



ITEM NO. 4

STAFF REPORT

DATE: AUGUST 16, 2011
TO: HONORABLE MAYOR AND CITY COUNCIL
FROM: ROD FOSTER, CITY MANAGER
PREPARED BY: AMER JAKHER, P.E., PUBLIC WORKS AND UTILITY SERVICES DIRECTOR *AJ*
SUBJECT: SAN BERNARDINO VALLEY COORDINATED TRAFFIC SIGNAL SYSTEM TIERS 1, 2, 3 AND 4.

A handwritten signature in blue ink, likely belonging to Rod Foster, the City Manager.

RECOMMENDED ACTION

It is recommended that the City Council authorize execution of a Memorandum of Understanding (MOU) with San Bernardino Associated Governments (SANBAG) and all San Bernardino Valley jurisdictions, for the maintenance responsibilities for the San Bernardino Valley Coordinated Traffic Signal System (SBVCTSS) Tiers 1, 2, 3 and 4.

GOAL STATEMENT

The proposed action will support the City's goal to improve traffic safety and circulation.

BACKGROUND

On September 1, 1999, SANBAG approved the development of the San Bernardino Valley Coordinated Traffic Signal System Plan Tiers 1, 2, 3 and 4 (Project) to be implemented over a 10-year period. As part of the Project, SANBAG has worked with the cities of Chino, Chino Hills, Colton, Fontana, Grand Terrace, Highland, Loma Linda, Montclair, Ontario, Rancho Cucamonga, Redlands, Rialto, San Bernardino, Upland and Yucaipa, the County of San Bernardino and Caltrans District 8, to implement a multijurisdictional plan for interconnecting and coordinating traffic signals in the San Bernardino Valley. The goal of the Signal Synchronization Program is to decrease arterial travel times, congestion and pollution. Construction of the project required implementation of signal timing and coordination plans, hardware and communication upgrades, support monitoring and maintenance of signal operations. When fully implemented, the project will synchronize approximately 1,300 traffic signals throughout the San Bernardino Valley.

ISSUES/ANALYSIS

SANBAG has implemented the Valley-wide Coordinated Traffic Signal System Tier 1 & 2 plan is currently in the process of completing Tier 3 & 4. Tier 1 and 2 consisting of approximately 650 traffic signals, was completed in June 2009 and Tier 3 and 4, consisting of approximately 680 traffic signals, is scheduled to be completed by December 2011. Design and construction of the necessary traffic signal communications system, and development and implementation of synchronized traffic signal timing plans, are the first steps in the continual operation of the system. However, to ensure that the system, once implemented, continues to operate as planned in an efficient manner, it is important that communication and cooperation among all participating agencies be maintained. To accomplish these goals, the SANBAG, County and Cities within the San Bernardino Valley jurisdiction need to enter into the terms of this MOU attached as Exhibit A. This MOU was approved by the SANBAG Board on July 6, 2011, and all other jurisdictions are in the process of adopting it.

FISCAL IMPACTS

None. Annual traffic signal maintenance was included in the FY 2011-2012 budget. There are no additional fiscal impacts resulting from approval of this MOU.

ALTERNATIVES

1. Provide alternative direction to staff.

ATTACHMENTS

Exhibit A – MOU

EXHIBIT A

MEMORANDUM OF UNDERSTANDING C11223

BY AND BETWEEN

SAN BERNARDINO ASSOCIATED GOVERNMENTS

AND

COUNTY OF SAN BERNARDINO

AND THE CITIES OF

**CHINO, CHINO HILLS, COLTON, FONTANA, GRAND TERRACE,
HIGHLAND, LOMA LINDA, MONTCLAIR, ONTARIO, RANCHO
CUCAMONGA, REDLANDS, RIALTO, SAN BERNARDINO, UPLAND,
YUCAIPA**

FOR

**SAN BERNARDINO VALLEY COORDINATED TRAFFIC SIGNAL TIMING
SYSTEM PROGRAM TIERS 1, 2, 3 & 4**

This MEMORANDUM OF UNDERSTANDING (hereinafter, "MOU") is effective on the Effective Date as defined herein, by and between the San Bernardino Associated Governments (hereinafter referred to as "AUTHORITY"), the cities of Chino, Chino Hills, Colton, Fontana, Grand Terrace, Highland, Loma Linda, Montclair, Ontario, Rancho Cucamonga, Redlands, Rialto, San Bernardino, Upland, Yucaipa, (hereinafter "CITIES"); the County of San Bernardino (hereinafter "COUNTY"); CITIES, COUNTY, and AUTHORITY are hereinafter individually referred to as a "Party" and collectively referred to as the "Parties".

