment shown in current nexus		Revise alignment as shown in current nexus	Duplicate		CORRECTION - Move to the PWC for approval			Do not support	
San Jacinto	Hemet-San Jacinto	Backbone	SR-79 (San Jacinto Bypass)	Sanderson to SR-74	Overcrossing needs to be included along Hwy 79 with Ramona Blvd., De Anza Dr., and extension of Bridge Road	Add 3 new 250' bridges at Ramona Blvd., De Anza and Bridge Extension	2030 baseline forecasts does not include SR-79 San Jacinto Bypass. SR-79 shown with 6 future lanes in current nexus. Proposed improvements would result in SR-79 serving as freeway level facility	Do not add 3 new bridges along SR-79 (San Jacinto Bypass	None	Support recommendation				Do not support	
San Jacinto	Hemet-San Jacinto	Backbone	Ramona	State to SR-74	Additional 2 lanes are needed.	Change future lanes from 4 to 6	2030 baseline forecasts show volume 10K-30K and LOS D-F on Ramona. City indicates 2030 forecast volume on Ramona east of Sanderson to be 35,700	Do not change future lanes	None	Support recommendation				Do not support	

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Southwest Zone Network Corrections															
Temecula	Southwest	Secondary	Butterfield Stage	Murietta Hot Springs to Rancho California	Add major bridge structure	Add two 200' bridges	This segment crosses the Second San Diego Aqueduct/Santa Gertrudis Creek and Long Canyon	Add two ~~(200')~~ bridges (1-166' over Long Valley Wash and 1-483' over the Santa Gertrudis Creek)	\$5,220,000		Move to PWC for consideration (need to confirm bridge length with City)(1-166' over Long Valley Wash and 1-483' over the Santa Gertrudis Creek)Adjust fiscal impacts accordingly	Support Recommendation	Support Recommendation	Support Recommendation	C
Temecula	Southwest	Secondary	French Valley (SR-79 Western Bypass)	Rancho California to I-15	Increase bridge cost to \$5.75 million	Increase bridge length to 600'		Increase bridge length to 600'	\$3,915,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	E
Temecula	Southwest	Secondary	Butterfield Stage	Rancho California to SR-79	This bridge should be shown on the Eastern Bypass route, not on Butterfield Stage Road, just south of SR-79S over Temecula Creek	Correct bridge designation for Butterfield Stage and SR-79 Eastern Bypass on RSHA exhibits	The bridge is correctly identified in the current TUMF nexus on SR-79 (Eastern Bypass) between SR-79 and Santa Rita. Several other bridges on Eastern Bypass also need to be added to exhibits	Correct bridge designation for Butterfield Stage and SR-79 Eastern Bypass on RSHA exhibits	None		CORRECTION - Move to the PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Garrett Group (County)	Southwest	Secondary	Butterfield Stage	Winchester to Murietta Hot Springs	Include funding in the TUMF for the bridge at Tualoca Creek crossing.	Add 450' bridge		Add 450' bridge	\$5,873,000		Move to PWC for recommendation	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside County	Southwest	Backbone	Clinton Keith	I-15 to Coppercraft	Should show need for 2 additional lanes, not 1 lane	Change increase lanes to 2	Current nexus shows 2 existing lanes and 6 future lanes with only 1 increased lanes due to assumed improvements to be completed by developer. County has advised that incremental increase should be two lanes	Change increase lanes to 2	\$2,660,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	B
Murietta	Southwest	Secondary	Murietta Hot Springs	Margarita to SR-79	Should be in City of Murietta	Change jurisdiction to Murietta		Change jurisdiction to Murietta	None		CORRECTION - Move to the PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	
Riverside County	Southwest	Backbone	Newport	I-215 to Menifee	TUMF shows incremental lane increase of 1 although other assumed lane does not exist and should be added	Change increase lanes to 2		Change increase lanes to 2	\$1,417,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	B
Riverside County	Southwest	Secondary	Indian Truck Trail	Temescal Canyon to I-15	This segment should be shown in the Southwest zone	Change zone designation from Northwest to Southwest		Change zone designation from Northwest to Southwest	None		CORRECTION - Move to the PWC for approval	Support Recommendation	Support Recommendation	Support Recommendation	B
Riverside County	Southwest	Backbone	Goetz	Railroad Canyon to Newport	Newport is being realigned to connect to Railroad Canyon - TUMF needs to reflect realignment and include a new bridge over Salt Creek	Add 200' bridge widening	Partial duplicate of previous request. Current nexus includes Newport from Goetz to Murietta with 6 future lanes. Current nexus was corrected to provide for funding of outer 4 lanes on realigned Newport to accommodate future growth (existing Newport den	Add 200' bridge widening	\$652,500		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	B
Riverside County	Southwest	Backbone	Clinton Keith	Meadowlark to SR-79	Bridge over Warm Springs should be 1,000' and need a bridge over south fork of Warm Springs	Increase bridge length to 1,000' and add second 200' bridge		Increase bridge length to 1,000' and add second 200' bridge	\$15,660,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Riverside County	Southwest	Secondary	Briggs	Simpson to Newport	TUMF shows 100' bridge - bridge over Salt Creek should be 600'	Increase bridge length to 600'		Increase bridge length to 600'	\$6,525,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	B
Riverside County	Southwest	Backbone	SR-79 (Winchester)	Keller to Hunter	Need to show 6 lane roadway with 184' ROW	Change landuse to type 2	Current nexus shows future lanes at 6 from Keller to Hunter with landuse type 3	Change landuse to type 2	\$6,290,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Riverside County	Southwest	Secondary	Central	Baxter to Palomar	Should use same landuse cost	Change landuse to type 2	Current nexus shows landuse type 3 (rural)	Change landuse to type 2	\$256,500		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	C
Riverside County	Southwest	Secondary	Palomar	Clinton Keith to Washington	Limits should be changed from Washington to Jefferson	Change limits to Clinton Keith to Jefferson		Change limits to Clinton Keith to Jefferson	None		Move to PWC for consideration pending revision of limits	Support Recommendation	Support Recommendation	Support Recommendation	
									\$48,469,000						

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Southwest Zone Network Upgrades or Additions															
Lake Elsinore	Southwest	Backbone	Railroad Canyon Road	I-15 Interchange	Update costs to reflect current engineering and contingency cost estimates.	Change interchange to new type 2 (\$22.5M)	2030 baseline forecasts show volume 20K to 30K and LOS F on Railroad Canyon	Change interchange to new type 2	\$15,950,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Murietta	Southwest	Backbone	Clinton Keith	I-215 Interchange	Add \$7M TUMF share for this interchange	Reduce obligated funds to \$13M and change interchange to new type 2 (\$22.5M)	2030 baseline forecasts show volume 20K to 30K and LOS F on Clinton Keith. Current nexus has old interchange type 2 (\$10M) and full obligated funds	Reduce obligated funds to \$13M and change interchange to new type 2 (\$22.5M)	\$7,000,000 (adjusted)		Move to PWC for consideration and adjust to negate soft costs. (\$7M)	Support Recommendation	Support Recommendation	Support Recommendation	A
Murietta	Southwest	Secondary	California Oaks	California Oaks/I-15	Add \$7M TUMF share for this interchange	Reduce obligated funds to \$13M and change interchange to new type 2 (\$22.5M)	2030 baseline forecasts show volume > 40K and LOS F on California Oaks. Current nexus has old interchange type 2 (\$10M) and full obligated funds	Reduce obligated funds to \$13M and change interchange to new type 2 (\$22.5M)	\$7,000,000 (adjusted)		Move to PWC for consideration and adjust to negate soft costs. (\$7M)	Support Recommendation	Support Recommendation	Support Recommendation	B
Murietta	Southwest	Secondary	Los Alamos	I-15 bridge crossing	Add \$1M TUMF share for this bridge	Reduce obligated funds to \$6.2M and increase bridge length to 1,110'	Current nexus has bridge length of 300' and total cost of \$1.74M (including soft costs) and full obligated funds	Reduce obligated funds to \$6.2M and increase bridge length to 1,110'	\$1,000,000 (adjusted)		Move to PWC for consideration and adjust to negate soft costs.	Support Recommendation	Support Recommendation	Support Recommendation	B
Murietta	Southwest	Backbone	SR-79 Western Bypass	SR-79/Murietta Hot Springs/Date Interchange	Add new interchange with \$3M TUMF share	Add new type 3 interchange (\$11.5M) with \$900K obligated funds and eliminate 300' bridge	2030 baseline forecasts show volume > 40K and LOS E on SR-79 (Winchester) and volume 20K-30K and LOS D on Murietta Hot Springs. Current nexus has bridge with length of 300' and total cost of \$1.74M (including soft costs) eligible at this location.	Add new type 5 interchange (\$2.5M) with \$900K obligated funds and eliminate 300' bridge	\$4,593,000		Move to PWC for consideration and adjust to negate soft costs. Create arterial interchange cost component \$5M (\$2.5M or 50% of \$5M per arterial street reflected in 2005 cost assumptions.)	Current Nexus Update reflects additional 2 future lanes, e.g. from 4 to 6 future lanes factored in.	Current Nexus Update reflects additional 2 future lanes, e.g. from 4 to 6 future lanes factored in.	Current Nexus Update reflects additional 2 future lanes, e.g. from 4 to 6 future lanes factored in.	C
Murietta	Southwest	Secondary	Los Alamos	I-215 Interchange	This interchange needs to be added.	Add new type 2 interchange (\$22.5M) with \$12M obligated funds	2030 baseline forecasts show volume 10K-40K and LOS B-D on Los Alamos. Current nexus includes Los Alamos from Jefferson to I-215 but does not include interchange improvements	Add new type 2 interchange (\$22.5M) with \$12M obligated funds	\$20,625,000		Move to PWC for consideration and adjust to negate soft costs.	Support Recommendation (negate soft costs)	Support Recommendation (negate soft costs)	Support Recommendation (negate soft costs)	A
Riverside County	Southwest	Backbone	Scott	I-215 to SR-79	Should be 6 lanes and interchange is major modification and not new interchange	Change future lanes to 6 and change interchange type to new type 3 (\$11.5 M)	2030 baseline forecasts show volume <10K-20K and LOS B-D on Bundy Canyon. Current nexus shows future lanes at 4	No change in existing lanes from current nexus and change interchange to new type 3 (\$11.5 M)	\$ (4,450,000)		Move to PWC for consider for new type 3 interchange and do not change existing lanes. The committee could not support a Priority A rating with out additional modling information (Type 3 = -\$15,950,000 new fiscal impacts or Type 2 = -\$4,450,000 new fiscal i	Recommend change to new Type 2 (\$22.5M) interchange ???	Recommend change to new Type 2 (\$22.5M) interchange	Recommend change to new Type 2 (\$22.5M) interchange	A
Temecula	Southwest	Backbone	SR-79 (Western Bypass)	Margarita to Winchester	Widen from 4 to 6 lanes.	Rename facility to French Valley and change future lanes to 6	This segment is not included in 2030 baseline network. 2030 baseline forecast show volume 40K->50K and LOS E-F on Winchester	Rename facility to French Valley and change future lanes to 6	None		Move to PWC for consideration	Yes on Name Change, No on future lanes	Yes on Name Change, No on future lanes	Yes on Name Change, No on future lanes	D
Temecula	Southwest	Secondary	Old Town Front	I-15/SR-79 South interchange	Increase interchange cost to \$15 million	Change interchange designation to SR-79 (Western Bypass) segment and interchange type to new type 2 (\$22.5M)	This interchange serves Old Town Front, SR-79 Western By Pass and SR-79 South (Constance). 2030 baseline forecast show volume >50K and LOS F on SR-79 Constance	Change interchange designation to French Valley/Western Bypass and interchange type to new type 2 (\$22.5M)	\$15,950,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	B
Temecula	Southwest	Secondary	French Valley (SR-79 Western Bypass)	I-15 Interchange	Increase interchange cost to \$50 million	Change interchange to new type 1 (\$45M)	This segment is not included in 2030 baseline network. 2030 baseline forecast show volume 40K->50K and LOS E-F on Winchester	Change interchange to new type 1 (\$45M)	\$33,350,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	A
Temecula	Southwest	Secondary	SR-79 (Eastern Bypass)	I-15 Interchange	Increase interchange cost to \$40 million	Change interchange to new type 1 (\$45M)	This segment is not included in 2030 baseline network. 2030 baseline forecast show volume >50K and LOS F on SR-79 Constance	Change interchange to new type 1 (\$45M)	\$33,350,000		Move to PWC for consideration	Support Recommendation	Support Recommendation	Support Recommendation	C
									\$	134,388,000					

June 9 PWC Recommended changes															
Riverside County/ Murietta	Southwest	Secondary	Keller Road	I-215 Interchange	This interchange needs to be added.	Add new type 3 interchange (\$11.5M)	2030 baseline does not include this segment. Keller Road is not currently part of the TUMF network and primarily serves as a local collector street.	Do not add new segment to TUMF network	None			Do not support	Do not support	Do not support	
Riverside County	Southwest	Secondary	Temescal Canyon	Indian Truck Trail to Lake	Total facility cost should be maximum TUMF share	Eliminate obligated funds	Current nexus includes \$2.72 M obligated funds for this segment	Eliminate obligated funds	\$2,720,000		Move to PWC for consideration to eliminate obligated funds pending evaluation of further information. To be consistent, other zones did not remove obligated funding the PWC should consider leaving the funding in place.	Do not support	Do not support	Do not support	Pending Info

Southwest Zone Existing Needs Methodology															
Canyon Lake	Southwest	Backbone	Railroad Canyon	Canyon Hills to Goetz	Re-evaluate the maximum eligible TUMF share of \$5,036,500 for this segment.	Re-evaluate existing need of 30%.	Current nexus shows existing need from Canyon Hills to Canyon Lake (30%). Revised 2000 baseline shows no existing need	Eliminate existing need and reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration pending existing need methodology. Fiscal Impact was \$2,891,100 prior to existing needs calculations.				B
Riverside County	Southwest	Secondary	Central	Baxter to Palomar	Total facility cost should be maximum TUMF share	Re-evaluate existing need of 50%.	Current nexus shows existing need from Baxter to Indiana (50%). Revised 2000 baseline shows 100% LOS E	Reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration pending existing need methodology.				C
Riverside County	Southwest	Backbone	Newport	Goetz to Murietta	TUMF shows Newport with 0 existing lanes to reflect new alignment and 100% existing need - all lanes should be included in TUMF	Re-evaluate existing need of 100%.	Current nexus was corrected to provide for funding of outer 4 lanes to accommodate future growth. Revised 2000 baseline shows 100% existing need	Do not change segment from current nexus and reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration pending reevaluation of existing need methodology for entire program. Do not change from current Nexus				B
Riverside County	Southwest	Secondary	Baxter	I-15 to Central	TUMF shows 100% existing need - should have no LOS deficiency	Re-evaluate existing need of 100%.	Current nexus shows existing need from I-15 to Central (100%). Revised 2000 baseline shows no existing need	Eliminate existing need and reevaluate existing need methodology for entire program.	See Network Existing Needs Programmatic Figures		Move to PWC for consideration pending existing need methodology. Fiscal Impact was \$17,629,000 before existing needs evaluation.				C

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction	Priority
Southwest Zone Preliminary Fiscal Impact to Program Eliminated from Further Consideration/Duplicate Entries																
Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 9 PWC Recommendation	June 9 PWC Recommendation		
RCTC	Southwest	Proposed	I-15/215	Newport to SR-79 (South)	CETAP improvements identified along the I-215/I-15 calls for the addition of lanes along its reach from Newport Rd. To Rt 79. All interchange improvements required to accommodate additional lanes should be identified as eligible to receive TUMF funding.	Add/change various interchange improvement types to accommodate widening of I-15/215 as recommended by CETAP	Current nexus includes 2 old type 1 (\$20M) and 5 old type 2 (\$10M) interchange improvements along this corridor. By policy, TUMF revenues cannot be used specifically to accommodate freeway widening projects.	Do not add/change interchange improvement types to specifically accommodate freeway widening projects. Interchange types can be evaluated for change at individual locations to accommodate TUMF eligible arterial street and related interchange improvements.	None	Support recommendation					Do not support	
RCTC	Southwest	Backbone	SR-74	I-15 Interchange	An interchange project at SR-74/I-15 should be added to the TUMF list.	Add new type 2 interchange (\$22.5M)	Current nexus includes old type 1 interchange (\$20M) at I-15/SR-74	Retain new type 2 (\$22.5M) interchange improvement at I-15/SR-74	None						Do not support	
Riverside County	Southwest	Secondary	Murieta	Ethanac to Newport	TUMF shows existing 2 lanes with expansion to 4 - new bypass proposed with 4 lanes and a bridge needs to be shown in TUMF	Change existing lanes to 0	2030 baseline forecasts show volume <10K-40K and LOS B-F on Murieta. Murieta currently exists as minor arterial roadway between Ethanac and Newport	No change from current nexus	None	Support recommendation					Do not support	
Riverside County	Southwest	Secondary	SR-79 (Winchester)	Patton to Keller	This segment should be a backbone facility and Patton change to Domenigoni	Change limits of segment from Domenigoni to Keller	Duplicate of previous request. Current nexus shows segment as backbone with 6 future lanes from Patton to Keller	Change limits of segment from Domenigoni to Keller	Duplicate						Do not support	
Riverside County	Southwest	Backbone	Bundy Canyon	I-15 to Murieta	Should be increased to 6 lanes	Change future lanes to 6	2030 baseline forecasts show volume 10K-20K and LOS D-F on Bundy Canyon. Current nexus shows future lanes at 4	No change from current nexus	None	Support recommendation					Do not support	
Riverside County	Southwest	Backbone	Scott	Murieta to I-215	Should be 6 lanes	Change future lanes to 6	2030 baseline forecasts show volume 10K-20K and LOS D on Bundy Canyon. Current nexus shows future lanes at 4	No change from current nexus	None	Support recommendation					Do not support	
Riverside County	Southwest	Proposed	Bundy Canyon	Mission to Corydon	Add segment as 4 lanes	Add a new segment to TUMF network including 4 future lanes	2030 baseline does not include this segment. 2030 baseline forecast shows 10K-20K and LOS E on Bundy Canyon east of proposed segment and volumes <10K and LOS B-C on Corydon west of proposed segment. Bundy Canyon east of Mission is currently included on	Do not add new segment to TUMF network	None	Support recommendation					Do not support	
Riverside County	Southwest	Secondary	Murieta	Newport to Bundy Canyon	Should be 4 lanes	Change future lanes to 4	2030 baseline forecasts show volume <10K-20K and LOS B-D on Murieta. Current nexus shows future lanes at 2	No change from current nexus	None	Support recommendation					Do not support	
Temecula	Southwest	Proposed	Ynez	Murieta city limits to Murieta Hot Springs	Add to the TUMF cost assumptions	Add a new segment to TUMF network including 4 future lanes	This segment is not included in 2030 baseline network. 2030 baseline forecasts show volume >50K and LOS F on Ynez south of Winchester. Ynez is not currently on the TUMF network and currently serves as a minor arterial/collector street south of Wincheste	Do not add new segment to TUMF network	None	Support recommendation					Do not support	
DR Horton (County)	Southwest	Proposed	Leon	north of Clinton Keith	Include this segment in the TUMF Regional System	Add a new segment to TUMF network including 4 future lanes	2030 baseline forecasts show volume <10K and LOS C on Leon. Leon current serves as a collector street. Biggs immediately parallel to the west of Leon is included in the TUMF network	Do not add new segment to TUMF network	None	Support recommendation					Do not support	

EXHIBIT G-1 TUMF 2005 Update Disposition of Network Change Requests

Requesting Jurisdiction	Zone	Type	Segment Name	Limits	Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Estimated Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation	June 23 PWC Recommendation	July 14 PWC Recommendation	Jurisdiction Priority
Regional Programmatic Change															
Riverside County	Region		Programmatic Change		Add new category for 'super interchanges' that are highly complex and expensive		The TUMF Update Working Group and PWC has previously recommended the addition of a new interchange category 1 providing an estimated cost of \$45M for interchange improvements	Utilize new interchange category 1 (\$45M) for complex and expensive interchange improvements							
Riverside County	Region		Programmatic Change		Right-of-way costs need to be updated		The TUMF Update Working Group and PWC has previously recommended increasing ROW costs by approximately 70% to reflect changes in property values since the inception of TUMF	Utilize revised ROW unit cost assumptions							
Riverside County	Region		Programmatic Change		Existing need should be re-evaluated on a case-by-case basis		Existing need methodology should be reevaluated to account for incremental traffic increase and impacts resulting from new development despite pre-existing congestion and existing need	Reevaluate existing need methodology for entire program	\$187,000,000						
Riverside County	Region		Programmatic Change		Fee component should include a contribution towards MSHCP		The TUMF Update Working Group and PWC has previously recommended including a specific MSHCP TUMF cost component providing 5% of the new lane construction cost value for MSHCP	Provide 5% of new lane construction cost value for MSHCP							
Regional Programmatic Preliminary Fiscal Impact to Program Eliminated from Further Consideration/Duplicate Entries															
Requesting Jurisdiction	Zone	Segment			Requested Correction	Request Summary	Review Comments and Observations	Preliminary Recommendation	Fiscal Impacts	Initial PWC Recommendation	Zone Committee Recommendation	June 9 PWC Recommendation			
		Type	Name	Limits											
Riverside County	Region		Programmatic Change		Add new category of roadway for major transportation corridors		Specific improvements for Cajalco/Ramona, SR-79, etc. have been addressed previously in accordance with agency requests to respond to higher corridor improvement costs	Address improvement costs on a segment by segment basis utilizing previously endorsed category types		Support recommendation				Do not support	

EXHIBIT G-2

Mid-County Parkway Project EIR/EIS Draft Traffic Analysis Results

Source: Riverside County Transportation Commission



MID COUNTY PARKWAY PROJECT

rctc



Appendix H

TUMF Network Cost Estimate and Evaluation

For the purpose of calculating the “fair share” fee to be applied to new development under the TUMF program, a planning level cost estimate was developed to reflect the cost to complete improvements to the Regional System of Highways and Arterials to adequately accommodate future traffic growth. The planning level cost estimate was established by applying the unit cost values (presented in **Table 4.1**) to the proposed changes identified for the future Regional System of Highways and Arterials. The resultant cost value was tabulated for each unique segment of the network, by improvement type, based on the proposed list of improvements recommended following the review of the original TUMF Network and the 2005 Update screening process (as described in **Section 4.3, Appendix E** and **Appendix G**). A separate cost estimate was generated for regional transit improvements based on information provided by RTA and added to the summary table. The TUMF Network cost estimate table is summarized in **Table 4.4** of the Nexus Report. The detailed TUMF Network cost estimate table is included in this Appendix as **Exhibit H-1**. The detailed TUMF transit cost estimate table is included as **Table 4.5** of the Nexus Report.

Where existing obligated funding has previously been secured through traditional funding sources to complete necessary improvements to the TUMF Network, the cost of these improvements will not be recaptured from future developments through the TUMF program. As a result, the TUMF network cost was adjusted accordingly to reflect the availability of obligated funds.

Each jurisdiction in Western Riverside County was asked to review their current multi-year capital improvement programs to identify transportation projects on the TUMF system that had previously secured alternate sources of funding. **Exhibit H-2** identifies those projects included on the TUMF Network having previously obligated funding

To account for existing needs in the original TUMF Nexus Study, the cost for facilities identified as currently experiencing LOS E or F was calculated based on the network cost estimate by simply extracting the cost to improve the portion of those facilities segments identified in the 2000 Network Level of Service plot with a volume to capacity ratio of greater than 0.82, which is the threshold for LOS E. In addition, existing obligated funding was identified for segments on the TUMF network and was extracted from the cost estimate.

As part of the 2005 Update of the TUMF Nexus Study, it was determined that this simplistic approach to addressing the existing need requirements of the TUMF program did not adequately account for the incremental cumulative impact of new development on segments of the TUMF Network already experiencing traffic failure. The methodology to account for existing need as part of the TUMF

Nexus Study was subsequently refined as part of the 2005 Update to provide for the mitigation of incremental traffic growth on those segments with existing need.

The following approach was applied to account for incremental traffic growth associated with new development as part of the existing need methodology:

1. Identify those segments with an existing need by evaluating the SCAG 2004 RTP 2000 base year assigned model networks and delineating those segments included on the TUMF RSHA that have a daily volume to capacity (V/C) ratio exceeding 0.82.
2. Calculate the initial cost of addressing the existing need by estimating the share of the particular roadway segment 'new lane' cost (including all associated ROW and new lane construction soft costs but not including interchange, railroad grade separation and bridge costs and their associated soft costs). It should be noted that where the TUMF network identifies more than one new lane in each direction, only the first lane in each direction is considered to be addressing existing need and any additional new lanes would be fully eligible under TUMF for addressing exclusively future needs.
3. Determine the incremental growth in V/C by comparing the highest 2000 base year V/C for the TUMF segment (delineated under step 1) with the SCAG 2004 RTP 2030 plan baseline assigned model network V/C for the corresponding segments.
4. Determine the proportion of the incremental growth attributable to new development by dividing the result of step three with the total 2030 plan baseline V/C in excess of LOS E.
5. For those segments experiencing a net increase in V/C over the 2000 base year, 'discount' the cost of existing need improvements by the proportion of the incremental V/C growth through 2030 compared to the 2000 base year V/C (up to a maximum of 100%)

Exhibit H-2 includes a detailed breakdown of the existing highway improvement needs on the TUMF network, including the associated unfunded improvement cost estimate for each segment experiencing unacceptable LOS.

For transit service improvements, the cost to provide for existing demand was determined by multiplying the total transit component cost by the share of future transit trips representing existing demand. **Exhibit H-3** reflects the calculation of the existing transit need share and the existing transit need cost.

To validate the effectiveness of the TUMF Network improvements to mitigate the cumulative regional transportation impacts of new development in Western Riverside County, the future TUMF Network was evaluated. The proposed

improvements to the Regional System of Highways and Arterials were coded on the 2030 Baseline network derived from the SCAG 2004 RTP Model and the model was run to determine the relative impacts on traffic conditions. To quantify the impacts of the TUMF Network improvements, the various traffic measures of effectiveness described in **Section 3.1** for the 2000 and 2030 base networks were calculated for the 2030 TUMF Network scenario. The results for VMT, VHT, VHD, and total VMT experiencing unacceptable level of service (LOS E) were then compared to the results presented in **Table 3.1** for the no-build conditions. The consolidated results are provided in **Table 4.6**. Screen shots of the various network performance measures for the TUMF 2030 TUMF Network scenario are provided in **Exhibit H-4**. Plots of the Network Extents illustrating the results of the 2030 TUMF Network scenario are included in this Appendix as **Exhibit H-5**.