RECITALS:

WHEREAS, this MOU constitutes a guide to the operation and maintenance of coordinated traffic signals along certain key arterial routes in the San Bernardino Valley Coordinated Traffic Signal Timing System Program Tiers 1, 2, 3 & 4, as shown on **Table 1 and Figure 1, List of Corridors –Tiers 1 & 2;** and **Table 2 and Figure 2, List of Corridors-Tiers 3 & 4.** It constitutes solely a guide to the intentions, agreements and policies of the Parties involved and;

WHEREAS, on September 1, 1999, the AUTHORITY approved development of the San Bernardino Valley Coordinated Traffic Signal System Tiers 1, 2, 3 and 4 (hereinafter the "PROJECT") to be implemented over a 10-year period. As part of the PROJECT, AUTHORITY has worked with CITIES and COUNTY to implement a multijurisdictional plan for interconnecting and coordinating traffic signals in the San Bernardino Valley. The goal of the Signal Synchronization program is to

decrease arterial travel times, congestion and pollution. Construction of the PROJECT required implementation of signal timing and coordination plans, hardware and communication upgrades, support monitoring and maintenance of signal operations. When fully implemented, the project will synchronize approximately 1,300 traffic signals throughout the San Bernardino Valley and;

WHEREAS, the PROJECT is divided into four implementation tiers; Tiers 1 and 2, which cover approximately 650 traffic signals, and Tiers 3 and 4, with approximately 680 traffic signals. While Tiers 3 & 4 are currently under construction scheduled to be completed in December 2011, Tiers 1 and 2 were completed in June 2009. Traffic signals central system upgrade (part of Tier 2 scope of work) will be completed by June 2011 and;

WHEREAS, a before and after study was conducted on Tiers 1 & 2 to evaluate the benefits of the signal synchronization system. Benefits monitored include change in travel time, number of stops, change in average speed and air quality benefits. Signal synchronization has resulted in improvements varied on an arterial-by arterial basis, but system-wide averages amounted to approximately 22% reduction in travel time, approximately 47% reduction in number of stops, and approximately 27% improvement in travel speed during the AM and PM peak periods. Similar improvements are expected for Tiers 3 and 4 portion of the PROJECT and;

WHEREAS, AUTHORITY, CITIES and COUNTY have agreed that the coordination of traffic signals across jurisdictional boundaries in an effort to reduce delays and improve travel times is one critical component for improving mobility, traffic operations, maximize system efficiency and air quality in the San Bernardino Valley and;

WHEREAS, AUTHORITY has implemented a Valley-wide coordinated traffic signal system Tiers 1& 2 and is currently in the process of completing Tiers 3 & 4. **Figures 1 and 2** graphically depict the arterials included in Tiers 1, 2, 3 & 4 coordinated arterial networks. Design and construction of the necessary traffic signal communications system, and development and implementation of synchronized traffic signal timing plans, are the first steps in the continual operation of the system. However, to ensure that the system, once implemented, continues to operate as planned in an efficient manner, it is important that communication and cooperation among all participating agencies be maintained. To accomplish these goals, the Parties are entering into the terms of this MOU as set forth herein.

Now, therefore, it is mutually understood and agreed by AUTHORITY, CITIES and COUNTY to enter into the following MOU with respect to the matters as follows:

ARTICLE 1. COMPLETE AGREEMENT

This MOU, including all exhibits and attachments which are incorporated herein and made applicable by this reference, constitutes the complete and exclusive statement

of the terms and conditions of the MOU between the AUTHORITY, CITIES and COUNTY concerning this PROJECT and supersedes all prior representations, understanding and communications between the Parties. The invalidity in whole or part of any term or condition of this MOU shall not affect the validity of other terms or conditions.

ARTICLE 2. PARTIES RESPONSIBILITIES

- 2.1 Traffic signal timing plans for those coordinated arterials identified in **Tables 1 and 2** (List of corridors) have been and/or will be developed and implemented by AUTHORITY (or their consultant) after review and approval by the respective CITIES and COUNTY. Any subsequent substantive changes (such as cycle length) to those traffic signal timing plans proposed by any of the Parties shall be agreed upon in writing by all affected CITIES and COUNTY with notice to all parties.
- 2.2 All Parties shall maintain a common time source (either a GPS time clock, or other highly accurate time source) at the appropriate field master traffic signal controller or control center for its signals along arterials identified in Tables 1 and 2 and shall resynchronize the system clock time at 12:00 midnight each day. The time source either already exists or has been provided by AUTHORITY as part of Tier 1 & 2 or Tiers 3 & 4.
- 2.3 Any Party wishing to add existing signalized intersections or newly signalized intersections to the coordinated signal system along the synchronization corridor as identified in **Tables 1 and 2** shall be responsible for providing compatible traffic signal control equipment, and appropriate traffic signal communications between adjacent traffic signals and to their master controller or traffic control center. Modifications and/or additions to accommodate the coordination signal timing plans for those additional intersections shall be agreed to in writing by all affected Parties.
- 2.4 AUTHORITY has contracted with a traffic engineering consultant(s) to develop, maintain and monitor the designated signal timing plans for a specified period of time listed below (monitoring period). The consultant is authorized to act on AUTHORITY's behalf (and above-mentioned San Bernardino Valley agencies) relative to any proposed signal timing modifications, additions, etc.
 - a. The Monitoring Period for Tiers 1 & 2 will end in June of 2011.
 - b. The Monitoring Period for Tiers 3 & 4 will commence at the by December 31, 2011 and will last 1 year from commencement date.
- 2.5 At the end of the monitoring periods, the Parties will be responsible for maintaining and monitoring the synchronized traffic signal timing within their

respective jurisdictions. Any modifications to the base synchronized timing affecting other jurisdiction(s) shall be agreed upon in writing by all Parties.

- 2.6 Based on the cooperation of the Parties and at the end of the Monitoring Period, AUTHORITY will retain the services of a consultant to provide the more elaborate maintenance and timing services that the Parties cannot provide on their own. This service is to ensure the proper functioning of the system(s). These extra services will be provided upon written request from the agencies to AUTHORITY and will include specialized timing and maintenance requirements that the Parties cannot perform on their own. Upon written approval of the requested services by the AUTHORITY, AUTHORITY will dispatch its consultant to work with the requesting Party to provide the service. AUTHORITY is responsible for all costs related to the use of the consultant identified in this section 2.6. AUTHORITY must approve in advance any of the Parties requests to use these consultant services.

ARTICLE 3. MUTUAL AGREEMENTS

The Parties agree to the following mutual agreements and responsibilities:

- 3.1 To cooperate and coordinate with all Parties, their staff, contractors, consultants and vendors, in providing the services and responsibilities required under this MOU to the extent practicable with respect to the performance hereunder.
- 3.2 To work together in good faith, using reasonable efforts to resolve any issues, changes or disputes arising out of this MOU.
- 3.3 This MOU can only be changed or amended upon mutual consent of all Parties. All changes or amendments to this MOU must be in writing and executed by all Parties. Facsimile signatures will be permitted.
- 3.4 This MOU shall be governed by all applicable federal, state and local laws. The Parties agree that in the performance under this MOU, each Party shall comply with all applicable federal, state and local laws, statutes and ordinances as promulgated hereunder.
- 3.5 The term of this MOU shall continue in full force and effect through September 30, 2016, unless terminated or extended by mutual consent of all Parties.
- 3.6 The date that this MOU is executed by all Parties shall be the Effective Date of the MOU.
- 3.7 This MOU may be signed in Counterparts