EXHIBIT H-1 TUMF Network Detailed Cost Estimate

AREA	PLAN	DIST	CITY	STREET/NAME	SEGMENT/FROM	SEGMENT/TO	NETWORK	MILES	EXISTING/LN	FUTURE/LN	INCREASE/LN	TOPO	LAND/USE	INTER/CHG	BRIDGE	RR/XING	NEW/LN/COST	ROW/COST	INTCHG/COST	BRDGC/COST	RRXC/COST	MSHCP	PLNG	ENG	CON/ITG	TOTAL COST	MAXIMUM TUMF SHARE	
Central	Moreno Valley	Alessandro	Perris	I-215	Alessandro	Perris	Backbone	3.217	4	6	2	1	2	4	0	0	4,118,000	5,469,000	2,330,000	0	0	0	206,000	645,000	1,612,000	1,192,000	15,572,000	15,572,000
Central	Moreno Valley	Alessandro	Perris	I-215	Alessandro	Nason	Backbone	2.008	2	6	4	1	2	0	0	0	5,140,000	6,827,000	0	0	0	0	257,000	514,000	1,285,000	1,197,000	15,220,000	15,220,000
Central	Moreno Valley	Alessandro	Nason	I-215	Alessandro	Moreno Beach	Backbone	0.991	2	4	2	1	2	0	0	0	1,268,000	1,685,000	0	0	0	0	63,000	127,000	317,000	295,000	3,755,000	3,755,000
Central	Moreno Valley	Alessandro	Moreno Beach	I-215	Alessandro	Gilman Springs	Backbone	4.155	2	4	2	1	3	0	0	0	5,318,000	4,030,000	0	0	0	0	266,000	532,000	1,330,000	935,000	12,411,000	12,411,000
Central	Moreno Valley	Alessandro	Gilman Springs	SR-60	Alessandro	Gilman Springs	Backbone	1.954	2	4	2	1	3	3	0	0	2,501,000	1,895,000	11,650,000	0	0	0	125,000	1,415,000	3,538,000	1,605,000	22,729,000	22,729,000
Central	Moreno Valley	Perris	Reche Vista	I-215	Perris	Ironwood	Backbone	2.336	2	4	2	1	2	0	0	0	2,990,000	3,971,000	0	0	0	0	150,000	299,000	748,000	696,000	8,854,000	8,854,000
Central	Moreno Valley	Perris	Ironwood	I-215	Perris	Sunny mead	Backbone	0.518	4	6	2	1	2	3	0	0	663,000	881,000	11,650,000	0	0	0	33,000	1,231,000	3,078,000	1,319,000	18,855,000	18,855,000
Central	Moreno Valley	Perris	Sunny mead	I-215	Perris	Cactus	Backbone	2.009	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Central	Moreno Valley	Perris	Oleander	I-215	Perris	Cactus	Backbone	3.470	2	4	2	1	2	0	150	0	4,442,000	5,899,000	0	705,000	0	0	246,000	515,000	1,287,000	1,105,000	14,199,000	14,178,000
Central	Moreno Valley	Reche Vista	Reche Canyon	I-215	Reche Vista	Heacock	Backbone	1.331	2	4	2	2	2	0	0	0	2,635,000	2,263,000	0	0	0	0	132,000	264,000	659,000	490,000	6,443,000	6,443,000
Central	Perris	11th/Case	Perris	I-215	Perris	Goetz	Backbone	0.159	2	4	2	1	2	0	0	0	204,000	270,000	0	0	0	0	10,000	20,000	51,000	47,000	602,000	602,000
Central	Perris	Ethanac	Goetz	I-215	Perris	Goetz	Backbone	2.244	0	4	4	1	3	0	400	0	5,745,000	4,353,000	0	3,760,000	0	0	417,000	951,000	2,376,000	1,386,000	18,988,000	18,988,000
Central	Perris	Ethanac	Goetz	I-215	Perris	Murrieta	Backbone	0.956	2	4	2	1	2	0	0	0	1,224,000	1,625,000	0	0	0	0	61,000	122,000	306,000	285,000	3,623,000	3,623,000
Central	Perris	Ethanac	Murrieta	I-215	Perris	Murrieta	Backbone	0.980	2	4	2	1	2	3	0	0	1,254,000	1,666,000	11,650,000	0	0	0	63,000	1,290,000	3,226,000	1,457,000	20,606,000	20,606,000
Central	Perris	Ethanac	Sherman	I-215	Perris	Sherman	Backbone	0.536	2	4	2	1	2	0	0	0	686,000	911,000	0	0	0	0	34,000	69,000	172,000	160,000	2,032,000	1,858,000
Central	Perris	Goetz	Case	I-215	Perris	Ethanac	Backbone	2.176	2	4	2	1	3	0	400	0	2,785,000	2,111,000	0	1,880,000	0	0	204,000	467,000	1,166,000	678,000	9,291,000	9,291,000
Central	Perris	Oleander	Ramona	I-215	Perris	Ramona	Backbone	1.042	2	4	2	1	3	0	0	0	1,334,000	1,011,000	0	0	0	0	67,000	133,000	334,000	235,000	3,114,000	1,998,000
Central	Perris	Ramona	Nuevo	I-215	Perris	Nuevo	Backbone	3.033	2	4	2	1	3	0	0	0	3,882,000	2,942,000	0	0	0	0	194,000	388,000	971,000	682,000	9,059,000	9,059,000
Central	Perris	11th	Nuevo	I-215	Perris	Rider	Backbone	1.702	2	4	2	1	2	0	300	0	2,179,000	2,893,000	0	1,410,000	0	0	158,000	359,000	897,000	648,000	8,544,000	8,544,000
Central	Perris	Mid-County	Rider	I-215	Perris	Rider	Backbone	4.625	0	2	2	1	2	1	300	0	5,920,000	7,863,000	46,500,000	1,410,000	0	0	345,000	5,383,000	13,458,000	6,169,000	87,048,000	87,048,000
Central	Perris	Ramona	Perris	I-215	Perris	Perris	Backbone	1.505	4	6	2	1	2	2	0	0	1,926,000	2,559,000	23,300,000	0	0	0	96,000	2,523,000	6,307,000	2,779,000	39,490,000	39,490,000
Central	Perris	Ramona	Evans	I-215	Perris	Evans	Backbone	1.043	4	6	2	1	2	0	300	0	1,335,000	1,773,000	0	1,410,000	0	0	115,000	275,000	686,000	452,000	6,046,000	6,046,000
Central	Perris	Ramona	Rider	I-215	Perris	Rider	Backbone	2.077	4	6	2	1	2	0	0	0	2,659,000	3,531,000	0	0	0	0	133,000	266,000	665,000	619,000	7,873,000	7,873,000
Central	Perris	SR-74 (4th)	Ellis	I-215	Perris	Ellis	Backbone	2.484	4	0	0	1	2	2	0	0	0	0	23,300,000	0	0	0	0	2,330,000	5,825,000	2,330,000	33,785,000	33,785,000
Central	Unincorporated	Harley John	I-215	Harley John	I-215	Harley John	Backbone	6.046	0	2	2	1	3	0	0	0	7,739,000	5,865,000	0	0	0	0	387,000	774,000	1,935,000	1,360,000	18,060,000	18,060,000
Central	Unincorporated	Cajalco	I-215	Harley John	I-215	Harley John	Backbone	6.046	2	6	4	1	3	0	0	0	15,478,000	11,729,000	0	0	0	0	774,000	1,548,000	3,870,000	2,721,000	36,120,000	35,882,000
Central	Unincorporated	SR-74	Keystone	Ethanac	Keystone	Ethanac	Backbone	1.070	0	4	4	1	3	0	0	0	2,739,000	2,076,000	0	0	0	0	137,000	274,000	685,000	482,000	6,393,000	6,393,000
Central	Unincorporated	Ethanac	Sherman	Matthews	Sherman	Matthews	Backbone	0.512	2	4	2	1	3	0	0	1	655,000	497,000	0	0	20,960,000	0	756,000	2,162,000	5,404,000	2,211,000	32,645,000	32,514,000
Central	Unincorporated	Alessandro	Bridge	Alessandro	Bridge	Alessandro	Backbone	4.940	2	4	2	2	3	0	0	0	9,781,000	4,792,000	0	0	0	0	489,000	978,000	2,445,000	1,457,000	19,942,000	19,657,000
Central	Unincorporated	Menifee	Ramona	SR-74 (Pinacate)	Menifee	Ramona	Backbone	6.545	2	4	2	1	3	0	0	0	8,378,000	6,349,000	0	0	0	0	419,000	838,000	2,095,000	1,473,000	19,552,000	19,552,000
Central	Unincorporated	Menifee	SR-74 (Pinacate)	Simpson	Menifee	Simpson	Backbone	2.540	2	4	2	1	3	0	0	1	3,251,000	2,464,000	0	0	20,960,000	0	885,000	2,421,000	6,053,000	2,668,000	38,702,000	38,702,000
Central	Unincorporated	Mid-County	Rider	Bridge	Mid-County	Rider	Backbone	7.516	0	2	2	1	3	0	300	0	9,620,000	7,291,000	0	1,410,000	0	0	530,000	1,103,000	2,758,000	1,832,000	24,544,000	24,544,000
Central	Unincorporated	Ramona	Pico	Bridge	Ramona	Pico	Backbone	1.008	4	6	2	1	3	0	0	0	1,290,000	978,000	0	0	0	0	65,000	129,000	323,000	227,000	3,012,000	3,012,000
Central	Unincorporated	Ramona	Pico	Bridge	Ramona	Pico	Backbone	6.508	2	6	4	1	3	0	300	0	16,660,000	12,626,000	0	2,820,000	0	0	930,000	1,948,000	4,870,000	3,211,000	43,065,000	43,065,000
Central	Unincorporated	Reche Canyon	San Bernardino County	Reche Vista	Reche Canyon	San Bernardino County	Backbone	3.426	2	4	2	3	3	0	0	0	9,182,000	3,323,000	0	0	0	0	459,000	918,000	2,296,000	1,251,000	17,429,000	17,429,000
Central	Unincorporated	SR-74	Matthews	Briggs	SR-74	Matthews	Backbone	2.000	4	6	2	1	3	0	0	0	2,560,000	1,940,000	0	0	0	0	128,000	256,000	640,000	450,000	5,974,000	5,974,000
Central	Unincorporated	SR-74	Ethanac	Ellis	SR-74	Ethanac	Backbone	2.803	4	4	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northwest	Corona	Foothill	Paseo Grande	Lincoln	Corona	Lincoln	Backbone	3.491	0	4	4	3	3	0	300	0	18,712,000	6,773,000	0	2,820,000	0	1,033,000	2,153,000	5,383,000	2,831,000	39,705,000	39,705,000	
Northwest	Corona	Foothill	Lincoln	California	Corona	Lincoln	Backbone	1.802	4	4	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northwest	Corona	Foothill	California	I-15	Corona	I-15	Backbone	0.909	2	4	2	1	2	4	0	0	1,164,000	1,545,000	2,330,000	0	0	0	58,000	349,000	874,000	504,000	6,824,000	6,824,000
Northwest	Corona	Green River	SR-91	Dominguez Ranch	Corona	Dominguez Ranch	Backbone	1.056	2	6	4	1	2	4	0	0	2,703,000	3,590,000	2,330,000	0	0	0	135,000	503,000	1,258,000	862,000	11,381,000	7,850,000
Northwest	Corona	Green River	Dominguez Ranch	Palisades	Corona	Dominguez Ranch	Backbone	0.591	4	6	2	2	2	0	0	0	1,170,000	1,005,000	0	0	0	0	59,000	117,000	293,000	218,000	2,862,000	2,862,000
Northwest	Corona	Green River	Palisades	Paseo Grande	Corona	Paseo Grande	Backbone	1.846	4	4	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northwest	Corona	Mid-County	Arantine Hills/Eagle Glen	I-15	Corona	I-15	Backbone	1.300	0	4	4	1	2	0	0	0	3,328,000	4,420,000	0	0	0	0	166,000	333,000	832,000	775,000	9,854,000	9,854,000
Northwest	Riverside	Alessandro	Troutwein	Arlington	Riverside	Arlington	Backbone	2.349	4	6	2	2	2	0	0	0	4,651,000	3,993,000	0	0	0	0	233,000	465,000	1,163,000	864,000	11,369,000	5,622,000
Northwest	Riverside	Arlington	North	Magnolia	Riverside	Arlington	Backbone	5.859	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northwest	Riverside	Arlington	Magnolia	Alessandro	Riverside	Arlington	Backbone	2.788	4	6	2	2	2	3	0	0	5,520,000	4,740,000	11,650,000	0	0	0	276,000	1,717,000	4,293,000	2,191,000	30,387,000	27,093,000
Northwest	Riverside	Van Buren	Santa Ana River	SR-91	Riverside	Van Buren	Backbone	3.807	4	6	2	1	2	3	1,000	0	4,873,000	6,472,000	11,650,000	4,700,000	0	0	406,000	2,122,000	5,306,000	2,770,000	38,299,000	29,663,000
Northwest	Riverside	Van Buren	Mockingbird Canyon	SR-91	Riverside	Van Buren	Backbone	3.479	4	6	2	1	2	0														

EXHIBIT H-1 TUMF Network Detailed Cost Estimate

AREA	PLAN	DIST	CITY	STREETNAME	SEGMENTFROM	SEGMENTTO	NETWORK	MILES	EXISTINGLN	FUTURELN	INCREASELN	TOPO	LANDUSE	INTERCHG	BRIDGE	RRXING	NEWNLNCOST	ROWCOST	INTCHGCOST	BRDGCOST	RRXCOST	MSHCP	PLNG	ENG	CONTIG	TOTAL COST	MAXIMUM TUMF SHARE	
Southwest			Unincorporated	Clinton Keith	Palomar	I-15	Backbone	0.668	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Southwest			Unincorporated	Clinton Keith	Meadowlark	SR-79	Backbone	2.508	0	6	6	1	3	0	1,200	0	9,631,000	7,298,000	0	16,920,000	0	0	1,065,000	2,655,000	6,638,000	3,385,000	47,592,000	47,592,000
Southwest			Unincorporated	Menifee	Simpson	Aldergate	Backbone	1.016	0	4	4	1	3	0	0	0	2,601,000	1,971,000	0	0	0	0	130,000	260,000	650,000	457,000	6,069,000	6,069,000
Southwest			Unincorporated	Menifee	Aldergate	Newport	Backbone	0.933	4	4	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Southwest			Unincorporated	Menifee	Newport	Holland	Backbone	0.681	2	4	2	1	3	0	0	0	872,000	661,000	0	0	0	0	44,000	87,000	218,000	153,000	2,035,000	2,035,000
Southwest			Unincorporated	Newport	Goetz	Murrieta	Backbone	1.811	0	6	6	1	3	0	0	0	6,954,000	5,270,000	0	0	0	0	348,000	695,000	1,739,000	1,222,000	16,228,000	13,910,000
Southwest			Unincorporated	Newport	Murrieta	I-215	Backbone	2.026	4	6	2	1	3	3	0	0	2,593,000	1,965,000	11,650,000	0	0	0	130,000	1,424,000	3,561,000	1,621,000	22,944,000	22,944,000
Southwest			Unincorporated	Newport	I-215	Menifee	Backbone	1.033	4	6	2	1	3	0	0	0	1,322,000	1,002,000	0	0	0	0	66,000	132,000	331,000	232,000	3,085,000	3,085,000
Southwest			Unincorporated	Newport	Menifee	Lindenberger	Backbone	1.838	2	6	4	1	3	0	0	0	4,705,000	3,566,000	0	0	0	0	235,000	471,000	1,176,000	827,000	10,980,000	10,980,000
Southwest			Unincorporated	Newport	Lindenberger	SR-79 (Winchester)	Backbone	2.489	0	6	6	1	3	0	0	0	9,558,000	7,243,000	0	0	0	0	478,000	956,000	2,390,000	1,680,000	22,305,000	22,305,000
Southwest			Unincorporated	Scott	I-215	SR-79 (Winchester)	Backbone	5.036	2	4	2	1	3	2	0	0	6,446,000	4,885,000	23,300,000	0	0	0	322,000	2,975,000	7,437,000	3,463,000	48,828,000	48,828,000
Southwest			Unincorporated	Scott	Murrieta	I-215	Backbone	2.040	2	4	2	1	3	0	0	0	2,611,000	1,979,000	0	0	0	0	131,000	261,000	653,000	459,000	6,094,000	6,094,000
Southwest			Unincorporated	SR-74	I-15	Ethanac	Backbone	5.063	4	6	2	2	3	2	0	0	10,025,000	4,911,000	23,300,000	0	0	0	501,000	3,333,000	8,331,000	3,824,000	54,225,000	44,005,000
Southwest			Unincorporated	SR-79 (Eastern Bypass/Washington)	SR-79 (Winchester)	Borel	Backbone	4.566	2	4	2	1	3	0	100	0	5,844,000	4,429,000	0	470,000	0	0	308,000	631,000	1,579,000	1,074,000	14,335,000	14,335,000
Southwest			Unincorporated	SR-79 (Eastern Bypass)	Borel	Vino	Backbone	2.834	0	4	4	2	3	0	100	0	11,223,000	5,498,000	0	940,000	0	0	594,000	1,216,000	3,041,000	1,766,000	24,278,000	24,278,000
Southwest			Unincorporated	SR-79 (Eastern Bypass/Anza)	Vino	SR-79 (Constance)	Backbone	3.958	2	4	2	2	3	0	0	0	7,837,000	3,839,000	0	0	0	0	392,000	784,000	1,959,000	1,168,000	15,979,000	15,979,000
Southwest			Unincorporated	SR-79 (Eastern Bypass/Anza)	Santa Rita	SR-79 (Constance)	Backbone	1.042	0	4	4	2	3	0	100	0	4,126,000	2,021,000	0	940,000	0	0	239,000	507,000	1,267,000	709,000	9,809,000	9,809,000
Southwest			Unincorporated	SR-79 (Eastern Bypass/Anza)	Santa Rita	Fairview	Backbone	1.756	2	4	2	2	3	0	0	0	3,477,000	1,703,000	0	0	0	0	174,000	348,000	869,000	518,000	7,089,000	7,089,000
Southwest			Unincorporated	SR-79 (Eastern Bypass)	Fairview	Pala	Backbone	1.484	0	4	4	2	3	0	0	0	5,877,000	2,879,000	0	0	0	0	294,000	588,000	1,469,000	876,000	11,983,000	11,983,000
Southwest			Unincorporated	SR-79 (Eastern Bypass)	Pala	I-15	Backbone	2.340	0	6	4	3	3	1	200	0	12,542,000	4,540,000	46,500,000	1,880,000	0	0	692,000	6,092,000	15,231,000	6,546,000	94,023,000	94,023,000
Southwest			Unincorporated	SR-79 (Winchester)	Keller	Thompson	Backbone	2.500	2	4	4	1	2	0	0	0	6,400,000	8,500,000	0	0	0	0	320,000	640,000	1,600,000	1,490,000	18,950,000	16,049,000
Southwest			Unincorporated	SR-79 (Winchester)	Thompson	La Alba	Backbone	1.794	2	6	4	1	2	0	0	0	4,593,000	6,100,000	0	0	0	0	230,000	459,000	1,148,000	1,069,000	13,599,000	11,673,000
Southwest			Unincorporated	SR-79 (Winchester)	Hunter	La Alba	Backbone	0.489	4	6	2	1	2	0	0	0	626,000	831,000	0	0	0	0	31,000	63,000	157,000	146,000	1,854,000	1,854,000
Southwest			Unincorporated	SR-79 (Winchester)	Hunter	Murrieta Hot Springs	Backbone	1.301	6	6	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal								Backbone	316.361						32	12,260	3	571,422,000	470,698,000	687,090,000	90,005,000	62,880,000	33,850,000	141,145,000	352,870,000	188,217,000	2,598,177,000	2,509,129,000
Central			Moreno Valley	Cactus	I-215	Heacock	Secondary	2.140	4	4	0	1	2	2	0	0	0	0	23,300,000	0	0	0	0	2,330,000	5,825,000	2,330,000	33,785,000	33,785,000
Central			Moreno Valley	Eucalyptus	I-215	Towngate	Secondary	1.015	4	6	2	1	2	0	0	0	1,299,000	1,726,000	0	0	0	0	65,000	130,000	325,000	303,000	3,848,000	3,848,000
Central			Moreno Valley	Eucalyptus	Towngate	Frederick	Secondary	0.682	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Central			Moreno Valley	Frederick	SR-60	Alessandro	Secondary	1.527	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Central			Moreno Valley	Heacock	Cactus	San Michele	Secondary	2.707	2	4	2	1	2	0	50	0	3,465,000	4,602,000	0	235,000	0	0	181,000	370,000	925,000	830,000	10,608,000	10,608,000
Central			Moreno Valley	Heacock	Reche Vista	Cactus	Secondary	5.100	4	4	0	1	2	4	0	0	0	0	2,330,000	0	0	0	0	233,000	583,000	233,000	3,379,000	3,379,000
Central			Moreno Valley	Indian	San Michele	Oleander	Secondary	0.778	2	4	2	1	3	0	50	0	996,000	755,000	0	235,000	0	0	58,000	123,000	308,000	199,000	2,674,000	2,674,000
Central			Moreno Valley	Ironwood	SR-60	Redlands	Secondary	8.252	2	4	2	1	2	3	0	0	10,563,000	14,028,000	11,650,000	0	0	0	528,000	2,221,000	5,553,000	3,624,000	48,167,000	48,167,000
Central			Moreno Valley	Lasselle	Eucalyptus	Alessandro	Secondary	0.996	2	4	2	1	2	0	0	0	1,275,000	1,693,000	0	0	0	0	64,000	128,000	319,000	297,000	3,776,000	3,776,000
Central			Moreno Valley	Lasselle	Alessandro	John F Kennedy	Secondary	0.994	2	4	2	1	2	0	0	0	1,272,000	1,690,000	0	0	0	0	64,000	127,000	318,000	296,000	3,767,000	3,767,000
Central			Moreno Valley	Lasselle	John F Kennedy	Oleander	Secondary	2.957	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Central			Moreno Valley	Moreno Beach	SR-60	Reche Canyon	Secondary	1.246	2	4	2	1	2	2	0	0	1,595,000	2,118,000	23,300,000	0	0	0	80,000	2,490,000	6,224,000	2,701,000	38,508,000	38,508,000
Central			Moreno Valley	Nason	Ironwood	Alessandro	Secondary	1.962	2	4	2	1	2	2	0	0	2,511,000	3,335,000	23,300,000	0	0	0	126,000	2,581,000	6,453,000	2,915,000	41,221,000	41,221,000
Central			Moreno Valley	Pigeon Pass/CETAP Corridor	Cantarin	Ironwood	Secondary	3.309	2	4	2	1	2	0	0	0	4,236,000	5,625,000	0	0	0	0	212,000	424,000	1,059,000	986,000	12,542,000	12,542,000
Central			Moreno Valley	Pigeon Pass	SR-60	Ironwood	Secondary	0.450	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Central			Moreno Valley	Reche Canyon	Reche Vista	Moreno Beach	Secondary	3.884	0	2	2	2	3	0	0	0	7,690,000	3,767,000	0	0	0	0	385,000	769,000	1,923,000	1,146,000	15,680,000	15,680,000
Central			Moreno Valley	Redlands	Locust	Alessandro	Secondary	1.960	2	4	2	1	2	2	0	0	2,509,000	3,332,000	23,300,000	0	0	0	125,000	2,581,000	6,452,000	2,914,000	41,213,000	40,278,000
Central			Moreno Valley	San Michele	Heacock	Indian	Secondary	0.529	2	4	2	1	3	0	0	0	677,000	513,000	0	0	0	0	34,000	68,000	169,000	119,000	1,580,000	1,580,000
Central			Moreno Valley	Sunnymead	Frederick	Perris	Secondary	2.027	4	4	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Central			Perris	Ellis	I-215	SR-74 (4th)	Secondary	2.930	0	2	2	1	2	2	0	1	3,750,000	4,981,000	23,300,000	0	10,480,000	0	549,000	3,753,000	9,383,000	4,251,000	60,447,000	60,447,000
Central			Perris	Evans	Placentia	Nuevo	Secondary	1.522	0	4	4	1	3	0	0	0	3,896,000	2,953,000	0	0	0	0	195,000	390,000	974,000	685,000	9,093,000	9,093,000
Central			Perris	Evans	Morgan	Ramona	Secondary	0.662	6	6	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Central			Perris	Evans	Nuevo	I-215	Secondary	1.994	0	4	4	1	3	0	400	0	5,105,000	3,868,000	0	3,760,000	0	0	385,000	887,000	2,216,000	1,273,000	17,494,000	17,494,000
Central			Perris	Evans	Oleander	Ramona	Secondary	1.007	2	4	2	1	3	0	0	0	1,289,000	977,000	0	0	0	0	64,000	129,000	322,000	209,000	3,008,000	3,008,000
Central			Perris	Evans	Placentia	Rider	Secondary	0.499	2	4	2	1	3	0	0	0	639,000	484,000	0	0	0	0	32,000	64,000	160,000	112,000	1,491,000	1,491,000
Central			Perris	Evans	Morgan	Rider	Secondary	0.497	6	6	0	1	3	0	0	0												

EXHIBIT H-1 TUMF Network Detailed Cost Estimate

AREA	PLAN	DIST	CITY	STREETNAME	SEGMENTFROM	SEGMENTTO	NETWORK	MILES	EXISTINGLN	FUTURELN	INCREASELN	TOPO	LANDUSE	INTERCHG	BRIDGE	RRXING	NEWNLNCOST	ROWCOST	INTCHGCOST	BRDGCOST	RRXCOST	MSHCP	PLNG	ENG	CONITG	TOTAL COST	MAXIMUM TUMF SHARE	
Northwest	Riverside	14th	Riverside	14th	Market	Martin Luther King	Secondary	0.886	4	4	0	1	2	3	0	0	0	0	0	11,650,000	0	0	0	1,165,000	2,913,000	1,165,000	16,893,000	16,893,000
Northwest	Riverside	1st	Riverside	1st	Market	Main	Secondary	0.069	4	4	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	3rd	Riverside	3rd	Chicago	I-215	Secondary	0.354	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Adams	Riverside	Adams	SR-91	Arlington	Secondary	1.547	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Adams	Riverside	Adams	SR-91	Lincoln	Secondary	0.566	4	4	0	1	2	4	0	2	0	0	2,330,000	0	10,480,000	361,000	1,281,000	3,203,000	1,281,000	18,936,000	18,936,000	
Northwest	Riverside	Buena Vista	Riverside	Buena Vista	Santa Ana River	Redwood	Secondary	0.552	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Canyon Crest	Riverside	Canyon Crest	Canyon Club	Country Club	Secondary	0.609	4	4	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Canyon Crest	Riverside	Canyon Crest	Country Club	Via Vista	Secondary	0.999	2	4	2	2	3	0	0	0	1,978,000	969,000	0	0	0	99,000	198,000	495,000	295,000	4,034,000	4,034,000	
Northwest	Riverside	Canyon Crest	Riverside	Canyon Crest	Via Vista	Alessandro	Secondary	0.682	4	4	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Canyon Crest	Riverside	Canyon Crest	Martin Luther King	Central	Secondary	0.898	4	4	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Central	Riverside	Central	Chicago	I-215/SR-60	Secondary	2.293	4	4	0	1	2	4	0	0	0	0	2,330,000	0	0	0	233,000	583,000	233,000	3,379,000	3,379,000	
Northwest	Riverside	Central	Riverside	Central	SR-91	Magnolia	Secondary	0.720	4	6	2	1	2	4	0	0	922,000	1,224,000	2,330,000	0	0	46,000	325,000	813,000	448,000	6,108,000	5,459,000	
Northwest	Riverside	Central	Riverside	Central	Alessandro	SR-91	Secondary	2.082	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Central	Riverside	Central	Van Buren	Magnolia	Secondary	3.416	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Chicago	Riverside	Chicago	Alessandro	Spruce	Secondary	3.289	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Chicago	Riverside	Chicago	Columbia	Spruce	Secondary	0.834	4	4	0	1	2	0	0	1	0	0	0	0	20,960,000	723,000	2,096,000	5,240,000	2,096,000	31,115,000	31,115,000	
Northwest	Riverside	Columbia	Riverside	Columbia	Main	Iowa	Secondary	1.070	4	4	0	1	2	3	0	2	0	0	11,650,000	0	10,480,000	361,000	2,213,000	5,533,000	2,213,000	32,450,000	32,450,000	
Northwest	Riverside	Iowa	Riverside	Iowa	Center	3rd	Secondary	2.258	4	6	2	1	2	0	0	2	2,890,000	3,839,000	0	0	15,720,000	687,000	1,861,000	4,653,000	2,245,000	31,895,000	31,895,000	
Northwest	Riverside	Iowa	Riverside	Iowa	University	3rd	Secondary	0.520	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	JFK	Riverside	JFK	Trautwein	Wood	Secondary	0.288	4	4	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	La Sierra	Riverside	La Sierra	SR-91	Arlington	Secondary	3.617	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	La Sierra	Riverside	La Sierra	SR-91	Victoria	Secondary	0.975	2	4	2	1	2	3	0	0	1,248,000	1,658,000	11,650,000	0	0	62,000	1,290,000	3,225,000	1,456,000	20,589,000	18,089,000	
Northwest	Riverside	Lemon (NB One way)	Riverside	Lemon (NB One way)	Lemon Inn	University	Secondary	0.085	3	3	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Lincoln	Riverside	Lincoln	Adams	Washington	Secondary	1.543	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Lincoln	Riverside	Lincoln	Van Buren	Adams	Secondary	1.546	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Lincoln	Riverside	Lincoln	Washington	Arlington	Secondary	1.679	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Madison	Riverside	Madison	SR-91	Victoria	Secondary	0.811	4	4	0	1	2	4	0	2	0	2,330,000	0	10,480,000	361,000	1,281,000	3,203,000	1,281,000	18,936,000	18,936,000		
Northwest	Riverside	Magnolia	Riverside	Magnolia	BNSF RR	La Sierra	Secondary	1.791	4	4	0	1	2	4	0	2	0	2,330,000	0	10,480,000	361,000	1,281,000	3,203,000	1,281,000	18,936,000	18,936,000		
Northwest	Riverside	Magnolia	Riverside	Magnolia	Magnolia	Harrison	Secondary	1.649	6	6	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Magnolia	Riverside	Magnolia	Harrison	14th	Secondary	6.020	4	4	0	1	2	0	0	2	0	0	0	10,480,000	361,000	1,048,000	2,620,000	1,048,000	15,557,000	15,557,000		
Northwest	Riverside	Main	Riverside	Main	San Bernardino County	1st	Secondary	2.111	4	4	0	1	2	4	0	0	0	2,330,000	0	0	0	233,000	583,000	233,000	3,379,000	3,379,000	3,379,000	
Northwest	Riverside	Market	Riverside	Market	14th	Santa Ana River	Secondary	2.576	4	4	0	1	2	4	0	0	0	0	2,330,000	0	0	0	233,000	583,000	233,000	3,379,000	3,379,000	
Northwest	Riverside	14th	Riverside	14th	Martin Luther King	I-215/SR-60	Secondary	2.231	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Mission Inn	Riverside	Mission Inn	Redwood	Lemon	Secondary	0.802	4	4	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Overlook	Riverside	Overlook	Alessandro	Sandtrack	Secondary	0.574	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Overlook	Riverside	Overlook	Washington	Chateau Ridge	Secondary	0.856	4	4	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Overlook	Riverside	Overlook	Chateau Ridge	Sandtrack	Secondary	1.280	0	4	4	2	2	0	500	0	5,069,000	4,352,000	0	4,700,000	0	416,000	977,000	2,442,000	1,412,000	19,368,000	17,868,000	
Northwest	Riverside	Redwood (SB One way)	Riverside	Redwood (SB One way)	Mission Inn	University	Secondary	0.078	3	3	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Trautwein	Riverside	Trautwein	Alessandro	Van Buren	Secondary	2.105	4	4	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Tyler	Riverside	Tyler	SR-91	Magnolia	Secondary	0.456	6	6	0	1	2	2	0	0	0	0	23,300,000	0	0	0	2,330,000	5,825,000	2,330,000	33,785,000	33,785,000	
Northwest	Riverside	Tyler	Riverside	Tyler	Magnolia	Wells	Secondary	1.197	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Tyler	Riverside	Tyler	Wells	Arlington	Secondary	1.491	2	4	2	1	2	0	0	0	1,908,000	2,535,000	0	0	0	95,000	191,000	477,000	444,000	5,650,000	4,868,000	
Northwest	Riverside	University	Riverside	University	Redwood	SR-91	Secondary	0.943	4	4	0	1	3	4	0	0	0	2,330,000	0	0	0	0	233,000	583,000	233,000	3,379,000	3,379,000	
Northwest	Riverside	University	Riverside	University	SR-91	I-215/SR-60	Secondary	1.985	4	4	0	1	2	4	0	0	0	0	2,330,000	0	0	0	233,000	583,000	233,000	3,379,000	3,379,000	
Northwest	Riverside	Victoria	Riverside	Victoria	Madison	Washington	Secondary	0.515	2	2	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Riverside	Washington	Riverside	Washington	Victoria	Hermosa	Secondary	2.040	2	4	2	1	2	0	0	0	2,611,000	3,468,000	0	0	0	131,000	261,000	653,000	608,000	7,732,000	7,732,000	
Northwest	Riverside	Wood	Riverside	Wood	JFK	Krameria	Secondary	1.488	2	4	2	1	3	0	0	0	1,905,000	1,443,000	0	0	0	95,000	191,000	476,000	335,000	4,445,000	4,445,000	
Northwest	Unincorporated	Archibald	Unincorporated	Archibald	San Bernardino County	River	Secondary	3.599	2	4	2	1	3	0	1,800	0	4,607,000	3,491,000	0	8,460,000	0	522,000	1,307,000	3,267,000	1,656,000	23,310,000	23,310,000	
Northwest	Unincorporated	Armstrong	Unincorporated	Armstrong	San Bernardino County	Valley	Secondary	1.519	2	4	2	2	3	0	0	0	3,008,000	1,473,000	0	0	0	1500,000	301,000	752,000	448,000	6,132,000	5,268,000	
Northwest	Unincorporated	Belgrave	Unincorporated	Belgrave	Cantu-Galleano Ranch	Van Buren	Secondary	0.375	2	4	2	1	3	5	0	0	480,000	364,000	2,500,000	0	0	24,000	298,000	745,000	334,000	4,745,000	4,745,000	
Northwest	Unincorporated	Cantu-Galleano Ranch	Unincorporated	Cantu-Galleano Ranch	Hammer	Bellegrave	Secondary	2.874	0	4	4	1	3	2	50	0	7,357,000	5,576,000	23,300,000	470,000	0	384,000	3,113,000	7,782,000	3,670,000	51,652,000	31,801,000	
Northwest	Unincorporated	Cloverdale	Unincorporated	Cloverdale	Archibald	Hamner	Secondary	1.988	2	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Unincorporated	El Cerrito	Unincorporated	El Cerrito	I-15	Ontario	Secondary	0.590	2	4	2	1	3	0	0	0	755,000	572,000	0	0	0	38,000	76,000	189,000	133,000	1,763,000	1,763,000	
Northwest	Unincorporated	Etiwanda	Unincorporated	Etiwanda	San Bernardino County	SR-60	Secondary	1.024	6	6	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Unincorporated	Etiwanda	Unincorporated	Etiwanda	SR-60	Limonite	Secondary	3.041	4	4	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Unincorporated	Gavilan	Unincorporated	Gavilan	Cajalco	Santa Rosa Mine	Secondary	3.208	2	2	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Northwest	Unincorporated	Hamner	Unincorporated	Hamner	Bellgrave	Santa Ana River	Secondary	2.731	2	6	4	1	3	0	1,000	0	6,991,000	5,298,000	0	9,400,000	0	674,000	1,639,000	4,098,000	2,169,000	30,269,000	30,269,000	

EXHIBIT H-1 TUMF Network Detailed Cost Estimate

AREA PLAN DIST	CITY	STREETNAME	SEGMENTFROM	SEGMENTO	NETWORK	MILES	EXISTINGLN	FUTURELN	INCREASEASN	TOPO	LANDUSE	INTERCHG	BRIDGE	RRXNG	NEWLNLCOST	ROWCOST	INTCHGCOST	BRDGGCOST	RRXCOST	MSHCP	PLNG	ENG	CONTIG	TOTAL COST	MAXIMUM TUMF SHARE	
Pass	Calimesa	Desert Lawn	Cherry Valley	Champions	Secondary	1.634	2	4	2	1	3	0	0	0	2,092,000	1,585,000	0	0	0	0	105,000	209,000	523,000	368,000	4,882,000	4,882,000
Pass	Calimesa	Singleton	Bryant	Condit	Secondary	1.862	0	4	4	2	3	0	0	0	7,374,000	3,612,000	0	0	0	0	369,000	737,000	1,844,000	1,099,000	15,035,000	15,035,000
Pass	Calimesa	Singleton	Condit	Roberts	Secondary	0.343	2	4	2	1	2	2	0	0	439,000	583,000	23,300,000	0	0	0	22,000	2,374,000	5,935,000	2,432,000	35,085,000	35,085,000
Pass	Unincorporated	Cherry Valley	Noble	Highland Springs	Secondary	1.761	0	4	4	1	3	0	0	0	4,508,000	3,416,000	0	0	0	0	225,000	451,000	1,127,000	792,000	10,519,000	10,519,000
Pass	Unincorporated	Cherry Valley	Desert Lawn	Noble	Secondary	2.983	2	4	2	1	3	2	100	0	3,818,000	2,894,000	23,300,000	470,000	0	0	207,000	2,759,000	6,897,000	3,048,000	43,393,000	43,393,000
Pass	Unincorporated	Live Oak Canyon	San Timoteo Canyon	San Bernardino County	Secondary	2.806	2	2	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass	Unincorporated	San Timoteo Canyon	San Bernardino County	J Street (Central Overland)	Secondary	8.778	2	2	0	2	3	0	0	1	0	0	0	0	10,480,000	361,000	1,048,000	2,620,000	1,048,000	15,557,000	15,557,000	
San Jacinto	Hemet	Sanderson	Acacia	Menlo	Secondary	0.999	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
San Jacinto	Hemet	Sanderson	Domenigoni	Stetson	Secondary	0.828	2	4	2	1	2	0	300	0	1,060,000	1,408,000	0	1,410,000	0	0	102,000	247,000	618,000	388,000	5,233,000	5,233,000
San Jacinto	Hemet	Sanderson	RR Crossing	Acacia	Secondary	0.583	2	4	2	1	2	0	0	0	746,000	991,000	0	0	0	0	37,000	75,000	187,000	174,000	2,210,000	2,210,000
San Jacinto	Hemet	Sanderson	Stetson	RR Crossing	Secondary	0.416	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	Hemet	SR-74	Warren	Cawston	Secondary	1.007	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	Hemet	SR-74 (Florida)	Columbia	Ramona	Secondary	2.602	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	Hemet	SR-74/SR-79 (Florida)	Cawston	Columbia	Secondary	4.087	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	Hemet	State	Domenigoni	Stetson	Secondary	1.800	2	4	2	1	2	0	0	0	2,304,000	3,060,000	0	0	0	0	115,000	230,000	576,000	536,000	6,821,000	6,821,000
San Jacinto	Hemet	State	Florida	Esplanade	Secondary	1.720	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	Hemet	State	Stetson	Florida	Secondary	1.248	2	4	2	1	1	0	0	0	1,597,000	4,543,000	0	0	0	0	80,000	160,000	399,000	614,000	7,393,000	7,393,000
San Jacinto	Hemet	Stetson	Cawston	State	Secondary	2.856	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	Hemet	Stetson	Warren	Cawston	Secondary	0.731	0	4	4	1	3	0	0	0	1,871,000	1,418,000	0	0	0	0	94,000	187,000	468,000	329,000	4,367,000	4,367,000
San Jacinto	Hemet	Warren	Esplanade	Domenigoni	Secondary	4.918	2	4	2	1	3	0	300	0	6,295,000	4,770,000	0	1,410,000	0	0	363,000	771,000	1,926,000	1,248,000	16,783,000	16,783,000
San Jacinto	San Jacinto	Esplanade	State	Ramona	Secondary	0.761	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	San Jacinto	Esplanade	Warren	State	Secondary	3.533	2	4	2	1	3	0	0	0	4,522,000	3,427,000	0	0	0	0	226,000	452,000	1,131,000	795,000	10,553,000	10,553,000
San Jacinto	San Jacinto	Sanderson	Menlo	Esplanade	Secondary	0.999	2	4	2	1	2	0	0	0	1,279,000	1,698,000	0	0	0	0	64,000	128,000	320,000	298,000	3,787,000	3,787,000
San Jacinto	San Jacinto	Sanderson	Ramona	Esplanade	Secondary	3.565	2	4	2	1	3	0	0	0	4,563,000	3,458,000	0	0	0	0	228,000	456,000	1,141,000	802,000	10,648,000	9,383,000
San Jacinto	San Jacinto	SR-79 (North Ramona)	State	San Jacinto	Secondary	1.039	2	2	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	San Jacinto	SR-79 (San Jacinto)	7th	SR-74	Secondary	2.250	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	San Jacinto	SR-79 (San Jacinto)	North Ramona	7th	Secondary	0.246	2	4	2	1	2	0	0	0	315,000	418,000	0	0	0	0	16,000	32,000	79,000	73,000	933,000	933,000
San Jacinto	San Jacinto	SR-79 (State)	Gilman Springs	Quandt Ranch	Secondary	0.746	2	4	2	1	3	0	500	0	955,000	724,000	0	2,350,000	0	0	129,000	331,000	826,000	403,000	5,718,000	5,718,000
San Jacinto	San Jacinto	SR-79 (State)	Quandt Ranch	Ramona	Secondary	0.708	4	4	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	San Jacinto	State	Ramona	Esplanade	Secondary	2.019	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jacinto	San Jacinto	Warren	Ramona	Esplanade	Secondary	4.404	2	4	2	1	3	0	0	0	5,637,000	4,272,000	0	0	0	0	282,000	564,000	1,409,000	991,000	13,155,000	13,155,000
San Jacinto	Unincorporated	McCall	Meniffee	SR 79 (Winchester)	Secondary	4.447	0	2	2	1	3	0	0	1	5,692,000	4,314,000	0	0	10,480,000	646,000	1,617,000	4,043,000	2,049,000	28,841,000	28,841,000	
San Jacinto	Unincorporated	McCall	SR-79 (Winchester)	Warren	Secondary	2.575	0	2	2	1	3	0	0	1	3,296,000	2,498,000	0	0	10,480,000	526,000	1,378,000	3,444,000	2,049,000	23,249,000	23,249,000	
San Jacinto	Unincorporated	SR-79 (Gilman Springs)	Sanderson	State	Secondary	2.514	2	4	2	1	3	0	100	0	3,218,000	2,439,000	0	470,000	0	0	177,000	369,000	922,000	613,000	8,208,000	7,867,000
San Jacinto	Unincorporated	SR-79 (Winchester)	SR-74 (Florida)	Domenigoni	Secondary	3.258	2	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Southwest	Lake Elsinore	Diamond	Mission	I-15	Secondary	0.192	4	6	2	1	3	0	0	0	246,000	186,000	0	0	0	0	12,000	25,000	62,000	43,000	574,000	574,000
Southwest	Lake Elsinore	Grand	Lincoln	Toft	Secondary	1.813	4	4	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Southwest	Lake Elsinore	Grand	Toft	SR-74 (Riverside)	Secondary	0.890	2	4	2	1	3	0	0	0	1,139,000	863,000	0	0	0	0	57,000	114,000	285,000	200,000	2,658,000	2,658,000
Southwest	Lake Elsinore	Lake	I-15	Lincoln	Secondary	2.514	2	6	4	2	3	3	0	0	9,955,000	4,877,000	11,650,000	0	0	0	498,000	2,161,000	5,401,000	2,648,000	37,190,000	35,067,000
Southwest	Lake Elsinore	Mission	Railroad Canyon	Bundy Canyon	Secondary	2.425	4	6	2	1	3	0	0	0	3,104,000	2,352,000	0	0	0	0	155,000	310,000	776,000	546,000	7,243,000	7,243,000
Southwest	Lake Elsinore	SR-74 (Collier/Riverside)	I-15	Lakeshore	Secondary	2.135	2	6	4	1	2	0	0	0	5,466,000	7,259,000	0	0	0	0	273,000	547,000	1,367,000	1,273,000	16,185,000	15,911,000
Southwest	Lake Elsinore	SR-74 (Grand)	Riverside	SR-74 (Ortega)	Secondary	0.676	2	6	4	1	2	0	0	0	1,731,000	2,298,000	0	0	0	0	87,000	173,000	433,000	403,000	5,125,000	5,125,000
Southwest	Lake Elsinore	SR-74 (Riverside)	Lakeshore	Grand	Secondary	1.781	2	6	4	1	2	0	0	0	4,559,000	6,055,000	0	0	0	0	228,000	456,000	1,140,000	1,061,000	13,499,000	13,499,000
Southwest	Murrieta	California Oaks	Jefferson	I-15	Secondary	0.340	4	6	2	1	2	2	0	0	435,000	578,000	23,300,000	0	0	0	22,000	2,374,000	5,934,000	2,431,000	35,074,000	22,074,000
Southwest	Murrieta	California Oaks	I-15	Clinton Keith	Secondary	2.411	4	4	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Southwest	Murrieta	Hunter	Los Alamos	Via Mira Mosa	Secondary	0.867	0	2	2	2	3	0	200	0	1,717,000	841,000	0	940,000	0	0	118,000	266,000	664,000	350,000	4,896,000	4,896,000
Southwest	Murrieta	Hunter	Via Mira Mosa	SR-79 (Winchester)	Secondary	1.477	2	2	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Southwest	Murrieta	Jefferson	Murrieta Hot Springs	Cherry	Secondary	2.362	6	6	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Southwest	Murrieta	Jefferson	Palomar	Nutmeg	Secondary	0.874	0	4	4	1	3	0	0	0	2,237,000	1,696,000	0	0	0	0	112,000	224,000	559,000	393,000	5,221,000	1,594,000
Southwest	Murrieta	Jefferson	Nutmeg	Murrieta Hot Springs	Secondary	2.521	2	4	2	1	2	0	0	0	3,227,000	4,286,000	0	0	0	0	161,000	323,000	807,000	751,000	9,555,000	3,417,000
Southwest	Murrieta	Los Alamos	Jefferson	I-15	Secondary	0.409	2	4	2	1	2	0	1,110	0	524,000	695,000	0	5,217,000	0	0	206,000	574,000	1,435,000	644,000	9,295,000	3,095,000
Southwest	Murrieta	Los Alamos	I-15	I-215	Secondary	1.399	2	4	2	1	2	2	0	0	1,791,000	2,378,000	23,300,000	0	0	0	90,000	2,509,000	6,273,000	2,747,000	39,088,000	27,088,000
Southwest	Murrieta	Murrieta Hot Springs	I-215	Margarita	Secondary	1.456	4	6	2	1	2	0	0	0	1,864,000	2,475,000	0	0	0	0	93,000	186,000	466,000	434,000	5,518,000	1,972,000
Southwest	Murrieta	Murrieta Hot Springs	Jefferson	I-215	Secondary	1.126	6	6	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Southwest	Murrieta	Murrieta Hot Springs	Margarita	SR-79 (Winchester)	Secondary	1.038	4	6	2	1	3	5	0	0	1,329,000	1,007,000	2,500,000	0	0	0	66,000	383,000	957,000	484,000	6,726,000	6,726,000
Southwest	Murrieta	Nutmeg	Jefferson	Clinton Keith	Secondary	1.985	2	4	2	1	3	0														

EXHIBIT H-2 TUMF Network Detailed Cost Estimate - Maximum Share Adjustments

AREA PLAN DIST	CITY	STREETNAME	SEGMENTFROM	SEGMENTTO	MILES	TOTAL COST	MAXIMUM TUMF SHARE	EXIST LOS >=E	>2 LANE ADJST	EXIST V/C	FUTURE V/C	TUMF V/C SHARE	EXIST NEED	OBLIGATED FUNDS	UNFUND EXIST NEED	EXIST NEED LOS E&F	SEGMENT DESCRIPTION
Central	Moreno Valley	Alessandro	I-215	Perris	3.217	15,572,000	15,572,000	0%	0%				0	0	0		
Central	Moreno Valley	Alessandro	Perris	Nason	2.008	15,220,000	15,220,000	0%	0%				0	0	0		
Central	Moreno Valley	Alessandro	Nason	Moreno Beach	0.991	3,755,000	3,755,000	0%	0%				0	0	0		
Central	Moreno Valley	Alessandro	Moreno Beach	Gilman Springs	4.155	12,411,000	12,411,000	0%	0%				0	0	0		
Central	Moreno Valley	Gilman Springs	SR-60	Alessandro	1.954	22,729,000	22,729,000	0%	0%				0	0	0		
Central	Moreno Valley	Perris	Reche Vista	Ironwood	2.336	8,854,000	8,854,000	0%	0%				0	0	0		
Central	Moreno Valley	Perris	Ironwood	Sunnymead	0.518	18,855,000	18,855,000	0%	0%				0	0	0		
Central	Moreno Valley	Perris	Sunnymead	Cactus	2.009	0	0	0%	0%				0	0	0		
Central	Moreno Valley	Perris	Cactus	Oleander	3.470	14,199,000	14,178,000	12%	12%	0.83	1.57	99%	21,000	0	21,000	Nandina to Oleander	
Central	Moreno Valley	Reche Vista	Reche Canyon	Heacock	1.331	6,443,000	6,443,000	0%	0%				0	0	0		
Central	Perris	11th/Case	Perris	Goetz	0.159	602,000	602,000	0%	0%				0	0	0		
Central	Perris	Ethanac	Keystone	Goetz	2.244	18,988,000	18,988,000	0%	0%				0	0	0		
Central	Perris	Ethanac	Goetz	Murrieta	0.956	3,623,000	3,623,000	0%	0%				0	0	0		
Central	Perris	Ethanac	Murrieta	I-215	0.980	20,606,000	20,606,000	0%	0%				0	0	0		
Central	Perris	Ethanac	I-215	Sherman	0.536	2,032,000	1,858,000	100%	100%	0.85	1.17	91%	174,000	0	174,000	I-215 to Sherman	
Central	Perris	Goetz	Case	Ethanac	2.176	9,291,000	9,291,000	0%	0%				0	0	0		
Central	Perris	Perris	Oleander	Ramona	1.042	3,114,000	1,998,000	100%	100%	1.58	2.94	64%	1,116,000	0	1,116,000	Oleander to Ramona	
Central	Perris	Perris	Ramona	Nuevo	3.033	9,059,000	9,059,000	0%	0%				0	0	0		
Central	Perris	Perris	11th	Nuevo	1.702	8,544,000	8,544,000	0%	0%				0	0	0		
Central	Perris	Mid-County	I-215	Rider	4.625	87,048,000	87,048,000	0%	0%				0	0	0		
Central	Perris	Ramona	I-215	Perris	1.505	39,490,000	39,490,000	0%	0%				0	0	0		
Central	Perris	Ramona	Perris	Evans	1.043	6,046,000	6,046,000	0%	0%				0	0	0		
Central	Perris	Ramona	Evans	Rider	2.077	7,873,000	7,873,000	0%	0%				0	0	0		
Central	Perris	SR-74 (4th)	Ellis	I-215	2.484	33,785,000	33,785,000	0%	0%				0	0	0		
Central	Unincorporated	Mid-County	Harley John	I-215	6.046	18,060,000	18,060,000	0%	0%				0	0	0		
Central	Unincorporated	Cajalco	Harley John	I-215	6.046	36,120,000	35,882,000	12%	6%	0.92	1.73	89%	238,000	0	238,000	Seaton to I-215	
Central	Unincorporated	Ethanac	SR-74	Keystone	1.070	6,393,000	6,393,000	0%	0%				0	0	0		
Central	Unincorporated	Ethanac	Sherman	Matthews	0.512	32,645,000	32,514,000	100%	100%	0.85	1.17	91%	131,000	0	131,000	Sherman to Matthews	
Central	Unincorporated	Gilman Springs	Alessandro	Bridge	4.940	19,942,000	19,657,000	40%	40%	0.84	1.38	96%	285,000	0	285,000	Jack Rabbit Trail to Bridge	
Central	Unincorporated	Menifee	Ramona	SR-74 (Pinacate)	6.545	19,552,000	19,552,000	0%	0%				0	0	0		
Central	Unincorporated	Menifee	SR-74 (Pinacate)	Simpson	2.540	38,702,000	38,702,000	0%	0%				0	0	0		
Central	Unincorporated	Mid-County	Rider	Bridge	7.516	24,544,000	24,544,000	0%	0%				0	0	0		
Central	Unincorporated	Ramona	Rider	Pico	1.008	3,012,000	3,012,000	0%	0%				0	0	0		
Central	Unincorporated	Ramona	Pico	Bridge	6.508	43,065,000	43,065,000	0%	0%				0	0	0		
Central	Unincorporated	Reche Canyon	San Bernardino County	Reche Vista	3.426	17,429,000	17,429,000	0%	0%				0	0	0		
Central	Unincorporated	SR-74	Matthews	Briggs	2.000	5,974,000	5,974,000	0%	0%				0	0	0		
Central	Unincorporated	SR-74	Ethanac	Ellis	2.803	0	0	30%	30%	0.97	1.12	50%	0	0	0	0	Ethanac to Theda
Northwest	Corona	Foothill	Paseo Grande	Lincoln	3.491	39,705,000	39,705,000	0%	0%				0	0	0		
Northwest	Corona	Foothill	Lincoln	California	1.802	0	0	0%	0%				0	0	0		
Northwest	Corona	Foothill	California	I-15	0.909	6,824,000	6,824,000	0%	0%				0	0	0		
Northwest	Corona	Green River	SR-91	Dominguez Ranch	1.056	11,381,000	7,850,000	100%	50%	0.97	0.99	12%	3,531,000	0	3,531,000	SR-91 to Dominguez Ranch	
Northwest	Corona	Green River	Dominguez Ranch	Palisades	0.591	2,862,000	2,862,000	0%	0%				0	0	0		
Northwest	Corona	Green River	Palisades	Paseo Grande	1.846	0	0	0%	0%				0	0	0		
Northwest	Corona	Mid-County	Arantine Hills/Eagle Glen	I-15	1.300	9,854,000	9,854,000	0%	0%				0	0	0		
Northwest	Riverside	Alessandro	Arlington	Trautwein	2.349	11,369,000	5,622,000	100%	100%	1.28	1.73	49%	5,747,000	2,600,000	3,147,000	Arlington to Trautwein	
Northwest	Riverside	Arlington	North	Magnolia	5.859	0	0	4%	4%	0.84	1.03	90%	0	0	0	0	Streeter to Madison
Northwest	Riverside	Arlington	Magnolia	Alessandro	2.788	30,387,000	27,093,000	56%	56%	0.99	1.21	56%	3,294,000	0	3,294,000	Horace to Alessandro	
Northwest	Riverside	Van Buren	Santa Ana River	SR-91	3.807	38,299,000	29,663,000	53%	53%	1.29	1.66	44%	4,279,000	8,636,000	0	Santa Ana River to Arlington; Magnolia to SR-91	
Northwest	Riverside	Van Buren	SR-91	Mockingbird Canyon	3.479	13,185,000	9,939,000	100%	100%	0.98	1.47	75%	3,246,000	0	3,246,000	SR-91 to Mockingbird Canyon	
Northwest	Riverside	Van Buren	Wood	Trautwein	0.290	1,099,000	1,099,000	0%	0%				0	0	0		
Northwest	Riverside	Van Buren	Trautwein	Orange Terrace	1.295	2,454,000	2,454,000	0%	0%				0	0	0		
Northwest	Unincorporated	Alessandro	Trautwein	Vista Grande	1.614	0	0	53%	53%	0.92	1.32	80%	0	0	0	0	Mission Grove to Vista Grande
Northwest	Unincorporated	Alessandro	Vista Grande	I-215	1.264	6,118,000	5,151,000	79%	79%	0.92	1.32	80%	967,000	0	967,000	Vista Grande to W Frontage	
Northwest	Unincorporated	Mid-County	I-15	Harley John	10.584	130,655,000	130,655,000	0%	0%				0	0	0		
Northwest	Unincorporated	Cajalco	I-15	Temescal Canyon	0.608	33,785,000	33,785,000	0%	0%				0	0	0		
Northwest	Unincorporated	Cajalco	Temescal Canyon	Harley John	9.976	40,273,000	40,273,000	0%	0%				0	0	0		
Northwest	Unincorporated	Schlesman	San Bernardino County	Harrison	1.491	14,093,000	14,093,000	0%	0%				0	0	0		
Northwest	Unincorporated	Schlesman	Harrison	Cleveland	1.018	11,574,000	11,574,000	0%	0%				0	0	0		
Northwest	Unincorporated	Schlesman	Cleveland	68th	0.803	6,088,000	6,088,000	0%	0%				0	0	0		
Northwest	Unincorporated	Schlesman	68th	I-15	0.236	70,109,000	70,109,000	0%	0%				0	0	0		
Northwest	Unincorporated	Schlesman	I-15	Arlington	1.972	25,735,000	25,735,000	0%	0%				0	0	0		
Northwest	Unincorporated	Van Buren	SR-60	Bellegrave	1.727	5,160,000	2,526,000	100%	100%	1.06	1.29	49%	2,634,000	0	2,634,000	SR-60 to Bellegrave	
Northwest	Unincorporated	Van Buren	Bellegrave	Santa Ana River	3.853	16,529,000	9,721,000	100%	100%	1.24	1.53	41%	6,808,000	0	6,808,000	Bellegrave to Santa Ana River	
Northwest	Unincorporated	Van Buren	Mockingbird Canyon	Wood	4.328	12,928,000	12,928,000	46%	46%	0.82	1.23	100%	0	0	0	0	Washington to Wood
Northwest	Unincorporated	Van Buren	Orange Terrace	I-215	1.997	74,994,000	74,994,000	0%	0%				0	0	0		
Pass	Beaumont	Beaumont	14th	I-10	1.366	0	0	0%	0%				0	0	0		
Pass	Beaumont	Potero	San Timoteo Canyon	1st	1.640	78,884,000	78,884,000	0%	0%				0	0	0		
Pass	Beaumont	Potero	1st	SR-79 (Beaumont)	2.034	8,211,000	8,211,000	0%	0%				0	0	0		
Pass	Beaumont	SR-79 (Beaumont)	I-10	California	1.086	16,893,000	16,893,000	0%	0%				0	0	0		
Pass	Unincorporated	SR-79 (Lamb Canyon)	California	Gilman Springs	5.355	0	0	100%	100%	1.07	1.42	58%	0	0	0	0	California to Gilman Springs
San Jacinto	Hemet	Domenigoni	Warren	Sanderson	1.875	5,601,000	5,601,000	0%	0%				0	0	0		
San Jacinto	Hemet	Domenigoni	Sanderson	State	2.255	0	0	0%	0%				0	0	0		
San Jacinto	Hemet	SR-74	Winchester	Warren	2.516	9,535,000	5,449,000	100%	100%	1.12	1.52	57%	4,086,000	0	4,086,000	Winchester to Warren	
San Jacinto	San Jacinto	Mid-County	Warren	Sanderson	1.795	6,805,000	6,805,000	0%	0%				0	0	0		
San Jacinto	San Jacinto	Ramona	Warren	Sanderson	1.795	13,607,000	13,607,000	0%	0%				0	0	0		
San Jacinto	San Jacinto	Ramona	Sanderson	State	2.421	18,352,000	18,352,000	0%	0%				0	0	0		
San Jacinto	San Jacinto	Ramona	State	Main	2.331	8,835,000	8,184,000	28%	28%	0.96	1.36	74%	641,000	0	641,000	State to San Jacinto	
San Jacinto	San Jacinto	Ramona	Main	Cedar	2.110	16,692,000	16,692,000	0%	0%				0	0	0		
San Jacinto	San Jacinto	Ramona	Cedar	SR-74	1.263	0	0	0%	0%				0	0	0		
San Jacinto	Unincorporated	Domenigoni	SR-79 (Winchester)	Warren	3.190	15,110,000	15,110,000	0%	0%				0	0	0		
San Jacinto	Unincorporated	Gilman Springs	Bridge	Sanderson	2.930	8,752,000	8,752,000	0%	0%				0	0	0		
San Jacinto	Unincorporated	SR-74	Briggs	SR-79 (Winchester)	3.536	10,563,000	9,603,000	100%	100%	0.87	1.37	91%	960,000	0	960,000	Briggs to Winchester	
San Jacinto	Unincorporated	Mid-County	Bridge	Warren	1.654	4,940,000	4,940,000	0%	0%				0	0	0		
San Jacinto	Unincorporated	Ramona	Bridge	Warren	1.654	9,881,000	9,881,000	0%	0%				0	0	0		
San Jacinto	Unincorporated	SR-79 (Hemet Bypass)	SR-74 (Florida)	Domenigoni	6.000	93,831,000	93,831,000	0%	0%				0	0	0		
San Jacinto	Unincorporated	SR-79 (Hemet Bypass)	Domenigoni	Winchester	1.500	13,442,000	13,442,000	0%	0%				0	0	0		
San Jacinto	Unincorporated	SR-79 (San Jacinto Bypass)	Ramona	SR-74 (Florida)	6.500	92,032,000	92,032,000	0%	0%				0	0	0		
San Jacinto	Unincorporated	SR-79 (Sanderson)	Gilman Springs	Ramona	1.615	56,750,000	55,416,000	100%	100%	0.95	1.29	72%	1,334,000	0	1,334,000	Gilman Springs to Ramona	
San Jacinto	Unincorporated	SR-79 (Winchester)	Domenigoni	Keller	4.909	37,211,000											