- 3.8 Neither SANBAG nor any officer or employee thereof is responsible for any injury, damage or liability occurring or arising by reason of anything done or omitted to be done by CITY/COUNTY in connection with any work, authority or jurisdiction delegated to CITY/COUNTY under this AGREEMENT. It is understood and agreed that, pursuant to Government Code Section 895.4, CITY/COUNTY shall fully defend, indemnify and save harmless SANBAG, its officers and employees from all claims, suits or actions of every name, kind and description brought for or on account of injury (as defined by Government Code Section 810.8) or damage occurring by reason of anything done or omitted to be done by CITY/COUNTY under or in connection with any work, authority or jurisdiction delegated to CITY/COUNTY under this AGREEMENT. CITY's/COUNTY's indemnification obligation applies to SANBAG's "passive" negligence but does not apply to SANBAG's "sole negligence" or "willful misconduct" within the meaning of Civil Code Section 2782. CITY/COUNTY is an authorized self-insured public entity for purposes of Professional Liability, General Liability, Automobile Liability and Workers' Compensation and warrant that through its programs of self-insurance, it has adequate coverage or resources to protect against liabilities arising out of the performance of the terms, conditions or obligations of this AGREEMENT. SANBAG warrants that it maintains insurance for these purposes.
- 3.9 Neither CITY/COUNTY nor any officer or employee thereof is responsible for any injury, damage or liability occurring or arising by reason of anything done or omitted to be done by SANBAG in connection with any work, authority or jurisdiction delegated to SANBAG under this AGREEMENT. It is understood and agreed that, pursuant to Government Code Section 895.4, SANBAG shall fully defend, indemnify and save harmless CITY/COUNTY, its officers and employees from all claims, suits or actions of every name, kind and description brought for or on account of injury (as defined by Government Code Section 810.8) or damage occurring by reason of anything done or omitted to be done by SANBAG under or in connection with any work, authority or jurisdiction delegated to SANBAG under this AGREEMENT. SANBAG's indemnification obligation applies to CITY's/COUNTY's "passive" negligence but does not apply to CITY's/COUNTY's "sole negligence" or "willful misconduct" within the meaning of Civil Code Section 2782. CITY/COUNTY is an authorized self-insured public entity for purposes of Professional Liability, General Liability, Automobile Liability and Workers' Compensation and warrant that through its programs of self insurance, it has adequate coverage or resources to protect against liabilities arising out of the performance of the terms, conditions or obligations of this AGREEMENT. SANBAG warrants that it maintains insurance for these purposes.

**SAN BERNARDINO
ASSOCIATED GOVERNMENTS**

By: _____
Larry McCallon, President
SANBAG Board of Directors

APPROVED AS TO LEGAL FORM:

By: _____
Penny Alexander-Kelley
SANBAG Counsel

CONCURRENCE:

By: _____
Kathleen Murphy-Perez
Contracts Manager

CITY OF COLTON:

By: _____
MAYOR

APPROVED AS TO FORM:

By: _____
CITY ATTORNEY

Table 1-List of Corridors –Tiers 1 & 2

TIERS 1 & 2 Synchronization Corridors

No.	Arterial Segment	Limits	Jurisdiction(s)
1	Ramona Ave	Philadelphia St to Riverside Dr	<i>Chino/Caltrans</i>
2	Monte Vista Ave	Foothill Blvd to Holt Blvd	<i>Upland/Montclair/Caltrans</i>
3	Central Ave/Soquel Canyon Pkwy	Foothill Blvd to Butterfield Ranch Rd	<i>Upland/Montclair/San Bernardino (County)/Chino/Chino Hills/Caltrans</i>
4	Mountain Ave (North)	8th St to 6 th St	<i>Upland/Ontario/Caltrans</i>
5	Mountain Ave (South)	Philadelphia St to Riverside Dr	<i>Ontario/Chino/Caltrans</i>
6	Euclid Ave	19th St to Pine Ave	<i>Upland/Ontario/Chino/Caltrans</i>
7	Grove Ave (North)	Arrow Hwy/Arrow Rte to 4th St	<i>Rancho Cucamonga/Ontario</i>
8	Grove Ave (South)	Philadelphia St to Riverside Dr	<i>Ontario/Caltrans</i>
9	Vineyard Ave (North)	4th St to Holt Blvd	<i>Ontario/Caltrans</i>
10	Vineyard Ave (South)	Philadelphia St to Riverside Dr	<i>Ontario/Caltrans</i>
11	Archibald Ave (North)	4th St to Airport Dr	<i>Rancho Cucamonga/Ontario/Caltrans</i>
12	Archibald Ave (South)	Mission Blvd to Riverside Dr	<i>Ontario/Caltrans</i>
13	Haven Ave	Lemon Ave to Riverside Dr	<i>Rancho Cucamonga/Ontario/Caltrans</i>
14	Milliken Ave (North)	4th St to Airport Dr	<i>Rancho Cucamonga/Ontario/Caltrans</i>
15	Milliken Ave (South)	Philadelphia St to SR-60 EB Ramps	<i>Ontario/Caltrans</i>
16	Etiwanda Ave	4th St/San Bernardino Ave to Airport Dr	<i>Rancho Cucamonga/Ontario/San Bernardino (County)/Fontana/Caltrans</i>
17	Cherry Ave	Baseline Ave to Jurupa Ave	<i>Fontana/San Bernardino (County)/Caltrans</i>
18	Citrus Ave	Valley Blvd to Slover Ave	<i>Fontana/Caltrans</i>