EXHIBIT H-2 TUMF Network Detailed Cost Estimate - Maximum Share Adjustments

AREA PLAN DIST	CITY	STREETNAME	SEGMENTFROM	SEGMENTTO	MILES	TOTAL COST	MAXIMUM TUMF SHARE	EXIST LOS >=E	>2 LANE ADJST	EXIST V/C	FUTURE V/C	TUMF V/C SHARE	EXIST NEED	OBLIGATED FUNDS	UNFUND EXIST NEED	EXIST NEED LOS E&F	SEGMENT DESCRIPTION
Southwest	Unincorporated	Clinton Keith	Palomar	I-15	0.668	0	0	100%	100%	1.07	1.72	72%	0	0	0	0	Palomar to I-15
Southwest	Unincorporated	Clinton Keith	Meadowlark	SR-79	2.508	47,592,000	47,592,000	0%	0%				0	0	0		
Southwest	Unincorporated	Menifee	Simpson	Aldergate	1.016	6,069,000	6,069,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Menifee	Aldergate	Newport	0.933	0	0	0%	0%				0	0	0	0	
Southwest	Unincorporated	Menifee	Newport	Holland	0.681	2,035,000	2,035,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Newport	Goetz	Murrieta	1.811	16,228,000	13,910,000	100%	33%	1.03	1.31	57%	2,318,000	0	0	2,318,000	Goetz to Murrieta (existing alignment)
Southwest	Unincorporated	Newport	Murrieta	I-215	2.026	22,944,000	22,944,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Newport	I-215	Menifee	1.033	3,085,000	3,085,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Newport	Menifee	Lindenberger	1.838	10,980,000	10,980,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Newport	Lindenberger	SR-79 (Winchester)	2.489	22,305,000	22,305,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Scott	I-215	SR-79 (Winchester)	5.036	48,828,000	48,828,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Scott	Murrieta	I-215	2.040	6,094,000	6,094,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	SR-74	I-15	Ethanac	5.063	54,225,000	44,005,000	100%	100%	0.97	1.12	50%	10,220,000	0	0	10,220,000	I-15 to Ethanac
Southwest	Unincorporated	SR-79 (Eastern Bypass/Washington)	SR-79 (Winchester)	Borel	4.566	14,335,000	14,335,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	SR-79 (Eastern Bypass)	Borel	Vino	2.834	24,278,000	24,278,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	SR-79 (Eastern Bypass/Anza)	Vino	SR-79 (Constance)	3.958	15,979,000	15,979,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	SR-79 (Eastern Bypass/Anza)	SR-79 (Eastern Bypass/Anza)	Santa Rita	1.042	9,809,000	9,809,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	SR-79 (Eastern Bypass/Anza)	Santa Rita	Fairview	1.756	7,089,000	7,089,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	SR-79 (Eastern Bypass)	Fairview	Pala	1.484	11,983,000	11,983,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	SR-79 (Eastern Bypass)	Pala	I-15	2.340	94,023,000	94,023,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	SR-79 (Winchester)	Keller	Thompson	2.500	18,950,000	16,049,000	100%	50%	0.97	1.31	69%	2,901,000	0	0	2,901,000	Keller to Thompson
Southwest	Unincorporated	SR-79 (Winchester)	Thompson	La Alba	1.794	13,599,000	11,673,000	73%	37%	1.27	1.98	61%	1,926,000	0	0	1,926,000	Thompson to Auld
Southwest	Unincorporated	SR-79 (Winchester)	Hunter	La Alba	0.489	1,854,000	1,854,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	SR-79 (Winchester)	Hunter	Murrieta Hot Springs	1.301	0	0	0%	0%				0	0	0	0	
Subtotal					316.361	2,598,177,000	2,509,129,000	2.0%					60,095,000	35,911,000	53,137,000		
Central	Moreno Valley	Cactus	I-215	Heacock	2.140	33,785,000	33,785,000	75%	75%	0.93	1.35	79%	0	0	0	0	I-215 to Frederick; Graham to Heacock
Central	Moreno Valley	Eucalyptus	I-215	Towngate	1.015	3,848,000	3,848,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Eucalyptus	Towngate	Frederick	0.682	0	0	0%	0%				0	0	0	0	
Central	Moreno Valley	Frederick	SR-60	Alessandro	1.527	0	0	0%	0%				0	0	0	0	
Central	Moreno Valley	Heacock	Cactus	San Michele	2.707	10,608,000	10,608,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Heacock	Reche Vista	Cactus	5.100	3,379,000	3,379,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Indian	San Michele	Oleander	0.778	2,674,000	2,674,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Ironwood	SR-60	Redlands	8.252	48,167,000	48,167,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Lasselle	Eucalyptus	Alessandro	0.996	3,776,000	3,776,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Lasselle	Alessandro	John F Kennedy	0.994	3,767,000	3,767,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Lasselle	John F Kennedy	Oleander	2.957	0	0	17%	17%	0.85	1.35	94%	0	0	0	0	JFK to Gentian
Central	Moreno Valley	Moreno Beach	SR-60	Reche Canyon	1.246	38,508,000	38,508,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Nason	Ironwood	Alessandro	1.962	41,221,000	41,221,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Pigeon Pass/CETAP Corridor	Cantarin	Ironwood	3.309	12,542,000	12,046,000	9%	9%	1.11	1.48	56%	496,000	0	0	496,000	Western Ridge to Swan
Central	Moreno Valley	Pigeon Pass	Ironwood	SR-60	0.450	0	0	0%	0%				0	0	0	0	
Central	Moreno Valley	Reche Canyon	Reche Vista	Moreno Beach	3.884	15,680,000	15,680,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Redlands	Locust	Alessandro	1.960	41,213,000	40,278,000	37%	37%	0.99	1.32	66%	935,000	0	0	935,000	Ironwood to SR-60; Cottonwood to Alessandro
Central	Moreno Valley	San Michele	Heacock	Indian	0.529	1,580,000	1,580,000	0%	0%				0	0	0	0	
Central	Moreno Valley	Sunnymead	Frederick	Perris	2.027	0	0	0%	0%				0	0	0	0	
Central	Perris	Ellis	SR-74 (4th)	I-215	2.930	60,447,000	60,447,000	0%	0%				0	0	0	0	
Central	Perris	Evans	Placentia	Nuevo	1.522	9,093,000	9,093,000	0%	0%				0	0	0	0	
Central	Perris	Evans	Morgan	Ramona	0.662	0	0	0%	0%				0	0	0	0	
Central	Perris	Evans	Nuevo	I-215	1.994	17,494,000	17,494,000	0%	0%				0	0	0	0	
Central	Perris	Evans	Oleander	Ramona	1.007	3,008,000	3,008,000	0%	0%				0	0	0	0	
Central	Perris	Evans	Placentia	Rider	0.499	1,491,000	1,491,000	0%	0%				0	0	0	0	
Central	Perris	Evans	Evans	Morgan	0.497	0	0	0%	0%				0	0	0	0	
Central	Perris	Goetz	Lesser	Ethanac	1.576	4,708,000	4,708,000	0%	0%				0	0	0	0	
Central	Perris	Nuevo	I-215	Murrieta	1.390	16,893,000	16,893,000	0%	0%				0	0	0	0	
Central	Perris	Nuevo	Murrieta	Dunlap	0.979	5,017,000	5,017,000	0%	0%				0	0	0	0	
Central	Perris	Oleander	I-215	Indian	1.341	21,976,000	21,976,000	0%	0%				0	0	0	0	
Central	Perris	Oleander	Indian	Evans	1.522	11,537,000	11,537,000	0%	0%				0	0	0	0	
Central	Perris	Placentia	I-215	Indian	0.421	36,302,000	36,302,000	0%	0%				0	0	0	0	
Central	Perris	Placentia	Indian	Evans	1.994	8,049,000	8,049,000	0%	0%				0	0	0	0	
Central	Unincorporated	Briggs	SR-74 (Pinacate)	Simpson	2.488	14,863,000	14,863,000	0%	0%				0	0	0	0	
Central	Unincorporated	Center	I-215	Mt Vernon	1.570	32,450,000	32,450,000	0%	0%				0	0	0	0	
Central	Unincorporated	Ellis	SR-74	Post	2.621	7,830,000	7,830,000	0%	0%				0	0	0	0	
Central	Unincorporated	Mount Vernon/CETAP Coridor	Center	Pigeon Pass	0.483	1,951,000	1,951,000	0%	0%				0	0	0	0	
Central	Unincorporated	Murrieta	Ethanac	McCall	1.962	5,921,000	5,921,000	0%	0%				0	0	0	0	
Central	Unincorporated	Murrieta	McCall	Newport	2.023	0	0	0%	0%				0	0	0	0	
Central	Unincorporated	Nuevo	Dunlap	Menifee	1.946	8,604,000	8,604,000	0%	0%				0	0	0	0	
Central	Unincorporated	Pigeon Pass/CETAP Coridor	Cantarin	Mount Vernon	3.200	16,279,000	16,279,000	0%	0%				0	0	0	0	
Central	Unincorporated	Post	Santa Rosa Mine	Ellis	0.419	0	0	0%	0%				0	0	0	0	
Central	Unincorporated	Redlands	San Timoteo Canyon	Locust	3.218	0	0	100%	100%	1.03	1.39	63%	0	0	0	0	San Timoteo Canyon to Locust
Central	Unincorporated	SR-74 (Matthews)	I-215	Ethanac	1.315	3,379,000	3,379,000	53%	53%	0.85	1.13	90%	0	0	0	0	Watson to Ethanac
Northwest	Corona	6th	SR-91	Magnolia	4.240	0	0	0%	0%				0	0	0	0	
Northwest	Corona	Auto Center	Railroad	SR-91	0.472	15,557,000	15,557,000	100%	100%	1.15	1.30	31%	0	0	0	0	SR-91 to Railroad
Northwest	Corona	Hidden Valley	Norco Hills	McKinley	0.650	0	0	0%	0%				0	0	0	0	
Northwest	Corona	Lincoln	Parkridge	Ontario	3.205	3,379,000	3,379,000	0%	0%				0	0	0	0	
Northwest	Corona	Magnolia	6th	BNSF RR	1.799	8,911,000	8,911,000	0%	0%				0	0	0	0	
Northwest	Corona	Magnolia	Ontario	6th	2.148	25,033,000	25,033,000	0%	0%				0	0	0	0	
Northwest	Corona	Main	Grand	Ontario	0.828	2,473,000	2,473,000	0%	0%				0	0	0	0	
Northwest	Corona	Main	Ontario	Foothill	0.697	0	0	0%	0%				0	0	0	0	
Northwest	Corona	Main	Hidden Valley	Parkridge	0.346	1,311,000	1,311,000	100%	100%	0.82	1.04	100%	0	0	0	0	Hidden Vallay to Parkridge
Northwest	Corona	Main	Parkridge	Grand	0.794	0	0	0%	0%				0	0	0	0	
Northwest	Corona	Main	Grand	SR-91	0.118	4,078,000	4,078,000	0%	0%				0	0	0	0	
Northwest	Corona	Main	SR-91	Grand	0.749	4,438,000	2,838,000	0%	0%				0	1,600,000	0	0	
Northwest	Corona	McKinley	Hidden Valley	Promenade	0.625	0	0	0%	0%				0	0	0	0	
Northwest	Corona	McKinley	Promenade	SR-91	0.411	0	0	0%	0%				0	0	0	0	
Northwest	Corona	McKinley	SR-91	Magnolia	0.330	49,323,000	49,323,000	0%	0%				0	0	0	0	
Northwest	Corona	Ontario	I-15	El Cerrito	0.902	0	0	0%	0%				0	0	0	0	
Northwest	Corona	Ontario	Lincoln	Main	0.969	0	0	0%	0%				0	0	0	0	
Northwest	Corona	Ontario	Main	Kellogg	0.773	0	0	0%	0%				0	0	0	0	
Northwest	Corona	Ontario	Kellogg	Rimpau	0.760	4,502,000	4,502,000	0%	0%				0	0	0	0	
Northwest	Corona	Ontario	Rimpau	I-15	0.682	3,379,000	3,379,000	0%	0%				0	0	0	0	
Northwest	Corona	Railroad	Auto Club	Sherman	1.744	15,557,000	15,557,000	0%	0%				0	0	0	0	
Northwest	Corona	Railroad	Sherman	Main (at Grand)	1.343	5,090,000	5,090,000	0%	0%				0	0	0	0	

EXHIBIT H-2 TUMF Network Detailed Cost Estimate - Maximum Share Adjustments

AREA PLAN DIST	CITY	STREETNAME	SEGMENTFROM	SEGMENTTO	MILES	TOTAL COST	MAXIMUM TUMF SHARE	EXIST LOS >=E	>2 LANE ADJST	EXIST V/C	FUTURE V/C	TUMF V/C SHARE	EXIST NEED	OBLIGATED FUNDS	UNFUND EXIST NEED	EXIST NEED LOS E&F	SEGMENT DESCRIPTION
Northwest	Riverside	14th	Market	Martin Luther King	0.886	16,893,000	16,893,000	0%	0%				0	0	0		
Northwest	Riverside	1st	Market	Main	0.069	0	0	0%	0%				0	0	0		
Northwest	Riverside	3rd	Chicago	I-215	0.354	0	0	0%	0%				0	0	0		
Northwest	Riverside	Adams	SR-91	Arlington	1.547	0	0	0%	0%				0	0	0		
Northwest	Riverside	Adams	SR-91	Lincoln	0.566	18,936,000	18,936,000	0%	0%				0	0	0		
Northwest	Riverside	Buena Vista	Santa Ana River	Redwood	0.552	0	0	0%	0%				0	0	0		
Northwest	Riverside	Canyon Crest	Canyon Crest	Country Club	0.609	0	0	0%	0%				0	0	0		
Northwest	Riverside	Canyon Crest	Country Club	Via Vista	0.999	4,034,000	4,034,000	0%	0%				0	0	0		
Northwest	Riverside	Canyon Crest	Via Vista	Alessandro	0.682	0	0	0%	0%				0	0	0		
Northwest	Riverside	Canyon Crest	Martin Luther King	Central	0.898	0	0	0%	0%				0	0	0		
Northwest	Riverside	Central	Chicago	I-215/SR-60	2.293	3,379,000	3,379,000	0%	0%				0	0	0		
Northwest	Riverside	Central	SR-91	Magnolia	0.720	6,108,000	5,459,000	37%	37%	1.18	1.38	36%	649,000	0	649,000	Riverside to SR-91	
Northwest	Riverside	Central	Alessandro	SR-91	2.082	0	0	60%	60%	0.98	1.31	67%	0	0	0	0	SR-91 to Victoria
Northwest	Riverside	Central	Van Buren	Magnolia	3.416	0	0	9%	9%	1.14	1.51	54%	0	0	0	0	Fremont to Essex
Northwest	Riverside	Chicago	Alessandro	Spruce	3.289	0	0	29%	29%	0.92	1.26	77%	0	0	0	0	Alessandro to Central
Northwest	Riverside	Chicago	Columbia	Spruce	0.834	31,115,000	31,115,000	0%	0%				0	0	0	0	
Northwest	Riverside	Columbia	Main	Iowa	1.070	32,450,000	32,450,000	0%	0%				0	0	0	0	
Northwest	Riverside	Iowa	Center	3rd	2.258	31,895,000	31,895,000	0%	0%				0	0	0	0	
Northwest	Riverside	Iowa	3rd	University	0.520	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	JFK	Trautwein	Wood	0.288	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	La Sierra	Arlington	SR-91	3.617	0	0	9%	9%	0.95	1.26	70%	0	0	0	0	Magnolia to SR-91
Northwest	Riverside	La Sierra	SR-91	Victoria	0.975	20,589,000	18,089,000	20%	20%	1.20	1.68	56%	327,000	2,500,000	0	0	SR-91 to Indiana
Northwest	Riverside	Lemon (NB One way)	Mission Inn	University	0.085	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Lincoln	Adams	Washington	1.543	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Lincoln	Van Buren	Adams	1.546	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Lincoln	Washington	Arlington	1.679	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Madison	SR-91	Victoria	0.811	18,936,000	18,936,000	0%	0%				0	0	0	0	
Northwest	Riverside	Magnolia	BNSF RR	La Sierra	1.791	18,936,000	18,936,000	0%	0%				0	0	0	0	
Northwest	Riverside	Magnolia	Magnolia	Harrison	1.649	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Magnolia	Magnolia	Harrison	1.649	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Main	1st	San Bernardino County	6.020	15,557,000	15,557,000	0%	0%				0	0	0	0	
Northwest	Riverside	Market	14th	Santa Ana River	2.576	3,379,000	3,379,000	19%	19%	0.93	1.19	70%	0	0	0	0	San Bernardino to Columbia
Northwest	Riverside	Market	14th	I-215/SR-60	2.231	0	0	38%	38%	1.33	1.42	15%	0	0	0	0	SR-60 to Santa Ana River
Northwest	Riverside	Mission Inn	Redwood	Lemon	0.802	0	0	0%	0%	0.93	1.28	76%	0	0	0	0	I-215 to Iowa
Northwest	Riverside	Overlook	Alessandro	Sandtrack	0.574	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Overlook	Washington	Chateau Ridge	0.856	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Overlook	Chateau Ridge	Sandtrack	1.280	19,368,000	17,868,000	0%	0%				0	1,500,000	0	0	
Northwest	Riverside	Redwood (SB One way)	Mission Inn	University	0.078	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Trautwein	Alessandro	Van Buren	2.105	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Tyler	SR-91	Magnolia	0.456	33,785,000	33,785,000	0%	0%				0	0	0	0	
Northwest	Riverside	Tyler	Magnolia	Wells	1.197	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Tyler	Wells	Arlington	1.491	5,650,000	4,868,000	33%	33%	0.95	1.13	58%	782,000	0	782,000	Campbell to Hedrick	
Northwest	Riverside	University	Redwood	SR-91	0.943	3,379,000	3,379,000	0%	0%				0	0	0	0	
Northwest	Riverside	University	SR-91	I-215/SR-60	1.985	3,379,000	3,379,000	0%	0%				0	0	0	0	
Northwest	Riverside	Victoria	Madison	Washington	0.515	0	0	0%	0%				0	0	0	0	
Northwest	Riverside	Washington	Victoria	Hermosa	2.040	7,732,000	7,732,000	0%	0%				0	0	0	0	
Northwest	Riverside	Wood	JFK	Krameria	1.488	4,445,000	4,445,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Archibald	San Bernardino County	River	3.599	23,310,000	23,310,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Armstrong	San Bernardino County	Valley	1.519	6,132,000	5,268,000	38%	38%	1.05	1.44	63%	864,000	0	864,000	Valley to Sierra	
Northwest	Unincorporated	Bellgrave	Cantu-Galleano Ranch	Van Buren	0.375	4,745,000	4,745,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Cantu-Galleano Ranch	Hamner	Bellegrave	2.874	51,652,000	31,801,000	0%	0%				0	19,851,000	0	0	
Northwest	Unincorporated	Cloverdale	Archibald	Hamner	1.988	0	0	0%	0%				0	0	0	0	
Northwest	Unincorporated	El Cerrito	I-15	Ontario	0.590	1,763,000	1,763,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Etiwanda	San Bernardino County	SR-60	1.024	0	0	0%	0%				0	0	0	0	
Northwest	Unincorporated	Etiwanda	SR-60	Limonite	3.041	0	0	0%	0%				0	0	0	0	
Northwest	Unincorporated	Gavilan	Cajalco	Santa Rosa Mine	3.208	0	0	0%	0%				0	0	0	0	
Northwest	Unincorporated	Hamner	Bellgrave	Santa Ana River	2.731	30,269,000	30,269,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Hamner	Mission	Bellgrave	3.030	9,051,000	9,051,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Harley John	Washington	Cajalco	1.265	3,779,000	3,779,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	La Sierra	Victoria	El Sobrante	2.253	9,095,000	9,095,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	La Sierra	El Sobrante	Cajalco	2.375	0	0	0%	0%				0	0	0	0	
Northwest	Unincorporated	Limonite	Hamner	Etiwanda	2.022	19,913,000	17,119,000	73%	73%	1.13	1.36	43%	1,266,000	2,794,000	0	0	I-15 to Etiwanda
Northwest	Unincorporated	Limonite	Etiwanda	Van Buren	2.722	8,129,000	7,440,000	27%	27%	0.98	1.33	69%	689,000	0	689,000	Bain to Beach	
Northwest	Unincorporated	Limonite	Van Buren	Clay	0.788	2,353,000	2,353,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Limonite	Clay	Riverview	2.330	0	0	0%	0%				0	0	0	0	
Northwest	Unincorporated	Market	Rubidoux	Santa Ana River	0.963	9,854,000	8,742,000	58%	58%	1.22	1.42	33%	1,112,000	0	1,112,000	Hall to Santa Ana River	
Northwest	Unincorporated	Mission	Milliken	SR-60	1.864	3,379,000	3,379,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Mission	SR-60	Santa Ana River	7.192	3,379,000	3,379,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Mockingbird Canyon	Van Buren	Cajalco	3.986	16,091,000	16,091,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Riverview	Limonite	Mission	1.022	0	0	0%	0%				0	0	0	0	
Northwest	Unincorporated	Rubidoux	San Bernardino County	Mission	2.130	16,893,000	16,893,000	69%	69%	0.91	1.30	81%	0	0	0	0	San Bernardino County to Market; 30th to Mission
Northwest	Unincorporated	Santa Rosa Mine	Gavilan	Post	4.000	0	0	0%	0%				0	0	0	0	
Northwest	Unincorporated	Temescal Canyon	I-15	Ontario	5.614	39,558,000	39,558,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Temescal Canyon	I-15	Park Canyon	1.500	6,057,000	6,057,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Temescal Canyon	Park Canyon	Indian Truck Trail	1.375	5,552,000	5,552,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Valley	Armstrong	Mission	0.487	18,346,000	17,807,000	100%	100%	1.05	1.44	63%	539,000	0	539,000	Armstrong to Mission	
Northwest	Unincorporated	Washington	Hermosa	Harley John	4.055	12,112,000	12,112,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Weirick	Temescal Canyon	I-15	0.134	3,780,000	3,780,000	0%	0%				0	0	0	0	
Northwest	Unincorporated	Wood	Krameria	Cajalco	2.945	8,799,000	8,799,000	0%	0%				0	0	0	0	
Pass	Banning	8th	Wilson	I-10	0.559	3,379,000	3,379,000	0%	0%				0	0	0	0	
Pass	Banning	Highland Springs	14th	Wilson	0.944	3,577,000	3,577,000	0%	0%				0	0	0	0	
Pass	Banning	Highland Springs	Cherry Valley	14th	1.187	4,499,000	4,499,000	0%	0%				0	0	0	0	
Pass	Banning	Lincoln	Sunset	SR-243	2.009	0	0	0%	0%				0	0	0	0	
Pass	Banning	Ramsey	8th	I-10	1.995	7,563,000	7,563,000	0%	0%				0	0	0	0	
Pass	Banning	Ramsey	Highland Springs	8th	3.554	0	0	0%	0%				0	0	0	0	
Pass	Banning	Ramsey	I-10	Fields	1.627	25,153,000	25,153,000	0%	0%				0	0	0	0	
Pass	Banning	SR-243	I-10	Wesley	0.763	0	0	0%	0%				0	0	0	0	
Pass	Banning	Sun Lakes	Highland Home	Sunset	0.969	10,137,000	10,137,000	0%	0%				0	0	0	0	
Pass	Banning	Sun Lakes	Highland Springs	Highland Home	1.070	0	0	0%	0%				0	0	0	0	
Pass	Banning	Sunset	Ramsey	Lincoln	0.276	49,052,000	49,052,000	0%	0%				0	0	0	0	
Pass	Banning	Wilson	Highland Home	8th	2.546	0	0	0%	0%				0	0	0	0	
Pass	Banning	Wilson	Highland Springs	Highland Home	0.983	3,726,000	3,543,000	50%	50%	0.87	1.33	90%	183,000	0	183,000	Highland Springs to Marian	
Pass	Beaumont	14th	Highland Springs	Pennsylvania	1.247	5,034,000	5,034,000	0%	0%				0	0	0	0	
Pass	Beaumont	14th	Pennsylvania	Oak View	1.265	4,795,000	4,795,000	0%	0%				0	0	0	0	
Pass	Beaumont	14th (Oak															