19	Sierra Ave	Valley Blvd to Slover Ave	Fontana/Caltrans
20	Cedar Ave	San Bernardino Ave to Slover Ave	San Bernardino (County)/Caltrans
21	Riverside Ave	Valley Blvd to Slover Ave	Rialto/Caltrans
22	Pepper Ave	Valley Blvd to I-10 EB Ramps	Colton/San Bernardino (County)/Caltrans
23	Rancho Ave	Valley Blvd to I-10 EB Ramps	Colton/San Bernardino (County)/Caltrans
24	La Cadena Dr	G St to Valley Blvd	Colton
25	Waterman Ave (North)	40th St to 5th St	San Bernardino (City)/San Bernardino (County)/Caltrans
26	Waterman Ave (South)	Hospitality Ln to Barton Rd/Washington St	San Bernardino (City)/Colton
27	Tippecanoe Ave	Baseline St to Redlands Blvd	San Bernardino (City)/San Bernardino (County)/Highland/Caltrans
28	Mountain View Ave	I-10 WB Ramps to Redlands Blvd	San Bernardino (City)/Loma Linda/Caltrans
29	California St	Orange Tree Ln to Redlands Blvd	Redlands/Loma Linda/Caltrans
30	Alabama St	Lugonia Ave to Redlands Blvd	San Bernardino (County)/Redlands/Caltrans
31	Tennessee St	Lugonia Ave to Redlands Blvd	Redlands/Caltrans
32	Highland Ave	Macy St to SR-330 NB Ramps	San Bernardino (City)/San Bernardino (County)/Highland/Caltrans
33	Baseline (West)	Etiwanda Ave to Mango Ave	Rancho Cucamonga/Fontana/Caltrans
34	Baseline (East)	Cedar Ave to Church St	Rialto/San Bernardino (City)/San Bernardino (County)/Highland/Caltrans
35	Foothill Blvd	Monte Vista Ave to H St	Upland/Rancho Cucamonga/Fontana/Rialto/San Bernardino (City)/Caltrans
36	Arrow Hwy/8th St	Police Station to Euclid Ave	Montclair/Upland

37	4th St/ San Bernardino Ave	Grove Ave to Cherry Ave	Ontario/Rancho Cucamonga/San Bernardino (County)/Caltrans
38	Holt Blvd	Amherst Ave to Convention Center Way/Guasti Rd	Montclair/Ontario/Caltrans
39	Mission Blvd	Roswell Ave to Milliken Ave	San Bernardino (County)/Montclair/Ontario/Caltrans
40	Philadelphia St	Ramona Ave to Haven Ave	San Bernardino (County)/Chino/Ontario/Caltrans
41	Riverside Dr	Reservoir Dr to Milliken Ave	Chino/San Bernardino (County)/Ontario/Caltrans
42	Valley Blvd	Etiwanda Ave to 9th St	Ontario/San Bernardino (County)/Fontana/Rialto/Colton/Caltrans
43	Hospitality Ln	E St to Tippecanoe Ave	San Bernardino (City)/Caltrans
44	Redlands Blvd	Hunts Ln to I-10 EB On-Ramp/Ford St	Colton/San Bernardino (City)/Loma Linda/Redlands/Caltrans
45	Barton Rd	I-215 SB On-Ramp to Grand Terrace Rd/Honey Hill Dr	Grand Terrace/Caltrans
46	Washington St/Barton Rd/ Brookside Ave/ Citrus Ave	Weir Rd to Judson St/ Ford St	San Bernardino (City)/Colton/Loma Linda/San Bernardino (County)/Redlands

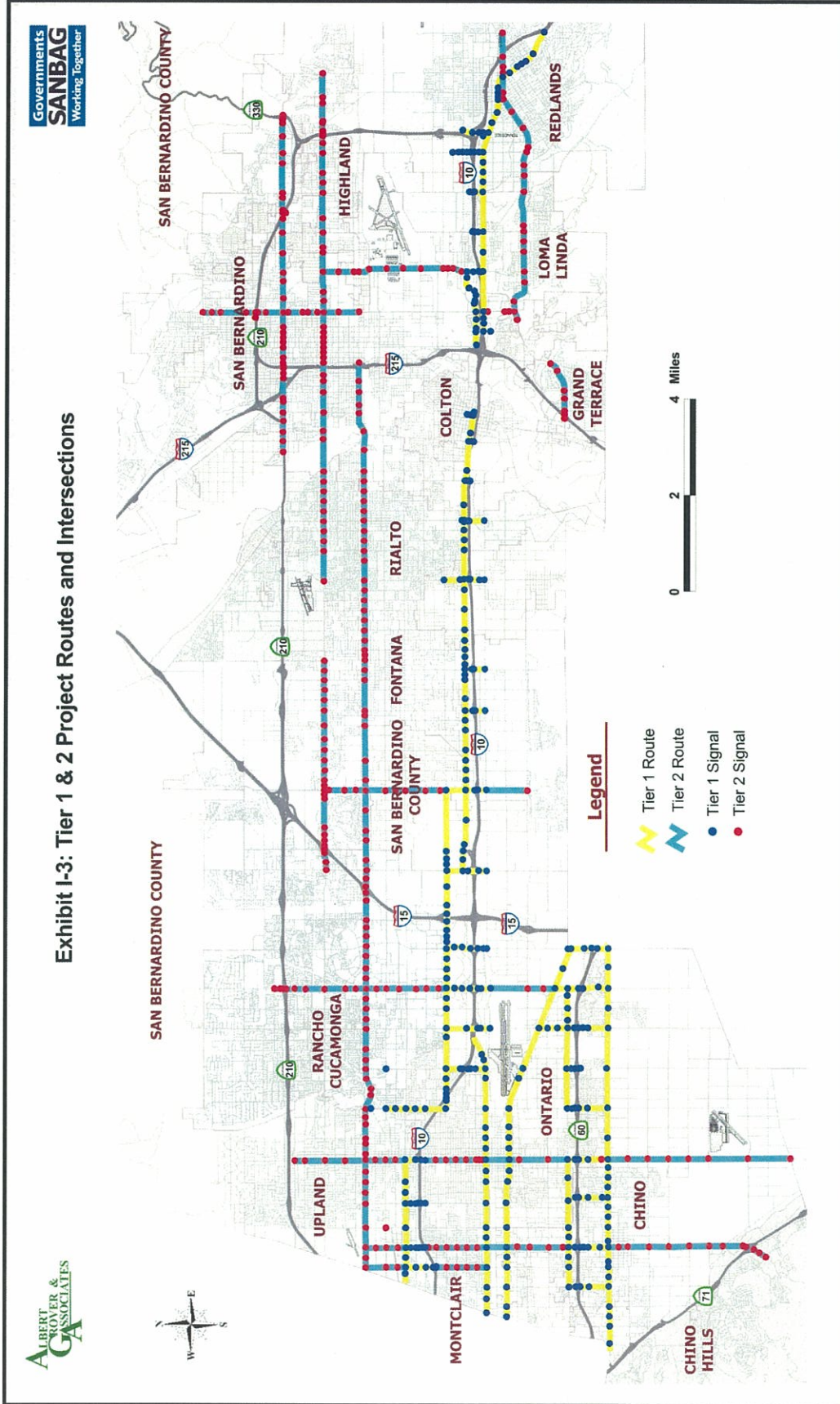


Figure 1 - Corridors –Tiers 1 & 2

Table 2-List of Corridors-Tiers 3 & 4

TIERS 3 & 4 Synchronization Corridors			
No.	Arterial Segment	Limits	Jurisdiction(s)
1	Butterfield Ranch Rd	Butterfield Ranch Rd to Shady View/SR-71 SB ramps	CALTRANS/Chino Hills
2	Chino Ave	SR-71 to Euclid Ave	CALTRANS/Chino
3	Chino Hills Pkwy	Walnut Creek to Central Ave	CALTRANS/Chino/Chino Hills
4	Grand Ave/Edison Ave	SR-71 to Euclid Ave	CALTRANS/Chino
5	Peyton Dr	Rock Springs Dr to Glen Ridge Dr	Chino Hills
6	Soquel Cyn Rd	Pinehurst Dr to Butterfield Ranch Rd	Chino Hills
7	Airport Dr	Vineyard Ave to Milliken Ave	Ontario
8	Archibald Ave	Lemon to 4th St	CALTRANS/Rancho Cucamonga
9	Benson Ave	16th St to 8th St	Upland
10	Campus Ave	I-210 WB ramps to 16th St	CALTRANS/Upland
11	Carnelian St/Vineyard Ave	Lemon to 4th St	CALTRANS/Ontario/Rancho Cucamonga
12	Day Creek Blvd	I-210 WB ramps to Baseline Rd	CALTRANS/Rancho Cucamonga
13	Etiwanda Ave	4th St/San Bernardino Ave to Valley Blvd, Airport Dr/Slover Ave to Francis St	Ontario, SB County
14	Grove Ave	San Bernardino Rd to Philadelphia St	Ontario/Rancho Cucamonga
15	Inland Empire Blvd	Turner Ave to Milliken Ave	Ontario
16	Milliken Ave	Vintage to Mission Blvd	CALTRANS/Ontario/Rancho Cucamonga
17	Mountain Ave	21st St to Philadelphia, Riverside Ave to Edison Ave	Chino/Ontario/Upland
18	Ontario Mills Pkwy	Milliken Ave to Rochester Ave	Ontario
19	Arrow Route/Hwy/Blvd	College Park to Etiwanda Ave, Citrus Ave to Locust Ave	Fontana/Rancho Cucamonga/Upland
20	Jurupa St	UPS Driveway to Etiwanda, Mulberry to Sierra Ave	CALTRANS/Ontario/Fontana