EXHIBIT H-2 TUMF Network Detailed Cost Estimate - Maximum Share Adjustments

AREA PLAN DIST	CITY	STREETNAME	SEGMENTFROM	SEGMENTTO	MILES	TOTAL COST	MAXIMUM TUMF SHARE	EXIST LOS >=E	>2 LANE ADJST	EXIST V/C	FUTURE V/C	TUMF V/C SHARE	EXIST NEED	OBLIGATED FUNDS	UNFUND EXIST NEED	EXIST NEED LOS E&F	SEGMENT DESCRIPTION
Pass	Calimesa	Desert Lawn	Cherry Valley	Champions	1.634	4,882,000	4,882,000	0%	0%				0	0	0		
Pass	Calimesa	Singleton	Bryant	Condit	1.862	15,035,000	15,035,000	0%	0%				0	0	0		
Pass	Calimesa	Singleton	Condit	Roberts	0.343	35,085,000	35,085,000	0%	0%				0	0	0		
Pass	Unincorporated	Cherry Valley	Noble	Highland Springs	1.761	10,519,000	10,519,000	0%	0%				0	0	0		
Pass	Unincorporated	Cherry Valley	Desert Lawn	Noble	2.983	43,393,000	43,393,000	0%	0%				0	0	0		
Pass	Unincorporated	Live Oak Canyon	San Timoteo Canyon	San Bernardino County	2.806	0	0	0%	0%				0	0	0		
Pass	Unincorporated	San Timoteo Canyon	San Bernardino County	J Street (Central Overland)	8.778	15,557,000	15,557,000	8%	8%	1.06	1.46	63%	0	0	0	0	Live Oak Canyon to Redlands
San Jacinto	Hemet	Sanderson	Acacia	Menlo	0.999	0	0	77%	77%	0.92	1.24	76%	0	0	0	0	Menlo to Florida
San Jacinto	Hemet	Sanderson	Domenigoni	Stetson	0.828	5,233,000	5,233,000	0%	0%				0	0	0	0	
San Jacinto	Hemet	Sanderson	RR Crossing	Acacia	0.583	2,210,000	2,210,000	0%	0%				0	0	0	0	
San Jacinto	Hemet	Sanderson	Stetson	RR Crossing	0.416	0	0	0%	0%				0	0	0	0	
San Jacinto	Hemet	SR-74	Warren	Cawston	1.007	0	0	0%	0%				0	0	0	0	
San Jacinto	Hemet	SR-74 (Florida)	Columbia	Ramona	2.602	0	0	0%	0%				0	0	0	0	
San Jacinto	Hemet	SR-74/SR-79 (Florida)	Cawston	Columbia	4.087	0	0	0%	0%				0	0	0	0	
San Jacinto	Hemet	State	Domenigoni	Stetson	1.800	6,821,000	6,821,000	0%	0%				0	0	0	0	
San Jacinto	Hemet	State	Florida	Esplanade	1.720	0	0	0%	0%				0	0	0	0	
San Jacinto	Hemet	State	Stetson	Florida	1.248	7,393,000	7,393,000	0%	0%				0	0	0	0	
San Jacinto	Hemet	Stetson	Cawston	State	2.856	0	0	0%	0%				0	0	0	0	
San Jacinto	Hemet	Stetson	Warren	Cawston	0.731	4,367,000	4,367,000	0%	0%				0	0	0	0	
San Jacinto	Hemet	Warren	Esplanade	Domenigoni	4.918	16,783,000	16,783,000	0%	0%				0	0	0	0	
San Jacinto	San Jacinto	Esplanade	State	Ramona	0.761	0	0	0%	0%				0	0	0	0	
San Jacinto	San Jacinto	Esplanade	Warren	State	3.533	10,553,000	10,553,000	0%	0%				0	0	0	0	
San Jacinto	San Jacinto	Sanderson	Menlo	Esplanade	0.999	3,787,000	3,787,000	0%	0%				0	0	0	0	
San Jacinto	San Jacinto	Sanderson	Ramona	Esplanade	3.565	10,648,000	9,383,000	73%	73%	0.89	1.25	84%	1,265,000	0	1,265,000	0	Ramona to Cottonwood
San Jacinto	San Jacinto	SR-79 (North Ramona)	State	San Jacinto	1.039	0	0	0%	0%				0	0	0	0	
San Jacinto	San Jacinto	SR-79 (San Jacinto)	7th	SR-74	2.250	0	0	0%	0%				0	0	0	0	
San Jacinto	San Jacinto	SR-79 (San Jacinto)	North Ramona	7th	0.246	933,000	933,000	0%	0%				0	0	0	0	
San Jacinto	San Jacinto	SR-79 (State)	Gilman Springs	Quandt Ranch	0.746	5,718,000	5,718,000	40%	40%	0.82	1.02	100%	0	0	0	0	Record to Quandt Ranch
San Jacinto	San Jacinto	SR-79 (State)	Quandt Ranch	Ramona	0.708	0	0	100%	100%	0.82	1.02	100%	0	0	0	0	Quandt Ranch to Ramona
San Jacinto	San Jacinto	State	Ramona	Esplanade	2.019	0	0	0%	0%				0	0	0	0	
San Jacinto	San Jacinto	Warren	Ramona	Esplanade	4.404	13,155,000	13,155,000	0%	0%				0	0	0	0	
San Jacinto	Unincorporated	McCall	Menifee	SR 79 (Winchester)	4.447	28,841,000	28,841,000	0%	0%				0	0	0	0	
San Jacinto	Unincorporated	McCall	SR-79 (Winchester)	Warren	2.575	23,249,000	23,249,000	0%	0%				0	0	0	0	
San Jacinto	Unincorporated	SR-79 (Gilman Springs)	Sanderson	State	2.514	8,208,000	7,867,000	100%	100%	0.83	1.04	95%	341,000	0	341,000	0	Sanderson to State
San Jacinto	Unincorporated	SR-79 (Winchester)	SR-74 (Florida)	Domenigoni	3.258	0	0	42%	42%	0.94	1.37	78%	0	0	0	0	McCall to Simpson
Southwest	Lake Elsinore	Diamond	Mission	I-15	0.192	574,000	574,000	0%	0%				0	0	0	0	
Southwest	Lake Elsinore	Grand	Lincoln	Toft	1.813	0	0	0%	0%				0	0	0	0	
Southwest	Lake Elsinore	Grand	Toft	SR-74 (Riverside)	0.890	2,658,000	2,658,000	0%	0%				0	0	0	0	
Southwest	Lake Elsinore	Lake	I-15	Lincoln	2.514	37,190,000	35,067,000	86%	43%	1.00	1.56	76%	2,123,000	0	2,123,000	0	I-15 to Lakeshore
Southwest	Lake Elsinore	Mission	Railroad Canyon	Bundy Canyon	2.425	7,243,000	7,243,000	0%	0%				0	0	0	0	
Southwest	Lake Elsinore	SR-74 (Collier/Riverside)	I-15	Lakeshore	2.135	16,185,000	15,911,000	25%	13%	0.90	1.41	86%	274,000	0	274,000	0	I-15 to Riverside
Southwest	Lake Elsinore	SR-74 (Grand)	Riverside	SR-74 (Ortega)	0.676	5,125,000	5,125,000	100%	50%	0.82	1.34	100%	0	0	0	0	Riverside to Ortega
Southwest	Lake Elsinore	SR-74 (Riverside)	Lakeshore	Grand	1.781	13,499,000	13,499,000	0%	0%				0	0	0	0	
Southwest	Murrieta	California Oaks	Jefferson	I-15	0.340	35,074,000	22,074,000	0%	0%				0	13,000,000	0	0	
Southwest	Murrieta	California Oaks	I-15	Clinton Keith	2.411	0	0	0%	0%				0	0	0	0	
Southwest	Murrieta	Hunter	Los Alamos	Via Mira Mosa	0.867	4,896,000	4,896,000	0%	0%				0	0	0	0	
Southwest	Murrieta	Hunter	Via Mira Mosa	SR-79 (Winchester)	1.477	0	0	0%	0%				0	0	0	0	
Southwest	Murrieta	Jefferson	Murrieta Hot Springs	Cherry	2.362	0	0	0%	0%				0	0	0	0	
Southwest	Murrieta	Jefferson	Palomar	Nutmeg	0.874	5,221,000	1,594,000	0%	0%				0	3,627,000	0	0	
Southwest	Murrieta	Jefferson	Nutmeg	Murrieta Hot Springs	2.521	9,555,000	3,417,000	0%	0%				0	6,138,000	0	0	
Southwest	Murrieta	Los Alamos	Jefferson	I-15	0.409	9,295,000	3,095,000	0%	0%				0	6,200,000	0	0	
Southwest	Murrieta	Los Alamos	I-15	I-215	1.399	39,088,000	27,088,000	0%	0%				0	12,000,000	0	0	
Southwest	Murrieta	Murrieta Hot Springs	I-215	Margarita	1.456	5,518,000	1,972,000	0%	0%				0	3,546,000	0	0	
Southwest	Murrieta	Murrieta Hot Springs	Jefferson	I-215	1.126	0	0	36%	36%	0.96	1.65	83%	0	0	0	0	Jefferson to I-15
Southwest	Murrieta	Murrieta Hot Springs	Margarita	SR-79 (Winchester)	1.038	6,726,000	6,726,000	0%	0%				0	0	0	0	
Southwest	Murrieta	Murrieta Hot Springs	Jefferson	Clinton Keith	1.985	5,929,000	1,810,000	0%	0%				0	4,119,000	0	0	
Southwest	Murrieta	Whitewood	Clinton Keith	Los Alamos	1.520	0	0	0%	0%				0	0	0	0	
Southwest	Temecula	Jefferson	Cherry	Rancho California	2.323	0	0	0%	0%				0	0	0	0	
Southwest	Temecula	Margarita	Murrieta Hot Springs	SR-79 (Constance)	8.235	0	0	0%	0%				0	0	0	0	
Southwest	Temecula	Old Town Front	Rancho California	I-15/SR-79	1.542	0	0	0%	0%				0	0	0	0	
Southwest	Temecula	Pala	SR-79 (Constance)	Pechanga	2.627	0	0	12%	12%	0.85	1.69	97%	0	0	0	0	SR-79 to Clubhouse
Southwest	Temecula	Rancho California	Jefferson	Margarita	1.918	28,256,000	27,933,000	8%	8%	1.15	1.75	65%	323,000	0	323,000	0	I-15 to Ynez
Southwest	Temecula	Rancho California	Margarita	Butterfield Stage	1.972	0	0	0%	0%				0	0	0	0	
Southwest	Temecula	SR-79 (Constance)	I-15	Pala Road	0.690	2,060,000	860,000	0%	0%				0	1,200,000	0	0	
Southwest	Temecula	SR-79 (Constance)	Pala Road	Butterfield Stage	3.102	0	0	0%	0%				0	0	0	0	
Southwest	Unincorporated	Baxter	I-15	Central	0.347	17,929,000	17,929,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Briggs	Simpson	Newport	1.506	17,370,000	17,370,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Briggs	Newport	Scott	3.029	9,048,000	9,048,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Briggs	Scott	SR-79 (Winchester)	3.206	19,153,000	19,153,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Bundy Canyon	Mission	I-15	0.959	3,635,000	3,635,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Butterfield Stage Rd	Murrieta Hot Springs	Rancho California	2.913	32,589,000	32,589,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Butterfield Stage Rd	Rancho California	SR-79 (Constance)	2.648	21,380,000	21,380,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Butterfield Stage Rd	SR-79 (Winchester)	Murrieta Hot Springs	4.260	40,674,000	40,674,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Central	Baxter	Palomar	0.739	2,801,000	2,801,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Central	Grand	Palomar	0.511	1,937,000	1,937,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Goetz	Juanita	Lesser Lane	2.515	7,513,000	7,513,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Goetz	Newport	Juanita	1.018	3,040,000	3,040,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Grand	Ortega	Central	7.000	26,530,000	26,530,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Horsethief Canyon	Temescal Canyon	I-15	0.105	3,692,000	3,692,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Indian Truck Trail	Temescal Canyon	I-15	0.064	3,569,000	3,569,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	McCall	I-215	Aspel	1.220	20,537,000	20,537,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	McCall	Aspel	Menifee	0.979	2,924,000	2,924,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Mission	Bundy Canyon	Palomar	0.841	0	0	0%	0%				0	0	0	0	
Southwest	Unincorporated	Murrieta	Newport	Bundy Canyon	2.977	0	0	0%	0%				0	0	0	0	
Southwest	Unincorporated	Murrieta Hot Springs	Pourroy	SR-79 (Eastern Bypass)	1.633	9,755,000	9,755,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Murrieta Hot Springs	SR-79 (Winchester)	Pourroy	0.756	0	0	0%	0%				0	0	0	0	
Southwest	Unincorporated	Pala	Pechanga	San Diego County	1.454	0	0	0%	0%				0	0	0	0	
Southwest	Unincorporated	Palomar	Clinton Keith	Jefferson	0.686	2,049,000	2,049,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	Palomar	Mission	Clinton Keith	2.882	8,609,000	8,609,000	0%	0%				0	0	0	0	
Southwest	Unincorporated	SR-74 (Ortega)	Grand	Orange County	11.824	0	0	0%	0%				0	0	0	0	
Southwest	Unincorporated	Temescal Canyon	Indian Truck Trail	Lake	3.781	15,962,000	13,242,000	0%	0%				0	2,720,000	0	0	
Subtotal					496.280												

EXHIBIT H-3 - Regional Transit Existing Need Share

Summary of Transit Trip Change

<i>Year</i>	<i>Western Riverside Daily Transit Trips</i>
2000	20,730
2030	56,891
Growth 2000-2030	36,161
Existing Need Share:	36.4%
Future Growth Share:	63.6%

Notes: Transit Trips from SCAG 2004 RTP

Maximum TUMF Transit Component Value

RTA Future Transit Cost	Existing Need Cost	MAX TUMF TRANSIT VALUE
\$201,720,000	\$73,502,000	\$128,218,000
Total MAX TUMF VALUE		5,055,623,000
Transit Share of MAX TUMF VALUE		2.5%

EXHIBIT H-4
VIPER SCREEN SHOWING NETWORK ATTRIBUTES
YEAR 2030 BASELINE PLUS TUMF IMPROVEMENTS SCENARIO
(DAILY, AM, MD, PM, NT)

YR2030 PLUS TUMF - DAILY

Layer Information

File Information

Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI	Type	TP+ NET
Date	2/2/2006 1:42:52 PM	Size	647429

Statistics (Active/Total)

Node	3298/3330	Link	9353/9353
Zone	367/367		

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
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Link Attributes: 38

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VCDAILY_NEW	0	2.76497	4285.91	7353	0.458239	0.58288
VMT	0	374531	5.47058E7	7292	5849.01	7502.17
VMT_FwyHOV	0	374531	2.9825E7	851	3188.82	35047
VMTLOSEF	0	374531	3.8472E7	1894	4113.33	20312.5
VMTLOSEF_FwyHOV	0	374531	2.93332E7	684	3136.23	42884.8

EXHIBIT H-4 (CONTINUED)

YR2030 PLUS TUMF - AM

Layer Information						
File Information						
Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI			Type	TP+ NET	
Date	2/2/2006 4:12:26 PM			Size	448077	
Statistics (Active/Total)						
Node	3298/3330			Link	9353/9353	
Zone	367/367					
Node Attributes: 5						
Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
Link Attributes: 27						
Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VHT	0	3645.71	361215	7111	38.6202	50.7966
VHD	0	2854.91	131552	4352	14.0652	30.228
VHT_FwYHOV	0	3645.71	159847	844	17.0905	189.393
VHD_FwYHOV	0	2854.91	64716.1	705	6.91929	91.7959

YR2030 PLUS TUMF - MD (MID-DAY)

Layer Information						
File Information						
Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI			Type	TP+ NET	
Date	2/2/2006 4:14:16 PM			Size	457575	
Statistics (Active/Total)						
Node	3298/3330			Link	9353/9353	
Zone	367/367					
Node Attributes: 5						
Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
Link Attributes: 27						
Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VHT	0	2079.41	409903	6923	43.8258	59.2089
VHD	0	1360.37	73637.1	3635	7.8731	20.2578
VHT_FwYHOV	0	2079.41	184064	840	19.6797	219.124
VHD_FwYHOV	0	1360.37	34208.1	685	3.65745	49.9389

EXHIBIT H-4 (CONTINUED)

YR2030 PLUS TUMF - PM

 **Layer Information** 

File Information

Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI	Type	TP+ NET
Date	2/2/2006 4:16:10 PM	Size	463041

Statistics (Active/Total)

Node	3298/3330	Link	9353/9353
Zone	367/367		

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
Link Attributes: 27						
Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VHT	0	5926.72	596603	7228	63.7873	82.5405
VHD	0	4948.53	234593	5167	25.0821	45.4022
VHT_FwyHOV	0	5926.72	266386	844	28.4813	315.623
VHD_FwyHOV	0	4948.53	118119	727	12.629	162.475

YR2030 PLUS TUMF - NT (NIGHT)

 **Layer Information** 

File Information

Name	G:\TUMFManagement\NexusReview\SCAG 2004RTI	Type	TP+ NET
Date	2/2/2006 4:17:42 PM	Size	429106

Statistics (Active/Total)

Node	3298/3330	Link	9353/9353
Zone	367/367		

Node Attributes: 5

Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
Link Attributes: 27						
Name	Minimum	Maximum	Total	Non-Zero	Average	Ave(<>0)
VHT	0	1176.56	186062	6347	19.8933	29.3149
VHD	0	286.272	3390.54	523	0.362508	6.48286
VHT_FwyHOV	0	1176.56	96933.6	741	10.3639	130.815
VHD_FwyHOV	0	48.3	919.938	153	0.0983575	6.01266

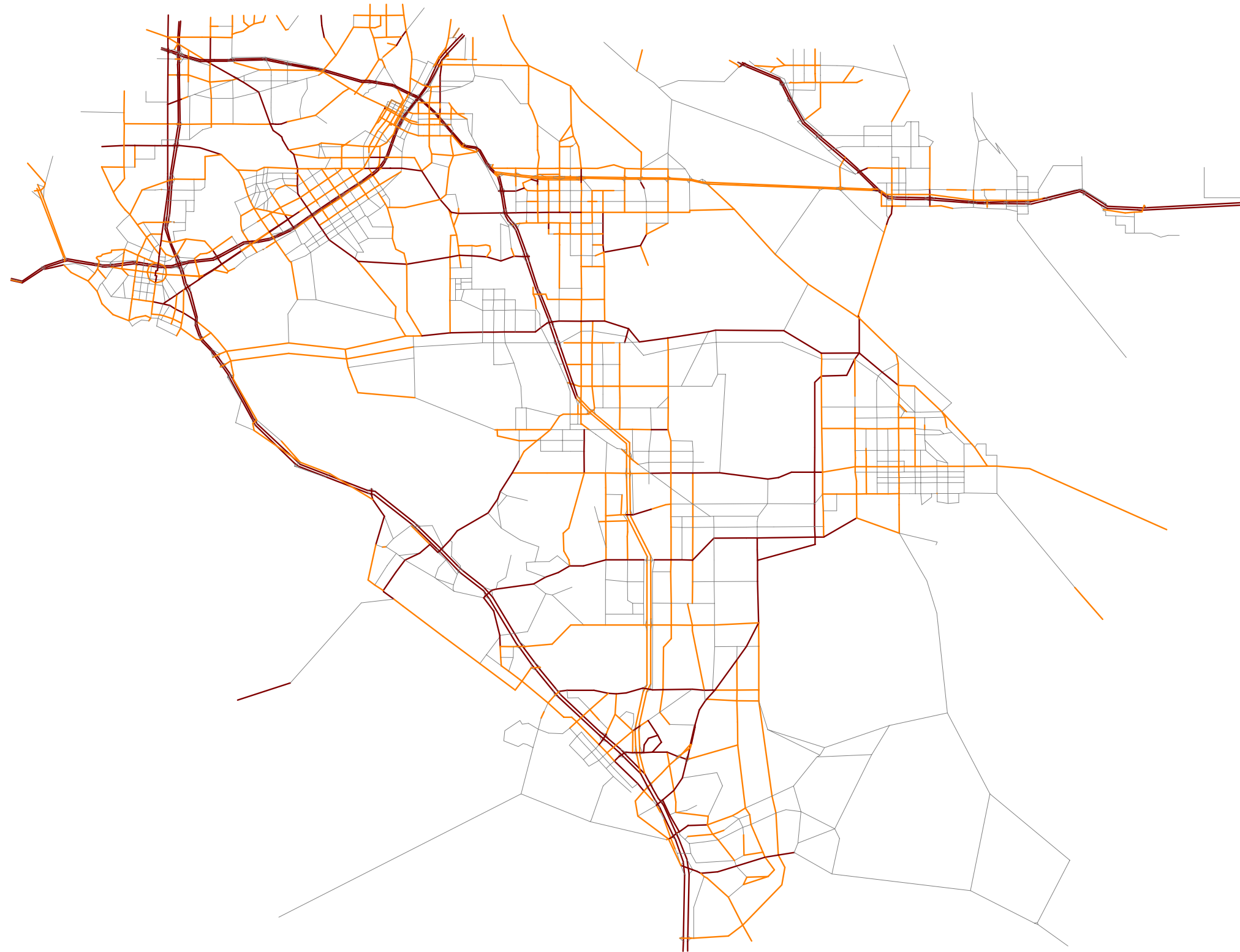
EXHIBIT H-5

The following pages contain:

***TUMF Nexus Study 2005 Update Regional System of Highways and Arterials
Performance Measure Plots - 2030 TUMF Network Scenario***

***Source: Southern California Association of Governments (SCAG), 2004 Regional
Transportation Plan Model***

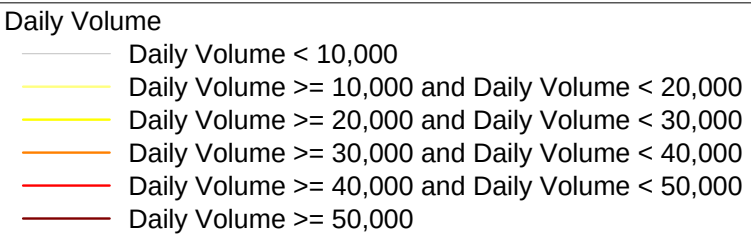
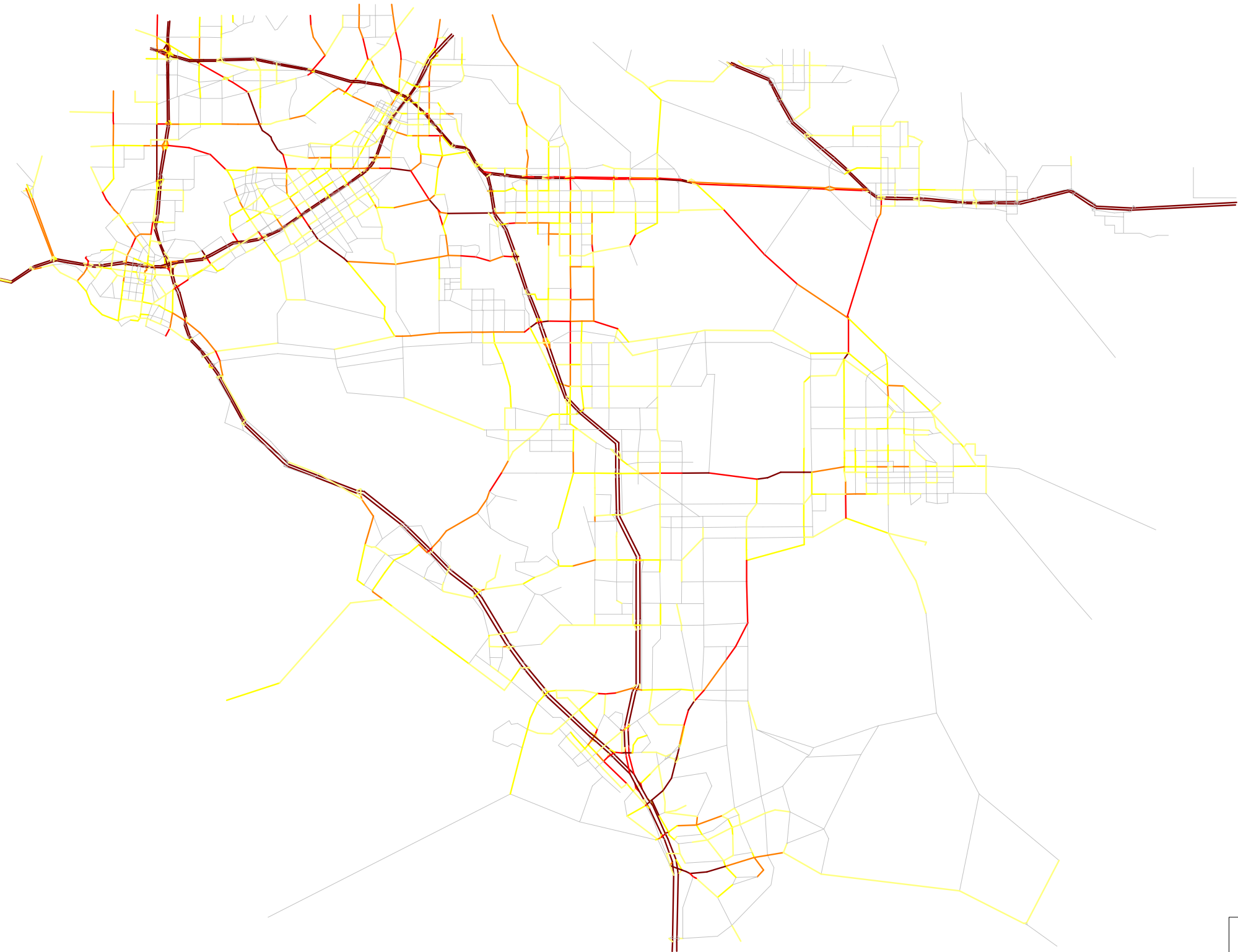
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
 TRANSPORTATION UNIFORM MITIGATION FEE
 2030 BASELINE PLUS TUMF IMPROVEMENTS - NUMBER OF LANES PER DIRECTION



Number of Lanes Per Direction
 — 1 lane
 — 2 lanes
 — 3 or more lanes

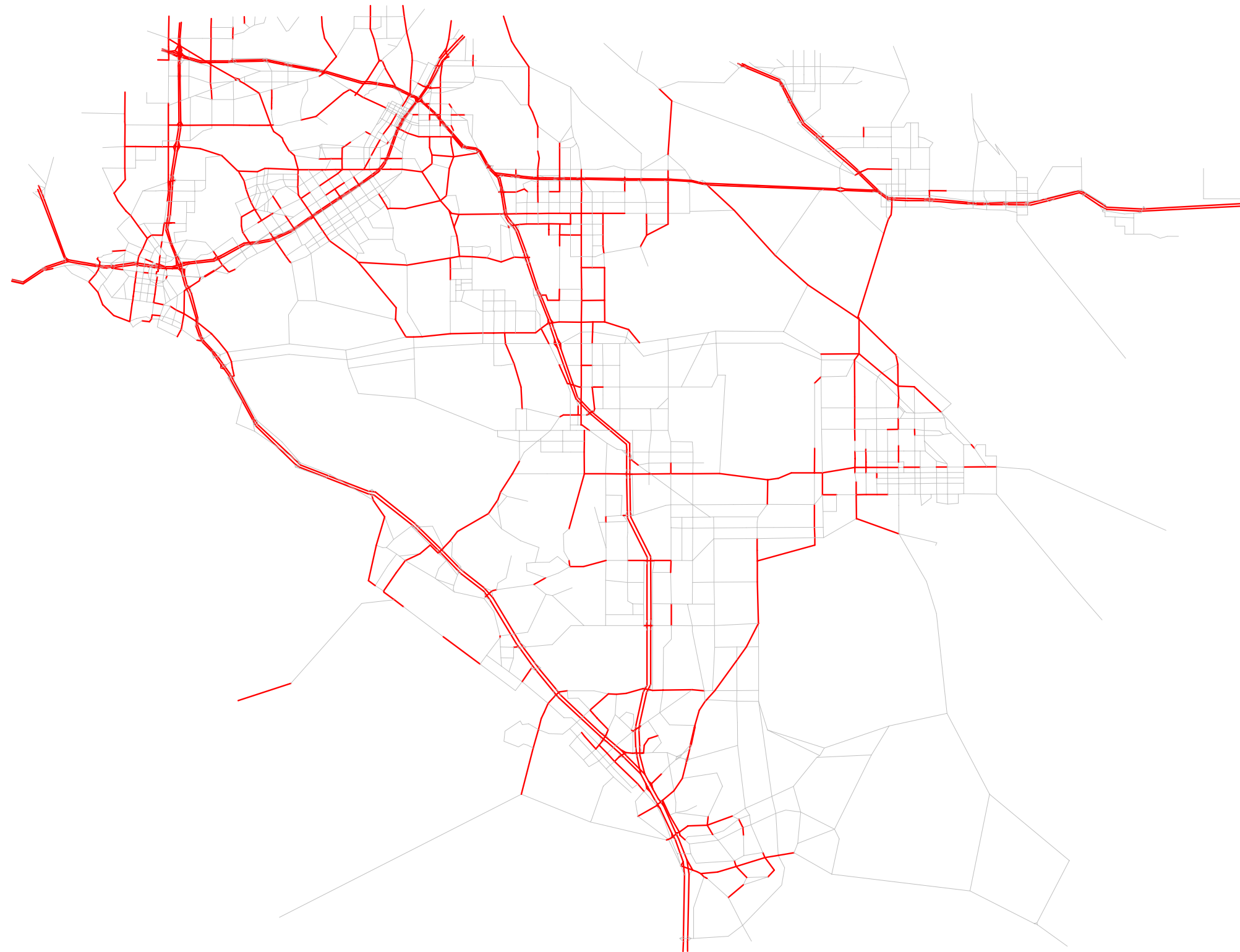
Based on SCAG 2004 RTP
 Printed 2/6/2006