21	Ayala Dr/Cedar Ave	Riverside Ave to San Bernardino Ave/Slover to 11th St	CALTRANS/Rialto/SB County
22	Beech	Summit Heights Gateway to Sierra Lakes Pkwy	Fontana
23	Bloomington Ave	Riverside Ave to Larch Ave	Rialto/SB County
24	Citrus Ave	Summit Ave to Valley Blvd	CALTRANS/Fontana
25	Mulberry Ave	Slover Ave to Philadelphia St	Fontana
26	Riverside Ave	Live Oak to San Bernardino Ave, Slover Ave to Kline Ranch Rd	CALTRANS/Rialto/SB County
27	San Bernardino Ave	Cherry Ave to Fontana Ave	SB County/Rialto
28	Sierra Ave	Summit Ave to Valley Blvd, Slover to Jurupa Ave	CALTRANS/Fontana
29	Sierra Lakes Pkwy	Citrus Ave to Sierra Ave	Fontana
30	Slover Ave	Etiwanda Ave to Mulberry, Sierra Ave to Tamarind Ave	Fontana/Rialto
31	Rialto Ave	Linden Ave to Riverside Ave, Rancho Ave to Waterman Ave	Rialto, SB City
32	2nd St	Metrolink to Waterman Ave	CALTRANS/SB City
33	3rd St	Lena Dr to Palm Ave	Highland/SB County/SB City
34	40th St	Kendall Dr to Waterman Ave	SB City
35	5th St/GreenSpot Rd	G St to E. Village at Highland	CALTRANS/Highland/SB City
36	Arrowhead Ave	30th St to Orange Show Rd	SB City
37	Boulder Ave	Highland Ave to Greenspot Rd	Highland
38	Del Rosa Dr	Lynwood Dr to Harry Shepard Blvd	CALTRANS/SB County/SB City
39	Inland Center Dr	Mount Vernon Ave to E St	CALTRANS/SB City
40	Kendall Dr/E St	Palm to Fairway Dr	SB City
41	La Cadena Dr	Mount Vernon Ave to 7th St	Colton
42	Mill St	Eucalyptus to Tippecanoe Ave	CALTRANS/SB City
43	Mount Vernon Ave	21st St to Valley Blvd/I-10 WB	Colton/SB City
44	Pepper Ave	Rialto Ave to Valley Blvd	Colton/SB City
45	Rancho Ave	Rialto Ave to Valley Blvd	Colton
46	Reche Cyn	Barton Rd to Shane Dr	Colton/SB County
47	Victoria Av	Highland Av to 3rd St	Highland
48	Orange Show Rd/San Bernardino Ave	E St to Orange St	CALTRANS/Redlands/SB County/SB City

49	Alabama St	River Bluff Ave to Lugonia Ave, Redlands Blvd to Barton Rd	CALTRANS/Redlands/SB County
50	Lugonia Ave	Alabama St to Wabash Ave	CALTRANS/Redlands/SB County
51	Mountain View Ave	Redlands Blvd to Barton Rd	CALTRANS/Loma Linda
52	Oak Glen Rd	Calimesa Blvd to Bryant St	Yucaipa
53	Orange St	San Bernardino Ave (East) to Citrus Ave	CALTRANS/Redlands
54	Yucaipa Blvd	I-10 to Bryant St	CALTRANS/Yucaipa
1	Butterfield Ranch Rd	Butterfield Ranch Rd to Shady View/SR-71 SB ramps	CALTRANS/Chino Hills
2	Chino Ave	SR-71 to Fern Ave	CALTRANS/Chino
3	Chino Hills Pkwy	Walnut Creek to Monte Vista Ave	CALTRANS/Chino/Chino Hills
4	Grand Ave/Edison Ave	SR-71 to Euclid Ave	CALTRANS/Chino
5	Peyton Dr	Rock Springs Dr to Glen Ridge Dr	Chino Hills
6	Soquel Cyn Rd	Pinehurst Dr to Butterfield Ranch Rd	Chino Hills
7	Airport Dr	Vineyard Ave to Milliken Ave	Ontario
8	Archibald Ave	Lemon to 4th St	CALTRANS/Rancho Cucamonga
9	Benson Ave	16th St to 8th St	Upland

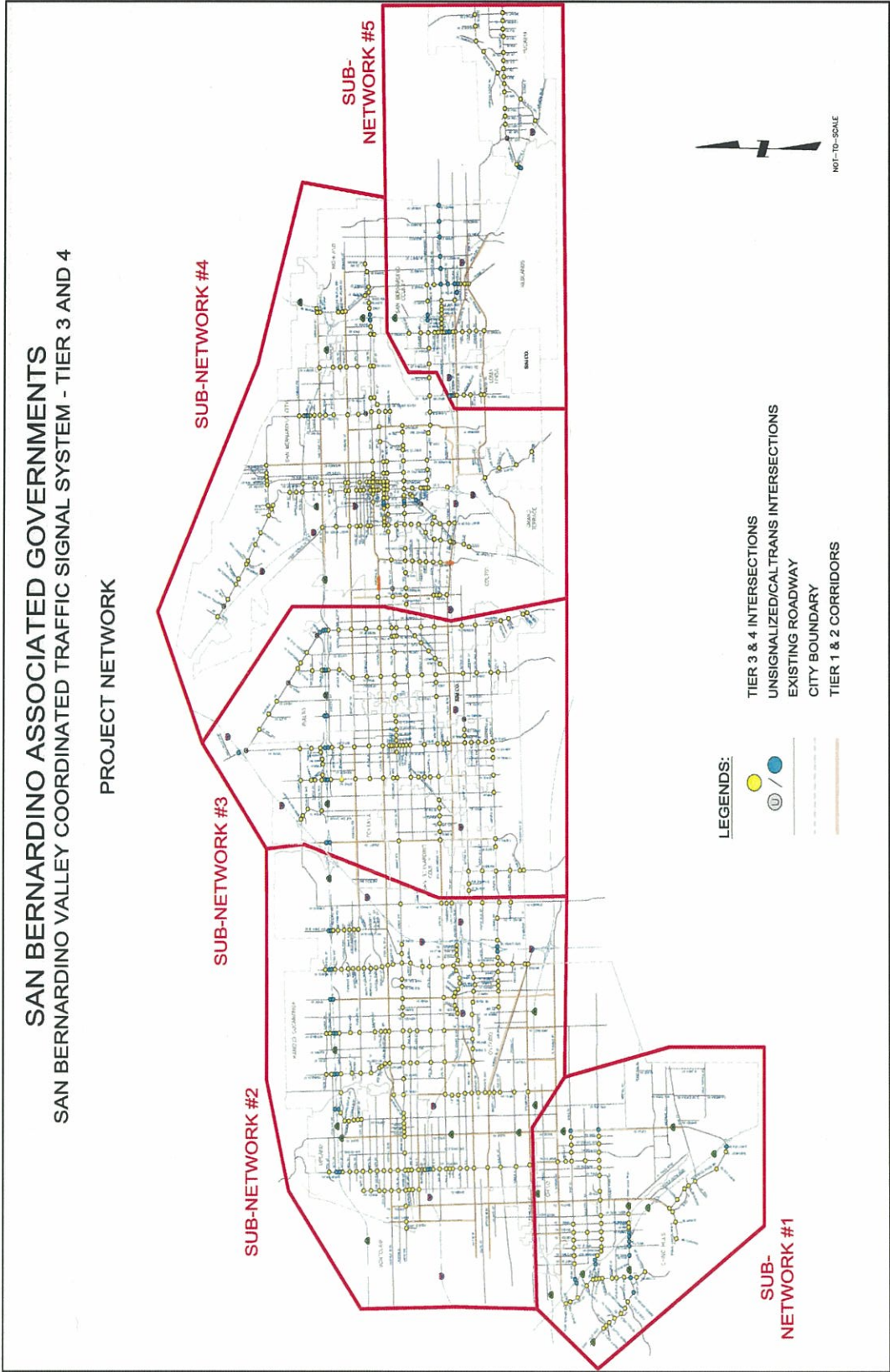


Figure 2 - Corridors Tiers 3 & 4