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
2030 BASELINE PLUS TUMF IMPROVEMENTS NETWORK BY DAILY VOLUME



Based on SCAG 2004 RTP
Printed 2/6/2006

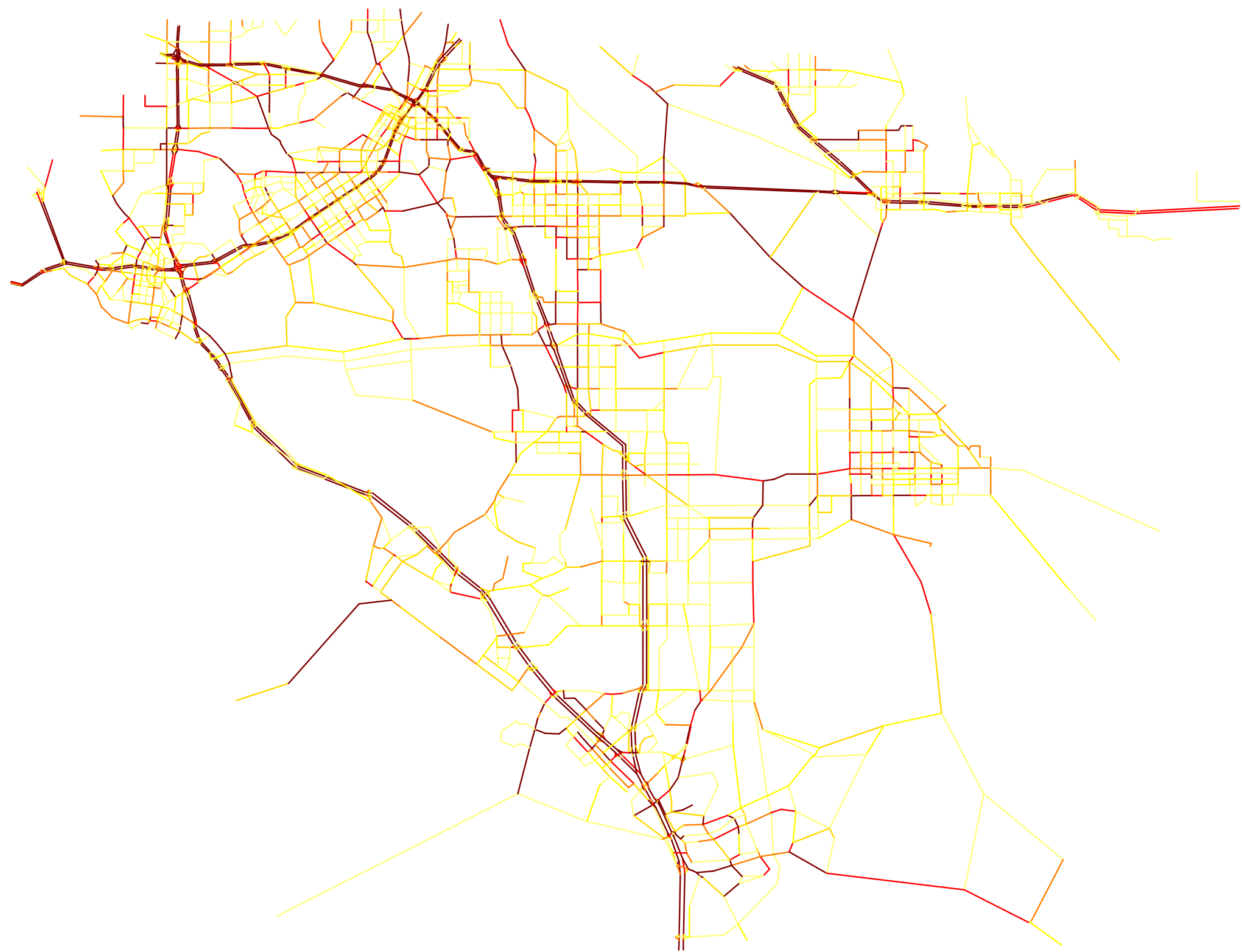
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
 TRANSPORTATION UNIFORM MITIGATION FEE
 2030 BASELINE PLUS TUMF IMPROVEMENTS - DAILY VOLUMES GREATER THAN OR EQUAL TO 20,000



Daily Volume $\geq 20,000$
 — Daily Volume $< 20,000$
 — Daily Volume $\geq 20,000$

Based on SCAG 2004 RTP
 Printed 2/6/2006

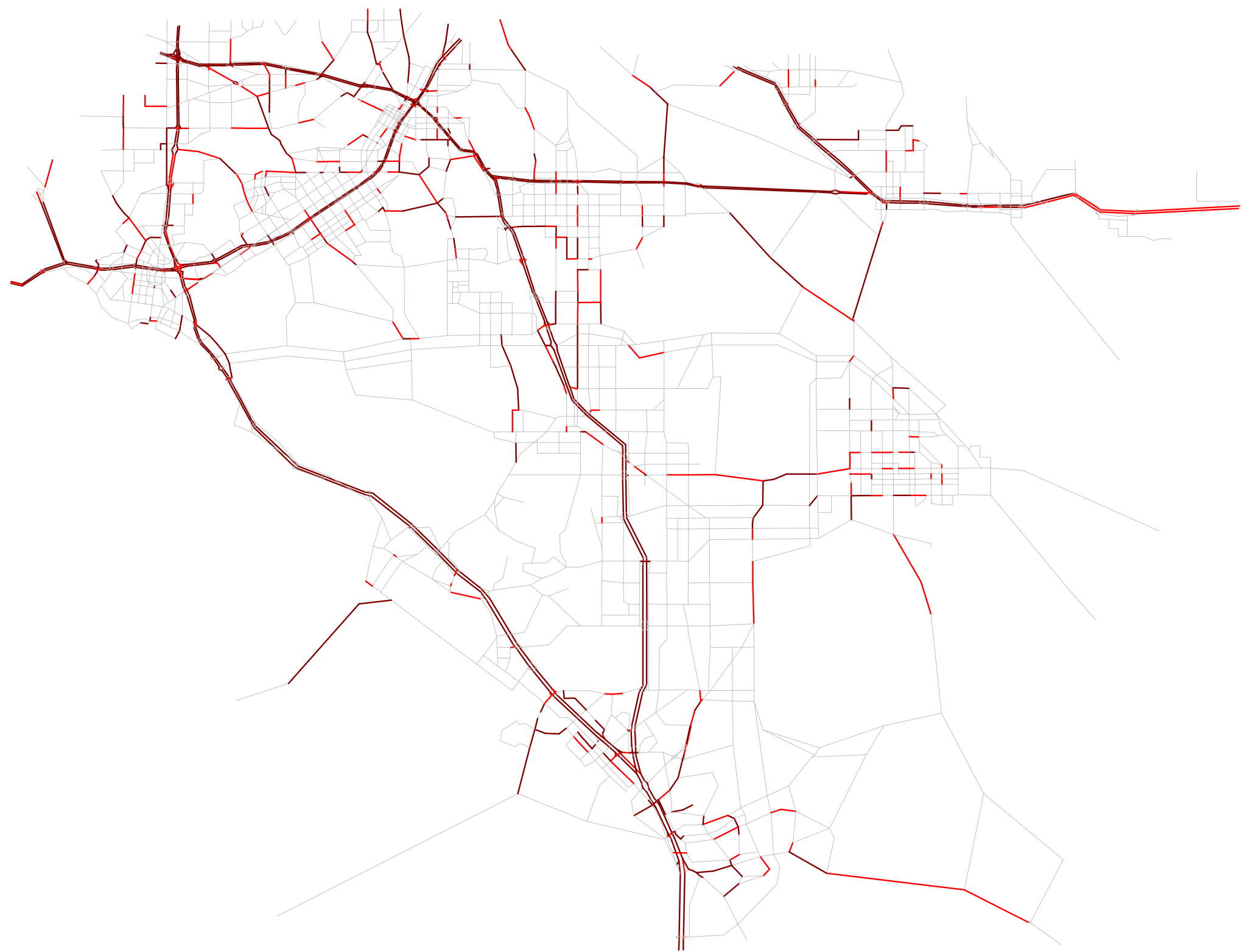
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
2030 BASELINE PLUS TUMF IMPROVEMENTS NETWORK BY DAILY LEVEL OF SERVICE (LOS)



Daily Level of Service (LOS)	
—	LOS A ($V/C < 0.261$)
—	LOS B ($V/C \geq 0.261$ and $V/C < 0.431$)
—	LOS C ($V/C \geq 0.431$ and $V/C < 0.621$)
—	LOS D ($V/C \geq 0.621$ and $V/C < 0.821$)
—	LOS E ($V/C \geq 0.821$ and $V/C < 1.000$)
—	LOS F ($V/C \geq 1.000$)

Based on SCAG 2004 RTP
Printed 2/6/2006

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS
TRANSPORTATION UNIFORM MITIGATION FEE
2030 BASELINE PLUS TUMF IMPROVEMENTS - DAILY LEVEL OF SERVICE (LOS) E & F



Daily Level of Service (LOS) E & F
— LOS A - D ($V/C < 0.821$)
— LOS E ($V/C \geq 0.821$ and $V/C < 1.0$)
— LOS F ($V/C \geq 1.0$)

Based on SCAG 2004 RTP
Printed 2/6/2006

Appendix I

Western Riverside County Regional Trip Distribution

In order to ensure an equitable regional/zonal distribution of potential TUMF revenues, the distribution of trips in the WRCOG region was analyzed to determine the distribution between local (intra-zonal) and regional (inter-zonal) trips. This analysis was completed using the Year 2030 Plan trip tables from the SCAG Regional Transportation Model used for the SCAG 2004 RTP.

The first step in the analysis was to create a correspondence table between the traffic analysis zones (TAZ's) in the model and the five WRCOG TUMF zones: Northwest, Central, Pass Area, Hemet/San Jacinto, and Southwest. Tables detailing the TAZ correspondence for each WRCOG TUMF zone are included as **Exhibits I-1** and **I-2** in this Appendix. The TAZ's were compressed into six districts (the five WRCOG zones and one for the rest of the SCAG region). These compressed model output trips are summarized as **Exhibit I-3** in this appendix for the five trip purposes: home-based-work, home-based-other, home-based-school K-12, work-based-other, and other-based other.

Table 5.1 and **5.2** of the Nexus Study sum the five trip purposes to produce a matrix of total daily vehicle trips between the six districts (the five WRCOG zones and the rest of the SCAG region). This information is subsequently weighted by TUMF future network lane miles in **Table 5.3** to determine the relative share of trips that can be allocated between the backbone network and secondary network.

EXHIBIT I-1 SUMMARY OF TAZ/SCAGTAZ TO WRCOG TUMF ZONE CORRESPONDENCE

WRCOG TUMF ZONE	NO. OF TAZ/ SCAGTAZ's	TAZ RANGES	SCAGTAZ RANGES
1 NORTHWEST	97	2845-2921, 2923-2927, 2929, 2930, 2932, 2934-2941, 2944, 2945, 2955, 3008	303010000-304190204, 304200101-304200202, 304200204, 304200205, 304210001, 304220101-304220401, 304220404, 304230001, 304250101, 304290003
2 CENTRAL	58	2931, 2933, 2942, 2943, 2946-2954, 2956-2965, 2967-2983, 2990-2992, 2994-2997, 2999, 3002-3007, 3009, 3012-3014	304200206, 304210002, 304220402, 304220403, 304230002-304240008, 304250102-304270200, 304270501-304270503, 304270505-304270508, 304270600, 304270703-304290002, 304290004, 304290007-304290009
3 PASS AREA	25	3040, 3084-3107	304380200-304430000
4 HEMET/SAN JACINTO	32	2988, 2989, 2993, 2998, 3000, 3001, 3015-3039, 3068	304270305, 304270306, 304270504, 304270509, 304270701, 304270702, 304320307, 304330101-304370002
5 SOUTHWEST	50	2922, 2928, 2984-2987, 3010, 3011, 3041-3067, 3069-3083	304190205, 304200203, 304270301-304270304, 304290005, 304290006, 304300001-304320306, 304320401-304320504
OUTSIDE WRCOG	2929	1-2844, 2966, 3108-3191	110110000-211060500, 304440099-304440302, 304450101-500850202
WRCOG Sub-Total	262		
Outside WRCOG Sub-Total	2929		
TOTAL	3191		

NOTE:

TAZ: TAZ's are 1 to 4 digit numbers. We received SCAG 2004 RTP trip table data by TAZ.

SCAGTAZ: SCAGTAZ's are 9-digit numbers. We received socioeconomic and GIS data from SCAG by SCAGTAZ.

There is a one-to-one correspondence between TAZ's and SCAGTAZ's.

EXHIBIT I-2
DETAILED TAZ/SCAGTAZ TO WRCOG TUMF ZONE CORRESPONDENCE

WRCOG TUMF ZONE		SCAGTAZ (SED Data)	TAZ (Trip Tables)
NORTHWEST	1	304010001	2845
NORTHWEST	1	304010002	2846
NORTHWEST	1	304020000	2847
NORTHWEST	1	304030000	2848
NORTHWEST	1	304040001	2849
NORTHWEST	1	304040002	2850
NORTHWEST	1	304050001	2851
NORTHWEST	1	304050002	2852
NORTHWEST	1	304060100	2853
NORTHWEST	1	304060201	2854
NORTHWEST	1	304060202	2855
NORTHWEST	1	304060203	2856
NORTHWEST	1	304060204	2857
NORTHWEST	1	303010000	2858
NORTHWEST	1	303020001	2859
NORTHWEST	1	303020002	2860
NORTHWEST	1	303030001	2861
NORTHWEST	1	303030002	2862
NORTHWEST	1	303040001	2863
NORTHWEST	1	303040002	2864
NORTHWEST	1	303050001	2865
NORTHWEST	1	303050002	2866
NORTHWEST	1	303060001	2867
NORTHWEST	1	303060002	2868
NORTHWEST	1	303070000	2869
NORTHWEST	1	303080000	2870
NORTHWEST	1	303090000	2871
NORTHWEST	1	303100000	2872
NORTHWEST	1	303110000	2873
NORTHWEST	1	303120000	2874
NORTHWEST	1	303130000	2875
NORTHWEST	1	303140100	2876
NORTHWEST	1	303140200	2877
NORTHWEST	1	303150100	2878
NORTHWEST	1	303150200	2879
NORTHWEST	1	303160001	2880
NORTHWEST	1	303160002	2881
NORTHWEST	1	303170001	2882
NORTHWEST	1	303170002	2883
NORTHWEST	1	303170003	2884
NORTHWEST	1	304070001	2885
NORTHWEST	1	304070002	2886
NORTHWEST	1	304080201	2887
NORTHWEST	1	304080202	2888
NORTHWEST	1	304080203	2889
NORTHWEST	1	304080301	2890
NORTHWEST	1	304080302	2891
NORTHWEST	1	304080400	2892
NORTHWEST	1	304080500	2893
NORTHWEST	1	304090001	2894
NORTHWEST	1	304090002	2895

EXHIBIT I-2 (CONTINUED)
DETAILED TAZ/SCAGTAZ TO WRCOG TUMF ZONE CORRESPONDENCE

NORTHWEST	1	304100000	2896
NORTHWEST	1	304110000	2897
NORTHWEST	1	304120000	2898
NORTHWEST	1	304130000	2899
NORTHWEST	1	304140101	2900
NORTHWEST	1	304140102	2901
NORTHWEST	1	304140201	2902
NORTHWEST	1	304140202	2903
NORTHWEST	1	304140203	2904
NORTHWEST	1	304150001	2905
NORTHWEST	1	304150002	2906
NORTHWEST	1	304160001	2907
NORTHWEST	1	304160002	2908
NORTHWEST	1	304170100	2909
NORTHWEST	1	304170200	2910
NORTHWEST	1	304180101	2911
NORTHWEST	1	304180102	2912
NORTHWEST	1	304180103	2913
NORTHWEST	1	304180104	2914
NORTHWEST	1	304180200	2915
NORTHWEST	1	304190101	2916
NORTHWEST	1	304190102	2917
NORTHWEST	1	304190201	2918
NORTHWEST	1	304190202	2919
NORTHWEST	1	304190203	2920
NORTHWEST	1	304190204	2921
NORTHWEST	1	304200101	2923
NORTHWEST	1	304200102	2924
NORTHWEST	1	304200103	2925
NORTHWEST	1	304200201	2926
NORTHWEST	1	304200202	2927
NORTHWEST	1	304200204	2929
NORTHWEST	1	304200205	2930
NORTHWEST	1	304210001	2932
NORTHWEST	1	304220101	2934
NORTHWEST	1	304220102	2935
NORTHWEST	1	304220103	2936
NORTHWEST	1	304220200	2937
NORTHWEST	1	304220301	2938
NORTHWEST	1	304220302	2939
NORTHWEST	1	304220303	2940
NORTHWEST	1	304220401	2941
NORTHWEST	1	304220404	2944
NORTHWEST	1	304230001	2945
NORTHWEST	1	304250101	2955
NORTHWEST	1	304290003	3008
CENTRAL	2	304200206	2931
CENTRAL	2	304210002	2933
CENTRAL	2	304220402	2942
CENTRAL	2	304220403	2943
CENTRAL	2	304230002	2946
CENTRAL	2	304240001	2947
CENTRAL	2	304240002	2948

EXHIBIT I-2(*CONTINUED*)
DETAILED TAZ/SCAGTAZ TO WRCOG TUMF ZONE CORRESPONDENCE

CENTRAL	2	304240003	2949
CENTRAL	2	304240004	2950
CENTRAL	2	304240005	2951
CENTRAL	2	304240006	2952
CENTRAL	2	304240007	2953
CENTRAL	2	304240008	2954
CENTRAL	2	304250102	2956
CENTRAL	2	304250103	2957
CENTRAL	2	304250201	2958
CENTRAL	2	304250202	2959
CENTRAL	2	304250203	2960
CENTRAL	2	304250204	2961
CENTRAL	2	304250205	2962
CENTRAL	2	304250301	2963
CENTRAL	2	304250302	2964
CENTRAL	2	304250303	2965
CENTRAL	2	304260101	2967
CENTRAL	2	304260102	2968
CENTRAL	2	304260103	2969
CENTRAL	2	304260104	2970
CENTRAL	2	304260105	2971
CENTRAL	2	304260106	2972
CENTRAL	2	304260107	2973
CENTRAL	2	304260108	2974
CENTRAL	2	304260109	2975
CENTRAL	2	304260110	2976
CENTRAL	2	304260111	2977
CENTRAL	2	304260201	2978
CENTRAL	2	304260202	2979
CENTRAL	2	304260203	2980
CENTRAL	2	304260204	2981
CENTRAL	2	304260300	2982
CENTRAL	2	304270200	2983
CENTRAL	2	304270501	2990
CENTRAL	2	304270502	2991
CENTRAL	2	304270503	2992
CENTRAL	2	304270505	2994
CENTRAL	2	304270506	2995
CENTRAL	2	304270507	2996
CENTRAL	2	304270508	2997
CENTRAL	2	304270600	2999
CENTRAL	2	304270703	3002
CENTRAL	2	304270704	3003
CENTRAL	2	304280001	3004
CENTRAL	2	304280002	3005
CENTRAL	2	304290001	3006
CENTRAL	2	304290002	3007
CENTRAL	2	304290004	3009
CENTRAL	2	304290007	3012
CENTRAL	2	304290008	3013
CENTRAL	2	304290009	3014
PASS	3	304380601	3040
PASS	3	304380200	3084

EXHIBIT I-2 (CONTINUED)
DETAILED TAZ/SCAGTAZ TO WRCOG TUMF ZONE CORRESPONDENCE

PASS	3	304380301	3085
PASS	3	304380302	3086
PASS	3	304380501	3087
PASS	3	304380502	3088
PASS	3	304380503	3089
PASS	3	304380504	3090
PASS	3	304380505	3091
PASS	3	304380506	3092
PASS	3	304380507	3093
PASS	3	304380508	3094
PASS	3	304380602	3095
PASS	3	304380603	3096
PASS	3	304380604	3097
PASS	3	304380605	3098
PASS	3	304380606	3099
PASS	3	304380607	3100
PASS	3	304390000	3101
PASS	3	304400000	3102
PASS	3	304410001	3103
PASS	3	304410002	3104
PASS	3	304410003	3105
PASS	3	304420000	3106
PASS	3	304430000	3107
SAN_JACINTO	4	304270305	2988
SAN_JACINTO	4	304270306	2989
SAN_JACINTO	4	304270504	2993
SAN_JACINTO	4	304270509	2998
SAN_JACINTO	4	304270701	3000
SAN_JACINTO	4	304270702	3001
SAN_JACINTO	4	304330101	3015
SAN_JACINTO	4	304330102	3016
SAN_JACINTO	4	304330103	3017
SAN_JACINTO	4	304330104	3018
SAN_JACINTO	4	304330105	3019
SAN_JACINTO	4	304330201	3020
SAN_JACINTO	4	304330202	3021
SAN_JACINTO	4	304330300	3022
SAN_JACINTO	4	304340100	3023
SAN_JACINTO	4	304340200	3024
SAN_JACINTO	4	304350101	3025
SAN_JACINTO	4	304350102	3026
SAN_JACINTO	4	304350103	3027
SAN_JACINTO	4	304350104	3028
SAN_JACINTO	4	304350105	3029
SAN_JACINTO	4	304350201	3030
SAN_JACINTO	4	304350202	3031
SAN_JACINTO	4	304350203	3032
SAN_JACINTO	4	304350204	3033
SAN_JACINTO	4	304350205	3034
SAN_JACINTO	4	304350206	3035
SAN_JACINTO	4	304350207	3036
SAN_JACINTO	4	304360000	3037
SAN_JACINTO	4	304370001	3038

EXHIBIT I-2 (CONTINUED)

DETAILED TAZ/SCAGTAZ TO WRCOG TUMF ZONE CORRESPONDENCE

SAN JACINTO	4	304370002	3039
SAN JACINTO	4	304320307	3068
SOUTHWEST	5	304190205	2922
SOUTHWEST	5	304200203	2928
SOUTHWEST	5	304270301	2984
SOUTHWEST	5	304270302	2985
SOUTHWEST	5	304270303	2986
SOUTHWEST	5	304270304	2987
SOUTHWEST	5	304290005	3010
SOUTHWEST	5	304290006	3011
SOUTHWEST	5	304300001	3041
SOUTHWEST	5	304300002	3042
SOUTHWEST	5	304300003	3043
SOUTHWEST	5	304300004	3044
SOUTHWEST	5	304300005	3045
SOUTHWEST	5	304300006	3046
SOUTHWEST	5	304300007	3047
SOUTHWEST	5	304300008	3048
SOUTHWEST	5	304319801	3049
SOUTHWEST	5	304319802	3050
SOUTHWEST	5	304319803	3051
SOUTHWEST	5	304319804	3052
SOUTHWEST	5	304319805	3053
SOUTHWEST	5	304320101	3054
SOUTHWEST	5	304320102	3055
SOUTHWEST	5	304320103	3056
SOUTHWEST	5	304320104	3057
SOUTHWEST	5	304320201	3058
SOUTHWEST	5	304320202	3059
SOUTHWEST	5	304320203	3060
SOUTHWEST	5	304320204	3061
SOUTHWEST	5	304320301	3062
SOUTHWEST	5	304320302	3063
SOUTHWEST	5	304320303	3064
SOUTHWEST	5	304320304	3065
SOUTHWEST	5	304320305	3066
SOUTHWEST	5	304320306	3067
SOUTHWEST	5	304320401	3069
SOUTHWEST	5	304320402	3070
SOUTHWEST	5	304320403	3071
SOUTHWEST	5	304320404	3072
SOUTHWEST	5	304320405	3073
SOUTHWEST	5	304320406	3074
SOUTHWEST	5	304320407	3075
SOUTHWEST	5	304320408	3076
SOUTHWEST	5	304320409	3077
SOUTHWEST	5	304320410	3078
SOUTHWEST	5	304320411	3079
SOUTHWEST	5	304320501	3080
SOUTHWEST	5	304320502	3081
SOUTHWEST	5	304320503	3082
SOUTHWEST	5	304320504	3083

EXHIBIT I-3
2030 VEHICLE-TRIPS BY WRCOG TUMF ZONE
DAILY HOME-BASED-WORK TRIPS ONLY

	TO						
FROM	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	TOTAL
Northwest	265,939	38,100	1,795	763	2,207	167,469	476,273
Central	45,642	106,773	4,425	4,952	10,790	33,577	206,159
Pass Area	4,310	11,628	33,206	2,279	281	28,634	80,337
Hemet / San Jacinto	3,880	22,564	3,026	69,445	12,729	5,097	116,741
Southwest	16,405	42,638	1,394	13,265	163,796	22,284	259,781
Outside WRCOG	130,676	30,429	17,104	4,070	3,219		185,498
TOTAL	466,852	252,131	60,949	94,774	193,022	257,061	1,324,789

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

EXHIBIT I-3 (continued)
2030 VEHICLE-TRIPS BY WRCOG TUMF ZONE
DAILY HOME-BASED-OTHER TRIPS ONLY

	TO						
FROM	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	TOTAL
Northwest	662,872	41,011	1,316	1,085	4,361	113,395	824,040
Central	38,284	269,031	3,543	9,829	12,003	20,779	353,469
Pass Area	3,574	7,220	111,982	3,475	203	22,590	149,045
Hemet / San Jacinto	1,541	5,645	1,332	229,418	4,303	2,238	244,477
Southwest	19,002	38,608	876	17,340	417,228	13,110	506,165
Outside WRCOG	180,554	24,232	25,467	8,441	7,315		246,009
TOTAL	905,828	385,746	144,517	269,588	445,413	172,113	2,323,205

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

EXHIBIT I-3 (continued)
2030 VEHICLE-TRIPS BY WRCOG TUMF ZONE
DAILY HOME-BASED-SCHOOL (K-12) TRIPS ONLY

	TO						
FROM	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	TOTAL
Northwest	180,076	9,984	1,071	390	2,821	1,432	195,774
Central	10,182	69,416	3,719	2,230	4,231	320	90,099
Pass Area	120	340	25,228	804	5	205	26,702
Hemet / San Jacinto	34	478	126	35,350	688	191	36,866
Southwest	738	4,513	250	2,493	108,249	252	116,496
Outside WRCOG	4,080	117	410	621	178		5,406
TOTAL	195,230	84,849	30,805	41,888	116,172	2,399	471,343

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

EXHIBIT I-3 (continued)
2030 VEHICLE-TRIPS BY WRCOG TUMF ZONE
DAILY WORK-BASED-OTHER TRIPS ONLY

	TO						
FROM	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	TOTAL
Northwest	196,737	13,809	1,558	809	2,900	75,188	291,000
Central	15,122	76,430	2,658	2,546	4,776	13,876	115,408
Pass Area	1,366	1,852	28,692	1,305	217	8,902	42,333
Hemet / San Jacinto	1,076	3,590	947	60,931	2,832	2,531	71,906
Southwest	3,368	7,438	415	3,607	102,271	6,370	123,468
Outside WRCOG	65,549	10,189	8,873	2,052	3,351		90,014
TOTAL	283,217	113,308	43,144	71,249	116,346	106,865	734,129

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

EXHIBIT I-3 (continued)
2030 VEHICLE-TRIPS BY WRCOG TUMF ZONE
DAILY OTHER-BASED-OTHER TRIPS ONLY

	TO						
FROM	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	TOTAL
Northwest	391,312	28,820	1,339	634	4,160	85,051	511,316
Central	26,365	157,979	3,803	4,534	10,074	11,355	214,110
Pass Area	1,146	3,029	61,564	2,209	132	10,936	79,016
Hemet / San Jacinto	623	4,379	1,241	128,229	3,824	1,620	139,916
Southwest	3,319	10,043	145	3,916	208,473	3,011	228,906
Outside WRCOG	89,421	10,441	11,610	1,753	2,361		115,586
TOTAL	512,185	214,692	79,703	141,274	229,023	111,973	1,288,850

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

Appendix J

Western Riverside County Regional Trip Purpose

In order to establish the rough proportionality of the future traffic impacts associated with new residential development and new non-residential development, 2030 Plan person trip productions from the SCAG Regional Transportation Model were aggregated by trip purpose. The SCAG model produces person trips (irrespective of mode choice) on the basis of five trip purposes including home-based-work (HBW), home-based-other (HBO), home-based-school K-12 (HBS), work-based-other (WBO), and other-based-other (OBO). Person trip productions were aggregated into home-based person trips (combining the first three purposes) and non-home-based person trips (combining the last two purposes). The home-based person trips represent 67.6% of the total future person trips, and the non-home-based person trips represent 32.4% of the total future person trips as shown in **Table 5.4**.

Exhibits J-1 through **J-5** of this appendix include the SCAG model data aggregated for each trip purpose between the respective TUMF zones. This data was subsequently applied to develop the trip purpose summary in **Table 5.4** and to estimate the rough proportionality of the TUMF network cost attributable to residential and non-residential land uses.

This approach for estimating the rough proportionality of the future traffic impacts associated with new residential development and new non-residential development, respectively, is consistent with the provisions of NCHRP Report #187 Quick Response Urban Travel Estimation Techniques and Transferable Parameters User's Guide (Transportation Research Board, 1978). NCHRP Report #187 details operational travel estimation techniques that are universally used for travel demand modeling. Chapter 2 of this report, which details trip generation estimation, states that "HBW (Home Based Work) and HBNW (Home Based Non Work) trips are generated at the households, whereas the NHB (Non-Home Based) trips are generated elsewhere." Consistent with NCHRP Report #187, aggregating person trip productions into home-based person trips (combining home-based-work, home-based-other and home-based-school K-12) and non-home-based person trips (combining work-based-other, and other-based-other) represents an appropriate way to allocate trip generation between residential and non-residential land uses for the purpose of estimating the rough proportionality of the TUMF fee.

EXHIBIT J-1
PERSON-TRIPS BY WRCOG TUMF ZONE
DAILY HOME-BASED-WORK TRIPS ONLY

	TO						
FROM	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	SUM
Northwest	322,731	43,285	2,014	854	2,496	200,716	572,095
Central	54,963	131,072	4,963	5,476	12,322	42,479	251,275
Pass Area	5,215	13,366	40,807	2,558	333	33,061	95,340
Hemet / San Jacinto	4,751	25,698	3,462	84,259	14,445	6,215	138,830
Southwest	19,075	47,924	1,576	14,587	189,141	27,840	300,143
Outside WRCOG	153,684	36,997	19,198	4,534	3,736	12,508,421	
SUM OF WRCOG ONLY							1,357,683

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

EXHIBIT J-2
PERSON-TRIPS BY WRCOG TUMF ZONE
DAILY HOME-BASED-OTHER TRIPS ONLY

	TO						
FROM	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	SUM
Northwest	1,060,073	64,820	2,075	1,705	6,853	181,658	1,317,184
Central	62,528	439,073	5,689	15,710	19,185	34,010	576,194
Pass Area	5,738	11,515	179,481	5,593	331	35,649	238,306
Hemet / San Jacinto	2,507	9,137	2,137	366,320	6,822	3,703	390,625
Southwest	29,771	60,375	1,390	27,012	661,191	20,975	800,713
Outside WRCOG	294,518	40,027	40,865	13,492	11,699	26,377,178	
SUM OF WRCOG ONLY							3,323,023

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

EXHIBIT J-3
PERSON-TRIPS BY WRCOG TUMF ZONE
DAILY HOME-BASED-SCHOOL (K-12) TRIPS ONLY

	TO						
FROM	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	SUM
Northwest	286,843	15,541	1,648	609	4,545	1,965	311,150
Central	13,447	123,930	5,601	3,436	6,754	461	153,629
Pass Area	166	521	44,082	1,168	8	318	46,264
Hemet / San Jacinto	49	779	194	62,517	1,143	314	64,996
Southwest	1,009	6,698	396	3,704	167,815	414	180,036
Outside WRCOG	5,611	173	667	1,026	315	6,109,471	
SUM OF WRCOG ONLY							756,074

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

EXHIBIT J-4
PERSON-TRIPS BY WRCOG TUMF ZONE
DAILY WORK-BASED-OTHER TRIPS ONLY

	TO						
FROM	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	SUM
Northwest	249,300	16,357	1,857	971	3,445	90,722	362,651
Central	18,002	96,827	3,116	2,991	5,629	16,823	143,387
Pass Area	1,650	2,194	35,949	1,540	266	10,774	52,373
Hemet / San Jacinto	1,315	4,244	1,144	77,140	3,359	3,188	90,391
Southwest	4,078	8,702	495	4,221	124,968	7,983	150,446
Outside WRCOG	78,935	12,392	10,633	2,516	4,158	7,388,757	
SUM OF WRCOG ONLY							799,247

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

EXHIBIT J-5
PERSON-TRIPS BY WRCOG TUMF ZONE
DAILY OTHER-BASED-OTHER TRIPS ONLY

	TO						
FROM	Northwest	Central	Pass Area	Hemet / San Jacinto	Southwest	Outside WRCOG	SUM
Northwest	603,734	44,279	2,268	1,063	6,681	135,475	793,500
Central	40,324	241,918	5,970	7,065	15,699	18,381	329,358
Pass Area	2,007	4,921	94,081	3,519	239	18,132	122,900
Hemet / San Jacinto	1,105	7,005	1,959	197,236	6,186	2,815	216,307
Southwest	5,309	15,283	244	6,029	314,538	5,027	346,431
Outside WRCOG	143,837	17,482	18,930	2,994	4,039	14,284,882	
SUM OF WRCOG ONLY							1,808,496

Based on the SCAG 2004 Regional Transportation Plan, Year 2030 Plan scenario.

Appendix K

Residential Fee Calculation

In general, the fee for the TUMF program is calculated based on the following formula:

$$\frac{\boxed{\text{Unit Cost Assumptions}} \times \boxed{\text{Recommended Network Improvements}}}{\boxed{\text{Change in Residential and Non-Residential Development}}} = \text{TUMF}$$

Applying this formula, Unit Cost Assumptions for the various eligible TUMF project types are used to estimate the overall cost to improve the TUMF Network as described in the TUMF Nexus Study. The resultant network improvement cost is then divided proportionally between various residential and non-residential development categories such that each new development type contributes its 'fair share' to the program. Any change in one formula variable has a related impact on the overall TUMF fee, although it is important to note that the resultant impact to the overall fee is not necessarily directly proportional to the formula variable change due to the intricacies of the fee calculation.

The residential fee was calculated by multiplying the estimated TUMF Network improvements cost attributable to mitigating the cumulative regional impacts of new development (**Section 4.0**) by the proportion of all regional trips that are generated by residential land uses (**Section 5.3**), and dividing this number by the projected increase in residential units between 2000 and 2030 (**Table 2.3**).

To account for the difference in trip generation rates between single-family residential units and multi-family residential units, the fee value was normalized for each of these housing types by first multiplying the proposed growth in households between 2000 and 2030 by the existing proportional share of each household type, and then multiplying the resultant values by the respective trip generation rate as published in the Institute of Traffic Engineers Trip Generation Manual, Seventh Edition, 2003. The respective fee values are presented in **Section 6.1**. **Exhibit K-1** details the calculation of the residential fee (and non-residential fee).

EXHIBIT K-1 WESTERN RIVERSIDE COUNTY TUMF FEE ESTIMATE
BY PERCENT OF TUMF SHARE WEIGHTED BY TRIP GENERATION RATE
Based on Needed Improvements to the Regional System of Highways and Arterials

Residential	Dwelling Units			Trip Generation Rate	Trip Change	Percentage of Trip Change	Fee/DU	
	2000	2030	Change					
Single Family Residential	262,904	496,005	233,101	9.57	2,230,777	66.1%	9,693	
Multi Family Residential	118,278	288,442	170,164	6.72	1,143,502	33.9%	6,806	
Total	381,182	784,447	403,265		3,374,279	100.0%		
Non-Residential	Employees			Trip Generation Rate	Trip Change	Percentage of Trip Change	Change in SF of GFA	Fee/SF of GFA
	2000	2030	Change					
Industrial	140,284	278,152	137,868	3.3	454,964	10.9%	78,374,354	\$2.27
Retail	74,356	197,494	123,138	14.6	1,797,815	42.9%	56,296,120	\$12.49
Service	133,567	364,291	230,724	5.1	1,165,156	27.8%	71,941,258	\$6.33
Government/Public Sector	39,556	75,729	36,173	21.3	770,485	18.4%	16,076,889	\$18.74
Total	387,763	915,666	527,903		4,188,420	100.0%	222,688,620	

Notes:

- trip generation rates based on ITE Trip Generation 7th Edition (2003) rates for weekday vehicle trip ends
- residential formula: [(TUMF cost share)(residential share of trips) / (change in housing units)] * (percentage of trip change)
- non-residential formula: [(TUMF cost share)(non-residential share of trips) / (change in SF of GFA)] * (percentage of trip change)

Calculation Inputs:

residential share of trips	67.6%
non-residential share of trips	32.4%
total TUMF cost	\$5,309,543,000
existing improvement funding	\$116,706,000
unfunded existing need cost	\$137,214,000
MAX TUMF VALUE	\$5,055,623,000
MAX TUMF SHARE	95.2%
Residential Value	\$3,417,601,000
Non-Residential Value	\$1,638,022,000

Appendix L

Non-Residential Fee Calculation and Land Use Density Conversion Factors

The non-residential fee was calculated by multiplying the estimated Regional System of Highways and Arterials improvements cost attributable to new development (**Section 4.0**) by the proportion of all regional trips that are generated by non-residential land uses (**Section 5.3**), and dividing this number by the projected increase in non-residential land use between 2000 and 2030 (**Table 2.3, Section 2.0**) and the proportional share of new employees in each sector.

In preparation for the fee calculation, SCAG 2004 RTP employment data by sector was first converted to land use as square feet of gross floor area (SF GFA). Non-residential employee to gross floor area conversion factors were derived from two sources. These sources are:

- Cordoba Corporation/Parsons Brinckerhoff Quade and Douglas, Inc., Land Use Density Conversion Factors For The Long-Range Corridor Study San Bernardino and Riverside Counties, August 20, 1990.
- Orange County Transportation Authority (OCTA), Orange County Subarea Modeling Guidelines Manual, June 2001.

The employment conversion factors developed for use in the calculation of the non-residential fee are tabulated in **Exhibit L-1**. The relevant sections of these respective publications are included in this Appendix as **Exhibit L-2** and **L-3**.

To account for the difference in trip generation rates between the various employment sectors, the non-residential fee value for each sector was normalized by multiplying by the respective median trip generation rate for the range of associated land use types as published in the Institute of Traffic Engineers Trip Generation Manual, Seventh Edition, 2003. The respective fee values are presented in **Section 6.2**. The table detailing the calculation of the non-residential fee (and residential fee) is included in **Appendix K** as **Exhibit K-1**.

EXHIBIT L-1

Non-Residential Employment Conversion Factors and Trip Generation Rates

EXHIBIT L-1.1 EMPLOYMENT CONVERSION FACTORS

Employment Sector	Business by Land Use Category (1)	Employees	Gross Floor Area (TSF)	Conversion Rate (Employees/TSF)	Land Use Category (2)	Minimum Range Conversion Rate (Employees/TSF)	TUMF Employment Conversion Factors (Employees per TSF)
Industrial	Heavy Manufacturing	6,379	5,117	1.25	R&D/LI/BP	2.50	1.76
	General Manufacturing	11,603	6,103	1.90	Heavy Industry	2.00	
	Light Manufacturing	8,624	3,962	2.18	Warehouse	1.00	
	Manufacturing, Small Module	5,559	3,038	1.83			
	High Tech/Research	954	411	2.32			
	Wholesale, Trade Industry	6,120	4,140	1.48			
	Warehousing	119	279	0.43			
	General Industry	1,023	917	1.12			
	Total/Average	40,381	23,967	1.68	Average	1.83	
Retail	Retail Trade	34,821	20,125	1.73	Commercial	2.25	2.19
	Restaurant	23,345	4,061	5.75	Restaurant	3.00	
	Personnal, Rental and Repair	3,452	1,590	2.17			
	Equipment Rental	1,080	453	2.38			
	General Commercial	12,978	17,023	0.76			
	Total/Average	75,676	43,252	1.75	Average	2.63	
Service	Financial/Insurance/Real Estate	7,738	1,095	7.07	Office	3.00	3.21
	Small Office	3,945	548	7.20	Medical/PO/Bank	3.50	
	Professional Services	5,470	1,529	3.58	Hospital	2.50	
	Business Services	6,680	1,966	3.40			
	General Offices	8,900	3,886	2.29			
	Medical Services	9,006	3,201	2.81			
	Total/Average	41,739	12,225	3.41	Average	3.00	
Government/Public Sector					Government/ Civic	3.00	2.25
					Library	1.50	
					Average	2.25	

Notes:

- Business by Land Use Categories Wholesale Trade Commercial and Automotive Repair were excluded as there is inconsistencies between the Land Use Density Conversion Factors For Long Range Corridor Study San Bernardino and Riverside Counties categorization, and the NAICS Major Group categorization.

- OCTA Typical Employment Conversion Factors for Hotel/Motel, Schools, Golf Course, Developed Park, Park and Agricultural were excluded as they are calculated from units other

- TUMF Employment Conversion Factor is the simple average of (1) and (2) Conversion Rates

(1) Cordoba Corporation/PBQD, Land Use Density Conversion Factors For Long Range Corridor Study San Bernardino and Riverside Counties, August 20, 1990. Table 8.

(2) OCTA, Orange County Subarea Model Guidelines Manual, June 2001. Appendix C.

EXHIBIT L-1.2 POPULATION AND EMPLOYMENT ESTIMATES

Sector	2000	2030	Change	Employee Conversion Factor / TSF	Change in SF of GFA
Population	1,193,862	2,400,017	1,206,155		
Households					
Single-Family	262,904	496,005	233,101		
Multi-Family	118,278	288,442	170,164		
Totals	381,182	784,447	403,265		
Employees					
Industrial	140,284	278,152	137,868	1.76	78,374,354
Retail	74,356	197,494	123,138	2.19	56,296,120
Service	133,567	364,291	230,724	3.21	71,941,258
Government/Public Sector	39,556	75,729	36,173	2.25	16,076,889
Totals	387,763	915,666	527,903		222,688,620

Notes:

- 2000 Population, Household and Employment reflects SCAG 2004 RTP '2000 Baseline' data
- 2030 Households reflects SCAG 2004 RTP '2030 Baseline' forecast data
- 2030 Population and Employment reflects SCAG 2004 RTP '2030 Plan' forecast data

EXHIBIT L-1.3 TRIP GENERATION RATE COMPARISON

Non-Residential									
	Employee Growth	SF Growth	ITE Median Trips Per Employee	ITE Median Trips per TSF	Trip Growth (SFGrowth * ITEMedian)	Calculated Trips per Employee	Average Trips Per Employee	Median Share Pass By Trips (Retail Uses)	Adjusted Trips Per Employee
Industrial	137,868	78,374,354	3.2	6.0	470,246	3.4	3.3		3.3
Retail	123,138	56,296,120	28.8	49.2	2,769,769	22.5	25.7	43%	14.6
Service	230,724	71,941,258	4.6	17.6	1,266,166	5.5	5.1		5.1
Public/Non Profit	36,173	16,076,889	12.0	68.9	1,107,698	30.6	21.3		21.3
	527,903	222,688,620			5,613,879				

EXHIBIT L-1.4 SAMPLE ITE TRIP GENERATION RATES

Land Use Category	ITE Reference	Weekday Trips per TSF*	Weekday Trips per Employee	PM Peak Pass by Trips**
Industrial				
Truck Terminal	30	9.85	6.99	
General Light Industry	110	6.97	3.02	
General Heavy Industry	120	1.50	0.82	
Industrial Park	130	6.96	3.34	
Manufacturing	140	3.82	2.13	
Warehousing	150	4.96	3.89	
<i>Medians</i>		5.96	3.18	
Retail				
Building Materials and Lumber	812	45.16	32.12	
Discount Superstore	813	49.21		28%
Specialty Retail Center	814	44.32	22.36	
Discount Store	815	56.02	28.84	17%
Hardware Store	816	51.29	53.21	26%
Nursery (Garden Center)	817	36.08	22.13	
Shopping Center	820	42.94		34%
Factory Outlet Center	823	26.59		
New Car Sales	841	33.34	21.14	
Auto Parts Store	843	61.91		43%
Tire Store	848	24.87		28%
Supermarket	850	102.24	87.82	36%
Convenience Market	851	737.99		61%
Convenience Market with Fuel Pumps	853	845.60		63%
Discount Supermarket	854	96.82		23%
Discount Club	861	41.80	32.21	
Home Improvement Superstore	862	29.80		48%
Electronics Superstore	863	45.04		40%
Pharmacy with Drive Through	881	88.16		49%
Furniture Store	890	5.06	12.19	53%
Quality Restaurant	931	89.95		44%
High Turnover (Sit-Down) Restaurant	932	127.15		43%
Fast Food Restaurant with Drive Throug	934	496.12		49%
<i>Medians</i>		49.21	28.84	43%
Service				
Hospital	610	17.57	5.20	
Clinic	630	31.45	7.75	
General Office	710	11.01	3.32	
Medical-Dentist Office Building	720	36.13	8.91	
Office Park	750	11.42	3.50	
Business Park	770	12.76	4.04	
Walk-in Bank	911	21.49		
<i>Medians</i>		17.57	4.62	
Government/Public Sector				
Government Office Building	730	68.93	11.95	
<i>Medians</i>		68.93	11.95	

Notes:

* - Average weekday daily trip generation data derived from ITE Trip Generation (Seventh Edition), 2003

** - Average weekday PM peak pass-by ttip rates derieved from ITE Trip Generation Handbook, June 2004

EXHIBIT L-2

Land Use Density Conversion Factors For The Long-Range Corridor Study San Bernardino and Riverside Counties

Cordoba Corporation/Parsons Brinckerhoff Quade and Douglas, Inc., August 20, 1990.

**LAND USE DENSITY CONVERSION FACTORS
FOR THE LONG-RANGE CORRIDOR STUDY
SAN BERNARDINO AND RIVERSIDE COUNTIES**

Submitted to:

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Submitted by:

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617 South Olive Street, Suite 510
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August 20, 1990

CORDOBA CORPORATION

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I. INTRODUCTION

The Southern California Association of Governments aims to identify appropriate transportation corridors in the San Bernardino and Riverside area. Currently, these two counties are experiencing rapid growth in terms of business development and housing. Therefore, it is likely that additional transportation systems will be necessary in order to accommodate an increased transportation demand from future growth.

In order to estimate future transportation needs, RIVSAN, a transportation computer model, will be used. The RIVSAN model requires the following land use conversion factors to estimate future needs:

- 1) Single-family dwelling units per acre
- 2) Multi-family dwelling units per acre
- 3) Retail employees per acre
- 4) Non-retail employees per acre

These conversion factors will be multiplied by the number of acres for each city by land use category in order to derive aggregate, buildout figures for the two-county area. From the buildout conditions, RIVSAN will calculate trips per day for the area to identify the concentration of trip patterns. From the RIVSAN output, SCAG will be able to identify where the corridors in the two-county area that will need to be protected, expanded or constructed.

Sources for the conversion factor data contained in this report include:

- 1) An original survey of 14 representative cities in the area.
- 2) A literature search of national planning organizations and other sources.
- 3) An independent data collection and research by Cordoba Corporation.

II. POPULATION/EMPLOYMENT DENSITY CONVERSION FACTOR DATA COLLECTION

In order to determine the appropriate conversion factors for the San Bernardino and Riverside Counties, a total of 14 incorporated cities were surveyed for population and employment density figures. These cities were selected by SCAG and its consultants, Parsons Brinckerhoff Quade & Douglas (PBQ&D) and Cordoba Corporation, as a representative sample of the area.

1. Study Area Description

A total of 14 cities in San Bernardino and Riverside Counties were chosen representing various sizes and geographical locations. The smallest city was Beaumont, with a population of 9,300. The largest city surveyed was Riverside, with a population of 211,758. Household sizes ranged from 1.99 in Hemet and 3.08 in Moreno Valley.

The 14 cities surveyed include:

- | | |
|------------------|--------------------|
| o Banning | o Beaumont |
| o Colton | o Corona |
| o Grand Terrace | o Hemet |
| o Lake Elsinore | o Moreno Valley |
| o Ontario | o Rancho Cucamonga |
| o Redlands | o Riverside |
| o San Bernardino | o Upland |

2. Survey Methodology

A survey of municipal land use was developed by Cordoba Corporation and approved by SCAG and PBQD project management. A copy of the survey is included in Appendix A. The survey included the following major information:

- o Units per acre by residential land use
- o Number of employees per acre by retail and non-retail commercial land uses
- o Number of employees per acre by industrial land uses

The surveys were distributed in March 1990. Prior to the distribution, each city was telephoned to advise that Cordoba would be requesting their participation with a major land use density survey. Simultaneously, a copy of the survey was faxed to each city. The Planning or Community Development Directors of each city received a letter from Cordoba Corporation requesting their cooperation with the survey. After a number of follow-up telephone calls, all surveys were returned. The Planning or Community Development Department provided currently available requested data. Some cities were not able to provide complete information.

3. Summary of Findings

The residential, commercial and industrial information provided by each city is summarized in Table 1.

3.1 Residential

All cities provided information on residential land use. The classification of residential land use categories varied for each city. However, eight categories ranging from Agricultural/Rural/Hillside to High residential appeared to be the most common. The data ranges of dwelling units per acre for each residential category are presented below:

<u>Resident Land Use Category</u>	<u>Dwelling Units Per Acre (Range)</u>	
	<u>Low</u>	<u>High</u>
Agricultural/Rural/Hillside	.20	1.0
Very Low/Estate	.50	4.75
Low	2.0	13.62
Low-Medium	3.0	9.0
Residential Suburban	8.0	15.94
Medium	12.0	24
Medium-High	16.0	36.0
High	16.0	36

Other less common categories included Mixed Use, Mobile Homes and Planned District which are included in Table 1.

3.2. Commercial

The data for commercial land use is provided according to the number of employees per acre for both retail and non-retail commercial uses. However, of the 14 cities surveyed, only three provided responses for commercial land use: Corona, Lake Elsinore and Riverside.

The number of Retail Employees Per Acre provided by the respondent cities ranged from 5 to 46.91 employee per acre. The Non-Retail category constituted a higher range, from 32 to 51 employees per acre.

The concentration of employees from this limited sample appear to be in the Central Business District and General Commercial categories for retail employees. For non-retail employees, the Office/Professional land use category was the highest with 50 to 52 employees per acre.

TABLE 1
POPULATION, HOUSEHOLD SIZE, RESIDENTIAL AND EMPLOYMENT DATA

	BANNING	BEUAMONT	COLTON	CORONA	GRAND TERRACE	HEMET	LAKE ELSINORE	MORENO VALLEY	ONTARIO
1989 POPULATION	19,152	9,300	37,900	61,035	10,859	33,334	14,986	112,000	128,510
1989 HOUSEHOLD SIZE	2.64	2.39	2.70	3.09	2.84	1.99	2.70	3.48	3.08
RESIDENTIAL (Dwelling Units per Acre)									
Ag/Rural/Hillside Res.				0.20	1.00	0.24		0.40	
Very Low/Estate	1.00	4.75	1.50	1.40	2.00		0.50	1.00	
Low	3.80	13.62	4.30	4.00	4.00	3.45	4.80	2.00	4.00
Low-Medium				3.90	9.00			3.00	
Res. Suburban								4.00	
Medium	8.00	14.91	8.00	11.50	12.00	15.94	10.00	8.00	14.95
Medium-High								12.00	
High	18.00		20.00	22.00		23.12	18.00	16.00	18.62
Mixed use							12.00		
Mobile Homes		10.91							
Planned District							3.10		
COMMERCIAL (Retail Emp. per Acre)									
CBD				46.91					
Gen. Comm.				46.91					
Neighborhood							24.00		
Tourist							29.00		
General							29.00		
Comm./Manu							17.00		
Retail Business & Office							24.00		
Visitor Commercial									
Service Commercial									
Automotive									
COMMERCIAL (Non-Ret Emp. per Acre)									
Comm./Manu							32.00		
Office/Prof.							52.00		
INDUSTRIAL (Non-Ret Emp. per Acre)									
General Industrial				17.42					
Light Industrial				29.04					
Industrial Park									
High Density Industry									
Low Density Industry									
Garden Industrial									
Air Industrial									
Limited							32.00		

TABLE 1
POPULATION, HOUSEHOLD SIZE, RESIDENTIAL AND EMPLOYMENT DATA

	RANCHO CUCAMONGA	REDLANDS	RIVERSIDE	SAN BERNARDINO	UPLAND	NUMBER OF RESPONSES	RANGE OF RESPONSES	AVG
1989 POPULATION	104,724	59,833	211,758	153,660	63,948	14	9,300 - 211,758	72,929
1989 HOUSEHOLD SIZE	3.21	2.67	2.84	2.60	2.66	14	1.99 - 3.48	2.78
RESIDENTIAL (Dwelling Units per Acre)								
Ag/Rural/Hillside Res.		0.20	0.20			6	.20 - 1.0	0.37
Very Low/Estate	1.75		1.50	1.00	2.00	11	.50 - 4.75	1.67
Low	3.50	5.00	3.00	3.10	3.00	14	2.0 - 13.62	4.40
Low-Medium	7.00		4.00	4.50	4.00	7	3.0 - 9.0	5.06
Res. Suburban				9.00	9.00	3	8.0 - 15.94	7.33
Medium		12.00		14.00	12.00	12	12.0 - 24.0	11.78
Medium-High	22.17		12.00	24.00	20.00	5	16.0 - 36.0	18.03
High	31.50		20.00	36.00	30.00	11	16.0 - 36.0	23.02
Mixed use						1	12	12.00
Mobile Homes					8.00	2	8.0 - 10.91	9.46
Planned District						1	3.10	3.10
COMMERCIAL (Retail Emp. per Acre)								
CBD						1	46.91	46.91
Gen. Comm.						1	46.91	46.91
Neighborhood						1	24	24
Tourist						1	29	29
General						1	29	29
Comm./Manu						1	17	17
Retail Business & Office			20.00			2	20 - 24	22
Visitor Commercial			15.00			1	15	15
Service Commercial			20.00			1	20	20
Automotive			5.00			1	5	5
COMMERCIAL (Non-Ret Emp. per Acre)								
Comm./Manu						1	32	32
Office/Prof.			50.00			2	50 - 52	51
INDUSTRIAL (Non-Ret Emp. per Acre)								
General Industrial			14.00			2	14.0 - 17.42	15.71
Light Industrial						1	29.04	29.04
Industrial Park			14.00			1	14	14
High Density Industry			14.00			1	14	14
Low Density Industry			4.00			1	4	4
Garden Industrial			14.00			1	14	14
Air Industrial			14.00			1	14	14
Limited								

3.3 Industrial

The industrial information gathered from the 14 cities was also limited; the same three cities (Corona, Lake Elsinore and Riverside) reported employee-per-acre figures. All industrial employees are classified as non-retail. The data collected for the industrial, non-retail category ranged from 4 to 29.04 employees per acre. Lake Elsinore reported 32 employees per acre, of industrial land use.

III. EMPLOYEE PER ACRE FIGURES

The response rate was relatively low for the commercial and industrial sections. Only three cities, Corona, Lake Elsinore and Riverside, partially completed the commercial and industrial sections of the questionnaire. The reason for not responding was lack of available data and shortage of available staff time. Due to the low response rate, it was not possible to develop accurate land use density conversion factors from the survey data. Secondary sources were explored, in order to determine better employee per acre figures.

The following sources were used to develop land use density conversion factors:

- o A literature search to identify standard, "rule of thumb" land use density conversion factors for general uses.
- o A review of land use density conversion factors used by other planning firms.

1. National Planning Organizations

In an attempt to fill the commercial and industrial conversion factor data gap, an extensive literature search of published information was conducted. The Urban Land Institute (ULI) and the American Planning Association (APA) were contacted regarding this data. Both ULI and APA are national, non-profit education and research organizations that sponsor a wide variety of education programs, interprets current land use trends, and disseminates pertinent information. Neither organization were able to provide adequate information.

ULI does offer a 1987 publication entitled "Parking Requirements for Shopping Centers" that includes average employee and customer parking requirements for shopping center space. From these averages it would be possible to estimate number of employees on the basis of numbers of parking spaces. Typically, fifteen percent of the parking spaces in a shopping center are used by employees. This estimate assumes that one parking space is occupied by one employee. Recent data shows that often one parking space is occupied by two carpooling employees. Therefore, this estimate would be questionable. In addition, this methodology only provides estimates for shopping centers and no other categories and land uses.

In addition to ULI and APA, the following sources were researched.

- o The UCLA Graduate Research Library
- o Graduate Management Library
- o The Housing, Real Estate and Urban Land Studies Library
- o The USC Library
- o The City of Los Angeles Public Library.
- o Building Owners and Managers Association (BOMA)

Of these sources, Builders and Owners Management Association (BOMA) had the most useful information. BOMA conducted a survey in 1988 regarding numbers of employees per square foot of office space. Buildings in San Diego, Los Angeles and Orange Counties were surveyed and classified as downtown or suburban facilities. The results of this survey are listed in Table 2, below.

**TABLE 2
AVERAGE OFFICE SPACE PER EMPLOYEE
(IN SQUARE FEET)**

	<u>San Diego County</u>	<u>Los Angeles County</u>	<u>Orange County</u>
Downtown Office Space	249	242	*
Suburban Office Space	288	200	224

* All office buildings in Orange County are considered suburban.
Source: BOMA, 1988

The Los Angeles Downtown office space figures do not apply to the subject study area, and are listed here for reference purposes only.

2. Other Sources

A report completed in May, 1990 by Cordoba Corporation estimated employment generation factors for office, retail, wholesale and warehouse uses in Downtown Los Angeles. This report included a review of "rule of thumb" employment ratios, literature search and review of available land use databases. The results of this research are listed in Table 3.

**TABLE 3
EMPLOYMENT GENERATION FACTORS
BY LAND USE CATEGORIES
CENTRAL BUSINESS DISTRICT
LOS ANGELES**

<u>Land Use Category</u>	<u>Square Feet Per Employee</u>	<u>Employees Per 1,000 Sq. Ft.</u>
Commercial Retail	333	3.00 employees
Commercial Non-retail (Office)	225	4.44 employees
Industrial	333	3.00 employees
Wholesale	500	2.00 employees
Warehouse	500	2.00 employees

Source: Cordoba Corporation, 1990

In general, most firms contacted did not develop land use conversion factors for the project area. The Research Network was the only firm that offered the results of their work completed for the City of Corona. The results are listed in Table 4.

**TABLE 4
EMPLOYMENT GENERATION FACTORS
BY LAND USE CATEGORIES
CITY OF CORONA**

<u>Land Use Type</u>	<u>Building Coverage</u>	<u>Square Feet Per Employee</u>
Industrial	40%	1,000
Research & Design	40%	325
Retail	35%	400
Office	35%	250

Source: Research Network, 1990

In order to calculate employees per square feet the Research Network used building coverage. Building coverage only includes the footprint of the structure. For example, a six story mid rise office building would have the same building coverage as a one story office building, because both buildings cover the same amount of land. Therefore, a better variable than building coverage is needed, in order to determine more accurate density conversion factors. Floor area ratio, which is total usable square feet divided by land area, was selected as the variable to calculate the density conversion factors.

3. Floor Area Ratio Survey and Analysis

The FAR was used to calculate employees per acre figures. In order to obtain accurate FAR figures for commercial/business districts in San Bernardino/Riverside Counties, fourteen subject cities were contacted. The city of Irvine was also contacted and used as a comparison to the subject cities.

Most of the cities estimated their FARs between 0.35 and 0.50. Many cities, however maintained no data regarding FARs.

Table 5 presents the results of the FAR survey for cities in Riverside, San Bernardino and Orange Counties. In summary, most cities did not have complete FAR information, if at all.

**TABLE 5
FLOOR AREA RATIO SURVEY RESULTS
COMMERCIAL AND OFFICE CATEGORIES
RIVERSIDE AND SAN BERNARDINO COUNTIES**

<u>City</u>	<u>Average Floor Area Ratio</u>
Irvine:	
- Airport Area Class A Office	.25
- Other Office	.35 - .50
Colton	.40 - .60
Riverside	.20 - 2.00
San Bernardino	.35 - 1.00
Redlands	.50
Upland	Legal limit ranging from .30-.50. No buildings are over two stories.
Hemet	Has no information regarding FAR (thirty-five foot height limit)
Rancho Cucamonga	Has no information regarding FAR
Banning	"
Grand Terrace	"
Beaumont	"
Lake Elsinore	"
Corona	"
Moreno Valley	"
Ontario	"

Source: Cordoba Corporation

Riverside, one of the larger cities within the study area, had a comprehensive list of FAR figures, broken down by land use categories. The figures are shown in Table 6.

**TABLE 6
FLOOR AREA RATIOS
CITY OF RIVERSIDE**

<u>Land Use Category</u>	<u>FAR Range</u>	<u>Average</u>
Commercial Services		
Neigh. Center	0.20 - 0.30	0.25
Comm. Center	0.25 - 0.30	0.30
Reg. Center	0.35 - 0.50	0.40
Auto. Park	0.25 - 0.35	0.30
Service Comm.	0.10 - 0.20	0.15
Ret./Bus/Off.	0.20 - 0.35	0.25
Visitor Commercial (Hotel/Motel)	N/A	
Downtown Mixed-Use Commercial/Office		
Low-Rise (1-3 st.)	0.37 - 0.75	0.50
Mid-Rise (4-6 st.)	0.75 - 1.50	1.15
High-Rise (6+ st.)	1.50 - 2.00	1.75
Intensive Industry		
Manufacturing	0.15 - 0.25	0.20
Distr.-Warehouse	0.10 - 0.20	0.15
Pub. St(Min-Ware.)	N/A	N/A
Out. Storage	N/A	N/A
Bus and Trucking Yard		
Business Park		
Assembly	0.15 - 0.25	0.20
Off/Wareh/Show.	0.20 - 0.30	0.25
Research/Dev.	0.30 - 0.40	0.35
Office		
Small Scale Office	0.35 - 0.75	0.50
Low-Rise (1-3 st.)	0.35 - 0.75	0.50
Mid-Rise (4-6 st.)	0.75 - 1.50	1.15
High-Rise* (6+ st.)	1.50 - 2.00	1.75

Source: Cordoba Corporation

4. Aggregate Employment Densities for Riverside and San Bernardino Counties

An alternative methodology was developed to calculate standard land use density conversion factors for Riverside and San Bernardino areas, using the FAR figures presented in Table 6.

Total numbers of employees by various categories, including manufacturing, commercial and office, in San Bernardino and Riverside Counties were acquired from Census Zip Business Patterns. The employment figures are based on the County Business Patterns report, completed in 1986, and do not include government employees and sole proprietorships that do not contribute to Social Security.

Urban Decision Systems (UDS), a research firm located in West Los Angeles estimated total square footage for each job category. Floor space estimates are based on industry norms for specific types of industries developed by Edward Ide Associates for the U.S. Department of Commerce, in a study called "Estimating Land and Floor Area Implicit in Employment Projections".

The most complete FAR information for the study area was received from the City of Riverside. The FAR figures were used in the analysis to calculate employees per acre. This methodology assumes that, for industrial uses, the average floor area ratio ranges between 0.25 and 0.35. For commercial and office uses, the figure would range between 0.30 and 0.40. Employee per acre figures were calculated using the FAR and total employees per square foot figures.

These calculations were completed for Riverside and San Bernardino counties and are listed in Table 7 through 9.

5. A Comparison of Riverside/San Bernardino Counties to Orange/San Diego Counties

Employee per acre figures were also calculated for San Diego and Orange Counties, as a likely future model, for Riverside and San Bernardino Counties.

- o Table 10 presents San Diego County.
- o Table 11 presents Orange County.
- o Table 12 presents Orange and San Diego counties combined.
- o Table 13 combines all four counties.

**TABLE 7
EMPLOYEES PER ACRE
SAN BERNARDINO COUNTY**

BUSINESS BY LAND USE	Employees *	Floor Space Sq. Ft.	Square Feet Per Employee	Average F.A.R	Employees per Acre
Manufacturing/Industrial	57,330	35,352,000	617	0.25	18
Heavy Manufacturing	7,749	5,356,000	691	0.20	13
General Manufacturing	14,438	8,223,000	570	0.20	15
Light Manufacturing	8,850	5,174,000	585	0.25	19
Manufacturing, Small Module	11,253	6,356,000	565	0.25	19
High Tech Activity and Research	3,964	805,000	203	0.35	75
Wholesale Trade Industrial	8,430	6,309,000	748	0.25	15
Warehousing	607	1,200,000	1,977	0.25	6
General Industrial	2,039	1,928,000	946	0.20	9
Commercial	97,045	58,243,000	600	0.30	22
Retail Trade	44,367	25,623,000	578	0.30	23
Restaurants and Bars	26,380	4,587,000	174	0.30	75
Personnal, Rental and Repair Services	4,538	1,980,000	436	0.30	30
Automotive Repair Services	2,615	2,291,000	876	0.30	15
Equipment Rental	1,491	536,000	359	0.30	36
Wholesale, Trade Commercial	2,120	2,157,000	1,017	0.25	11
General Commercial	15,535	21,069,000	1,356	0.40	13
Office	53,096	15,834,000	298	0.50	73
Finance/Insurance/Real Estate	8,966	1,337,000	149	0.50	146
Finance/Insurance/RE/Small Office	3,792	560,000	148	0.50	147
Professional Services	6,601	1,905,000	289	0.50	75
Business Services	10,201	2,908,000	285	0.50	76
General Office	13,328	5,698,000	428	0.50	51
Medical Services	10,207	3,426,000	336	0.50	65

* Employment figures do not include government, military and sole proprietorships.
Source: Urban Decision Systems (1989), Census Zip Business Patterns (1986)
Filename: Trans rv

**TABLE 8
EMPLOYEES PER ACRE
RIVERSIDE COUNTY**

BUSINESS BY LAND USE	Employees *	Floor Space Sq. Ft.	Square Feet Per Employee	Average F.A.R.	Employees per Acre
Manufacturing/Industrial	40,383	23,968,000	594	0.25	18
Heavy Manufacturing	6,379	5,117,000	802	0.20	11
General Manufacturing	11,603	6,103,000	526	0.20	17
Light Manufacturing	8,624	3,962,000	459	0.25	24
Manufacturing, Small Module	5,559	3,038,000	547	0.25	20
High Tech Activity and Research	954	411,000	431	0.35	35
Wholesale Trade Industrial	6,120	4,140,000	676	0.25	16
Warehousing	119	279,000	2,345	0.25	5
General Industrial	1,023	917,000	896	0.20	10
Commercial	79,067	46,304,000	586	0.30	22
Retail Trade	34,821	20,125,000	578	0.30	23
Restaurants and Bars	23,345	4,061,000	174	0.30	75
Personnal, Rental and Repair Services	3,452	1,590,000	461	0.30	28
Automotive Repair Services	1,870	1,619,000	866	0.30	15
Equipment Rental	1,080	453,000	419	0.30	31
Wholesale, Trade Commercial	1,521	1,434,000	943	0.25	12
General Commercial	12,978	17,023,000	1,312	0.40	13
Office	41,740	12,226,000	293	0.50	74
Finance/Insurance/Real Estate	7,738	1,095,000	142	0.50	154
Finance/Insurance/RE/Small Office	3,945	548,000	139	0.50	157
Professional Services	5,470	1,529,000	280	0.50	78
Business Services	6,680	1,966,000	294	0.50	74
General Office	8,900	3,886,000	437	0.50	50
Medical Services	9,006	3,201,000	355	0.50	61

* Employment figures do not include government, military and sole proprietorships.
Source: Urban Decision Systems (1989), Census Zip Business Patterns (1986)
Filename: Trans rv

**TABLE 9
EMPLOYEES PER ACRE
RIVERSIDE AND SAN BERNARDINO COUNTY**

BUSINESS BY LAND USE	Employees *	Floor Space Sq. Ft.	Square Feet Per Employee	Average F.A.R	Employees per Acre
Manufacturing/Industrial	97,713	59,320,000	607	0.25	18
Heavy Manufacturing	14,128	10,473,000	741	0.20	12
General Manufacturing	26,041	14,326,000	550	0.20	16
Light Manufacturing	17,474	9,136,000	523	0.25	21
Manufacturing, Small Module	16,812	9,394,000	559	0.25	19
High Tech Activity and Research	4,918	1,216,000	247	0.35	62
Wholesale Trade Industrial	14,550	10,449,000	718	0.25	15
Warehousing	726	1,479,000	2,037	0.25	5
General Industrial	3,062	2,845,000	929	0.20	9
Commercial	176,112	104,547,000	594	0.30	22
Retail Trade	79,188	45,748,000	578	0.30	23
Restaurants and Bars	49,725	8,648,000	174	0.30	75
Personnal, Rental and Repair Services	7,990	3,570,000	447	0.30	29
Automotive Repair Services	4,485	3,910,000	872	0.30	15
Equipment Rental	2,571	989,000	385	0.30	34
Wholesale, Trade Commercial	3,641	3,591,000	986	0.25	11
General Commercial	28,513	38,092,000	1,336	0.40	13
Office	94,836	28,060,000	296	0.50	74
Finance/Insurance/Real Estate	16,704	2,432,000	146	0.50	150
Finance/Insurance/RE/Small Office	7,737	1,108,000	143	0.50	152
Professional Services	12,071	3,434,000	284	0.50	77
Business Services	16,881	4,874,000	289	0.50	75
General Office	22,228	9,584,000	431	0.50	51
Medical Services	19,213	6,627,000	345	0.50	63

* Employment figures do not include government, military and sole proprietorships.

Source: Urban Decision Systems (1989), Census Zip Business Patterns (1986)

Filename: Trans rv

**TABLE 10
EMPLOYEES PER ACRE
SAN DIEGO COUNTY**

BUSINESS BY LAND USE	Employees *	Floor Space Sq. Ft.	Square Feet Per Employee	Average F.A.R	Employees per Acre
Manufacturing/Industrial	158,222	73,251,000	463	0.25	24
Heavy Manufacturing	14,731	5,883,000	399	0.20	22
General Manufacturing	30,176	12,892,000	427	0.20	20
Light Manufacturing	25,166	9,747,000	387	0.25	28
Manufacturing, Small Module	30,416	11,262,000	370	0.25	29
High Tech Activity and Research	25,809	8,030,000	311	0.35	49
Wholesale Trade Industrial	27,688	20,488,000	740	0.25	15
Warehousing	871	2,057,000	2,362	0.25	5
General Industrial	3,365	2,892,000	859	0.20	10
Commercial	236,888	139,861,000	590	0.30	22
Retail Trade	97,851	55,982,000	572	0.30	23
Restaurants and Bars	65,845	11,701,000	178	0.30	74
Personnal, Rental and Repair Services	14,959	7,329,000	490	0.30	27
Automotive Repair Services	5,995	6,711,000	1,119	0.30	12
Equipment Rental	3,431	1,141,000	333	0.30	39
Wholesale, Trade Commercial	9,158	8,516,000	930	0.25	12
General Commercial	39,648	48,483,000	1,223	0.40	14
Office	203,856	57,976,000	284	0.50	77
Finance/Insurance/Real Estate	39,107	6,036,000	154	0.50	141
Finance/Insurance/RE/Small Office	25,231	3,672,000	146	0.50	150
Professional Services	41,975	11,846,000	282	0.50	77
Business Services	31,332	8,646,000	276	0.50	79
General Office	37,811	11,184,000	296	0.50	74
Medical Services	28,400	9,573,000	337	0.50	65

* Employment figures do not include government, military and sole proprietorships.

Source: Urban Decision Systems (1989), Census Zip Business Patterns (1986)

Filename: TROCSDRV

**TABLE II
EMPLOYEES PER ACRE
ORANGE COUNTY**

BUSINESS BY LAND USE	Employees *	Floor Space Sq. Ft.	Square Feet Per Employee	Average F.A.R.	Employees per Acre
Manufacturing/Industrial	316,684	155,531,000	491	0.25	22
Heavy Manufacturing	12,886	7,097,000	551	0.20	16
General Manufacturing	52,241	31,970,000	612	0.20	14
Light Manufacturing	78,905	26,832,000	340	0.25	32
Manufacturing, Small Module	63,929	27,878,000	436	0.25	25
High Tech Activity and Research	48,609	16,640,000	342	0.35	45
Wholesale Trade Industrial	52,071	35,631,000	684	0.25	16
Warehousing	2,232	4,043,000	1,811	0.25	6
General Industrial	5,812	5,439,000	936	0.20	9
Commercial	286,375	172,310,000	602	0.30	22
Retail Trade	113,054	63,758,000	564	0.30	23
Restaurants and Bars	79,485	13,874,000	175	0.30	75
Personnal, Rental and Repair Services	17,448	8,168,000	468	0.30	28
Automotive Repair Services	6,742	5,699,000	845	0.30	15
Equipment Rental	3,864	1,224,000	317	0.30	41
Wholesale, Trade Commercial	18,720	16,560,000	885	0.25	12
General Commercial	47,063	63,072,000	1,340	0.40	13
Office	293,846	81,325,000	277	0.50	79
Finance/Insurance/Real Estate	61,865	9,448,000	153	0.50	143
Finance/Insurance/RE/Small Office	33,679	4,705,000	140	0.50	156
Professional Services	53,709	16,044,000	299	0.50	73
Business Services	58,608	15,959,000	272	0.50	80
General Office	52,207	24,153,000	463	0.50	47
Medical Services	33,779	11,015,000	326	0.50	67

* Employment figures do not include government, military and sole proprietorships.

Source: Urban Decision Systems (1989), Census Zip Business Patterns (1986)

Filename: TROCSDRV

TABLE 12
EMPLOYEES PER ACRE
TOTAL ORANGE AND SAN DIEGO COUNTIES

BUSINESS BY LAND USE	Employees *	Floor Space Sq. Ft.	Square Feet Per Employee	Average F.A.R.	Employees per Acre
Manufacturing/Industrial	474,906	228,782,000	482	0.25	23
Heavy Manufacturing	27,617	12,980,000	470	0.20	19
General Manufacturing	82,417	44,862,000	544	0.20	16
Light Manufacturing	104,071	36,579,000	351	0.25	31
Manufacturing, Small Module	94,345	39,140,000	415	0.25	26
High Tech Activity and Research	74,418	24,670,000	332	0.35	46
Wholesale Trade Industrial	79,759	56,119,000	704	0.25	15
Warehousing	3,103	6,100,000	1,966	0.25	6
General Industrial	9,177	8,331,000	908	0.20	10
Commercial	523,263	312,171,000	597	0.30	22
Retail Trade	210,905	119,740,000	568	0.30	23
Restaurants and Bars	145,330	25,575,000	176	0.30	74
Personnal, Rental and Repair Services	32,407	15,497,000	478	0.30	27
Automotive Repair Services	12,737	12,410,000	974	0.30	13
Equipment Rental	7,295	2,365,000	324	0.30	40
Wholesale, Trade Commercial	27,878	25,076,000	899	0.25	12
General Commercial	86,711	111,555,000	1,287	0.40	14
Office	497,702	139,301,000	280	0.50	78
Finance/Insurance/Real Estate	100,972	15,484,000	153	0.50	142
Finance/Insurance/RE/Small Office	58,910	8,377,000	142	0.50	153
Professional Services	95,684	27,890,000	291	0.50	75
Business Services	89,940	24,605,000	274	0.50	80
General Office	90,018	35,337,000	393	0.50	55
Medical Services	62,179	20,588,000	331	0.50	66

* Employment figures do not include government, military and sole proprietorships.

Source: Urban Decision Systems (1989), Census Zip Business Patterns (1986)

Filename: TROCSDRV

TABLE 13
EMPLOYEES PER ACRE
RIVERSIDE, SAN BERNARDINO, ORANGE AND SAN DIEGO COUNTIES

	Riverside	San Bernardino	Orange	San Diego	Average
Manufacturing/Industrial	18	18	22	24	21
Heavy Manufacturing	11	13	16	22	16
General Manufacturing	17	15	14	20	17
Light Manufacturing	24	19	32	28	26
Manufacturing, Small Module	20	19	25	29	23
High Tech Activity and Research	35	75	45	49	51
Wholesale Trade Industrial	16	15	16	15	16
Warehousing	5	6	6	5	6
General Industrial	10	9	9	10	10
Commercial	22	22	22	22	22
Retail Trade	23	23	23	23	23
Restaurants and Bars	75	75	75	74	75
Personnal, Rental and Repair Services	28	30	28	27	28
Automotive Repair Services	15	15	15	12	14
Equipment Rental	31	36	41	39	37
Wholesale, Trade Commercial	12	11	12	12	12
General Commercial	13	13	13	14	13
Office	74	73	79	77	76
Finance/Insurance/Real Estate	154	146	143	141	146
Finance/Insurance/RE/Small Office	157	147	156	150	153
Professional Services	78	75	73	77	76
Business Services	74	76	80	79	77
General Office	50	51	47	74	56
Medical Services	61	65	67	65	65

* Employment figures do not include government, military and sole proprietorships.

Source: Urban Decision Systems (1989), Census Zip Business Patterns (1986)

Filename: TREMPACRV

IV. GENERIC CONVERSION FACTORS

Due to the multiplicity of land use categories in the general plans of cities in San Bernardino and Riverside Counties, generic conversion factors are developed to standardize the conversion into the RIVSAN Transportation Model.

1. Employee Per Acre Comparison

For the commercial and industrial land use categories, Cordoba Corporation used the estimates presented in Table 12. Cordoba also reviewed the data for areas which are likely to resemble the San Bernardino and Riverside Counties in a buildout scenario. For this comparison, San Diego and Orange Counties were used as an appropriate reference. Table 14 presents a comparison of this information for industrial, commercial and office land use categories.

Although the three respondent cities do not offer data for each specific land use category, a comparison to Cordoba's estimates (San Diego and Orange Counties) with the information presented in Table 14 provides a useful cross reference of the appropriate number of employees per acre in each category. This reference served as a guide in the development of the recommended generic conversion factors presented in Table 15.

TABLE 14
EMPLOYEES PER ACRE COMPARISON

	<u>Cordoba</u>	<u>Corona</u>	<u>Lake Elsinore</u>	<u>Riverside</u>
Manufacturing/Ind.	23		32	14
Heavy	19			
General	16		17.42	
Light	31	33	29.04	
Wholesale	15			
Warehousing	6			
Commercial	22		46.91	
Retail Trade	23		17 - 29	5 - 20
Gen.	14			
Automotive	13			
Office	78		52	50

Source: Cordoba Corporation

2. Generic Conversion Factor Assumptions

A summary of the recommended generic conversion factors for Residential, Commercial, Industrial and Other land uses in the San Bernardino and Riverside Counties is presented in Table 15.

2.1 Residential

For the Residential conversion factors, a combination of the study area's average number of dwelling units per sub-category (Table 1) and Cordoba Corporation's estimates were used as the basis for the recommended factor. A comparison between the study area's average number of dwelling units and Cordoba's recommended generic conversion factor is presented below:

<u>Residential Category</u>	<u>Dwelling Units Per Acre</u>	
	<u>Study Area</u>	<u>Average Recommended Factor</u>
Estate/Hillside	0.37	0.5
Very Low Density	1.67	1.5
Low Density	4.40	5.0
Low Medium	5.06	8.0
Medium Density	11.78	12.0
High Density	18.03	18.0
Very High Density	23.02	30.0

Most of the residential generic conversion factors are similar to the study area's average. The most significant differences are in the Low Medium and Very High Density categories: 5.06 vs. 8.0 for Low Medium, and 23.02 vs. 30.0 for Very High Density. Cordoba recommends higher densities for each of these categories due to the anticipated expansion in this area. Densities for these categories can be expected to increase, and therefore, the respective generic conversion factor should account for this anticipated growth.

According to SCAG, the average single-family and multi-family household size is not currently reported separately as a standard. However, it is clear that a trend exists where single-family units tend to have a lower population than multi-family units. In this report, Cordoba uses the average household size for the study area (2.78) for both single-family and multi-family units. Although this data is entered separately for each. Therefore, Cordoba's model can accommodate distinct figures for each if such information is attained in the future.

2.2 Commercial and Industrial

For the Commercial and Industrial generic conversion factors, it was assumed that there will be a great similarity between the San Bernardino and Riverside Counties buildout scenarios and Orange and Diego Counties scenarios. Therefore, the estimates derived for employees per acre for these counties (Table 12) were used as the study area's commercial and industrial generic conversion factors.

2.3 Other Land Uses

Additional land use categories are listed in Table 15 which do not apply to residential, commercial or industrial categories. Open Space/Parks, Public Facilities and Other are land uses which exist in the study area and should be applied in the RIVSAN model. Recommended generic conversion factors for Open Space/Parks and Other are zero employees per acre. It is assumed that Public Facilities would be similar to the density of General Office land use in Orange and San Diego Counties (Table 12). Therefore, an average of 55 employees per acre is recommended for San Bernardino and Riverside Counties Public Facilities land use category.

Appendix B provides a comprehensive presentation of each city in the study area, its respective land uses, and recommended conversion factors for residential, commercial, industrial and other land uses. Each conversion factor is coded to identify the land use category used from Table 15.

**TABLE 15
GENERIC CONVERSION FACTORS
RECOMMENDED FOR
RIVSAN MODEL INPUTS**

Land Use Categories	Generic Conversion Factors			
	Avg. DU's/Acre		Avg. Employees/Acre	
	Sng. Fam.	Mlt. Fam.	Retail	Non-Retail
Estate/Hillside Residential (EHR)	0.5			
Very Low Density Residential (VLR)	1.5			
Low Density Residential (LR)	5			
Low Medium Residential (LMR)	8			
Medium Density Residential (MR)		12		
High Density Residential (HR)		18		
Very High Density Residential (VHR)		30		
Neighborhood Commercial (NC)			23	
General Commercial (GC)			14	
Office/CBD (OF)				78
Mid-Rise Office (MRO)				142
Mixed Use (HR), (NC)		9	12	
Light Industrial (LI)				31
General Industrial (GI)				16
Heavy/Research & Dev. Industrial (HI)				46
Open Space/Parks (OP)				0
Public Facilities (PF)				55
Other (O)				0

Source: Cordoba Corporation
Filename: SUMM

EXHIBIT L-3

Orange County Subarea Modeling Guidelines Manual
Orange County Transportation Authority (OCTA)
June 2001

TYPICAL EMPLOYMENT CONVERSION FACTORS
(June 2001)

Land Use Category	Conversion Rates Range	Employment Type (Percentate Ranges)		
		Retail	Service	Other
Commercial	2.25 - 2.75 employees/TSF ¹	60% - 90%	10% - 40%	0% - 5%
Office/Office Park	3.00 - 4.00 employees/TSF	0% - 5%	20% - 30%	65% - 80%
R&D/Light Industrial/Business Park	2.50 - 3.50 employees/TSF	0% - 5%	0% - 30%	60% - 100%
Heavy Industrial	2.00 - 2.50 employees/TSF	0%	0%	100%
Warehouse	1.00 - 2.00 employees/TSF	0%	0%	100%
Restaurant	3.00 - 5.00 employees/TSF	100%	0%	0%
Medical Office/Post-Office/Bank	3.50 - 4.50 employees/TSF	0% - 10%	70% - 100%	0% - 20%
Government Office/Civic Center	3.00 - 4.00 employees/TSF	0% - 5%	50% - 70%	25% - 50%
Hospital	2.50 - 3.00 employees/TSF	0%	70% - 80%	20% - 30%
Library/Museum	1.50 - 2.50 employees/TSF	0%	100%	0%
Hotel/Motel	0.75 - 1.25 employees/room	0% - 10%	70% - 80%	10% - 30%
Schools	0.08 - 0.12 employees/student	0%	0%	100%
Golf Course	0.50 - 0.70 employees/acre	0% - 10%	90% - 100%	0%
Developed Park/Athletic Fields	0.20 - 0.40 employees/acre	0%	80% - 100%	0% - 20%
Park	0.05 - 0.10 employees/acre	0%	80% - 100%	0% - 20%
Agricultural	0.01 - 0.05 employees/acre	0%	0%	100%

¹ Thousands of Square Feet